EUt+

European University of Technology

Deliverable 40

D3.5.4 General analysis of the transformation - 1 to 4

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FOREWORD TO DELIVERABLE D40

Task 3.5 was designed to explore shared project-based learning across the EUt+ partners and to deploy a specific tool (Telanto) for digital collaboration, an idea embraced positively and endorsed in principle by the relevant groups across EUt+. Telanto was chosen as it fosters experiential learning, enabling students to collaborate on real-world business challenges and enabling educators to integrate this type of learning into their curriculum. The platform and collaboration process were designed to help professors source best-fit challenges for their course, as well as oversee their students' work. By working in teams, students develop soft and transferable skills valuable in their future workplace, while exposure to and collaboration with business leaders offer students access to role models and the ability to learn directly from experts in their field. Solving business challenges enables students to apply the knowledge gained during their course in a real-world context. Through challenge-based collaboration, students are also given the opportunity to exercise their creativity and out-of-the-box thinking in coming up with innovative ideas that have the potential to make a real impact on an organization.

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Introduction

Without warning, in March 2020 the pandemic forced an immediate and fundamental change in approach to teaching, learning and assessing. However, opinion is clearly divided as to whether this change has been positive or negative (the public launch of ChatGPT in late 2022 has served to add to the confusion). Organisations such as the OECD are advocating digitalisation and inclusivity as top priorities for education post-Covid, while the EU, under its European Year of Skills initiatives, has prioritised the promotion and support of green and digital skills. Across higher education, the response has been more muted, but it is evident that a critical shift is occurring in attitudes and approaches to digital teaching and learning right across European higher education, among staff and students alike. While the pandemic proved without doubt that the digital infrastructure exists to support online teaching and learning, it also demonstrated that there is limited institutional guidance on best teaching practices or digital-skills adoption. Right now, our universities need to consider such issues more deeply if we are to give our students the quality educational experience which they seek, and which they certainly deserve.

Task 3.5 intended to organise pilots implemented in each partner and report on the feedback received. However, the pandemic meant that the planned implementation of pilots with each partner had to be postponed (these will now be conducted as part EUt+ Accelerate).

In preparation for this next phase, a survey was conducted to explore the digital experiences of students and staff who teach, providing an evidence base to inform future decision-making and enhancement of teaching and learning. The results form the basis of this general analysis of virtual mobility tools and digital methods, and recommendations for the forthcoming pilot.

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Part 1 – Survey overview

Responses to the staff survey were received from about 3% of eligible staff, the vast majority of these lecturers, over half of them engineers and the majority male. Most have worked at their university for ten or more years, and rate the quality of the university's digital provision as good or excellent. More than half report their main support for use of digital tools coming from online videos, and a quarter rely on their peers for this. Just over half say that they would like digital technologies to be used more in their teaching practice, while just under half have never discussed teaching with peers via an online network or forum. When it comes to support from their university for adapting to the digital world, in almost every scenario respondents chose to remain neutral on the issue. Less than a quarter agreed that they are given time and support to innovate, and just over 10% of respondents agreed that they receive reward/recognition when they develop digital aspects of their role. Yet almost half of the respondents rated the support received from their institution to develop the digital aspects of their role as good or excellent.

The Covid experience was noted in some cases to have served to enhance face-to-face interactions as a result of the improved digital skills acquired and the resources made available to them. Others recognised that the pandemic compelled educators to embrace digital tools rather hastily, and that some bad practices adopted may have had adverse effects on teaching. While some educators prioritise in-person teaching, others seek to enhance blended and flipped classroom methodologies and to explore the potential of improved hybrid formats.

Collectively, some educators aspire to curtail screen time for both themselves and their students in the coming years, but believe that support for such an initiative is lacking. They aim nonetheless to develop their own methodology to mitigate the impact of technology on

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professional development, even without institutional guidance. Such information should prove useful in determining the best methods of supporting lecturers as they start to use Telanto in the forthcoming phase.

Almost two-thirds of students said that they enjoyed learning more when digital technologies are used in their courses, as it helps them to understand things better. Three-quarters said that digital technologies made them more independent in their learning, allowing them to fit learning into their life more easily. Overall, most students rate highly the quality of their university's digital provision (software, hardware, learning environment), with 60% of respondents rating it as good, excellent or best imaginable. The majority of students who responded were aged 18–24 and were based fully on-campus. A vast majority (91%) say that *"Digital skills are important in my chosen career",* but less than half (45%) agree with the statement that *"My course prepares me for the digital workplace"*. However, just one-third prefer to learn on their own rather than in groups and just a quarter would like more time working online with others.

Around a third of students surveyed expressed enthusiasm for more use of the institutional virtual learning environment (VLE/Moodle) by their instructors, reflecting a general disenchantment with the usability of institutional learning tools. Asked what digital tools would be most useful to them as learners, more course-related video and more practice questions available online were selected by more than half of the respondents from the provided list, while project-based learning and more interactive pools and quizzes in class were also popular. Many students also expressed a desire for more or all lectures to be recorded (it should also be noted that not all staff are comfortable with this idea).

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Of those who took the time to make additional comments, staff tended to speak of the need for support and recognition while calling for a return to classroom-based learning. Students were unhappy with the lack of consistency of the digital learning experience and sought to continue providing recorded lectures and better facilitation.

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Part 2 – Analysis

The trends that emerge from these surveys are fairly consistent across the EUt+. For students, the online experience of emergency remote teaching was not especially positive: some appreciated the convenience of digital learning, while others believed they learn better in traditional face-to-face settings. For staff, the pandemic experience introduced them to pedagogical possibilities that many had not considered previously, although in the main they felt left to their own devices in exploring this territory. Students and staff alike expressed significant discontent with the quality and quantity of assessments conducted during the pandemic. But in general, both cohorts expressed satisfaction with the digital infrastructure provided by their universities.

Responsibility for classroom activities, whether online or face-to-face, primarily rests with lecturers, and our universities – perhaps correctly – maintain a hands-off approach to actual teaching methods. While this autonomy is appreciated, it also means that what happens inside the classroom gets little visibility. Lecturing staff report that there is little or no support or reward given for changing or adapting their teaching methods, and clearly recognise that the digital revolution is not about the availability of digital tools but about how to use them in a manner that better enhances teaching and learning. This manifests itself in their decisions on where to apply digital methods and where to revert to pre-pandemic approaches, a decision with which they evidently would like more guidance and support from their universities.

One common theme that emerges from student responses is the desire for courses to align with current industry standards and technologies, ensuring that graduates are well-prepared for their future careers. This includes providing access to industry-standard software and hardware, and incorporating practical projects that mirror real-world applications, especially

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in fields such as engineering. Additionally, students highlight the importance of practical, industry-relevant content in their courses, especially in fields like networks and telecommunications. These trends are broadly reflected in the responses received across EUt+ partners.

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Part 3 – Recommendations

To be successful, we must aim to change the mindset and digital culture prevalent across our universities. Any measures undertaken towards this could be an agreed part of programme and module descriptors and give a clear indication of the digital ambitions of each course of study. It will be important to distinguish between "emergency remote teaching" measures which used some online elements, and the idea of effective fully online provision: recording lectures and making them available online to students does not amount to effective education. EUt+ may want to articulate its definition of digital education so that it becomes an integral and explicit part of its mission and vision in the twenty-first century. It would be beneficial to all if policies surrounding the consistent use of digital tools such as the VLE and lecture recording within courses were agreed. These might include minimum thresholds for such use, while also allowing individual schools the power to decide where such thresholds should lie.

There is widespread acknowledgement that the technical infrastructure underlying digital efforts during Covid was reliable, and it was recognised as a positive enabler for the continuance of provision during lockdown. This is an extremely positive position for digital education, as academic staff everywhere need to feel confidence in the reliability of the digital tools supplied to them for teaching and learning. The fact that some lecturers were more digitally competent than others was readily recognised by students, suggesting a need for digital upskilling of academic staff, and further familiarisation with the pedagogical possibilities offered by the full range of VLE tools (especially those that promote interactive learning).

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Moreover, digital upskilling provision should emphasise not only the technical competence required, but also the pedagogical skills required to teach and learn online. In some instances, lecturers appear to have simply replicated their hour-long lectures in the online environment, resulting in lack of student engagement. Lecturers in turn reported poor interaction from students, who were often reluctant to be seen on camera, and sometimes demonstrated an unwillingness to interact online even when invited to do so during class. This made it difficult for lecturers to identify and support students who may have been struggling, and appears to be a main motivator among staff calling for a return to fully in-person education. It is also clear that students do not necessarily have the prerequisite skills to learn online. The use of some agreed rules of engagement (perhaps in the form of a learner contract) could serve to overcome such difficulties in the future. Moreover, incentivisation of students by designing and rewarding class interaction and related activities could serve as a model for better student engagement, not only in the digital but also in the physical environment.

Lecture recording is a contentious issue, strongly supported by students but not universally liked by academic staff, primarily it would appear to be due to a belief that availability of recorded lectures has negatively impacted on campus attendance: policies surrounding the timing of release and subsequent availability of such recordings may help to allay staff fears, while the use of data analytics and the adaptation of strategies to encourage in-person attendance may prove a better compromise than a withdrawal of this service (which, it should be noted, is of immense value not only to students unable to attend classes, but also for students who have attended, as they are able to revisit specific parts of the recording to better understand the content, and to international students whose first language is not English). Pre-recording of lectures may serve to help student learning by using the flipped classroom model, encouraging a move from passivity in a lecture theatre to active discussion both online and in class, measured via readily available analytics from within the VLE to gauge participation and understanding. Fear of failure from the perspective of the lecturer and the

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student should be explicitly addressed: lecturers should be supported to become more digitally resilient, while students should learn the confidence that comes with digital literacy in their specific fields (and also more generally). Students and lecturers alike should be encouraged to foster a community of mutual respect and digital support, where learning is a social and engaging activity and failure is recognised as an opportunity to learn. In this way, both will be encouraged towards a greater contribution to society as leaders of positive change and models of good citizenship.

Assessment practices have similarly been among the most contentious issues for academia post-Covid. Reports from students and staff have pointed to dissatisfaction with assessment practices during lockdown, and the importance of academic integrity and plagiarism prevention are now a part of the daily conversation within academia. The arrival of ChatGPT has added to the general feeling of unease across the sector. Consequently, some lecturers are actively advocating a return to the traditional closed-book, time-limited, invigilated in-person examination. However, in general it is recognised that there is a need to rethink assessment and to align practices with real-world issues. The potential of teamwork and peer assessment are recognised as vital skills, while explicit problem-solving and developing associated troubleshooting skills are key to empowering students. There is an unprecedented opportunity at present to begin a conversation concerning better forms of assessment using the full potential of digital tools and data in a manner that will be more rewarding for staff and students alike.

Conclusion

Discussions concerning student engagement, assessment practices (specifically academic integrity), and how to respond to student expectations of continued flexibility in provision continue across our universities. Higher education institutions worldwide are currently

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attempting to come to terms with the experience of emergency remote teaching, and in many cases this has resulted in a broad return to the traditional classroom-based methods of teaching and learning. Academic staff described feelings of being overwhelmed and threatened by their experiences of online teaching during Covid. But the experiences of the pandemic were not all bad: for example, the move to online facilitated inclusivity for students with physical disabilities and also for those with anxiety and associated mental health issues (a growing cohort post-pandemic). Right now, however, many believe that the opportunity to discuss the nature and future of higher education itself, and specifically the role of digital education, is being lost.

Academic staff recognise that good teaching gets awarded, but good research gets rewarded. Mechanisms to recognise effective teaching using digital innovation could be explicitly built into the reward structure, and individuals who successfully do so could be further rewarded for mentoring and supporting colleagues (such rewards need not be monetary). Academic staff at our universities require support from management in the form of recognition of effort taken to improve and embrace effective teaching practices; support from professional staff (such as instructional designers) to effect such change in a practical manner; and support from colleagues to achieve a shared goal. Communities of practice should be encouraged at discipline level, and also interdisciplinary where possible. An understanding of how data can inform teaching and student learning should also be fostered among staff and students, and the necessity of creating a culture where a digital mindset is the default should be recognised. Empowering the entire community to understand how digital can enrich education is key to success. Ultimately, such digital transformation will not happen overnight, but it will be achieved when actively led and owned by staff members, and also by students.

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