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Reimagining Research-led Education in a Digital Age

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About the author

Jo Angouri is Professor in Sociolinguistics, the University-level Academic Director for Education and Internationalisation at the University of Warwick, a Visiting Distinguished Professor at Aalto University, School of Business, Finland and Affiliate -Visiting Professor- at Monash University. She has published extensively on Leadership, Identity, Decision Making and Problem Solving. Jo is the author of Culture, Discourse, and the Workplace (Routledge, 2018), has co-edited Negotiating Boundaries at Work (EUP, 2017) and The Routledge Handbook of Language, Gender, and Sexuality (Routledge, 2021). In the last ten years she has published over 70 refereed papers, three special issues, two books, three edited volumes and two conference proceedings and is the Subject Chair for Linguistics, Language, Communication and Media on the Scopus board.

Jo is a National Teaching Fellow (UK) and committed to pedagogic innovation and education for global citizenship. She has significant experience in research-led education, multidisciplinary curriculum design and undergraduate and postgraduate programme leadership. At the University of Warwick, she leads on the development and growth of existing and new international education projects with the University's strategic partners. She is on The EUTOPIA University Alliance Education Team and is co-leading on the Learning Communities and Curriculum Development for the network. Her vision for student empowerment focuses on creating the conditions and support for students to take ownership of their learning and to develop a clear voice and a global outlook through their higher education journey.

Acknowledgements

Thought Leadership papers typically address wicked problems, complex issues where there is significant research, public interest and debate. They (should) aspire to leave a mark on the reader and to provide a tangible intervention. In order to be successful, they require the efforts and generosity of many.

This Paper has been made possible thanks to the strong and ongoing collaboration between myself and the writing team. I am immensely grateful to the colleagues for the solid contributions and sharing their expertise, as well as their support and making themselves available for meetings stealing from their scarce personal and family time.

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Executive summary

Research-intensive universities are required to capitalise on research and deliver excellent teaching and learning to provide graduates with skills and mindsets for the disruptive 21st century. This requires universities to operate at the interface of significant tensions that include the need for balancing disciplinary knowledge with interdisciplinarity; international orientation with local embeddedness; national accreditation systems with providing flexibility and enabling international staff/student mobility; growing student numbers with supporting individual learning and individual choice; global challenges; disciplinary training with industry needs and innovation with competition for scarce resources. While higher education needs to do much with little, a discourse of 'need for change' is sweeping the sector.

This discourse became more pronounced with the Covid-19 disruption beginning in March 2020. Students and staff became simultaneously 'mobile' and 'immobile' and had to balance being 'on' and 'off' line, operating, not by choice, in a digital space. The dominant face-to-face teaching model has, possibly irreversibly, morphed to a hybrid, with blended learning swiftly becoming the main modus operandi. Universities, collectively and individually, are in the process of learning from the emergency interventions of the past year to provide students, staff and non-academic stakeholders with enriched learning approaches and dynamic environments for the future.

In this context, the aim of this Insight Paper is to provide an intervention and framework for reimagining research-led education in a digital age.

Our position is that the most important contribution of universities to a better world is graduates who have received strong research-led education and have developed relevant skills and mindsets. Future-proof learning designs require a reconceptualisation of the learning experiences available to the students, going beyond linear binaries of the past towards educational models that blend face to face and digital. This has deep implications for the pedagogic formats available to students, core aspects of academic practice – such as assessment – and modes and modalities of cross-institutional collaboration and mobility.

Current learning models and designs need to be problematised and refocused. The changing student demographic also requires the sector to act for inclusive learning environments.

The 'typical' student, of independent means and able to dedicate three to five years fully to pursuing degree-level studies, can no longer be assumed as constituting the norm. Diversity of needs must be a core part of the learning designs of the future.

We support a higher education that enables and empowers students and staff to transcend disciplinary, national and international borders. There is, however, a long way to go from the current nationally accredited, delivered and regulated education models to an open and dynamic university. It is useful, therefore, to pause and take stock of what we have usefully learned from the past and from the Covid-19 disruption and rapid responses to it.

With this paper, we seek to open a dialogue and call European policy bodies, national authorities and university authorities to action the following:

Summary of recommendations

The sector (at all levels) should:

- Emphasise the critical importance of graduates not just as earners, but as global citizens, as problem-solvers, as creative persons.
- Identify and implement the (resource) needs for pedagogic innovation, including supporting 'open education'.
- Ensure that the Bologna reforms go beyond structural harmonisation to maximise their pedagogic potential. Innovate in inter-university and inter-national collaboration.

Institutions should:

- Better recognise and support challenges and opportunities around strengthening diversity (for instance, in international collaboration, participation in co/extra-curricular activity, the urgent need to address digital poverty, etc.).
- Enable every student to have access to challenge-led educational opportunities, inter-university (regional/national/international) learning experiences and/or service learning as a key to the contribution of universities to educating global citizens, strengthening competences and addressing societal challenges.
- Articulate the local specificity of global challenges, to strengthen their connectedness to local communities.
- Trust the quality assurance systems (and marking schemes) of peer institutions.
- Use the experience of the pandemic to better express the value of the social learning experience, and the added value of digital tools.
- Incentivise and recognise pedagogic excellence.

National governments/educational ministries should:

- Recognise the value of internationalization, not as opposed to, but as strengthening the national excellence and regional contributions of universities.
- Tackle bureaucracy, including reducing red tape around quality assurance and strengthening trust in institutional processes (including between countries and systems).

The EU should:

- Make mobility better, dynamic, synchronised with the 21st century and inclusive. Ensure that student funding (for mobility and/or bloc funding) ensures that an appropriate balance of subjects that cover the breadth of human knowledge is sustained.
- Incentivise, recognise and disseminate pedagogic excellence.
- Co-ordinate and incentivise the removal of red tape across and between European countries, strengthening mobility and exchange at all levels.
- Ensure countries respect the institutional autonomy and academic freedom of universities.
- Strengthen national commitments to supporting national higher education institutions financially, reversing recent declines in university funding per student capita.
- Support a Europe-wide context to the debates that are relevant across different geographical locations, to ensure that discussions about pedagogical transformation do not occur in institutional or national silos.

The key messages of the paper can be viewed also in an animated video which can be accessed here.

1. Reimagining research-led education in a digital age

A. SOCIETAL CONTEXT

Late modern societies are facing wicked problems (p.14) that require both immediate intervention and long-term strategies. Universities have a specific role to play to address societal challenges: they are key generators of new knowledge and educators of future generations through research, innovation, teaching and learning. Comprehensive research-intensive universities in particular, creatively bring together ever new constellations of knowledge in disciplinary and interdisciplinary or transdisciplinary teams to break new ground. The fundamental principle of academic freedom – to question received wisdom and put forward challenging new ideas – allows researchers to pursue this quest. At the same time, university curricula and co/extra-curricular learning opportunities play a formative role in educating graduates who will contribute to society and be good and responsible global citizens.

The mindset students develop during their studies is fundamental for the problem-solving capacity, adaptability, resilience and ultimately wellbeing of societies. Although the societal expectation that universities contribute to the solution of immediate problems and simultaneously open avenues for the future is perfectly legitimate, universities can only be future-proof if they are given the space and time to create new perspectives and new modes of reflection – in short, open new pathways and new horizons. This requires universities to strike the right balance between providing for long- and short-term societal needs and to respond to historical, regional, national and international priorities. One of the current contexts that had a deep impact on university praxis is the digital age combined with the pressures brought about by the Covid-19 pandemic. The following sections explore the implications for research-led education, drawing on cases and learning experiences from The Guild.

B. CHALLENGES AND OPPORTUNITIES FOR RESEARCH-LED EDUCATION

Research-intensive universities, at both EU and international levels, are required to capitalise on research and deliver excellent teaching and learning at the interface of significant tensions. These include the need for balancing disciplinary knowledge with interdisciplinary mindset and skills; disciplinary training with industry needs; global challenges and international orientation with local embeddedness; national accreditation with international collaboration; international mobility with regional and national employment needs; growing student numbers with supporting individual learning and individual choice; and innovation with competition for scarce resources. Higher education needs to do much with little.

Covid-19 disruption brought a comprehensive need for change in European higher education. Students and staff became simultaneously ‘mobile’ and ‘immobile’ and had to balance being ‘on’ and ‘off’ line, operating, not by choice, in a digital space. The dominant face-to-face teaching model has, possibly irreversibly, morphed to a hybrid, with blended learning swiftly becoming the main modus operandi. Despite their reputation for being slow and bureaucratic, universities have proven themselves to be extremely agile and adaptive. University curricula became digitised overnight and quality assurance processes were adapted accordingly. The transition towards digital learning is further exacerbated by the anticipated (Cedefop, European Commission, ETF, ICCDPP, ILO, OECD, UNESCO, 2020) increase in the demand for short-term and flexible learning options in the aftermath of the pandemic – suggested as part of the economic recovery, the changes and demands in labour and the established skills agenda.

At the same time, despite the potential of technology for diversifying pedagogic formats available to students, the current crisis has also shown the value of on-campus, face-to-face delivery. Learning is a complex individual and social process that entails cognitive, volitional and emotional dimensions. The current crisis gives evidence to the potential for optimising learning processes but also the toll it takes on students’ emotional and mental wellbeing. Digital fatigue impacts on engagement and participation, while it also affects mental health and wellbeing for staff and students. Reports (e.g. Eurofound 2020) already indicate that young people are amongst the worst impacted group of the lockdown in terms of wellbeing and are at greatest risk of depression. In this context, it is necessary to revisit and take stock of the existing higher education models and new initiatives for the university of the future.

Overall, current debates on the future of higher education problematise the dominant delivery models and modes (face to face, blended, online); programme content principles (faculty designed and run versus student selected/assemblage of shorter units); and disciplinarity (discipline-based versus interdisciplinary degrees) amongst others. What should be taught, and why and how it should be taught, are not new questions, but they have acquired increased visibility under the pressure of the Covid-19 pandemic and the growing ‘discourse of devaluation’ of university degrees for the job market. One prominent theme of these debates is the quest for efficacy and efficiency, timely qualification and employability.

Research-led university education can and does provide the graduates our current and future society needs. A discussion on what ‘research’ means in this context is significant for repositioning and framing the value added of university degrees at a time where questions around cost, degree inflation and alternative education providers frequently appear in media and policy debates.

The current policy context also places emphasis on educational change. For instance, in 2017, Pascal Lamy and a number of high-level European experts urged educational reform to ‘systematically embed innovation and entrepreneurship in education across Europe’, adding that ‘Europe’s universities need urgent renewal’ to ‘tear down disciplinary borders’.

There is, therefore, scope and opportunity for revisiting and reimagining the role of the modern university.

We take the position that the strength of universities is that they are places of intellectual freedom, of risk, of creating knowledge and of exploring new territory, and that they do this in a reflective way that is mindful of the regional, national and international context.

Universities are part of wider ecosystems and embrace their responsibility to advance contemporary society. This, however, does not mean that their role is only to train for specific professions or purposes. On the contrary, universities are and should remain open places of communication and of freely probing new ideas. If they can enable and empower students – temporarily unshackled from the necessities of life and the immediate demands of usefulness – to develop a problem-solving mindset and global citizenship disposition, and encourage them to take risks and learn to connect theory to real-world problems, then they can produce graduates who will find solutions to the complex problems of our era.

Somewhat paradoxically, this freedom is necessary for solving the wicked problems late modern societies are facing. Comprehensive research universities, with their plurality of disciplines, are unique places for the creative friction that is a condition for innovation. They keep the dynamics going and challenge students, academic staff and non-academic partners to come up with new ways of thinking and new combinations of interdisciplinary collaboration to unpack complexity. Universities have an important function as critical observers and social critics, but also as enablers of societal developments in democratic states.

At the same time, universities play a significant role in the local, national and international economy and the job market. European research universities produce millions of graduates each year. According to EuroStat 2018, there were 17.5 million tertiary education students in 2018 in the EU-27, of which 60% were studying for bachelor's degrees. Universities have a role and responsibility to create the conditions for social mobility and enable students to develop the graduate attributes that will enable them to contribute to a highly skilled workforce worldwide. This should not be translated to a narrow emphasis on current job market needs. A balance is necessary between responding to immediate challenges as effectively and efficiently as possible – and in co-operation with industry and official policy stakeholders – while at the same time serving the ideals of inclusion, flexibility and personalised choice. The ideal of an open educational society (see the 11th century medieval university) is in many ways echoed in the digital education dictum 'learn anything, anywhere, anytime'. However, the implementation and realisation of the vision comes with many challenges.

Although there is certainly room for improving higher education, not least by challenging systemic exclusion and improving access for underrepresented groups, universities are key holders of expertise and hence need to lead the future of education based on robust evidence. This is not necessarily and always different from what universities are already doing; there is both good practice in the sector that often remains peripheral and has not received enough visibility and resource to grow, and, evidently, need for change.

Against this backdrop, the aim of this Insight Paper is to provide a framework for the research-led education of the future and an intervention on behalf of the sector as part of a wider European debate within the framework of the 2025 European Education Area.

The paper is structured in five parts:

1. Reimagining research-led education in a digital age
    a. Societal context
    b. Challenges and opportunities for research-led education
2. Research-led education revisited: Meanings and models of research-led education
    a. Challenge-based learning and research-led education
3. Pathways for quality and innovation: a balancing act between standardised versus autonomous and international versus locally oriented systems
    a. Balancing study and work/job insecurity – degrees/employability
4. Moving towards the university of the 'Future'
    a. Triptych: Collaboration – Innovation – Policy Implications. A model for achieving change
    b. Resourcing pedagogic excellence
5. Reimagining research-led education in a digital age. Key takeaways.

Case studies from The Guild are used to illustrate the points made (full text in Appendix).

2. Research-led education revisited: Meanings and models of research-led education

Despite the emphasis on and significance of research-led education, there is relatively little discussion on what exactly is meant by the term and how it is operationalised in university curricula and co-curricular learning contexts. Terminological polyphony – including Inquiry/Enquiry-based teaching (and learning), Research-based teaching (and learning), Research-led teaching (and learning), Research-linked teaching (and learning), Research-oriented teaching (and learning), Research-informed teaching (and learning) – indicates the struggle to amalgamate different practices, levels of engagement, needs of students and, more broadly, needs of institutions. While terminological variation indicates the complexity of the problem, we consider in this section three basic models (figures 1, 2, 3) that are not exhaustive but nonetheless are useful to summarise possible approaches.

With the emphasis on student-centredness and active learning (note Bologna's strong influence on this agenda), undergraduate research schemes started growing in Europe over the past 20 years. These schemes are associated with providing opportunities for application of theory to practice and interdisciplinary student research activity. They are often part of co/extra-curricular experiences and are frequently differentiated from research that is embedded in the curriculum.

Undergraduate student research opportunities can be represented on a continuum ranging from less to more hands-on and ownership of the learning experience. This includes coming into contact with research through readings, courses or practicums (depending on the discipline) led by active researchers, to developing skills through research methods training and partial application in research activity, all the way to designing and carrying out a fully owned research project. Moving 'up' the order indicates a shift towards critical engagement and ownership of a problem as well as a set of meta-skills for actively mobilising disciplinary and research training in the process of a new and original piece of work (figure 1). Although figure 1 shows a linear step-by-step process, different disciplines follow and open different pathways to students. Lab-based sciences are by their nature different from empirical social science research and from close reading methodology in literature curricula, but the same stages apply.

Fig. 1 Research-led activity in curricular contexts

At the same time, formats that are now well established, such as problem-/project-based and challenge-based learning have foregrounded the importance of application of theory to practice from the onset of undergraduate degrees. Figure 2 is a simplified representation of programmes that embed independent project work from the start of the degree and aim to encourage students to tailor their learning to their own interests and take ownership of the learning path.

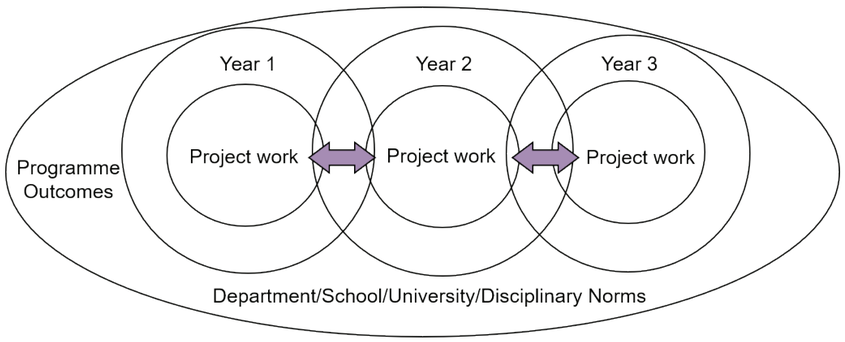

Fig. 2 Research activity in project-/problem-based designs

Interdisciplinarity is directly relevant to allowing access to multiple angles of complex phenomena. It has been an educational priority for at least the last twenty years, reflecting the prevalence of interdisciplinary research. Despite progress, mainly in research agendas, and a visible increase in interdisciplinary research centres, teaching and learning in institutions is still typically structured around disciplines. This is not necessarily a weakness; disciplinary excellence is a condition for interdisciplinarity. Undergraduate students, however, often have

little opportunity to transcend disciplinary borders in three-year degrees. If interdisciplinarity is a priority and challenge-based learning is the current orientation of research and education, then a different model is necessary – one that will address thematic areas across curricula and enable students to apply theory to real-world problems throughout their curriculum journey. Challenge-based learning does not mean compromising disciplinary training. On the contrary, it can and should translate to the application of disciplinary training in interdisciplinary contexts, so the student has hands-on experience of the relevance of their studies to real-world problems. Research-led curricula are particularly suited for providing such opportunities and guiding the students to develop analytical skills for complex inquiry from early stages of the curriculum.

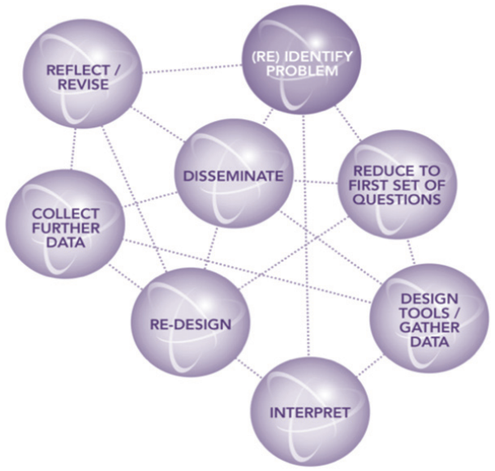

Fig. 3 Modelling complex enquiry

Through dynamic pedagogic designs, students are supported in defining research problems and carrying out original projects. This process involves linearity, but also a flexible architecture that allows students to follow a dynamic path (fig. 3 Angouri 2018) of application of theory to a specific question and (re)discovery of new questions depending on their disciplinary context and programme design.

However, the number of students carrying out original research throughout the degree and beyond or outside the scope of a final year project is still (comparatively) small. Unsurprisingly, studies also show that groups of students, particularly from disadvantaged backgrounds, lower income households and other underrepresented groups in higher education, are systematically missing opportunities when research is packaged as co-/extra-curricular activity. This indicates again systemic exclusion that is documented and deeply problematic. The more these opportunities remain in the co-/extra-curricular space, the more restricted scalability and access will be. Embedding undergraduate research in multiple formats in the opportunities available to students provides a way for scalability and access.

CASE

University of Warwick, UK – Focus: Undergraduate research–scalability–access and positive impact on student learning

Draws on Warwick's Undergraduate Research Support Scheme (URSS), International Conference of Undergraduate Research (ICUR) and the Alliance Intensive Study Programme (AISP), connecting UG research with Warwick's commitment to Internationalisation of Education, Interdisciplinarity and Intercultural learning for all students. It reflects on the benefits of a diverse portfolio of opportunity and shows the ways in which students are enabled to combine local and global learning, develop skills and experience short-term blended mobility.

Despite differences in research-led designs, all research starts out with asking questions. This can be done at all levels of academic programmes. Critically questioning what is taken for granted is the principle of research at any level; it is also part of the process of enabling students to apply theory to practice, connect their learning to real-world problems and ultimately take ownership of the learning experience. In the current societal contexts, students need to be aware of the fundamental interconnectedness of issues. This is the essence of wicked problems and current challenges. Digitalisation or climate change are good examples. Neither can be addressed by drawing on the knowledge of one discipline only and through academic knowledge alone. Wicked problems force us to acknowledge that there are various 'knowledges' that contribute to the solving of complex issues. And often it is necessary to go deep into the past to find answers or, importantly, to reframe questions. These are core principles and aims of active learning pedagogy. If we want to be universities that address global challenges, we need to think of new ways to help our students do this in interdisciplinary, challenge-led ways.

Overall, original undergraduate research is shown to improve academic performance, strengthen analytical skills, increase motivation and engagement, excite curiosity, encourage transition to graduate study and employment and provide a global outlook, one of the core graduate attributes for most universities. Note that problem-solving, critical thinking and intercultural/team communication are consistently at the top of the skills that employers are reported to value. They are also the skills that universities allegedly fail to provide graduates with in preparing them for the job market – a strong criticism that needs to be unpacked given that those skills are and have always been foundational in research-led pedagogy.

A. CHALLENGE-BASED LEARNING AND RESEARCH-LED EDUCATION

In all its different meanings, 'research-led' pedagogy presents an opportunity for curriculum reform and challenge-based learning and for enabling and empowering students – and

by extension universities – to make local and global impact. As research-led pedagogy typically involves students working at least partly in teams, it also provides opportunities for connecting learners and organically embedding peer support in the student journey, thereby ensuring social as well as academic integration. Given the impact of the Covid-19 pandemic on students' feeling connected with their university and subject areas, pedagogic formats that enhance connected learning are particularly significant for mitigating these difficulties and creating a more supportive learning environment.

CASE

Aarhus University, Denmark – Focus: student engagement/achievement

Draws on the Aarhus Symposium, a visionary learning space in which leaders of today and leaders of tomorrow can learn and challenge each other on pressing contemporary topics and problems. The event has become an attractive place to speak for high-level leaders including the Crown Prince, prime ministers, an EU commissioner and top 10 CEOs. It reflects on the impact of a student-conceived, student-designed and student-led event and shows that empowered students can drive pedagogic innovation and change.

In the spirit of open and dynamic learning environments, we support a university that trusts, enables and empowers students and staff to transcend disciplinary, national and international borders. Universities are, and need to be more, accessible and open spaces in which policy, society and research meet and are debated with open outcomes for all (see also the open science agenda). Evidently, these principles can be at odds with traditional degree designs. Research-led curricula that orient towards/provide opportunities for problem-based and challenge-based curricula draw on and expand the principles of active learning and carry potential for pedagogic innovation and for enabling students to find their voice and make a contribution to the world.

CASE

Uppsala University, Sweden – Focus: Student-led learning

Draws upon the experience of the Centre for Environment and Development Studies (CEMUS) – established in 1997. Reflects on the potential for developing pedagogic innovation through student-led initiatives that bring together students from different disciplines and levels in a coherent set of initiatives, with a focus on contributing to a more sustainable and just world.

Active learning designs are suitable for and benefit from international collaboration; this allows for a flexibility of architecture that balances a university's regional, national and international role and creates local understanding of (and often solutions for) global problems. As such, universities, through students, staff and non-academic partners, become agents of change.

To sum up, The Guild does not advocate for a homogeneous approach to research-led pedagogy, but we are committed to active learning and student empowerment as the driving principles of curriculum design. As the 21st century is predicted to remain disruptive, reimagining research-led education in line with the needs of our students and societies is timely and important. In order to achieve this reimagining, we need to move from a conceptualisation of the 'university' as a static homogeneous category and redefine the relationship between university education and local/global societal needs and expectations. Flexibility in enabling student choice during and after graduation, access to hands-on original research experience and the opportunity to tailor studies to changing interests are particularly important principles for our members' pedagogic offering. These principles take different shapes and formats depending on the local ecosystem, but are based on a common set of commitments drawing on student-centeredness.

CASE

University of Glasgow, UK – Focus: Active learning

Draws upon the experience of designing and implementing change and the relationship with material/online learning space. Reflects on the potential for agility and swift response to change – exacerbated during Covid-19.

The level of flexibility presupposed here is often at odds with the current nationally accredited, delivered and regulated education models. We discuss this further in the next section.

3. Pathways for quality and innovation: a balancing act between standardised versus autonomous and international versus locally oriented systems

In the popular imagination, academia is inherently international; the medieval metaphor of a scholarly community of vagabonds and the spirit of 'anything, anytime, anywhere' of education is very much echoed in the ideal of the modern, open, international European university. It is indeed the case that most if not all institutions and research councils actively support international collaboration and talent recruitment for their research activities. Universities are more often than not international communities and can at times be more international than their local communities. The balance between the national and international orientation is a delicate one – a source of innovation and a possible source of tension.

The question of international versus national orientation encompasses issues of standardisation. In order to allow smooth and easy co-operation, including mobility and mutual recognition across different national and institutional systems, standards are needed. The Bologna legacy has shown both the importance and the difficulties involved in embedding agreed solutions across national systems. Consider, for example, the usefulness and limitations of our current tools such as the well-established European Credit Transfer and Accumulation System (ECTS), qualifications frameworks, the European Standards and Guidelines for Quality Assurance, etc. Although these tools have served us well, there is a need for academia to be able to go beyond an average standard to achieve innovation; yet, at the same time, standards are necessary to enable transnational/institutional collaboration. This points to the need for adjusting, expanding or creating new tools that will facilitate new pedagogic designs and that will be implemented at national and institutional levels.

We cannot do innovation based on models of the past, in the same way that we cannot use the past to predict the future.

Although most institutions in Europe have seen a growth in international students and staff and a natural development of international programmes in a global language, inter/national trends are still, often, juxtaposed as opposites in national funding models and language requirements. This is particularly relevant to the teaching and learning agendas where the international and national missions of universities can be seen as pointing in different directions. On the one hand, formats such as English-taught (joint) curricula with internationally recruited staff and students have been prime vehicles for developing

educational partnerships, but on the other, national funding is aimed to support the interest of the local labour market operating in the local language. University teaching is nationally regulated, and policy harmonisation remains an aspiration despite the progress made under Bologna and the vision for a connected European Education Area (more on this below). It is not uncommon for universities to be required to ration resources in tuition in local/global languages.

A juxtaposition between national/international, however, does not need to be an either/or. Global mobility, language skills and openness can be integrated in curricula delivered in national languages. We argue that international collaboration and global learning contribute to any nation's local interests. In the open world, the best students look for the best places in which to study. If one wants to offer a challenging learning environment for the top local students, then an international learning environment is often the only way. International collaboration may help to enhance quality at home, engaging international expertise or providing opportunities to take part in studies abroad, enriching the students' learning journey. In short, insulating national pedagogy and research from international exchange would impoverish both research and education.

CASE

Jagiellonian University, Poland – Focus: Global/Local challenges and ways to balance grassroot and systemic change

Draws upon the experience with the BA in International Relations and Area Studies from inception to present day with 400 international students in the faculty. Reflects on the challenges from marketing and cultural difference to policy and funding models.

A wider challenge for pedagogic innovation is a tension between varied ways of designing and delivering curricula and rules of standardisation necessary for transinstitutional and transnational co-operation. Education has been and still is largely nationally managed. International co-operation is only possible when national models allow. At the national level, we see more or less autonomous institutions: in most countries, there is much wider variability among higher education institutions than in general education. Finally, within universities, teachers have a high degree of academic freedom that concerns not just what they teach but also how they teach, as long as the envisaged learning outcomes are achieved and quality standards are met. Balancing autonomy with transferability of standards has proven to be a resilient barrier.

Overall, the legacy of the Bologna Process and experience from Erasmus+ provide a strong foundation to build a new vision and strategy for the sector. While Bologna provided a framework to work towards comparability of degrees, a pan-European system of credits, student/staff mobility and co-operation in quality assurance, we now need to move further

(faster) to introduce and scale up pedagogies and processes that address the tensions mentioned earlier.

Recognition of student achievement and transfer of students as well as staff between institutions, in particular, is central to opening and connecting curricula. This needs to go beyond approximate calculations of workload under the ECTS model. While ECTS has proven valuable for making co-operation and recognition possible (with the emphasis on articulating learning objectives and assessment criteria), ECTS was not designed and therefore is not the right tool to assess the quality of the teaching and learning process. Approaching educational achievement from the perspective of competences can provide ways to engage with content in a fresh and liberating way and constitutes a second step in mutual recognition of educational achievements. Competences can be acquired in different ways, and although they are directly related to standardisation, they offer flexibility for innovation and new learning formats. Flexibility is needed especially in areas such as service learning or social engagement projects, where students can apply knowledge and competencies to address and solve real-world issues. The area of sustainable development, for example, is teeming with ideas whereby students help to find ways and means to conserve energy or to recycle; students also collaborate with scientists to analyse and interpret data on climate change and translate and discuss these findings with the wider community.

Although many academics opposed the Bologna Process, in the world of business, standardisation is related positively to innovation. Drawing on the idea of innovation resulting from and to standardisation could be a valuable and dynamic way of thinking about the next step in European educational collaboration. The need for deeper collaboration in digital teaching and learning, as the ongoing Covid-19 pandemic has shown, brings along a need for standardisation. Standardisation is difficult even within one academic institution encompassing different disciplines and teaching cultures; this is evidently intensified across institutions and modalities (face-to -face, online, blended).

Further, the Covid-19 disruption brought a comprehensive need for flexibility in European higher education. The pandemic has shown that we need common protocols to deliver, assess, progress and graduate our students; but, equally, it has shown the need for flexibility. Symbolic practices – consider end of year exams – were rapidly adapted across the sector, and the data suggest improved student performance.

Digitalisation is not a panacea, and future-proof learning designs require a reconceptualisation of the learning experiences available to the students. This goes beyond linear binaries of the past towards an educational model that blends face-to-face and digital and introduces different models of cross-institutional collaboration and mobility. Considering a common framework of reference for digital co-operation and mobility (instead of micro-level standardisation) can facilitate innovation in European higher education.

Collaboration, however, is not only international, and good practice is already in place in regional, cross-university models. Building on models of good practice in inter-university collaboration is very useful.

CASE

University of Tübingen, Germany – Focus: Regional networks – Internationalisation at Home

Draws on the success of a collaborative seminar on 'Conflict Analysis' bringing together academics and students from eight universities in Germany. Students benefit from platform technology and the blended experience, with face-to-face and online sessions and the opportunity of meeting international experts in the field. The case reflects on the value of regional and national collaboration with an 'internationlisation@home' component for enhancing the student learning experience.

Open and flexible curricula presuppose mobility and ongoing collaboration between institutions. This can be national as well as international. The experience of Erasmus+ has already shown the importance of traditional (study abroad) as well as virtual mobility or other forms of internationalisation@home for enabling students to become global citizens.

At the same time, the need for diversification of mobility experience and for inclusive, short-term designs has been known in the sector for a long time. Groups of students from underprivileged backgrounds are also underrepresented in traditional mobility models (Erasmus 2021–2027 report). Virtual mobility has become all the more important as a result of the Covid-19 impact; the pandemic can become an opportunity to capitalise on the disruption and implement a wide range of formats. Mobility, however, also needs to be conceptualised towards a portfolio of opportunity that draws on different modalities and enables students to engage in a variety of global learning activities. It is the quality and coherence of the learning experience and its transformational potential that will make virtual and physical

mobility co-constitutive or, at the minimum, complementary and scalable. Technology has been associated with possibility. It enabled us to do things we would not otherwise have been able to do; but it brought to the fore the resilience of structural inequalities, systems of exclusion and the digital divide, which require holistic intervention.

Experience has shown that for large-scale virtual mobility, a number of issues need to be effectively and centrally addressed. Some are included below:

1. **Universities are devolved organisations**. There are great developments and ICT-based teaching and learning support in some subject areas, while these are very limited in others. This is an opportunity for us to concentrate on the meaningful academic distinctiveness/differences that make up multidisciplinary institutions, while harmonising on aspects of delivery and structure.

2. Although Covid-19 has pushed emergency digitalisation, there is a long way to go to imagine a world where 'digital' is smoothly embedded in our modus operandi. There is still some way to go to reach the **'post digital' university**.

3. **Interoperability of systems**. Despite the developments of learning platforms and digital systems, universities have not been able to achieve interoperability between systems. When universities co-operate in networks, students and staff have to navigate a complex landscape where access is restricted or, at best, cumbersome.

4. **Coherence and support**. Mobile students require clearly designated pathways to local contacts, and **peer support is necessary for accessing and benefiting from local knowledge**. The challenges to integrate students on short-term placements is well known from the Erasmus experience; it is even harder to provide access and support at a distance from the home or host university.

Overall, there is a direct but complex relationship between the triptych of mobility, flexibility and individualised learning; while each can be addressed separately as an individual and whole concept, they come to their full potential, and are value added, when they are taken together as an ensemble.

Mobility and transferability of credit are at the heart of dynamic models of learning, enabling all students to take ownership of their educational journeys and benefit from technological developments. This is in line with the European Commission's Digital Education Action Plan and European Skills Agenda. In order to achieve the vision, however, different tools and policy frameworks need to be considered.

This involves revisiting practices we value from a new angle and benefiting from the experience of what we do well for designing new initiatives. This applies to the balance between the physical and online learning activities and national and international orientation of our provision as well as the research-intensive versus immediately relevant, labour market-oriented education. The latter points broadly to the timely need for a discussion on the relationship between employability and lifelong learning, and the role of the university in leading developments in this sphere of activity.

A. BALANCING STUDY AND WORK/JOB INSECURITY – DEGREES/EMPLOYABILITY

Research-intensive universities provide education for global citizenship and are unique in their potential and responsibility to contribute to long-term societal growth and wellbeing; universities relate to society and the economy and are ongoing incubators of innovation and new knowledge.

The economic insecurity across the globe has accelerated the pace of change in what counts as work, the place of work and ways of doing work. New forms of work are marked by precarity (informal economic activity, loss of collective rights, temporality and so on). In this context, finding and defining graduate jobs becomes more and more difficult. Universities have a range of schemes in place: internships, placements and mobility during the cycle of studies support the employment prospects of graduates. Courses targeting core skills and schemes that provide access to key employers are common, and the articulation/dissemination of employability strategies is also a visible trend. This, however, is not new; the contribution by universities to address the immediate needs of society have been integral part of the sector since its origins and are being consistently redefined.

Change felt as unprecedented is not unprecedented; consider the writing of Henry Adams on the purpose of education in 1918 to 'fit young men (sic), in universities or elsewhere, to be men (sic) of the world, equipped for any emergency' (1999:8). Although the societal challenges have changed considerably since Adams' time, there is a similar notion of loss of certainty and orientation, with a strong sense that the education of old no longer fits.

Current discourses of devaluation draw on monetary and skills indicators. On the latter, the lack of the so-called generic 'soft skills' (cf. earlier discussion) that students need but allegedly do not receive through formal education is commonly referred to as substantiating a need for an alternative education model. Similarly, big multinational companies that do not require a degree as a minimum qualification (Glassdoor Team 2020) are cited as evidence of the declining value of the university degree.

In this context, there is a significant increase in interest in pedagogic formats beyond the standard university degree. This extends to interest in ways of breaking down existing bachelor's/master's degrees into smaller units. The current interest in micro-credentials is a case in point; a model aligned with lifelong learning introduced in the 1950s under the growth of the knowledge economy has been revisited and appears to be integral to the European university of the future, advocating deeper relationships between academia and industry and virtual mobility while aiming to avoid the pitfalls of harmonisation and standardisation through a more dynamic and flexible design. Current definitions aim to be inclusive and take a broad approach – the European Commission 2020 definition is an illustration of the trend.

They cover the variation in formats as well as in structures and providers that underlie the multiple understandings of 'what counts' as a micro-credit in different national and institutional contexts. At the same time, however, challenges remain, as the frames under which institutions operate are considerably different. Coherence of the learning experience and, importantly, quality assurance/credibility issues are open to debate.

Overall, there has been consistent and growing interest in unbundling credit and moving beyond the 'traditional degree' over the past fifteen years. Alternative credentials typically refer to 'micro-credentials', 'digital badges' and industry-led certificates. This position is supported by EdTech companies that play an active role in the field, while universities in different countries have formed partnerships with platforms and offer stand-alone micro-credentials, short courses or online degrees.

The OECD (2020) has proposed a framework to distinguish between the plethora of provision on the following characteristics: Delivery modes, Duration, Validation, Areas of Focus, Capacity to be embedded within larger credentials and Characteristics of providers.

The European Commission (2020) seeks to introduce a quality assurance framework that addresses: 'the quality of the credential itself (the envelope, i.e. authenticity, the technology behind it); the learning experience (the content) […] the provider: trust in the provider of the credential is a crucial element for trust in the credential itself'.

These developments capitalise on a discourse suggesting that new forms of credentialing are necessary for fast upskilling, financially affordable education and independence of choice. Appealing though it can be, fast reskilling or upskilling can also be deskilling. Short learning units cannot be, in and by themselves, the panacea for affordable, flexible education.

As universities with a long-standing tradition in research-led education, we are already significantly involved and can and should lead (at least parts) of lifelong learning agendas, particularly by experimenting with innovative pedagogies that allow a) less rigidity between routes students can take, b) innovative ways to bundle relevant sets of learning outcomes (up to degree level) and c) specific and specialised upskilling and reskilling stand-alone learning activities for advanced lifelong learners, all based on state-of-the-art research.

A considerable, documented challenge that remains is how to give to students on alternative routes the same quality of learning opportunity and access to holistic and transformational learning experiences that we provide to degree students. Importantly on this, although shorter and flexible formats are perceived as new, unbundling standard university degrees has a strong presence in the sector and universities have experimented with such unbundling (whether or not they have used the label micro-credentials) in different forms. Terminology such as micro-degree, nanodegree, digital badge, micro-masters reflect the variety of approaches and higher education provisions. In the context of decreasing budgets per student, and with staff under pressure to cover the daily needs of the profession, the financial challenges are significant when attempting to introduce models that require multiple iterations of provision within current public funding models.

Research-intensive universities have the experience and expertise to experiment and introduce models for recognising competences and opening routes for continuing professional learning.

CASE

Ghent University, Belgium – Focus: Micro-credentials

Draws on the university's experience with credit certificates and 'Certificates of Competency'. Reflects on the development of formats for different groups and barriers and enablers for implementation; provides example of new policy framework.

Given the proliferation of discourses creating a rather rigid and political binary between university education and other forms of credentialing, and the visibility of actors suggesting that the value of traditional degrees 'plummets', there is a need to articulate the value added of modern universities for individual, regional, national and international development and the delicate balance between 'study' and 'work'. Growth of and in EdTech/alternative providers goes with foregrounding post general education as a mechanism–enabler for access to jobs. Accordingly, 'value' is measured on 'earnings', thereby questioning the value of time spent in face-to-face tuition. As universities address those issues individually, there is a risk for heterogeneity that may not be helpful to meet current and emergent student needs. EU-level initiatives, such as the European University alliances, can play a role in facilitating collaboration and sector-level communication (see recommendations).

The problems associated with using monetary figures as a proxy for measuring quality of education have been addressed in academic research repeatedly and do not need to be reproduced here. In short, such use of figures rather distorts the value of university education in general and research-led education in particular. Taking a closer look leads to a more complex picture.

CASE

Short-term and long-term labour market benefits of research-based higher education, the case of Estonia

In Estonia, there is a distinction on the first higher education level (EQF level 6) between academically oriented bachelor studies and applied higher education. Nearly 60% of students graduating at that level obtain a bachelor's degree and 40% obtain a diploma of applied higher education. Bachelor studies last nominally three years, while applied higher education can last three to four years. Among bachelor graduates, 50% continue their studies in the year after graduation, while only 17% of graduates of applied higher education do so. While bachelor studies are wide and research-based, applied higher education is practical and

labour market oriented.

Shortly after graduation, the graduates of applied higher education get almost 20% higher salary and have 6 percentage points higher employment rate, but after 5 years the bachelor graduates catch up in employment and even surpass graduates of applied higher education in salary by 5%.

Employers have several times expressed the opinion that there is higher need for applied higher education, since bachelor graduates are not so well prepared to enter immediately into the labour market. Looking at the numbers shortly after graduation, this is correct.

However, it is clear that research-led bachelor education has longer-term benefits both for the person and for society.

Firstly, it is important to consider that three times more bachelor graduates continue their studies compared to applied higher education graduates. Obtaining a master's degree means ca 20% higher salary and 3 percentage points higher employment rate compared to first-level higher education graduates.

Secondly, short-term benefits quickly change, and considering longer-term (five years plus) outcomes, the graduates of bachelor's degrees who do not study further catch up and even surpass the graduates of applied higher education.

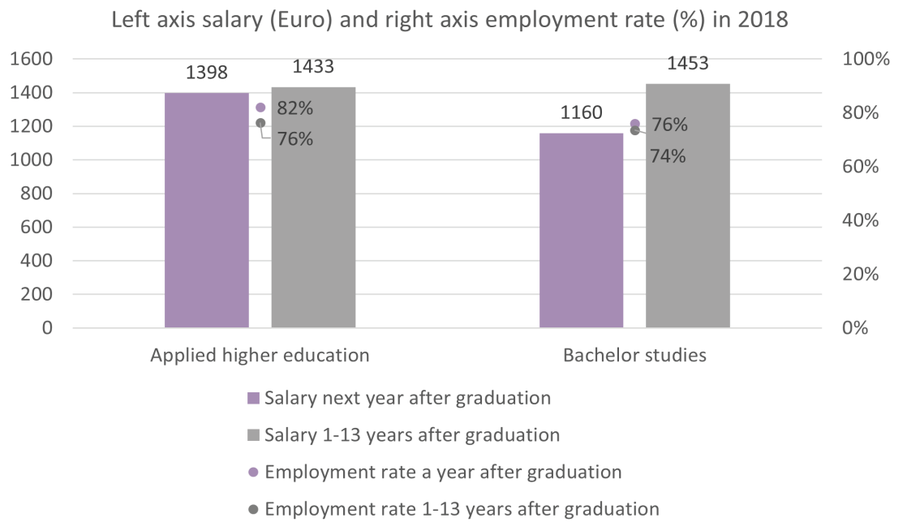

Table 1. Salary and employment rate of the first-level graduates of higher education in Estonia across time

Note: Graduates include all students graduating from all Estonian higher education institutions at first level of higher education (EQF 6) from 2005 to 2017 being employed (paying taxes) in Estonia in 2018, N = 56698. Data: Estonian Educational Information System and Tax Record from www. haridussilm.ee

The same mixed picture emerges in other national contexts. For instance, data reported recently (Eurograduate survey 2020: 141ff) from Germany, a country with a strong tradition in applied science, indicate that despite higher earnings upon entry jobs, research university graduates catch up within a five-year period.

To summarise, training for the present is not, by definition, a future-proof model. In the disruptive environment of the 21st century, it is impossible to educate students for the future on the basis of past experience. It is possible, however, to use evidence and prepare for change. Universities need to train for a mindset–creativity–problem-solving attitude rather than either predicting a future that will constantly change or narrowly focusing on skills for jobs.

If curiosity, enquiry and research are the central 'drivers' of the institutions we designate as universities, we have to make sure that there is the space to develop the relevant questions and to carefully design the research strategies, and we need to give our students time and support to develop the necessary habits from day one and throughout their undergraduate degree. This requires a different design from the quick and reactive mode of targeted mass skill provision.

This is not to say that universities are, or should be, elite institutions and in spirit unfit to be institutions of mass education. On the contrary, as late modern societies are becoming ever more complex, which is also a result of the dynamic forces of science, they require openness of mind and flexibility in professional and everyday life alike.

In this context, formats outside the traditional 'degree' such as micro-credentials can (and should) be a tool/mechanism/part of the bigger picture/vision – not the vision. Universities are not in competition with EdTech or commercial providers. Why would they be? They have different roles and orientation.

4. Moving towards the university of the 'Future'

A. TRIPTYCH: COLLABORATION – INNOVATION – POLICY IMPLICATIONS. A MODEL FOR ACHIEVING CHANGE

The Commission's Communication on the European Education Area and the Digital Education Action Plan put forward a vision for supporting transnational delivery of education and efficient use of physical and digital resource to share curriculum and infrastructure.

Universities are not a homogeneous group, and their needs are as diverse as their regional and national communities and their student cohorts. A new framework of research-led education therefore needs to align with local and global trends international priorities and constraints the modern university needs to serve. It needs to springboard from the legacy of the Bologna Process, Erasmus+ and the current shift to hybrid/blended learning environments that become the common modus operandi in European higher education.

The Guild supports the vision for a European university where students and staff move between institutions, transgressing linear mobility schemes where provision is organised on a binary between 'here' or 'there'. To achieve this, however, we need to facilitate the outcome of thinking 'outside the box'. If we attempt to use existing processes or predetermined, quantitative outcomes for new models, we will fall back to all the constraints we experienced under Bologna, such as the well-documented and widely feared laborious and time-consuming harmonisation and the bottom-up resistance of top-down policy.

To date, much of the international collaboration in research and education has been driven 'bottom-up' and sustained through individual academic initiatives. At the European level, this has been supported through competitive project funding in research (e.g. Horizon) and education (e.g. Erasmus+), and it has led to a rich tapestry of collaboration. These collaborations have led to important incremental advances, but their sustainability has been challenged by the end of the funding period for each project and/or changes in staff as collaborators moved position. The European University initiative presents a new opportunity for (cross)institutional capacity-building through encouraging collaboration towards sustained – and sustainable – networks, aided not just by a more long-term funding prospect, but also through a reduction in red tape at the national and regional levels.

The idea of university networks is not new. Following the creation of the Coimbra network in 1985, originally to support collaboration in student mobility and education, a number of networks have prospered over the years, distinguished by different missions and membership sizes. When The Guild of European Research-Intensive Universities was founded with eighteen members in 2016, presidents immediately agreed that research-intensive universities are defined as much by their students as by their research; hence education needed to be as prominent a concern for The Guild as research.

The Guild's focus on excellence has meant that collaborations have never been predetermined top-down. Instead, the Guild's working groups – for instance, its thematic deans' groups, or its groups focusing on Erasmus+ or on educational strategy – have developed complementary discussions and initiatives as communities of practice. These agendas have reflected policy discussions at the European level, but they have also reflected local concerns about interdisciplinarity in teaching and research, or how to enhance inclusiveness among European universities while strengthening excellence.

The European Universities initiative, launched in 2019, has created a different model, supported by a long-term funding commitment and clear funding objectives. While it was left to European Universities to define their ambitions against predetermined goals (e.g. a commitment to 50% student mobility by 2025), the 41 European Universities that were created in 2019 and 2020 are distinguished by concrete collaboration outcomes and targets.

Of course, both types of network are closely connected. The Guild, for instance, has actively engaged with the creation of European Universities, and many of The Guild's members have looked to each other as partners in the creation of European Universities. And both types of network seek to overcome the limitations of project-to-project collaboration through the creation of long-term communities of practice. But their differences concerning the challenges and opportunities inherent in networked collaboration are also revealing. The Guild has provided a space for reflection, discussion and the formation of shared interests with a clear focus on enhancing the competitiveness of its members in research, education and innovation. Its presidents are actively committed to developing the network, but they do not impose any predetermined outcomes, quantitative targets or work packages deriving from collaboration. By contrast, the European Universities were designed first and foremost as a collaborative venture with education to the fore. Set targets sustained by external funding income will ensure quantifiable outcomes. But the pace of change inherent in the initiative may compromise space for reflection, questioning and correction, and it may compromise long-term academic buy-in 'bottom-up'.

In practice, both types of network may be needed to foster a truly networked university where collaboration creates not just new quantitative levels of collaboration, but also new qualities of co-operation. And both networks may be needed to combine bottom-up and top-down frameworks for collaboration in teaching and research, which have different drivers and requirements. In research, for instance, greater long-term familiarity and co-operation between research teams could lead to more sophisticated and complex research applications, while in education new types of collaboration could lead not just to more student choice, but also to better educational outcomes. For these outcomes to be achieved, it is important to acknowledge that the networks that have been created in recent years are not the solution in themselves. But they do have the capacity to provide complementary stimuli to the sector, developing new approaches that are distinguished by the quality of building new knowledge through research and teaching.

The European Universities initiative is a potential new tool towards this direction, and one that seems to be delivering promising first results. During the Covid-19 pandemic, alliances have responded through sharing platforms and programmes and supporting some form of virtual mobility amongst the networks. If these results indicate that networks are more than the sum of their parts, then the mechanism needs to be properly supported to move from pilot to implementation stage. New networks provide opportunities to experiment with new ways to balance standardisation and autonomy (cf. section Pathways for quality and innovation) so that longer and deeper co-operation is possible without having to go through pilot projects again and again.

The networks, if successful, can and should build platforms so that the partners can co-operate without losing their differences. After all, networks should aim to provide a clear value added for all involved and a sum of opportunity for the students and staff that goes beyond what each individual partner can achieve in and by themselves. Accordingly, we support the vision for a networked university – a model that brings together like-minded institutions to create and offer a portfolio of learning opportunities that builds on individual strengths and enhances the reach and impact of each partner. This, however, does not mean that a network is an a priori space of learning excellence. Universities have been working with various partners over decades, whilst many transformative changes around academic culture or interdisciplinary engagement may be most effective at the institutional level first and foremost. A clear articulation, therefore, of what the European University (and European Degree) can do, that is not currently possible, is necessary.

B. RESOURCING PEDAGOGIC EXCELLENCE

Educational change cannot be delivered without appropriate support. Support, in the form of resource and recognition, often remains the elephant in the room when pedagogic innovation and reform are on the table. Educational change relies on the agency and contribution from different parts of a university, including academic staff, administrative and professional services and students who participate in large projects on top of regular workload.

Despite the commitment that this model indicates, it is not sustainable or comparable to the scale of the ambition of the current policy agendas, nor is it comparable to the need and opportunity for educational change. Hence a core issue to address is the need for deep qualitative changes to education while at the same time balancing, at institutional level, costs associated with digitalisation (Covid-19 is a case in point), decreasing per student budgets and staff who are under a lot of pressure to cover the daily needs of the profession, hence with no capacity for extra work or strategic design. This requires institutional, national and central EU-driven support for Education/Teaching–Learning development; a different funding model for education innovation; and parity of esteem between research and education at institutional level.

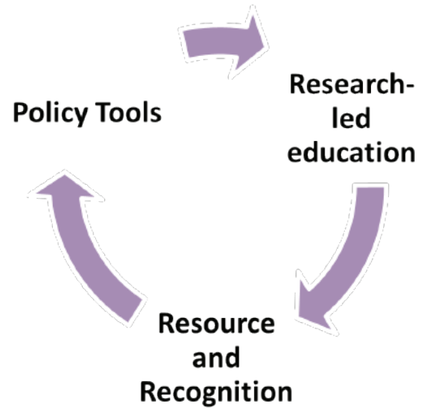

Fig. 4. A model for sustainable change

Fig. 4 summarises the positions taken in this paper; it highlights the intertwined relationship and need for alignment between policy, the tools through which policy is implemented and the necessary resource that is a condition for implementing and embedding policy.

It provides the underpinning for the paper's key messages and recommendations discussed next.

5. Reimagining research-led education in a digital age. Key takeaways

A. THE FUTURE IS NOT AND MUST NOT BE ALL DIGITAL

Universities have proven resilient to the challenges since March 2020 and achieved a swift and efficient delivery of their pedagogic offering. Capitalising on the opportunity is conditioned upon redesigning our pedagogic offering to provide learning activities that draw on different modalities and different learning outcomes. Digitalisation is not, and should not be, the aim in and by itself. Covid-19 provides us with an opportunity to better articulate what we have done well in physical educational contexts, what needs to change and what is a pragmatic and realistic roadmap towards new holistic pedagogical approaches.

The post pandemic university is not an 'either' digital 'or' a face-to-face one; the opportunity for a more fluid use of different modalities is available to higher education. The deep change that came with the pandemic has highlighted the social aspect of learning, the impact of isolation on wellbeing, the depth of the digital divide and the need for flexibility. The value of campus delivery has been foregrounded, which requires us to think creatively about the balance of blended models for future teaching and learning models. Undoubtedly, technology will be embedded in the university of the future, from infrastructure to digitally enhanced lecture theatres to wearable technology.

How the post-pandemic university articulates the hybridity of its digital/social learning will differ according to its mission, its resource base and its national context. It is critical that universities evaluate fully the experiences of the pandemic so that the experiences of the pandemic 'moment' serve to strengthen rather than diminish universities in their key mission to support students in their educational growth.

B. RESEARCH-LED UNIVERSITIES SHOULD LEND THEIR DISTINCTIVE STRENGTHS TO LIFELONG LEARNING

Universities need to open up programmes and adapt the curriculum to the needs of all students and a societal context that is dynamic and changing. Universities will also continue to be under public scrutiny so that their qualifications are not losing their value. Designs such as micro-credentials will attempt to solve the conundrum. There is significant discussion on what the future university could or should look like – often from private providers who have different, often for profit, agendas.

Universities will need to strengthen their engagement with lifelong learning and the emphasis on flexible designs. However, careful consideration needs to be given to the fundamental role of universities for educating for active citizenship and long-term societal growth and wellbeing. No single design is a panacea. Flexibility and innovation require multiple modalities that come with a diverse set of affordances and limitations.

The relationship between universities and other providers also needs to be further debated – including which types of courses should be provided by universities, and which are more appropriate for other, non-research-led providers. Universities have expertise and experience in developing and adapting. They need to be supported, trusted and empowered to lead educational change in ways that strengthen the core mission of universities, which is to provide a holistic and transformative research-led education.

C. PEDAGOGIC INNOVATION MUST BE ACCELERATED TO EDUCATE FOR CONTINUOUS CHANGE AND DISRUPTION

There is a strong discourse of change in the sector, and an emphasis on equipping future citizens with the necessary mindset and skills for the disrupted environment of the 21st century. We welcome the recognition of the importance of pedagogic excellence. We support the call for embracing innovation and providing all students with the opportunity to benefit from active learning pedagogies, to take ownership of their learning journeys and to benefit from technological developments.

The sense of urgency to be able to cope with and lead in a changing world demands education that encourages students to be curious, active learners who are open-minded and willing to deal with complex problems that need multilayered solutions. Digital tools and new and established pedagogies are all needed to enable students to explore and apply their learning. Universities have the experience and expertise to pave the way if policy, funders and regulators enable them to do so.

At the same time, good practice and innovation do not come in a single modality, format, approach or design, be it problem-based learning/challenge-based learning or micro-credentialing. The sector has a long history and experience with a variety of designs; instead of promoting a particular one, a combination is necessary for intellectually stimulating and engaging learning environments. Innovative pedagogies need to build on past experience and evidence in order to enhance and enrich the students' learning outcomes and broader learning experience without reinventing the past.

Overall, university education in the 21st century must have a clear and active learning orientation, because only then can universities fulfil their mission of preparing future generations for a world that is less predictable than ever and provide lifelong learning opportunities for those already in the workforce.

D. WE MUST MOVE BEYOND RED TAPE TO DEVELOP ENABLING POLICY TOOLS AND FLEXIBLE REGULATORY FRAMEWORKS

The balance between standardisation and autonomy is critical and directly impacts what is possible at the regional, national and international levels.

The Bologna Process provided us with the vision for a connected European education, a commitment to common goals and comparability of our students' learning experiences and a policy frame and language to work on translating those into practice. In many ways, this process has been successful if we consider the depth and breadth of its priorities with the comparability of degrees, a pan-European system of credits, student/staff mobility, co-operation and alignment in internal and external quality assurance systems, student-centred learning and commitment to inclusion. By the same token, it has revealed limitations, as it is still challenging to collaborate across borders.

It remains an open question whether the 'Europeanness' of higher education, as aspired to by the Bologna Process, is substantive and qualitative or is principally structural.

Moreover, it remains the case that current quality assurance models cause barriers to international collaboration, despite the best intentions of the Bologna Process. To be sure, collaboration cannot do without standardisation processes that need to provide reassurance. But a key challenge for the future lies in how this need for standardisation can avoid bureaucratic procedures that are time-consuming, deeply risk averse and indicate and perpetuate a lack of trust for and within the sector.

E. WE MUST ARTICULATE THE VALUE ADDED OF (INTERNATIONAL) COLLABORATION

Although collaboration is typically considered to be positive for institutions, rarely is the value proposition explicitly articulated. The value added, however, is central in determining both the impact on resource and the level of commitment to cross-university collaboration. This needs to distinguish between the type of institutional collaboration, which can happen at the regional, national or international/European levels. And the value added differs depending on the value of collaboration between (small) disciplines or cognate subject areas.

The European University initiative, launched in 2019, is one specific initiative alongside many existing regional and national (as well as local cross-border) collaborative initiatives. Whilst the European University pilot projects have rightly been given considerable leeway to define their own strategic objectives, it is nonetheless crucial to define more clearly what they can realistically achieve. What is the precise added value of their institutional collaboration in the long run, and what kinds of pedagogical transformation can be better achieved within single institutions? A response to this question is critical in determining the appropriate level of funding and resource in time and commitment that is attached to each European University alliance, as well as any other collaborative initiative.

F. WE MUST INVEST IN THE SUSTAINABILITY OF PEDAGOGIC INNOVATION

A clear and consistent plan for equivalences between teaching and research loads is necessary and overdue. The Covid-19 experience has put enormous pressure on institutions and staff who delivered by going above and beyond contracted responsibilities. It has also shown that redesign is possible but also resource intensive. Educational vision and change cannot and should not come without investment.

We should be inspired by the toolbox created over time to help researchers develop new ideas and foster blue sky thinking. New ways for designing and empowering institutes for advanced teaching are important vehicles for implementing change. Similarly, structures that enable educators from different subjects to come together with a view to developing new interdisciplinary content and methods without losing disciplinary excellence are paramount. Education innovation is not a means to an end; accordingly, a viable and pragmatic model for better recognising the time and effort spent for teaching innovation is a prerequisite.

Creating the conditions for thinking about – and importantly, implementing – outside the box interventions is a necessary step for the anticipated r/evolution in teaching and learning. Policymakers, national and international bodies and universities need to work in close partnership to reimagine and redesign research-led education for the 21st century.

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Appendix - case studies from The Guild member universities

A. CASE – UNIVERSITY OF WARWICK, UK – FOCUS UG RESEARCH–SCALABILITY–ACCESS AND POSITIVE IMPACT ON STUDENT LEARNING

Draws on Warwick's Undergraduate Research Support Scheme (URSS), International Conference of Undergraduate Research (ICUR) and the Alliance Intensive Study Programme (AISP), connecting UG research with Warwick's commitment to Internationalisation of Education, Interdisciplinarity and Intercultural learning for all students. It reflects on the benefits of a diverse portfolio of opportunity and shows the ways in which students are enabled to combine local and global learning, develop skills and experience short-term blended mobility.

Background:

Enabling undergraduate (UG) students to actively participate in local and global research activities has been a priority for Warwick Education for the last twenty years. UG research is a core part of active learning and of established pedagogic approaches such as problem-based and challenge-based learning. It aims to enable the learner to apply theory to practice and connect their learning to real-world problems – local and global – while working individually and in groups. UG research has transformative potential, facilitates deep learning, improves academic achievement and fosters community belonging. Warwick runs a range of schemes that provide the students with the opportunity to work individually and with peers from other institutions to carry out their own projects.

The activity in brief:

In 2001 the University of Warwick launched a dedicated UG research programme, the Undergraduate Research Support Scheme (URSS), which the university has supported and run ever since. The scheme gives students the opportunity to design and carry out independent research with the support of a supervisor. URSS has been growing steadily and approximately 250 proposals are submitted every year. The student feedback is consistently excellent and the data also suggest positive impact on student experience, academic and professional development and employability.

The scheme is part of a suite of programmes we support and which draw on participatory pedagogies enabling students to tailor their learning to their interests and gain deep subject knowledge through applying their learning to their own projects. URSS is an extra-curricular activity and hence the students are encouraged to be ambitious and to immerse themselves without the fear of failure. Students also have the opportunity to follow up on their work;

since 2014, the URSS Experience has formally included publishing in Reinvention, a UG research journal, or presenting at the International and British Conferences of Undergraduate Research (ICUR or BCUR) as potential outcomes to the URSS process.

Beyond the student learning gain, our experience with these schemes is valuable in showing the tangible benefits of alliances in co-creating engaging, challenging and stimulating learning environments using all available modalities, face-to-face, online and blended. In this case, the Warwick-Monash Alliance has been instrumental. In 2013, the partnership between Warwick and Monash on Reinvention led to the creation of the International Conference of Undergraduate Research (ICUR) as a further collaboration between the two institutions. ICUR has subsequently become an annual two-day event held in September and has consistently included students from institutions across five continents presenting their research in virtually linked conference sessions alongside their Monash and Warwick counterparts. Since its launch year, well over 2000 students have presented their work at ICUR in spoken and poster presentations. Responding to the pandemic situation in 2020, ICUR developed an app with an associated Virtual Conference Centre that allowed presenters to participate in the event from wherever they were based at the time. It also opened the sessions to be broadcast live as webinars to audiences from even more countries who accessed the event via the app, with over 2500 unique visitors at the 2020 event. Post-event surveys of presenters since 2014 have shown that 99% of students who have participated in ICUR would recommend participation to other students, and 98% say it has added value to their university experience. Both the conference and the journal benefit from their close links with Warwick's IATL (Institute of Advance Teaching and Learning) – where their student-led, student-focused ethos was developed – and the dedicated work of teams focusing on supporting the matrix of activities and the participating students.

Building further on the robust relationship between the two universities, in 2021 we launched a new programme, the Alliance Intensive Study Programme (AISP), which enables Warwick students to study with their peers from Monash in an immersive active learning experience. AISP provides students with access to a curated suite of intensively delivered credit-bearing modules that contribute to student mobility and direct international experience; they are delivered in online, hybrid and face-to-face formats, enabling multiple connectivities depending on what is appropriate for the content and what is possible in line with public health regulation. AISP is accessible by students interested in only short experiences as well as those seeking an intercalated pathway that connects intensive and semester-length experiences across sites/locations. It offers the opportunity to students to work in global teams and develop intercultural competence, a priority of our global education strategy, with more than 2000 participating in intercultural training per year before the Covid-19 disruption.

All AISP modules draw on the principles of interdisciplinarity, global orientation, flexible delivery and student research. Participation in AISP enables all students to develop a global mindset and skills for connecting learning to real-world problems, which is directly relevant to a strong profile for employability and further academic and professional development. In its first year, AISP has already grown to a community of 250 students.

Together the schemes discussed here show that a) scalability of opportunity can be achieved through different formats and b) the value of designing new transnational pedagogical interventions is further enhanced when built on existing good practice and robust global partnerships.

Key takeaway:
International undergraduate research is an empowering and intellectually engaging activity that provides students with ownership of their learning and with opportunities to deepen disciplinary knowledge, often work in interdisciplinary global teams, enhance analytical skills and learn to translate research for public dissemination and presentation. It takes different formats, and instead of one particular practice, it needs to be embedded in the ecosystem of the discipline, programme and institution. It also requires institutional support at policy and resource level, and concentrated effort between academic and professional services. It is a prime activity for alliances to pivot and enable students to experience cross-institutional collaboration and partnership. At Warwick, we see ongoing benefits for our students and our global and local learning community.

B. CASE – AARHUS UNIVERSITY, DENMARK – FOCUS STUDENT ENGAGEMENT/ACHIEVEMENT

Draws on the Aarhus Symposium, a visionary learning space in which leaders of today and leaders of tomorrow can learn and challenge each other on pressing contemporary topics and problems. The event has become an attractive place to speak for high-level leaders including the Crown Prince, prime ministers, an EU commissioner, and top 10 CEOs. It reflects on the impact of a student-conceived, student-designed and student-led event and shows that empowered students can drive pedagogic innovation and change.

Background:

Student-centred learning has become much in focus. Definitions are many. Often, student-centred learning refers to teaching that is more recipient oriented than sender oriented. There is, however, an unused potential in seeing students as active creators of learning. The exploitation of that potential encounters many barriers. Traditionally, we have built our classrooms to support a sender-oriented learning environment. Students, parents and surrounding society expect teachers to be experts and thus transfer their expertise, often not realising that efficient learning is a collaborative process that is at its best when the learner is engaged and an active participant. In addition, many of our teachers have inherited a view on teaching as a transfer of enthusiasm, knowledge and expertise. Shifting to participatory pedagogies requires a shift in mindset. The barriers are therefore many. The extra-curricular schedule allows for experiments and in the following we will report on a successful case of student-driven learning, where students acquire transferable skills, much sought after by employers, in addition to deep disciplinary knowledge.

The activity in brief:

In 2011, a group of university students conceived the idea of the Aarhus Symposium. The students felt that something was missing in Aarhus University's ability to educate future global leaders and pointed to an important link that was missing between the educational system and the ultimate purpose of their educational journey towards contributing to a better future society. In response to their demand for meeting the global leaders of today and discussing the future of tomorrow, a group of students at Aarhus University created the Aarhus Symposium.

Every year, on the first Friday of November, a strong line-up of key decision-makers and leaders of today share their experiences and engage in discussions with a full auditorium of ambitious students. Aarhus Symposium thereby constitutes a visionary learning space in which leaders of today and leaders of tomorrow can learn and challenge each other on pressing subjects of today. The students run the event at a professional level and the event has become an attractive place to speak for high-level leaders including the Crown Prince of Denmark, prime ministers, an EU commissioner and top 10 CEOs.

Student's learning experiences

Students handle all aspects of the events themselves. They organise themselves in groups including a steering committee, a programme group, an IT group, an event group, a marketing group and even a university alliance group responsible for promoting the Aarhus Symposium among other curious and ambitious students outside Aarhus University who are interested in participating. There are many students involved in the running of the Aarhus Symposium. No matter what role they take on, they all acquire skills that they would not otherwise gain. All learn to collaborate across the disciplines of their studies and with different personalities. In addition, students learn problem-solving, how to handle logistics and conflict resolution. All students practise and develop their communication skills among themselves but more importantly with people outside the university too, through activities ranging from the delivery of catering to inviting senior leaders to the symposium. The professionalism with which students run the symposium is also an indication of students working hard, with focus and with the aim to deliver an excellent product.

Additional benefits

The Aarhus Symposium is an example of how student-driven learning experiences can serve several purposes for all participants. The most important benefit is, without doubt, that students get hands-on experience, acquiring many valuable transferable skills not otherwise available to them. In addition, fellow students see and learn from the students who are involved. However, other actors also gain from the activity. The leaders of today get to meet and try out their visions on the leaders of tomorrow. Interestingly, our symposium students are able to attract stakeholders that the university can sometimes have trouble attracting, suggesting that students can act as ambassadors in this context. Finally, the university gets an unpayable branding and learns that trusting students' ability to organise pays back manifold.

Key takeaway:

The case is one of many examples of how students acquire a number of transferable skills through solving authentic tasks together. Universities would not be the dynamic places of learning that they are without students constantly engaging in events, associations and voluntary work for the benefit of fellow students and the social life on campus. The case illustrates how society's demand for employable university graduates is also provided for through the skills acquired through extra-curricular activities that supplement the deep knowledge provided by more traditional learning.

C. CASE – UPPSALA UNIVERSITY, SWEDEN – FOCUS STUDENT-LED LEARNING

Draws upon the experience of the Centre for Environment and Development Studies (CEMUS) –established in 1997. Reflects on the potential for developing pedagogic innovation through student-led initiatives that bring together students from different disciplines and levels in a coherent set of initiatives, with a focus on contributing to a more sustainable and just world.

Background:

Centre for Environment and Development Studies, CEMUS
Uppsala University, UU, and the Swedish University of Agricultural Sciences, SLU
www.cemus.uu.se

CEMUS is an interdisciplinary joint UU and SLU centre based in Uppsala, with student-led undergraduate and master's level sustainability courses and collaborative outreach activities. CEMUS started in 1992 with its first course, 'Humanity and Nature'. It was established as a centre in 1997 and in 2002 received funding for the CEMUS Research School, CEFO. In 2018, CEMUS was reestablished as its own formal centre, having been part of a broader coalition of centres and initiatives since 2007. As part of that reorganisation, CEFO and the Zennström visiting professorship in Climate Change Leadership was moved out of CEMUS and based at the Department of Earth Sciences in a newly formed research programme.

The activity in brief:

From its start in the early 1990s, CEMUS has grown in terms of the number of courses offered, the number of students taking its courses and the number of collaborative partners involved in different outreach activities. While the student-led model and student-initiated courses, as well as the focus on issues such as global and local sustainability, climate and justice have of course changed in content and form, the core has remained the same.

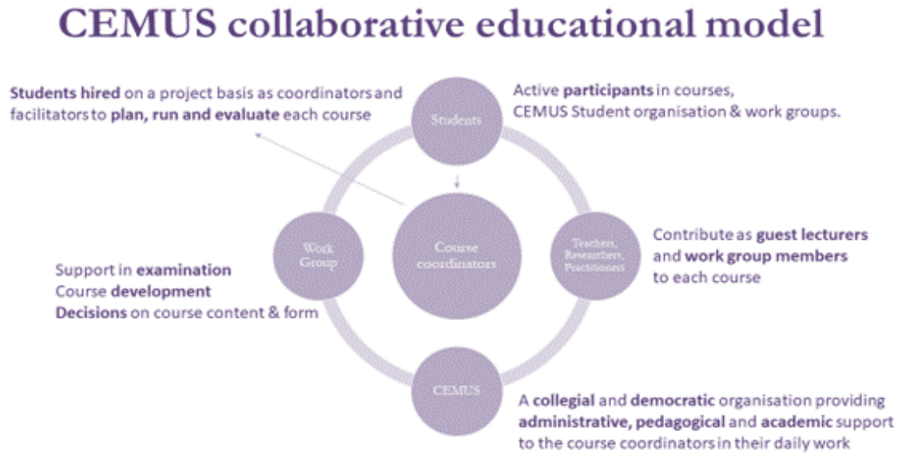
Description

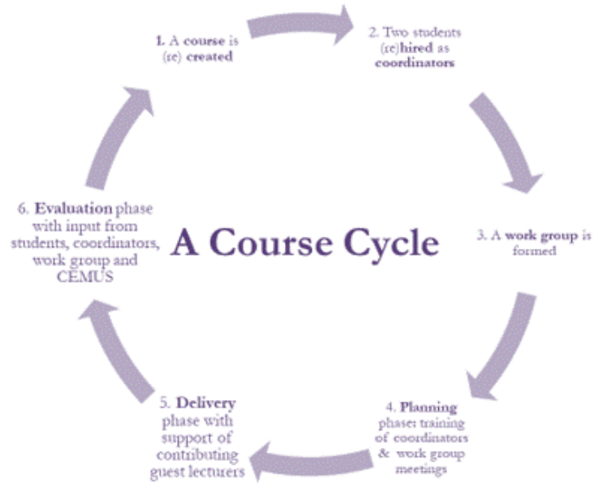
In 2021–2022, CEMUS offers 21 courses:

- In total 18 undergraduate courses (3 full-time courses, 30 credits courses in total; 15 part-time courses, 7.5–15 credits)
- 3 master's level courses (5 credits each) as part of the Master's Programme in Sustainable Development at UU and SLU.

Course titles and descriptions can be found here: http://www.cemus.uu.se/education/.

All courses are student led, with two students per course hired to work as course coordinators over a course cycle. These students work in collaboration with more senior CEMUS staff and also support a course work group consisting of university teachers, researchers, student representatives and societal actors to plan the course, invite guest lecturers, run seminars and workshops and carry out course evaluations.





CEMUS courses are research-based and grounded in five different ways:

- Course coordinators are themselves trained, as students, in academic work methods, critical thinking and reflexive process. Through a formal recruitment process, the best candidates are selected for each course.
- CEMUS senior staff, including the CEMUS director, director of studies and educational coordinators, have experience of working with student-led education, interdisciplinary sustainability education and in some cases research within the field.
- Course literature and materials for each course are carefully selected throughout the planning phase, with a majority of coursebooks and reading consisting of texts written by researchers.

- Course work groups have university teachers and researchers taking part in the planning and deciding on schedule, literature and examination, and their research perspectives, knowledge and experience naturally play a part in connecting the courses to research.
- Each session of the course has a guest lecturer invited to speak, bringing a specific research topic or experience from working with sustainability.

Key takeaway:

Research in sustainability, climate, environment and development is growing fast and more funds are made available each year. With its long experience of many different aspects of sustainability, CEMUS could be a key partner in new research projects and provide unique, critical insights that might otherwise be lacking. With CEFO and the Zennström visiting professorship in Climate Change Leadership, and future research projects formally based at CEMUS, we could better develop student-led education and new forms of engaging students in research as partners and producers of knowledge.

D. CASE – UNIVERSITY OF GLASGOW, UK – FOCUS ACTIVE LEARNING

Draws upon the experience of designing and implementing change and the relationship with material/online learning space. Reflects on the potential for agility and swift response to change – exacerbated during Covid-19.

Background:

In December 2014, we started to design and build a new learning and teaching hub at the main campus of the University of Glasgow. It was an opportunity to create a learning environment that could support (r)evolution in teaching and learning. A key challenge was to create flexible learning spaces that would support collaborative learning, in-depth engagement with disciplinary learning, group and individual study spaces and a technical infrastructure that could support future innovation. We learned to not over-tech the spaces, that thinking about the furniture matters more than we could have anticipated and that supporting staff to change teaching practice requires holistic and sustained efforts.

The activity in brief:

To inform key choices about the design of learning space, we undertook several activities concurrently and throughout the lifetime of the project: (1) exploration of how leading institutions were developing their teaching spaces and supporting educational change; (2) review of the research evidence on effective learning strategies; (3) consultation with experts and commercial organisations specialising in learning space design; and (4) extensive and ongoing consultation with key stakeholders, in particular students and staff. We tested our ideas continually at conferences, with alumni and with current students and staff, and importantly, developed 'pilot' spaces on campus as part of a refurbishment programme, which allowed us to experiment with learning spaces that support active learning approaches and that informed our designs for the building and our approach to educational development with students and staff.

Early consultations continually pointed to the need for learning and teaching spaces to be flexible so that various teaching approaches could be accommodated and so that students could take ownership of the space. However, some teaching methods rely on devices for collaboration, creating requirements for power and data. Provisioning power through fixed points in rooms can limit flexibility in particular. As such, there were strategic choices to be made about layouts and technology that had to be evaluated in light of current and future technology trends.

A key enabler was our decision to issue a competitive tender for a partner, not only to supply furniture for our new spaces, but to work with us on the design and evaluation of the functionality of these spaces. Steelcase, who were selected, formed an essential component of the wider partnership with students and staff that continually evolved and refined our approach. Table shape and size, quality of seating, relative amounts of individual versus group

study space, provisioning of standing height furniture in lieu of raking in a teaching space and inclusive design to support students and staff who have physical and hidden disabilities all featured in our thinking about space. We also became more attuned to the role of furniture choices in signalling behaviours from silence to collaboration, performing an acoustic function and enabling ownership of the building and the activities within it.

Understanding and influencing student and staff behaviour was, and remains, the overriding priority for our vision for learning and teaching to be realised. Many colleagues are keen to evolve how they teach and contributed time and energy to adapt their learning design and teaching approach to embrace active learning approaches in our pilot spaces. Their efforts were rewarded by considerable benefits in terms of student engagement, depth of learning in the discipline, the opportunity to engage students in more creative forms of assessment linked to new teaching and learning approaches and positive student feedback about skills development (collaboration, communication, confidence, creativity, etc.).

Key takeaway:

Influencing cultural change in how we think about our estate was crucial, and we believe it is the starting point for any university wishing to change learning and teaching spaces. The traditional approach of estates teams creating a room, retrospectively installing technology and staff then making the best use of that space had to change to one of an integrated learning system design. That we took a team approach – with IT colleagues, estates colleagues, learning and teaching leads and students all exploring and shaping design choices from the outset, conducting visits to exemplar institutions together and being involved in procurement and meetings with architects – was transformational. It created the foundation for our approach and allowed us to develop a shared understanding of the purpose of active learning and the importance of all the elements of design supporting that vision. Without this approach, we do not believe we would have the James McCune Smith Learning Hub we now have and which we believe will support real revolution in our approach to teaching.

E. CASE – JAGIELLONIAN UNIVERSITY, POLAND – FOCUS GLOBAL/LOCAL CHALLENGES AND WAYS TO BALANCE GRASSROOT AND SYSTEMIC CHANGE

Draws upon the experience with the BA in International Relations and Area Studies from inception to present day with 400 international students in the faculty. Reflects on the challenges from marketing and cultural difference to policy and funding models.

Background:

In recent years, the process of internationalisation of education has been evolving at the Jagiellonian University in Krakow, mainly focusing on the establishment of BA and MA programmes in English, including double- and multi-degree MA programmes. In the area of social sciences and humanities, most of these programmes have been launched at the Faculty of International and Political Studies, which is a very interdisciplinary faculty, comprising researchers representing almost twenty scientific disciplines. One of the successful examples of an international programme is the BA in International Relations and Area Studies (IRAS), launched for the first time six years ago, inviting candidates from all over the world who are interested in studying subjects in international relations, political science, security studies and area studies such as European studies, American studies, Latin American studies or Asia-Pacific studies.

The activity in brief:

From the very beginning of the operation of the programme, there have been numerous challenges faced by those responsible for its administration. Establishment of the programme curriculum took a while because of rigid procedures and rules guiding the process of implementation of educational programmes at Polish universities. The system forced a concrete structure on the programme, which had to be followed, with fixed numbers of teaching hours, a vast number of compulsory courses and the necessity to prepare all the documentation in both Polish and English, despite the fact that the programme was devoted to international students. The language seemed a problem, as most of the documents related to the study process were in Polish only, which forced the administration to prepare English versions of all the documents and regulations. After negotiations with university administration, who realised that a programme for international students should be more flexible, the final version of the IRAS programme was implemented, providing for a general knowledge course in the first three semesters and more detailed specialist courses in the next three semesters. Students could decide individually about their specialisation based on their field of research interest.
The national character of education, and in particular the central legislation, limited the possibility to use – for both promotion and everyday matters – English terms that are characteristic for the type of education provided. We were not allowed to use the terms BA and MA in official documents, which had to be prepared in accordance with existing regulations. Therefore, the students were to obtain the degree of 'licencjat' (equivalent of BA) and 'ma-

gister' (equivalent of MA). Such a formal obstacle still exists, but it did not discourage the programme administration from using the term BA in individual communication with the students.

The problem of limited international recognition of the programme forced the administration and authorities of the faculty to impose various methods of promotion, including the use of social media, but also direct promotion conducted by representatives of the university abroad. At that time, Polish universities were just at the beginning of the internationalisation process, and there were few government resources for public universities to conduct that process properly. Lack of a coherent international marketing strategy could be observed also at the level of the university, and it took a while to introduce unified measures to all of the international programmes. That is why the faculty had to act individually and invest money in effective promotion to obtain a successful recruitment rate, which at the beginning was achieved at the level of fifteen to twenty students. In subsequent years, information about the programme was shared by graduates who decided to study abroad or to go back to their homeland, as well as through the involvement of programme administration and faculty in international promotion during major events such as study fairs or education seminars.

Real challenges occurred when the international students came to study in Krakow. Many of them were abroad for the first time, coming from different regions, cultures and educational systems that were often different from those in Poland. Even if adjustment to the educational programme seemed easy, it was more difficult to follow procedures at all possible levels: national, local and university. At the beginning, the programme administration analysed each case individually, providing help to the students in need. The issues that raised most concern included the problem of visa expiry, the use of health service facilities, insurance challenges and problems with adaptation to the new social reality. The lesson we learned from these individual cases was very useful, and in subsequent years we modified the programme to include a special 'tutorial' course, during which each student received direct support from a faculty member responsible for helping to solve individual student or group problems. Today, although there are still several challenges for international students studying in Krakow, we are ready to provide professional help by contacting the right people or institutions at the university or beyond who are devoted to supporting foreigners during their stay in Poland.

One of the best examples concerns health problems faced by international students, especially during pandemic times. The Jagiellonian University decided to launch a programme supporting students who were feeling unwell by establishing a special contact institution consisting of experts in the field of medicine. To meet the needs of international students, there are English-speaking doctors who can provide support any time a student calls or visits. Another quite different example is the activity of student academic bodies. Thanks to the initiative of Polish and international students, their respective student associations have been collaborating on a scientific level and in the area of popular science. Joint seminars and conferences, as well as days of culture organised to promote the diversity and uniqueness of various regions of the world, allow the students to transcend the artificial and real boundaries that limit their integration in their new social and cultural reality.

Key takeaway:
After 6 years, there are more than 400 international students at the Faculty of International and Political Studies, including the IRAS programme and many other BA and MA programmes taught in English, as well as a large group of Erasmus students. Thanks to our experience, we are ready to take care of each student individually and the system has also become more international friendly. These changes would not have been possible without the individual support and initiative of the administration and authorities of the faculty, as well as the growing activity of the university in international networks. The mixture of grassroot activities and systemic changes therefore made the internationalisation of education possible. There are still many issues to be discussed and some regulations to be modified, and despite the continuing nationalisation of education in Poland, the international character of research and education is a reality that cannot be overturned.

F. CASE – UNIVERSITY OF TÜBINGEN, GERMANY – FOCUS REGIONAL NETWORKS – INTERNATIONALISATION AT HOME

Multi-site collaborative seminars in political science bringing together academics and students from political science, education, peace research and international relations from eight universities in Germany, two international universities and other institutions. Students benefit from platform technology and the blended experience with face-to-face and online sessions. The case reflects on the value of regional and national collaboration for enhancing the student learning experience.

Background:

The core idea of these multi-site seminars was to use the classical face-to-face format and augment it with digital elements in a pedagogically holistic manner. In other words, the digital elements constituted a clear value added component while the benefits of a classical seminar were not lost, that is, 'embodied' communication. This format made interregional and international interaction of students and scholars possible. The seminars addressed core issues of political science via crucial case studies – 'wicked problems' in another terminology. The activity is student-centered and combines discipline-specific knowledge and competencies with key qualifications to enhance employability.

The activity in brief:

The Institute of Political Science at the University of Tübingen together with the University of Freiburg, in collaboration with the universities of Mainz, Frankfurt, Hamburg, Magdeburg, Marburg and Düsseldorf, as well as extra-mural institutions and international partners such as the DIE (Deutsches Institut für Entwicklungspolitik), the German Institute of Global and Area Studies (GIGA), The Instituto Affari Internazionali (Italy), the University of Kent (UK) and the University of Pretoria (South Africa) conducted several seminars in the years 2017 to 2019 on 'Threats to Peace in Europe', 'the Security–Migration–Nexus' and the 'Dynamics, Management and Transformation of current conflicts on secession'. These seminars addressed students from various sub-disciplines of political science, as well as from education in different universities, to interact with each other and to use the online format for live seminar experience at eight sites simultaneously. For example, in the seminar 'Threats to Peace in Europe', one key idea was to have two working groups of students, with the case studies presented by international experts as the focal point. One group prepared background information on the case to be discussed, and the other group analysed and systematised questions, posted them and prepared them for discussion with the invited experts. The group responsible for conflict analysis had to gather information from all sources at hand and prepare a briefing paper for all students, identifying the parties, the reason for the conflict, the institutions involved, etc. The other perspective would focus on the threats, that is, on the effects of conflicts on the political system and its institutions. Finally, questions of categorisation had to be answered. Which crisis are we dealing with? Are human rights or civic rights threatened? Is democratic decision-making threatened? Are we dealing with a crisis of function or legitimation?

The seminar followed an elaborate pedagogical choreography and led to numerous productions of videos, podcasts, open resource material and even a rap. It was a seminar with a very high degree of student-centredness and allowed students to acquire important skills both with regard to the inquiries of political science and to employability. Students benefited from platform technology and the blended experience, with face-to-face and online sessions for scholars who share good practice on digital tools and impact on learning outcomes. The case reflects on the value of regional and national collaboration for enhancing the student learning experience. The seminars have been extensively evaluated and are richly documented, thus providing ample material to work with in similar and other contexts. Sustainability is further ensured by creating e-learning materials for further use.

Student benefit

The concept is challenge-based and student-centred. It addresses different types of learners and increases employability because it is thoroughly competence-based. At the same time, it differentiates between various levels of competencies because of the different qualification levels of the student population. The deliberate and pedagogically reflected use of media addresses in particular the diversity of students. An elaborate student handbook was created, further developed and revised. It is accessible and can be modified for other contexts.

Being able to interact with international experts was another highlight. The engagement was more intense than in traditional seminar formats because the videos of the experts' input could be watched multiple times in preparation (flipped classroom) so that the interaction was more intense and could involve more students. The collaboration with partners from outside of the university further encouraged engagement and the increasing adeptness with the technical infrastructure further increased the employability of the students.

Key takeaway:

The cooperative model made it possible to reach a thematic breadth and win international experts to present in the seminars in a way that would not have been possible otherwise. The thorough and multi-perspective preparation has led to a high level of engagement with the experts. Meeting students from other universities was considered an enrichment and furthered inter-university collaboration of students and scholars.

G. CASE – GHENT UNIVERSITY, BELGIUM – FOCUS MICRO-CREDENTIALS

Draws on the university's experience with credit certificates and 'Certificates of Competency'. Reflects on the development of formats for different groups and barriers and enablers for implementation; provides example of new policy framework.

Background:

For its new lifelong learning strategy, Ghent University draws on its experience with 'Credit certificates' and 'Certificates of Competency' and reflects on the development of formats for different groups and barriers and enablers for implementation.

The activity in brief:

The higher education legislation that was put in place in the 2000s in Flanders (Belgium) in the framework of the implementation of the Bologna Process has created leverage for higher education institutions with regard to what we now refer to as 'micro-credentials' (as defined by the European Commission). One of the cornerstones of this legislation is that the outcomes of different types of learning (formal, non-formal, informal) can all be recognised, stacked and transferred within and between different (higher education) stakeholders.

This means, for instance, that students at Ghent University get 'credit certificates' for all successful courses (first type of 'micro-credential'). These 'Credit certificates' form the basis of procedures for the recognition of prior formal learning, for example, when students are reoriented to other programmes within or outside the institution and get exemptions for courses with similar learning outcomes as those for which they hold credit certificates, creating ample opportunities for flexible learning paths by stacking such credit certificates. The 'Certificates of Competency', which are the result of a successful procedure for the recognition of prior informal and non-formal learning (organised at the level of the umbrella organisation Ghent University Association, together with three universities of applied sciences), can be considered as (a second type of) 'micro-credential'. These allow students to get exemptions for courses in our bachelor or master programmes. At the extreme end, stacking these types of 'micro-credential' even allows us to issue degrees to students who never completed a single course in our university but can nevertheless prove they have achieved the envisaged learning outcome of the study programme.

Novel experiments

This level of flexibility led us to also set up experiments with 'badges' (another, third type of 'micro-credential') to reward student engagement and other types of university-led volunteering work. In this way, we want, from the university's perspective, to endorse the fact that such kinds of life experiences equip students with important generic skills and competences. Equally, micro-credentials will also be one of the key elements in our newly approved lifelong learning policy. This could include the creation of so-called micro-degrees (already put in place by many universities of applied sciences in Flanders). These are 'meaningful clusters' of courses from existing bachelor and master programmes, all in themselves leading to 'credit certificates', but bundled together because the overall set of achieved learning outcomes have societal relevance. This kind of offer could on one hand cater for different target groups, for example, professionals with some work experience and specific upskilling or reskilling needs that were identified in close cooperation with relevant external stakeholders; eighteen-year-olds with a specific background who would like to get a taste of higher education; and refugee students with a lot of prior experience but difficulties in getting access to the labour market. On the other hand, allowing these different types of students to work together (e.g. 'regular students' and adult learners together in a micro-degree on big data) creates a powerful learning environment, where intergenerational learning happens in an academic, research-based setting with a strong link to real-life and work-based external experience.

Key takeaway:

The notion of micro-credentials as it is currently evolving in Europe offers Ghent University a conceptual entry and common language to allow us to better interact with external stakeholders and take on our societal responsibility, not only from our traditional degree-oriented, research-based approach but also from a lifelong learning perspective. Our regulatory framework, already offering some possibilities, allows us to react quickly by developing new types of 'micro-credentials', thereby anticipating development to come.

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