Digital Transformation of LERU Universities during Corona Crisis Times
Survey findings, spring 2020.

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Introduction

This summary presents, in short, the findings from a questionnaire, which was sent to all universities who are member of League European Research Universities (LERU).[1] The authors are members of LERU Digital Education Thematic Group.

This questionnaire was sent out spring, 2020. The 'follow up' questionnaire is sent out to all LERU universities, fall 2020, and will be analyzed and findings published winter 2020-21.

In this summary we have focused on findings from the first questionnaire (Annex 1). In April 2020 questionnaire was sent to the LERU universities in which questions were raised about the digital transformation of the university that was triggered by the corona crisis. The target group was the management level, not the students and not the teachers.

Our purpose was to be able to monitor and analyze the most dramatic transformation of LERU universities in in recent times and share our findings.

The summary includes the responses received from 16 LERU universities.

Thematic approaches

The overall thematic perspective is parted in to three. We ask the universities about their experiences and approaches concerning Preparedness for emergency teaching, the experienced current Transformation, and last about their view on Impact and Foresight.

Each of the three thematic perspectives includes specific foci. Preparedness includes a technical, an organizational, an educational, and a strategic focus.

Transformation includes focus on documentation of decisions, a time horizon, a scale of transition and differences between programmes, a technology landscape, and the leading the digital transformation.
The third thematic perspective, Impact & Foresight, includes main concerns during first months, impact of crisis in the long run, and most important (remaining) long-term challenges of digital transformation.

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[1] University of Amsterdam • Universitat de Barcelona • University of Cambridge • University of Copenhagen • Trinity College Dublin • University of Edinburgh • University of Freiburg • Université de Genève • Universität Heidelberg • University of Helsinki • Universiteit Leiden • KU Leuven • Imperial College London • University College London • Lund University • University of Milan • Ludwig-Maximilians-Universität München • University of Oxford • Sorbonne University • Université Paris-Saclay • University of Strasbourg • Utrecht University • University of Zurich

Main questions

Confer Annex 1, the leading questions concerning Preparedness was: To what extent were the LERU universities prepared to this crisis (technical, organizational, strategical, and educational)?

The question: How are LERU universities leading this instantaneous digital transformation? was the leading for the thematic perspective, Transformation. For the third perspective, Impact & Foresight the question was: To what extent will the decisions that are being made right now impact our future education. Which decisions will be expected to become permanent and which ones will be temporal?

Main extract of survey findings

We present some main findings, which we consider as points that are worth dwell on.

First we look at concerns during first months of the corona crisis. The survey tells about inequality, where differences within student population may emerge as a consequence of differences in availability of technology, technical competency and access to digital resources. Another point is the experiences of delay in study progress. Some programmes are dependent on campus-based activities, like medicine, vet., dentistry, etc.

The condition for valid exams forms and exam completion in distance mode is an important issue, as well as the specific themes about fraud and proctoring.

Student and staff well-being is another theme the management level is explicit about the lack of well-being and sees that as a challenge. The social dimension is in play in different ways - as a concern and as a recognized challenge, specified by mentioning the vulnerable students and the importance of community building for new students

The overall response from the management level is that the transition went surprisingly well and ongoing. Completed pilot projects focusing on online teaching have proven to be very useful in the transition as inspiration and as support.

A crucial insight is, that technical tools are not enough, and the attention for didactical part is essential when redesigning courses into online. That presupposes a renewed attention on academic development, support to students and lecturers and a focus on communication and knowledge sharing.

Points concerning impact of this crisis in the long run includes innovative and creative approaches to the condition for organizing, structuring, and teaching formats and education core task in its broadest sense. Concrete the findings tells about the Corona crisis has helped to identify weak and strong components in higher education and made the need for an crisis strategy and a mutual agreement about a approach manifest.

Lots of experiences have been developed during spring 2020 with a numerous new educational practices implemented. To the continuously knowledge sharing it is suggested by the informants, that these should be identified, improved and facilitated, and scaled up. And at the same time, it is explicit that the attention for training academics and support is crucial for quality of higher education.

Finally, we present the management levels most important long-term challenges for digital transformation, as we interpret the answers.

Firstly we will point out, that the informants ask for maintaining momentum and avoid slipping back.

Secondly, the focus on the traditional tension between teaching vs research, which is aggravated this spring and staff is concerned that no time is left for research.

Thirdly, the pedagogical-didactical aspects of online teaching and learning deserve more attention.

The following points are also important and our approach is that these findings are mutually related. That goes also for the solutions for remote digital exams (fraud-, privacy-, and security proof), the opportunities of Augmented Virtual Reality, Artificial Intelligence, Learning Analytics, and the Academic development and staff training.

A more technical dimension is also worth paying attention to deals with the deep investments in technical infrastructure and the potential when thinking about alternatives for high tech companies from USA and China.

Last but not least, the informants among the management level at the LERU members focus on the need for European universities to invest in own IT infrastructure and collaboration platforms.

Concluding remarks

This short summary of the study in the spring of 2020 is intended as an opportunity to share knowledge and that this knowledge can contribute to the development and unfolding of university teaching environments and university education, with the knowledge that online education in the spring of 2020 has given us.

With the second questionnaire recently distributed, we will monitor and analyze the future expectations of university education and possible changes in strategic plans.

Questions concerning the Digital Transformation of LERU Universities in Corona Crisis Times

Introduction to the survey

As you can read in the accompanying message this survey has a twofold purpose:

1) Provide input for a LERU paper on digital education, along three main areas 'preparedness, 'transformation' and 'foresight'
2) To share practice/experience among LERU members

We realise you are all very busy at the moment, but it would be great if you could find some time to fill out this questionnaire. We would like to share all responses received among all LERU universities and hope you will benefit from the information provided by others, as they will from yours.

In case it is difficult to get precise figures or details, it would be great if you could give an estimate or a partial view on the situation. We realise that it might be too time consuming to get all details but it would even be valuable to get a limited insight on what is happening in your university.

1. **Preparedness**

   a. To what extent was the university **in general** prepared for such a large-scale digital transition? Are there differences between the central and decentral level (faculties and schools)? Are there differences between schools/groups, faculties, and disciplines? Please elaborate to what extend the university services, academic staff and students were prepared.

   b. **Technical/Infrastructural**; To what extent was the university prepared to respond to a crisis situation in terms of bandwidth, scaling up internet / VPN connections, access to critical data resources, security and privacy, learning platforms etc.?

   c. **Organizational**; e.g. What services do you have (if any), at the central and/or decentral level to stimulate, facilitate, and support online learning (for example centers for educational innovation, centers for online learning, Teaching and Learning Centers)?

   d. **Educational**; To what extent has the university been using (and/or experimenting with) online learning tools (incl. digital assessment) and online learning methods extensively

and already for a long time? Please elaborate on whether this was university-wide or limited to specific parts of the university.

    e. **Strategic**; e.g. Does the university have a vision and/or strategy on online learning? Is it made explicit in official documents, websites, or other publications? Did that strategy/vision foresee a response to crisis situations, like the corona crisis, in which the institution has to move to fully online education? Please enclose documents or refer to hyperlinks that can be looked at.

2. Transformation

    f. Are there any documents that set out the decisions that were made to move education online? If yes, and if not confidential, it would be great if you could send us a copy or a link to the document(s).

    g. For what period did your institution decided to offer online education?

    h. What percentage of teaching at your university is currently done online? Is there still offline education taking place? If yes, for what courses/programmes?

    i. What differences are there (if any) between disciplines or between bachelor and master students? Please elaborate.

    j. Which platform(s) do you use for online teaching? Please elaborate on possible differences between the platforms used for teaching large groups of students versus small groups, for webinars, etc.

    k. Did your institution decide to buy new online learning technologies/platforms because of the move to online education? If so, what did you buy and what was the main motivation?

    l. Which organizational entity/entities (central and/or decentral) is/are leading the transformation from offline tot online education?

3. Foresight

With foresight we mean that possible future implications are considered in current decisions to move education from offline to online. We raise the following questions.

m. What other concerns do you have for the next weeks/months? Do you face specific problems for specific groups of students, e.g. selecting medicine students for specialties, international students, etc.?

Note for the following questions

We are aware of the fact that it is early to answer these questions, but if you already have a sense of how the current situation might influence the future, that would be very welcome.

We will ask you to answer these questions a second time in a couple of months, so you can update your response.

n. What are the main lessons you have learnt from this crisis so far? What would you do differently if you would need to make the same transition e.g. in one-year time?

o. Do you have plans for doing things differently from now on (after this academic year), e.g. with regard to the training of academics/PhD students, investment in infrastructure, university strategy for blended or online learning, etc.? What do you expect the impact from this crisis will be on the university in the longer run?

p. What are the most important longer-term remaining challenges for the digital transition at your university (e.g. training, infrastructure, strategy, quality assurance, etc.)?