Towards a Sustainable World

UNIVERSITY OF GOTHENBURG
SCHOOL OF BUSINESS, ECONOMICS AND LAW

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Towards a Sustainable World

Academic Insights and Perspectives

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FOREWORD

The School of Business Economics and Law: Brief reflections on the past, present, and future

Per Cramér

A centennial is not an accomplishment. Time passes by, unaffected by human actions. Nevertheless, one hundred years is a point of high symbolic importance and therefore a suitable time to reflect about where we come from and where we are heading. Accordingly, centennials have become defined as steppingstones into the future.

The establishment of the School of Business, Economics, and Law (SBEL) took place against the backdrop of the dynamic development of the city of Gothenburg. During the late 19th century, *la belle epoque,* the city rapidly gained in importance as a center for international trade and expanding industrial production. The port established itself as the largest in Scandinavia, and the shipping industry and trading houses grew at a fast pace. In addition, the innovation-driven mechanical industry in the region gradually expanded, largely furthered by foreign direct investment. These elements contributed to a dynamic city with high economic activity that exerted a strong pull on new inhabitants. Between 1850 and

1900, the number of inhabitants in the city grew from 20,000 to 126,000 and new residential areas like the bourgeois Vasastaden and neighboring working class Haga were established.

The development of Gothenburg was furthered by technological innovations that were applied in industrial production and effective logistics systems. Increasingly liberal trade regimes between industrialized nations furthered the expansion of international trade, and the establishment of colonial empires by the European great powers opened up the supply of raw materials and 'colonial goods' on highly asymmetrical conditions. From the perspective of competence supply, traders and industrialists of Gothenburg relied on graduates from *Göteborgs Handelsinstitut*, which provided a one-year publicly financed vocational education in business and trade, with 30–40 students graduating annually. A sense of the atmosphere in Gothenburg at this time can be found in the comment the Norwegian poet Bjørnstierne Bjørnsson made in a letter to his friend in Gothenburg, S.A. Hedlund around 1880: "In Gothenburg there is no poetry written, one writes invoices."

The world of *la belle epoque* fell apart during the two decades straddling the 19th and 20th centuries. An escalation of competition between the European Great Powers led to a rapid deterioration of the liberal order for international economic interaction. Fired up by strong nationalist rhetoric, and a cultural glorification of armed conflict as a heroic activity, these tensions escalated to a war of hitherto unimagined proportions and destructive effects.

The first decades after the end of the Great War were balanced between hope and despair. A post-war optimism for the future was expressed in cultural modernism, the breakthrough of democracy in most European states, scientific and technological development, economic growth, increasing international trade and a strong belief in international organizations. Sweden was not directly affected by the material and human destruction of the war. However, as a small nation with an economy highly reliant on international trade, the country took a great interest in the creation of new world order that would make all future wars unthinkable. Through the League of Nations, the right to use armed force as an instrument in relationships between states was limited for the first time in history. Moreover, several multilateral organizations of functional character were established; most

importantly the International Labor Organization (ILO). The explicit motive behind the formation of this organization was a conviction that social justice constituted a prerequisite for a stable international peace order.

Parallel to this multilateral development, attempts were made to recreate the system regulating the conditions for international trade that had existed during the latter half of the 19th century. In the early 1920s, a large number of reciprocal bilateral trade agreements were concluded, including provisions for the liberalization of trade conditions and non-discrimination. The general optimism for the future that dominated the early 1920s was, however, soon substituted by despair and eroding societal structures. In many European states, this led to the erosion of democracy and the rise of populist and nationalist authoritarian regimes of different political shades. Nationalism was partly expressed by increased protectionism through increased tariffs, quantitative restrictions, and devaluations of national currencies. In a similar manner, the hopes that had been knitted into the development of multilateral organizations and an international peace order within the framework of the League of Nations were successively fading away.

The economy of the Gothenburg region at this time was highly dynamic. The port of Gothenburg was by far the largest in Scandinavia. Transoceanic shipping companies and trading houses were rapidly expanding. Shipyards were establishing themselves as a backbone of the region's industrial sector and innovation-driven industrial corporations such as the ball bearing manufacturer SKF were expanding their operations and increasingly gaining ground in international markets.

By the beginning of the 1920s, it became clear to the political and corporate leaders in Gothenburg that the new international order required competence at a level that was not provided by existing educational institutions. To meet this challenge, the initiative to establish a state-of-the-art Business School offering research-based education in the city was launched and rapidly took root. In autumn 1923, the School opened its doors to its first cohort of students. As its first dean, the School recruited one of the national superheroes of the time; the geographer and polar explorer Otto Nordenskjöld.

Even from the start, the School had distinct characteristics: a wide disciplinary scope including management, accounting, economics, economic history,

law, geography, and languages; a strong international orientation; close connections to practice; and a clear link between research and education.

Accordingly, the foundation for the School's ethos was established and continues to be of high relevance in the contemporary world. Since 1923, this ethos has continuously evolved in tune with societal development, with the clear objective of meeting societal demands for competence and knowledge on the international forefront. After the second world war, mirroring the rapid growth in economic activity in much of the rest of the world, the School expanded at an accelerating rate, and by the 1950's the School had an annual intake of 110–120 students to a four-year program in business and economics. This was manifested in the modernistic premises at Vasagatan 1, designed by Lars Nyrén, inaugurated in 1952. Over the following decades, the School became a part of the overall expansion of the Swedish higher education system, and in 1971 its operations were integrated into the Department of Social Sciences at the University of Gothenburg. Through these changes, it lost its distinct identity, which had been courageously and effectively defended by the student union and the alumni organization.

Nevertheless, the research and education in the disciplines relevant to SBEL continued to develop, and visions of recreating an independent identity based on the School's historic experiences were gaining force. In addition, a complete Master of Laws program was launched in 1991, and soon won widespread recognition.

In 1993, SBEL was established as autonomous department within the University of Gothenburg. The renaissance of the School's distinct identity was emphasized by the completion of a new building, which was made possible by a generous donation by the Richard C. Malmsten foundation. Designed by Peter Erséus, the building was awarded the Kaspar Sahlin Award for excellence in architecture.

Today the School of Business, Economics, and Law at the University of Gothenburg is a modern academic institution undergoing continuous development. Its departments cover a large disciplinary scope. In a more traditional university setting, it may be described as a business school and a law school under the same roof in a city-center campus. The campus is bustling with activity, with more than 4000 full-time students and about 500 faculty and staff. The School

offers a wide program portfolio in tune with the Bologna template. In the field of business and economics, there is a bachelor' program and nine focused MSc programs. In addition, there are specialized bachelor's programs in logistics and environmental social science, and a wide offering of open academic courses that offers the possibility for individual tailoring. In the sphere of continued learning, the School—through GU Executive Education, its commercial arm—offers a variety of short open-enrollment programs, customized programs, and an Executive MBA program. Moreover, the School's educational offerings include a fully integrated LLM program in addition to PhD programs in all disciplines where the School has been attributed with degree-awarding competence. Each year, the School welcomes more than 650 new students to its bachelor's programs who have earned their study places in competition with more than 17,000 applicants. A total of 450 students are enrolled at the master's level, of whom approximately 40% have undergraduate degrees awarded by universities outside Sweden. In addition, we have developed academic partnerships with more than 160 universities across the globe, which opens up possibilities for extensive student and faculty movement. Altogether, this results in a highly internationalized, multicultural academic environment at the Gothenburg campus.

The present operations of the School demonstrate a strong focus on the development of quality and relevance in research and education, and are furthermore characterized by a number of distinct interdependent developmental paths that have been strategically emphasized over the last decade:

First, the School has continuously expanded its research activities while the student body has remained largely constant. This makes it possible to establish a closer link between research and education. We see this as a prerequisite for attaining excellence in these two core activities. This development has included several successful new initiatives when it comes to multidisciplinary approaches to challenge-driven research activities such as health governance, maritime logistics, and the interface between financial decision-making and biodiversity.

Second, since the School's fields of operations fall predominantly in the area of applied social sciences, we have a responsibility to meet societal demands for knowledge and competence within our fields of expertise. In order to meet this responsibility, we must understand the shifts in these demands both when

it comes to the creation of knowledge through research and the development of competence through research-based education. We therefore continuously develop our connections with practitioners; both private and public actors.

Third, the School has increasingly emphasized its responsibility to contribute to societal development. A key instrument for us in making an impact is our alumni, who have graduated after the completion of a demanding research-intensive educational program. We educate young talented women and men, many of whom will assume professional roles after graduation where they will have the power to make decisions that affect others and the development of society. This underlines our responsibility to offer our students an understanding of ethics, and that power always should imply responsibility—not only for individual well-being and not only for the organisations in which our students and alumni are active, but also for society in general. One central facet of this societal responsibility relates to the acute challenges that society is facing regarding the sustainability of its continued existence and development. Accordingly, we are actively integrating sustainability perspectives into all operations at the School. It is important to underline that societal sustainability is not a separate topic or discipline but an integrated aspect of everything we do.

Fourth, we have successively developed and strengthened our international academic networks regarding both research and education. One of several confirmations of the school's development and its present position on the international academic arena is the triple crown accreditation. Since 2016, the School has been accredited according to the three dominating international standards for accreditation of business schools; the European EQUIS standard, the American AACSB standard, and the special AMBA standard that applies to MBA programs. In total there are roughly 125 out of more than 12,000 business schools in the world that hold this so-called 'triple crown' accreditation. This is a token of our international reputation. However, undergoing demanding external assessments only to add a prestigious logotype on the school's stationery would be a clear waste of resources. Rather, the accreditation procedures constitute an important means of quality assurance and continuous development through a structured international peer review system. Moreover, accreditations are important when it comes to creating international academic partnerships with high-quality institutions. One limitation

of these accreditations is that they focus on education and related research in business administration and economics. However, the processes for assessing quality relate to the school's operations in their entirety and the international collegiate assessment processes that forego accreditation have considerably strengthened us as an academic institution on the international forefront.

These developmental pathways have constituted the backbone of the School's collective strategy since 2012, with a pattern of successively higher ambitions. This has now been made concrete in the strategy document for the 2023–2027, entitled *Independent Thinking for a Sustainable World*.

All in all, the School's journey over the last decade has been highly dynamic and in tune with societal development. There is a clear correlation between this development and the ideas that were behind the School's establishment a century ago.

The Governor Oscar von Sydow ended his opening speech during the inauguration of the School on the October 1, 1923 with the observation that the School "*wants to give the future businessman a secure foundation of knowledge and principles on which not easily toppled castles in the air but solid trading houses can be built.*" Today, our students are not only men, and the school is not only providing skills for trading houses. But we still rest on the idea of providing our students a secure foundation of knowledge and principles that provide a solid ground for their future careers to the benefit of society. We are now preparing for our next steps forward, both intellectually and by developing our campus, adding a new building of exceptional quality to our premises at Vasagatan 1.

It might be that I am getting older, and I am very well aware of that all generations have had a notion that societal change is accelerating. Nevertheless, I believe that today we are faced with a number of rapidly developing changes in, and challenges to, human society that are transformative in character. These are acutely relevant for SBEL and I would like to underline the following three aspects which we have a societal responsibility to address:

The rapid development of new applications of digital technology and artificial intelligence will inevitably lead to transformative societal changes. Organizational formats that we have taken for granted are rapidly becoming redundant

or obsolete. They therefore must be reformed or allowed to die and substituted with new formats. The professional roles that we educate students to assume are changing in character, and new forms of AI-assisted decision making and autonomously developing algorithms are creating a demand for rethinking principles for the allocation of responsibility. Moreover, we must ask ourselves whether this development, over a longer period of time, will lead to pressure to renegotiate social contracts in society. On a general note, this development opens windows for dynamic creative innovation processes but also brings with it apparent risks to individual integrity and democratic processes, as well as corporate abuse of dominant positions.

On a recent point of the timeline, the rapid entrance of increasingly advanced chat boots (such as Chat GPT launched about a year ago as of this writing) has had an extensive and immediate impact on our own operations and spurred a general debate on the risks and opportunities accrued from generative AI applications. Within the academy, the advent of Chat GPT led to astonishment, mainly at the way in which examination systems in higher education had to be changed to render deception impossible. Now that the initial panic has subsided, a more insightful, reflective, and very important discussion has begun. Advanced, dialogue-based search services with an ability to compile and synthesize large volumes of information into continuous text in a short period time will become increasingly sophisticated and accessible. This is a development that we must embrace in the academic community. We need to critically analyze and deepen our understanding of how this will affect and be a useful tool in research and education. On a deeper, more substantive level, we need to develop insights into how these developments affect society's view of knowledge. In other words, the advent of new applications of digital technology and artificial intelligence illustrated by ChatGPT are a stimulus encouraging us to continuously reflect and develop as the technology evolves.

The international community is in a state of rapidly increasing geopolitical tensions. Multilateral structures for international cooperation are eroding and losing normativity. This development has been amplified by increasing support for populist nationalistic political movements and the regression of democratic institutions in several states. In Europe, Russia has violated fundamental princi-

ples of international law and is conducting aggressive war against a neighboring country. This has induced a challenge to an overarching ideology that has been dominant since Bretton Woods; the idea that liberalization of the conditions for trade and capital movements would lead to increasing interdependence between states and thereby further an international peace order. Instead, we are experiencing increasing regionalization of transnational supply chains where outsourcing has been substituted by friend-sourcing. These developments lead to an increased complexity of the reality of our future graduates in their work in corporate as well as public organisations, and it is our responsibility to prepare them for this reality through research-based education, which warrants research activities that deepen our understanding of these transformative processes. The increased geopolitical tensions also challenge international academic cooperation. There are strong arguments supporting the idea that international academic collaboration has a special importance in situations of geopolitical tension as a way of maintaining communication and thereby increasing stability over time. When humanity is facing challenges of existential character, multilateral approaches in the development of relevant knowledge and competence are required. Simultaneously, there are risks that academic cooperation in certain settings may constitute a risk both to the safeguarding of academic values and to national security. The debate on these issues has gained considerable intensity over the last year. For SBEL, with its high degree of international collaboration, this leads to specific challenges; most importantly deciding upon which principles should guide our actions in maintaining and developing international academic collaboration without compromising fundamental academic values and principles.

In close connection with the deterioration of the solidarity within the international community, I can also note societal debate in many states has changed its character and the demarcation line between statements of fact and opinions has become increasingly blurred. I am convinced that academia has a special responsibility to keep this demarcation line clear, thereby making serious discussions about complex issues possible. This creates an imperative for SBEL to defend fundamental academic values and statements of fact that can be verified by references to reality in a context where these may be challenged in general societal debate as well as in our own auditoriums and seminar rooms.

Last, it must be underlined that the developments accounted for above constitute a context for the fundamental existential challenges to the long-term sustainability of the preconditions for the continuity and development of human civilization; climate change, depletion of biodiversity, increased economic inequality, and the deteriorating stability of political institutions.

In this precarious situation, it is my conviction that we must not become overwhelmed by despair or adhere to a deterministic view of the future. In this we can find inspiration in the motives behind the School's establishment a century ago. Through high-quality relevant research and research-based education in close cooperation with surrounding society, the School of Business, Economics and Law at the University of Gothenburg, as a part of the international academic community, will live up to its responsibility to contribute to our common future by developing independent thinking for a sustainable world.


GÖTEBORGS HANDELSHÖGSKOLA

Introduction

Merima Bruncevic, Susanna Fellman, Alexander Styhre & Måns Söderbom

The School of Business, Economics, and Law (SBEL), at the University of Gothenburg is turning 100 years in 2023. This centennial is something that the school, our Dean, and all of us that work here would like to mark as an important milestone for the University as well as for the city of Gothenburg. The four of us have had the honor of acting as editors of this volume that commemorates and celebrates our school and its 100 years. As this volume will testify, our school is in many ways both a traditional business school as well as a unique higher educational institution that not only focuses on business but that puts justice, societal challenges, and sustainability at the forefront. It gathers scholars of traditional business school subjects such as finance, marketing, management, entrepreneurship, and economics, but also scholars of law, economic history, human geography, logistics, and economic geography, providing a unique constellation of scholarship that goes beyond traditional business school expectations.

We named this volume *Towards a Sustainable World: Academic Insights and Perspectives* to showcase both the traditional and unique sides of this 100-year-old institution. We wanted to celebrate the centennial with an academic publication that would become a starting point for the future. The idea was to bring together scholars from the school's different departments to showcase its breadth and variety around the theme 'sustainable worlds', as the school's mission is to promote "independent thinking for a sustainable world." Of course, there is an obvious risk that a forward-looking text would quickly become dated and too tied to ongoing

crises and challenges. Nevertheless, we wanted to recognize that our object of study—the economic system (in the broadest sense of the term) and its grounding in the surrounding society—provides many opportunities and benefits, especially when combined with a democratic political system that rests on accountability and monitoring of the use of political power. Activities located in industry, in businesses, and in the entrepreneurial sphere generate economic welfare and provide possibilities for expressing individual ambitions and talents, and studies show that participation in working life is associated with a number of favorable outcomes for individuals and society. This edited volume attempts to recognize that SBEL makes an important contribution to both the analysis of the economic system and their legal and regulatory governance at the same time as it contributes to the discussion regarding ongoing activities, societal challenges, development and change, and questions of justice and democracy.

The world is currently facing a multitude of challenges that must be handled over the coming years and decades: climate change, wars in Europe and the rest of the world, long-term consequences of the COVID-19 pandemic, rising electricity and energy prices, and an incipient recession are some of the most pertinent current issues. These events provoke new ways of thinking and reflecting. They put our research in a new light. There is therefore reason to reflect on how the world will look in the longer perspective and how our societies and the world should develop to become more sustainable.

The current volume is not intended to be a new history of the business school. Traditional histories and shorter memory and jubilee books have been published on several occasions; for example, in 2011 (Rosengren, 2011), 2003 (Gustafsson, 2003), 1977 (Grönfors & Berglund, 1977), and 1933 (Berglund, 1933). In this volume, the goal is to provide thoughts, visions, and ideas of how the education and research conducted in our school could potentially develop, to respond to future challenges. Readers will find few, if any, predictions as to what the future will look like. Instead, the chapters, which are written by active scholars and teachers in our school, provide perspectives on current and possible future challenges, all against a backdrop of long-term sustainability. We hope that the volume will inspire readers to look up, steer their gaze towards the horizon, and think ahead. We also hope that the collection of texts in this volume can function

as a 'time capsule' for future readers, serving as a testament to the issues that were considered urgent in 2023.

In this introductory chapter we will first provide a brief historical background to put today's discussion in perspective. This will help us understand the context of the chapters and their timeliness. After that we will discuss some key themes that we as editors have found to be particularly relevant. Finally, as is tradition for introductions in an edited volume, we will briefly discuss the individual chapters in relation to the volume's broader context and especially in relation to each other to draw a more general picture of path ahead.

Business schools straddling practice and academia, a brief historical perspective

The urge to look ahead and be at the forefront of new theories and technology is a feature that has always characterized business schools. The earliest business schools emerged as a result of efforts of active businessmen and their interest associations, with the explicit goals to provide expanding business life with graduates well-equipped for future challenges. Such discussions have been a throughgoing phenomenon over the decades and have made business schools particularly attentive to demands for relevance and work-related skills and competencies. In the beginning, research was not always appreciated, but today research is considered essential and research-based education is a core goal in business schools. Nonetheless, the arguments that education and research need to be of 'relevance' for society and for business, are still very much at the fore. These demands often come from the outside, but also management of the business schools and scholars and professors themselves have internalized these notions and demands.

Studying and conducting research at a business school is a unique experience. Business schools are less like the proverbial 'ivory towers' than the classical universities often are. Moreover, business schools are often adaptable and agile—swiftly changing and incorporating topics and skills considered important for future society. However, they have a tendency to chase the latest 'fashions' and fads.

Responsiveness to external demands is always a problem for academic institutions that often pursue intellectual projects, happily cut off from the rest of

the world in their ivory towers. Business schools, however, are constantly pressured by demands from a dynamic business community and are often less isolated from societal impacts and discourses in that sense—at least compared to more classical universities. While business schools are often agile and adaptable to swiftly changing external conditions; for example, by incorporating new topics such as digitalization to the curriculum, they also run the risk of being caught in a constant race to keep up with the latest fashions to retain their relevance to the business community, which contradicts the basic principles of thoughtful scholarly practice. A successful business school must therefore be one that is able to combine societal relevance with independent scholarly attention.

Business schools, as such, are a fairly new phenomenon. Pinpointing the date of the emergence of the first 'modern' business schools is no easy task. Henry Mintzberg (2004, 21–22) considers the foundation of the Wharton School of Business in the late 19th century as one important milestone in the development and emergence of (retrospectively) successful US business schools. The German *Handelshochschule,* which emerged around the same time, were imperative for the development of business education in the European context (Engwall, 2009; Locke, 1984). Nonetheless, especially in Europe, there were a wide variety of lower-level and practice-oriented business and trade colleges in place before higher business education emerged. Some of these commercial schools later developed into higher-level institutions, while some modern business schools were born as institutes of higher education. In the Nordic perspective, the early modern business schools emerging in the early 20th century primarily followed the German *Handelshochschule* model, with a focus on specific functions, especially accounting and business administration. Lower trade and commercial schools have also existed in the region since the early 19th century.

Nonetheless, university-level business schools must be seen as a 20th century phenomenon and therefore relatively novel in comparison to more classical university subjects. Objections to formal education in business was substantial for a long period of time both within university circles and the business community. Traditionally, the business community considered the best way to learn skills useful to a business career was through practicing from a young age in offices and companies. In the Nordic context, it was preferable to engage in this

practice by spending some time abroad. This view continued to live on in the business school, often by incorporating language studies into the curriculum and implementing foreign exchange periods in study programs (see Engwall, 2009; Fellman, 2000).[1]

When the need for some formal education was accepted more broadly, discussions concerning what precisely to teach took over as the main topic of debate. At that point, it was feared that education would be 'too theoretical'. The curriculum was to be useful, practical, and adapted to the demands of the future in a—often claimed—rapidly changing society. What these words meant in practice was often left undefined, however.

In the early 20th century, efforts to establish formal higher business education became frequent. Although many active businessmen were still at least skeptical about formal education, the world was changing. New initiatives came primarily from the business community. One of the goals of forming new schools was to raise the status of those engaged in business. In the emerging professional society of the early 20th century, formal credentials and formal education became important. Businesspeople needed (and wanted) to show that they were as professional as other upper-level employees (e.g., Engwall 2009; Fellman 2000). However, these efforts were not only a result of status and legitimization. The demand for new skills emerged on all levels in organizations as a result of industrialization, growth within the organizations themselves, and technological development (e.g., Chandler 1977). Education in both engineering and business in fact grew quickly in the late 19th and early 20th centuries and many practicing businessmen slowly accepted the need for formal education for young recruits, although they primarily advocated for practice-oriented education.

These discussions also concerned the role of research in the new business schools. A common argument was that research would be of little relevance for the corporate sector, as such the research largely lacked any contact with the business day-to-day activities. In many cases, little research was carried out.

As scholarly fields, business studies and business administration were relatively young and remained underdeveloped until the second world war (WWII). Some

1 One common argument against a vocational or higher business education was that formal education would be useless for young people, especially if the education was 'too academic.' This risk entailed a young person wasting their best formative years studying theories instead of starting their work as an apprentice at roughly 13 years of age.

business schools included topics like economics, economic geography, economic history, and political science to give educational programs a more research-oriented touch. Nonetheless, a research-oriented approach emerged gradually. For example, accounting developed in the early 20th century into a scholarly field (Locke, 1984) while business administration, management and organization, and marketing developed rapidly after WWII. Today, research is considered an important part of business schools and research-based education is often emphasized as a core goal.

SBEL was not the first institution to provide formal education in business skills in Gothenburg. The history of commercial education goes back to 1826, when the lower commercial institute *Göteborgs Handelsinstitut* was established. The initiative and the funding came from the local business elite. The fact that business education emerged quite early in a trade city is not as surprising, as these types of schools, as a rule emerged from private initiatives (see Rosengren, 2011 30–35; Gustafsson, 2003). Local businesses have been important collaborators ever since the school opened in 1923, and the connections between the school and the business community in Gothenburg have continued to be close ever since. The business community continues to be visible in their role as prominent donors to the schools' partner program; something that Dean Per Cramér discusses in his overview of a century of business education at the school.

From educating managers to solving societal problems: business education after World War II until today.

In the post-war period, the idea that managers educated future business managers became central. This must be considered in the context of the growing professionalization of recent graduates, but the claim of educating managers was also nurtured within the schools themselves. As the schools had developed into institutes of higher education, such claims were well-founded. Business school graduates emphasized that they were best equipped to lead a modern large corporation and could compete with engineers and other professionals. The spread of specific management and executive education programs strengthened such claims.[2]

2 This did not happen without criticism. Some scholars within the business field have been skeptical towards not only the feasibility of educating managers and management but also whether management is or could be considered a profession (Mintzberg 2004). This debate continues today and has not been concluded. For example, a quite recent book (Örtengren 2018) has included chapters both in favor and against the concept of management as a profession.

In recent decades, new questions have emerged. Critical debates about the business schools' relevance in society became frequent after the financial crises in 2008. At that point, the—real or perceived—failure to provide the students with the knowledge and skills needed to identify and avoid such crises led to intense discussions concerning the role of business schools in the modern economy. In general, questions concerning business ethics have recently increasingly challenged the current content of business education (see Pettigrew & Starkey, 2016; Currie, et al., 2010). In this context, the School in Gothenburg has been well-equipped, given its broad spectrum of disciplines, exemplified by a law department and an extensive education in law, and the humanistic and social science subjects such as economic history and human geography that are taught at the school.

The chapters in this book show how other societal challenges have become relevant for business education. None of the papers discuss how to prepare students to avoid financial crises, how to take on problems of staggering growth, or their qualifications to assume leadership of the large corporation. The focus in this book is on sustainability, which made some content not representative of current research or debates within our School. And we acknowledge that some of the chapters implicitly discuss questions of how to prepare future leaders to take on future challenges, so these questions are in the background.

The debates within and around business schools mirror themes that are high on the agenda in society. The eagerness to be at the forefront of tackling new topics and challenges—even running after the most recent fashions—must be considered a strength. The continuous debate on how to be (and how not to be) a business school has made business schools adaptable.

Looking towards the future: chapters in the book

We asked the contributors of this book to discuss the main challenges in the economic and legal system in the near future and over the longer term, and to think about what our research in various scholarly fields is today and what it will look like in the future. What questions, theories, and methods are likely to become relevant for our studies? What are the challenges that our students would say demand scholarly attention?

The key common theme for all the contributions to this text is sustainability. As we mentioned above, a collection of texts like this can never be fully representative of the vast and rich research conducted within the school, and some important and extensive research fields may not have been represented in the book sufficiently, or even at all. Indeed, there is admittedly an interest in topics that are more social-science–oriented and often cross-disciplinary (environmental sciences, developmental economics, labor market research, innovation research, arts and humanities). This is natural, as sustainability research crosses disciplines; and several of the chapters are written by people from different disciplines. By encouraging authors to collaborate across disciplinary boundaries, new scholarly openings have hopefully occurred already, and will continue to do so in the future. The papers show the broadness of the school, which has been a conscious mission and strategy of the business school.

The ideal of the value-free scholar is held in high regard, but especially in the social sciences and humanities it is acknowledged that the majority of scholars have ideas, ideologies, and personal experiences that affect (at the very least) their selection of topics and methodological approaches. We have tried to reflect this and show how independent ideas are not the same as bias. Not everything is activism nor is everything value-free empirical research. Rather we find researchers fall on a sliding scale from scholars primarily engaged in research driven by curiosity and not necessarily engaged in targeting specific societal challenges on the one end, to scholars with a clear and outspoken commitment on the other end, combining research with outspoken societal goals such as climate activism. Most scholars fall somewhere in between these two polarities.

In Chapter One, Thomas Sterner and Sofia Henriks discuss sustainability research at business schools. Their starting point is the stark observation that there are multiple large-scale, and potentially catastrophic, environmental problems that threaten our planet's ability to sustain life as we know it. Nature imposes boundary conditions to which humanity has no choice but to adapt, and adaptation will require a combination of new technologies, changed lifestyles, and policies to limit population growth. Drawing on many years of research, Sterner and Henriks provide an exceptionally thoughtful overview of the causes and consequences of large-scale environmental problems. Highlighting the role of academia

in resolving problems related to climate change, biodiversity loss, and the spread of toxic chemicals, Sterner and Henriks make the argument that research and education must be interdisciplinary. Unless students are equipped with competencies that cross disciplinary boundaries, they will be unable to deal with complex sustainability challenges. Therefore, business schools must take "bold steps" to integrate sustainability into their operations. In the final section of Chapter 1, Sterner and Henriks outline a wide range of proposals on what academia and business schools can do in order to be part of the solution.

Viktor Elliot and Marie Stenseke (Chapter Two) examine the question of how economic activities can be preserved and further developed at the same time as biodiversity, in the broadest sense of the term, is protected. The dramatic decline in biodiversity of a number of biotopes is major challenge for the global environment, and the measure of biodiversity is itself widely recognized as an index of how far natural resources have been depleted. In Elliot and Stenseke's account, the business school institution includes and should further develop valuable professional know-how and expertise that bridges the two interests of how to ensure economic welfare at the same time as biodiversity and other natural resources and reserves are protected. Elliot and Stenseke call for an interdisciplinary research framework wherein a variety of disciplines and scholarly interests are combined and mutually shed light on how biodiversity can be protected within an economic system that values and accurately prizes biodiversity. One principal challenge in this work is how to develop measures that accurately accommodate all the parameters that are of relevance to accomplishing diverse goals. Currently, such metrics are characterized by internal differences and tensions, which makes the governance of natural resources and reserves more complicated and less transparent, which in turn may affect the quality of the decisions made by policymakers and corporate actors. Furthermore, the strong professional belief that market-based pricing mechanisms is the pathway to incentivize economic actors to consider how e.g., corporate activities may harm or affect biodiversity easily undervalue the risk of market failure. Market failure denotes a situation wherein market actors and/or regulators fail to effectively account for all costs that pertain to a specific activity, which undermines market-based transactions. In the case of such market failures, either the state (and by implication, its taxpayers) carries the risks, or the situation fails to be amended

on the basis of ambiguities regarding costs and benefits and a lack of incentives. Consequently, a scholarly study of biodiversity on basis of economic and financial incentives should take a broader look at e.g., market failure cases.

In Chapter Three, Arne Bigsten considers issues related to a broader definition of sustainability, focusing particularly on global inequality. Taking the sustainable development goals (SDGs) as its point of departure, Bigsten discusses recent developments of the global economy and reviews the related changes in global inequality. Central to the narrative in this chapter is the role of the state. How do welfare states differ? Are welfare states providers of a high quality of life for their citizens? Should welfare-state–like policies be spread around the world? Bigsten argues convincingly that the answers to these questions are intimately linked to sustainability. In the penultimate section of the chapter, Bigsten discusses what can be done to reduce global inequality with the help of foreign aid and by redesigning the global system in ways that favor the poor. Bigsten concludes by bringing the discussion closer to home. He notes that broad-based education is one example of a policy that can help the poor and thereby reduce domestic inequality. This is an area in which our school contributes by accepting students from around the world into our educational programs. Many international students are admitted to our MSc and PhD programs, and there is also extensive research collaboration with researchers from the developing world. All of this contributes to the building of human capital, which is a key parameter for sustainable development. But Bigsten believes we have a moral obligation to do more.

In the fourth chapter, Sari Kouvo and Emilia Dungel discuss the Annual Joakim Dungel Lectures in International Justice, which were established in memory of Joakim Dungel, a former student and a committed human rights officer who tragically lost his life in an attack in Afghanistan. These annual lectures are organized by the Association in Memory of Joakim Dungel in collaboration with the Department of Law at Gothenburg University, with the goal of facilitating discussions on various international law topics. Kouvo and Dungel highlight the diverse themes that have been covered in these lectures over the years, encompassing human rights, international criminal law, and conflict resolution. The Association in Memory of Joakim Dungel was established to carry forward Mr. Dungel's legacy and continue his important work. The decision to host these annual lectures was

made because they could contribute significantly to the realms of social sustainability and justice. As the authors illustrate, these lectures have been integrated into the curriculum of the Master's of Law program, offering students valuable insights into the field of international law and potential career paths. This successful institutionalization and incorporation into course curricula have been made possible through the dedication of staff members who oversee the lectures each year. Kouvo and Dungel beautifully emphasize that the Joakim Dungel Lectures represent a unique and essential platform for advancing the cause of international law, bridging the gap between theoretical concepts and practical applications, and inspiring students to explore opportunities in the realm of global justice.

In Chapter Five, Emmeli Runesson and Niuosha Samani, two accounting scholars, examine to what extent various legal and regulatory rules and industry-interest organizational protocols do in fact contribute to a more transparent and ultimately efficient manner for reporting investment in sustainable technologies, practices, organizational routines, and managerial practices. Accounting practice is commonly portrayed as the work wherein fleeting and amorphous corporate and/or social resources are evaluated and provided with a 'price tag' to become legally inscribed as, say, a corporate asset (in positive terms) or a liability (in negative terms). Runesson and Samani introduce a critical view of how "sustainability disclosure" standards do in fact achieve the goals being enacted and stipulated, and they demonstrate that there are not only heterogeneous objectives that such accounting procedures are designed to accomplish, but that there are also different regulatory frameworks that prescribe rules that at times are complementary or even contradictory. Unless such inconsistencies in the legal and regulatory framework are handled through reforms and the introduction of new or better articulated rules that can guide corporate actors, regulatory agents, policymakers, etc., in their day-to-day work monitoring sustainability in corporations and society at large, there is little point to further increasing regulatory activities. Additional investment in the monitoring of sustainability investments is likely to be marginal in terms of benefits or may even be overshadowed by the cost increases such regulatory control would incur. In the latter half of the chapter, Runesson and Samani call for additional research that can shed light on how sustainability disclosure practices can be enhanced so that corporate entities and public sector

organizations can account for their investment in sustainable activities and technologies so that costs and benefits are valued and accounted for in a fair manner consistent with legal rules, regulatory frameworks, and sound business practices. For sustainable future, fair-yet-transparent accounting practices assisted by legal and regulatory rules could plausibly play a key role, as these "back office" practices—which are often hidden from view—structure how economic and social value are inscribed onto documents that are legally binding and part of market communication.

Martin Henning and Maria Norbäck (Chapter Six) discuss one of the most elementary questions in any human society: how should we organize work, and how should we distribute the responsibilities for work between individuals? In modern society, this question is frequently addressed in terms of labour market conditions, and Henning and Norbäck examine four interrelated questions. The first question deals with *how to work*; e.g., whether new technology and new work life practices such as flexible work hours affect how everyday work is organized and conducted. The second question addresses *where work* is conducted, which includes questions of how distance work is managed and monitored, and how work often spans geographical boundaries (with, e.g., call centers located in unexpected locations like India). The third question addresses *for whom* we work, as corporate ownership becomes increasingly complicated to monitor in a globalized economy, with e.g., institutional investors such as "The Big Three" (BlackRock, Vanguard, State Street) investment funds holding an increasingly higher proportion of the stock in listed companies. In, e.g., an economic geography perspective, the use of various outsourcing and subcontracting activities makes it increasingly difficult for regulatory agencies, policymakers, and workers to fully understand who in fact their employer actually is, or to what extent the work conducted would serve owners that are not fully legally recognized (this was an issue that was highlighted as a consequence of the sanctions against Russia after the invasion of Ukraine, beginning in February 2022). The final question addressed by Henning and Norbäck is *who* is conducting the work, which asks to what extent work and its compensation is gendered or otherwise biased on the basis of pre-established classification systems. In an historical perspective, women's work has been comparably undercompensated, and women have been

underrepresented in highly compensated work, including in executive positions in companies and in the public sector. Furthermore, when women do enter specific industries or niches, the compensation has been reduced in relative terms, being indicative of the so-called 'feminization' of the industry or the profession. Such evidence indicates that market actors either misprice competence on the basis of incomplete labor market data or due to other informational costs or, more simply, are prejudiced and undervalue certain groups' competencies. Henning and Norbäck argue that the business school holds both the professional and scholarly expertise needed to study labor markets and labor market developments, but also has the moral obligation and moral authority to pursue such scholarly research. Business schools traditionally study how economic values are generated within the corporate entity (i.e., on the basis of team production activities or on the basis of research and development work), but they also study how the economic value generated is distributed to a variety of stakeholders (as in corporate governance studies, wherein e.g., the interests of employees, consumers, shareholders, and the sovereign state are balanced in sustainable ways). As the labour market and the compensation devices and tools it includes, such as employment contracts and centrally organized compensation negotiation activities, conducted on a recurrent basis, are among the key mechanisms for the allocation of work opportunities and economic compensation, business schools should conduct research and teach students about issues that are relevant for efficient and procedurally- or distributionally fair labour markets.

In Chapter Seven, Gipperth, Westholm, Argüello, and Krabbe discuss how scientific evidence has highlighted the detrimental effects of marine pollution, unsustainable fishing practices, and climate change in the ocean. These include ocean acidification, biodiversity loss, and sea-level rise. Despite such difficult challenges, the authors show how the ocean plays a crucial role in providing ecosystem services like food production, renewable energy, carbon sequestration, and recreation. In their chapter, they discuss how these issues have been handled at the Department of Law, by e.g., the research connected in the Ocean Governance Law group. It enables the study of multi-level international, EU, and national initiatives that aim to promote a thriving blue economy while preserving marine health. As they show in their chapter, existing legal systems are fragmented, sec-

tor-specific, and inadequately equipped to adopt an ecosystem-based approach for sustainable ocean management. To address this, scholars from different legal disciplines within the Department of Law are collaborating both internally and externally with experts from various fields to enhance transdisciplinary knowledge and explore opportunities to foster a more sustainable blue economy. This chapter explores the legal and interdisciplinary challenges, as well as the strategies, motivations, and routes pursued by scholars at our school to facilitate a shift toward a healthier, more sustainable ocean and a blue economy.

Hanna Borgblad, Erik Gustafsson, and Elena Raviola (Chapter Eight) address how the contemporary economy is characterized by an increased emphasis on creative and artistic competencies, and how e.g., arts markets are governed on the basis of original contributions that are valued by both consumers and the wider public. Historically, the arts have been considered part of the free cultural expression that is constitutive of a liberal civil society. At the same time, artists, authors, and composers have always been dependent on either clients (historically often the royal court or the church) or the state to both finance the work and to find an audience. More recently, arguably beginning in the mid-19th century, a more regular arts market has been established, which has enabled a professionalization of the arts, making artists no longer dependent on the patronage of royalty or wealthy individuals. In Borgblad, Gustafsson, and Raviola's account, business school research activities should include the study of art markets and cultural production, and this scholarly study adds an organizational, economic and financial perspective to most other disciplines that overlook or ignore such conditions and resources. Of specific interest is the legal framing of the arts and cultural production, wherein the concept of ownership is important. While culture is a communal resource, shared by and mutually developed by all members of a society, individual pieces of art are protected by ownership rights, which serve to both vindicate the authenticity of the work of art and to render it tradable on the arts market. While such elementary legal rights are vital for artistic production and for the development of functional art markets, there is also a skepticism toward the idea of a piece of art being premised on conventional ownership rights. Another issue that is examined within a business school tradition of research is how art is subject to valuation, both in terms of its authenticity and contribution to shared cultural

reserves and in terms of its pricing, either in the form of direct market pricing, or in terms of 'synthetic' pricing to, e.g., calculate insurance values. As we have learned from history, works of art are valued and priced dramatically differently in different periods of time (think for instance, of the exemplary case of Vincent van Gogh, who was commercially unsuccessful during his lifetime, but whose work eventually became the basis of a veritable culture industry niche), as such, valuation practices are non-trivial activities, demanding both professional expertise and prescience. Third and finally, Borgblad, Gustafsson, and Raviola examine how the work to produce art and a cultural output (say, theatre performances) can be understood from an organization theory perspective that both underlines the structural and agential features of cultural production: art is produced and governed within a specific legal–institutional framework, and at the same time, culture sector agents are bestowed with a considerable degree of artistic freedom to perform their work at the peak of their individual and collective capacities. In Borgblad, Gustafsson, and Raviola's view, the business school is a fertile soil for the study of such activities, both premised on economic conditions while at the same time separated from such concerns.

In the chapter by Brunnström et al (Chapter Nine), the authors discuss how business schools—and universities in general—can, in practice, make an impact by engaging with wider society. Having concrete and visible impact has become more important during the last few decades, and if we aim to increase sustainability, this impact becomes vital. The authors of this chapter determine that there are essentially three pathways a business school can take to have an impact: through promoting the creation of innovations and commercializing them; by influencing policy makers; and, finally, by engaging and collaborating with other actors in society. The main argument in the chapter is that one instrument to achieve this is through cross-disciplinary research centers. Cross-disciplinary research is often considered important for solving new research problems. Moreover, cross disciplinary research centers can form platforms for this type of skill-formation and knowledge creation, by pooling existing skills in new ways and cross fertilizing between different disciplines. Moreover, research centers enable collaboration with outside actors more easily than is the case in traditional departments.

The authors in this chapter take a practical approach, outlining experiences in two high-profile cross-disciplinary research centers that exist at the school; namely The Center for Sea and Society and the Gothenburg Centre on Knowledge-Intensive Innovation Ecosystems. These two centers have been engaged in extensive collaborations with actors inside and outside universities. The authors provide concrete guidelines and examples of best practices, but they also discuss how to avoid common pitfalls in collaborations with actors both inside and outside academia.

The authors emphasize that the activities of research centers need institutional support from the university to succeed, but also that outside institutional support is important, especially national and international science policy frameworks and funding opportunities. Cross-disciplinary research and these types of centers fit the current research policy agenda, both in Sweden and in the EU more broadly. Successful as they are in the present environment, this notion begs the question as to whether these centers also have a role to play in the future, in case the national or international science policy agenda changes. The authors emphasize the importance of these centers in responding to ever-changing societal challenges. This is vital, but in case transformative changes in science policy occur, their future might be tested. This will be interesting to follow in the years to come.

The Chapter Ten, written by Broberg and Strandberg, focuses on the role of teaching when a school aims to prepare the students to handle future challenges. The authors take their point of departure in the missions and visions of SBEL and analyze how these can be achieved and combine the ideals with their own experience from the classroom. They adopt a fresh but ambitious approach, combining a philosophical view on the goals of higher education with concrete examples from their practical work as teachers.

The authors propose a return to old academic ideals resembling the liberal education idea existing in US academic tradition and the *bildung* tradition of the German universities. These ideals do not fit easily into modern universities, which are essentially institutions of mass education. Achieving individual growth and good values is not easy in an environment that encourages examinations and course goals that are easily measured according to specific criteria. The authors claim, however, that we need to rethink what skills students need to solve future

challenges and some of the solutions they suggest come from these traditional academic ideals. A core ideal or goal is to enhance the student's independent critical thinking and to develop their ability to make independent, value-based decisions. The latter is important, as the problems of the future will demand the next generation be able to solve important problems and make often difficult decisions. Accordingly, specific skills and theoretical thinking are not enough—equally important is each student's growth as an individual.

Broberg and Strandberg build their view on what comprises a solid university education by going back to Aristotle's *Nicomachean Ethics*. They emphasize three basic elements that should form the basis for university education; namely *epistheme* (theoretical knowledge), techne (theoretical skills combined with practical experiences), and *fronesis* (value-based knowledge). To achieve their goals, students need, first, to be challenged with the unknown. Thus, teachers need to balance teaching students what is known and what is unknown, i.e., they must confront students with more open-ended 'genuine' questions and tasks. Genuine questions—in contrast to trivial, fact-based questions—are partly open and therefore they cannot be answered fully by reciting specific facts. To help students grow as individuals, the teacher also needs to make students think about values and ethics as part of their education. Only in this way can they prepare them for responsible decision-making.

In the current curricula, this is not a simple endeavor. Open-ended questions are not easily accommodated by specific and easily measurable requirements. Broberg & Strandberg suggest independent work for students—both for achieving academic skills and for expanding the horizons of the knowledge. Nonetheless, these problems are especially challenging in today's era of mass education, further complicated by new AI tools that limit the possibilities to engage in independent work and assignments based on open questions. In this endeavor, the personal engagement of the teacher is invaluable, but also demanding.

In the second part of the chapter, the authors turn to practical experiences from their own teaching and how they have experimented with methods to develop these kinds of skills and aid in students' personal growth. The authors also discuss how to work with these questions in pedagogical planning work.

These deliberations and questions are not new in the discussions about the

goals of university education but have a long history. However, the challenges in achieving these goals are new, at least in part. Still, the concrete examples provided by the authors offer helpful insights into how readers can develop their teaching and course planning.

Finally, as editors, would like to express our sincere gratitude to all the contributors whose dedication and expertise (and even passion!) have made this academic edited volume possible. The selection process of chapters was made through an open call for papers with a focus on sustainability. The chapters in this volume therefore by no means provide a fully representative sample of the research carried out at the school. We hope that readers will find the insights, ideas, and presented analyses in this volume interesting, relevant, and thought-provoking. We strongly believe that the contributions in this book will benefit ongoing and future discussions concerning the development of our school and our world.

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vid GÖTEBORGS UNIVERSITET

Contributors

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Arne Bigsten is Professor Emeritus of Development Economics at the School of Business Economics and Law at the University of Gothenburg. His research has concerned poverty and income distribution, trade and globalization, industrial development, foreign aid, and institutional reform. He has published extensively, but his major achievement is probably that he supervised roughly 50 completed PhDs at the School. He remains concerned about global inequalities.

Hanna Borgblad is a postdoctoral researcher at the Department of Business Administration, Marketing Section. Her research project, mainly funded by the Wallander postdoctoral scholarship, focuses on market-shaping practices in art markets and in job markets for artists and creatives. In 25 years, Hanna Borgblad hopes to be a professor working part-time, as AI has made work tasks more efficient, and will look back on her career from a (hopefully still prosperous) mountain valley in Northern Sweden, patting her dog, contemplating the fun and bumpy road of the academic life.

Oskar Broberg is senior lecturer in Economic History at the School of Business, Economics and Law at Gothenburg University, Sweden. His research has mostly revolved around business and financial history, writing about topics like the incorporation of Swedish businesses in the early twentieth century, the global breakthrough for financial derivatives in the 1980s, and the digitalization of the advertising industry in the early 2000s. In 25 years, he hopes to still be writing economic history, while also having developed into a reasonably good gardener.

Merima Bruncevic is an accomplished associate professor of law at the School of Business, Economics, and Law in Gothenburg, where she is the director of the course *AI and the Law*. She has held the esteemed position of affiliated fellow in cultural heritage law at the *Università Degli Studi* in Rome, Italy. Her academic contributions include the publication of two influential books: *Regulating Transnational Heritage: Memory, Identity and Diversity* (Routledge, 2022) and *Law, Art and the Commons* (Routledge, 2018). Her research, guided by a Ph.D. in legal philosophy, delves into the vital subjects of access to art and cultural commons, while her professional background includes a role as legal counsel and intellectual property manager at the Walt Disney Corporation in London. Her interdisciplinary, speculative, and socially engaged approach seeks to uncover novel insights at the crossroads of law and art, blending theoretical depth with aesthetic sensibilities. (By the way, speaking of 'scary frontier technology', ChatGPT wrote this bio.)

Linus Brunnström is a Wallander postdoc at the School of Business, Economics, and Law at Gothenburg University, Sweden, where he also received his Ph.D. His research focuses on how universities impact society, researcher's roles in firms and ecosystems, and questions on the blue economy. In 25 years, he hopes to have advised policymaking and helped facilitate a more impactful university and contributed to high-quality research at the School of Business, Economics, and Law. He also hopes to have earned a black belt in karate.

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Lena Gipperth is a professor in environmental law at the School of Business Economics and Law at the University of Gothenburg. Her principal research focus is the governance of water and marine resources and how to legally implement environmental objectives. She is involved in a number of transdisciplinary programs focusing on environmental pressures from multiple sources like chemicals, the protection and restoration of marine habitats, and financial markets' consideration of biodiversity. She is also a driving actor in several collaboration platforms like the cross-faculty Center for Sea and Society at University of Gothenburg, the Swedish Institute for the Marine Environment and WIOMSA (Western Indian Ocean Marine Science Association).

Erik Gustafsson is a postdoctoral researcher in entrepreneurship at the Unit for Innovation and Entrepreneurship in the School of Business, Economics, and Law at the University of Gothenburg, Sweden. He received his Ph.D. from the University of Gothenburg in 2019. Mainly a qualitative researcher, he has a specific interest in the role of varieties of knowledge used in innovation and entrepreneurship in creative industries, sustainability as it is related to artistic practice, and perspectives on value creation in relation to artistic output. In 2020, Dr. Gustafsson received the Wallander scholarship, which covers three years of full-time postdoctoral research, awarded by the foundation *Jan Wallanders och Tom Hedelius stiftelse samt Tore Browaldhs stiftelse*.

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Sofia Henriks is a research assistant in Environmental Economics. She has a background in political science, and her main research interests encompass sustainability, climate policy design, and public attitudes about climate policies. Fast forward to the year 2045 and she has hopefully pursued her academic career and is now advising policymakers on cutting-edge policy innovations. Alternatively, life took a turn after she picked up her basketball career, leading her to pursue her childhood dream of becoming a female Michael Jordan.

Martin Henning is professor in Economic Geography at the Department of Business Administration. His main research interests are the mobility of the labour force, and very long-term economic development of regions. But most importantly, perhaps, he plays the violin. In the next 20 years, Martin hopes that business school teaching programs will escape the recent narrowing of (business) focus, and instead open up to a richer diversity of perspectives from social sciences and humanities.

Maureen McKelvey is professor of Industrial Management, Department of Economy and Society, and Director of Gothenburg U-GOT KIES (Centre on Knowledge-Intensive Innovation Ecosystems), School of Business, Economics, and Law at Gothenburg University, Sweden. She also leads a 10-year Distinguished Research Program on Entrepreneurial Innovation Ecosystems, awarded by the Swedish Research Council. Her research analyzes innovation and entrepreneurship processes. She is particularly interested in how best to study the interactions between entrepreneurial agency with innovation ecosystems, including why and how universities engage with society and knowledge-intensive entrepreneurship. In 25 years, she hopes that the School of Business, Economics, and Law has maintained its positive impact on future unknown firms and industries based in Gothenburg by stimulating new researchers and students to apply knowledge in new areas.

Niels Krabbe is a postdoctoral researcher in international law at the School of Business, Economics, and Law at Gothenburg University, Sweden, where he also received his Ph.D. His research focuses on the legal aspects of maritime activities, in particular how to address biodiversity and climate impacts in a fragmented governance structure. In both research and teaching, he combines academic perspectives with experience working in maritime policy. He has been involved in major multilateral ocean negotiations, including as lead on Sweden's EU Presidency team during the final negotiations of the new UN oceans agreement (BBNJ).

Sari Kouvo On leave of absence from her associate professorship at the Department of Law of Gothenburg University, Sari Kouvo is currently working as an adviser in the European External Action Service. Sari's previous engagements include co-director of the Afghanistan Analysts Network, Head of Program at the International Centre for Transitional Justice, advisor to the European Union Special Representative for Afghanistan, researcher at Amnesty International, and researcher and lecturer at the Department of Law at Gothenburg University. She has held visiting fellowships and lectured at several universities, including *Université Libre de Bruxelles, Vrije Universiteit Brussel,* Kent University, Birkbeck University, Åbo Academy, Australian National University, and NATO Defense College. Sari's publications focus on Afghanistan, conflict, international law, human rights, transitional justice and gender. Originally from Finland, Sari currently lives in Brussels.

Maria Norbäck is senior lecturer in management and organization at the department of Business Administration. By the year 2047, she posits that society will be fully automated (along the lines of 'fully automated luxury communism'), and there will be freedom and prosperity for all. This means that AI colleagues will do all the teaching and research, and she will be reading novels in her apple-tree shaded hammock. In the unlikely event that this future will not come to be, she will have to rely on plan B: to continue to teach and research what people do at work, and long for retirement.

Elena Raviola is Torsten and Wanja Söderberg Professor in Design Management at the University of Gothenburg and director of the Business and Design Lab. Her research focuses on the organization of professional work in times of digitalization, with a special focus on cultural and creative industries. She has conducted extensive ethnographic research on media companies in Italy, France, and Sweden. Currently she is involved in a number of research projects on the role of design and art in the making of public space, and the consequences of intelligent algorithms in the public sphere. She is a work package leader in the H2022 Hephaestus on the renewal of craft and project leader for the Nordic project DiNoBord (Digital Nordic Borders).

Emmeli Runesson, is senior lecturer in accounting at the Department of Business Administration. She has long focused on reporting capital markets but is slowly awakening to the needs of the broader stakeholder environment. Beyond her academic pursuits, Emmeli enjoys books, cats, and the art of crochet (preferably all at once). She envisions a future where eating animals will be seen as distinctly archaic.

Niuosha Samani is a senior lecturer in accounting at the Department of Business Administration. Her scholarly pursuits are within the realms of corporate governance and reporting. She is interested in multifaceted dimensions of disclosure and her research focuses on the role of disclosures in guiding the decisions of stakeholders. Ultimately, she envisions a future where disclosures become not just a repository of data, but rather a catalyst for constructive changes in corporate practices toward more sustainable development.

Lennart Sjöberg is educated at Gothenburg Academy of Photography (today the HDK-Valand Academy of Art and Design) and started his professional career as a documentary photographer. Sjöberg gradually developed a more artistic photographic expression, and over the years, a significant number of client organizations, often part of the of culture, art, and music sector, have made use of Sjöberg's work. Sjöberg's long-term collaboration with the Gothenburg Opera House has received considerable attention in the media and has been greatly appreciated by the visitors of the opera house and the public. Sjöberg has produced several exhibitions presenting his photographic art, and he has received a number of scholarships, including The City of Gothenburg Culture Scholarship and scholarships from The Swedish Art Council.

Mari Stenseke is professor in Human Geography, and deputy dean at the School of Business, Economics, and Law at Gothenburg University, Sweden. Her research concerns biodiversity, nature conservation, and landscape management, and she was co-chair of the Multidisciplinary Expert Panel of the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) in 2015–2022. In 2048, she hopes to be sitting in the sun outside her cottage on Tjörn, listening to a chorus of birds, seeing a variety of insects flying around in the half-wild flowering garden, and knowing that there is again a healthy and diverse population of fish in the sea surrounding the island.

Thomas Sterner is professor of Environmental Economics at the School of Business, Economics, and Law at the University of Gothenburg. His research focuses on the design of policy instruments. He has also worked on the value of the future. He has published more than a dozen books and 140 peer-reviewed articles. Alongside Gunnar Köhlin, he founded the Environment for Development Initiative. He is a past president of European Environmental Economists (EAERE) and has been guest professor at the *Collège de France*, as well as chief economist at the Environmental Defense Fund. He hopes that in 25 years the world will have started to seriously address environmental problems, in which case he might consider retirement.

Urban Strandberg, associate professor in Political Science, is a Senior Lecturer at the Department of Law at the School of Business, Economics, and Law at the University of Gothenburg, Sweden. His research focuses on public policy and constitutional policy specializing in local government. Strandberg teaches in multidisciplinary programs in European Studies and is the managing director and co-founder of the International Youth Think Tank. In 25 years, Strandberg hopes to continue to have the privilege of influencing the future by teaching students and supporting the Think Tank's Youth Fellows.

Alexander Styhre is professor in Business Administration, specializing in Management and Organization. My prediction is that in 25 years' time, business schools will continue to host engaged scholars that not only ask critical questions that pertain to economic and social affairs, but also have the capacity to provide credible answers to such questions. In that world, his own children and the grandchildren he hopes to have before exiting the stage can take advantage of such expertise and the commitment of this faculty.

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Sustainability at Business schools[1]

Thomas Sterner and Sofia Henriks

Introduction

Sustainability means that something can be "sustained" over time. The current world economy is unsustainable because there are multiple large-scale and potentially catastrophic environmental problems that threaten our planet's ability to sustain life as we know it. This Chapter discusses the role of academia in the big environmental sustainability issues faced by humanity such as climate change, biodiversity loss, and the spread of toxic chemicals. It examines how research and education should be designed to tackle these fundamentally transdisciplinary challenges. There is a challenge as well as an opportunity for academia: society sorely needs knowledge and employees who are trained and equipped to deal with these challenges.

Environmental issues have become mainstream, in that they have caught the attention of policymakers, industry, and media. At the same time, there is a serious disconnect between rhetoric and reality. Despite some success stories, such as recent policy packages in the United States and the EU, the global economy is in many ways—contrary to official policy ambitions—still far from reaching goals

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that have been agreed upon internationally. In March 2023, the Intergovernmental Panel on Climate Change (IPCC) published the final part of its Sixth Assessment Report. It stated that current and planned policies make it unlikely global warming will be limited to below 1.5° Celsius. Moreover, it will be challenging to limit it to 2°C. Human activities have already induced global warming of 1.1° C. More and more places around the globe have begun to notice changes to the Earth's climate that are unprecedented in recorded human history (IPCC, 2023). The report has been described as our "final warning" (Harvey, 2023). Our success as a species harbors the seeds of our downfall. With a growing population, accompanied by increased technology and consumption, humanity has literally taken over Earth and most of its ecosystems. A small economy on a big planet has evolved into a giant economy that dominates a planet that appears smaller and smaller. Our own species and domestic animals use up most of the arable land through grazing and farming. The remaining 'wild' corners of the World are few and far between (except for the deep oceans). Our global material use has increased fourfold over the past 50 years. The amount of material consumed globally accounts for over 100 billion tons a year: over 90% of that total becomes waste (The World Bank 2022). Man-made chemicals (e.g., PFOS) can be found everywhere, from Antarctic ice to the breastmilk of women who live far from civilization (Wild et al. 2015; Ragusa et al. 2021).

Human presence is so dominant that disturbances in one location are quickly transmitted to other parts of the world. For instance, the Antarctic ice sheet is affected by humans far from its location, e.g., cars in Texas and coal-fired plants in Poland or India. Phosphorus discharge from farms in Minnesota contribute to biological death in the Gulf of Mexico. Yet, the consumers of the goods these farms produce are far away and unwitting. Fish in the North Sea eat microplastics originating in the Bahamas. Our human economy is contributing to the most rapid extinction of species in many millions of years—the sixth mass extinction[2] in the geological record (Dasgupta, 2021). There have been five such events on Earth in the past—the last was 66 million years ago when most dinosaurs were wiped out.

Humans have been affecting animal and plant composition for millennia (Ellis et al., 2013; Tillman & Lehman, 2001), but there has been a drastic acceleration

2 A mass extinction accounts for the extinction of >75% of all species.

in the last 50 years. This is sometimes described as the 'great acceleration', as the world's population today is around 2,000 times the size of what it was 12,000 years ago. Since 1950, the human population has tripled, from 2.5 billion to around 8 billion in 2022 (United nations, 2022). In this same timeframe, economic activity has increased ten-fold (see Figures 1a and 1b).[3]

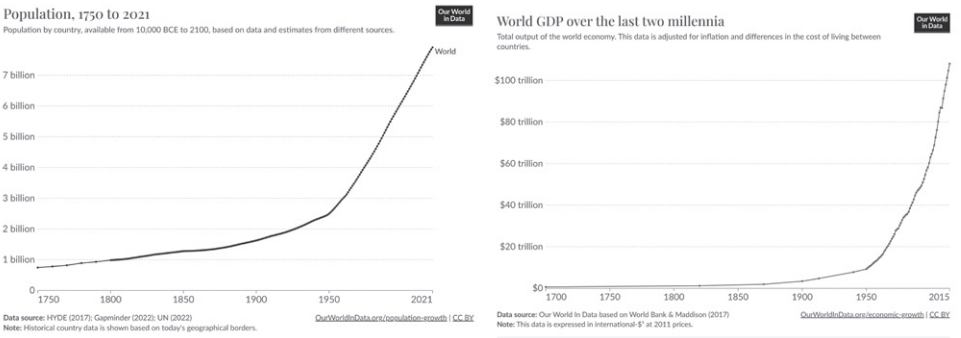

Figure 1a: Population increase from 1750 to 2021. Figure 1b: World GDP since 1700. Both figures are from Our World in Data, CC BY.

At a systemic level, these trends have been described extensively in the literature (see for example, Vitousek, et al., 1997, Rockström, et al., 2009, and Steffen, et al., 2018). The latter two developed a framework of analysis describing how the growth of the human economy comes up against a number of planetary boundaries. Crossing these boundaries will imperil the sustainability of the global economy in ways that are serious, global, and, in practice, irreversible (reversible only on timescales that are very long by human standards).

The IPCC's 6th Assessment Report gave a clear statement about the urgency to act; we need to fast-track our climate efforts. The UN Secretary General, António Guterres, said "our world needs climate action on all fronts: everything, everywhere, all at once" (UN, 2023). The latest Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) report on biodiversity also echoed this urgency. Dasgupta (2021) says that with current technologies,

3 These figures have a point of inflection around 1950. See https://www.anthropocene.info/great-acceleration.php for dozens of diagrams with similar shapes reflecting numerous indicators—socioeconomic (investment, water use, urban population, paper production, etc.) as well as ecological (emissions of CO2, CH4, eutrophication, loss of tropical forest, etc.). All these figures exhibit longstanding increases that accelerate drastically after 1950.

a global population of a couple of billion could live comfortably. With ten billion, we would face the risk of ecological disaster. Ultimately this implies a stark choice between reduced population or drastically reduced consumption per capita. The only possible escape would be through changes in behavior including consumption patterns, and through technical development that would allow more goods to be produced with less impact on the environment. Such progress is perhaps conceivable, and to some extent already exists, but we would need a pace of technical progress and changes in the way we consume, thus far unseen. Whether or not this will ultimately be possible is unclear, but we must try (Silvestro, et al., 2022). This places a special responsibility on academia—for both research and education.

Circularity, sustainability, and other green terms

Because of increasing environmental damage, 'green' issues have begun to appear at the forefront of the public debate with increased frequency. Public opinion, based at least partly on scientific evidence, has led to a demand for action as well as the adoption of a number of plans and goals. These goals are seldom attained, in part because the issues are complicated. One of the first tasks of academia is to help develop terminology suitable for describing and analyzing our predicament. Several terms are currently used almost interchangeably and sometimes in a confusing way: sustainability, circular economy, green growth, bio-economics, nature-positive and environmental economics. Organizations frequently use these terms: reference to 'green' vocabulary in marketing or accounting may signal a truly green orientation but could also be greenwashing. This points to some danger in using 'green' concepts that are too vague or too general in nature, which has also been illustrated by the recent backlash against them.

All these terms have some relationship to environmentally sound development and refer to reducing the negative impact of human activities on the environment. They are multidimensional and holistic and partly overlap (Walker, et al., 2022). Nonetheless, it is useful to differentiate between them where possible. In the following, we identify the most obvious unique features of each term and try to differentiate them:

- *Sustainability* refers to time and dynamics. Its core idea is simple: An economy should be built to last over time. Its component activities could therefore be sustained over a (very) long time. However, with limited resources, there is clearly a tradeoff to be made between the needs of the present and future generations. Economic theory is well-equipped to formalize this idea. In the next section, the term 'sustainability' and its relationship to economic theory is discussed in more depth. While sustainability has been given a very far-ranging and broad definition, it evolved from the environmental and resource space to include a variety of interconnected dimensions. As defined by the United Nations in the Sustainable Development Goals (SDGs), it includes three pillars of economic, social, and environmental sustainability. Governance and culture are sometimes also added as separate dimensions.
- *Circularity* is a property of the organization of the economic system. It involves designing products and processes to minimize waste and pollution and maximizing the reuse, recycling, and recovery of materials to create a closed-loop system (Kirchherr, et al., 2017; Geissdoerfer, et al., 2017). The circular economy is often contrasted with the traditional linear economy, in which resources are extracted, used, and disposed of, leading first to environmental damage related to mining or resource extraction and then also to pollution caused by waste disposal (Ghisellini, et al., 2016). The concept of circularity as a device for "closing the loop" has gained increasing attention in recent years. See for example, the European Commission's Circular Economy Action Plan (2020), the Ellen MacArthur Foundation (2020), The Circular Academy (2023), and Stahel (2016).
- The terms '*green*' and '*bio-*' are clearly inspired by a nature analogy but lack unique definitions. Sometimes they refer to specific activities such as forestry, agriculture, or aquaculture that take place in nature. These activities presumably must use techniques that are 'circular' and 'sustainable' to qualify as green. Green growth expresses an aspiration that refers to economic growth that is environmentally 'friendly' emphasizing the environmental pillar. Often words like "inclusive" are added to mean that the growth must be shared fairly - introducing also the social pillar.

It involves promoting economic growth while also reducing greenhouse gas emissions, protecting natural resources, and promoting social equity. The concept of green growth suggests that if the direction of growth and all the technologies associated with consumption and production are steered appropriately, then we can combine economic growth and environmental sustainability. It is not always fully clear if this is just wishful thinking or if there is such a path to sustainable economic development. Some observers argue that the very ideas of circularity and sustainability exclude growth and that terms like 'green growth' are oxymorons. The Swedish government recently appointed a Commission on Bioenergy that is charged with ensuring a ***growing*** bioeconomy in the country. Pessimists think that may be an illusion—they believe that a sustainable path would restrict forestry activities. Clearly, the devil is in the details. The possibility of green growth should not be taken for granted. The question of whether it is possible to have sustainable and ecologically responsible growth in green sectors merits study. See Sterner et al. (2019) for a discussion of how policies should be designed in the Anthropocene.

- *Nature positive* is a relatively new term related to 'green' or 'bio-'. A nature-positive economy appears to be defined as a world in which nature—species and ecosystems alike—is restored and regenerated, rather than in decline. According to UNEP, it is "an economy that is regenerative, collaborative and where growth is only valued where it contributes to social progress and environmental protection". The concept clearly focuses mainly on biodiversity, ecosystem services, and natural capital. It emphasizes the environmental pillar.
- *Environmental economics* is a branch of economics that focuses on the relationship between the economy and the environment—it is not a goal or an attribute of the economy. Environmental economics includes and embraces all aspects of economic theory. The practice of economics (as opposed to its pure economic theory concepts) has tended to overly emphasize economic growth. Often this growth is wrongly defined by reference to simple and popularized concepts like GDP that wrongly fail to include the effect of market failures. GDP and its growth fail to incorporate many

aspects of our relationship to Nature that are complex and vital for a correct understanding of our welfare and in particular how sustainable that welfare is over time. This cannot be done without a close collaboration with biologists, physicists, chemists and many others to understand the multiple feedbacks from human activity to the biosphere. This integration is a fundamental and distinguishing feature of environmental economics and sustainability science (UNESCO, 2017). Environmental economists seek to understand the costs and benefits of environmental policies and to develop economic policies that promote sustainability. Environmental economics is concerned with issues such as pollution control, natural resource management, and climate change. It is also a discipline that provides a useful structure for the discussion about these concepts and their logical relationships. Faced with a term like circularity, an environmental economist would probably say recycling is generally a good idea. However, there is an important distinction: we do not want to *maximize* recycling, we want to optimize it. If there is zero recycling, it is natural to think we are not doing enough. At the same time, increasing recycling rates and ultimately reaching one hundred percent recycling would require enormous amounts of work, energy, and perhaps other inputs. It would simply not be defensible, from either a common-sense economic viewpoint or from a purely environmental viewpoint. Later in the Chapter, 'economic' views of sustainability are discussed.

Brundtland and the Definition of Sustainability

The environmental dimension of sustainability focuses on preserving the planet's natural resources and reducing the negative impact of human activities on the environment. This includes conserving natural resources, protecting biodiversity, reducing waste, and reducing greenhouse gas emissions. The motivation is that if the natural resources are depleted then our welfare (and life) on Earth cannot be sustained. The social dimension focuses on ensuring that all individuals and communities have access to basic needs and human rights, such as education, healthcare, clean water, and social justice. This includes ensuring the rule of law and democracy, promoting social equity, addressing inequality, and promoting diver-

sity and inclusion. The economic dimension focuses on ensuring that economic systems can operate effectively and efficiently over the long term. This includes promoting the responsible use of resources, reducing waste, and promoting sustainable business practices.

It is common practice to emphasize that these dimensions are interrelated. For example, environmental sustainability is essential for the long-term viability of economic systems, and social sustainability is necessary for ensuring that all individuals have access to the resources and opportunities needed for economic growth and development. It is also necessary to gain agreement on and acceptance of the sacrifices necessary to deal with the environmental issues. Although all the links, socioeconomic goals, and restrictions are important, the network of interconnections across dimensions of sustainability and the bureaucratic procedures that may accompany all the goals and subgoals can make these concepts so complex and multifaceted that they become hard to use in practice. This is partly inevitable since the UN process was a bureaucratic result of negotiations where some parties emphasized the planetary, environmental issues while others put more weight on social justice and development. It is important for academia to not shy away from all the bureaucratic maze of goals but to point out inconsistencies and fallacies not least when taking the steps form visions to goals and policy instruments (Sterner and Coria, 2012).

The most celebrated, iconic definition of sustainability comes from the Brundtland Report (1987). Also known as "Our Common Future", it was published by the United Nations World Commission on Environment and Development. The report and its definition of sustainability as "meeting the needs of the present without compromising the ability of future generations to meet their own needs" is widely cited.

The definition of sustainability as a holistic approach to policies in the Anthropocene is often used in the context of sustainable development. It has evolved somewhat over the decades. The United Nations Conference on Environment and Development (UNCED), held in Rio de Janeiro in 1992, resulted in the adoption of Agenda 21. Agenda 21 called for sustainable development and formulated the three pillars of economic, social, and environmental sustainability. In some sense, this was a compromise between the environmental perspective and interests on

the one hand and a development agenda on the other (Hedenus, et al., 2018). In 2000, 189 countries signed The United Nations Millennium Declaration, resulting in eight measurable Millennium Development Goals (MDG), with a target date of 2015. The MDGs first provided a common language to reach a global agreement. The goals were seen as inspiring and important for humanity. At the same time, they became a somewhat bureaucratic maze with 18 targets and many sub-targets that are not easy to evaluate. As 2015 came and went, the world was able to achieve only 3 or 4 of the designated targets (Richie and Roser 2018). The degree to which the other targets were missed varied between near misses to clear and alarming misses. The targets set by MDG 7, which called for a "reversal of the loss of environmental resources" and "reduction of biodiversity loss" failed miserably (Richie and Roser, 2018). In 2010, targets for biodiversity were formulated at the COP 10 of the Convention on Biological Diversity in Aichi. These detailed goals were also unmet.

The global community continues to set more and more detailed and diverse goals. Replacing the MDGs, the most recent goals are the Sustainable Development Goals (SDGs) agreed upon in Rio de Janeiro in 2012. They target all countries, whether rich, middle income, or poor. In the SDGs, the definition of sustainability emphasizes the need to balance economic, social, and environmental considerations to achieve sustainable development (see for instance, MacKay, 2009).

The official goal of the SDGs is to "achieve a better and more sustainable future for all by addressing global challenges, including poverty, inequality, climate change, environmental degradation, peace, and justice" (UNDP, 2023). This definition is ambitious and holistic. It paints a picture of a 'good' life with welfare for all. On the downside, the detailed lists (17 overall goals with multiple sub-goals and 169 targets) cannot have the logical clarity of the Brundtland definition cited above. Even though the purpose is very important, there is a risk implicit in formulating long lists with little logical structure that sometimes appear to include goals that would be good to have but that may not be directly related to our ability to sustain welfare on this planet over time. These goals and subgoals are not necessarily accompanied by an analysis that examines whether they are truly *sustainable* once they are achieved (Dasgupta, 2021).

We focus on the environmental dimension of sustainability in this paper because we believe that it is of critical importance. Naturally, policies meant to deal with planetary challenges such as climate change and biodiversity loss must be economically feasible and fair. Otherwise, they will not be accepted and therefore not successful (Ewald, et al., 2022). Forceful policy and governance will play a crucial role in achieving environmental sustainability. Effective governance structures and policymaking will face numerous challenges due to the global scope and long run character of the many challenges we face (Sterner, et al., 2019). We must:

1. Set policies: governments at all levels as well as company boards set policies and regulations that govern their organization. These policies and instruments can decisively promote sustainable development. Examples include setting targets for reducing greenhouse gas emissions, setting prices that make abatement profitable, promoting renewable energy, and protecting biodiversity.

2. Ensure accountability: effective governance structures must also ensure that decision-makers are held accountable for their actions and that policies are implemented in a transparent and accountable manner. This can include mechanisms for monitoring and reporting on progress.

3. Support innovation: governance structures and policies can support innovation and the development of appropriate new technologies and approaches that promote sustainability.

4. Empower employees or lower levels within organizations: effective governance structures empower people to participate in decision-making processes and to take action to promote sustainability at the local level.

When sustainability is implemented in complex organizations, particularly in the private sector, it is often done through certification procedures that refer to ESG (Environmental, Social, and Governance) protocols. ESG scores are used by investors to assess the sustainability and ethical impact of their investments. ESG factors include elements such as a company's carbon footprint, labor practices, and board diversity. ESG evaluation procedures often place considerable emphasis on governance structures. This could be because governance routines are easier to assess—sustainability factors such as climate change and biodiversity

may be perceived as too complex. Ultimate goals must not be confused with the instrumental goals. An oil or coal company does not really become sustainable because it ticks the box on some governance criteria. Likewise, companies whose entire focus builds on renewable energy (or other green technology) should not be readily dismissed as unsustainable if they do not tick all the boxes.

Backlash against ESG ratings often stems from lobbyists and politicians who support industries that are not in line with ESG priorities, such as the fossil fuel industry. There has also been criticism of ESG as requiring exaggerated use of petty and confusing bureaucratic criteria for evaluation, a critique that may sometimes be reasonable. While ESG ratings provide important insights into the nonfinancial impact of companies, the index has shortcomings in its objectives, methodologies, and incentives, which detract from the informativeness of its assessments (Larcker, et al., 2022). Some of the social criteria are also quite controversial to broad categories of voters.

In some circles, ESG criteria have been attacked as vague, and ESG funds have been criticized as too progressive. In the United States, Republican politicians in several states have gone so far as to forbid the use of green or sustainable funds in state pension funds. Blackrock has been attacked as being too progressive (Agnew & Wigglesworth, 2022; Goldstein & Farrell, 2022). Much of this opposition is probably fueled by the fossil lobbies and by very reactionary politics. The acrimony of the backlash highlights the importance of well-structured criteria. At times, a maze of criteria has been used that are strangely aggregated, and the result can be counterintuitive. For example, S&P removed Tesla from their ESG rating, but kept Exxon. For climate enthusiasts, it does not make sense to give an ESG rating to an oil company but not the pioneering electric vehicle manufacturer.

Lyon (2022) identifies a few of the factors that made it possible for an ESG rating agency to prefer Exxon over Tesla. First, these ratings are performed separately and differently for each industry. Exxon is therefore compared to other oil companies, not to car companies. For various (good or bad) reasons, Exxon was classified as 'better' than the others. Similarly, Tesla is compared strictly with other vehicle manufacturers. The second factor is that emissions are not properly analyzed: ESG ratings generally focus on scope 1 emissions, or those generated

in production, not total lifecycle emissions. This makes it possible to completely miss the difference between electric and internal combustion motors: in such cases, electric vehicle production may appear to have more emissions due to the energy needed for battery production. The Scope 1 approach misses all the emissions across the rest of the lifecycle of internal combustion motors, such as in the burning of fossil fuels required to move the automobile. Again, this makes little sense. Finally, a third factor is that ESG ratings are influenced by many criteria other than those related to climate change. S&P mentioned accusations of poor working conditions in a Tesla facility as factors in its rating. All these factors raise the question of whether ESG criteria are so muddled as to be useless. This is all the more unfortunate when there really is a need to counter the more general (right-wing or populist) critique of green investments.

As consumers often associate words like 'green', 'organic', 'sustainable', and 'eco' with positive emotions, there is room for a considerable amount of greenwashing and misuse of these concepts. Among the many reports and lawsuits on greenwashing, there are a few striking examples. In 2020, Ryanair announced itself as "Europe's lowest emission airline". The British Advertising Standards Authority (ASA) quickly banned the ad, as the company had manifested the claim without basis (Coffey, 2020). Likewise, an American-based company, Truly Organic, was convicted for falsely making statements that implied that their products were wholly or certified organic. The US Federal Trade Commission contended that many of the company's products contained non-organic ingredients, and some products contained no organic ingredients at all (Federal Trade Commission, 2019). The company H&M claimed to use 100 % organic cotton in their *Conscious* line, but when investigated more closely, only 20% of the garments were produced with organic cotton (Marino, 2022). Another example is the fruit juice company, Innocent Drinks, owned by Coca-Cola (also coincidentally the main plastic polluter in the world). Innocent Drinks released a TV cartoon advertisement with cute animals singing songs about recycling and encouraging people to "get fixing up the planet" by buying their drinks. ASA banned the ads on the basis that they exaggerated the total environmental benefits of the drinks and misled consumers (Timmins, 2022).

Environmental sustainability, population, and technology

The concept of the sustainability of a system or resource is considerably older than the Brundtland UN discussions. It can, in fact, be traced back to the 18th century economist Adam Smith, who discussed the importance of "natural capital" and the need for its preservation. This definition of sustainability as the maintenance of a steady state in a system or process is often used in the context of sustainable agriculture and sustainable energy systems, see for instance Pretty (1995). It is also implicit in the definition of the word 'income' penned by the great economist John Hicks (1939): "the maximum value a person can consume during a period and *still be as well-off at the end of the period as at the beginning*". The second half of his definition implies that selling off an inheritance cannot be defined as income. Similarly, if human societies draw down natural resources and leave future generations less well-off, then our consumption was not sustainable. This economic definition can be seen as a formalization of the Brundtland definition: an economy is required to leave the capital base in such a state that future generations have the capacity to provide for their own needs.

In economic growth theory, sustainability is often formalized in the concept of non-decreasing consumption. This is a modest promise compared to that of sustainable growth—all that is promised is that there will not be a decline in consumption! If consumption is appropriately defined and measured to include leisure time, social values, and enjoyment of ecosystem services (as well as losses through negative environmental externalities), then it is a good measure of our overall income and well-being. In growth theory, production is achieved through labor, raw materials, and capital. Although this theory is normally described mathematically; in this brief text we will attempt to outline some of its central intuition. Capital is created through savings – the part of our production that we do not consume. We must not consume more than we produce if the needs of the future are to be met. We also must not exceed the carrying capacity of our planet. Some people argue that we can decrease natural capital if we leave sufficient man-made capital, but such financial savings may be insufficient. This depends on how easy/difficult it is to substitute man-made capital for natural capital.

In the era of classical economics, the main economic sector was agriculture, and the most important factor of production was land. During this period, it was

generally thought that the productivity of land must fall over time. Before crop rotation, fertilizer, and other improvements were readily available and understood, the productivity of any particular plot would have a tendency to fall or remain constant, at best. At the same time, the population was growing exponentially. With land in constant or limited supply, and the demand for food growing exponentially (reflecting population growth), economic perspectives were generally quite pessimistic (see Malthus, 1796). As a result, economics had the reputation of being the "dismal science".

As agro-ecological methods progressed (including crop rotation and eventually other methods for pest control, irrigation, and fertilizer), the restrictions implied by a constant supply of land were (temporarily) circumvented. In some countries, colonialism also made more land 'available'. At the same time, manufacturing was gaining importance and new methods of production played a key role in economic growth. Substitution and technical progress became increasingly important drivers. Economists abandoned their "dismal" role and became evangelists of growth and optimism. Some of these mechanisms or solutions do, however, have natural barriers. Natural and man-made capital are partly—but only partly—substitutable. Fertilizers, tractors, and other inputs can partly compensate for limits in the availability of more land, but only to a point.

Technical progress may be very fast in some areas (solar power) but quite limited in others (including many ecosystem services). At the grand level of the whole economy, debates are ongoing as to whether green growth is possible or sustainable. In general, there are three fundamental factors (in addition to savings) that decide whether growth is sustainable: 1) the degree of substitutability between natural and man-made capital; 2) technical progress; and 3) the sectoral composition of consumption. Growth theory was updated and developed elegantly by Partha Dasgupta, Geoffrey Heal, and others in a series of articles that were later summarized in a book, which has since served as a handbook on sustainability for several generations of economists (Dasgupta & Heal, 1974).

After half a century, Dasgupta revisited the theory and examined the idea of an ecological footprint and how it relates to the UN's Sustainable Development Goals (SDGs) (Dasgupta, et al., 2022). This work starts with the famous publication of Ehrlich and Holdren (1971), which showed that our ecological footprint is

a function of our population: our income per capita and the technology we use decides how efficiently we transform natures' services into consumable goods. If technology and consumption remain constant, we are not on a sustainable path. When one considers environmental problems such as climate change or biodiversity loss that are accumulating even with present consumption rates, the fact that we are on an unsustainable path becomes even more clear. This is also illustrated by the development of our most essential capital stocks (see Figure 2). It is only through very rapid technical progress or by limiting either population or income per capita that we can hope to find a sustainable path. Dasgupta et al. (2022) finds that to meet SDGs, efficiency must rise at a very high rate. It is important however to remember to unpack the term growth. The word "growth" is just the average of all the many "growths" in different sectors (and regions). It is only growth in some sectors that is problematic, - only when it uses up scarce resources or damages vital ecosystems. Another important possibility is thus to focus on the structure of economic activity and its growth. We can and should strive for more growth in sectors like better medicine, better education, culture, communications, and many other areas – also trivial ones like better computer games that use little resources. Using adequate policy instruments, we can reorient growth to sectors that do not destroy or use up our ecosystem resources we can attain a truly sustainable green growth. Some conventional growth is of course absolutely needed to mitigate poverty, but this should be focused on the populations where it is most needed. Numerically this is (sadly) a relatively small share of total global GDP and so the necessary resources must be prioritized for this task.

Dasgupta et al. (2022) concluded that the SDGs for 2030 are unsustainable (see also Dasgupta, 2021). They also concluded that the world's human population could be sustainable at a total of 2 billion. If the population were only 1.5 billion, those individuals could enjoy a more comfortable life. Obviously, this poses a very major policy challenge and should be seen as a (very) dire warning. As Dasgupta et al. (2022) and earlier modelling by Dasgupta shows, this limit could be avoided—but only if the rate of technical progress were about three times higher per year than what it has historically been. We do not know whether this is possible, but population reduction is also very unlikely to succeed in a harmonious manner. The conclusion is dire and (properly targeted and directed) technical

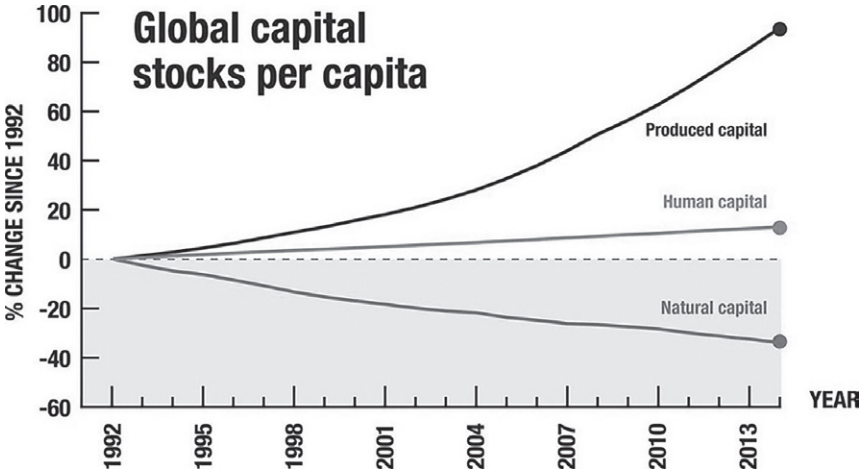

Figure 2: Percent Change in Global Capital Stocks per Capita. Source: Managi and Kumar (2018).

progress is needed at an unprecedented rate. We must do everything in our power to transform society and accelerate technical progress in the right directions. Consumption must be reoriented to areas and types that are less detrimental to nature. This is not easy but will require determined policies to promote sustainable consumption patterns and discourage wasteful and destructive patterns of consumption - and we must still think hard about population policies.

Dealing successfully and resolutely with the climate crisis is just one of the preconditions for a sustainable future. Phasing out fossil fuels is the first step in limiting temperature increase to 1.5° or 2°C degrees of warming. Figure 3 shows the magnitude of this challenge. We have had an inexorable rate of increase in fossil energy use and carbon emissions. Even the oil crisis of the 1970s, the financial crisis, and the COVID-19 pandemic barely made a dent in this trend. Even stopping the increase to keep emission levels constant has been beyond our ability to date. This shows just how difficult it will be to force emissions to zero, which is sketched in the right-hand part of the diagram. Yet, this is what is necessary to stabilize the climate. This is also what would be optimal for humanity (Hänsel, et al., 2020). To complicate the picture further, other restrictions must be considered.

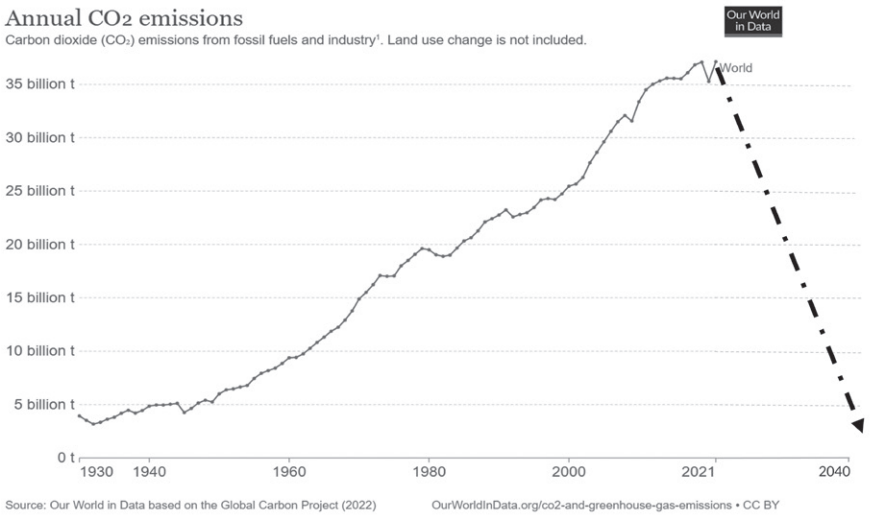

Figure 3: Annual, historic CO_2 emissions depicted against the decrease in emissions needed to stabilize the climate in line with the PARIS COP goals. Source: Our World in Data. CC-BY. Note: The black dotted line added after 2021 is our own depiction and is not based on data from *Our World in Data*.

For example, fossil fuels cannot be simply substituted by biofuels—this would cause other problems such as biodiversity loss (Sterner, et al., 2019).

In addition, there are other major environmental challenges. In spring 2020, as a part of the European Green Deal, the European Commission presented a strategy for biodiversity called 30/30. The goal was to legally protect at least 30% of the EU's land surface and 30% of the EU's sea area by 2030. The directive is considered a milestone to ensure that Europe's biodiversity recovers (EU Parliament 2022; Swedish EPA, 2023). In March 2023, the agreement on Biodiversity Beyond National Jurisdiction (BBNJ Treaty)—a highly ambitious global agreement—was made at a UN Water Conference. It concerns the protection and sustainable use of biological diversity in areas outside national jurisdictions. It includes all marine organisms that were previously unregulated, creates global rules to limit environmental impact, and establishes marine protected areas in the high seas (European Commission 2023; SwAM 2023). Both the 30/30 deal and the BBNJ Treaty are host to drastic decisions, which will mean major adjustments. The 30/30 goal has now been agreed to at the United Nations' summit on biodiversity (COP15) that

took place in Montreal in December 2022. Its main outcome – the Kunming-Montreal Global Biodiversity Framework (GBF) – was signed by nearly 200 nations.

The environmental sustainability transition we face

If the environmental hazards discussed in this paper are to be avoided, the necessary speed and extent of the transformation of the economy (including the entire energy system, buildings, urban structures, transportation system, industry agriculture, and forestry) is quite breathtaking. There are actually clear signs that this has started, particularly in the energy sector and some industries but it needs to accelerate even much more. Current policies in the USA (Inflation Reduction Act) and EU (Fit for 55) will help. Still, this places exceptional demands on policymaking (see Figure 4, see also Sterner, et al., 2019). It is impossible to discuss all aspects, but we will at least mention some of the most important areas to kick off the discussion of how to meet these challenges.

Within the next generation, we must stop emitting carbon dioxide and other climate warming gases. Coal, oil, and gas was the very foundation of the industrial revolution. At one point, oil companies dominated the world economy (practi-

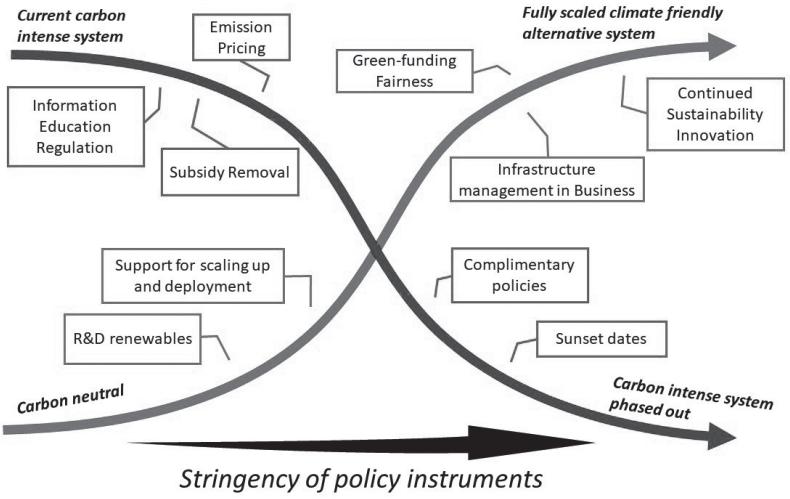

Figure 4: X-Curve with the stringency of policy instruments needed.

cally all the top Fortune 500 firms were oil companies). The basis of this industry must end, meaning that our entire energy system must be rebuilt, relying mainly on renewable energy sources[4]. The infrastructure needs, development of technologies, grid expansion, electricity storage, and necessary infrastructure for new fuels are mind boggling. Just the need for trained and skilled workers in these new industries surpasses many of the earlier transitions we have undergone. At the same time, this need for workers is also an opportunity, since it provides an option for the displaced workers from mining, exploration, and industries related to fossil fuels. The necessary retraining and retooling are major social challenges implicit in this transformation.

Biodiversity challenges must also be considered in the search for alternatives to fossil fuels. A large expansion of biofuels would have serious implications for the land and water resources needed for food and for areas protecting wild biodiversity. Protecting 30% of land and water areas for biodiversity (as is the goal of the UN COP15 on biodiversity) will be difficult as population increases, and renewable energy sources expand. In fact, the combined demands of biodiversity and of the food and energy sectors also implies a drastic transformation in the forestry sectors. On top of these considerations, we must guard against the use of toxic materials that may be in batteries and solar cells and other renewable technologies essential to the energy transition.

Our buildings and urban areas are large energy users and are therefore in need of a major transformation. Technologies exist at the scale of individual houses that create a livable indoor climate with little or no external energy. For example, in Sweden, houses have been built that need no external energy for heating: they make use of solid insulation, solar photovoltaics and/or hydrogen storage for the winter. This does not really involve any fancy new technology but rather a systematic and non-glorious application of conventional technologies like good insulation, three (or four) glass windowpanes, and the systematic application of building codes. There are also houses in tropical areas that need no air conditioning. Thus far, these buildings are just at the demonstration scale. Transition to full-

4 In the interest of avoiding distractions, we will not discuss all other sources of energy. Fusion is too hypothetical or will only come to fruition too far into the future to be relevant in the usual planning horizon. Conventional nuclear fission reactors have sustainability issues of their own. They are also currently much more expensive to build than renewable sources, so they are not expected to play a major role.

scale is particularly challenging due to the slow turnover rate of the building stock and the split incentives between builders, landlords, and tenants.

Transportation and industrial systems need to be electrified (or in some cases run on biofuels, green hydrogen, or e-fuels). The EU has already announced a sunset date for the internal combustion engine—this icon of the modern world! The wave of electrification has huge implications for the vehicle industry: electricity will be the fuel of choice rather than liquid fuels. Shipping and air traffic will need to be transformed in ways that are currently hard to foresee. Some analysts speak of new fuels, new generations of sailing ships and zeppelins, while others speak of limiting transport by more localized production. Conventional technologies (denser cities that allow for walking and cycling, public transport, etc.) are also important in the transportation sector.

All industries will be affected, and artificial intelligence (AI) also implies large changes. Industries that are energy intensive (such as steel or cement) confront the most obvious challenges. However, the transition is underway. In Sweden, as an example, two industrial groups are partly in competition to produce fossil-free steel. These industries will undergo profound technical changes that affect the very chemistry and technology around which they are structured. Naturally, such changes will also affect industrial strategies, supply chains, the dominance of some firms, the geographic location of firms, and many other aspects. Many industries,

Figure 5: Picture of an electric, fossil-free steel truck built by Volvo Trucks.

including some car producers, have tried to avoid or delay the transition, but others have embraced it at breakneck speed. For example, Volvo is transitioning to electrification but has also made the first prototype electric vehicles out of fossil-free steel (see Figure 5). In pace with the heavy industry decarbonizing, green hydrogen consumption is expected to grow significantly over the next decades. In the African Economic Outlook report 2023, by AFDB, the increased demand of hydrogen consumption is expected to create great opportunities for Africa to transform its energy and economic sectors by becoming a worldwide supplier. There are currently 593 renewable power plants operating on the continent, and a total of 580 projects planned in the near future (African Development Bank, 2023).

Major changes will be seen in land- and sea-based industries such as farming, animal husbandry, forestry, and aquaculture/fishing. The problem of methane from ruminants may be solved by some combination of changed diets. New technologies may also provide unexpected solutions. In the fishing industry, catches are often larger than the rates of reproduction, severely depleting stocks and making the industry unsustainable in many places. At the same time, capture fisheries account for a smaller and smaller share of seafood compared to aquaculture. Although aquaculture has considerable problems with contaminating conditions for natural fish stocks, it may also have great promise if new and truly sustainable technologies can be found to remedy its problems.

The transformations mentioned are not independent of one another but very much interconnected. Our homes may become producers of energy or food and our vehicles may provide electricity storage through their batteries. Massive carbon capture and storage and carbon removal technologies will also be needed, which will have to be integrated into our urban and industrial structures. Together, all of this means a total transformation of society. Some countries have begun to name their ministries and companies to reflect this upcoming transformation. The French environment ministry added "sustainable" to its title in 2002, and more recently was renamed the Ministry of Ecological Transition. In India, the Ministry of Environment and Forests was renamed to the Ministry of Environment, Forest, and Climate Change in 2014. BP reinterpreted its abbreviation from "British" to "Beyond" Petroleum, signaling its commitment to becoming a net-zero carbon company by 2050. Likewise, the Norwegian company Statoil changed

its name to Equinor. Some changes might be greenwashing, but others may be seen as significant signs of understanding the magnitude of change needed.

In some countries (particularly in Northern Europe), industry claims to understand the need for very rapid transition better than government. They say that they are taking the lead, urging government to focus and provide a greater sense of certainty (Wilson 2023). Investments for this transition are so large, long-term, and strategic that business leaders have started to express impatience or irritation when politicians are perceived as too hesitant or reticent. Industry is impatient to see whether the necessary infrastructure (such as roads, harbors, power lines, sufficient power, railways, employees, and housing) will be in place in time for their new investments. There are also necessary legal and contractual infrastructures that must be established. These transitions are planned at a speed that implies big risks. A single error could be lethal: transitioning too quickly or in the wrong country could be excessively costly. At the same time, industries know that if they do not reinvent and transform themselves, they will also be doomed. States seem to be recognizing this, and we may be entering a period in which states spend more resources helping their own industries to compete globally.

The transformation of these sectors must also be global. Low-income countries must be given slightly longer to complete the transition, because they face so many other challenges. In Africa, for example, there has not been enough economic growth to date. The human population across the continent is expected to grow from one to four billion this century, accounting for most of the planet's forecasted population growth. In the last decade or two, there have been signs in quite a few African countries of rapid economic growth. In theory, economic growth will spread from one country to the next until it covers the globe, because a country with cheap labor is an opportunity and provides 'comparative advantages'. Yet some predict that this growth will be stifled, and the economic take-off may never happen. This could be the case if, for example, climate change continues unchecked, and Africa becomes so hot that damages grow at a rate exceeding the capacity for economic growth and adaptation. In most scenarios, the brunt of climate damage happens in the warmest countries. This would make economic growth virtually impossible. The expected increase in population would then become a very major problem and would leave emigration the only option for large numbers of people.

The role of academia in the quest for environmental sustainability

The transition toward sustainability has begun, but it must be scaled-up and accelerated enormously. Other changes already underway (such as the restructuring of supply chains and the concentration of a smaller number of ever-larger companies) will affect the transition. There will be several challenges and roadblocks, but also opportunities that will emerge.

The spread of artificial intelligence (AI) is a major upcoming trend—one that is likely to pose a major challenge to business schools. Accountants and economists trained in business schools may face more difficult labor market conditions, as the next wave of labor-saving AI-supported technology takes over a large share of the more routine tasks that are a part of these jobs. Training and research in these fields will need to start focusing more on automation and on the social aspects of the interaction between the increasingly automated systems and various professions who will be using them. There are some challenges specific to supply chains and the geopolitics of sourcing, technology, finance, as well as the need for a workforce with the right qualifications. The question of an adequately trained workforce is a gigantic challenge—one of many aspects in the transition shown in Figure 4. For example, there is already an excess of thousands of engineers specialized in internal combustion engines and a corresponding lack of electrical engineers (Pladson, 2023). As a comment on Business Europe's report (2021) on how to tackle the skill shortage, CEO of FIDIC, Dr. Nelson Ogunshakin and CEF of SWECO, Åsa Bergman, called for educational institutions and curriculum designers to act by aligning educational programs to match the sustainable transition in society (Bergman & Ogunshakin, 2022). Many of the big environmental sustainability challenges will require an understanding that crosses disciplinary boundaries. Future executives need to understand some of the natural science as well as the socio-political and economic barriers to decision-making. Much more research into policy design and barriers is needed, as well as an understanding that a transition to a sustainable economy is ultimately not just a question of knowledge—it is also a matter of interests, power, and distributional fairness.

Companies in the future are likely to be recruiting in areas where human creativity and social interaction has advantages over AI. We believe there will be a large demand for employees with highly transdisciplinary backgrounds. We also

expect in-service training programs or continuing education (life-long learning) to become a standard feature of most advanced jobs. Meeting the challenges of a sustainable transition will require the natural sciences, biology, and economic, legal, political, and social disciplines. Business schools and academia need to focus research and education on these issues: the demand for graduates from such programs in industry is very high. Students must be provided with the current knowledge but must also be given the ability to think critically and make responsible decisions in a range of circumstances (Storey, Killian & Regan, 2019).

It is of utmost importance that the integration of sustainability in business schools closes the gaps between disciplines, as well as between the classroom and the boardroom. Students and faculty members must actively engage with externals to understand sustainability outside their own siloed knowledge (Waddock 2007). Business schools are unlikely to be able to meet this challenge on their own for the simple reason that they typically have no tradition of or expertise in any natural science subjects. Integrating subjects like political science is already a big challenge. Developing curricula in physics or chemistry is an order of magnitude more difficult. The best option is likely a close collaboration with natural science departments or engineering schools.

Universities and business schools that want to be ambitious with respect to sustainability can take a range of actions to integrate sustainability into their educational, research, utilization, and campus operations. By doing so, they can help prepare the next generation of business leaders to address the sustainability challenges of today and tomorrow. In many cases, universities have already taken several standard, initial steps to integrate sustainability into their programs. For instance, sustainability may be incorporated into curricula by sustainable business models, environment, social, and corporate governance, or green finance. Topics related to sustainability may be integrated into existing courses, such as accounting, marketing, or in international law. Furthermore, a culture of sustainability may be created by encouraging student and faculty engagement in sustainability initiatives such as sustainability clubs or green initiatives, labelling and certification practices, and by implementing sustainable practices on their campuses (such as reducing energy use, adding rooftop solar panels, increasing recycling, or promoting sustainable transportation).

Though these preliminary steps are praiseworthy, it is time to take new and much bolder steps. Now is not the time for lip-service. Learning to say 'sustainable' every now and then or memorizing the SDGs is simply insufficient. It is important to "mainstream" sustainability but we must make sure to avoid that this means doing nothing and saying that we have integrated sustainability into all its courses. For such "mainstreaming" to be feasible and credible there needs to be specific, concrete, and specialized competencies (departments, centres and professors) that actually do research and teach in a focused way on sustainability and environmental issues. This is even more the case since the sustainability agenda itself has become all-inclusive and quite vague. As discussed above, the necessary transition is huge, urgent, and in some cases, is beginning to happen at breakneck speed. Students must *fully grasp* the urgency and character of the environmental sustainability transition ahead. To navigate issues like global climate change, biodiversity and the spread of toxic chemicals, any serious effort must be transdisciplinary. A collaboration with technical universities, with physics, chemistry, and engineering as well as life sciences like biology is therefore critical. Insights related to environmental sustainability should frequently permeate the core activities of research and education—this implies some significant restructuring, namely closer collaboration with industry and with other academic institutions. Universities are still largely monodisciplinary, and many students stay within one area throughout all their years of study. Encouraging more students to cross between departments when they do their graduate studies can be one important step—having mandatory inter- or transdisciplinary courses can be another[5]. An interesting pedagogical approach to creating a transdisciplinary learning environment is to bring students and professionals together in the same educational activities. Such a measure also serves as a resources efficient way of meeting the increasing demand for professionals to receive continuing education throughout their working life, particularly as the pace of change in the workplace increases[6]. Collaboration across countries is also important. If the transition is difficult in the rich world, it is even more so in developing countries.

5 *Norges tekniskt-naturvetenskapliga universitet* (NTNU) has a mandatory semester-long interdisciplinary project course called Experts in Teamwork, which is a well-designed course taken by 3300 students every year. It offers an interesting example of an experience-based learning format that connects a mixed group of students to different societal actors around real-life societal challenges.

6 Another approach for already time-pressed faculty to handle continuing education is to use online learning resources and hybrid education formats, which can be both scalable and customizable.

As for **research,** the transition should imply a correspondingly large shift in both focus and organization. Inter-disciplinary research is often praised in ceremonial speeches. However, in everyday life, most academic institutions are heavily focused on their internal mono-disciplinary processes, rather than on problem-oriented research. In response to a perceived societal need for truly inter- and transdisciplinary research, some agencies have recently started to make relevant funds available. However, the reality for researchers is that such work can be very hard to publish in journals that are traditionally monodisciplinary and may even be toxic to one's career. At the same time, there is considerable demand for new types of research into the transitions now happening in society, as the forces at play grow, and system-wide changes occur at ever increasing scale. Monetary resources do help, but only to a point. Changes in incentive structures and the organization of research are needed to really encourage researchers to delve into transdisciplinary and problem-oriented work. As a next step, actual engagement with society based on research, through outreach or policy advice should also be valued in career promotion.

To date, the main research journals in economics have published rather little on climate change and other environmental issues. Oswald and Stern (2019) examined how many articles on climate change had been published in the main academic economics journals. They found that in nine of the top mainstream journals, only 57 articles about climate change had ever been published. In the most-cited economics journal, the Quarterly Journal of Economics, not a single article had been published on climate change. Since 2000, in the 50 journals that count towards the FT Research Rank (the top 50 journals in Business and Management), out of 47,000 articles, only 11 were on species decline and biodiversity (Goodall and Oswald 2019). According to Oswald and Stern (2019), this lack of environmental economics research seems to stem from risk-aversion among economists, who prefer to focus on optimizing their career path.

Serious research on issues such as climate change and biodiversity deserve attention in the top journals. This cannot be done by economists, legal scholars, or business administration researchers on their own—it requires collaboration with physicists, chemists, and biologists who understand the mechanisms at play. Social scientists, economists, legal researchers, etc. should know that their contribution

is also vital. Natural scientists alone are unable to design policies that will make the global economy sustainable. Experts on atmospheric circulation can explain the physical reasons for every tenth of a degree warming, but they have no idea of when to choose a ban, a tax, or a subsidy to promote new renewable technologies. Nor do they have the capability to write those policies into law or know how business should navigate the unfolding market landscape of tomorrow. Even the very concepts of growth, welfare, or sustainability need input from social scientists.

Teaching must also be transformed. As a very first step, greater resources are needed in education, as well as greater weight in promotion and salary decisions. In many places, 'teaching' is still an obligation that is assumed to be a second choice to research. This is partly the result of the career criteria and promotion systems that favor research very heavily. Most staff—and particularly those who are defined as more senior or successful—therefore seem to be primarily interested in research. This is simply a consequence of a long-standing system that has selected those who are more interested in research over those who wanted to teach. This system has created something of a negative spiral in which those who are obliged to teach (often those who are slightly less successful in the race for research funding) have a stressful situation with insufficient development and encouragement in their role, as well as a lack of resources and ultimately perhaps less engaged students with lower expectations.

Rather than this negative spiral, a positive spiral is needed where personal and professional growth is possible, as well as acknowledgement, fulfillment, an inspiring learning environment, solid resources for educational activities, engaged students, and external stakeholders. In some top universities, (e.g., in the US, where tuition fees and reputation are important for the school) the most famous teachers often deliver 101 courses.

Now education needs more attention through greater incentives and better preconditions as well as updated pedagogical methods. This must happen at the same time as the modernization of the focus and subject matter. For generations, business schools have prepared their students for traditional tasks. New, higher order skills that cross disciplinary boarders and that focus on inter-personal as well as human-AI value creation will be required moving forward. Again, it is not enough to stick 'sustainability' in the title of a course or its description, nor

to throw in a lecture or module on the SDG goals. It is crucial to avoid paying lip-service to sustainability by introducing terms and ticking boxes. Instead, we need to figure out what the business sector needs in this very volatile and complex transition, which involves a dramatic restructuring of the energy, transportation, building, and several other key sectors and technologies.

Truly sustainable education must be modern and effective. It must:

- Develop a cadre of people who are competent in the technical, ecological, and social aspects of the challenges we face. There are several ways to achieve this. First, all students should receive minimum training in environmental challenges. Elective courses should be made available for in-depth studies. Second, a certain percentage of students with unconventional backgrounds (e.g., in engineering or natural science) could be admitted into graduate programs. Finally, programs could be formed that specialize in climate, energy studies, industrial transformation, or biodiversity management: programs that include both natural science and social science components.
- Train students (and staff) to a greater extent in teamwork on challenge-oriented content. This will require continuously updating the content as knowledge evolves. Education and research need to be more closely integrated because of the quickly evolving research frontiers.
- Be a potent catalyst for positive change by bringing society into the classroom and the classroom into society. Using AI[7] and open-source online learning resources may allow students and educators to make the best use of the time and resources available.
- Provide a meeting place for people of diverse backgrounds, plans, competencies, and occupations. A sustainable education would ideally serve as a bridge between geographical, socio-demographic, age, and other groups that need to co-exist with limited resources on this planet. It should equip students and others engaged in the learning environment (teachers, university staff, guests, practitioners undergoing continuing education, etc.)

7 The latest advances of powerful and easily accessible interfaces to large language models (like ChatGPT) essentially provide educators with powerful teaching assistants and students with personal learning coaches.

with competencies that will make them more capable of contributing to the sustainability transitions.
- Use state of the art understanding from the learning sciences (i.e., more up-to-date pedagogics) by means of e.g., committing to student-centered education via active learning. This fits well with more topic- and case-based approaches and includes more collaboration with future employers and other stakeholders.
- Increase international outlook and collaboration.

Most courses should be designed to be more flexible and adaptable, even if they become more costly for the university as a result. In both research and education, engagement with the business community is critical. Business schools can work with companies to develop sustainable business practices and to promote sustainability within their industries. This can be done by providing consulting services, hosting sustainability-focused events or conferences, or engaging with alumni who work in sustainability-related fields.

In some of the world's major business schools that have successful programs, there is clear evidence of a considerable emphasis on subjects like climate change. These programs are explicitly multi- or transdisciplinary. Oxford University, for example, has sustainable finance and business programs in which topics such as biodiversity and getting to net zero emissions are headline priorities on their websites. Oxford's Institute for New Economic Thinking places particular emphasis on multidisciplinary research, critical thinking, and collaboration between social and physical sciences to deal with global challenges.

Columbia University also has a well-regarded sustainability program. Columbia Business School offers a variety of sustainability-focused courses and programs. The Earth Institute has several sustainability-focused research centers. A description of their PhD program (which has had many stellar alumni), reads: "[t]he sustainability of development presents some of the most important policy challenges concerning the future of our planet, and it requires an interdisciplinary approach involving the social, natural, engineering, and health sciences".

Harvard Business School (HBS) states that embedding sustainability into the core curriculum is crucial. The courses are designed to give students useful

tools for their professional lives. Furthermore, HBS uses a well-integrated case study method in which practice and real-world innovations are brought directly into research and education. Students are linked with business leaders and faculty across academic disciplines to help drive more research on sustainability and business (HBS 2023).

Stanford Graduate School of Business offers several sustainability-focused courses, such as "Sustainable Energy for the Developing World", which emphasizes interdisciplinary collaboration with energy studies and international collaboration. In September 2022, Stanford opened Stanford Doerr School of Sustainability, which focus on climate change and sustainability. Three out of six programs are interdisciplinary and is considered one of the largest climate change-related schools in the United States (Stanford 2022).

NYU Law School has a very active program on environmental law. The curriculum covers theoretical perspectives on environmental regulation and foundational education on clean air, clean water, energy, and endangered species. They also offer a specialized Environmental and Energy Law program. The school has a distinguished faculty in the field of environmental law, who provides views on cutting-edge issues related to climate change and renewable energy. There are ample hands-on opportunities for students to apply classroom learning to environmental problems through institutions, such as the Institute for Policy Integrity. This institute hosts several dozen legal scholars who are heavily involved in commenting on and litigating legal regulations. Its head, Ricky Revezs, was recently nominated by President Biden and confirmed by the United States Senate as head of the Office of Information and Regulatory Affairs in the Office of Management and Budget.

In conclusion, business schools must take bold steps to integrate sustainability into their education, research, and campus operations. At the core of the sustainability debate is the concern that our current global society will not be sustainable in the future. We argue that the biggest threats to the sustainability of our current lifestyle are several intertwined environmental challenges including (but not limited to) climate change, biodiversity loss, and the spread of noxious chemicals. Adapting to the boundary conditions imposed by nature will require a combination of new technologies, changed lifestyles, and policies to limit population

growth. Understanding and dealing with these issues will require an interdisciplinary approach across the natural sciences (from ecology to physics, chemistry, and engineering sciences) in close collaboration with the social sciences (from economics to law, political science, and others). Closer collaboration with technical universities and others is necessary to address the transdisciplinary nature of the environmental challenges facing society. The focus should be on conducting interdisciplinary research and transforming education to equip students with competencies that cross disciplinary boundaries and prepare them to deal with complex sustainability challenges. Truly sustainable education should be modern, effective, collaborative, and should be a potent catalyst for positive change. It should be designed for diversity and international collaboration. In effect, it should provide a meeting place for people of diverse backgrounds, plans, competencies, and should provide training in collaboration, allowing for structured normative and even prescriptive discussions (followed by critical reflections). By doing so, academia in general, and business schools in particular, can assist the current and coming generations in addressing the sustainability challenges of our time.

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HOTEL D'ANGLETERRE

Sustainable worlds: Business and Biodiversity

Viktor Elliot and Marie Stenseke

Introduction

What is the role of business in addressing the global challenge of biodiversity loss, and how can the School of Business, Economics, and Law (SBEL) constructively engage in developing the knowledge and competence needed? Referred to as the 'sixth extinction', the ongoing biodiversity crisis is threatening the very foundation of life on Earth and biodiversity loss is occurring at a rapid and alarming pace. Moreover, the capacity of nature to contribute to human wellbeing—including food, energy, medicines, materials for people's physical and cultural continuity—is deteriorating worldwide (Diaz et al. 2019). In 2019, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), the world biodiversity platform, which plays an equal role as the climate panel, IPCC, on influencing climate change policy, highlighted in its first global report how biodiversity and human prosperity are intrinsically linked and inseparable (IPBES 2019).

Clearly we cannot separate business activity from nature, and in recent years, the World Economic Forum has highlighted biodiversity loss as one of the largest risks for economic wellbeing. At the UN biodiversity conference (COP15, the Convention on Biological Diversity (CBD) in Montreal in December 2022) a landmark biodiversity agreement was made—the Global Biodiversity Framework

(GBF). GBF is intended to be a roadmap in bending the curve on biodiversity loss and nature's decline until 2030. The framework consists of 23 global targets and addresses three overarching topics; nature conservation, sustainable use of biodiversity, and benefit-sharing. The flagship target is to restore, protect, and conserve 30% of land and 30% water, globally. The framework also includes targets related to tools and solutions for mainstreaming and implementation. Notably, business actors are acknowledged as important agents of change. The GBF holds that we should leverage the financial service industry to encourage the private sector to invest in biodiversity, to disclose business impacts, and to reduce its negative impacts on biodiversity. Although intergovernmental and governmental mechanisms play a crucial role in addressing the negative biodiversity trends (Barrett 2022), their implementation is not without challenges (Dasgupta 2021), necessitating alternative approaches to enhancing biodiversity.

Traditionally, biodiversity has been seen as an issue for biologists, and in society at large, especially in the global North, there has been a prevailing belief that economic development means overcoming our dependence on nature, as described by Bruno Latour in his book "We Have Never Been Modern" (1993). Latour exposed how the discourse on modernity separates humans and the human society from the rest of nature, thus nurturing the false view that so-called 'modern' societies are less interconnected with non-human actors than 'pre-modern' societies. Similarly, despite the rather obvious notion that "there is no business to be done on a dead planet" (D. Bower, Source: https://www.azquotes.com/author/22124-David_Bower), economic actors have tended to treat the impact on other species and their habitats as an externality.

In academia, research on humans and society, including research on business, marketing, and trade, has rarely interacted with biological research, contributing to what Lesley Head (2008, p. 373) called a profound paradox in "that most of our intellectual weapons in the environmental area—from prehistoric fire debates to projections of climate change—have maintained a separation of humans and nature". The questions addressed by this chapter include whether the financialization of nature is beneficial in halting biodiversity loss, and what is the role of SBEL in this process? We specifically zoom in on challenges related to measurability and data, market failures, and multi-, inter-, and transdisciplinary

research. The remainder of the chapter is organized as follows. Next, we provide some examples of business and biodiversity research at SBEL, followed by a comprehensive discussion of some of the key challenges inherent in bridging business and biodiversity. The chapter ends with a discussion of how we believe that SBEL could become a leading actor on business and biodiversity.

Examples of Business and Biodiversity Research at SBEL

The need for interdisciplinary approaches to address the loss of biodiversity has been expressed for decades (cf. Ledford, 2015, Mascia et al 2003), but business-related research has only just started to address the problem. Rimell and Jonell (2013), two researchers from SBEL, offered an early account of research on business and biodiversity. Their study utilized an exploratory and mixed methods approach based on interviews and corporate disclosures to address how and why Swedish public companies make biodiversity disclosures. Their findings revealed that during the 2006–2010 period, biodiversity disclosures among Swedish companies were limited, and only two firms systematically reported on biodiversity. They summarized the findings as follows: "Frequently, the OMXS30 companies dismiss biodiversity concerns as rather irrelevant, since they claim their activities have no negative impact on the environment." (Rimmel and Jonell, 2013:766). Based on interviews with firms that do disclose some information about biodiversity impact and dependence, they concluded that the disclosure is primarily done for stakeholders within the firm, rather than for external stakeholders. As noted by Blanco-Zaitegi, Etxeberria, and Moneva (2022) more than a decade later, the work on biodiversity accounting and reporting is still in its infancy, but recent efforts such as the Taskforce on Nature-related Financial Disclosures (TNFD), the Align project, and EU Taxonomy have made it a pressing issue for most larger firms.

A second example of how business and biodiversity research is moving towards the center stage is IPBES' assessment on the impact and dependence of business on biodiversity and nature's contributions to people, planned for launch in 2025. One of the authors of this chapter have been highly involved in IPBES' work. Serving as co-chair in 2015–2022 for the multidisciplinary panel that is tasked with overseeing the scientific quality and coordination of IPBES' work, she

has especially engaged in broadening the scope of scientific expertise involved. As a member of the management committee for business and biodiversity assessments, she contributed to staging of the assessment work and acted to bring in expertise in, e.g., accounting, corporate organization, finance, governance, regulations, and ecology, in order to synthesize, assess, and clarify knowledge gaps when it comes to integrating biodiversity into business practices.

A third example is the recent momentum attributed to the financialization of nature, with public policy and private initiatives aimed at shifting global financial flows toward 'nature-positive' outcomes. Sometimes referred to as 'conservation finance', it could be conceptualized as activities "aimed at raising and managing capital to be used for the conservation of biodiversity" (see Cosma, Rimo & Cosma, 2023). SBEL is heavily engaged in BioPath, a Mistra-funded multidisciplinary research program aimed at integrating biodiversity considerations into financial decision-making. The program is run together with Lund University and Stockholm University, and includes more than 20 researchers, funding for at least 10 PhD students and postdocs, and 34 commercial partners. The overall objective of BIOPATH is to actively change the way industry and financial institutions relate to the very nature on which they depend. Notably, BIOPATH is a truly interdisciplinary endeavor, where ecological research is integrated with social science and business research, and with scholars from all four departments of SBEL involved in the program. During the first six months, BIOPATH has already made significant headway, and, as will be discussed further in the concluding remarks, the program, in combination with two related projects called Sambio and EcoComp, form an excellent stepping stone in helping SBEL build an internationally leading, state-of-the-art research environment in the intersection between business and biodiversity.

Challenges in bridging business and biodiversity

Arjaliès and Gibassier (2023) suggested that the majority of financialization projects fail, because preserving nature requires a cultivation of the distinct relationships between humans and ecosystems, while financialization seeks to abstract nature, turning it into a passive object that can be transformed into a commodity, calculated, and made available in the market. The essence of this argument is that

when we start measuring, evaluating, and assessing nature, we disconnect people from nature when in fact we might have to do the opposite. Moreover, the IPBES values assessment emphasizes that humans value and relate to nature in plural ways. The assessment raise concerns when it comes to reducing the quality of human–nature relationships to single metrics and simplified measures (IPBES 2022).

Nevertheless, what businesses, especially those in the financial service sector, is desperately searching for is the means to locate, evaluate, assess, measure, and report on their dependence and impact on nature, as illustrated by the extensive number of initiatives in this direction[1]. In this endeavor, many large firms and financial institutions have issued targets or signed pledges to become 'nature positive' by a certain year. The question is how to measure and confirm that an organization is in fact moving toward a nature-positive target when there is no agreed-upon definition of 'nature positive', nor an agree-upon framework for what actions businesses should take to reach these ambitious goals. One further complication is that, from a biodiversity perspective, it is only the cumulative impacts of firms and other actors in a given area or on a certain species that counts. Hence, measurements related to single organizations are not enough, but these measurements have to communicate with measurements and regulations of the total impacts in various dimensions.

Measurability and data-related challenges

Businesses already utilizes a wide range of biodiversity metrics to assess and monitor their impacts on biodiversity, and Table 1 gives some examples of such metrics.

1 For an updated and comprehensive list of current initiatives see https://www.financeforbiodiversity.org

Table 1. Examples of biodiversity metrics used by firms

Metric/measure	Description
Species richness and diversity	Measuring the number of different species and their distribution within a given area, often using techniques such as transect surveys or remote sensing.
Habitat quality and diversity	Assessing the quality and diversity of different habitats within a given area, often using indicators such as vegetation cover, soil health, and water quality.
Ecosystem services	Quantifying the value of different ecosystem services provided by the biodiversity within a given area, such as pollination, pest control, and carbon sequestration.
Threatened and endangered species	Identifying and monitoring the presence and abundance of threatened and endangered species within a given area, often using criteria established by international organizations such as the IUCN Red List.
Landscape-level assessments	Evaluating biodiversity metrics across large landscapes or ecosystems, often using tools such as the Biodiversity Impact Metric or the Landscape and Seascape Assessment tool.
Biodiversity indices	Calculating a single numerical index that captures multiple dimensions of biodiversity, such as the Biodiversity Performance Index or the Biodiversity Footprint.

However, while these are all important and valid steps towards the integration of biodiversity considerations into a business context they are also poised with challenges. First, measuring biodiversity is challenging in and of itself because of the sheer scale and complexity of the task (see Magurran (2021) for an over-

view). With an estimated 8.7 million species on Earth, most of them still unknown, it is impossible to measure every individual organism or species. Instead, scientists use various sampling methods to estimate the diversity of a particular area or ecosystem. However, even with advanced sampling techniques, it is difficult to capture the full range of biodiversity present.

Another challenge is the lack of standardization in biodiversity measurement. Different groups of organisms may require different methods of sampling and analysis, making it challenging to compare data across studies. Additionally, different types of data, such as genetic or ecological data, may be used to measure biodiversity, adding further complexity to the process. Furthermore, there are logistical challenges in measuring biodiversity. Many species are difficult to observe or identify, and some are even microscopic or hidden underground. In remote or inaccessible areas, such as deep ocean trenches or rainforests, it is even more challenging to collect accurate data. Additionally, some species may be difficult to distinguish from closely related species, leading to potential errors in species identification and diversity estimation. Finally, measuring biodiversity requires expertise from multiple disciplines, including biology, ecology, genetics, statistics, and computer science. Collaboration and communication between experts in these fields is essential to ensure that the data collected is accurate and reliable.

With the understanding that biodiversity is challenging to measure, we are now trying to translate this challenging endeavor into a business context, and firms are increasingly reporting their interrelationships with nature to maintain a license to operate (see Kennedy et al., 2023). Standards such as the Global Reporting Initiative's 'GRI 304' and the World Business Council for Sustainable Development's 'Guide to Corporate Ecosystem Valuation' are used to incorporate biodiversity into sustainability reporting. However, existing reporting standards have been criticized for not adequately accounting for nature's decline, and few companies are explicitly measuring their corporate biodiversity impact. Measuring corporate biodiversity impact is essential for corporate biodiversity management, as it reveals potential actions for improving biodiversity and how such actions can be assessed and monitored. Accounting scholars have examined disclosures of the top Fortune Global companies, corporations in Sweden, local gov-

ernments, and financial institutions, among others, but there are many difficulties attributed to the broadness and vagueness of biodiversity. Scholars have proposed two approaches for measuring corporate biodiversity impact: ecosystem services and natural inventory. The ecosystem services approach involves measuring the benefits derived from ecosystems to help us understand the value of biodiversity and to identify changes in the quality and quantity of ecosystem functioning. The natural inventory approach involves measuring individual biodiversity components of habitats, flora, and fauna to identify changes in quantity and protect components that are endangered or at risk.

Finally, there are many significant challenges related to complexity, confusion, vagueness, and weakness in framings and concepts often reiterated in the discussions surrounding how business should measure and report on their biodiversity dependence and impact, some of which were used in the above text. Without a joint understanding of the meaning of these concepts, there is significant risk for misunderstandings and claims of green-washing.

As for *biodiversity,* the term refers to the variety of all living organisms on Earth, domesticated as well as wild, and not only species, but their genetic variations, and the variation of ecosystems in which they exist. The loss of biodiversity has significant ecological, economic, and social consequences, making it a critical issue for global sustainability, at the same time as biodiversity is bound to local and regional contexts. In short, this means that species, ecosystems, and their contributions are neither comparable nor exchangeable between various areas. The sparse biodiversity in the Swedish alpine areas is no less valuable than the myriad of species in Costa Rica. Likewise, the loss of eel-grass on the Swedish west coast cannot be compensated by an increase in mangroves in Thailand. The multi-dimensionality of biodiversity makes it inherently difficult to incorporate into a business context, and many firms struggle to set targets for biodiversity conservation and restoration.

Nature positive is a concept, or an approach, that seeks to not only preserve but also enhance life on earth in all its forms. The idea is to move beyond simply minimizing environmental harm to actively creating positive impacts and working toward a thriving, sustainable future for both nature and human society. Nature positive could be regarded as parallel to the goal 'net zero emissions'. Most

large firms and financial institutions have developed a framework for measuring and reporting on their climate impact, and therefore search for overlaps between climate and biodiversity in order to utilize some of the key insights for climate change. This means, however, that nature positive is subject to similar critiques as net zero emissions, such as concerns from scientists and environmental organizations that it might promote unjust monetary valuation of nature and low-integrity biodiversity offsetting. Moreover, the term also stands the risk of overlooking the broader spectra of how humans value nature, including the rights and roles of indigenous peoples.

Ecosystem integrity refers to the overall health and resilience of an ecosystem, and is launched as potential bridge between biodiversity, nature positive and climate goals. The concept aims to capture how well various components of an ecosystem function together to maintain their processes, structures, and functions, and how well the ecosystem is able to resist and recover from disturbances or stressors. Ecosystem integrity is closely linked to biodiversity, as healthy ecosystems tend to have a higher diversity of species and a greater abundance of native species. Concerns have, however, been raised that the concept of ecosystem integrity is a proxy that fails to capture the fact that ecosystems are dynamic and change over time, and also that many valuable ecosystems are co-created by humans and the rest of nature. From a business perspective, ecosystem integrity is less easily reconceptualized as something measurable and reportable, making the concept much less frequently used in corporate reporting.

Nature-based solutions means, in brief, using nature to help address societal challenges. As such, it has been used as an approach to reconcile sustainable ecological and economic development, including diversifying and transforming business (Seddon et al. 2020). Hence, nature-based solutions are actions that have the capacity to simultaneously address a number of the sustainable development goals in the UN's Agenda 2030. Notwithstanding the potential to address societal problems by working with nature, the fact that there is no coherent definition of nature-based solutions means a risk of green-washing by simply rephrasing what in reality is business as usual.

Ecosystem services is a concept that emphasizes that, besides biodiversity, what is at stake in the deterioration of nature are the benefits people obtain from

ecosystems (Millennium Ecosystem Assessment, 2005). We are completely dependent, not only on the existence of a wealth of life on the planet, but also on a myriad of ecological functions generated by single species or by several species in interaction; direct life-sustaining functions such as the production of oxygen, the provision of food, wood, and medical plants, and also features that are important for human wellbeing; air purification, regulation of water flows, physical and psychological experiences, identity, and inspiration. Ecosystem services have come to be widely adopted in policy and management, and certain ecosystem services have also been assigned values in monetary terms, making it problematically unidimensional and also implicitly putting a price on irreplaceable features.

Nature's contributions to people is closely related to, but somewhat broader and more inclusive, than ecosystem services (Diaz et al. 2018, IPBES 2019). Nature's contributions to people has replaced ecosystem services in global agreements. Nature's contributions to people implies that people see and value nature and its contributions in a manifold of ways and provides a means to understand how changes in nature affect humans across societies and local contexts (Hill et al. 2021). Important for both business and biodiversity, taking nature's contributions to people into account implies that a simplistic counting of species and/or measuring ecosystem services from a limited perspective must be contextualized and complemented by other ways of assessing ecosystems and their functions.

Market failure challenges

The OECD (2019) estimated that ecosystem services delivered by biodiversity are worth between USD 125–140 trillion per year, which is more than one-and-a-half times the global GDP. The economic value of biodiversity is extensive, but at the same time the ecosystem services provided by nature are often treated as a public good, meaning that they are non-excludable (everyone can use them) and non-rivalrous (one person's use does not reduce availability for others). As a result, the market may not provide the appropriate incentives to protect or conserve these resources and processes, as there is no direct financial benefit from a short-term market actors' perspective to do so. In addition, the negative impacts of activities that harm the environment, such as pollution or deforestation, are often not reflected in their market prices. Arguably, the failure to account for the

true economic value of nature leads to underinvestment in conservation and environmental protection.

Financial institutions and large corporations are beginning to appreciate this market failure and the extensive dependencies that most business have on biodiversity. As summarized by Flammer et al (2023), potential solutions to preserve and restore biodiversity and nature's contribution to people (including ecosystem services) include:

- Intergovernmental measures such as the CBD and other global treaties.
- Government measures that aim to regulate the quantity and price of natural capital. Examples of the former include protected areas, technology standards, and cap-and-trade programs, and the latter includes examples such as tax incentives and subsidies that encourage more sustainable production or consumption patterns.
- Biodiversity finance that utilize financial mechanisms to preserve and restore nature such as debt-for-nature swaps, sovereign biodiversity bonds, and biodiversity offsets.

In the following section, we zoom in on biodiversity finance and the potential of these specific mechanisms to address the biodiversity market failure. The process of marketizing nature involves trading invested conservation units on the market to generate financial returns. However, biodiversity and nature's contributions to people are rarely considered marketable because financial actors are reluctant to pay for items or contributions that are non-excludable and non-rivalrous. Although some habitats have demonstrated their financial value through ecosystem services calculations, very few have generated financial returns through market transactions. This is especially true for endangered species, for which no market currently exists. As a result, the process of financializing nature tends to remain incomplete as long as customers do not demand products and/or service with limited, or no, negative impact on biodiversity, or if legislators put into force strict enough laws and regulations to ensure that costs are internalized.

Still, there is a longstanding argument that even without these incentives, the private sector and finance could potentially play a crucial role in preserving and

restoring nature by providing the necessary capital and resources to fund conservation and restoration projects. However, in their comprehensive review of the biodiversity finance literature, Dempsey and Suarez (2016, 660) concluded that "the for-profit subset of biodiversity conservation remains small, marginal to what is flowing overall, and geographically constrained, with much finance staying put in the Global North". Moreover, as noted by Cosma, Rimo, and Cosma (2022), due to the historical scarcity of resources allocated to biodiversity conservation, researchers and practitioners in conservation finance have often prioritized identifying the most financially disadvantaged geographic areas and calculating the required funding to achieve specific conservation goals. These areas frequently coincide with regions facing challenges such as poverty, corruption, extensive resource extraction, and rapid development, despite being home to some of the world's most biodiverse ecosystems. Consequently, the primary objective of conservation finance is to generate new, diverse, and sustainable revenue streams for conservation efforts. The key challenge lies in identifying solutions that not only generate revenue but also effectively manage and allocate these funds to deliver a range of social and community benefits.

What then, are examples of private sector engagement in conservation and restoration? Examples include investments in sustainable land use practices, the development of green technologies, and the financing of conservation projects. The private sector can also provide financial support for nature's contributions to people, such as carbon sequestration, water purification, and pollination, which can generate revenue streams for conservation efforts. There is a plethora of financial mechanisms to achieve engagement, such as:

- Philanthropy and impact investing, which involve donations or investments into companies, organizations, or projects with the goal of generating positive social and environmental outcomes, sometimes alongside financial returns. In recent years, impact investing has gained popularity as a way to fund conservation and restoration projects, providing investors with a sense of purpose and making a measurable impact on the environment (see Baeckström, Carlsson Hauff & Elliot, 2022).

- Biodiversity offsets can be divided into two types of compensation regarding damage to nature, which can be achieved through three overarching mechanisms. The two types are statutory and voluntary offsets. While statutory offsets are driven by authorities, there are various incentives for companies to undertake voluntary offsets, such as ethical, philanthropic, or business reasons. In theory, all three mechanisms can be used for both types of compensation. The three mechanisms are called mitigation banks, financial compensation to third parties, and direct compensation. Mitigation banks are projects that develop credits or biodiversity units that can be purchased by parties responsible for environmental damage. Financial compensation involves the party responsible for the environmental damage making a financial payment, usually to an authority or a designated environmental fund. Direct compensation occurs when the developer themselves undertakes actions to compensate for the negative effects on biodiversity resulting from project development.
- Conservation easements are a US-based legal tool that allows qualified land conservation organizations or governmental entities to limit certain rights of landowners in order to achieve specific conservation purposes. It is a voluntary agreement between the landowner and the organization or government, recorded in local land records and applicable to both present and future owners of the land. The purposes of a conservation easement can vary depending on the property, the goals of the organization or government, and the landowner's needs. These purposes may include maintaining water quality, preserving healthy forests and wildlife habitats, protecting scenic views, and ensuring the availability of land for sustainable agriculture and forestry. The terms of the easement typically restrict or prohibit subdivision and other types of real estate development. One of the key features of a conservation easement is that it allows landowners to retain ownership and control of the land while achieving specific conservation objectives. The easement is voluntarily placed on the property by the landowner and is perpetual. The value of the easement and financial arrangements between parties are generally kept private. The landowner who grants a conservation easement continues to manage the land privately and may receive tax

advantages for the donation or sale of the easement. The organization or government responsible for the easement has the responsibility to monitor the land to ensure compliance with the terms and take action in case of violation.

- Debt-for-nature-swaps and biodiversity bonds are two financial instruments that have recently received extensive attention. The former means a debt restructuring agreement, where countries exchange their foreign debt for a commitment to protect a specific natural area. The latter is a form of loan where a public funding body schedules a future payout.

Furthermore, there are innovative solutions such as Socio Bosque[2], a government program in Ecuador that provides landowners with a stipend in exchange for not cutting down their forests. The Critical Ecosystem Partnership Fund provides grants to non-governmental and private organizations to assist in protecting biological hotspots, the world's most biologically rich but threatened areas. Finally, the private sector can of course also provide a range of non-economic assistance, often referred to as 'capacity building', such as support for agricultural improvements, education, healthcare, or other needs.

In conclusion, the private sector and finance could potentially play a vital role in preserving and restoring nature. However, for these actors to do as much, there must be incentives, and to analyze the most effective incentives, a multitude of actors and disciplines must come together to identify and critically assess available incentives.

Multi-, inter-, and transdisciplinary research challenges

Research focusing on the impact and interdependence of business and the financial system on biodiversity requires interdisciplinary cooperation. This entails bringing together researchers from scientific communities that have rarely or never interacted before. Biologists, possessing expertise in the status and conditions of various species, their habitats, and the intricate dynamics of ecosystems, are vital for assessing ecological sustainability. Similarly important are experts in the organizational structure, financial management, and trade practices within the

2 https://initiative20x20.org/restoration-projects/ecuadors-socio-bosque-program

corporate sector. Furthermore, researchers studying governance, regulations, and incentives must also be involved.

While scholars across academia may share similar passions in addressing real-world problems and contributing to global challenges, they also need to recognize and address the differences that arise due to variations in institutional research settings. These differences necessitate careful attention if they are to facilitate productive collaboration. The research environment must allow for diverse approaches, theories, and methodologies. Concepts and expressions specific to certain disciplines may need to be explained and reevaluated. For individual researchers, possessing effective listening skills and viewing differences as opportunities rather than problems are beneficial. Being curious, adaptable, self-reflective, and patient is crucial, as interdisciplinary collaboration takes time and effort to develop.

Moreover, close engagement with both the corporate sector and the public sector is indispensable in generating relevant knowledge. Interaction with these sectors is essential to ensure the research findings are applicable and contribute to real-world solutions. In summary, interdisciplinary collaboration in research on business and biodiversity is necessary to achieve a comprehensive understanding, adopt a holistic approach, identify trade-offs and synergies, develop innovative solutions, facilitate effective policy-making, and enhance stakeholder engagement. By breaking down disciplinary silos and fostering collaboration, researchers can generate knowledge that is more impactful, practical, and capable of addressing the complex challenges at the intersection of business and biodiversity. As discussed next, SBEL currently has an excellent opportunity to act as the arena fostering such interdisciplinary work on business and biodiversity.

How can SBEL become a leading actor in business and biodiversity?

The strive towards monetizing nature and trying to develop economic incentives to protect and restore nature, sometimes referred to as the 'financialization' of nature, is expanding rapidly. Nevertheless, the remaining dominance of biological knowledge and biological perspectives have resulted in a need to reconsider human–nature links and acknowledge social dimensions if we are not just to map the problem, but to find solutions.

It is not nature as such that is the problem, but humans and human societies that need to "make peace with nature", to use the words of UN secretary-general António Guterres. These global challenges are indeed integrated, as stated in Agenda 2030, and biodiversity loss should not be seen or treated as a stand-alone problem but also a societal one. Considering these immense challenges and the transformational changes needed to handle them, SBEL has the capacity and prerequisites to significantly contribute to turning around the negative trends for biodiversity, and by doing so, forge innovative and knowledge-informed pathways toward a more sustainable world. In fact, business and biodiversity research is already part of the research agenda in SBEL. Most notably, researchers from all departments are engaged in marine environmental issues. There are also established research profiles concerning, e.g., consumer behaviour and sustainability branding, rural land use and landscape management, biodiversity accounting, environmental regulations and environmental policy design, large carnivore management, and outdoor recreation. Much of this previous research has been carried out in collaboration with researchers outside SBEL. While the corporate sector previously fell largely outside SBEL's scope, there has in the last couple of years been a rapid increase in research and initiatives connecting business and biodiversity at the school. A transdisciplinary business and biodiversity network has been formed, and a number of research projects and programs have brought scholars from the school's departments together and strengthened collaboration with biologists and companies, with financial actors as well as with the public sector. These projects include: EcoComp, a Vinnova-funded project creating a platform to connect landowners with businesses interested in protecting biodiversity-rich areas, previously mentioned BioPath, a Mistra-funded research program integrating biodiversity into financial decision-making, and SamBio, a Västra Götaland Regionen-funded initiative promoting biodiversity knowledge through collaboration, experience sharing, and capacity-building.

Building on these, and other, programs and projects we foresee that SBEL 50 years from today will have been able to mobilize and leverage its growing competencies in business and biodiversity, the expansion of interdisciplinary interactions on the topic, and its strong network of business actors who aim to be in the forefront of sustainability work, to become a world-leading center for research and knowledge-sharing on business and biodiversity. To put it bluntly, our gen-

uine hope is that by 2073, SBEL will be a vibrant hub for making peace between business and nature. So how do we achieve this vision? We argue that there are three key strategic areas on which we should focus.

First, as has been highlighted earlier in this text, one of the key challenges in business and biodiversity work is data and measurability. We therefore believe that SBEL should actively pursue an agenda to build and maintain data repositories of business and biodiversity data. Our capacity to manage and analyze data is growing every minute, and if SBEL can act as a host institution for key datasets on business and biodiversity it will have a competitive advantage for many years to come.

Second, SBEL should strive to maintain and strengthen the interdisciplinary work on business and biodiversity. Addressing the challenges of business impacts on biodiversity requires a holistic approach that considers not only the ecological aspects but also the economic and social dimensions. By involving researchers from diverse fields, interdisciplinary collaboration ensures a holistic perspective that incorporates ecological sustainability, economic viability, and societal well-being. This integrated knowledge allows for a more accurate assessment of the impact of businesses on biodiversity and enables the development of more effective and balanced strategies to mitigate negative impacts and promote sustainable business practices. To stimulate such positive development, SBEL, together with other disciplines within University of Gothenburg, might consider how to further improve the conditions for interdisciplinary work, including recognizing biodiversity-related research when developing international collaborations and agreements and exploring how research quality in interdisciplinary and transdisciplinary research can be validated and considered in recruitment and promotion.

Third, applied research is needed, because the biodiversity crisis is already here. Rooted in SBEL's long tradition of close collaborative work with the business community, SBEL has fostered an environment of exploratory case-based research built on a deep understanding of why and how certain problems materialize in practice. The theories and methods used for such work are often less domain-specific and as such are useful for interdisciplinary work. We therefore hold that SBEL should stimulate applied research which aims to find solutions and motivate collaborative efforts with real impacts on the everyday decision-making process of business, now and in the future.

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Catch-Up and Inclusion for a Sustainable World

Arne Bigsten

Introduction

The theme of this book is sustainable worlds[1]. In 2015, when the international community sought to define sustainable development, it came up with a very long list of sustainable development goals (SDGs). I will focus on the dimensions of inequality within these SDGs. Economic and social inequality makes it harder for societies to achieve sustainable development by creating negative externalities, social stress, and tension (Stiglitz, 2013; Milanovic, 2016; Alesina, Stantchev, Teso, 2017; Aiyar, Ebeke, 2020). Therefore, reduced global inequality can contribute to increased sustainability and development. This can be achieved via reductions of within-country and between-country inequality. We will discuss the roles played by catch-up and inclusion processes within developing countries and between developing countries and developed countries.

Wealthy countries, like Sweden, can increase the sustainability of world development by helping reduce global gaps in income and social welfare. They can do so by supporting the inclusive economic and social catch-up-processes of poor countries. We will discuss how the international community can enhance the sustainability of global development by reducing global inequality.

1 In 1987, the Brundtland Commission (UN, 1987) defined sustainability as "meeting the needs of the present without compromising the ability of future generations to meet their own needs".

In the context of this volume, it is also relevant to discuss what the School of Business, Economics, and Law has done and what it can do in the future to support sustainable global development. I have spent more than half a century at the Department of Economics and Statistics, and during this period the department has been transformed from a small, inward-looking institution to a prominent institution where half the staff is international in origin and much of the research has an international orientation. We have, for example, educated many PhDs in economics, who have returned to Africa to work in prominent positions in academic and government institutions. Other departments in the school have undergone a similar transformation. We have accordingly been able to contribute to the sustainable development of the world.

The outline of the paper is as follows: first, I sketch recent developments of the global economy and review the related changes in global inequality. After this I present and characterize the SDGs. Then I characterize welfare states and discuss whether they are providers of a high quality of life for their citizens, to find out whether it makes sense to seek to spread welfare-state–like policies around the world. Thereafter I look at the spread of welfare state policies and discuss whether their spread has increased the sustainability of the countries affected. Next, I discuss what can be done to reduce global inequality with the help of foreign aid and by redesigning the global system in ways that favor the poor more than the current system does. Finally, I provide some concluding comments and discuss how our school should enhance the international orientation of teaching and research even further to help make the world fairer and more sustainable. I believe we have a moral obligation to do so.

Economic Development and Inequality

The world economy has undergone dramatic changes in recent decades. We will discuss them briefly and relate them to inequality issues. We will draw on Piketty's (2020) discussion of the role of inequality in society. Each phase in history has a dominant ideology that seeks to legitimize existing inequalities. There is an inequality regime which defines discourses and institutional arrangements that seek to legitimize and structure economic, political, and social inequalities within a society. If the inequality regime comes into conflict with new norms and socio-eco-

nomic conditions, the existing system is undermined and is eventually replaced by another one. Piketty argues that it is the struggle for equality and education that drives economic and human progress in society.

The 20th century (at least until about 1980) was characterized by a reduction in inequality, when social-democratic movements managed to build an egalitarian coalition and push through progressive tax reforms and redistribution policies. The societies that emerged in northern Europe, such as Sweden, may be referred to as 'welfare states'. This transformation was possible because of changes in the political and ideological balance of power, with an increased emphasis on social justice. Piketty argues that the transformation was achieved via nationalization, public education, health services, and progressive taxation.

Over the last few decades, the global economic system has changed due to increased globalization and digitalization. These factors have helped reduce inequality between countries, since many poor countries have managed to grow faster than industrialized ones and have begun to catch up economically. On the other hand, these changes have, in many instances, increased within-country inequality. There has been very fast growth of income and wealth at the very top percentage of individuals during this period. Piketty (2020, p. 268) argues that "inequality is primarily determined by ideological and political factors, not by economic and technological constraints". I am not sure that this is true, but the factors he points to at least also play a large role in determining in which direction we develop. Piketty wants to see the development of new norms for social justice and equality as well as reformed economic regulations and redistribution.

Each society needs to agree on the limits of the community, the organization of ownership relations, access to education, and tax revenue. The political struggles in the current welfare states are less clearcut than they were previously. Apart from the right–left conflict there is now also a conflict between nationalistic/traditional and internationalistic/modern values. The society needs a new and credible explanation, meaning, and defense of the distribution of income and influence. We need an explanation that gives us political harmony and social justice, and these in turn need to be anchored in a set of institutions. This must go beyond the nation states.

Piketty argues that it is the ambition to achieve justice that drives development forward and that the way in which we handle issues of equality are central

in politics. Still, policymakers must always make the best choices they can within the restrictions currently set by society. They must always strike a balance between efficiency and equality.

However, apart from this, politicians also need to deal with the challenge of identity—or the need of citizens to feel included in society. This has been discussed by Paul Collier (2018) in a very interesting book. His starting point is that there has been an increasing spread of populist ideology, and that this has undermined support for the welfare states and governments in general. Collier argues that this has happened because policymakers and defenders of the welfare state have not considered that citizens are social beings. They need welfare but they also need to feel a sense of belonging and appreciation to feel good. Capitalism has delivered higher incomes, but in recent years it has failed to deliver a sense of community. There are new gaps emerging between the (largely) urban and well-educated elite and the (largely) rural and less educated segments of the population. During the heydays of social democracy there was reciprocity and collaboration between people of different groups. Then a new group of elites took over and started to make decisions for ordinary people, which meant that the latter group felt disconnected. This created a void that was filled by populist movements. While the educated elite felt that their identity was related to their work, the less educated felt that it was related to their country. There was a loss of common identity!

What can we say about popular support for welfare state policies? There has been some backlash in the last few decades in developed countries. Gethin et al (2022) analyzed data for 21 western democracies post-World War II (1948–2020). They find that people with low education and low income in the 1950s and 1960s voted for social democratic parties or the left, while people with high incomes or high education voted for the right. Now we can see a split between voters with high education and high incomes. The well-educated are now increasingly voting for the left, while those with high incomes continue to vote for the right. The authors argue that the people with low education think that the left is supporting the well-educated. The socio-political landscape thus has a new sociocultural dimension. Political parties also increasingly compete in this new dimension, and new green and immigration-critical parties emerge.

So, when it comes to the theme of this paper, we are not only concerned about increasing economic gaps but also diverging identities. You need, says Collier, pragmatic policies to reduce divisions. Thus, society also needs more equality when it comes to respect, equal influence in deciding on the common goals of society, and equality in opportunities to contribute to the realization of the vision. To achieve sustainability in society you need both welfare and ethics—you need a common vision for society.

Global Inequality Challenges

One of the most interesting researchers discussing the impact of globalization on global inequality is Branco Milanovic (2016). His study focuses on the 1988–2008 period, which saw a combination of opening countries and regions such as China and Eastern Europe combined with a communication revolution, which made it possible to combine economic activities over long distances.

Milanovic discusses how the growth of incomes varied across the parts of the global income distribution in 1988–2008. What he calls the global middle class—the 40 to 60 percentiles of the global income distribution—were the main winners. They were largely located in Asia. At the same time the lower middle-class in the old rich countries hardly saw any improvement at all in their real incomes during the same period. Workers in the US saw stagnating real incomes for several decades. The top 1% of the global distribution were the great winners. Thus, overall, we saw an increase in inequality within rich countries, while at the same time as global inequality declined due to the catch-up of (mainly Asian) developing economies.

It is harder to estimate levels and changes in the distribution of wealth, but the Credit Suisse Research Institute (2021) estimated that during the first decade of the 21st century the top 1% of the population had some 46% of global wealth. There seems to have been an increasing concentration of global wealth at the same time as there has been some reduction in global income inequality.

Milanovic (2016) also reviews the evolution of inequality within countries. He starts from the Kuznets hypothesis, which says that changes in inequality over time have an inverted U pattern. However, the hypothesis cannot explain why inequality has started to increase again after around 1980. Piketty argues that the decline in inequality up to 1980 was driven by the political forces of wars, taxation

to finance the wars, socialist ideology, and economic convergence. When these forces weakened, inequality went up again, according to Piketty.

However, Milanovic says that there are periods when inequality under capitalism has gone down, driven by economic forces. Milanovic argues that there are essentially three factors that determine the evolution of inequality: namely technology, openness, and policy. His theory is that development can be described as a Kuznets wave; that is alternating increases and decreases in inequality. Kuznets waves are driven by an interplay between economic and political factors.

Inequality in pre-industrial societies fell precipitously during plagues, which reduced the labour force and increased real wages. Wars reduced capital returns by destroying capital and by reducing the returns on what was left. The pattern of development changed with the industrial revolution. The movement of labour to a more diversified sector increased inequality, but then there emerged demands for redistribution and the return to capital decreased. Thus, policy interventions (New Deal), increased bargaining power of organized labour, higher tax rates, and globalization pushed inequality down. The reduction of inequality was due to the two world wars, higher taxation, reduced incomes from capital, stronger trade unions, and expansion of the welfare state.

Around 1980, the second Kuznets wave began, according to Milanovic, driven by the second technological revolution (information technology), globalization, and the increasing importance of heterogenous jobs in the enlarged service sector. This new technology rewarded skilled labour, drove up returns to capital, and the developed economies were opened to competition from the low-income countries. Pro-rich policies supported the trend, because globalization made it hard for individual countries to put high taxes on mobile actors.

The new increase in inequality within countries is due to higher wage dispersion, greater concentration of capital income, and because some individuals earn high incomes from both labour and capital. There could also be behavioral changes such as more assortative matching as well as changes in norms and ethics. The winner takes all rule makes it harder to equalize wages, and this depends on the scalability of jobs.

What forces can bring inequality down? Milanovic mentions five: 1) higher taxation; 2) more rapid increases in the supply of skills; 3) the dissipation of

rents accrued in the early stages of the industrial revolution; 4) reduced income gaps between rich and the developing countries; 5) technological progress biased against low-skill workers. There is also an income convergence process going on.

The focus of Milanovic's research is inequality across countries. The main story here is that in 1820, when the industrial revolution first began, 80% of global inequality was due to inequality within nations, while only 20% was due to inequality among nations. By the middle of the 20th century these figures had been reversed, and 80% of global inequality was due to gaps between nations. The industrial revolution really led to Divergence Big Time (Pritchett, 1997)! The main divergent force of global inequality was therefore the divergence of the mean incomes of countries.

Global inequality increased from the beginning of the industrial revolution and peaked between 1970 and the mid-1990s. From the late 1980s until the turn of the century, global inequality was at first constant, but then started to decrease. First China and then India were the main equalizers, with their per capita incomes growing faster than those in the West. Do the populations in the North care about the global inequality of opportunities? Yes, to some extent, but not so much that they are willing to opt for completely open borders. On the contrary, at present rich countries build walls and make it harder for poor people to migrate to them.

Milanovic thinks that the future development of global inequality will be determined by two forces, namely convergence and the Kuznets' waves. He feels that the rich countries' middle classes will continue to see their position weakening. Even if there is a strong reduction in the inequality of the education of the rich and the middle classes, there may still be large income gaps due to e.g., chance and family background. Therefore, Milanovic believes that inequality will remain high or increase, but he also says that "it is hard to imagine that a system with such high inequality will be politically stable" (Milanovic, 2016, p. 217).

One of the best studies of the link between inequality and development was authored by Berg et al. (2018). They investigate the relationship between inequality, redistribution, and growth using a dataset that distinguishes between market (pre-tax and transfer) and net (post-tax and transfer) inequality. They

calculate redistributive transfers for many advanced and developing countries. They conclude that lower net inequality is correlated with faster and more durable growth for a given level of redistribution. They find that redistribution appears generally benign in terms of its impact on growth. It is only in extreme cases that there is some evidence that it may have direct negative effects on growth. Inequality seems to affect growth mainly via human capital accumulation and fertility channels. They note that one must be careful when drawing conclusions from cross-country regressions (Kraay, 2015), but they also argue that one should at least be careful not to assume that there is a big trade-off between redistribution and growth.

Aiyar and Ebeke (2020) find that the relationship between inequality and growth is conditioned by the level of equality of opportunity. They show that the negative effect on growth from inequality is larger when inequality of access to opportunities is larger. They identify the inequality of opportunities with intergenerational mobility, which is how much children's outcomes depend on the attainment of their parents/father. The negative effect on growth is lower when intergenerational mobility is higher. Alesina et al. (2017) find that people who are pessimistic about intergenerational mobility are more positive about redistribution policies. They see this as an issue of fairness.

To sum up, what can be done about inequality? There are taxes and transfers, but capital and even skilled labour are getting harder to tax, since these factors are increasingly internationally mobile. It may make more sense to try to attack the inequality of ownership of assets and education, by, for example, higher inheritance taxes, corporate tax policies, and administrative policies that make it easier for the middle classes to hold financial assets. Thus, it seems as if we need some combination of more equal ownership of assets and education to reduce inequality and to create a more sustainable society.

When it comes to the issue of education our school can certainly contribute a lot. It provides students with human capital, which will improve their life chances. It also seeks to provide students with a sense of responsibility for the welfare of others and for global development. For countries to make progress they need a well-educated population, so this contribution is very significant.

Sustainable Development Goals

After reviewing the evolution and drivers of global inequality, we will, in the rest of the paper, discuss what the international community can do to reduce inequalities and to improve the sustainability of the global economy.

The importance of international collaboration in the creation of a sustainable world has been on the agenda for a long time. After World War II, the international community formed the United Nations. The aims of the United Nations are to preserve international peace and security, to develop friendly relations among nations, and to promote social progress, better living standards, and human rights. These global ambitions have then been pursued in many ways. One key area has been to seek to help less-developed countries close the gap in living standards to more closely align with developed countries. The Millennium Development Goals from 2000 specified targets for the development of poor countries up to 2015. Then, in 2015, the international community replaced them with 17 Sustainable Development Goals to be realized by 2030. These goals are valid for all countries and cover virtually all aspects of development. They imply a process of catch-up and inclusion for LDCs. In a sense one can see them as an attempt to spread welfare state policies globally.[2] SDGs are now steering development policy work in Sweden and in other developed countries.

The SDGs describe the dimensions of a sustainable world and cover the economic, social, and environmental dimensions of development. The SDGs include set of welfare targets, a set of equity or inclusion targets, a set of climate and environmental targets, and a set of means to achieve those targets, such as infrastructure and organizational structures. Thus, they indicate where we should be going, but they say very little about how these targets are to be achieved (Dercon, 2022). The focus of SDG policies must clearly be on how to elevate living standards in the poorest countries, and therefore the key development challenge is in my mind to identify the best ways of doing this. There is, at this point, broad agreement about what policies are required. However, I would argue that the problem of implementation is the major development problem that countries around the world encounter.[3]

2 The SDGs have been seen by some as a codification of the Swedish model of development. In his recent book, Dercon (2022) writes about the SDG approach as an attempt to "build Sweden by 2030" on a global scale.

3 In my development textbook (Bigsten, 2010) I also emphasize this and the importance of politics for development.

We do not have a world government that takes decisions for the whole global population, so the influence from the world community on citizens in the less developed countries, must largely go via the country governments. We will consider both what can be done via policies that directly affect the development within countries and interventions that affect relationships between countries. If one thinks of this as a global endeavor to move the poorer parts of the world in a welfare state direction, it seems clear that redistribution from rich countries (foreign aid) to poor ones is a natural component. These transfers can shift the average levels of welfare in the less developed countries closer to those in the developed world, but they could also affect the extent of within-country inequality. Both these effects reduce global inequality and therefore contribute to the sustainability of development.

The Characteristics of Welfare States

The aim of governments, at least in Western welfare-states, is to provide a high quality of life for its citizens. Exactly how this is done and how ambitious states are in terms of redistribution and the extent of interventions varies, but the aim is anyway defined in terms of the quality of life of its citizens. An alternative government aim could be to make the country strong, irrespective of how this affects the life of its citizens. This latter type of aim is hard to implement in a democratic system, while a totalitarian one could likely pull it off. Still, it seems reasonable to argue that a good society is one geared to enhance the quality of life of its citizens.

So how do we define a welfare state? Maybe we could say that it is a society where the government seeks to promote the social and economic well-being of its citizens, while pursuing equal opportunity, equitable distribution of wealth, and seeking to establish social safety nets for citizens who are unable to cope. There is of course considerable variety in the composition and character of welfare state policies, but all the components listed would be there; at least to some extent

The welfare states as we know them now really emerged during the 20th century, when social-democratic or liberal movements built egalitarian coalitions that managed to push through progressive taxes and redistribution policies. There was an increased emphasis on social justice, and at least until 1980, welfare states, in general, saw a gradual reduction in economic inequality.

Both Piketty and Collier argue that existing welfare states are threatened. Still, the basics of the welfare states are still in place, and I think we can presume that they will remain so for the foreseeable future. We can consider the countries that define themselves as welfare states to be the core welfare states, although essentially all countries pursue some type of welfare state policies.[4]

Before going further in the discussion, it may be worthwhile to decide whether we can assume that welfare states provide a high quality of life to its citizens. To do so, we will simply check whether welfare states score high on various country rankings, such as the Human Development Index[5] (United Nations, 2022a, 2022b), a quality-of-life index (Numbeo, 2022)[6], a happiness index (Sustainable Development Solutions Network, 2022)[7], and the SDG-index itself (United Nations, 2022c). The Human Development Index (HDI) for 2021 has the following ten countries at the top of the list: Switzerland, Norway, Iceland, Hong Kong, Australia, Denmark, Sweden, Ireland, Germany, and the Netherlands. All the top countries are members of our core group of welfare states. The top countries according to the Quality-of-life index for 2022 are Switzerland, Netherlands, Australia, Finland, and Iceland, with Sweden in 14th place. The countries which are referred to as welfare states again gather at the top of the list. The ten happiest countries in the world, according to the 2022 World Happiness Report are also in the core group: namely Finland, Denmark, Iceland, Switzerland, Netherlands, Luxembourg, Sweden, Norway, Israel, and New Zealand. The leading countries in the world in terms of how much of the SDGs for 2030 that have already been achieved are, according to the crude composite SDG-index[8] (UN, 2022c), Finland, Denmark, Sweden, and

4 Although we cannot define exactly which countries are welfare states, we can identify a core group of welfare states. World Population Review (2022) lists the following countries as welfare states or as states that use the concept: the United Kingdom, France, Sweden, Italy, Belgium, Denmark, Finland, Germany, Portugal, Spain, Austria, Greece, Japan, Netherlands, Switzerland, Iceland, Kuwait, Israel, Slovenia, Australia, South Korea, Estonia, Latvia, Israel, Canada, New Zealand, and the United States. These countries plus a dozen more make up the OECD, which could be used as an alternative and slightly larger group of core welfare states. The countries added then include Chile, Colombia, Costa Rica, Czech Republic, Hungary, Ireland, Lithuania, Luxembourg, Mexico, Poland, Slovak Republic, and Turkey.

5 The HDI is a geometrically weighted average of normalized values for life expectancy, a combination of expected and mean education, and log of per capita GNI. Real income is computed using purchasing power prices to adjust for differences between countries in the purchasing power of their currencies.

6 Numbeo's Quality of Life Index is an estimation of the overall quality of life. It considers purchasing power, pollution, house price-to-income ratio, cost of living, safety, healthcare, traffic commute time, and climate.

7 "The Happiness Index is defined as the weighted (by sampling weights) rate of respondents reporting "Very happy" or "Quite happy", minus the weighted rate of respondents reporting "Not very happy" or "Not at all happy," plus 100. The index thus ranges from 0 to 200."

8 "The overall score measures the total progress towards achieving all 17 SDGs. The score can be interpreted as a percentage of SDG achievement. A score of 100 indicates that all SDGs have been achieved."

Norway; again typical welfare states in northern Europe. Thus, the countries that we consider to be developed welfare states tend to come out on top when it comes to quality of life, human development, happiness, and in terms of how well they have achieved SDGs. I therefore argue that it makes sense for the global community to encourage and help countries around the world to develop into welfare states.

Welfare states policies and the sustainability of development

My hypothesis is that inequality, both nationally and globally, risks increasing antagonism and conflict and ultimately lowers sustainability and growth. It is certainly clear that the move towards welfare states in Europe led to reductions in inequality within those nations, and they have been at peace with each other. The spread of welfare state policies could help to make development more inclusive in the poorer countries of the world. However, in the last few decades, development in many countries—including in traditional welfare states—has led to increasing inequality, which may have reduced the stability and sustainability of development. Therefore, we will look at development over time of inequalities of income and wealth. The latter dimension is hard to measure, but we will present some indications.

It is hard to find good and comparable measures of how the welfare state has expanded in different countries or regions. There is no comprehensive data specifically on welfare states, but I will look at some indicators from SDG evaluations that can act as proxies for welfare state policies. Change over time in the data may give some indication as to whether there has been a policy shift in the direction of welfare states in poor countries.

The comprehensive SDG report from the UN (2022d) provides a few glimpses on policy change in the various regions of the world. First, we check an indicator which says something about the ability of governments to spend on social welfare measures, namely total government revenue as a percentage of GDP. For the world, this went up from 29.7% in 2000 to 32.8% in 2020, and this is a sizeable increase in the role of government. However, when looking at data for the major regions of the world, we see that the poorest regions did worse. Sub-Saharan Africa reports a negative change from 21.5% to 20.7%, and South Asia an even more negative one with a decline from 20.1% to 18.8%. Lack of revenues therefore

constrains what governments can do in these regions, but some social services are provided in ways other than via government action.

Therefore, let us look at the indicators in the SDG report on some relevant welfare service dimensions. There is one table reporting the proportion of the population that is covered by at least one social protection benefit. This data only covers the period of 2016–2020, but it shows that at least during this short period there was an increase in coverage from 45.2% to 46.9% for the world. There are large differences across regions regarding this variable, and again Sub-Saharan Africa comes out worst, but here there is at least an increase from 12.9% to 13.7%. Another table shows that the proportion of people using basic drinking water services went up from 81.7% in 2000 to 90.1% in 2020. Again, Sub-Saharan Africa is at the bottom of the pile, but here there was a large increase from 44.8% to 64.7%. The proportion of the population using basic sanitation services went up for the world from 55.7% in 2000 to 78.3% in 2020; again a rapid expansion of social services. And again, Sub-Saharan Africa comes out worst, but it was still showing an increase from 28.7% to 32.7%. The proportion of births attended by skilled health personnel went up from 64.1% for the 2001–2007 period to 83.6% 2015–2021 for the world, and this is a massive improvement. Sub-Saharan Africa went from 42.9% to 64.3% over the same period. Universal health coverage for the world went from 45% to 67%. For Sub-Saharan Africa, it also increased but at a lower level from 22% to 45%. The SDG survey report also reported on the net enrolment rate for children one year before the official school starting age, showing the extent to which children participated in some form of organized learning before the start of school. For the world, this went from 67.2% 2007 to 75.3% in 2020, while Sub-Saharan Africa went from 32.0% to 49.3%. The indicators that we have looked at to exemplify changes in the provision of welfare services all indicate that there is an improved coverage across the world. They show that also that Sub-Saharan Africa sees improvements which are significant, despite not having an increased government revenue. So, I think that it is fair to say that these data indicate that there is a roll-out of welfare measures across the globe.

It is beyond the scope of this paper to analyze the welfare effects of these policies, but there has certainly been an expansion of welfare state policies in less developed countries, and this has at least been correlated with increased incomes, re-

duced poverty, and improves human development (World Bank, 2022). There are not so much in terms of comparable inequality data, but we at least noted above that global inequality has declined despite increases in inequality within many countries. Overall, I think that the partial evidence we have suggests that the roll out of welfare state policies across the globe is a useful and welfare-enhancing process.

The Role of International Assistance

What should the wealthy part of the international community, including Sweden, do to reduce global inequality. It can help the poor countries of the world first by supporting the provision of global public goods of relevance to poorer countries. This can be in the form of medicine, knowledge, new crops, peace, or climate measures. Secondly, the international community can seek to redress international inequality by making the regulations and governance of the international economic system more beneficial to poorer countries. This can relate to trade, measures to combat tax evasion, etc. Thirdly, it can help by developing poor countries directly by supporting their growth and development strategies. This can be done via support of investments in infrastructure, investments in human capital like health and education, and support for improvements of governance in poor countries. Donors can also help poor countries build up welfare states that can provide a modicum of safety nets for the population. Donors could also provide insurance to poor countries against negative economic shocks such as falling commodity prices. On top of this, donors are of course morally obliged to help in humanitarian crises due to droughts, wars, etc.

Which approach is chosen for a specific country should depend on the context. Donors need to be pragmatic and seek to intervene in the best possible way. They should seek to invest where there is a chance of success. In some countries, the government is development-oriented, and, in such circumstances, donors can seek to work closely with the government through giving budgetary support. In other countries, the government may be corrupt and one must seek indirect routes to help people—if it can be done at all. It could be via the first two options mentioned above or via NGOs or even private firms within the country in question. It seems clear that the way the aid collaboration is organised is important and matters a lot when it comes to effects.

Reductions in the income gap between rich and poor countries requires that poor countries grow faster than the rich ones, so economic growth is crucial. To achieve economic growth countries need to invest in both physical and human capital. The productivity and growth effect of investments depend on the quality of the environment in terms of governance and the security of property rights, so this is also an area that donors need to consider. However, some necessary changes will have to come from within the countries in question. Donors can offer instruction as to how they should organize tax collection or how the auditor general should be organized, but it is much harder to teach how to be non-corrupt. Corruption is often a relatively entrenched part of the local social setting and change must come from within. Dercon (2022) discusses different ways in which development driving change can occur.

When we started the discussion, we mentioned that global inequality can be reduced by reductions between country-level inequality and reduction of within-country inequality. Therefore, it is important when formulating the growth strategy that it is inclusive, that is seeks to particularly help the poor, and thereby to reduce domestic inequality. Broad-based education is one example of a policy that can achieve this. This is an area where our school contributes by accepting students from around the world into our educational programs. The various departments accept many international PhD students, and there is also extensive research collaboration with researchers from the poorer regions of the world. All of this contributes to the building of human capital, which is a key parameter for sustainable development. Our school does this for reasons of international solidarity, but it is also in our own interest that the whole world prospers.

Conclusions

This paper started from the hypothesis that reduced global inequality can help make the world more stable and its development more sustainable. We have focused on less-developed countries and discussed how catch-up and inclusion processes can enhance global justice and equity. We have argued that the issues of equality and justice are very important drivers of politics. We also discussed at length the current global inequality challenges and what kind of policy interventions one could implement to address these challenges.

We have discussed what the international community can do to reduce global inequality. We have also argued that the SDGs implicitly argue for the implementation of welfare-state–like policies in LDCs. Foreign aid is one factor that can help achieve this.

Over the last few decades, the global capitalist system has changed thanks to globalization and digitalization. This has helped reduce inequality between countries, since many poor countries have managed to grow faster than industrialized countries and start a catch-up process. East Asia and the Pacific and the South Asia regions have particularly reduced their income gaps to the OECD countries (as shown by the World Bank's World Development Indicators). The ongoing changes have, on the other hand, tended to increase within-country inequality, since the growth of incomes and wealth has increasingly been concentrated at the very top of the income distribution.

We have seen that there has been some expansion of welfare state policies in less-developed countries, and this, at least, has been correlated with increased incomes, lower poverty rates, and improved human development. We also find that global inequality has declined despite increases in inequality within many countries. Overall, it seems as if the roll-out of welfare state policies across the globe is a welfare-enhancing process. It therefore makes sense for the international community to try to support this process.

I have argued that reduction in global inequality would improve sustainability of the global society and contribute to welfare improvements across the world. I have also argued that a key feature of this process is that the extent of global poverty is reduced, and most of this reduction needs to happen in the poor countries of the world. Therefore, the growth of poor nations will continue to be of vital importance.[9] Rapid growth there should also help reduce the demand for migration, and this would enhance the sustainability of the system.

It should also be noted that we must be concerned about environmental sustainability when seeking to increase economic growth for the poor. However, in recent decades, there has been a certain decoupling between CO_2 emissions and economic growth (Economist, 2022). One reason has been the increase in the relative size of the service sector in the economy, largely due to the growth of

9 "One can hardly overestimate its importance of poorer countries as a means of making the lives of ordinary people better" (Milanovic, 2016, p. 232)

welfare services. Accordingly, emphasis on the expansion of the welfare state will contribute to the achievement of the environmental SDGs described above.

We will end with a note of caution. It is getting harder to realize these aims in a world with increasing competition between development models (China versus the West), and a retreat of the global economic model developed after World War II, deglobalization, and retreat of democracy. Still, the democratic countries of the world need to rise to the challenge and continue to work on the realization of SDGs and the expansion of the welfare state concept. We may well see better social and economic models in the future, but to my mind, the welfare state model is—at present—the best model there is.

This should also be the basis for the policy of the School of Business, Economics, and Law. We have contributed substantially to global development with our education and research, but we can do more! The global interaction that comes via academia helps us integrate the societies of the world, making it a fairer and safer place for us all.

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The Annual Joakim Dungel Lectures

A Continuing Reflection on International Law and Justice

By Emilia Dungel and Sari Kouvo

Introduction

The first edition of the Joakim Dungel Lectures in International Justice was organized in 2012 and focused on international criminal law. This was just a year after Joakim was killed in an attack on a United Nations (UN) compound in northern Afghanistan, where he was working as a human rights officer. Since then, the Association in the Memory of Joakim Dungel and the Law School at the School of Business, Economics and Law (SBEL) at Gothenburg university have organized twelve annual lectures. The target audience has been students of International Law at the SBEL, but the lectures equally welcomes other students and the public. In order to commemorate Joakim's legacy, each lecture has sought to bring international justice practitioners together to debate timely and difficult questions of international law. We have discussed, inter alia, polarization, sexual violence, combating terrorism, chemical weapons, and environmental crises. The 2023 Joakim Dungel Lecture focused on nuclear warfare, contextualizing the topic through a legal, political, and technical lens—partly to better understand the role of these weapons in ongoing conflicts, especially given Russia's war on Ukraine.

The aim of this chapter is to provide an account of these lectures, as they constitute one of the key annual international law events at the School of Business, Economics and Law.

On April 1, 2011, demonstrations erupted after Friday prayers in Mazar-i-Sharif in northern Afghanistan. The demonstrations turned violent, as the crowd moved towards, and eventually entered, the UN compound. The demonstrators killed seven people: three international staff members and four international security guards. Among the seven killed was Joakim Dungel, Human Rights Officer at the UN Assistance Mission in Afghanistan (UNAMA), and an alumnus of the Department of Law at SBEL at Gothenburg University. He was 33 years old.

In his brief existence, Joakim had established a successful career in international justice, working for the International Criminal Tribune for former Yugoslavia (ICTY) and International Criminal Tribune for Rwanda (ICTR), the Special Court for Sierra Leone, and the Temporary International Presence in Hebron, before his final assignment with UNAMA. He also published scholarly works on a wide range of issues, including command responsibility, the protection of national security interests, the right to humanitarian assistance during internal armed conflicts, and crimes against humanity.

To honor Joakim's life and work as well as to continue that which he could not, his friends and family, together with the Department of Law at the SBEL, instituted the Association in Memory of Joakim Dungel, which hosts the annual Joakim Dungel Lectures in International Justice. These, in turn, aim to share the expertise of leading scholars and practitioners in the field of international human rights, international humanitarian law, international criminal law, and beyond.

Finding the right path for commemorating and building on Joakim's legacy has been a compelling and rewarding experience, and one that continues to evolve over the years. During the early years, before Covid and the new reality of online seminars, the lectures were important, as they brought international lawyers and policymakers to Gothenburg. Students had the opportunity to meet judges from international courts, UN officials, and senior academics working on topics that may one day be their own field of work and expertise. Throughout, the lectures have maintained a focus on approaching international law as a tool for navigating and tackling complex geopolitical and global challenges. Today, in

an increasingly turbulent world, the lectures demonstrate, in concrete ways, that there are individuals—sometimes lawyers—behind every change. This is important, as it encourages participants—especially students interested in international politics and law—to reflect on how they themselves can contribute.

What follows is an overview of and discussion about the institutional, substantive, and communicative aspects of the first decade of the Joakim Dungel lectures. This chapter also peers into the future, sharing some ideas as to how the annual lectures can progress and be improved over time. It is important to note that the authors of this chapter are convinced that continuing to tackle complex international law issues by inviting experienced practitioners to lecture will remain important, as this helps demystify geopolitics, conflicts, and global crises; all of which we need to understand in order to be able to be able to promote change. Thus, providing spaces for students and experts to detangle complex issues together is vital both inside and outside of academia. Times may be challenging, but we continue to work.

Establishing the Association

Intertwined with the permeating grief and trauma of losing a family member and friend, the loss of Joakim also carried with it a sense of unfinished business. Joakim was young when he died, and his mission—to contribute to a better world with the help of law through a lens of justice—was cut short. Thus, not long after his passing, a group of his friends, former colleagues, and family members got together to discuss the possible structures and activities that could be held in Joakim's memory, so as to continue his work.

Ideas included scholarships and traineeships for students from places where he had lived, academic journal contributions, a book, a large seminar or lecture, or possibly a lecture series. The considerations they wanted to keep in mind were plentiful. First, it would be important to ensure that the final product or project placed international law, or the substantive topic, in focus, not Joakim himself as a person—just as he would have wanted. Second, the idea of sustaining a project would be key. Given that this was to be done in his spirit, it could not be a half-baked aspiration that only lasted a few iterations before closing up shop. If it was to be done, it was to be done right, and for a sustained period of time. Third, as

a necessary follow-up from the second point, the financial aspect needed to be considered carefully. Whichever plan was chosen was to be a non-profit endeavor, and thus needed to run on relatively minimal funds in order to, as noted above, remain viable for a long time.

With this in mind, it was decided that an annual lecture series would be the most appropriate and sustainable way to move forward. Scholarships and traineeships would require strong and almost full-time engagement to be done appropriately, whereas a lecture series could likely be kept running with a once a year commitment from organizers. Similarly, if the series were organized with his alma mater in Sweden, the lectures could also maintain an educational tone and credibility. Placing the lectures at Joakim's alma mater would also contribute towards sparking a stronger interest in international law in Gothenburg—something that students were calling for, and that, at that time, was seen as lacking at SBEL. In their early years, the annual lectures were a breath of fresh—or global—air at the School, as they brought international law practitioners and experts to Gothenburg. Today the Law Department has a stronger focus on international law, and the Business school is internationalizing. However, the lectures still stick out on the Business school's annual agenda, as the speakers are mostly practitioners, and the topics focus on the nexus between law, conflict, and justice. That is, they are not traditional business school topics.

The group that established the lectures took steps to establish a legal entity that others could join as members, and which would have the organization of the annual lectures as its main activity. It was decided that the association would be named, simply, the Association in Memory of Joakim Dungel, and the lecture series would be called The Joakim Dungel Lectures in International Justice, based on the recommendation of Joakim's good friend Steve Kostas. The name for the lecture series was chosen so as to not focus too narrowly on any aspect of law and to keep options open for broader foci in the future. In parallel, friends of Joakim's who were themselves experts in international, criminal, or human rights law set out to create a book in his memory. *The Protection of Non-Combatants During Armed Conflict and Safeguarding the Rights of Victims in Post-Conflict Society: Essays in Honor of the Life and Work of Joakim Dungel*, edited by Philipp Ambach, Frédéric Bostedt, Grant Dawson, and Steve Kostas, was published in 2015.

The Association was founded in Sweden. From a purely practical and administrative perspective, it was deemed easier to have the board of the association be composed of persons with a connection to SBEL and Gothenburg University. In addition, two friends and two family members of Joakim's without a previous connection to the university were made board members. The chair of the board from 2012 to 2016, when he vacated his position, which was then taken over by Emilia Dungel, Joakim's sister (who is also the co-author of this chapter). As of 2022, the other board members are: Jens Andreasson, Sari Kouvo (also co-author), Andreas Moberg, and Erik Ullberg. Membership in the association is open to everyone and includes a one-time fee for a lifetime membership. The continued engagement of the core members of the association remains important for the annual lectures. However, equally important is that the lectures are now institutionalized at the Business school and that efforts are made to identify 'hot' topics and relevant lecturers. This will be discussed in the next chapter.

A Decade of Perspectives

Institutionalization

Even when the lecture series was first being established, efforts were made to ensure that the lectures were institutionalized as an annual feature for the law students and the general public. In part, this involved ensuring that formal requirements to maintain an association were met. In part, it involved establishing a connection between the annual lectures and the course curricula of the Masters of Law program in Gothenburg. During its first years, the lectures were organized together with the law department, but were not part of the curriculum. This was not a sustainable solution. The lectures needed a home in the Masters of Law program. The introductory course in international law—more specifically its human rights module—became that home. This made sense from a subject matter perspective, but it also had an additional advantage: the introductory course takes place towards the end of the law studies, when students have begun to reflect on their career options. Via the lectures, students would be introduced to a clear link between the theory and practice of international law, and would gain an understanding of international law as an actual career option. The Masters of Law program in Gothenburg, like most Swedish legal education, is largely a profession-

al education in an academic setting. Law students study law to become lawyers, prosecutors, or judges within the national legal system, and they get less exposure to what an international legal career might look like. For students interested in such international careers, the lectures are an important source of information. Over the years, the authors have witnessed a number of discussions where students have asked organizers or speakers of the Joakim Dungel lecturers about how to get internships, work for the United Nations, or what experience would be most important if one wanted to work for an international tribunal.

To ensure the connection between the annual lecture and the international law course, staff at the Law Department served as focal points for the lectures. Staff involved in the series have included Andreas Moberg, Mikael Baaz, and Sari Kouvo. Sari Kouvo originally joined the lectures in a speaker role on sexual violence in conflict—see more below—but soon became the contact person for the School. Eventually, she and Emilia Dungel have become the main organizers, and Sari now sits on the board of the association. After Sari Kouvo became a permanent fixture in the Association, she also took on an assignment with the EU External Action Service, at which point temporary support was offered by Niels Krabbe, Karin Åberg, and Joachim Åhman. In addition to the connection to the courses, certain support functions proved invaluable. Jeffrey Johns gave IT and website backing, Marie Örninge from the Business School's central administration leads communication efforts, and additional assistance has been given by students at various times, including by Johan Lindberg. The link to central administration at the Business School is important. This link ensures that the lectures are not just a feature on the international law course, but are promoted as events available to all in the Business school's annual calendar.

A challenge to institutionalizing the lectures merits mentioning, as it is a fundamental challenge for current-day academia. The Joakim Dungel Association gives the lectures to the Law Department, but there is no budgetary allocation for staff time for the lectures. Those who have worked with the lectures over the years have done so because they have felt an affinity with the lectures and have wanted them to continue. This is easier for staff with permanent contracts than it is for doctoral students, who often feel that they cannot do any activities beyond those that they are allocated time for, as any additional activities limit the time they can

spend doing research. The lectures are institutionalized, but only as long as those who want the lectures to continue make sure that they happen. This is certainly not only a challenge for annual lectures. Especially for young academics, doing everything that seems to be demanded for an academic career may feel daunting, and motivation may be scarce to perform additional tasks that do not necessarily bring anything to one's academic CV.

Substance

2012: International Criminal Courts: Great Expectations, Successes, Limitations, and Room for Improvement
2013: Lessons in Humility: Working in Conflict and Post-Conflict Settings
2014: The Changing Nature of Warfare— Current Challenges to International Humanitarian Law
2015: Combating Sexual Violence in Conflicts— What Role is there for International Law?
2016: International Humanitarian Law and the Individual— Contemporary Challenges: understanding and limiting non-state actors' recruitment of voluntary fighters
2017: How is International Law Used to Combat Terrorism? Mapping challenges and outlining strategies
2018: Banned? Legal conundrums on biological, chemical, and nuclear weapons
2019: Environmental Justice in the Air, on the Land, and in the Sea
2020: Contextualizing the Arms Trade Treaty: Law, Politics, and the Everyday Reality of Conflict

2021: Polarizing Times? The Role of Human Rights and International Law
2022: Afghanistan and Beyond: What's Next for International Interventions?
2023: Nuclear Weapons: Legality and Diplomacy

Box: An overview of the annual Joakim Dungel lectures 2012–2023

To date, twelve annual lectures have been organized. Each year the lecture topics are decided upon during a collaborative discussion, weighing the foci of the Association and the Department of Law and then relayed to the Association members and the professor or lecturer responsible for the international law course, especially its human rights module. A few principles guide the identification of the lecture topic. The Association and the lecture "...aim to foster involvement, education and the spreading of information within Humanitarian Law; Human Rights; International Law; and on democracy issues in accordance with the values expressed in the United Nations Conventions". The topics are chosen because they are timely, relevant for understanding ongoing developments in international law and politics, because they merit attention from and a dialogue between academics and practitioners—and because they have no easy answers or solutions.

In order to fulfil the mission of educating, informing, and fostering involvement, each year, efforts are devised to bring together speakers who can shed light on the chosen topic from different vantage points. The lectures tend to include three speakers, including researchers with the ability to contextualize the subject of the lecture, practitioners with experience from multilateral organizations, and persons with 'field' or 'grassroots' experience. We have increasingly chosen to have at least one of the speakers to be Swedish, often a Swedish diplomat.

Looking back at the twelve lectures, three areas of international law seem to have dominated the annual reflections. One set of lectures have focused on how to engage in international law and politics and changes in the global arena. A second set of lectures have focused on efforts to use international law to prohibit certain weapons and the international arms' trade. The third set of lectures has focused

on the role of international law in regulating how laws are fought and ensuring accountability for war crimes. Below is a brief overview of the three themes.

The lectures that have focused on how to engage with international law and changes on the global arena include: *Lessons in Humility: Working in Conflict and Post-Conflict Settings* (2013), *Polarizing Times? The Role of Human Rights and International Law* (2021), and *Afghanistan and Beyond: What's Next for International Interventions?* (2022). Although there may not be anything that formally connects the three topics, they all provided an opportunity to discuss the increasingly deep ideological and political divides both in specific conflict theatres like Afghanistan and globally.

For example, in the lecture on Afghanistan, the three speakers, Richard Bennett, the UN Special Rapporteur on Human Rights in Afghanistan; Ehsan Qaane, a well-established political and legal analyst from Afghanistan; and Najiba Sanjar, former regional director for the Swedish Afghanistan Committee, shed light on the failure of the international intervention in Afghanistan and the plight of the Afghan people before and after the Taliban takeover. However, the lecture also dug into complex, legal and practical questions, like what happens to the embassies of the Islamic Republic of Afghanistan when the Islamic Republic has fallen and the Taliban government remains unrecognized. Similarly, the lecture on polarization shed light on the deepening political divides in Europe and globally and the challenges of legal responses in situations where the idea of the rule of law itself is under threat. However, this lecture also dug into very concrete, legal issues around how the EU is dealing with so-called 'illiberal democracies' within its fold, and how the legal safeguards for press freedom were being dismantled in Poland and Hungary.

The lectures that have focused on prohibiting certain weapons and the international arms trade have included *Banned? Legal conundrums on biological, chemical, and nuclear weapons* (2018), *Contextualizing the Arms Trade Treaty: Law, Politics and the Everyday Reality of Conflict* (2020) and *Nuclear weapons: legality and diplomacy* (2023). What these lectures have brought to bear are the tensions between states wanting to regulate certain weapons and restrict trade for international security reasons, while at the same time wanting to ensure that they themselves have the necessary defense systems to ensure national security

and their wish to benefit from the financial profits that stand to be gained in the arms trade.

For example, during this anniversary year of SBEL, the lecture discussed the legal and political conundrums surrounding nuclear weapons. The topic was chosen partly because of Russian president Vladimir Putin's threat that he may use nuclear weapons in the war Russia is waging in Ukraine. Regardless of whether this threat is real or not, it has propelled nuclear weapons, the role they play in global politics, and the ways they are regulated, onto center stage in international politics and law. For those dealing specifically with international security politics and the complex regulations around the non-proliferation of nuclear weapons, these topics of course never left the stage. Ever since atomic bombs were used on the Japanese cities of Nagasaki and Hiroshima in the Second World War, effectively ending the war, but doing so with devastating effects, efforts have been made to limit what countries have nuclear weapons and to ensure that their use is a clear red line that should not and cannot be crossed. The approach of the annual lecture was to shed light on this complexity: it provided insights into nuclear weapons in the current geopolitical setting, it focused on the technical specificities of nuclear weapons or why they are a very special kind of weapon, and it offered an understanding into how they are regulated under international law and international humanitarian law.

The lectures that have focused on the role of international law in regulating how laws are fought and ensuring accountability for war crimes include *International Criminal Courts: Great Expectations, Successes, Limitations, and Room for Improvement* (2012), *The Changing Nature of Warfare—Current Challenges to International Humanitarian Law* (2014), *Combating Sexual Violence in Conflicts—What Role for International Law* (2015), *International Humanitarian Law and the Individual—Contemporary Challenges: understanding and limiting non-state actors' recruitment of voluntary fighters* (2016), and *How is International Law Used to Combat Terrorism? Mapping challenges and outlining strategies* (2017). These lectures have dug into the changing nature of conflict and the different ways in which wars devastate lives. The focus has of course been on the possibility to use law to regulate behaviour in conflict.

For example, the lecture focusing on sexual violence in conflict, shed light on the egregious gender-based and sexual violence that seem to be part of every

conflict independent of type, scale, or length. However, the lecturer also helped show how the approach to sexual violence has shifted over the past few decades, from having been seen as an unavoidable reality of conflict to becoming viewed as a war crime. One of the speakers, Diane Brown of the Women's Initiative for Gender Justice, traced the history of sexual violence as a war crime through the UN ad hoc tribunals to its inclusions in the definitions of atrocity crimes included in the Statute of the International Criminal Court. The two other speakers, Milica Kostic of the Humanitarian Law Centre, and Sari Kouvo, one of the authors of this chapter, talked about sexual violence in the context of the wars in the Balkans and in Afghanistan. While the case studies underlined the importance of accountability, they also problematized some legal distinctions. Both case studies showed that the distinction between sexual violence as a crime and as a war crime often does not correspond to the lived experience of sexual violence during conflict. They also discussed the complexities of living with the trauma and stigma of sexual violence.

Despite their different foci, the lectures have focused on exactly the issues that Joakim Dungel used his too-short life to defend: international justice, human rights, and the protection of civilians, as well as the need to tread carefully and with humility in international affairs.

It can be noted that one lecture did not clearly fit any of the three categories identified above. In 2019, the annual lecture focused on environmental justice "In the Air, on the Land, and in the Sea". However, the authors have no doubt that future lectures will address more of the interlinked issues of international law and environmental concerns, as this is obviously one of the most challenging areas of international politics and law, as well as for our collective survival. Most of the lectures are available to watch online, on the webpage for the association on SBEL's website.

Connections

Beyond the knowledge shared and the meetings that take place during the lectures, the lectures have served to build networks, between students and lecturers, Gothenburg University and other institutions, and among the speakers themselves. All lectures were in-person events from 2012 onwards, until the COVID-19

pandemic forced a digital delivery in 2021. The in-person events were held in Malmstenssalen, the main lecture hall of the Business school, and were followed by a dinner. This gave the in-person event an allure of academic prestige and enabled discussions with broader faculty. The online event allowed for less networking, but these events allowed more people to connect. As digital events remained popular even after pandemic-related restrictions were lifted in many places, the 2022 and 2023 events were also delivered in a fully digital manner when some of the speakers could not join in person. This said, as organizers, we are hoping to get back to in-person or a hybrid event for 2024.

In-person events allow students to take the opportunity to ask questions during the lectures but also to approach speakers afterwards. The one benefit of smaller audiences during the initial years of the series was that they offered space—both physical and conversational—for discussions to continue after the lectures had wrapped. Students sometimes asked for career pointers, for deeper insight into certain questions, and similarly offered their feedback to organizers. The switch to digital lectures in 2021–2023 has hampered this opportunity for students. Getting back to in-person events would also mean getting back to the 'student mentoring' aspect of the lectures; i.e., enabling students to dig deeper and seek advice on professional development in certain areas of international law.

Future Avenues

Institutionalization

To conclude this chapter about the annual Joakim Dungel lectures, the authors peer towards the future. We do so with a focus on the institutionalization of the lectures, their substance, and the connections they create. The Association is keen to ensure that the lectures continue in the future, and ensure that they remain an integral part of the annual calendar and the fabric of SBEL. The lectures enjoy support from the central administration of the Business School and are now an obligatory part of the International Law course. However, it is likely that the planning and organization of the lectures will remain the responsibility of those who feel an affinity with the lectures, but these persons, of course, will vary over time. Institutional support from the Business School and the Law Department is therefore invaluable.

Substance

A pattern has emerged both in regard to the topics and the choice of experts for the lectures. The topics have come to center around how international law regulates conflict and the complex balance between law and politics in our increasingly polarized world. Regarding experts, the lectures tend to include an international law practitioner—often one working for the UN or for other multilateral organizations—a representative from civil society, or sometimes an academic or a Swedish diplomat.

From the point of view of the Association and its counterparts in the Law Department, the overall aim of the lecture remains highly relevant. The lectures should continue to shed light on challenging areas of international law for which there is no one evident or right answer, but that merit continued attention. However, it is possible that the connection between the challenging debate that the lectures provide an opportunity for and the practice of change can be accentuated going forward. Given the increasing number of global crises and conflicts, it is important to provide students with a sense that change is possible and show them how international law and its institutions can be used.

Connections

The first lectures largely relied on Joakim Dungel's network of friends and colleagues. Some of Joakim's friends continue to be active in the association, comment on topics, and provide ideas for speakers. However, the annual lectures have also moved beyond this initial network. Over the years, the lectures have themselves have become networking opportunities for academics, international civil servants, and activists. The connections that are created also inspire students, and provide them an opportunity to reflect on other career pathways. Since the Association was established, its members have reflected on what more could be done with the association; both with the lectures themselves and the connections they create.

We are pondering the possibility of establishing a network of former speakers. This could, at a minimum, involve ensuring that all the former speakers are invited to the annual lectures and receive the link to the recorded lecture after the event. However, this could also go further by creating institutional links between

either the Association or the Law Department and some of the institutions with whom we have worked closely over the years. For example, Professor Susan Perry at the American University in Paris has expressed a keen interest in hosting one of the lectures at her department, and Richard Bennett, the UN Special Rapporteur on the Human Rights Situation in Afghanistan, and Ehsan Qaane who spoke at the lecture focusing on Afghanistan, are both now based at the Raoul Wallenberg Institute for Human Rights in Lund and are keen to identify ways to cooperate. These are just two of many examples of personal and institutional affiliations that could be fostered and built upon.

Whatever form the institutional, substantive, and network-related aspects may take, the authors' principal aspiration is that the lectures remain relevant and continue in the same spirit: honoring those who dedicate their lives to justice by understanding the topics they tackle. In essence; learning from our past to build a better future.

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Reporting for sustainability — A presentation of challenges

Emmeli Runesson and Niuosha Samani

Introduction

Global and local sustainability goals have broadened the meaning of corporate reporting. The accounting divisions of companies already grapple with difficult questions, such as how to assign values to intangible assets. This pressure is further compounded by the realization that companies are also accountable to a broader range of stakeholders. While we used to think of corporate reports as conveyors of primarily financial information, the reporting landscape has significantly expanded in recent years to address the increasing demand for transparency regarding environmental, social, and governance (ESG) performance. Following initiatives such as the European Green Deal and the UN's Sustainable Development Goals, regulators in the EU and globally have pushed to broaden the scope of corporate disclosure regulation to encompass not only financial information but also non-financial (sustainability or ESG) information. And at universities, our understanding of accounting has undergone a transformation in both education and research.

We observe a number of current and future challenges in the face of an evolving corporate reporting landscape—for companies, regulators, standard-setters, and academics. The most salient of these are:

- Agreeing on the objective of sustainability disclosure
- Determining whether sustainability disclosures achieve a given objective
- Determining whether *regulation of* sustainability disclosure helps achieve a given objective
- Performing a satisfactory cost–benefit analysis of sustainability reporting and related regulation

In this chapter, we examine each of these challenges in turn and clarify how we, as accounting academics at the school and elsewhere, are positioned to tackle these challenges.

Agreeing on the objective of sustainability disclosure

Perhaps surprisingly, there is no consensus in the business world concerning the objective of sustainability disclosures. Over the past two decades, companies have provided sustainability information voluntarily to varying degrees. But to what purpose? What do company stakeholders do with this information? Does it help conscientious consumers decide whether to buy company products? Does it help sustainability-focused investors decide whether to buy company stock? Does it help the public determine the potential externalities generated by the company? In other words, does it help stakeholders determine the value (positive or negative) created for society, or perhaps just the value created for company owners?

In recent years, political pressure on companies to provide sustainability-related reporting has increased. With regulators in the EU and around the globe taking initiatives to make sustainability disclosures a fixed and permanent part of companies' reporting duties, and with standard setters scrambling to lead the way when it comes to mandatory disclosures, it is somewhat sobering to realize that we still have no consensus regarding the purpose of these disclosures. We have still yet to agree on the answer to the question: *What is the desired outcome?*

If one is to judge from research findings, companies disclose sustainability information for two primary reasons: to gain *legitimacy* and reduce *the cost of capital*. In other words, they share potentially sensitive information about their corporate practices, and the way in which these practices may have consequences for the environment and society, to legitimize company operations overall, or to boost shareholder value. However, explicit discussions of objectives or attempts to synthesize any potential discussions have not resulted in any mainstream conclusions in the academic literature.

As for practice, there are likely as many objectives as there are companies reporting—and a smorgasbord of disclosure frameworks to choose from, depending on one's preferences. The acronyms of organizations dedicated to developing disclosure guidelines are dizzyingly plentiful even for the initiated; in no particular order, we have the SASB (Sustainability Accounting Standards Board in the US), GRI (Global Reporting Initiative), IIRC (International Integrated Reporting Council), TCFD (Task Force on Climate-related Financial Disclosures), and more recently, ISSB (International Sustainability Standards Board) and EFRAG (European Financial Reporting Advisory Group). Add to that the frequent consolidations and mergers among the actors vying for dominion, and the complexity increases.

Even as we move toward a more regulated landscape, the "multiverse" of reporting practices and frameworks is not necessarily going away any time soon (Baboukardos et al., 2023). This means we can expect disclosures to remain disparate and incommensurable in the foreseeable future. To accountants, the problem is clear: non-comparable reporting with limited usefulness and a non-level playing field for companies.

Let's agree to disagree on two potential objectives

There are at least two distinct and competing objectives for sustainability disclosure in the business world and, as a result, two distinct approaches to the development of sustainability standards. Under one approach, companies should inform stakeholders (primarily shareholders) about risks or opportunities stemming from sustainability-related concerns (such as climate change) that may affect operations, and ultimately, company value. This has become known as reporting based on a *single materiality* (or outside-in) perspective.

Under the alternative approach, companies should consider not only the impact of sustainability matters on the company, but the impact the companies have on sustainability. A so-called *double materiality* approach (an inside-out perspective), which focuses on the corporate footprint on the social and ecological environment, is more complex, as it entails addressing the information needs of a broader group of users. Ultimately, it reflects a stakeholder perspective on organizations: According to Freeman (1984), organizations are in continuous relationships with various actors in the social and political process. This involves managers building connections and links with external stakeholders, including the government, customers, the community, the media, and NGOs (Clarkson, 1995).

Different organizations and standards—different objectives

Some of the aforementioned organizations like the GRI have explicit goals to mitigate climate change or help companies to contribute to a sustainable world in a broader sense. Their approach is consistent with double materiality assessments. Similarly, the political agenda exemplified by the EU's Corporate Sustainability Reporting Directive (CSRD, effective as of 2024) is to promote favorable environmental, social, and governance impacts through reporting. EFRAG echoes this overarching political goal in the proposed European Sustainability Reporting Standards (ESRS), which will be mandatory for companies subject to the CSRD.

Others, such as the IIRC and the ISSB, have frameworks that are primarily investor-oriented. That is, information about sustainability issues is considered relevant if it helps investors determine firm value (i.e., this involves single materiality assessments). The IIRC, which developed the Integrated Reporting (IR) Framework, is an interesting case study. Lobbying and political capture has been used to explain a shift in objectives over the course of its lifespan—from a sustainable world to company valuation.

The IIRC began as a multi-stakeholder coalition (initiated by King Charles, then-Prince of Wales), involving Accounting for Sustainability (A4S), the International Federation of Accountants (IFAC), and GRI. Sustainable business practices were the expressed goal, and a Triple Bottom Line (TBL) framework was the inspiration. However, the people–planet–profit philosophy became lost along the way, perhaps as representatives from companies, investor groups, non-profit organiza-

tions, academics, standard setters, audit firms, sustainability groups, etc., crowded to join the development of the IR framework. The framework in its final form, published in 2013, was heavily business-oriented with an explicit focus on capital providers and on companies' own value creation. There was very little emphasis on responsibility or accountability, with the term 'sustainability' mentioned only *once* throughout the entire framework (Flower, 2015). Despite having expressed visions of bolstering long-term thinking, it offered no solution to the myopia of today's markets.

Incidentally, the IIRC was gobbled up (as was the SASB) by the IFRS Foundation, the body that oversees, administers and funds the ISSB and the IASB (the International Accounting Standards Board). The purpose of the IASB is to develop a single set of high-quality, globally accepted *financial* reporting standards, whose overall objective is to ensure well-functioning capital markets. It is impossible to deny its success, especially after the EU mandated the use of the standards (IFRS) for listed companies preparing their consolidated financial statements.

The idea that an organization with such a formidable track record in standard-setting should remain on the sidelines while demand for sustainability reporting standards took off, now seems a rather silly notion. The ISSB was founded as a response to said demand.

It is of little surprise that the overarching objective of the ISSB is shared with that of the IASB: to develop standards that guide firms to greater transparency on issues that have bearing on capital providers' investment and lending decisions. Now, whether anyone expects the ISSB to have as much influence as the IASB, we note that the EU is not endorsing the ISSB as it did the IASB, since it promotes a double materiality view and has already tasked EFRAG with developing European sustainability standards. Having said that, the IOSCO (International Organization of Securities Commissions) has recently endorsed the ISSB standards (IOSCO, 2023) and encourages its members to explore how they can adopt, implement, or benefit from them.

To wrap up this discussion, we conclude that there are two primary competing objectives in sustainability reporting:

1. Informing investors and possibly other capital providers about how sustainability issues and challenges affect value creation within the firm (single materiality)

2. Informing a broader set of stakeholders, including the general public, about corporate practices that have sustainability-related impacts, thus increasing corporate accountability, enabling dialogue between the company and its stakeholders, and ultimately ensuring that sustainability challenges are tackled (double materiality)

Someone who believes in the importance of double materiality assessments is entitled to feel that the discourse has been captured by some of the large influential regulatory bodies. If companies and regulators believe in only making single materiality assessments, we will likely see limited advances in environmental practices or social responsibility—as limits are dictated by the extent to which sustainable development and transparency boosts shareholder value.

Setting an objective function is a normative endeavor, and arguably a political matter. So, to what extent (if at all) should academics decide which is the preferred perspective? Clarity in the declaration of the objective by politicians and policymakers may be a modest but reasonable start. At that point, the next challenge befalling academics is determining whether a stated objective has been reached.

Determining whether sustainability disclosures achieve the given objective

Assuming we can agree upon the users of sustainability disclosures, and consequently, the objective of disclosing, companies, regulators, and academics are all impatient to know whether disclosures achieve what they purport to achieve. The difficulty lies not least in the heterogeneity of sustainability information (as compared to financial information)—and not just with respect to the users or the objectives, but with respect to the measurements involved. We are used to translating economic transactions and conditions into euros and dollars, but what is the unit of measurement in sustainability reporting? It is difficult—no, almost impossible—to imagine any one unit capturing all the dimensions of environmental, social, and governance issues.

If we believe the objective of sustainability reporting is the first one outlined above (i.e., single materiality), we would at least expect disclosures to provide information above and beyond what capital providers find in *financial* reports. It is far

from obvious that this is the case. We have experience doing research in this area, however. The effect of disclosure on capital markets is a question as old as accounting research itself—or at least accounting research as we've come to know it in the post-computer era of the 1960s onward. As we pour over company reports and disclosures trying to determine corporate transparency, or download large quantities of data from databases to assess the relevance of the numbers, what we are trying to do is determine the quality—the usefulness—of the information. With respect to sustainability information, if the objective is to inform capital providers, our long history in the financial reporting of measuring market responses to disclosure might help us evaluate the impact of sustainability disclosure on company value. Having said that, determining the *incremental* value of these disclosures is what we are really interested in, and that comes with its own set of challenges.

Moreover, to date, we have yet to come up with efficient ways of measuring whether sustainability disclosures result in more *sustainable practices*. If we adhere to the second and broader objective of sustainability disclosure—to promote sustainable practices by increasing a company's ability to be held accountable to a broader set of stakeholders—then the disclosures must really be evaluated based on whether companies change their behavior as a result of their reporting. In other words, do they walk the talk? Are there any *real* effects? Because, surely, high-quality disclosures aren't enough in and of themselves. Is a company that pollutes the land and provides information about the extent of their detrimental activities off the hook? They have taken responsibility, one might say, in embracing transparency and enabling that sought-after dialogue with stakeholders. But unless stakeholders can drive change, the information itself is of limited use. In the worst-case scenario, the company that pollutes is only engaging in "green-washing" activities: providing deceptive information about its environmental responsibilities, prioritizing profit over genuine sustainability.

Distinguishing the good from the bad and the ugly will continue to challenge both the users of financial statements and researchers hoping to contribute to regulatory developments. Studies looking into the real effects of disclosure (answering the question, Do they lead to real change?) are absent overall, but understandably so. Determining direct causation between disclosures and outcomes is complicated, not least by time lags and confounding factors.

Determining whether *regulation of* sustainability disclosures helps achieve a given objective

Accountants (and others) have long emphasized the role of information in reducing information asymmetries between companies and their stakeholders. In response to growing pressure for more comprehensive sustainability information from various user groups, companies have provided *voluntary* sustainability disclosures for decades. The rationale for voluntary disclosure is partly the same as for financial information—if information asymmetry is reduced, capital markets become potentially more efficient, and the cost of capital goes down. In addition, and as we said earlier, companies are driven by legitimacy concerns and even (according to the less cynical observer) more philanthropic motives.

Be that as it may, significant research has found that the provision of voluntary sustainability information is often an exercise in green-washing. The resulting lack of credibility associated with voluntary information is perhaps the primary argument as to why we need regulation.

The significance of high-quality standards for enhancing *financial* reporting has been repeatedly documented by researchers, indicating that both high-quality regulation and subsequent enforcement mechanisms matter (Christensen et al., 2013). Examining regulation through an economic lens reveals its usefulness in reducing transaction and information processing costs, benefiting all users (Leuz and Wysocki, 2016; Scott, 2012). There is also evidence supporting the positive impact of regulated *sustainability* disclosures on firms' market value (Ioannou and Serafeim, 2019; among others), suggesting investors value sustainability information and view regulation as a means of enhancing a company's credibility.

In addition, and perhaps more pertinent to sustainability reporting, regulation has the potential to curtail companies' flexibility in selecting the type of information they wish to disclose and compels them to be more accountable for their actions. If recent findings are anything to go by, mandatory sustainability information provided by companies leads to more informed stakeholders who, in turn, can pressure companies to be more transparent about their actions, especially if those actions do not align with societal expectations (Baboukardos et al., 2023; Haji et al., 2023; Jackson et al., 2020). However, expanding the analysis to investigate whether regulated information has any *real impact* on the environmental and

social practices of firms is far from straightforward. There is early evidence that the implementation of sustainability disclosure standards has caused firms to shift toward more innovative green practices and pro-climate technologies (Mbanyele et al., 2022), suggesting regulation can potentially mitigate climate risks by changing a firm's behavior. Similarly, some studies (Chen et al., 2018; Christensen et al., 2017) indicate that recent sustainability regulations have led to improved health and safety of employees at work. The stubborn challenge in these types of studies is determining causality. In the case of voluntary reporting, we have self-selection issues; in the case of regulation, there is a tendency for regulation to be accompanied by other concurrent developments (many institutional changes happen at once).

The volume of sustainability disclosure has clearly risen in recent years, especially in Sweden and in Europe. The precursor to the European CSRD, the EU Directive on Non-Financial Reporting (NFRD, 2014/95/EU), was considered "a historical turning point" (Reuters, 2014)—raising the bar for large public-interest companies in the EU by introducing mandatory corporate sustainability disclosures. However, whether the resulting increased information flow is associated with real transparency or is simply an exercise in boiler-plating, is not yet obvious.

So far, the NFRD has been criticized for being too vague, lacking specific requirements, and leading to information that is heterogeneous and difficult to compare (see, e.g., Bini et al., 2023). The CSRD is thus the EU Commission's answer to calls for greater corporate accountability by non-governmental organizations (NGOs), social partners, and other stakeholders (EU Commission, 2021). Whether the CSRD will be more successful remains to be seen.

Overall, we can expect an influx of research papers investigating the impact of mandatory sustainability disclosure in the EU. Not only is the new set of standards by EFRAG nearing its implementation phase; the sustainability standards issued by the ISSB are also due to be launched in January 2024.

Monitoring and enforcement

Relatedly, we should ask ourselves to what extent additional monitoring and enforcement mechanisms complement regulation or are a prerequisite for the benefits of regulation to manifest themselves. Accounting and finance literature has

engaged in a broad examination of the role of corporate governance mechanisms as well as of national enforcement agencies. For example, studies of the impact of the IFRS indicate that the benefits of these standards are limited to jurisdictions with dedicated enforcement agencies or ones that have experienced other institutional changes (Banghøy et al., 2022; Christensen et al., 2013). In addition to independent bodies tasked with enforcing compliance with accounting standards, the internal corporate governance of firms also plays a role. Notably, the influence of the board of directors has been scrutinized, demonstrating that variables such as board independence and diversity contribute to upholding high-quality financial reporting (Kim et al., 2014; Srinidhi et al., 2011).

In the domain of sustainability reporting, researchers have the opportunity to investigate not only the role of conventional governance bodies, such as the board of directors, but representatives of a broader group of stakeholders. Evidence from the Non-Financial Reporting Directive era indicates that these other stakeholder groups had a notable impact on reporting alongside changes in the EU regulation (see, e.g., Samani et al., 2023). In general, stakeholder engagement is a process by which organizations involve stakeholders in identifying, addressing, and reporting material sustainability issues, and in complying with stakeholder expectations (Manetti & Bellucci, 2016; Morsing & Schultz, 2006). It builds on the idea that managers should promote "sound business practices that meet and enhance accountability, transparency and disclosure expectations of all interested parties" (Kaymak & Bektas, 2017, p.577). As such, it is a potential enabler of stakeholder watchdogging. However, identifying those other stakeholders and the ways in which companies engage with these stakeholders, is nothing less than a challenge.

Performing a satisfactory cost–benefit analysis of sustainability reporting and related regulation

Accountants are often thought of by the uninitiated as 'bean counters' and 'number crunchers', but as any accountant (be they academic or practitioner) knows, financial accounting is a regulatory battlefield. Knowing the local and global accounting laws, regulations and standards, is as important for accountants as it was for a god-fearing individual in the Old Testament to know God's ten commandments. As such, accountants have a vested interest in making regulation as com-

plex as possible. Higher complexity means higher consulting fees. In retrospect, the fact that we see an increasing regulatory trend in the field of sustainability reporting should not have come as a big surprise.

But what does an increasing regulatory burden do to the business world? There is already a delisting trend; that is, companies leave stock markets for private equity because it is simply too costly to be public. The new CSRD targets unlisted as well as listed firms, thus closing the gap between public and private companies in terms of the regulatory burden—but at what cost? While it may seem only fair that a company of a certain size and societal impact has the same responsibilities where sustainability matters are concerned, what are the implications for these companies, and are they necessary? Unless we know the reporting objective, how can we say that it is a reasonable requirement?

Ironically, when academics hear about new regulations, they seldom stop to question whether they represent a sound development; they prefer instead to see them as a fresh research opportunity. Regulatory change provides excellent 'natural experiments' that the econometrically (or otherwise) interested researcher can 'exploit'—foregoing such opportunities would be rather wasteful. Of course, the research question itself nearly always addresses whether the regulatory change is a sound (or more broadly speaking, 'good') development; but here is the catch: the two most likely outcomes of a study of regulatory change are 1) no effect, or 2) an improvement in the state of things. Because a non-result is statistically difficult to justify (as it may simply indicate low power in the test) there will be a publication bias in favor of the second outcome. The finding may very well be valid, but the net benefits of regulation go unchallenged nine times out of ten. In other words, a cost–benefit analysis is not done because it is, well, too costly.

A cost–benefit analysis is daunting because the costs and benefits are macroeconomic. Granted, estimating the costs of expanding the reporting division of a company or hiring additional sustainability auditors (these have yet to become a thing) is comparatively easy. But estimating the costs of the regulatory apparatus is more challenging. And estimating the dynamic benefits in the economy or for the planet as a whole—that is, the real effects of (regulated) disclosure in the short and long term—is, quite frankly, unimaginably difficult.

Different regulations (and objectives)–different benefits and different costs

The costs and benefits of satisfactorily implementing a standard that requires single materiality assessments are notably similar to those we should be estimating for mandatory *financial* reporting. The *incremental* costs and benefits of implementing a sustainability standard where a financial reporting standard is already in place, however, are possibly negligible. Let us, for example, consider the standards proposed by the ISSB. Their objective is so closely aligned with existing accounting traditions as expressed in both international and US financial accounting standards (IFRS and US GAAP) that one must question their incremental value. Logically, if a company adheres to the IFRS and its conceptual framework, all transactions and conditions relevant to investors' and creditors' decision-making will be reflected in the company's general-purpose reports and financial statements. Whether these transactions and conditions are sustainability-related should not matter. Thus, the ISSB's sustainability standards appear to have the character of application guidance for disclosures that are already required (Marton et al., 2022). The benefit of having an extra set of standards is not significant, meaning any cost to companies would be excessive. In other words, having separate sustainability-related disclosures and standards to regulate them would seem redundant, and regulatory duplication is the likely outcome. Especially in light of the fact that sustainability-related disclosure, by nature, is bound to be highly speculative and uncertain, as companies emphasize forward-looking information about future risks and value implications of sustainability developments.

As for double materiality assessments, the cost of satisfactorily implementing a standard that requires a company to consider all its potential material impacts on the social and ecological environment, is and will remain significant. Meanwhile, the benefits may be inconsequential—talking is not the same as acting, even when the words speak the truth—or momentous, as investors, consumers, and society hold the company accountable for its actions, thus steering it toward sustainable practices.

Concluding thoughts: What can we do?

This chapter presents and discusses four sustainability reporting challenges facing accountants in academia and in practice:

- Agreeing on the objective of sustainability disclosure
- Determining whether sustainability disclosures achieve a given objective
- Determining whether *regulation of* disclosure helps achieve a given objective
- Performing a satisfactory cost–benefit analysis of sustainability reporting and related regulation

Agreeing on a universally accepted objective for sustainability disclosure might not seem all that necessary. Perhaps we could simply agree to disagree? However, as long as there are *implied* objectives and therefore implicitly desired outcomes, it is best we figure out what we are talking about. As academics, we might never set the agenda or the objectives, but when we speak of high-quality reporting, we need to know what we mean; otherwise, we cannot assess the effectiveness of sustainability disclosures in achieving their intended objective. The challenge at hand underscores the need for enhanced clarity and communication, both within the academic community and when conveying our research to a wider audience. In communicating with students, it is our responsibility to ensure that they leave not with simple solutions but with the right questions. We do this, for example, by pointing out that sustainability challenges are often about trade-offs, that regulatory efforts are highly political endeavors, and that reporting on problems is not the same as solving those problems.

Regarding the challenge of assessing whether sustainability disclosures, and the regulation of such disclosures, achieve the given objective, we note the following. A single materiality perspective on sustainability reporting takes an investor or valuation perspective, and as such, we already have the basic tools needed to make assessments. As mentioned above, there is extensive research on the effect of disclosures on investment decisions. At the school, we have ongoing empirical research, including methodological developments, devoted to increasing our understanding of how capital markets use corporate disclosures—both financial and sustainability information. However, in the context of double materiality (which considers the company's impact on its surroundings rather than the impact of the surroundings on the company), further theoretical development is needed before we can contribute meaningfully to empirical research. Notably, a bibliometric study conducted by the authors reveals that accounting researchers predominant-

ly rely on established theories borrowed from fields like management (institutional theory) and finance (agency theory) to explain a wide range of sustainability reporting matters. Legitimacy theory, which explores ways in which companies legitimize their operations, and stakeholder theory, which posits that a successful business is dependent on sustaining relations with broader stakeholders, are also commonly referenced. However, all of these theories are primarily concerned with the preparer's perspective and are ill-suited for examining how stakeholders receive, interpret, and generally use sustainability disclosures.

Finally, we as researchers must dare question the alleged need for more and more regulation and instead seek to establish the right level of regulation—a level that fosters desirable practices without hampering growth and entrepreneurship. Sustainability reporting requires resources—both financial and human—and getting the cost–benefit analysis right should be at the top of our agenda. At the time of writing, we have a research team within the accounting department that is actively investigating whether implementing more complex regulatory measures for financial reporting in a private firm setting results in tangible benefits. These benefits might include business growth and a reduced incidence of fraud. In cases where such benefits are not realized, it becomes evident that the costs associated with regulation outweigh the advantages. The critical question remains whether findings from this research on financial reporting regulation can be translated to sustainability reporting, or whether the distinct factors and dynamics of sustainability reporting necessitate a unique evaluation of cost-effectiveness in this context.

As we consider the above challenges, we are likely to need greater interdisciplinary collaboration and ongoing dialogues among various stakeholders to navigate the intricate landscape of sustainability and sustainability reporting within academia and practice. In essence, there is a pressing need for foundational research and a more focused approach in our research endeavors. It is imperative that we do not allow research grants to be driven solely by a search for quick fixes to specific, narrow problems. Long-term thinking is vital in addressing the complex subject of sustainability, not despite its challenges, but precisely because of its complex nature.

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The past and future of work in a changing labour market

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Work

According to Statistics Sweden (SCB), about 5.2 million people in Sweden (roughly 70% of the population) are employed or occupied gainfully: they *work*. The way work is organized in our society is a legacy of the second industrial revolution of the mid-1800s, and agreements between the labor market parties following this path-breaking period of technological and sociological change. The importance of paid work resulting from employment, the idea that we go somewhere to work for a specified number of hours (which have been stepwise reduced to about eight hours five days a week), the idea that we specialize and work together with colleagues in the workplace, that this work can be nominally taxed and render pension benefits, and that if we become injured and cannot work there is at least some compensation—this entire system around work is a result of societal change beginning with the second industrial revolution. To this long-term process, we can add that a vastly gender-segregated labor market has been created as an outcome of the unfortunate but ancient idea that women and men should perform different

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kinds of work, combined with the entry of women into paid work in the decades following the second world war.

In all, the ways in which the idea of work and the structures around it have developed during the last 150 years or so have a dominating influence on how we live our lives. Studying the everyday structures and practices of work is essential; not only to understand work itself, but to understand how economies and societies are built and how they change.

In fact, currently, the debate about the future of work is intense. Will there be jobs, what will be the tasks filling them, and where will they be available? Just consider the following titles of much-read works: *The second machine age: Work, progress, and prosperity in a time of brilliant technologies* (Brynjolfsson & McAfee, 2014), *Why are there still so many jobs? The history and future of workplace automation* (Author, 2015), *Technology at work. The Future of Innovation and Employment* (Frey & Osborne, 2015), *The Future of Jobs—Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution* (World Economic Forum, 2016), *Automation, skills use and training* (OECD Report, Nedelkoska & Quintini, 2018), and *Game changing technologies: Exploring the impact on production processes and work* (Eurofound, 2018).

The debate about the future of work is not particularly new—it has been around since the beginning of industrialization and has been touched upon by most major economic philosophers. While the debate about 'technological unemployment' (Freeman et al., 1982) in the 1970s came to nothing—technological unemployment on a large scale did not happen—it is also true that the nature of work has changed drastically since the 1970s; although this has been a *qualitative* change, rather than a quantitative one. For example, around 2017, the Swedish multinational corporation SKF, which produces ball- and rolling bearings for a wide range of applications, invested around 20 million Euros in its plant in Göteborg to build a fully automated process for the mounting of rolling bearings. Labor-intensive work processes were completely removed, saving the body-wrecking work of equivalently 100 people. At first sight, this initiative seems to embody the very essence of labor-saving process technologies in our time. Yet, no-one lost their job because of that particular investment in Gothenburg. Workers were all transferred to other departments within SKF (Ny Teknik, 2017). Technology

changed jobs, but it did not destroy them. But the question remains: how general is this particular example?

In this chapter, we summarize some of our empirical and theoretical experiences from ongoing research about the changes to, and maybe future of, work in the Swedish labor market. We will do so according to four short themes: *work how?* (technology and flexibilization), *work where?* (geography), *work for whom?* (fragmentation and financialization), and *work by whom?* (gender and feminization). For some of these themes, we draw on the distinctions drawn by the sociologist of work Jill Rubery (2015), who described the past 50 years of job- and labor market change as aggregated into four themes: "feminization, fragmentation, flexibilization, and financialization". We will end the chapter with a short discussion about some of the implications for higher education, and for how we train people for a future labor market. An early note: this chapter will discuss labor market change from the point of view of developed economies; particularly that of Sweden. Labor market dynamics in transitioning economies and less-developed countries of course look very different, which is another—albeit related—story.

Work how? (technology and flexibilization)

Technology

Historical technological change has allowed us to replace much of human work with work done by machines. This has also affected how work is organized; especially how flexible it can be allowed to become. Often, but not always, machines not only replace human labor, but do the work better and in a more predictable way. From a historical perspective, this has been a fantastic process. Automation has historically liberated people from hard toil and dangerous work, as jobs and workplaces have become safer and cleaner. It has also allowed people, on average and over the longer term, to work fewer hours with higher levels of welfare.

At least since the first industrial revolution, a debate about 'technological unemployment' (Freeman et al., 1982) has, in different forms and with different intensity, been present in the public debate in parallel to ongoing technological change (Frey & Osborne, 2017). Such technological unemployment is counteracted in the automation process by the fact that technological change and auto-

mation also create jobs. At the level of the entire economy, this job creation has three immediate sources. First, technological change creates jobs for those who carry out the automation itself; for example, manufacturers of machines and auxiliary services. Second, increased productivity creates demand for other services. Third, automation allows people, or indeed forces them, to do completely different things. Some will engage in innovative efforts, complementary to new automation solutions or entirely independent from them.

These are long-term and large-scale processes that inspire long-term structural change. A more immediate labor effect of automation—often overlooked but highlighted in some recent work (Domini et al., 2021)—concerns the relationship between new process technologies and jobs at the level of the individual firm. This work poses the interesting Schumpeterian question of *where the immediate effects* on work stem from in the context of technological process change. Convincing empirical evidence similar to our SKF example in the introduction, shows that firms which implement new process technologies—automation—retain employees or even increase employee stock. In firms that do not invest as much in technological change, jobs are lost, as they cannot keep up with competitive pressure.

Given the fast development of AI and its applications in the workplace, discussions about technological unemployment have been rekindled. At present, how AI will transform work in the future, and how work is organized, is a subject for extensive policy debate and research. As to what work will be replaced by machines in the future, the current 'usual suspects' include low-skilled manufacturing work, service jobs and transportation, and routinized cognitive tasks such as analyzing and summarizing large amounts of data (Brussevich et al., 2019; Frey & Osborne, 2017).

We believe that some of the best clues as to the future of work can be found in the history of work, and from the theoretical lessons derived from such research. Work will continue to transform, as machines are increasingly thought to be more than simple replacements for work, but rather complementary to work, and will be used to augment and enhance human capabilities (Malone, 2018). One illustrative example is how AI decision-making support systems are being developed in healthcare, where AI supports emergency ambulance crews' work in preparing to treat patients. The Swedish tax agency uses AI to screen incoming e-mails, but

also to support human case managers in their decision making, aiding their exercise of authority. As AI becomes a tool in the decision-making process, it is crucial both for the legitimacy of the decisions that are made and for the technology's acceptance by individuals working alongside it, that the technology is transparent and can be understood. Studies show that unless AI is 'explainable' (Cajander et al., 2022), there will be issues with the implementation of such systems, and problems with employee wellbeing and work motivation. This is an obvious qualitative challenge for the development of future work complementarities, but it will not remove jobs at large.

In fact, *qualitative* aspects of work and the organization of work, and how process technologies impacted them, is maybe more telling of socioeconomic development since the industrial revolutions than the change in the pure number of jobs. On average, technological change and automation has enabled the replacement of many bad jobs by better ones. Jobs such as 'washing madams' (who washed clothes in ice-cold river water), manual potato- and beet-picking, and dangerous manufacturing jobs in smoky factories, are all gone; at least in developed economies.

Key to understanding this replacement and how jobs qualitatively change is *complementarity* (Autor et al., 2003). Non-routinized high-skill work has been especially complementary to technological change and has benefited from it in terms of demands for labor and productivity, whereas mid-segment workers, whose work has been less complementary with technological change have suffered. Average work has become more skill-intensive (Schön, 2010). At the same time, this transitory process has been a core explanatory argument in the debate about recent labor market polarization (Fernández-Macías, 2012). Polarization signals a growth in the tails of the labor market distribution—among the most qualified and well-paid workers on the one hand, and among low-skill (service) jobs, due to derived demand on the other (Goos et al., 2014). This labor market development cannot be explained by technological change alone, but does not exclude it.

Sweden is an almost perfect case illustration of all these developments (Schön, 2010). Remaining on the technological forefront (in terms of product technology as well as process technology) has become the means of competitive-

ness for Swedish manufacturing and business service firms. In Swedish manufacturing, as the share of employees holding a university degree has increased in both relative and absolute numbers, workers having only a basic mandatory school degree—which used to be a significant part of the workforce—are now almost phased out (Henning et al., 2016). This process did not come out of thin air; it has developed in tandem with the so-called Swedish model, one of the core aspirations of which was 'occupational upgrading' by allowing and promoting productivity increases and technological change. However, it became clear by the 2000s that this process also results in labor market polarization (Åberg, 2015; Henning & Eriksson, 2021).

Our discussion about technological change and jobs has so far, in our mind, been representative of empirical developments, but maybe a bit naïve. As an *average* outcome, work has become better and more productive thanks to technological change—there is nothing romantic about work in the past. And on the whole, technological unemployment has not happened. However, this does not mean that all individuals come out as winners during technological change. Not all individuals benefit equally from technological change in their work. This is particularly true for those individuals that are not able to or given the chance to develop their complementarities in the face of new technologies, or those that become stuck in low-end jobs growing out of the demand of more successful and complimentary work trajectories. While we have shown that people do not get mired more often in low-wage jobs than in any other job (Henning & Kekezi, forthcoming), some, of course, do. To make the impact technological change has had on work—which, on average, has been good—socially legitimate, it is of utmost importance to equip people with the abilities they need to progress in the careers by developing their complementarity with and alongside new technologies, and to secure reasonable welfare for those who cannot.

Flexibilization

How people work is not deterministically decided by technology, however. Linked to technology, but not exclusively dependent on it, is 'flexibilization'—capturing how work is organized, for how many hours, and at what times during the day, what forms employment contracts assume, and under what kinds of employment

security. For students in their 20s at the school of Business, Economics and Law, the famous *gold watch* awarded for lifelong service to a single employer is probably as archaic as CDs and wall-mounted telephones—something they have heard about and perhaps seen older people engage with, but not something that they ever see themselves associating with. Flexibilization suggests that employment norms have changed from post-war ideas of the loyal 'organization man' (Whyte, 1956) to a contemporary career consisting of many changes in employment and organizations over a lifetime. Career literature has outlined how the traditional institutional career in which clearly marked career paths were available, often within a single organization, are increasingly being replaced by flexible employee-driven careers. Here, individual workers in all sectors and levels recognize the need to actively and continuously engage in 'employment management work' (Halpin and Smith, 2017) to ensure their continued employability on the labor market.

Also, during the past few decades, what has been called '24/7 society' (Arman et al., 2021) where consumers expect to have access to goods and services outside of traditional office hours, has arisen in tandem with a growing service market in which the time when the services are produced and consumed are simultaneous. This has meant the time when work takes place has changed. For blue- and pink-collar workers working 'low-skilled' jobs, the demand for workers during peak times has meant that many workers must work split shifts on contracts at less than full time; for example, in retail, public transport, and elderly care. Also, for the small but growing number of gig workers working for platforms relying on new technological tools—such as food delivery couriers or ride hauling—paid work is concentrated in peak times when demand is highest.

For white-collar workers doing high-skilled work, on the other hand, work flexibility aided by new technologies is a much more positive experience. For these individuals, work is most often about employee-driven flexibility, which endows the individual with more autonomy as to when and where to conduct work. This entails working from home during certain days of the week, and during hours of one's own choosing. In the wake of the COVID-19 pandemic, during which many white-collar workers had to set up office at home, many organizations realized that it was possible to remain productive while staff worked, at least in part, from home. Studies of this kind of employee-driven flexible work show that from the

employee perspective, it is, to a large extent, positive. Employee-driven flexibility affords employees autonomy and freedom and has been shown to increase work satisfaction and wellbeing (Alfes et al., 2022.) However, there are also drawbacks for workers. Many feel obliged to 'pay back' their employers by being constantly available (Cañibano, 2019). Hence, studies report work intensification and an increased sense of responsibilization on the part of employees, as they internalize control and have to engage more actively in self-management (Alfes et al., 2022; Norbäck, 2021b). Also, the tendency to blur the boundaries between work and life is amplified, as 'work never stops', and all hours of the day become possible working hours (Gregg, 2013; Norbäck, 2021a).

Work where? (geography)

Work is distributed across the urban hierarchy in a very structured way (Henning et al., 2016). Although there are exceptions, high-wage work requiring a higher degree of formal training is concentrated in big-city and metropolitan regions, and many of the lowest-paid types of work can also be found in the biggest cities. In contrast, smaller regions are dominated by work in the middle of the wage distribution, with low shares in the most advanced and highly paid work (Henning & Kekezi, forthcoming). Manufacturing industries are most often located in mid-sized and smaller regions, while professional services have their principal cores in the bigger towns and metropolitan cities. The location of the public sector also follows a distinct specialization pattern. While regional research has emphasized the equalizing effect of the public sector across geography (i.e., it reduced inequality between regions), the relevance of such an argument has a lot to do with the poor quality of data available on public services. Recent research in our projects shows that when examining the type of work performed, the public sector is often even more spatially specialized than private sectors. This is not that strange—healthcare performed in big-city or university hospitals often involves extreme specializations, and extreme specializations in manufacturing are often found in industry clusters across the country.

It is however important to keep in mind that when it comes to work and jobs, specialized individuals really could make a difference. Manufacturing clusters across the country rely on highly skilled and trained engineers, even if the bulk of

jobs requiring higher education are found in big cities (Holm et al., 2013). This is especially true for some world-leading manufacturing firms found in peripheral locations due to historical reasons and locational path-dependency (Alvstam et al., 2019). Also, sustained growth in big-city economies requires the presence and combined efforts of workers from nearly all parts of the occupational spectrum. Recent research has particularly emphasized workers' team-based skill complementarity (Neffke et al., 2019).

In assessing likely future paths for changes in the geography of work, three aspects are especially interesting. The first concerns the mobility of individuals between jobs within different types of regions. This looks very different across different types of workers, depending on their occupation and the industry in which they are employed (Henning & Kekezi, 2023). The virtues of big cities are especially conducive to those workers moving from an already good job to an even better one. Workers that are moving from more modest jobs do not rely as much on the virtues of the big cities but can also find conducive local contexts to establish careers in less central clusters.

Second, notwithstanding the success of individual manufacturing firms in less central locations in world markets, the overall tendencies of geographical change since the 1980s has been toward the concentration of work in space (Henning et al., forthcoming; Rosés & Wolf, 2018). While much of the geographical population development since the second industrial revolution has been characterized by urbanization (Schön, 2010), this urbanization also benefited cities and towns across the country from a pure economic point of view. Following the 1980s, however, the urban system has been characterized by the concentration of work in big cities (Enflo et al., 2014). Structural change and the transformation of manufacturing work has been an important part of this process, as decreases in manufacturing work has taken place in virtually all kinds of regions, while growth in manufacturing-related professional service work has mainly taken place in the bigger cities and a few mid-sized university cities. This has taken place parallel to concentrations in the economic value of work. The last time that we experienced such a process was in the 1930s.

Third, it has been discussed whether automation and the technological forces impacting work will see a geographical bias across the foreseeable future; that

is, whether they will impact regional economies differently. On the one hand, the types of work (jobs) that are often assessed as facing a high risk of automation have a strong locational bias, given traditional industrial regions outside metropolitan regions (Henning et al., 2016). On the other hand, we also know that much manufacturing work in high-cost economies, such as Sweden's, have already been subject to automation.

Instead, we believe that the main force deciding the geographical impact of the technological change of work will be its future impact on service sectors. As chatbots and automated decision-making continue to transform the content of analytical and high-skill jobs in service sectors, the central issue becomes where in space labor will develop complementarities with these new technologies. New tools will indeed make, and already has made, many qualified service workers less dependent on their physical work location. On the other hand, most people seem to enjoy the amenities and resources of bigger cities. Given its historical evidence, a new geography of jobs speaks in favor of regional divergence, at the same times as niche skills continue to be in higher demand in industrial regions across the country.

Work for whom? (fragmentation and financialization)

Fragmentation deals with what has been described as the 'fissuring' of organizations, where previously vertically integrated organizations are being divided up as work is outsourced, offshored, and performed in complex networks. In his book on the topic, David Weil (2014) describes how subcontracting, franchising, and global supply chains are changing the conditions for work, especially for lower-skill workers. Weil shows how the fissuring of the workplace in the US has led to a situation in which people can hold three jobs and still not be able to make ends meet, a condition often talked about as 'the working poor'.

Although Sweden is a small and open economy, this development is less pronounced in the Swedish context due to stricter labor agreements and labor regulations, and more encompassing social security systems. Recent 'fissuring debates' in Sweden have focused on the construction industry, in which chains of subcontractors make it difficult to pinpoint what company is responsible for the working conditions at construction sites. In many cases, subcontractors move across countries and different national labor regulations, making employment re-

lations increasingly complex regarding what company should be held accountable for working conditions. Similarly, many service workers doing the cleaning and catering in Swedish hotels, hospitals, and universities, are not employed for the organizations in which they do their work. Hence, some employers have become increasingly invisible, making it unclear for workers regarding to whom they shall show loyalty, and if such loyalty would even be reciprocated. The recent pandemic has shed light on the downsides of fragmented supply chains, as companies experience how vulnerable they are to disruptions in the supply of goods and services. Perhaps this experience will change how organizations think about the fragmentation of their operations in the future, and make firms 'bring operations back in', or at least closer.

Another aspect of the fragmentation of work is the growing numbers of freelancers and contract-workers in what has been denoted as the 'gig-economy' (Abraham et al., 2017; Norbäck & Styhre, 2019). Here we find low-skill workers, who often choose this type of work due to a lack of regular employment opportunities, making this a subsistence work mode. However, there are also freelance workers in high demand on the labor market (often doing high-skilled work), who have chosen this way of work as it affords autonomy and freedom. This may also allow these skilled workers a wage premium, compared to long-term employment. Even though many high-skilled freelancers express high work satisfaction (Andersson, 2008) and enjoy the autonomy that freelancing affords, the literature of highly skilled freelance work also shows that freelancers tend to prioritize their clients and put work before other needs, such as private commitments (Gold and Mustafa, 2013). There is also an integral job-insecurity in the freelance mode of work, as workers are continually responsible for finding future work (Murgia & Pulignano, 2021). From the perspective of the worker, concerning such things as loyalty and the psychological contract, studies of freelancers show that they often identify with the freelance team and the community of other freelancers with whom they work. Freelance work also changes the notion of careers, from something previously rather predictable and linear, to something much more uncertain (Norbäck, 2022). Hence, as fragmentation creates fragmented organizations, it also creates fragmented careers and workers, for whom working life is a long series of continuous projects for different clients.

A related issue deals with increased possibilities for 'algorithmic management', and the fragmentation and outsourcing of management itself. In the growing digitalized service economy, gig workers work for platforms, but also increasingly service workers in restaurants, hotels, and beauty services are being digitally rated by customers based on perceived performance. In the platform economy, such ratings are often used as input to assign work, as the rating-systems used on food-delivery platforms where workers who receive ratings deemed 'too low' are cut off from using the app (Rosenblat & Stark, 2016; Gandini, 2016). In more traditional service work, the increasing possibilities for digital customer ratings can also be used by management as a tool for decisions concerning, for example, the termination of employment contracts.

In addition to fragmentation, financialization—described as the "the increasing role of financial motives, financial markets, financial actors, and financial institutions in the operation of domestic and international economies" (Epstein, 2005:3)—changes both the ways of organizing work, and the very motives and raison d'etre for work. Financialization, therefore, basically means that companies increasingly make money not from the quality of the products, but from engaging in financial activities of various kinds in order to extract financial value. This has repercussions both for workers' sense of purpose at work, and for the remuneration of this work. As work changes from a means of producing quality goods and services for the wellbeing of society, work is increasingly put in the service of shareholder value and owner wealth. This shareholder value is now achieved not so much through competitive success in the market because of outstanding quality or price, but rather from the organizing of assets and financial rearrangements to achieve and increase value.

Some scholars have connected the ubiquitous financialization of working life to increasing feelings of senselessness, lack of meaning, and resistance on behalf of workers (Fleming, 2017). The increased focus on extracting financial value over the focus of investing in production and employees, Rubery argues, "is undermining the notion that work has meaning and contributes to meeting citizens' needs" (Rubery, 2015:640). A study of flexibilization in retail (Arman et al., 2021) investigated a case in which a retail chain was acquired by a private equity fund. The new owners introduced employer-driven flexible schedules, as corpo-

rate representatives argued that previous owners had 'staffed away the profit' (in the sense that company resources had been used to give the employees full-time schedules). This change resulted in deterioration both in the work environment, as employees felt work had lost its purpose when they no longer had time for customers and colleagues, and in employees' ability to survive on their wages.

By this argument, financialization not only reduces workers' sense of purpose, it also undermines the main leverage that workers traditionally have had over their employers: the dependency of employers on employees' quality of work, loyalty, and cooperation. As more and more corporations organize work through fragmentation and flexibilization, workers' collective power in negotiating standards for work and remuneration diminishes. Palladino shows how, in the US context, employee bargaining power has fallen, resulting in stagnation of workers' wages across all sectors. She concludes that "shareholders' gains come at the expense of employees in publicly traded corporations" (Palladino, 2021:382).

Even though the differences between executive/shareholder compensation and wages for regular employees are smaller in Scandinavian countries, the divide and polarization is still growing. In 2020, the CEOs for the largest Swedish manufacturing companies had salaries 65 times higher than the average employee in the company (LO, 2022). Given increasing financialization, scholars critical of this development show renewed interest in alternative modes of organizing work and production, such as worker-owned cooperatives (Schor & Eddy, 2022), as worker owned cooperatives have shown to return more economic value to workers, reduce staff turnover, and motivate work efforts (Michie et al., 2017). Whether worker-owned and -organized cooperatives will become a more common organizational form in the future remains to be seen.

Work by whom? (gender and feminization)

One of the most fundamental aspects when it comes to how labor markets are structured and how work is organized is gender. Feminization deals with the entrance of women on a large scale into the labor market. Ever since the expansion of the Swedish welfare sector, which to a large extent moved unpaid work that had previously been done by women in the home into the regular paid labor market (Schön, 2010), the Swedish labor market experienced a significant gender-based

division of labor. Why Sweden (officially) has one of the most gender-segregated labor markets in the world (Hustad et al., 2020) is often explained by the high percentage of women in the paid labor force compared to other countries, and its large welfare sector.

Like in many other countries, Swedish women typically work in lower-paying occupations and industries compared to men. According to data from the Swedish National Mediation Office (Medlingsinstitutet, 2021), women make up the majority of employees in healthcare and education, while men dominate work in construction and transportation. Women tend to be overrepresented in part-time work and in administrative and support roles, and underrepresented in leadership positions. The gender pay gap is highest in male-dominated industries, with women earning less than men in similar roles—even though the gender wage gap is *slowly* closing. Furthermore, even though the Swedish welfare system, with its subsidized childcare and generous parental leave, has made it possible for both men and women to be active both as parents and on the labor market, 70% of the parental leave is still being used by women (Försäkringskassan, 2022).

Returning to the debate about technological unemployment, will technological change on work have a gender bias, just as it can be expected to have a geographical bias? Brussevich et al. (2019) find that women across all sectors and occupations on average perform more codifiable and routinized tasks than men, although these differences are relatively lower in Scandinavian countries. Traditional automation may therefore have a larger effect on women's work than on men's. However, given recent development in AI and service work automation, the outcome of this equation might change as non-routine work becomes increasingly subject to change. The fact that women populate much of the public welfare jobs in education and care work—jobs which, at least at present, seem less replaceable by AI and automation—may mean that the work currently performed by women is 'safer' from being replaced by robots, at least in the near future. Instead, the quality of these types of jobs may well increase, as automation solutions will be developed to avoid heavy lifts and reduce stress. Yet, the challenge remains to make the workforce in these sectors truly complementary with technological change (by, for example training initiatives), instead of adding yet another layer of technological stress.

Higher education in relation to work and labor market changes

Since the second industrial revolution, one of the safest ways for individuals to develop their complementarities with new technologies, has been to obtain higher education. In the age of flexibility and fragmentation, highly educated workers have been among the winners of labor market change. We do not think that there are reasons to expect that this will change. Notwithstanding debates about the returns of education, the interaction between technological change, flexibility, fragmentation, and spatial concentration is likely to amplify the differences between people who hold a higher degree, and those who do not. This is not only an issue of wages, but also about being able to benefit from flexibility and fragmentation, rather than being subjects to its downsides. In our view, and given the empirical evidence, four arguments connect to this when it comes to the future of higher education in relation to the organization of work and labor.

The first point relates to the teaching that we do in business schools, and how we teach students about the concepts of organization, and how work and labor are organized. The traditional and taken-for-granted notions of organizations are that they are hierarchically structured entities with relatively clear boundaries regarding the surrounding environment. These types of organizations still exist. However, as we have discussed, much of the organizing of contemporary work is taking place betwixt and between organizations and the market. The new world of work needs to also be reflected in theories about organizing that we teach in our business schools.

The second point is based on the idea that higher education should foster students' complementarity with new technology. This means being able to work together with new technologies, but also being able to constructively question proposed statements, solutions, and sources. And maybe the most important ability for humans to acquire in the future—and a challenge—is to *learn how to learn*. As our students' working lives become more fragmented and their future career paths become less institutionalized, the ability for continuous learning and a lifelong sense of curiosity will be key.

A third important issue becomes the access to education. One of the best public investments for the future is to provide high-quality, widely accessible, and free-of-charge education even at higher levels, and teach people how to become

complementary to forces of change. This is true across borders as well, where governments in richer countries should give more people from less developed countries the chance to study free of charge in order to develop their complementarities with new technology.

A fourth point deals with some of the innovations of work that we have touched upon in this chapter. Some innovations use new technology to connect buyers and sellers of services through digital platforms. Innovative as they may be, they are also infamous for providing unsafe work, low pay, and low social security for their workers. By doing so, these innovations are creating externalities paid neither by the platform, nor by the end-consumer. As jobs are created that do not pay living wages or provide social security, society (and taxpayers) are in fact footing the social welfare bill. One could, like Fleming (2017) and others, argue that this amounts to 'corporate welfare'—a system that allows companies to survive and expand while refusing to pay workers a living wage.

Most innovations, both technological and organizational, have both good and bad aspects and could be used for benign or malign purposes. Many of these outcomes will be decided by institutional agency; that is, what we decide innovations should be used for. To our minds, it appears ethically prudent that business schools engage their students in a discussion about what kind of labor market outcomes and externalities are created by innovations. After all, as Marcal (2020: 163 *our translation*) states: "[e]xploiting people is not the same thing as innovation. And to exploit people is nothing new. It is the oldest business model in the world".

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Innovating ocean governance law

Lena Gipperth, Aron Westholm, Gabriela Argüello and Niels Krabbe

Introduction

The ocean provides essential ecosystem services such as food production, offshore renewable energy, carbon sequestration, and recreation. However, scientific evidence warns us about the severe impacts the ocean is facing due to pollution, unsustainable fishing practices, and climate change effects. These effects include ocean acidification, biodiversity loss, and sea level rise. From international, EU, and national perspectives, there is an outspoken aim to boost the 'blue' economy while securing healthy marine ecosystems. However, the legal system handling these integrated demands is diverse and fragmented regarding sectoral aims, geographical areas, and governance levels. In their current form, they are not designed or fit to provide an ecosystem-based approach to managing human–ocean relations or to implementing the objective of a healthy and sustainable ocean.

To integrate legal competence relevant to ocean governance in both practice and theory, scholars of different legal areas within the Department of Law collaborate internally and, more importantly, with scholars within other disciplines and actors outside academia. Our ambition is for this interdisciplinary endeavor to prompt changes in socio-environmental governance structures and legal education. From a socio-environmental perspective, we examine opportunities to integrate our knowledge of different legal areas and improve our transdiscipli-

nary capacity. We analyze and discuss challenges, drivers, and pathways to provide knowledge supporting a transformation to a more sustainable blue economy. From a legal education perspective, interdisciplinarity requires a problem-based approach and the introduction of threshold concepts that shape how we apprehend a particular phenomenon. Ocean governance is an example of a concept providing a valuable opportunity for broader legal reasoning and for finding meaningful connections between national, regional, and international law.

1. Introduction: a sea of struggle

1.1. Brief historical background

The ocean is the largest common space on the planet, covering more than 70% of its surface. Since time immemorial, human societies have depended on the sea, and it is not surprising that legal regulation of the ocean and its related uses dates back to classical antiquity (Bederman, 2012). In the Middle Ages, northern European societies had already claimed dominion over large areas of the sea adjacent to North Sea and the Baltic coastlines. These claims resulted from increased trade in the 13th and 14th centuries, which amplified the tensions surrounding access to maritime trading routes (Boczek, 1996; Rothwell & Stephens, 2016). By the 17th century, Sweden had established significant control of the Baltic Sea, although this control was regularly contested by other maritime powers (Andersson, 1969). Over the centuries, a struggle between two principles has shaped what we today call 'the law of the sea'. The tension (which is still very much alive today) has been between freedom to access marine spaces and their resources and the ambition of States to extend their sovereign jurisdiction over the sea (van Doorn, 2022), ultimately seeking exclusive control over vast sea areas. In this historical context, Sweden forged its identity as a seafaring nation for over a thousand years—a maritime tradition that continues today.

1.2. The state of the ocean today

Modern societies are heavily reliant on the ocean and on coastal waters,[1] as they

1 At this point, a clarification of the term 'coastal waters' is required. While the ocean is a single connected body, the legal system engages in delimiting practices to make an area legible for human administration (Scott, 1998). At EU level, coastal waters are defined in Article (2) (7) of the Water Framework Directive (2000/60/EC). It includes surface waters on the landward side of the baseline and up to one nautical mile seaward the baseline from which the breadth of territorial waters is measured. This definition has no parallel at the international level, where the marine environment is divided into the following maritime zones: internal waters, territorial sea, archipelagic waters, contiguous zone, exclusive economic zone, continental shelf, high seas, and the area itself.

provide critical ecosystem services,[2] ranging from oxygen supply, food production, transportation routes, carbon sequestration, recreation, non-renewable resources, and genetic and biotechnological material. Some of these services are essential for human life, while others are used for various purposes, including energy extraction from microalgae, medical research, and pharmaceutical manufacturing. The ocean is the most important component of the global climate system (Vallis, 2012). However, contrary to what our ancestors imagined—a limitless sea—many of the ocean's resources are finite if exposed to human impact above a certain level. Until recently, the ocean's resilience was overestimated, leaving it exposed to centuries of overfishing, waste disposal practices, and pollution, resulting in rapid transformation (IPBES, 2019, IPCC, 2022) due to human activities (Jones, et al., 2018).

Recent studies on ocean connectivity show that humans and the marine environment are inextricably intertwined (Rogers, 2014; Popova et al., 2019) and human activities today expose ocean and coastal ecosystems to significant stress. In many cases, this stress exceeds what ecosystems can handle over the long term to maintain ecosystem services that are directly or indirectly essential for humans. Sweden, for example, has unique archipelagos and coastal areas, which, due to their structure and location, are more sensitive to pollution and other human impacts than many other coastal areas; this is especially the case for the Baltic Sea.

In global as well as in the EU, national, and regional politics, the blue economy has been regarded as a staple for sustainable growth and innovation dependent on the sea at international, regional, and national levels. This constitutes the ambition to intensify marine sectors (such as transportation, fishing, aquaculture, and energy), without threatening the ecological limits of marine and coastal ecosystems (Martínez-Vázquez, et al. 2021; European Commission, 2021). As a result, we are witnessing more and more conflicts—in both time and space—over access to the ocean's resources. Consequently, a sustainable governance of seas and coastal areas has increasingly become a concern on every regulatory level.

2 'Ecosystem services' is a term coined in the early 90s that describes the free "services rendered by nature and used by humankind", required to be valued and integrated into decision-making processes (Grunewald and Bastian, 2015). The concept was more generally spread by the UN Millennium Ecosystem Assessment in the early 2000s (Millennium Ecosystem Assessment, (2005) and is central to the EU Biodiversity Strategy for 2030 (COM/2011/0244), aiming to stop biodiversity degradation in the EU by 2030 and to protect, value, and restore biodiversity and the ecosystem services it provides by 2050.

The drastic changes the marine environment experiences due to human activities urge us to reevaluate the legal system's role in preserving and restoring marine ecosystems and coastal habitats. However, the regulatory framework continues to rely on the jurisdictional division of the ocean into maritime zones. The geographical boundaries of these zones do not consider the natural boundaries of coastal and marine ecosystems. On the contrary, these zones are the product of historical and political developments aimed at regulating access to and the possibility of exploiting marine resources. Furthermore, the protection of the marine environment is mostly sectoral. This means that, historically, law has regulated human activities at sea individually and a comprehensive approach is yet to be achieved. While some progress has been made through developments in other legal fields, including environmental law (e.g., ecosystem approach, area-based management tools), systemic fragmentation problems are rife. This fragmentation arises largely because institutions, decision-makers, and legislation have evolved along sectoral lines, with little interconnectivity.

True to Swedish maritime tradition, over the past ten years at the University of Gothenburg's School of Business, Economics, and Law (SBEL), we have intensified our work, proposing regulatory pathways to interconnectivity between existing sectoral regulations, institutions, and stakeholders at every regulatory level. We have encountered theoretical and methodological hurdles that gradually opened the way to the development of ocean governance law.

2. Sustainability and ocean governance

The ocean plays a crucial role in achieving sustainable development as outlined in Agenda 2030, with Sustainable Development Goal (SDG) 14 being closely linked to the other 16 SDGs. In recognition, the United Nations has designated 2021–2030 as the Decade of Ocean Science for Sustainable Development, building on the International Ocean Commission's initial efforts. These initiatives focus on a more comprehensive approach to ocean governance that integrates ecosystem management and highlights the need for enhanced governance frameworks. The EU's "Restore our Ocean and Waters" mission (EU Commission, 2021) sets the political and economic agenda for this development and is accompanied by new legal measures that incentivize both public and private actors to not only mini-

mize their impact on marine resources but to achieve a net positive impact. The newly adopted agreement on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction is also a sign of a more overarching responsibility of the international community. The question, however, is whether the legal system supports or hinders sustainable development.

Ocean governance primarily concerns planning and decision-making based on integrated, adaptive management of the ocean, and the exchange of knowledge between researchers, authorities, and stakeholders. The objective is to prevent and manage conflicts between different interests when using the resources of the oceans and the coasts, including those of future generations. Today, ocean planning is seen as one of the most important tools for the long-term use of the ocean's goods and services. Globally and regionally, coastal countries have begun the extensive work of implementing integrated marine spatial planning. Conversely, governance has a broader perspective encompassing the legal and institutional processes in which management and planning decisions take place. To be able to cover as much of this research area as possible, we collaborate internally at the Department of Law and, more importantly, with scholars within other disciplines as well as actors outside academia.

3. The path to ocean governance law

As a maritime nation, Sweden not only has a long tradition but also a high level of knowledge which is located to a large extent in Western Sweden and in Gothenburg, specifically (Hanning, 2013). Västra Götaland is the most distinctive coastal region in Sweden, with a strong maritime culture, as well as a diversity of marine and maritime activities and know-how, with potential for further development. The University of Gothenburg and Chalmers University of Technology have developed competence in many ocean-related research areas within natural sciences, life sciences, social sciences, technological sciences, and humanities. Today, universities are closely collaborating with partners from the surrounding society with societal partner businesses in various sectors and local and regional authorities (e.g., the Maritime Cluster of West Sweden and Lighthouse).

Against this background, a group of legal scholars at the SBEL committed themselves to continue this maritime tradition and to pioneer legal pathways

towards a healthy ocean and a sustainable blue economy. As explained in this section, such ambition has theoretical and methodological repercussions in legal research that will ultimately prompt a change in legal education. Ocean governance law exemplifies the changing boundaries of the legal field by promoting transnational legal reasoning where we are able to understand the relationships between different regulatory layers of the legal system at sub-national, national, regional, and international levels. This field is also highly problem-oriented and we see a value to going beyond legal abstractions and formalism (Galloway, 2016), introducing threshold concepts proven to be beneficial in the development of problem-based legal education.[3] In our fields, those concepts include ocean governance and sustainability. Threshold concepts do not reinforce a nation-state–centered legal approach (Kennedy 2006, Dedek 2016); on the contrary, concepts such as ocean governance inevitably include several regulatory layers and reveal a variety of stakeholders, including institutions, civil society organizations, and industry.

3.1. Ocean governance law

Ocean governance is a fundamental tool for grasping regulatory complexity. It encompasses both soft and hard legal regulations and institutions that govern the various aspects of ocean resource utilization at different levels, including international, EU, national, and local levels.

The United Nations Convention on the Law of the Sea (UNCLOS),[4] also known as the constitution of the ocean, is the main legal framework governing the rights and obligations of States *vis-à-vis* the sea. It intertwines State and community interests through two distinct approaches; namely 1. the zonal division of the sea—the jurisdictional division of the sea into maritime zones); and 2. a functional approach—the cooperation framework that advances common interests at sea (Tanaka, 2008, 2018). The implementation of UNCLOS takes place at several

3 Meyer and Land define threshold concepts as "as akin to a portal, opening up a new and previously inaccessible way of thinking about something. It represents a transformed way of understanding, or interpreting, or viewing something without which the learner cannot progress. As a consequence of comprehending a threshold concept, there may thus be a transformed internal view of subject matter, subject landscape, or even worldview." (Meyer and Lind 2003, p. 1).

4 United Nations Convention on the Law of the Sea, Montego Bay, December 10, 1982, 1833 UNTS 396; 21 ILM 1261. In force as of November 16, 1994.

regulatory levels; for example, the regional conventions (HELCOM and OSPAR)[5] covering northern European waters, as well as EU law. On the Swedish national level, many legislations relate to the ocean and activities directly or indirectly impacting or dependent on marine ecosystems. Some of these, such as the Economic Zone Act, are linked to the international law of the sea, others are linked to EU regulations and directives, and still others to purely national legislation. Many national rules have emerged primarily to manage terrestrial systems and need to be adapted to conditions at sea. This applies to provisions found in e.g., the 2010 Planning and Building Act, the 1998 Environmental Code, the 1970 Real Estate Formation Act, and parts of the Building Code that originate from 1763.

An important basis of ocean governance law lies in the knowledge of the intricate relationships between legal positions and actors across regulatory levels. In this sense, ocean governance is a threshold concept, as it becomes a gateway to embracing a transnational regulatory approach. Essentially, governance connects multiple socio-environmental systems and integrates multiple regulatory scales (Partelow et al., 2023). Developing an ocean governance law that includes this array of legislation and institutions requires the application of a more systemic view that integrates the complexity of legal areas at different levels.

The first necessary step in achieving such a systemic view of the legal system is making the interactions between different specialized areas of law more visible (Takei, 2020; Argüello, 2022); such as the law of the sea, human rights law, environmental law, public law, and civil law. These interactions occur at horizontal and vertical levels. The former refers to interactions occurring at a specific regulatory level, such as via international, EU, or national laws. The latter refers to interactions occurring between different regulatory levels, such as international law and EU law. Legal interactions must also address stakeholders, including public authorities, international organizations and private operators along horizontal and vertical levels dealing with different bodies of law and having separate spheres of competence. At the Department of Law, we have broad expertise in the following areas of law, making it possible for researchers to collaborate and make legal interactions in relation to ocean governance visible:

5 Convention on the Protection of the Marine Environment of the Baltic Sea Area, Helsinki, April 9, 1992, 2099 UNTS 195; 1994 OJ (L 73) 20; 13 ILM 546 (1974). In force as of January 17, 2000. Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention), Paris, September 22, 1992, 2354 UNTS 67, 32 ILM 1072. In force as of March 25, 1998.

Public International Law and its specialized branches, including, for example, the law of the sea and environmental law, constitute the regime complex[6] of the ocean. UNCLOS is the primary instrument dealing with ocean space, its resources, and its conservation. UNCLOS has endorsed many international regimes through its umbrella provisions and has allowed further normative and institutional developments. International environmental law includes a number of multilateral and regional agreements that have a direct or indirect impact on the use and protection of the marine environment; for example, the Convention on Biological Diversity (CBD), the UN Framework Convention on Climate Change (UNFCCC), and the UNECE Convention on Access to Information, Public Participation in Decision-Making, and Access to Justice in Environmental Matters (Aarhus Convention).[7]

Public law, Swedish (including EU) laws where the focus is on constitutional law, administrative law, and municipal law but in a wider perspective also includes tax law and, to some degree, procedural law.

Environmental law can indeed be classified as a public law subject but also contains elements of civil law. Distinctive to the subject is a clear environmental perspective, as environmental law is studied based on the objective of long-term protection of ecological functions[8] and human health. From a civil law perspective, important developments are found in civil liability regimes and the incorporation of environmental obligations in contracts.

6 A regime complex is "an array of partially overlapping and nonhierarchical legal regimes and institutions that includes more than one international agreement or authority" (Alter & Raustiala, 2018).

7 Convention on Biological Diversity, Rio de Janeiro, June 5, 1992, 1760 UNTS 79; 31 ILM 818. In force as of December 29, 1993. United Nations Framework Convention on Climate Change, May 9, 1992, 1771 UNTS 107. Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matter, June 25, 1998, 2161 UNTS 447, 38 ILM 517 (1999). In force as of March 21, 1994. in force 30 October 2001.

8 The term *ecological functions* is closely connected to the notion of ecosystem services; i.e., the instrumental value of services provided by organisms and ecosystems. It has therefore been defined as the capacity of natural processes and components to provide goods and services that satisfy human needs, directly or indirectly. It has, however, also been interpreted more broadly as the natural processes, products, or services that living and non-living environments provide or perform within or between species, ecosystems, and landscapes, including biological, physical, and socioeconomic interactions. See De Groot, R., Wilson, M., & Boumans R. (2002). A Typology for the Classification, Description and Valuation of Ecosystem Functions, Goods and Services, Ecological Economics 41(3), 393-408.

> *Private law* handles relationships between nonpublic entities, and may complement, command, or control regulation by agreeing on standards or norms of behaviour in certain situations, sectors, geographical areas, etc.

With this competence to meet growing ocean-related regulatory challenges, in 2015, SBEL, together with generous external funders, undertook a special initiative to invest in the establishment of the legal area of *ocean governance law*. The primary goal of this initiative was to strengthen research in various legal fields, including environmental law, maritime law, the law of the sea, transport law, energy law, trade law, property law, administrative law, municipal law, compensation law, public procurement, and international development law. Several positions were funded including a professorship, PhD studentships, and postdoctoral fellowships.

The Ocean Law Group at the Law Department is dedicated to addressing the challenges associated with sustainable use of the marine environment. This involves examining the role of law in broader governance perspectives to have an impact on policymaking. The researchers are also connected to the university-wide Center for Sea and Society, which links to a range of networks and collaboration platforms, such as Lighthouse, Viable Seas, and European organizations such as the European Marine Board, Center for Maritime Research (MARE), and the Submariner Network. Through these networks, researchers from SBEL are part of transdisciplinary competence center and research projects with a focus on the sea.

For several years, SBEL has actively worked to strengthen its international profile through the Visiting Professors Program, including a professorship in ocean governance law. This internationalization work has generated a large network of contacts. This network is of great use for the development of the subject and for establishing the exchange between universities in the form of researcher and student mobility.

Within the Ocean Law Group, there is a demand to develop interdisciplinary competence as well as a responsibility to interact with society outside the academy to increase knowledge about the conditions and tools of administration.

This responsibility extends to both research and teaching and involves a two-way exchange of knowledge and experience in ocean-related matters. As a maritime cluster developed in Western Sweden, the Ocean Law Group and representatives from the business community or authorities took responsibility for developing the focus area of ocean governance. This group has initiated meetings to raise the common knowledge and understanding of the conditions for regional maritime businesses and governance challenges.

More importantly, the Ocean Law Group has acknowledged and embraced a transnational legal perspective in our research and education. Transnational law encompasses two key aspects. First, it emphasizes the significance of transboundary legal relationships and interdisciplinarity, and second, it challenges the conventional approach to legal education, which primarily revolves around categorizing laws as national, regional, or international. The following section illustrates how the Law Department has built competence in the field of ocean governance law.

4. Ocean governance law in action

Ever since the 1970s, we have been developing legal expertise related to the ocean and we have had a dedicated research and teaching environment relating to ocean governance law at the Department of Law. Our research has included a multitude of perspectives on the interface between the law and marine management, spanning from international treaties on the law of the sea and the marine environment to legal aspects of eelgrass restoration on a local level, thus encompassing the full range from a systemic to a practical level. The self-evident conclusion we draw from this research is that the law has an important part to play in the future governance of the marine environment.

But for marine regulation to effectively safeguard environmental interests, law must—much like marine ecosystems—act on multiple geographical scales at the same time, and these scales need to interact with each other. The scale of marine ecosystems necessitates collaboration in management, which transcends national boundaries. Even in seemingly geographically confined problems, such as eelgrass restoration, solutions are very dependent on the interaction of domestic and EU legislation, which in turn implement international treaties. Thus, legal

researchers studying ocean governance need to be attentive to interacting scales of both ecosystems and laws. Furthermore, the inherently interdisciplinary nature of ocean governance must be considered. Law has an important part to play, but it is impossible to study ocean governance from a single disciplinary perspective. Accordingly, the ocean governance law group at the Department of Law has sought to be part of interdisciplinary work and be active in interdisciplinary centers around the University of Gothenburg, such as SWEMARC (Swedish Mariculture Research Center), the Center for Sea and Society, CeCAR (Centre for Collective Action Research), and FRAM (Center for Future Chemical Risk Assessment and Management Strategies). In the following section, some of the different projects that have been initiated and performed within the Ocean Law Group are presented. This is followed by an outlook on future possibilities and projects that will further the interdisciplinary work done at the Department of Law.

4.1.Marine and coastal spatial planning

Obligations that flow from international treaties, the implementation of SDGs, and EU legislation all need to be performed on a local level. Local decision-making is an integral part of environmental management. Within the Ocean Law Group, this has been studied using the Swedish system for marine and coastal planning as a case study. Traditional ocean management has been characterized by sectoral decision-making and little coordination. Fisheries and maritime transport have been governed through sectoral legislation, and other activities, such as offshore wind power, have been decided on a case-by-case basis (Westholm, 2022). However, as with the historical development of land-use management, when pressures on and claims to ocean space increased, so did the need for a more comprehensive management system, and marine spatial planning (MSP) was forwarded as an answer. As a result, MSP has become a popular tool within ocean governance since the turn of the millennium.

In a European setting, MSP was first promoted through Integrated Maritime Policy (IMP) as a "[...] fundamental tool for the sustainable development of marine areas and coastal regions, and for the restoration of Europe's seas to environmental health" (European commission COM (2007) 575 p. 6). In 2014, the Directive on Maritime Spatial Planning was adopted with the overall aim of

promoting a sustainable development and identifying the utilization of maritime space for different uses as well as to manage spatial uses and conflicts in marine areas (MSPD 2014, preambular para 19). Through the Directive, member states are obliged to produce marine plans for their marine areas, and planning is supposed to be guided by an ecosystem-based approach (MSPD art 5(1)).

The case study performed by the Ocean Law Group focused on how the MSPD was implemented in Sweden, or more precisely, how Swedish municipal planning interacted with national marine planning. The findings highlight the importance of integration between different levels of management. The marine space is inherently fluid and does not respect the drawing of administrative boundaries. The project focused on how general objectives are treated and interpreted in a local setting versus a more national setting. Different management agencies have different rationales for governance and this shows in the planning. Municipal plans generally have a local focus, with a detailed knowledge of the municipal geography and the social setting. However, the focus is on promoting municipal interests and positioning the municipality in relation to surrounding areas. National plans, on the other hand, have a more general focus, clearly rooted in overall objectives such as good environmental status and the growth of maritime sectors. Nevertheless, due to the scale of national plans, they are less detailed, and as the important coastal areas are excluded from these plans, their potential to facilitate the environmental objectives becomes limited.

The project on marine and coastal planning highlights the importance of being attentive to different scales in ocean governance. It also shows how too much focus on one scale, such as the local, national, or international scale, creates limited management systems. This is a future research area for the Ocean Law Group—studying how different actors at different scales can interact and what the role of law is in such interactions. To study these issues more in-depth we also see a need to further develop our interdisciplinary aspirations, as this is clearly not only a question about law, but also about social science more broadly, but it also needs to build on a solid base of natural science in order to understand the important ecosystem processes that are being governed.

4.2. Ships waiting at anchor

Fostering collaboration with natural scientists has enhanced our interdisciplinary work, and a product of this collaboration is the critical engagement with research questions that are not usually posed within traditional legal studies. This is the case of the project 'Ships at Anchor Wait.' In this project, as a result of the collaboration with marine chemists and ecotoxicologists, we became increasingly interested in environmental pressures and impacts caused by ships waiting at anchor. More precisely, anchoring contributes to seafloor scouring, impacting benthic habitats, and while at anchor, evidence shows that vessels discharge several harmful substances into the marine environment (Argüello, et al., 2022).

Since there are potential cumulative environmental impacts of ships lying at anchor, we explored existing legal structures from a public and private law perspective. From a public law perspective, we paid particular attention to the jurisdictional capacities and obligations of competent actors to prevent environmental harm from anchoring, primarily in internal waters and the territorial seas, where anchoring areas are prevalent. The regulatory alternatives considered include Port State Control, ship-routing mechanisms, vessel traffic services, and area-based measures. Our examination showed that the regulatory framework addresses anchoring incidentally, and lacks mechanisms for considering the cumulative impacts of anchoring. From a private law perspective, we examined how charterparties prompt ships to lie at anchor. Furthermore, the incentives for ships to spend a considerable amount of time at anchor appear to differ substantially across different types of charterparties.

From this project, we learn that interdisciplinary work allows us to formulate research questions that are not traditionally posed in doctrinal legal studies. These questions follow a solution-focused approach, aiming to map the regulatory response to a factual environmental problem with the ultimate objective of identifying governance gaps and regulatory possibilities to address them.

4.3. Eelgrass protection and restoration

Another case of interdisciplinary collaboration is the research program Zorro (Zostera Restoration), which started in 2011. In this program, legal scholars collaborate with marine ecologists, oceanographers, ecotoxicologists, and environ-

mental economists on issues related to the management and restoration of eelgrass ecosystems. Today, more than 20 Swedish and international researchers and national and regional managers are collaborating on a number of different research projects coordinated by the program, funded by national research councils, national authorities, and the EU.

The goal of Zorro is to improve the management of coastal ecosystems, focusing on eelgrass meadows along the Swedish west coast. Solving this type of real life problem requires combining academic and non-academic knowledge. In close association with various authorities (Country Administrative Board of Västra Götaland, and the Swedish Agency for Marine and Water management) the Zorro team has produced national guidelines for the restoration and ecological compensation of eelgrass, as well as a national action plan to protect eelgrass beds. The legal analysis has added both a policy background to the necessity to take action, but also instructions on how to proceed in providing legal protection or requirements of restoration. The team has produced over 40 scientific publications and popular science articles. Furthermore, the team conducts public outreach (through lectures, interviews in the media, and films easily accessible on social media) about eelgrass and coastal habitats, why they are threatened, and how they can be protected and restored. After several years of collaboration, researchers are comfortable presenting and discussing not only their own disciplinary results but also joint results on a general level. These activities and collaborations go beyond what is traditionally seen in interdisciplinary integration (Frodeman et al., 2012), and are better defined as transdisciplinary research.

Several conditions can be identified as prerequisites for this progress. One is mutual learning about different perspectives on problems relating to coastal habitats. Another is the development of a common area for communication (regular meetings, often in the field) and learning about team members' disciplinary methods and theoretical frameworks. Team members have obtained new perspectives on the research material and raised questions unlikely to have been put forward without this type of collaboration. Having a broad perspective and general knowledge about the research within other disciplines and stakeholders' experiences within the team, is, however, not the same as merging disciplinary knowledge. The team's deep disciplinary knowledge has been a key condition for the success of this program.

4.4 Marine biotechnology

The impact of regulation on the management of the ocean has been a central theme in the research program of the group. Many projects have built on extensive collaboration with policymakers and stakeholders. This includes the *Nordic Platform on Law and Marine Bioprospecting*, which was formed as the result of the group's initiative and built on a generous grant from the Nordic Council of Ministers. The cooperation focused on the regulatory challenges associated with the increasing use of marine organisms for biotechnological development. By integrating perspectives from research, policy, and the private sector, the project facilitated upstream regulatory cooperation in the Nordic countries. A particular focus was put on promoting an informed and coordinated implementation of the emerging international law rules in the field. As part of the collaboration, the group organized the international conference *Bioprospecting, Biodiversity, and Novel Uses of Marine Resources* in March, 2021. An edited open-access anthology, including a broad group of academics in the field, is also a result of the project.

Several experiences can be built on collaboration. Foremost, it shows how fruitful interactions can be between academia, policy, and the private sector when they are based on a concrete regulatory challenge. It further illustrates that Nordic cooperation on regulation remains as relevant as ever.

5. Discussion and future outlook

The projects described above have given us the opportunity to examine ocean governance from a range of unidisciplinary, multidisciplinary, interdisciplinary, and transdisciplinary perspectives. Our research navigates specialized areas of law and regulatory levels, ranging from national to EU law to international law. These research practices impact theoretical and methodological approaches. A theoretical hurdle we encountered was the complexity of grasping the relationships between specialized areas of law at vertical and horizontal regulatory levels and how to engage in transnational legal thinking. Taking international relations theory as inspiration, some our researchers' work is based on regime complexes, legal fragmentation, system theory, and legal geography.

From a methodological perspective, ocean governance law has encouraged us to use a mixed-method approach to effectively engage with the subject matter.

This means that our research is not confined to doctrinal studies of law, based on the systematic analysis of legal texts. We are convinced that law cannot be investigated exclusively from an internal perspective. On the contrary, empirical, historical, and sociological studies of law and policy studies are fundamental when addressing ocean governance matters. As a necessary next step, we need to rethink legal methodology within ocean governance to reach congruence between rules and social–ecological boundaries. We see great potential in developing policy research which is transdisciplinary in nature and deals with the formulation, implementation, and evaluation of policy. (Bhat 2019, 509). We intend for our research to provide input to policy-makers. More specifically, legal research should indicate how regulatory pathways can contribute to the achievement of socio-environmental objectives and at the same time uncover potential conflicts between regulatory pathways and desired goals.

Ocean governance law prompts us to question the identity of legal scholarship as an interdisciplinary field. While normative and interpretive approaches remain essential, a purely internal perspective of law fails to account for the shifting social, political and environmental circumstances affecting legal regulatory frameworks and legal practices. Therefore, interdisciplinary communication is a valuable tool for apprehending regulatory phenomena from novel perspectives that may be overlooked in traditional doctrinal studies. We also identify threshold concepts, such as ocean governance, as gateways to grasping regulatory complexity and to proposing regulatory and policy recommendations that consider the natural boundaries of the marine environment.

However, there are still obstacles to realizing an ecosystem-based approach to ocean governance. Such hurdles arise from the rationale of ocean uses "which are based on economic growth models that have perpetuated inequities and fueled conflict and environmental decline" (Lombard et al., 2023). We recognize that a problematization of the values guiding the rationale of current regulatory responses can no longer wait. Core to the legal system is its relationship with justice and it must also be at the center of future ocean governance efforts where socio–environmental relationships must be considered. We believe that SBEL provides a strong research and education environment to meet these pressing challenges and at the same time reflects on the theoretical and methodological challenges faced by the legal field.

Using the School as our foundation, we will continue to pursue the development of ocean governance law with both the industry representatives in our immediate surroundings as well as with scholars in Nordic countries and beyond. The ocean governance law group at SBEL will continue to be a hub where stakeholders can meet to co-create the governance tools the ocean requires and to reflect on the future of law as an academic discipline. We are committed to the mission of the School "to develop knowledge, educate, and foster independent thinking for a sustainable world." Ocean governance law is instrumental in achieving not only Goal 14: life below water; but also other goals, including, for example, goals 2: zero hunger; goal 3: good health and well-being; goal 7: clean energy; goal 12: responsible consumption and production; and goal 15: climate action. Moving forward, we envision SBEL as a bridge between the ocean and society.

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Arts and the economy: envisioning futures and experimenting presents

Hanna Borgblad, Erik Gustafsson and Elena Raviola

Introduction

The arts and cultural production are consistently brought up as essential parts of society and thereby the economy, and their role has been problematized throughout time by scholars researching business and economics (cf., e.g., Baumol & Bowen, 1966; Caves, 2005; Czarniawska-Joerges & Guillet de Monthoux, 1994; Khaire, 2017; Swedberg, 2006). Scholarly and public interest in the arts and culture as economic sectors had particular momentum after the creation of the political and statistical category 'Cultural and Creative Industries' (CCI). The nascent digital transformation and the beginnings of the knowledge economy at the end of the 1990s led the UK New Labour government to hold together traditional cultural sectors, like theatres, museums, and heritage centers, with creative industries that were deep into the digital transformation—like music, publishing, film and tv, advertising, and architecture—into the label of CCI. This label became very successful and in a relatively uncontroversial manner travelled across many countries and organisations. It was adopted by both the EU and UNESCO, as well as many other international organisations that have developed specific policies for the CCI.

In this chapter, we focus on arts and culture as economic sectors and argue that they are of critical relevance for scholars and students at business schools for several reasons. First, artistic and cultural work is economically significant in terms of production and employment in many countries. Eurostat, the European Commission's statistical offices, counted that in 2015 almost 3.7% of EU employment—8.4 million people—were in cultural and creative industries; at the worldwide level 1% of the population is employed in arts and culture. This employment contributed to European GDP by 4.2%. The same offices also remarked that almost 60% of the people working in culture in the EU had completed higher education, while the same number in the total workforce was 34%. CCI are accordingly both central to and emblematic of the knowledge economy.

Secondly, scholars have also shown the positive economic effects of arts and culture on other sectors of the economy. This became especially debated in the early 2000s through the work of Richard Florida and his followers in their theorization on the role of the so-called 'creative class' in the establishment and development of wealthy economies and urban communities (Florida, 2002). In more recent years, we have also observed an increasing aestheticization of the economy (Cunningham & Potts, 2015), whereby firms in other sectors, like technology (see Apple), or even manufacturing (see the automotive industry), have put great emphasis not only on the aesthetic appeal of their products and services, but also on the design and delivery of a wider aesthetic experience to their customers extending beyond the actual product (Strati, 1996). This shift from a product or service economy to an experience economy has been substantiated by the centrality of artistic and cultural expertise. Yet another effect on other sectors of the economy is that CCI have been, especially in the digital shift, a sort of innovation laboratory for other industries. The boundaries among different artistic practices have blurred, and edgy technologies of a given time, including AI, have long been auditioned in the arts, where automated systems have been used to reproduce, fake, substitute, and augment artists' work. Creative industries were among the earliest affected by digital transformation and have struggled before other sectors to change institutionalized ways of organizing their work (Raviola & Norbäck, 2013; Raviola, 2017). Visual artists have been early adaptors of AI as a tool for creating new pieces, and musicians are at the forefront of adapting new technologies

to find novel ways of composing and performing. This openness leads not only to collaborations outside of the artistic sphere, like in cases where artists and designers being integral parts of tech firms, but also between different artistic practices through collective work to push boundaries of what art can be.

Third, and perhaps most importantly, arts and cultural production is relevant for business scholars, as these practices, and the actors performing them, influence and perhaps even shape management and organizational practices, work relations, and society's understanding of the economy at large. In other words, these sectors are not only interesting because of the way they are organised and produce wealth, but also for the very products they make and distribute. They play a critical role in constructing and transforming societal imaginaries of the past, present, and future. Scholarly attention to this aspect of creative industry has been particularly strong among Scandinavian organization scholars, who argued early on for the use of, and practiced using, popular cultural representations of business phenomena in research and teaching (Czarniawska-Joerges & Guillet de Monthoux, 1995) and for expanding the interdisciplinarity of business studies to the humanities (Czarniawska, 2009; Statler & Guillet de Monthoux, 2015). The work of organizational scholars like Barbara Czarniawska and Pierre Guillet de Monthoux in Sweden may have occurred early on in the overall dialogue, but the use of arts and culture in business education has accelerated over the last decade, pushed by the report *Rethinking Undergraduate Business Education: Liberal Learning for the Profession* (Colby et al., 2011), commissioned by the Carnegie Foundation for the Advancement of Teaching. The report marked an era addressing the urgency of shifting business school curricula from educating linear thinkers to enriching the scientific understanding of business and economics with disciplines that would broaden and nuance the economic view of the world (Statler & Guillet de Monthoux, 2015). While the European tradition of business schools has long been influenced by liberal arts (Dubini & Raviola, 2016), the report and its travels across the US and Europe has revived the interest and relevance of arts and culture for business education.

For these reasons, we dedicate this essay to arts and cultural production as activities of economic relevance and, as scholars of the economy, we elaborate on a number of classical economic questions to reason around how they unfold

in arts and culture in illustrative and innovative ways. We focus on three themes: 1) valuations and values; 2) owning and ownership; and 3) work. We argue that there is a need for a better understanding of these three components as pillars with unique, yet overlapping, traits in these practices. By understanding more about them, we can work toward an agenda promoting and developing these practices for society and the economy, and learn more about how the workings of these markets can serve as inspiration in changing our way of viewing the economy as a whole. We conclude by reflecting on what implications this can have both for future research within these fields, as well as imagining the impact it can have on our general understanding of economies and society for the future in attempting to create a more sustainable world.

Valuations and values

Research within business related to arts and cultural production consequently comes back to discussions on value creation and valuation. Within the entrepreneurship literature, it has been highlighted that cultural entrepreneurs often struggle to establish a sustainable business based on the problem of achieving successful commercialization of one's goods (Gustafsson, 2019). This is often set in relation to a proposed oppositional logic between artistic and commercial practices (Sigurdardottir & Candi, 2019).

Discussions around value creation and valuation in arts and cultural production are by no means exclusively tied to fields within business. In interdisciplinary research within valuation studies, the case is indeed recurrent, highlighting both the complexity and importance of understanding the types of values created as an output of artistic practice, how valuations are performed, and furthermore its importance both for the artist as an individual, and for society as a whole (cf., Boltanski & Thévenot, 2006; Elias et al., 2018). For these reasons, arts and cultural production have been subject to research and discussion relative to the actual value that is being put on the output of creative work. It is often highlighted that artists and creatives struggle to be compensated monetarily for their work (Beckert & Aspers, 2011; Loots & van Witteloostuijn, 2018). Other forms of appraisal, such as being exhibited at the right gallery or being offered the opportunity to perform at a specific venue, are often held up as signals of success. This can also be set in re-

lation to the valorization of such appraisal, and furthermore the 'right' appraisal, in being recognized as a name within one's artistic field (Borgblad, 2019). At the same time, extensive focus on receiving economic compensation for one's production can become a subject of discussion of low artistic integrity, and whether the quality of the work produced can be competitive.

A vast majority of contemporary artists, however, find it difficult to make ends meet and make a living from their artistic output, even with said appraisal. This juxtaposition between, on the one hand, receiving public acclaim for one's creativity, and at the same time not being able to receive economic compensation for said work, points toward a problematic view of artistic output in relation to its role in society at large. There has long been a discussion about the negotiation of independence in cultural and creative work (Raviola, 2022) and about whether artistic and cultural production should be as dependent on public financing on the one hand, and philanthropy on the other, depending on the cultural context. At the same time, the current valuative norms of artistic and cultural production appear to not offer a solution where a typical market logic would be able to sustain the creative work in motion. Society requests and desires arts and culture, but the general/individual customer is not willing—or even able—to economically value and pay for the artifacts at the necessary price point.

In this context, discussions and insights from other fields, including, for example, sociology, anthropology, arts studies, and philosophy, become relevant points of reference and intersections for further analysis of these lines of practices from an economic perspective. While certain streams within the scholarly field of business have tighter links to the field than others, we argue that a greater level of cross-disciplinary work is encouraged here to better explore the underpinnings of multiple valuations within arts and cultural production, and furthermore how this can be translated into economic value on par with the work that is being carried out.

While this differing view of valuation—from the producer, the customer, and the consumer—has been shown to create problems in sustaining businesses within arts and cultural production, there may be aspects worth taking into account in our logics of valuation in society at large. Given the current state of the world, with the continuous threat and effect of climate change and inequalities,

cultural and creative industries are increasingly being pointed out as a potential outlet from which we can learn more about how to change our perceptions. Valuation and value creation are, in this regard, not exempted. Given findings from research on the arts and on cultural production, we can see that actors within these fields appear to not only themselves place value on aspects other than the purely economic, but also that their productivity fills an important role in challenging the mindset of humans in general. In many ways, economic valuation becomes subordinate to that of other forms. This combination of a changed perception of what value means, and furthermore what value can create and contribute to the world, serves food for thought on how we can find new ways of approaching production in general.

Owning and ownership

Ownership is a critical construct in the liberal economy and has been subject to many lines of theorization and reflection. Ownership and owning relates to questions of, for example, access and possession, consumption, copyright, property rights, and common goods. The objectification of a good into becoming ownable, and the transfer of that ownership, is at the heart of market exchanges of goods and services (cf. Callon et al., 2002). Ownership is also central to the very construction of the limited-liability company (Djelic & Bothello, 2013) and to the notion of risk–reward as key mechanisms for innovation and economic growth in capitalist economies.

As for any traditional market, ownership has a key function in art markets. Ever since artistic patronage and the trade in arts was established in the early Renaissance, artwork has been made ownable, acquired by commissioners, and transferred to new owners. However, since the beginning of the 20th century, parallel to conventional forms of ownership in the art world, there has also been a movement of questioning and challenging the phenomenon of arts commodification. Intangible and conceptual artworks, presented as performances, installations, texts, processes, street art, or other artwork taking the shape of ephemeral materials, are difficult to objectify and make ownable. Some of these artforms explicitly resist becoming ownable, and experimental forms of ownership have continuously flourished in the arts. Seemingly non-objectifiable artworks are

possible to acquire by collectors, through practices of authorizing and domesticating (Borgblad, 2019), and 'freezing' artworks' temporary material qualities into stable entities at one specific point in time (Dominguez-Rubio & Silva, 2013). Owning, and *anti-owning,* are thus two parallel traditions in the modern history of art. On the one hand, there is the more or less regular practices of buying and selling, and transfer of ownership at, for example, auctions and galleries. On the other hand, there is resistance toward individually owning works of art. In October 2018, the sale of street artist Banksy's artwork *Girl with Balloon* at Sotheby's contemporary art evening auction highlighted these two positions. The sale of *Girl with Balloon* attempted to mock the sacred setting of the art auction and the transfer of ownership by being shredded in half after having been sold to the highest bidder at a price of £1,042,000.[1]

Ownership in the art world thus materializes in various forms. Museums and private collectors own large collections of artworks. The artwork in state-owned museums may be considered common goods, indirectly owned by taxpayers, as opposed to the artwork owned by companies or private individuals. As we discussed above, being included in a highly regarded art collection can increase an artist's symbolic value and have a valorizing effect on the price of the artist's work. But as the artists no longer own the specific artwork (except for the copyright), they are detached from the specific monetary value increase of artworks that big collections can generate. To encounter this phenomenon of 'lost' ownership, the digital platform 'Collection Collective' was initiated in 2017 to challenge traditional art collections. Collection Collective is an artist-driven and artist-owned collection, whose semi-private structure blurs the lines between owning and sharing. As they claim on their online platform, the project reflects on "the possibility of constructing a contemporary art collection that is owned and managed collectively by its members".[2]

Shifting the perspective of the producer to that of the consumer, the reason for the public to own or support art projects with public money is due to their perceived societal values, such as cultural, social, and historical values (Larsen, 2014). However, for artwork that is experienced only through accessing it temporarily

1 Which, however, did not reduce the financial value by half. On the contrary, the artwork, now titled *Love is in the Bin*, was sold three years later at an almost 80% higher price of £18,582,000.
2 https://www.collectioncollective.art/about, retrieved 30 January 2023

rather than owning it permanently, such as theatre plays and museum exhibitions, gift shops offer tiny substitutes of ownership, materialized as merchandise from the exhibitions, or programs from the theatre. The consumption of these memorabilia may act as carriers of meaning and memory (Larsen, 2014) from the arts experience. Related to these tiny substitutes of ownership is also membership in various cultural institutions, such as museums, galleries, or operas, which creates a form of belonging and a sense of being (if just a small) part of the ownership of a cultural asset. These traditional membership-based participatory practices also relate to other forms of more active support in the production of arts, such as through crowd-funding platforms like Patreon.

As history has already shown us, the future of the arts and of cultural production continues to offer parallel takes on the question of ownership. Practices of sharing economies and collective ownership are frequently addressed in the art world, pinpointing aspects of what values—economic values as much as cultural and social ones—are at play. The art world in the digital age has expanded the practice of collecting objects (like vinyl records) as something private, to practices of collecting digital objects (like MP3 files) that are shared by others (Belk, 2014). It is argued that this expansion is made possible by the existence of a digitally active collective, which 1) has a different ethos than before—less personal and more public; 2) is less based on proprietary exclusive ownership and more on sharing; and 3) is less based on individually acquired and owned objects and more on collectively acquired non-objects with distributed access (Belk, 2014). "Suddenly the world is not a zero-sum game. My ownership in no way diminishes your possibility of ownership. The supply is unlimited" (Belk, 2014, p.246). How digital collecting and sharing affect production and authorship merits scholarly attention. Moreover, for inquiries today and in the future, we will likely have to expand our understanding of owning and agency, as AI is increasingly involved in the production of arts (Stark and Crawford, 2019; Raviola, 2020; Korhonen et al., 2023), further blurring the lines of who owns what.

Work

Discussions on art and the economy often revolve around conflicts and paradoxes, contradictory positions, and binaries. We have already seen this in the above

reflections on competing values and sharing versus owning, although our attempt is to bring forward a pragmatic take on how these seemingly conflicting sides are managed in practice. Likewise, *work* in arts and cultural production is often typologized as either being the result of a bohemian lifestyle which favors the ideals of artistic freedom, flexibility, non-commercialism, and independence—or as the product of an entrepreneurial mindset, more open to 'seizing opportunities', seeking partners and networks, and not being afraid to 'talk business'. In practice, artists are navigating pragmatically between many forms of work, including paid labour, collective labour, and gift or voluntary labour. As our research has shown, the negotiations between culture and commerce are a common trait of work in cultural and creative industries broadly (Borgblad, 2019; Gustafsson, 2019); even in those sectors that are more explicitly traditional market sectors (Raviola & Dubini, 2016).

Individualist work versus collectivist work is another binary often addressed in the art world. On the one hand, there are individualist-oriented narratives such as the 'winner takes it all' myth, based on the idea that the art world is a competitive environment where there is a critical mass of artists, but only a few who can succeed. The individualist narratives further envision the picture of the genius artist, working intensively, forever alone in their studios. From the individualist myth follows a secrecy surrounding the ways artists work: how are incomes generated (and how much is generated?), how are networks formed, and what are artists' career strategies? As the competition is fierce, knowledge about how to succeed can be a delicate secret that loses its value if shared with (too many) peers.

On the other hand, the last few decades have shown an increased interest in collaborative and collective work among artists (c.f. Billing et al., 2007), potentially as a reaction to individualism. For example, artists and curators are merging their solo work—sometimes as a joint brand—in favor of artistic work performed as a duo or a group. Swedish examples are artists such as Bigert and Bergström, Arnell and Elzén, Goldin + Senneby, and Konstab. These practices of collective and collaborative work are something other than the Renaissance masters with a bunch of artist assistants finishing commissioned master pieces for the royal court or the Catholic Church. Collective cultural work is therefore not separate from the discussion on ownership in the previous section. Collective work based on

sharing resources relates to forms of service exchanges in the art world based on friendship and peer relationships. Services are partly objectified through the use of time; the hours of someone's time that can be used ('owned') by someone else in exchange for an hourly fee. In other words; paid work. The hourly fee transaction, customary for many other service businesses, is rarely functioning in the art world. As Billing et al. (2007) note, the decision to work in groups may be the pragmatic result of the need to solve poor work conditions, where the sharing of resources, time, and equipment is more efficient, and sometimes inevitable. As artists are seldom paid for all the hours that they work on, for example, an art exhibition (Borgblad & Hagberg, 2023), the gift exchange based on friendship and collegiality constitutes a common prerequisite for art machinery to work. For example, a performance artist asks an artist colleague who is a photographer to shoot the performance. In turn, the photographer asks the performance artist to help install an exhibition. Services are exchanged for other services in this so-called 'friendship economy'. These self-organised work opportunities, implying that artists form work settings and projects employ or contract each other instead of waiting to be approached by institutions, are becoming increasingly common ways of working. Likewise, one of the purposes of the cultural incubators in Sweden is to connect people, make artists and creatives see the potential value of working in teams, exchanging competence and skills to reach their creative goals.

Working conditions in the arts and culture world resemble the growing phenomenon of other contemporary and precarious forms of fragile and short-term work, such as the part-time gig-work performed by, for example, home delivery workers. As Terranova (2000; 2004) argued, in the information and attention economy we have observed a culturalization of work in general; that is to say that work in many sectors has become similar in tasks, conditions, and processes to cultural work. The conditions and competencies required and developed in cultural work situations regarding flexibility, innovative thinking, problem-solving, being able to work both in teams and solo, and the ability to work on short-term notice, are skills also sought-after in many less precarious sectors of society. This relates to another change society is facing, which also challenges the individual versus collaborative narratives of artistic practices—the technical development of AI and AI-generated artwork. Is AI technology the individualist work taken

to its extreme, where a single computer may create artwork, or is it rather the opposite: a collectively produced artwork accumulated by thousands, millions, billions of previous artworks (which, again, challenges the questions of copyright and authorship)? Is the artist duo of the future going to be the combination of AI software and a human? The AI revolution and automizing of work is challenging all knowledge-intensive sectors today, not least within academia. Both education and research institutions are currently reflecting on the potential risks and possibilities access to AI may bring in the future, and the existential and philosophical questions they address. Experimenting with new techniques and exploring the unknown as part of problem-solving is what artistic and cultural work more than often is about, which further emphasizes the value of looking at how new technical 'threats' are managed or incorporated in artistic and cultural production and practices.

Final reflections

In this essay, we have addressed three critical questions in business studies related to arts and cultural production. We have shown how they unfold in these sectors, argued for the complexity and innovativeness of the work conducted in these sectors, and therefore for its relevance for business school scholars and students. We have offered a glimpse of the varied ways in which the practices of valuating, owning, and working in arts and culture sectors can be insightful in understanding broader transformations in the contemporary economy.

More specifically, by studying the arts and cultural production, we argue that we can find new approaches to address matters crucial in shifting the economy and society to a more sustainable direction. The inherent strong sense of economic value as being subordinate to that of other types of valuation is an important aspect that can be addressed in a much broader setting—what happens if economic value is degraded, and other types of valuations are upgraded in our way of viewing the economic system? At the same time, the results from research in the field have also emphasized the problems that may occur when there is a discrepancy in the understanding of these values. How do we decide on ownership, and what does it mean for the possibilities of making a living and creating work out of something where value is contested?

Likewise, the varied ways in which ownership manifests in relation to arts and cultural production may give us important ideas for how to address this matter in the economy in general. While we can see a shift toward ideas of the sharing economy, the current state of such attempts in the economy shows that there is still a long learning curve when it comes to making these attempts fruitful and not harmful. In this regard, art and cultural production can serve as an example of what practices and ways of organizing may have worked (and what failed to work), and, furthermore, why. While the challenges surrounding the notion of ownership may differ between these types of goods and services and that of other types of more mainstream commodities, there are still many lessons to be learned and made use of.

Arts and cultural production, in many ways, offers insight into the potential that can occur when curiosity, openness, and interdisciplinarity are centered in our research and teaching practices. As the Carnegie report cited above, claimed, the exploratory approach to new developments such as AI and other types of technologies points towards qualities that, in many ways, are becoming increasingly important for all individuals to understand given the current pace of change in the world. Linear thinking needs, therefore, to be questioned and accompanied by other liberal arts and humanities sensitivities that renew the relevance of business education. As we have argued, arts and cultural sectors are not only relevant for their shaping of societal values and our understanding of the economy, but also because they are a laboratory of sorts for complex questions of economic and societal relevance. For example, the fashionable contemporary discourse of the gig economy often overlooks the longstanding precedents of precarious work that have been conditioning artistic and cultural work for decades, if not longer. As typical of the knowledge economy, a better understanding of this kind of work and its transformation implies also shedding new light on the currently shifting meaning of work more broadly. In the world of arts and culture, work has often meant both giving in to the higher good of Calliope, the goddess of inspiration, and merely 'making a living'. These two sides of the meaningfulness of work seem to be at play, for example, in the increasingly wide phenomenon of 'quiet quitting'; "where you're not outright quitting your job but you're quitting the idea of going above and beyond" (Newport, 2022), and increasingly have another passion outside your paid work.

In conclusion, we claim that arts and cultural production can serve as critical sources of knowledge and inspiration for a sustainable transition from societal, economic, and environmental perspectives. We believe that research on the arts and cultural production will play an increasingly important role for business scholars in the future—much remains to be unpacked. The complexity of varieties of knowledge put into action through these practices in unexpected ways means that we still have much to learn for other types of complex future phenomena.

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Designing university impact on society

Reflections based on the Sea & Society and Gothenburg U-GOT KIES centres

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Introduction

In this chapter, we examine and reflect on how researchers at the School of Business, Economics and Law and more widely at University of Gothenburg are active in developing new forms for societal impact. One organizational form for impacting society is cross-disciplinary centres, where this chapter discusses the process underlying the development and organization of two centres at University of Gothenburg, which has an explicit process for managing centres. We define centres as a new structure for diverse sets of actors to take joint action in the form of cross-disciplinary research, academic complementarity, and impact on society. Our reflections focus on the processes by which researchers have actively promoted different pathways and models to interact and impact society. We do so with the aim to propose a number of recommendations and potential pitfalls

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for future models aiming at how universities can impact society and sustainability. Following Emas (2015) and Porter & van der Linde (1999), we define sustainability as contributing to an environmentally more sustainable society but also contributing to economic sustainability, where value creation strengthens firms' business and persistence in the market which in turn make it possible for them to contribute to the first point in the long run and that these two points are not mutually exclusive, but rather can act as catalysts for each other. However, we do recognize the diverse views and debates on this subject.

In this discussion, an important topic for the future is to reflect on whether, how, and when trying to create societal impact, universities may also encounter a trade-off situation between institution building and academic freedom. Van Looy et al. define trade-offs for universities dealing with university mechanisms to achieve impact as "...focusing on one transfer mechanism might yield detrimental effects for other mechanisms." (2011).

Universities play multiple roles in society related to developing and sharing knowledge in society, where educating students and conducting research are well-established roles. Four societal interaction activities were proposed and described by Hughes and Kitson (2012), namely people-based activities; community-based activities; commercialization activities; and problem-solving activities. In addition, universities aim to impact society more directly, and so we are considering pathways of impact. In order to achieve indirect and direct impacts, we propose that the universities can develop at least three pathways: 1) making a direct impact by commercializing research and starting spin-off companies 2) supporting the development of public policy and institutions and 3) promoting academic engagement through direct interactions and knowledge relationships with external actors. Centres, we will argue, are a temporary organizational form designed to help promote these three pathways simultaneously.

Much policy recommendations, as well as previous research into university-society interaction have initially mainly focused on the first pathway, namely making a direct impact through commercialization of research and technology transfer of university knowledge to industry. Commercialization and technology transfer through patents, technical inventions, academic entrepreneurship are important for economic growth and societal welfare. Multiple streams of research

suggest that entrepreneurship, such as university spin-offs, is important for economic growth (O'Shea et al., 2005; Barbero et al., 2012). Some research even connects entrepreneurship, like university spin-offs, to democracy, by looking at the counterfactual events when democracy was replaced (Germany, 1930s/rise of trusts end of 1800s US) and entrepreneurship declined sharply (Audretsch & Moog, 2022). They argue that the relationship between entrepreneurship and democracy needs to be explored further but that policies promoting the one would also safeguard the other. Hence, policies towards more democracy, like distributed and self-sufficient decision making could be beneficial for both.

This first pathway of societal impact through commercialization and technology transfer has been widely used in the USA as well as in Sweden. Universities and nations have developed this pathway, by developing a variety of support structures, including incubators, accelerators, public funding bodies, and educational programs in innovation and entrepreneurship. Unlike universities in most of the world, Swedish universities do not own the rights of commercially viable research results, instead it's the individual researcher who does (Swedish Law, LOU 1 § 2 paragraph 1949:345). Still, University of Gothenburg (as well as most Swedish universities) has developed functional organizational structures in this national institutional context in recent decades, such as GU Ventures, Grants and Innovation Office, and master's programs in both entrepreneurship and innovation management.

Moreover, more complex models of how universities may impact society have developed, of which two more pathways are discussed here. A second pathway for impact is through supporting public policy and institutions, for example by providing advice to governments on viable options to achieve certain goals. Universities can take on more dynamic and transformative roles by promoting internal and external competencies to support the entrepreneurial university through governance & public policy (Klofsten et al., 2019). A third pathway is through academic engagement, which was previously neglected but has become an influential way of thinking about how universities can impact society in recent years (Perkmann et al., 2013; Perkmann et al., 2021). Academic engagement is defined as knowledge-based network relationships between universities and external actors. Although academic engagement represents conceptually distinct

activities as to teaching, research and commercialization activities, the same individuals and groups often contribute to all three types of activities. The academic engagement literature tends to stress the autonomy of individual researchers, and yet, the impact pathways can take different forms and involve different types of actors outside the university. Further, Hughes and Kitson (2012) differentiate between people-based activities; community-based activities; commercialization activities; and problem-solving activities. Hence, the literature on academic engagement recognizes that many cases rely upon a combination of both individual incentives and institutional support structures to enable and promote such processes of impact.

Society also pressures universities to change, making the topic of how universities may impact society particularly relevant. At the same time as research on university-society interaction has expanded to include more models of interaction and to identify more pathways for impacting society, so have expectations risen from international communities. Universities have pressures on them to contribute both to economic growth and to social development (Smith, 2007). These pressures manifest in many forms, for example the Sustainable Development Goals of the United Nations or more locally, by the European Union, for example the European Universities Initiative at the Gothenburg 2017 Summit and European strategy for universities where the ability of European universities to take joint action to achieve greater impact on important issues are raised (European Commission), and the Swedish Government.

How, then, could a future university interact and make a direct impact on society and sustainability? We discuss this question by examining centres, which are designed to combine individual initiative with a more structured form of interaction and communication. Hence, one organizational form for impacting society is cross-disciplinary centres, where this chapter discusses the process underlying the development and organization of two centres at University of Gothenburg in recent years. Our reflections on two centres follow, including the more than eight-year history for the Centre for sea and society and the aims of the more recently started Gothenburg Centre on Knowledge-intensive Innovation Ecosystems (Gothenburg U-GOT KIES). The intention is to reflect upon how the current and future university may interact and make a direct impact on society and sustainability.

Case 1: The Centre for Sea and Society

The University of Gothenburg has a leading position in marine transdisciplinary research and education in Sweden. Together with cutting-edge infrastructure and expertise in a wide range of research areas the university actively contributes to delivering knowledge, competence, and solutions, clearly in demand by societal actors in businesses as well as public organisations. The Centre for Sea and Society (hereafter referred to as Sea and Society, or 'the centre') was launched 2015 by a decision of the vice chancellor of the University of Gothenburg, to promote collaboration between researchers with interest in the ocean, society and/ or the relation between those. Hence, the following account of the process follows the first eight years, where the university made a strategic decision to invest to promote societal impact in this area.

Sea and Society operates with a small secretariat with directors, project coordinators and communication officers, under a cross faculty steering group with representatives for all faculties and is administratively hosted by the department of marine sciences. Today the centre has 300 members with more than 350 researchers linked to the centre. At the website of the University of Gothenburg there is a thematic marine web portal that includes all marine related activities including staff, courses and projects. This web is a first entrance for non-academics to identify where different competences can be found and potentially matched across faculties.

Preconditions

A point of departure for the centre has been to acknowledge the need for researchers with knowledge within specific disciplines to work in a transdisciplinary manner, but also to develop skills and competence in transdisciplinary methods in particular (e.g., how to link people, groups, societies, knowledge fields) and in sustainability science in general.

The years before the launch the university failed to attract several larger grants relating to ocean research, despite having the strongest marine research in Sweden within a range of disciplines in all its eight faculties, particularly in natural sciences. The Centre for Sea and Society was therefore given the mission to initiate, stimulate and develop transdisciplinary research and education within the

area of sea and society and to develop a main entrance to all marine and maritime activities at the university and increase its visibility. The Centre were also appointed to build stronger cooperation with regional partners like Chalmers University of Technology and Region Västra Götaland and to represent the University in some collaboration platforms like the Maritime Cluster of West Sweden and to integrate the regional node of the Swedish Institute for the Marine Environment, into the centre. The launch of Sea and Society occurred in parallel with the decision at the UN summit in New York 2015 to initiate Agenda 2030, giving the possibility to visibly point to the need for different academic and non-academic competences and experiences to handle global challenges.

Foci of centre

The Sea and Society role is to initiate and promote inter- and transdisciplinary marine research by creating activities and platforms, thereby enabling researchers from different disciplines and faculties to interact with each other and actors outside academia. This is mainly done through physical and digital meetings and events, research support and matchmaking. In summary the role can be described by three main missions:

1. Supporting marine related research at all eight faculties, both by establishing strong research groups and departments, as well as researchers and groups (also those not traditionally defined as marine) wanting to initiate new research within the area of sea and society
2. Initiate, inspire and promote inter- and transdisciplinary collaborations, with the aim of attracting research funding
3. Providing a platform for collaboration and co-operation between researchers and actors outside academia.

Reflections on cross-organizational cooperation and societal interaction

The centre has shown how to overcome many obstacles for transdisciplinary cooperation, but in order to facilitate a transdisciplinary way of working within the university, there is still a need to further identify obstacles and reliable pathways and routines on how to overcome these.

The traditional organisation of a university is not always optimal when working across faculties and departments. It has been necessary to discover and develop new *administrative pathways* in order to achieve the mission and to inform the administration about the potential of the marine and transdisciplinary profile and about our mission to promote collaborations across departments and faculties as well as actors in society. The new master's programme in Sea and Society would not have been possible without innovative administrators and support from the leadership at faculties and departments as well as at the central administration. Likewise, the digital entrance for ocean related research and education gu.se/havet, would not have been possible without a clear mission and dedicated co-workers across the university.

The broad range of disciplines and knowledge areas throughout the university linking to the ocean is of course of tremendous value for both the university and society. But to develop a common university profile and serving across faculties and departments promoting cooperation with societal actors, is challenging and time consuming and requires focused communication and trust-building. As described above in the first section on transdisciplinarity the traditional organisation of a university is not structured to drive collaboration across disciplines and with other societal actors. Many individual researchers cannot find the motivation or time to spend on processes serving the common good, as they not as clearly benefit the individuals in a short time perspective.

A constant change in leadership at all levels at the university, where new leaders have new ideas on how to organise profile departments, faculties, and the university, and not always willing to take responsibility for decisions made earlier, is a further challenge. In February 2023 the vice chancellor made a decision to include marine research as one of five university profiles, this will increase the potential of the university to have a more uniform visibility in the non-academic world.

Researchers working for the centre, are building close networks within and outside the university, that can be personally rewarding. There is however also a degree of hesitation about the advantages to complement the traditional disciplinary work with the transdisciplinary, when building an academic career. The outcomes of this type of work can seldom be measured in exact numbers

of publications or funded projects etc., since the centre does not necessarily become the project owner. The role as an intermediary can be compared with the caulking of wooden boats (*dreva en träbåt*). Regardless of how strong the boards and planks are the boat will struggle to stay afloat without the material in between. As a university with the vision to be an internationally known academic institution, taking responsibility for the future development, and contributing to a sustainable world, there is need to fill the gaps between faculties, departments, and disciplines, and also facilitate collaboration with other external societal actors.

Outcomes of Gothenburg Center for Sea and Society

The single most important activity through which the centre has stimulated the development of transdisciplinary research has been creating opportunities for researchers from different disciplines and faculties to find and interact with each other and actors outside academia. The centre has built a network between researchers at the University of Gothenburg, spread out over all its faculties and knowledge where different competences (as well as groups, projects etc.) can be found and potentially matched. Researchers within the university now increasingly make direct contact with each other and key actors in businesses and public organisations, and the need for introductory meetings is less prevalent.

The long-term collaboration within platforms like the Swedish Institute for the Marine Environment, the Maritime Cluster of West Sweden, Kristineberg Center for Marine Research and Innovation and the newly initiated national arena Viable Seas have built close links to maritime industries and to formal management organisations (e.g. the Swedish Agency for Marine and Water Management, County administrative boards, regions and municipalities), primarily in West Sweden but also nationally and to some degree also internationally. These platforms facilitate the need of single actors, like small businesses or civil servants at an agency to get in contact with researchers and vice versa. The competence to build and administrate transdisciplinary projects and events is another outcome of the centre promoting single researchers to engage in transdisciplinary activities, which would have been much more time consuming or even impossible without the network of the centre. The growing international focus on the ocean

and its vital resources for the achievement of the SDGs, increases the demand on academia to deliver knowledge about the ocean and its ecosystems and its relation to human societies.

Sea and Society has become an increasingly important conduit for involvement in larger EU and international research programmes for which initiative is not taken by single researchers but by larger networks and consortia. Being active in larger EU and international research networks (e.g., European Marine Board, Submariner Network, EuroMarine, Mare) facilitates the possibility to follow the work within EU and UN bodies, formal international organisations like ICES, and to be updated on coming calls for funding, as well as the possibility to provide knowledge to these processes. To initiate and foster collaborations with decisionmakers in Brussels, Stockholm and at agencies and other formal organisations as well as in maritime business sectors are of importance not only for single researchers but the university overall. These opportunities might otherwise risk falling between the cracks since it is difficult for an individual researcher to keep updated and be involved in international research organisations.

Case 2: Centre on Knowledge-intensive innovation ecosystems: Gothenburg U-GOT KIES

The Centre for Knowledge-intensive innovation ecosystems (hereafter referred to as Gothenburg U-GOT KIES, or 'the centre') was formally constituted in July 2021. The formation of the centre initiated with dialogue with external stakeholders including companies and public policy organizations as well as supported by multiple faculties and departments within the University of Gothenburg. The centre focuses upon knowledge-intensive innovation ecosystems in different sectors, and their impact on society, in Sweden and internationally.

Gothenburg U-GOT KIES provides keys to impacting society, by integrating three pillars of scholarly inquiry and societal dialogue, as visualised in the figure.

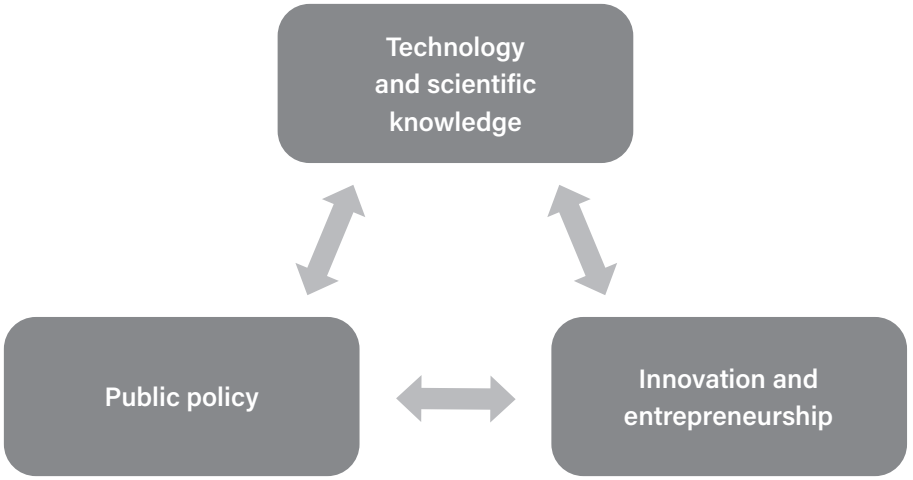

Figure 1. Model of three pillars of scholarly inquiry and societal dialogue related to Gothenburg U-GOT KIES centre activities.

Technology is driving rapid economic and societal change. We must analyze how the long-term provision of technological knowledge – developed in combination with scientific, medical, engineering, as well as managerial and creative knowledge – unfolds.

Public policy and societal goals also matter. We must critically understand technology in relation to their social contexts including public policy and societal goals such as sustainability. The purposes for which technology is developed matter.

Innovation and entrepreneurship are the activities which translates knowledge and ideas into value as economic and societal impact. We must analyze innovation and entrepreneurship, with a focus upon dynamic impacts on growth and regional development.

The initiation of the centre was based on a decision of the Vice-Chancellor of the University of Gothenburg, as well as collegiate organizations in the university ("ES Institutionsråd" and "Handelshögskolans Fakultetsstyrelse"). The centre is

formally hosted by the Department of Economy and Society, at the School of Business, Economics and Law, in accordance with the university policy for centres. The centre has a Director, a Steering Group, and an Advisory Council for Societal Dialogue and Impact, as well as related Corporate Advisory Boards for the two associated master's programmes. The Steering Group is constituted by 10 researchers, as well as more than 40 associated researchers from University of Gothenburg, as well international universities The Advisory Council and the Corporate Advisory Boards include representatives from large regionally based multinational companies such as Volvo Cars and AstraZeneca, from regional authorities, and from small entrepreneurial companies (see website https://www.gu.se/en/u-gotkies).

Preconditions

The outcomes are inherently related to the three goals and activities as specified below. The foci of these goals can be partially explained by three pre-conditions that gave the stimulus to start the centre.

A first is that social science research can help promote and diffuse knowledge about innovation and entrepreneurship, in order to positively influence society and reflect on future pathways.

The University of Gothenburg was able to realize their strategic engagement in this area, which was required as associated with the awarding in 2018 to Professor McKelvey's Distinguished Professors' Research Program on "Knowledge-intensive Entrepreneurial Ecosystems: Transforming society through knowledge, innovation and entrepreneurship" (VR DNR 2017-03360). The Swedish Research Council's Distinguished Professor's Program is a competitive scheme across all disciplines, which supports a large-scale 10-year research program, to develop independent research of the highest international quality within research areas defined by the professors.

Related to the above, rather than focus only on one research group, the development of a new organizational form for interaction was a stated aim of starting a broader centre, which could facilitate interactions over a longer period of time among constituent members – e.g., our wide range of associated researchers and societal stakeholders.

Foci of centre

Gothenburg U-GOT KIES focuses upon knowledge-intensive innovation ecosystems, and their impact on society, in Sweden and internationally. This includes understanding the dynamics between entrepreneurship and innovation when prevalent in revitalizing industrial arenas, where entrepreneurial capability meets tangible new technologies. The center promotes debates about relevant and impactful research on innovation and entrepreneurship, using digital tools to connect national and international colleagues and societal stakeholders.

Gothenburg U-GOT KIES conceptualizes knowledge-intensive ecosystems as processes spanning social and economic novelty. A key function of knowledge-intensive ecosystems is to promote the interaction between academics, large firms, public organizations, and entrepreneurs to create and transform knowledge into innovations that can revolutionize societal well-being and spur economic growth. Improving society is important, and therefore both scholarly inquiry as well as interactions with societal stakeholders are core for the center. Our goals are to:

1. Stimulate excellent research on knowledge-intensive innovation ecosystems
2. Impact graduate education in innovation and entrepreneurship
3. Promote societal impact and dialogue with society, on the above topics

Outcomes of Gothenburg U-GOT KIES

The outcomes are related to the three goals, and the centre has been active for 1.5 years at the time of writing this book chapter.

Stimulating excellent research on knowledge-intensive innovation ecosystems

One key set of activities relates to the goal of stimulating excellent research on these topics. The topics of linking studies of science and technology together with innovation and entrepreneurship and public policy requires expertise from different domains. Some researchers have a specific focus, including automated vehicles including electromobility, renewal of the blue economy and sustainable fashion. Other researchers work on specific theoretical phenomenon such as uni-

versity-industry interaction analyzed as academic engagement; innovation governance; and knowledge-intensive entrepreneurship. In terms of output, a large number of international journal articles, books, book chapters and conference presentations are delivered and distributed through the centre.

We also organize and participate in many activities, to fulfill our aims. We aim to promote excellence and awareness of the current leading practice in our field by organizing a variety of activities specifically related to research. This includes presenting papers and active participation in the leading conferences in our field – such as Academy of Management, DRUID, EGOS and EU-SPRI – as well as later publication of articles in academic books and scientific journals. Renewal can also come through smaller discussions of early-stage work. We organize and also small grants to organize workshops and seminars on specific topics, in order to stimulate early career scholars to take more responsibility for shaping the scientific dialogue by having the freedom to invite leading scholars on a defined topic.

Moreover, we have linked the University of Gothenburg into a global network of leading scholars. This national and international positioning provides several benefits – such as co-authorship on papers, supervision for PhD students, research seminars and workshops, and public open events. We currently organize at least 2 workshops per year, as well as 6-8 seminars with established scholars (plus the separate seminar series involving presentations by PhD students). Example of seminar topics in the last year include "Entrepreneurial Ecosystems", "Qualitative Research Methods", and "Exponential Invention and Mutual Information". In, Gothenburg UGOT KIES will host the International Schumpeter Society conference in June 2024, as M. McKelvey is currently President of the Society (www.issevec.uni-jena.de). Approximately 300 researchers are expected to attend, including both scientific presentations, the awarding of the prestigious Schumpeter prize, and dialogue with companies and public policy.

Impact graduate education in innovation and entrepreneurship

Diffusing our knowledge through undergraduate education is important – and especially through advanced graduate education in master's programs and PhD programs. Here, the centre works closely with the host Department of Economy

and Society, which together with Graduate School, retains responsibility for education. This connection illustrates one way in which a centre can interact with existing 'line-organization' structures for renewal of the university.

The undergraduate course 'Innovation och entreprenörskap' (IEG101) is given in Swedish, with 15 credits. An interesting variety of students take the course, with backgrounds ranging from Bachelor students from the School of Business, Economics and Law; from any degree area; and professionals currently working in the Gothenburg innovation ecosystem, such as at technology transfer offices. Hence, providing the course also allows access and impact to society, as further elaborated below, which are also valuable contacts for the centre.

Two Master of Science programmes are provided, namely "Innovation and Industrial Management" and "Knowledge-based Entrepreneurship". More than 700 master's students have graduated in these degree programs during the past 10 years. Both programs incorporate elements of projects and master's thesis co-created with firms and public policy actors, and especially the Knowledge-based Entrepreneurship program works closely and directly with individuals in the Gothenburg innovation ecosystem, alongside academic aims. Alumni from our master's program interact with the centre in interesting ways, for example, they often provide ideas and supervision for later master's thesis and return as guest lecturers which can relate the more academic subjects with practical experience.

Moreover, participation is not only local but develop international networks. We host PhD students and post-doctoral scholars from a variety of universities, who are able to meet through exchanges to visit us for 1-6 months, access to international consortiums such as NORSI PhD education, digital meetings forums, and early career scholar meetings. Many students come from the Department's PhD programme in the subject area 'Innovation, Entrepreneurship and Management of Intellectual Assets. Summer schools and similar also become available both through formal membership (such as NORSI) and through invitations to relevant activities, such that our PhD students have participated, for example, in events at Grenoble Ecole de Management (France) and at University of Kassel (Germany)

Promote societal impact and dialogue with society

The more immediate local and global society is also impacted, and some of this

has already been mentioned in the above two goals / outcomes but needs further explication. People are especially important, and hence we are proud of our alumni – and especially graduate student alumni – who combine academic knowledge with practical problem-solving. Gothenburg is an exciting city, exhibiting renewal over time, within different knowledge-intensive ecosystems. Activities can impact multidisciplinary more generally, or specific partners. One broader initiative, together with one of our Visiting Professors, is planning a series of workshops on innovation and entrepreneurship in the Blue Economy, involving both early-stage companies, natural scientists as well as social scientists. Another relevant example in our region that we interact with and also study is automobile and transportation manufacturing, which has now moved into AI and electro-mobility. One PhD student has a project related to the regulatory and technical issues underlying AI in automobiles while another PhD graduate analyzed firm-employed PhD students as a mechanism to interact between universities and firms.

Another relevant example of working in-depth with one company was the co-hosting together with colleagues at AstraZeneca of the 11th annual workshop on medical innovation (also known as WOMI) during December 2022. More than 40 company representatives and researchers attended, including one panel on "Benefits and spillovers in academic alliances and another panel on Reusing Drug Compounds – scientific and managerial perspectives. We are linked into the local community and provide a gateway for diverse societal actors to access this group of researchers as well as digital tools for diffusion. For example, the centre has an active Linked-in account, as well as newsletters and posting of upcoming events. We have also partnered with the Swedish Entrepreneurship Forum, to provide the 2022 Swedish Schumpeter Lecture. Professor emeritus Stan Metcalfe held the lecture in Gothenburg, and as we partnered with the Swedish Entrepreneurship Forum and their networks, we organized this as a hybrid event with more than 200 participants.

Reflections on cross-organizational cooperation and societal interaction

By bringing together excellent research related to understanding the combination of technology, public policy and innovation and entrepreneurship, we at Gothenburg U-GOT KIES can further stimulate excellent research of high soci-

etal relevance. The combination of topics defined here matters because it brings together people with different perspectives. Scholars from different disciplines and external stakeholders and users outside the university can thus analyze and reflect upon the interactions between technology, society, and economy, in order to understand what is driving transformation and change. Transformation and change is required to meet future challenges to society and economy. Innovation and entrepreneurship processes can be tools within this transformation – but they are also characterized as complex processes, with a variety of actors with differing competences and incentives needing to interact to combine agency with structure. Because innovation and entrepreneurship are processes which enable renewal, they also change existing structures and require collaboration across disciplines and organizations, organized within innovation ecosystems. Hence, an important aim guiding the people and activities of the Gothenburg U-GOT KIES centre is to take advantage of an opportunity to promote activities and test new ways of working, to both help to renew the university, and widen our impact regionally, nationally, and internationally.

Discussion

The two cases have highlighted what the centres at University of Gothenburg do, how they were set-up and key benefits of having centres. In the below table we outline similarities and differences between the two centres.

Center/factor	Sea and Society	Gothenburg U-GOT KIES
Preconditions	A cross faculty centre with about 350 associated researchers, funded by the university and with a mission from the vice chancellor.	An active existing unit at the Department of Economy and Society. Established researchers involved, with extensive national and international linkages. Swedish Research Council Distinguished Professor Program awarded to M. McKelvey.

Center/factor	Sea and Society	Gothenburg U-GOT KIES
Foci	1. Supporting marine related research at all eight faculties, 2. Initiate, inspire and promote inter- and transdisciplinary research 3. Providing a platform for collaboration and co-operation between researchers and actors outside academia.	Knowledge-intensive innovation ecosystems to 1. Stimulate excellent research 2. Impact graduate education 3. Promote societal impact and dialogue
Outcomes (education)	• Master's programme: Sea and Society • Nordic Master's programme: Sustainable Production and Marine Bioresources • Many interdisciplinary courses at masters and graduate level	• Bachelor course: 'Innovation och entreprenörskap' • Master's programme: Innovation and Industrial Management • Master's programme: Knowledge-based Entrepreneurship • PhD programme: Innovation, Entrepreneurship and Management of Intellectual Assets
Outcomes (research)	• Linking researchers from different disciplines • Enabling research collaborations across disciplines • Intermediary • Stimulate excellent research	• Extensive research outcomes in international publications and conference presentations • Linking researchers from different universities, for example affiliated professors and guest professors • Organize meeting arenas between society and academia • Stimulate excellent research

Center/factor	Sea and Society	Gothenburg U-GOT KIES
Outcomes (third mission)	• Part of public-private projects • Coordinating efforts • Communicating research publications directly to policy makers, media, and civil society	• Digitalization of impact – open access publications, books, hybrid seminars • Direct contacts with NGOs, public policy, and companies through > 50 Masters theses annually

As can be seen in the above table, the two centres retain core attributes of the ambition to develop centres to renew the university and its interactions with society – yet also differ in some specific details.

In the following text, we use our reflections upon these two centres, in order to add to the debate. Interesting debates related to the core issues with the governance, and usefulness, of centres, both in specific for University of Gothenburg and more generally for universities investing in such centres or hubs, as an organizational form for universities to make societal impact. These impacts can be seen as 'trade-offs' between different ways of impacting society and designing research.

We argue here that based on our reflections; we have identified three main trade-off situations endemic to such initiatives. Centres are explicitly designed to change and add value to existing university structures, yet also represent trade-offs. When designing centres, our view is that the universities may encounter the following trade-off situations, which represent three critical views about centres as an organizational form, followed by our response of possible benefits:

1. *Alternative cost*, i.e., why put money into centres and not something else. Many could argue that the money could be spent on 'something else', which could strengthen the line organization for example. For example, adding more money for research or education of students would strengthen the core missions of the university and potentially lead to impact organized by individual researchers or units.

In our view, one of the most important benefits of centres is their gathering quality as in being an infrastructure that can sustain internal (to the university) networks of researchers with similar interests and external (international institutions, companies, public organizations, and municipalities) networks that can be used to set up large projects and create impact. These structures typically also include skilled people that gain experience in coordinating projects, contact researchers on potential leads, etc.

2. *Parallel structure to the line structure*, i.e., that centres are a side-organization that may take key people from the line organization and put them to use for another purpose. As with all activity organized outside of the line organizational activities, centres may not only take resources as money away from the core activities of the university, but it may also take time and key people away from these activities.

   In our view, centres may productively take up roles traditionally taken by the line organization and add more value to them. An example of this would be the master's programmes described in the cases, where centres provide transdisciplinary knowledge to strengthen teaching, facilitate connections across nations and add value to individual researchers by being a forum for sharing ideas. The demand by industry and formal institutions for employing personnel with not only disciplinary but also transdisciplinary knowledge and skills is one factor which has driven the development of new transdisciplinary courses and programmes.

3. *Limits to impacting society*, centres have been given resources, attention, and people from the university, but can they really play a role in solving today's challenges? Research for sustainable development and Agenda 2030 requires cooperation across disciplines and with other societal actors.

   In our view, for actors from industry or public organisations to find relevant academic collaboration partners, supporting structures such as Sea and Society and U-GOT-KIES have a timely strategic role. Driving factors in developing transdisciplinary academic environments are the desire from societal actors to collaborate with researchers and to facilitate sharing

and developing knowledge. The different parts of the university also have their own academic cultures, administrative rules, and ways to conduct research. Therefore, it takes time to clear administrative obstacles, build trust and functional networks in order to take on larger challenges and research projects. There is a clear potential of involving cross faculty centres more formally in the strategic work at different levels of the university. Representatives for the centres are regularly involved in strategic discussions with politicians and officials at local, regional, national, EU and international levels as well as representatives for industry, civil society, and research funding organisations.

Final reflections

Grant calls and funding opportunities for transdisciplinary research have increased during the last years. The increasing interest for mission-oriented projects within EU, also influences national funders of research. Centres can have a clear role in passing on information to researchers and university organizations about such international and national initiatives and related up-coming calls, setting up meetings and providing financial support to develop new grant applications, projects and activities. This work is crucial but sometimes difficult to measure as its outcomes can seldom be given in exact numbers of publications or funded projects etc. since the centre does not necessarily take the role as project owner.

A centre does have a formal role in contributing to the strategic discussions at the university but could more regularly be consulted in order for the university to benefit further from insights, contacts, etc., that the centres have (Rules on Centres, DNR GU 2022/3685). Economic resources and appointed staff at the centre, have been crucial for the possibility to respond to requests for cooperation by researchers, groups, or universities, to fund membership in key international organizations and to host international guests. There is a need for university-wide functions that link together and act as a glue between the many individually important parts of the whole.

Moreover, centra play a role in being temporary organizations, designed to draw upon the strengths of the existing organization, in order to bring together individuals and groups around a common theme. Temporary organization im-

plies that a centre usually has a starting point, and an end point – and that one can expect that different centra will be running in parallel at any given time. Many of the networks and benefits thus accrue to the individual researchers and students involved, and thereby also benefit the university in the 'normal' activities of research and teaching. The aim is that by renewing activities, the centres can also enhance how the organization as a whole can mobilize its capabilities and respond to new opportunities – yet the individual researchers must do so, rather than the university as an organization.

In conclusion, universities have many ways of impacting society and potential to rise to meet the challenges the world has. Four societal interaction activities were proposed and described by Hughes and Kitson (2012), namely people-based activities; community-based activities; commercialization activities; and problem-solving activities. In addition, we propose a fifth, namely policy and institution-building activities. By this, we mean that we see the main benefits of having centres as an organizational form to ensure sustained relations with internal and external actors, a competence hub for international multidisciplinary projects, policy informing by being able to collect knowledge on an area from many disciplines within the university and the ability to give advice to the government, courts, and other public institutions and organizations on key issues for a sustainable future.

Hence, a future university would do well in learning from the past and of earlier attempts at creating impact and being part of our transition to a more sustainable society. We believe that universities need to draw from its traditional strengths: doing specialized research and educating new professionals, to also take on todays and future challenges and respond to new societal pressures and expectations. Another valuable lesson for a future university is to facilitate for the creativity and willingness of its employees by creating preconditions such as faster decision making, allocation of resources earmarked for initiatives arising from within the university and continuous work to connect willing and knowledgeable colleagues. By doing so, setting up networks and resources to deal with challenges will become more attainable for individuals and groups trying to induce change and impact.

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Teaching for personal growth

Oskar Broberg and Urban Strandberg

For its centennial celebration, our school has chosen the slogan "A century of scientific curiosity". Along with the slogan comes key formulations aimed at categorizing the school's ethos and activities: "a meeting place for new ideas", "educating independent-thinking students", "constantly looking for new challenges and new knowledge relevant for the development of society", and "contributing to the development of society and business toward a more sustainable world". We like the spirit of these words and are proud to work as teachers and researchers in living up to it; but how is this to be achieved?

To address that question, this essay proposes focusing on the school's primary task: education. As commitment-driven teachers ourselves, we draw on our everyday teaching and organizational experiences when suggesting a vision for education as one of personal growth. Such a vision may seem lofty, but we believe it is anchored in the history of the school—both in terms of an academic tradition of independent researchers and in the practice of pioneering entrepreneurs. Our vision is based on the idea of contributing to individual's development and their ability to collaborate with others in ways that benefit both the individual and the society.

This idea has been an important theme in how learning has been understood ever since the Enlightenment. In German, this idea is often referred to as *'bil-*

dung', and in the USA, it is embedded in the tradition of liberal arts (Strandberg and Toshach, 2014). In the contemporary context it is highly relevant as business schools around the world search for their role in the face of global sustainability challenges, both in terms of academic content and educational organization (Raworth, 2017; Sundemo and Löfgren, 2022).

We are convinced that the idea of personal growth, paired with academic knowledge, can inspire academic education more generally. Integrating personal growth in business education not only empowers students and faculty to be innovative and solution-oriented, but individual well-being also promotes dynamic learning environments where engagement is as much a key factor in education as it is a vital output for a future-oriented educational institution (Whitehall, 2016).

To realize our vision, we present three approaches on how to build a learning environment that fosters personal growth: 1) knowledge as a horizon, 2) personal engagement, and 3) learning through dialogue. We have outlined the text in a way that integrates principled reasoning on knowledge and learning with hands-on examples from our own everyday teaching, hoping to inspire both teachers and students. We end the text reflecting upon what it would take for individual teachers and the organization at large to realize this educational vision.

Knowledge as a horizon

There is a paradox inherent in academic education. On the one hand, the university is perceived as an apex knowledge institution. Researchers explore new knowledge, teachers do their best to share knowledge with students, and decision-makers turn to the university for guidance in handling societal challenges—be it climate change or global pandemics. At the same time, it is an inherent trait within knowledge production to expand not only on what is known, but also, correspondingly, on that which is unknown. In Swedish higher education ordinance this is explicitly recognized—faculty are obligated to teach students to be aware of the limits of their own knowledge. But to what extent is this obligation fulfilled and how can it be fulfilled? What is a viable approach to constructively handling academic institutions' relationship to what is unknown? And most importantly, how can such an approach be integrated into the everyday practice of a university teacher at a business school?

Philosopher Jonna Bornemark (2021) offers an instructive approach. Her starting point is that knowledge always is dependent on the viewer's position, like standing on the shore and gazing out at the horizon. Bornemark proposes the metaphor of knowledge as a horizon. Phenomena within the parameter of a horizon represent knowledge that is obtainable. While counting, sorting, and organizing phenomena within reach of the horizon, the viewer can build theoretical constructs of great precision. However, horizons are dynamic. When approaching another shore, the horizon moves, and the viewer cannot tell what is beyond the horizon without moving it even further away. The horizon as a metaphor represents a basic condition of knowledge—some phenomena are knowable while others are hidden from view.

Bornemark furthermore draws on classic thinkers to develop a horizon-based knowledge concept. Starting with the Italian philosopher and theologist Nicolaus Cusanus (1401–1464), Bornemark describes the world as something that is constantly overwhelming to humans, and human perception is busy sorting out what is important in every situation. Cusanus uses the concept of *essences* ("quidditas"). While individuals use their prior experience to continuously sort through essences, there is a risk of becoming stuck in patterns of what has been identified as significant before, or put differently, there is a risk of always returning to one's favorite theoretical constructs. Still, every experience is unique and as such are avenues to unknown horizons. This is particularly true in academic education, where one way of knowing can be juxtaposed by other perspectives. Students need to be reminded that knowledge is a map of the world, not the world itself. Teachers should offer students maps that are effective in describing and analyzing the world, but at the same time make students feel humble regarding what complimentary perspectives have to offer. Furthermore, the classroom situation is also a social situation which incorporates important horizons of the unknown. Both students and teachers bring their own experiences and prior knowledge. For an attentive teacher, these pre-understandings form the basis for his/her pedagogical practice.

From this, it follows that students' reflections on knowledge horizons should be integrated throughout programs and courses. A good example of this is an assignment within the bachelor's Program in Economic History and Human Geography, where students make a so-called 'Local Economic Analysis' (LEA) of a

Gothenburg city district. Students do not only collect statistical data to substantiate their analysis, but they also reflect on what kind of data has not been collected by statistical agencies. During their presentations 'missing' data are often central to a discussion about who decides what statistical data to collect and what implications data sampling decisions have for the understanding of crucial economic and social issues.

The way a teacher balances the different horizons of what is known and unknown can never be fully manualized. This does not mean that there is nothing the teacher can do, but instead points to the different sets of knowledges and skills that are needed to excel as a teacher—what Bornemark calls 'professional judgement'. This is also to say that university education must handle, and be capable of teaching, various types of knowledge. In his *Nicomachean Ethics,* Aristotle distinguishes five different types of knowledge; here we will focus on three to highlight the contrast between theoretical and practical skills and abilities.

Episteme can be thought of as theoretical and abstract knowledge. Since episteme is generalizable, it is not dependent on any specific situation, and therefore lends itself to formalization, and in contemporary settings, it is often popularized as evidence-based knowledge. Episteme is a powerful tool in many situations due to its generic characteristics, giving it high status, particularly in university settings. However, its high status can also be problematic. Episteme can be misused when positivist claims of objectivity are applied for rhetorical purposes, or when generic knowledge is not the most appropriate knowledge form to understand and handle a specific phenomenon or situation.

Techne refers to an action- or purpose-oriented knowledge form. Cooking can be seen as a form of techne, where abstract knowledge of ingredients is mixed with the practical skills of how to assemble a meal. The meal to be prepared and the ingredients that are needed can be described via recipes. However, cooking can only be partially manualized. The bodily dimensions need to be trained through repetition and horizons of the unknown are constantly lurking in any kitchen. Ingredients themselves can change over time and space, implying that recipes need to be interpreted and adapted rather than meticulously implemented.

Phronesis is a form of value-based knowledge form where the good practice is the goal. Helping a child cross a busy street, assisting an elderly person to eat,

or supervising a student writing her thesis can all be seen as expressions of phronesis. Excelling in phronesis requires judgement in balancing general knowledge with the uniqueness of the situation. Like techne, it embodies both theory and practice. Phronesis demands one to practice Cusanus' call to sort out the essences in the world. Since it is a value-based knowledge form, it also points to the need for a continuous conversation about values. What is valuable in a specific situation? How can the identified values be developed and, when needed, defended? Phronesis is rooted in experiences and the individual's ability and motivation. Hence, phronesis is even more difficult than techne to manualize and assess in a standardized format.

After graduation, students enter the world of work, which requires them to master various knowledge forms. Teaching that emphasizes individual growth must therefore offer students the opportunity to develop different forms of knowledge. Focusing on only some knowledge forms limits students' total knowledge horizons. When educating students to primarily understand the world through episteme, a specific kind of 'blindness' becomes institutionalized. To keep episteme from crowding out other knowledge forms, university education must train students to expect the unknown and to develop their capability to master both their own and other people's knowledge horizons.

Traditional lectures are often limited by their setting in their ability to accomplish this. Students show up to listen to someone more knowledgeable than themselves, and teachers feel the need to deliver on such expectations. The unknown is therefore better addressed in assignments where the scope of the task is wider. Thesis work is a situation where students should be explicitly encouraged to explore their own knowledge horizons—to not only display their knowledge, but also to reflect upon the unknown aspects of new territory. A focus group study by Strandberg and Toshach (2014) explored how students in three different programs experienced their learning process when writing Bachelors' theses. The students discovered that thesis writing meant handling recurrent situations in which they had to make independent decisions themselves, in contrast to situations in exams or in class, where answering questions often did not require independent thinking. Strandberg and Toshach concluded that thesis writing means something more than exercising academic skills; name-

ly, being confronted with oneself, one's abilities and shortcomings, and one's own curiosity and fear. In thesis writing, the student is expected to become an acting subject who makes independent choices and takes responsibility for the consequences of those choices. The student chooses the study object, purpose, and method, carries out an analysis, writes a text, and finally has that text reviewed by fellow students and the examiner. The fact that the student in this process becomes both a researcher and a responsible individual is something that should be emphasized and acknowledged. An illustrative example was one student in a focus group who realized that he had crafted his thesis too simplistically with the intention of speeding up the writing process. Comparing his own experience to that of the other students' experiences, he realized, and regretted, that he had missed an opportunity for an eye-opening encounter with his own knowledge horizon.

The weaknesses and values of trivial and genuine questions

Another practical approach to the exploration of the unknown is reflecting on the role of questions in the learning process. Questions structure thinking by forcing the analyst to hypothesize, which might unfold the essence of a situation. The most obvious type of question are the descriptive ones in an exam; for instance, requiring a student to state the founding year of the Bretton Woods agreement. We would denote this question as trivial—not because it is unimportant, but because it can be definitively answered. The strength of trivial questions is that they can be used effectively for both examination and quality assurance processes.

The weakness of trivial questions is that they tend to obscure the fundamental aspect of knowledge as a horizon. The world is full of important questions that cannot be answered conclusively, which instead need to be handled with professional judgement. Such questions can be thought of as 'genuine' questions. Genuine questions require you to relate to the questions, rather than to simply answer them. Formulating and addressing genuine questions is a way of productively exploring the unknown in learning processes. Genuine questions can function like satellites into the unknown, as guides to important areas of the knowledge horizon and towards a constructive dialogue on knowledge formation. In this sense, the practice of formulating genuine questions is more connected to techne and

phronesis than to episteme. What is known? What are the premises for what is known? What is worth knowing?

One way to further students' ability to relate to their own knowledge horizon and to encourage them to formulate genuine questions could be to design a course that runs all the way through the program. Such a course could take the form of an ongoing thesis writing process, which would continuously require students to independently gauge situations and make decisions, thereby forcing students to experience and handle their own knowledge horizons, triggered by specific content in the program's other courses. Besides continuously bringing new knowledge horizons and genuine questions to the fore, such a course would also add context to other courses.

To some extent, such courses already exist at various business schools. At the school of Business, Economics, and Law at the University of Gothenburg, this idea has been developed in the 'Smart Student' concept. There is, however, a risk that such initiatives are not integrated well enough into existing courses, with failing levels of participation and engagement. Furthermore, there is a risk that students feel a conflict between the specific knowledge they are taught in regular courses and the generic skills and issues that are dealt with in extracurricular activities (Stuart et al. 2011).

To train students to understand and master knowledge horizons, teachers could introduce genuine questions early on in educational programs and integrate them into regular courses. A practical example of this could be seen in the research methods course in the master's program in Logistics, where students conduct a sustainability analysis of a company. At the concluding seminar, two student peers are asked to read a paper and prepare a short comment and two questions relating to the paper. The commentating students are specifically instructed to focus on the larger issues at stake, rather than on specific details (or general praise). Which aspects of sustainability are particularly important for the analyzed company and why? How did the chosen company's development relate to overall societal transformation? By focusing on how to relate to genuine questions, rather than on answering trivial questions, the discussion can engage with and open up students' minds, even after the time allotted for writing the paper has expired.

Personal engagement

A key point in this essay is the idea that the purpose of academic education is to enhance human growth, that personal engagement is invaluable to such an endeavor, and that education programs ought to be organized accordingly (Strandberg and Toshach 2014; Whitehall et al. 2016). Practically, this means that personal engagement ought to be woven into not only the educational vision but also into practical teaching. In Aristoteles' terms, this means that education programs ought to integrate episteme in a phronesis framework, training students to handle the complexities of the real world and to participate in value discussions emanating from genuine questions.

However, personal engagement entails a crucial paradox in how students are viewed as individual persons. On the one hand, students are admitted based on individual performance in previous studies and university eligibility requirements. The lion's share of exams in courses and programs are also individual in nature. Universities, and society at large, perceive students as having thoughts about their goals and the individual benefit of the studies. On the other hand, there is also an idea that students prepare for achievements in working life that are for the benefit of both the organizations in which they will work and for society at large. While this idea exists, there are basically no aspects of admissions, exams, or pedagogy that require students to be personally engaged and committed or to reflect on the importance of the learning environment as something collectively constructed. The strangeness of this paradox emerges clearly in a comparison with working life. Imagine a person applying for a job. In both the personal letter and at the interview it would be expected that the applicant will expand upon how she believes the job could develop her personally, but also what her specific contribution to the workplace would be. Or imagine when employee and employer meet for an annual performance appraisal. It would be natural to discuss how the employee develops personally through her work assignment as well as how the employee contributes to the workplace thanks to her personal skills and capacities.

Translating the expectations of working life to an academic study program, it would be natural to expect students to engage as acting subjects with responsibility for using their personal commitment for their own and others' development, adding energy to the learning environment. Such an approach could be

institutionalized by including explicit tasks of reflection on personal development and commitment throughout the program. There are scattered examples of this already in the application process for some GU masters' programs such as Strategic HRM, Matix, and in European Studies, International Administration and Global Governance, and Political Science. However, we would argue that there is plenty of room for improvement when it comes to integrating the role of personal engagement in pedagogy, exams, reflexive learning, and course evaluations in the wide range of programs and courses offered at our school—not least when it comes to first semester courses, where students are socialized into the academic world.

Inspiration for developing such routines can be found within the International Youth Think Tank (IYTT). Since 2019, the IYTT runs annual four-day youth conferences with 24 students in the 18–24 age span. The conferences' objective is to craft tangible policy proposals for democracy renewal presented in a concluding public presentation and a report. Participants are recruited through an open call, and they are welcome to submit texts, videos, and audio files. The four conference moderators individually assess all applicants in relation to three criteria: 1) how will the applicant develop as a person by participating in the conference?; 2) how invaluable are the social experiences and capabilities of the applicant to the conference?; 3) how unique and uniquely valuable are the applicant's ideas of democracy for the conference? The experience is that such a selection process brings about high-caliber participants and varied groups with lasting social cohesion. It is also striking how much the participants themselves appreciate being selected based on their personal engagement, ideas, and experiences. This is not to say that all degree programs should be drafted accordingly, but to encourage international masters' programs to develop their requirements for applicants' statement of intent letters and to follow up on them during the program's welcoming and introductory elements.

Another instance in which students' personal engagement and commitment could be furthered has to do with feedback and course evaluation. One example of this at the Gothenburg School of Business, Economics, and Law are the so-called 'course conferences' that are routinized within several programs. Course coordinators invite students who have shown dedicated engagement in class to

a structured and dialogue-based evaluation, focusing on the extent to which the course lives up to learning objectives as specified in the curriculum. Another example can be found at the IYTT. Three months after the IYTT youth conference, participants are inspired to reflect on how the conference has contributed to their personal development. A message sent individually to the participants conveys six reflective questions. The answers they give testify to strong personal experiences and discoveries, which, in turn, may signify how reflexive questions can help catalyze individual's personal growth. In addition to catalyzing the participants' personal development, reflexive questions generate rich feedback for the conference organizers.

A third way in which personal engagement can be integrated is by developing the use of guest lectures. This is especially important in post-COVID times. Students tend to demand and expect that more of their studies can be done at a distance—by attending digital lectures or by consuming PowerPoint slides and bullet points. Well-planned and course-integrated guest lectures can be a countervailing force to this unfortunate trend. The unique voices of guest lecturers, exemplifying how professional careers are closely intertwined with personal engagement, can have a great impact on individual students' motivations. Furthermore, guest lectures that bridge the divide between theory and practice can contribute positively to the general learning environment by creating common points of reference for both students and faculty. Guest lecturers can be well-known people who act as role models for students, but they can also be people who are good at inspiring students from unexpected perspectives. Finding and maintaining good relationships with a diverse network of people from corporations, NGOs, and government agencies ought to be considered a key competence for those individuals responsible for organizing both bachelor's and master's programs.

Learning through dialogue

In this essay, we emphasize how important it is to integrate an educational vision that stresses the individual capacities of students and teachers, while still acknowledging that learning processes are collective. We believe that our third approach—learning through dialogue—is a powerful tool in balancing the individual and the collective.

Here, the concept of *collegiality* can serve as a productive starting point. In research, collegiality is the natural starting point for the collective knowledge process, as materialized in departments' research seminars, international conference panels, and research groups. Such an understanding of an academic community of colleagues could also inform an educational ethos. This is not to say that students and professors are colleagues in terms of being employees, but it can be used to design an education where the stated goal is that students will learn that collegiality is a viable approach to expand knowledge.

Using the concept of collegiality in education can catalyze considerations and reflections around the different forms of communication applied in teaching. One-way communication is typical in university education, most often in the form of traditional lectures. Economies of scale are an important and unfortunate driving force behind this trend, but in many ways, it is also easier for the teacher to prepare a lecture than it is to engage in other forms of interaction with students. We argue that a vision-driven educational institution needs to draw more on collegial dialogue.

The integration of dialogue in teaching has ancient roots, perhaps most well-known in the Socratic method, where the argumentative dialogue between teacher and students is believed to stimulate critical thinking and reveal underlying presuppositions. Here we argue that dialogue is also more than an intellectual tool for philosophical inquiries. Dialogue can be seen as a general approach to knowledge creation as a collective, social, and ongoing process. Dialogue is a two-way process and therefore it includes the art of listening. But what does it really mean to listen? If we believe that the role of business education is to tell students how the world really is, then listening would only be about students memorizing the words of professors. We do not subscribe to such a worldview. University education must train students' judgement, which requires general knowledge about the world in combination with an openness toward unique situations in a changing world. Dialogue requires participants to formulate what is known and what is not known. To do this, one must practice listening.

Wiberg (2018) shows how listening correlates with individual judgement. She argues that listening— rather than being a passive activity—is a process of active learning and decision-making. A person is not disinterested when she lis-

tens carefully. Experiences and values direct the listener, helping them sort out the essences of what is being said. But what a listener brings to the table can also delimit their experiences. The listener needs to see and reflect on her own ideas, but not let them take over. A functional dialogue requires that conversers be open to new ideas, and to the unknown. Openness requires courage and judgement, which can be trained. But dialogue is also associated with power, since two or more parties in a dialogue might have different formal or informal positions and might have different personal confidences. A challenge in academic studies is therefore to train students to be attentive listeners to knowledgeable professors, while at the same time promote students' confidence in holding and articulating their own views.

When running ideally, a seminar is a dynamic pedagogical practice in which collegial dialogue is the key component. Seminars tend to be productive dialogues when organized and curated like paper presentations at research conferences: participants have prepared beforehand by skimming the texts; the seminar is started off by a brief presentation by the text author, followed by key points conveyed by an appointed discussant; finally, all seminar participants contribute comments. Realizing this promising learning potential from seminars requires practice, meaning that seminars ought to be curated accordingly, recurrent, and routinized. Such seminars hinge on smaller student groups, which requires the organization be willing to allocate appropriate resources.

Training students to be attentive to professors' knowledge while at the same time encouraging their confidence in their own valid knowledge, could be achieved through occasionally engaging in a conference-like format in which teachers' and students' roles are reversed, meaning that students make presentations while the teachers convey comments and questions. Within the BA program in European Studies, the first semester is concluded by a full-day conference. Students come entirely unprepared and unknowing, and are then divided into groups, which are given the task to prepare brief slideshow presentations revolving around the core theoretical concepts and empirical examples that have been studied during the semester. During the second half of the day, the groups do their presentations and take comments and question from a four-headed teachers' panel. Viewed dialogically, the teachers begin the day by assigning the task, while the

students start the dialogue off with their presentations, after which the teachers amplify the dialogue by issuing comments and questions.

Another example of dialogue-based pedagogy is found within a specific course assignment during the fourth semester of the BA program in European Studies. The point of the assignment is to understand the complexity of European Union governance for sustainability by contrasting two ideal-typical governance styles. Groups of 20 students are divided into two subgroups that prepare for a one-hour argumentation exercise. The groups prepare to represent one governing ideal each and begin the exercise by arguing heatedly in favor of their respective position. The magnificent phenomenon that appears after about 30 minutes of polarized debate, is that the students—sometimes expressly and sometimes indirectly—begin to acknowledge arguments conveyed by the other group. The exercise is concluded with a discussion about sustainable governance complexity, and the pedagogical role of a staged dialogue.

Concluding remark

In 2023, SBEL celebrates its centenary jubilee—a hundred years of transformations, uncertainties, knowledge creation, and innovation. The coming hundred years will most likely be no different and our business school will continue to balance traditions and the unknown. In this essay, we have argued that a fruitful point of departure for such an endeavor is to nurture a vision for education that rests on three approaches: seeing knowledge as horizon, emphasizing the role of personal engagement, and focusing on collegial dialogue as a powerful tool for creating dynamic learning environments.

With this essay, we hope to inspire conversations about teaching in our school and what high ambitions require from the organization, working environment, and leadership. A dynamic learning environment is not realized by the solitary teacher. Rather, it is a collective effort between students, teachers, and administrative staff. Attaining a vision like the one we have outlined in this essay requires time, support, and career incentives. At the same time, such a vision can inspire all involved to both personal growth and scholarly development. Just as the philosopher Jonna Bornemark argues that knowledge in the realm of techne and phronesis can never be fully manualized or objectively assessed, quality in

university teaching is a moving target. This means that teachers must continuously formulate genuine questions to focus on the most important challenges, to provide tentative answers, and to develop teaching accordingly.

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SCHOOL OF BUSINESS
ECONOMICS & LAW
1923 – 2023

In 2023, the School of Business, Economics, and Law celebrates its centennial, and part of the festivities include a forward oriented outlook on the challenges to handle now and during the coming decades. *Towards a Sustainable World: Academic Insights and Perspectives* is an edited volume that brings together scholarly texts about how the development of a sustainable economy and society can be assisted by academic research and teaching. The book includes contributions from scholars in management studies, economics, legal studies, economic history, economic geography, geography, accounting, marketing, and innovation management and entrepreneurship studies, and address a variety of issues that matter today and in the near future. The contributions discuss in what way the Academy and more specifically how the School of Business, Eco - nomics, and Law faculty, students, and alumni can ad - dress joint concerns to safeguard a sustainable future. In addition, the book includes original photographic artwork by Lennart Sjöberg, documenting the school during the year of its centennial celebration.

"Within the international community, I can . . . note that societal debates in many states have changed its character, and the demarcation line between statements of fact and opinions has become increasingly blurred. I am convinced that academia has a special responsibility to keep this demarcation line clear and thereby making serious discussions about complex issues possible. This creates an imperative for the School of Business, Economics and Law to defend fundamental academic values and statements of facts that can be verified by references to reality in a context where these may be challenged in the general societal debate, as well as in our own auditoriums and seminar rooms."

From the Faculty Dean
Per Cramér's Foreword

UNIVERSITY OF GOTHENBURG
SCHOOL OF BUSINESS, ECONOMICS AND LAW

Towards a Sustainable World

Academic Insights and Perspectives

Merima Bruncevic, Susanna Fellman, Alexander Styhre and Måns Söderbom

Editors