POLITECNICO
MILANO 1863

CHALMERS
STUDENTKÅR

TUDelft   vseth   AStA | RWTHAACHEN UNIVERSITY

IDEA LiStiC

Post-pandemic universities

Position Paper

Authors: Corentin Pfister, Vanessa Magloire, Stella Harper, Marco Guerini
Editor: Benjamin Witmer
February 22, 2021

Abstract

This position paper sheds light on students' positions in reference to the changes in the teaching and students' life of IDEA League universities that covid-19 has brought with it. Furthermore, it highlights our vision as students of what our universities should look like in the future and what we will need to focus more on to get there.

Contents

1   Introduction

During the year 2020, the COVID-19 crisis has changed almost every aspect of our lives and of our society. Through the increased need of economic and epidemic expertise for decision-making, the public became aware of the **importance of science and** of the **academic world**. On the other hand, higher education and the science community had to adapt quickly to new constraints related to social-distancing and home-office or home-study. At first, the focus was understandably on reacting quickly to new regulations and ensuring compliant university operation. However, as time passed by, more challenges arose. Especially the topic of the **student's well-being** became a huge concern. With teaching being held exclusively online, students have lost most **personal interaction** with their teachers and mentors. Also the contact with peers decreased dramatically, leading in some cases to social isolation and a feeling of loneliness. Furthermore, the uncertainties related to the pandemic and its consequences on the studies gave some students the **feeling of being lost**, both academically and personally. Even if similar difficulties have spread widely through society since the beginning of the pandemic, IDEALiStiC believes that the academically competitive environment typical for all five member universities of IDEA League and the thrive for academic excellence of their students tends to increase the extent of this phenomena and intensify its consequences. This is why IDEALiStiC decided to discuss the topic of student well-being during its conference in May 2020. During a workshop with student representatives and a panel discussion with the rectors or the vice-rectors for Education of the IDEA League member universities, best practises have been shared and innovative ideas have been gathered. An overview of the conclusions can be found in the conference report [1].

As of the time of writing (February 2021), the challenges discussed in May have increased, reaching a critical extent. The universities need to act urgently in order to prevent a dramatic and unprecedented rise in drop-outs and mental illnesses. Not only the difficulties in regard to the social dimension became an urgent matter, but also the challenges linked with digital lectures lead to an increase in discussions about teaching. Some lecturers began to question what they took for granted before the pandemic and started to think about innovations in teaching. Some professors even talked about keeping some new computer-based tools or pedagogic methods for their lectures in the post-pandemic period. In this context, it is however very important to keep in mind that **lectures are only one aspect of the student learning process at universities.** Experiences made outside of classrooms are of crucial importance for students to acquire personal, social and methodic competencies and should not be forgotten in the debate on how university is going to look like once the COVID-19 crisis has ended. To address these questions and bring the student perspective into the debate, IDEALiStiC decided to use its conference conducted in December 2021 for discussing this topic. Further

information can be found in the conference report [2].

In the following, we would like first to share our vision of the student experience at a leading European technical university in the future. Secondly, we would like to comment on how this vision should be achieved and mention which innovations that arose during the pandemic should be further developed and which aspects should not.

2 Vision

During the pandemic, online lectures have been conducted in all five IDEA League member universities. In almost every course, the lecture material has been at least partially covered, students got new knowledge and could advance in their curricula. However, something was still missing and it became more apparent than ever that **university is not only a place where knowledge is transferred from professors to students.** Far more than that, IDEALiStiC representatives strongly believe that **studying should be an experience and a journey**, during which tomorrow's leaders can grow up personally and professionally in a culturally and intellectually diverse environment.

In our vision of the university journey, **campus life** is necessary. It is the basis for exchange and it enables true interpersonal interactions as well as community feeling and social life. On the other hand, pure knowledge-transfer based activities can still be conducted online, at least in part, while leaving more space for interactive education in the classroom. With regard to knowledge-transfer, lecturers can **continue using the innovative IT tools** that emerged during the pandemic such as the video-conferencing software zoom. Frontal lectures could even be recorded and uploaded to a server. However, tutorial sessions, project presentations, seminars and office hours should be conducted **on campus** with both students and assistants or professors attending on-site. During these activities, on-site attending is a condition for students to be inspired by professors and for professors to be challenged by students. On-site presence can also be beneficial for exam preparation, since group study is more efficient and for most students also more motivating. During the lockdown, we remarked that a lot of students left the university city to go back to the place they grew up. In our opinion, this isn't a sustainable option. On the other hand, **universities should make sure that students feel as part of the university community and want to stay in the city of their community.**

An important part of the future university experience should be **extra-curricular activities.** These activities should be promoted and encouraged by the universities. On the one hand, universities should design their curricula so that it leaves time to students to also pursue less academic activities they are passionate about, such as sports, music, theater, fine arts, politics or community service. On the one hand, this requires limiting the amount of knowledge transfer aimed by lectures to a minimum. On the other hand, universities should not require students to attend purely knowledge acquisition activities during a fixed time slot, allowing more flexibility for organizing extra-curricular activities. This could be achieved through uploading lecture recordings, as this was done during the pandemic.

Another important aspect of the journey of the future university student is **personalised education.** In IDEALiStiC opinion, a university is a place, where the potential of every single student is valued. Education should therefore be more individual and adapted to the needs of every student. The most important change in this regard is to allow for more free choices in the curricula, for instance in offering more elective subjects and less mandatory core courses. Furthermore, having more seminars or tutorial classes in **small groups** can contribute to assistants being able to engage in subtopics that students are particularly interested or skilled in. Project-based learning is another way of personalising education. Here also, we note the necessity to reduce the amount of lectures and flexibilize the knowledge transfer process. This is a condition for allowing students to build their individual path following their talents and passions.

During the 2020 pandemic, international student mobility decreased and exchange semesters abroad were often canceled. A lot of international research conferences and congresses also had to be canceled or postponed. However, some conferences have been conducted online, sometimes allowing students to take part for free. In the future, **it is crucial that the amount of student exchanges on-site come back at least to the pre-pandemic level** due to the importance of international experience and the high value of multicultural sensitivity for personal development and professional skills. However, it is also worth thinking about how students, who are currently staying in the city, where their home university is located, can **benefit from digitalisation for gaining international experience**. In this matter, a network like the IDEA League can be very valuable. Some ideas on this topic can be found in the IDEALiStiC paper on OCW [3]. Nevertheless, not only interculturality is a necessity for science and education, but also all other characteristics of a diverse environment are fundamental for an inclusive future academic world. As innovation grows from diversity, we need universities to strongly support underrepresented and underprivileged minority groups. Despite the added value they bring to the academic community, it was noticeable during the pandemic that students belonging to such minorities are over-proportionally affected by negative events and therefore academic leaders should find solutions on how to prevent negative effects of unforeseen events on their academic success and their well-being.

To sum up, the student journey of the future should be **education at 360 degrees**, featuring a campus with a strong community feeling, flexible and personalised education as well as deep interactions in an international, multicultural and intellectual diverse environment, where everyone is valued for who he or she is.

3 Approaches

In order to respond to these different aspects, which influence and shape our education, there is not only a single recipe to follow. Through the interplay of different approaches a healthy and sustainable educational environment can be maintained or further improved.

3.1 Innovations in teaching

The first question this paper poses is: how can we keep using **"digital teaching"** in the future while continuing to pursue the goal we have illustrated in our vision? Although digital learning opens new possibilities and promotes flexibility, it should not fully replace in-person teaching. As already mentioned above, the on-site contact is an important aspect and crucial for the student body as the Interaction in the classroom are very important, promote exchange between the students and counteracts the issues of isolation. The benefits gained from online teaching shall therefore continue in new forms. For example, we believe that many efforts should focus on **blended learning**, a teaching that consists of a set of tools and formats (moodle, chat, zoom, presence etc.) because the combination of digital and on-site teaching creates a sustainable balance. Especially in regards to remote teaching, open communication is of great importance, in order to clearly communicate expectations and if necessary make adjustments. As we will discuss at a later point in relation to life on campus, in blended learning the time spent on teaching becomes even more decisive. This methodology can enhance both the distance part for the content and the presence part for the depth of the relationship in both student and teacher if the presence part is faced in **smaller groups**. Smaller groups in **projects and practical lectures** improve not only the personal contact but allow for better individual attention through closer supervision. In addition, the theoretical part can be better understood through application and promotes a deeper understanding of the topics.

Another great discovery of last year has been **recorded lectures**. They are a great added value, because among other things recordings make it easier for the students to manage their time more flexibly. We should move towards a student-oriented personification of teaching, at least in part of the education as we believe that face-to-face training is a fundamental part of the training itself. People need other people and a mix and match of digital and physical meetups is crucial for integration of all. For example, in addition to blended learning, some lectures could be held in the classroom with those who choose to be there, but additionally have it be broadcasted live and recorded, while other lessons, such as laboratories or practical courses that cannot be broadcasted live nor recorded will consequently need to be visited by students. The concept of front-class-lectures should be rethought in this framework of change. A benefit in the change that the pandemic brought with it, is the fast pace momentum that should be

used to create sustainable teaching processes and structures.

If each teacher can bring his or her own personality and individuality into the classroom, this not only motivates the teacher, it automatically has a positive effect on the students. This is why we are also proposing to focus on an **individual design of lessons.**

As we highlighted that lectures and education in general shall be constantly reviewed with new tools, in order to motivate change in the way teaching has been done up until recently, time and resources are needed to motivate and implement new developments and innovation. A **department or institute for education** will have the resources to professionally elaborate and support and promote this development. Lecturers should not only be evaluated by students, but also by peers or members of the institute for education, who can formulate recommendations on how to innovate in teaching methods and report to the university and faculty bodies. The staff of the institute for education should be widespread among the faculties and the courses, as well as it should be able to teach the lecturers how to use new tools, and to keep pushing them to experiment more in regards to teaching. A short but also key concept that should be mentioned is that while a single teaching has to be reviewed - and as previously mentioned, this should happen constantly - students of a specific teacher/lecturer should be involved in the process more. Many times, student representatives or even students not involved in representation of a single teaching can be very useful to understand what has worked well and what hasn't. Therefore we advocate that teachers will use new online or physical tools to **involve the students more in the reviewing process.**

Due to remote teaching the interaction and exchange between the universities can be realized more easily, and also make it easier for students to attend lectures, classes and presentations at other universities. This makes us believe that it would create an even greater **cooperation between our universities** in regard to sharing content and know-how online. Through this we can aim to realize common goals within universities.

3.2 Campus Life

As described above, our vision of the post-pandemic university includes students having strong interactions with both lecturers and fellow students. During the lockdowns, most students have noticed that social life in the digital world instead of on campus is not the same and that the new video-conferencing platforms are not suitable for keeping social contacts. Students attending lectures on zoom1 the entire day usually are not motivated by the perspective of spending their evenings in front of their laptop taking part in extracurricular activities on skype1 or chatting with their friends on discord1. This results in students neglecting their social life as many consider lectures as more important. This is one of the reasons why universities should pay special attention to actively supporting students coming back to campus, as soon as the national or regional public health regulations make it possible again. In the following, we describe some ideas how this endeavour could practically look like and emphasize important aspects of social life, which have been taken for granted before the pandemic.

First, social interactions are easier in **small groups.** For most students, it is far more challenging to make friends in a lecture with more than thousand other people attending such as the freshers mechanical engineering classes at RWTH Aachen, than in smaller classes. This is especially an issue for first-years bachelor students, which are used to high-school classes with less than 30 school students and a teacher. Some come from another province or even from abroad and have to acclimate (in some cases for the first time in their lives) to another environment. In this context, too big classes can be very overwhelming and sometimes unbearable. This phenomena is particularly pronounced in IDEA League member universities which have a large number of interregional students and very few students from continental Europe who attend boarding schools before university. During the pandemic, ETH Zurich introduced **the "bubble" concept**, in which first-year students of one single major have been divided into several smaller groups of 25 or 30 students. All students attended the lectures together online, whereas they attended the exercise classes and the labs in these small groups. This policy has been developed in an attempt to limit the virus transmission, but had the beneficial effect of fostering the development of friendships during the first weeks of school. IDEALiStiC wants to suggest universities to consider introducing similar concepts also after the end of the pandemic. At TU Delft, a faculty based **mentoring program** enables first-year students (mentees) to meet older students (mentors) in small groups. As the students of the same small mentoring group meet again during the lecture, these activities foster the development of bounds between students of the same mentoring group. It is therefore a precious tool not only for its primary purpose, but also for facilitating the integration of new students in the university community and could be considered by other universities after the pandemic.

During the pandemic, the online space proved to be a bad place for social gatherings and creative sessions, leading to less innovative ideas. Also on campus, some places are better suited for **get-together** or **group study** than old and dark library reading rooms or lecture halls. It became more apparent than ever that a lot of students cannot be creative at home due to external circumstances. Therefore, universities should be aware that the urban environment on campus is an important detail to look at and that providing **sufficient and adapted student working desks** is highly beneficial for innovation. Also, **community rooms** for student associations are crucial for the student-well being. IDEALiStiC is aware that new buildings are expensive, however, we are still convinced that building inspiring big and modern student centres as the one in Chalmers University of Technology, will pay off long-term.

Related to the differences between the digital and the physical university operation, spontaneous coffee breaks and the event of bumping into an acquaintance by chance unfortunately drastically reduced over the last year. This is highly misfortunate, as these small and unprompted gatherings contributed a lot to expanding the students horizon, as they more often occur with people of another cultural or academic background than planned events. Universities have to be aware of the importance of these **spontaneous meetings** and take this fact into consideration when planning the return to presencial operation.

Another part of the university life, which has been taken for granted before the pandemic, is everything linked with student associations and student clubs, ranging from events to academic services for the students. The regulations to limit the virus transmission hindered some **student clubs** to operate, especially the ones focusing on events. As a consequence, they could only partly assume their role of facilitating the integration of new students in their community. As the student associations rely in most cases on voluntary work, the quest for prospective successors of current members will be difficult. With this regard, IDEALiStiC appels to universities to recognise **student engagement and extracurricular activities** as an important part of the university of the future and to communicate their value broadly and unambiguously, not only to further students, but also to the civil society and potential employers of graduates. Also, it is important to provide students clubs with the possibility of booking enough adapted rooms on campus for ensuring their operation and enough financial help for ensuring that all students can take part in these activities independently of their social and economic background.

As previously mentioned, **video-conferencing softwares** are hardly suitable for social gatherings, especially not for big groups, and especially not after a whole day spent looking at a computer screen. However, they still could be used after the pandemic for keeping in touch with international acquaintances or building inter-university networks related to some academic or extra-academic interests. In IDEALiStiC perspective, it could be a chance to use the digital space for further fostering exchange opportunities within students from different places in continental Europe and IDEA League could take a pioneering role in this matter. The success of this endeavor would however involve giving decreasing video conference usage in other contexts, especially within the local community, where on-site events are anyways more valuable. Also, this use of video-conferencing tools for international exchange can only be successful if used complementary higher-value meetings during physical gatherings.

Last but not least, one of the most important learnings of the pandemic is unquestionably the importance of topics connected to the promotion of **mental health** and the value of being psychologically healthy. All students of IDEA League members universities strive for academic excellence and make tremendous efforts everyday to be prepared to be under the best individuals worldwide in their academic field. A drawback of this competitive environment is the high pressure students face and the potential related to mental health issues. During the pandemic, mental health dramatically deteriorated for everyone in society. A study conducted in Switzerland by Prof. Dr. Dominique de Quervain et. al. [4] showed that the part of Swiss inhabitants with severe depressive symptoms continually increased during the pandemic starting from 3% before the pandemic and reaching 18% in November 2020. Young people aged from 14 to 24 years are particularly affected with 29% of them suffering from severe depressive symptoms in November 2020. No general study focused on stress levels of IDEA League students, but we are afraid that the proportion of IDEA League students suffering from depression could be much higher than in society, due to the highly competitive and intellectually challenging environment. Therefore, it is absolutely crucial that IDEA League member universities take strong measurements quickly to reduce the number of depressions among their students. For the IDEALiStiC representatives, one of the most important measurements is to check that the actual amount of study time required by the different courses corresponds to the theoretical one as indicated by the ECTS. Due to the extent and the intensity of the problem, measurements for mental health have to be considered as the one main priority of the universities for the next few months. Furthermore, universities should switch to university operation in full or part presence, as soon as the provincial or national health regulations make it possible. Moreover, universities should actively lobby for the end of the social distancing policies, to the extent that the health care system allows, which hinder them in operating properly and cause mental health troubles in their student bodies. Moreover, nobody can expect mental health issues to disappear with the end of the pandemic. As a consequence, universities should work towards providing

a safe and healthy study environment to their students also after the end of the pandemic. One of the only positive aspects of the pandemic is the increased awareness of members of decision-making bodies, such as the school boards for matters related to mental health. IDEALiStiC wants to stress that: it is very important not to forget these learnings after the end of the pandemic in order to build a future university, where students are mentally healthier than before.

3.3 International students

During the pandemic, international travel decreased a lot due to restrictions in the visa issuements, border closure or quarantaine regulations. Current international degree-seeking students therefore were faced with the decision on staying in the country they study in or going back to the place where they grew up. Prospective international degree-seeking students had in many cases to delay the start of their studies and exchanges were cancelled. Furthermore, it was impossible for most **international students** arriving in a new country in a state of emergency to build up a network of friends or to integrate into an existing community, leading to **social isolation.** After the end of the pandemic, universities have to proactively make sure that these students can feel part of the local community.

First, it is important to **assist international students financially** if they can not support themselves by their own means. Especially since an economic crisis will (most probably) hit some parts of the world more extensively than western Europe, students from these countries are particularly vulnerable. Furthermore, international students will need even more assistance with regard to **housing** as they did before. As the social integration of students arriving during the pandemic will be challenging even after its end, it is crucial to offer every single one of them the possibility to live in the city where the university is located in order to avoid them having to spend time for commuting, which could have been used for socialising or studying instead. This can be achieved by the universities supporting the creation of new student residences or concluding agreements with local authorities, foundations or householders for sponsored rents for vulnerable students.

Even more importantly, **social integration** has to be assisted by universities actively. Useful measurements for facilitating their involvement in the local community include orientation weeks, in which not only administrative matters are covered, but also **cultural aspects.** Some social or leisure activities should also be planned in order for the international to be able to know each other better in a less formal context. Furthermore, it is very important to include the international students that arrived during the pandemic in these orientation sessions, as they potentially still feel lost, and that online orientation sessions do not have the same added

value. Another beneficial measure would be the organisation of a buddy system with matching new international students (including the ones that arrived during the pandemic) with more experienced international students or with local students, potentially with local students enrolled in the same year and/or in the same major. Different activities, academic or extra-academic could be organised by universities having this target public in mind. Some online or on-site forums could also be organised by universities for the international students to find answers more easily to their questions. Last but not least, all academic leaders should keep in mind that international students are in the same vulnerable situation as freshers and therefore also require as much attention as first-year bachelor students.

Another topic of concern is the possible decrease in the numbers of exchange students, leading to a less international environment. This is a risk universities have to be aware of and should investigate if it occurs. In this case, some measurements should be taken for **boosting exchanges** and bringing them back to the pre-pandemic level. These measurements could include attracting erasmus students by concluding agreements with authorities to pay interrail fees for them or relax academic related prerequisites for taking part in an exchange programme. In the opinion of IDEALiStiC, boosting exchange could also include **promoting the IDEA League network** and offering special experiences for students going in exchange to another IDEA League member university.

4   Conclusions

In this position paper, IDEALiStiC first introduces (in chapter 2) how the pandemic affects the students and what can be learnt from this special situation from a student perspective. We continue with an elaboration of our vision (chapter 3) of the "University of the Future" that IDE-ALiStiC representatives developed during the 2020-2 IDEALiStiC conference. This vision can be best summarised as a university full of personal interactions, an inclusive academic environment and an education based on the integration of extra-curricular activities and on innovative, personalised and flexible teaching methods. Based on this vision and on the learnings out of the pandemic, concrete suggestions for measurements have been introduced in chapter 4, especially focusing on teaching innovations, campus life and international students. We hope that academic leaders can be inspired by our vision and challenged by some of these suggestions to think already today about possible ways of making the education world of tomorrow even better than it was before the pandemic.

5   References

[1]: Stella Harper, Marco Guerini and Benjamin Witmer (2020), Long Report of the IDEALiStiC Online Conference 2020-1, last accessed online on 2020 Nov. 23rd at `https://idealistic.eu/wp-content/uploads/2021/02/Long_report_of_the_IDEALiStiC_Conference_2020_1.pdf`.

[2]: Stella Harper, Marco Guerini and Benjamin Witmer (2021), Long Report of the IDEALiStiC Online Conference 2020-2, last accessed online on 2021 Feb. 22nd at `https://idealistic.eu/wp-content/uploads/2021/02/Final_Report_Conference_December_2020.pdf`.

[3]: IDEALiStiC (2011), Introduction of OpenCourseWare (OCW) to the IDEA League Universities, last accessed online on 2021 Feb. 20th at `https://idealistic.eu/wp-content/uploads/2014/01/IDEALiSTIC-2011-12-17-Open-courseware.pdf`.

[4]: Dominique de Quervain et. al. (2020), The Swiss Corona Stress Study: second pandemic wave, OFS Preprint, doi:`https://osf.io/6cseh/`, Preprint.