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Izabela Mironowicz & Martina Schretzenmayr

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Is This Distance Teaching Planning That Bad?

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Abstract: In spring 2020, university courses were moved into the virtual space due to the Covid-19 lockdown. In this paper, we use experience from courses at Gdańsk University of Technology and ETH Zurich to identify core problems in distance teaching planning and to discuss what to do and what not to do in teaching planning after the pandemic. We conclude that we will not return to the state of (teaching) affairs that we had previously. The availability of recordings of lectures and videos, de-localisation of both students and teachers, the experience of spatio-temporal autonomy will lead to new forms of teaching as both students and teachers experienced some aspects of remote teaching even more efficient than real-world teaching. On the other hand, remote teaching of elements of learning that required interaction, e.g. group and studio work, brainstorming, discussion to foster critical thinking, cannot replace the real experience of the classroom.

Is this distance teaching planning that bad?

Well … , yes, it is.

There are, however, lessons we need to learn and improvements we could introduce into our standard pedagogies that are direct results of this much-hated remote teaching.

Klaus Kunzmann (2012), when proposing the name of AESOP to the Association of European Schools of Planning, was bearing in mind that this Greek philosopher and story-teller "wrote popular fables *(aesopica)*, which we would call narratives today, where he made use of humble incidents to teach great truths, and after serving up a story he adds to it the advice to do a thing or not to do it (Appolonius of Tyana)."

Thus, we would like to take this opportunity to use "the humble incident" of the Covid-19 pandemic to advise what to do and what not to do in teaching planning, when we (if we) begin teaching anew …

Introduction

The discussion on the incorporation of new technologies into teaching planning is certainly not novel. The use of computer-based tools in planning can easily be traced back to the late 1950s (see, for example, Hamburg, Creighton 1959), when the fascination of the potentialities of the first large-scale urban models animated discussion within the planning environment in the US and Europe. At the time, the use of these models was limited by the computing capacity of the hardware, thus, typically the students (the majority of which were studying transportation planning) knew the structure of the models, while the implementation had to be simplified because of the available technology. Additionally, these modelling tools were not present in the majority of planning curricula. Batty (1991) argues that "a concern for large-scale thinking and modelling in the 1960s has turned into much more pragmatic uses of computers for routine functions such as office automation and development control in the 1980s". This, of course, influenced the way the digital tools were implemented into planning education during that period. The universities embedded analytical (typically GIS) and design software into their standard curricula. This is one part of history though. Another is linked to distance learning, which is not the invention of the 21st century, either – take, as an example, corresponding courses, which were already available in the mid-19th century (see Moore, Kearsley 1996). Coupling the concept of distance learning with computer and telecommunication technologies created the environment in which 'traditional' teaching and studying were able to melt into a new substance. This process started gradually, using different instruments: email, websites, video conferencing or the cloud, before integrating them into the virtual teaching environment.

At the beginning of the 21st century, Godschalk and Lacey (2001: 476) defined distance education as "a process of teaching and learning that relies on (1) a mode of delivery that is available anytime and anywhere to suit the needs of individual students, (2) selective use of communication tools to facilitate self-learning as well as group learning experiences, and (3) collaborative learning approaches that encourage student-to-student and faculty-to-student interaction." This clearly marks a different approach. Not only the new technologies, be they software or hardware, are used at and by the university, but they are actually becoming important ped-

Martina Schretzenmayr, PhD, is a Lecturer at the Institute for Spatial and Landscape Development, Department of Civil, Environmental and Geomatic Engineering at ETH Zurich (Switzerland). Trained as a geographer and planner her research interest focuses on urban transformation, planning history, participatory planning and community involvement as well as planning pedagogy. She organizes multimedia exhibitions that address the public and involve planning students to build their capacity to communicate.

Izabela Mironowicz is professor at the Faculty of Architecture at Gdańsk University of Technology. Trained as an architect and planner in her research she focuses on urban transformation and the dynamics of cities, including their adaptation to changing environment. She is one of the prominent European experts on planning education. Thanks to her proficiency in planning legal frameworks she advises both public authorities and private sector. She is involved in cooperation with European institutions and was Secretary General of AESOP from 2011 until 2015.

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agogical methods themselves. 'Anytime' availability and ultimate detachment from the physical space make this a major difference.

It is already two decades since this modern distance education in planning was first offered to students, including online degrees (Godschalk, Lacey 2001; Willson 2000; Evans-Cowley 2014). These distance courses were probably more popular in the US and UK than in continental Europe. This could be explained by the different traditions of teaching planning, and may also have something to do with the more commercial approach to higher education in these countries than in continental Europe. On the other hand, both the US and the UK have more flexible attitudes to studies, especially at the Master's level, and offer a greater variety of degrees or specialisations (Frank, Mironowicz et al. 2014), thus they are, in a sense, more open to teaching experiments.

Some of the tools used at the beginning of the period of distance education in planning seem old-fashioned (uncool perhaps?) both to educators and students today and not really useful. Today, the learning toolkit needs to offer linkage to mobile apps and social media, online gaming and augmented reality (Evans-Cowley 2014). The question as to whether and how it enhances the quality of planning education should be asked in this context. What kind of new opportunities does it create? What are the main limitations of remote teaching and learning?

It is, of course, not true that planning education was separated from the elements of distance teaching/learning. This probably was one of the most important reasons why we managed to switch so quickly and so smoothly into remote teaching, although, at the beginning of the first lockdown in spring 2020, universities were not technically prepared to move their entire teaching functions into the virtual space. However, probably all of them, at least judging by European cases, were offering (their own) platforms for e-courses before the onset of the pandemic. Typically, the IT departments needed to adjust the systems to provide enough capacity for all the courses that were offered by the university. This caused some (minor) technical problems, especially for the big institutions (Hughes et al. 2020). They were, though, not essential, in the sense that the tools for distance teaching/learning were inaccessible for academics or students.

The challenge lay in the fact that, suddenly, all courses were moved into the virtual space and, additionally, at the beginning of the lockdown, for an unknown period of time. Furthermore, the change was rapid and unexpected. This turn evoked 'survival strategies' aimed at waiting out disturbances. Hence, in spring 2020, the majority of us tried to implement emergency measures, trying to perform online in the way we used to perform on campus (Milman 2020). We also hoped that, if our remote teaching did not deliver the expected learning outcomes, we would be able to compensate for any shortcomings in students' skills and/or knowledge when 'everything returns to the normal'. And this 'normal' was expected anytime soon.

Today, however, we are already in a different reality. We are about to begin the third semester, thus the second year, of distance teaching (with a short period of hybrid teaching), and perhaps this is a good moment to sum up what we have learnt during this time.

In this paper, we will try to sketch the few figures that make up the fuzzy picture of planning education in the future that we can extract from twelve months of our teaching experience. Thus, the aim of this paper is twofold. First, we would like to reflect on the online teaching/learning experience in planning, taking into account perspectives of both students and academics. Second, we would like to discuss how this remote teaching experience could impact our traditional teaching. In other words, what kind of innovations could be effectively and successfully transferred to 'normal' pedagogic practices in the future and what should only be provided in the form of face-to-face teaching.

In this paper, we use our own experience of distance teaching structured around the core problems that we identified in the course of this process. Both Gdańsk University of Technology and ETH Zurich offered their courses in a synchronous mode, sticking to the usual timetable.

In Switzerland, in addition to synchronous classes, asynchronous classes also had to be offered because many students had to join the military forces to support medical staff to fight the pandemic. In order to enable these students to follow their classes and offer them the opportunity to catch up by means of self-study, a video of every lecture had to be offered. These videos could also be used (and were used) by the rest of the students. Asynchronous classes were typically in the form of a 'lecture in a tin', be it recorded during the synchronous session or produced independently. In Poland, there were no military obligations for the students, and thus, in planning programmes, synchronous lectures were more popular. As a complementary material, typically a presentation was made available

to the students. Additionally, lectures available on the internet were advised for students as complementary materials.

In addition to the experiences we had with our own courses, we interviewed our colleagues from different European countries in order to get a better understanding of the situation and put our own experience in a wider context. Building on this, we were able to propose initial generalisations of our observations and conclusions.

It is important to bear in mind that for the majority, if not all, of our students, remote learning was/is a new experience, too. Although online degrees in planning were offered before the pandemic, especially in the US (Evans-Cowley 2018) and UK (Sheppard 2021), in continental Europe, planning was considered to be one of the programmes that require personal interaction, primarily because of the content of the curricula (see, for example, Frank, Mironowicz et al. 2014). In the case of Poland, where the Master's degree in planning takes three semesters (following seven semesters of the Bachelor's degree), this will be the very first experience of an (unintended) online degree.

We need to remember that, if the students are currently demonstrating their abilities in adaptation and cooperation within this new framework, this is probably because of their previous experience of working together and being familiar with the academic environment.

We are well aware that the pandemic experience is changing and will change planning practices in the future (see, for example, Ciesielski 2021). This, in turn, will certainly impact planning education. It is too early, however, to discuss these interdependencies. Both planning practice and planning education are operating, at least in Europe, in 'emergency mode' and departments are currently experimenting with what could or might not work, now and in the future. Therefore, this question, however important, remains open for elaboration and discussion in the future.

In this paper, we address different forms of teaching and discuss their development throughout the pandemic and the possible results of this in the future. We analyse typical pedagogies used while teaching online, aiming to identify both positive and negative effects. We start with the lectures, which seem to be the most suited to be transferred to remote education; we then move towards the question of how to teach critical thinking and practical skills, which are so essential in planning, while teaching online. We also discuss the way the exams and presentations of the Bachelor's and Master's theses can work in remote mode. Finally, we formulate a few conclusions for future teaching. There is a lot of ambiguity in what we examine, as well as in our conclusions.

From lecturing to the film industry: the show must go on …

Before the pandemic, many of us were watching lectures online. Public lectures by distinguished academics have been produced by universities, institutions and organisations such as TED (www.ted.com), the BBC (www.bbc.co.uk/programmes/b00729d9) and UN-Habitat (https://unhabitat.org/knowledge/global-urban-lectures). The latter, called Global Urban Lectures, are dedicated to the questions that are at the centre of the planning discipline. These materials typically meet very high professional standards in documentary production. They typically address a wider audience than just the planning community. As early as 2011, to celebrate its silver jubilee, the Association of European Schools of Planning (AESOP) introduced a Lecture Series, both live-streamed and publicly available as a video on the association's website. This has been, however, from the very beginning, a real event in a particular place with a real audience and interaction between the lecturer and the attendees. So were most of the above-mentioned lectures, with the exception of the UN-Habitat production. Thus, the very nature of the lecture – interaction between the speaker and audience – was only extended into the virtual space. Many of us recommended students to watch specific videos (often from the collection mentioned above) as complementary materials, along with the reading list and participation in real live lectures.

There were (and probably still are) universities accepting so many students, especially for the first year, that they did/do not have lecture halls big enough to accommodate all of them and, thus, offered those who did not manage to find a place in it, a 'watching room' where the lecture was streamed live. This typically was not the experience of planners, but colleagues from business or law schools were quite used to these kinds of practices.

Both academics and students were quite familiar with these remote forms of activities. Webinars and MOOCs were well embedded within academia and in the professional environment.

Finally, during the course of the last decade, recording of the important sessions at confer-

ences has become almost standard academic practice (Brooks, Pomerantz 2017).

Thus, the tools and practices were already well established when the virus disturbed the functioning of the academic world.

Despite this context, which ensured that, technically speaking, distance lecturing was the easiest kind of pedagogy at hand, the question needs to be raised as to whether both sides – students and teachers – were equally prepared to make use of it and what they expected from this tool. Furthermore, there is the question of whether they achieved what they wanted to give and what they wanted to get.

In a more technical sense, there are two types of lecturing outside the classroom: remote synchronous classes and asynchronous classes (i.e., video available on a university or public platform). The former was the first choice at the beginning, because the latter require preparation in advance.

The standard (remote, of course!) interviews of the students conducted after each course at Gdańsk University of Technology proved that synchronous courses organise students' daily and weekly schedule and also force them to make an effort in a more systematic way. A regular pattern embedded in daily practices was seen as helpful during the self-organised studies. A synchronous remote lecture, which is not recorded, can discipline students to attend it more regularly and be better prepared because there will be no other chance to do so. It also forces students more explicitly to make their own notes, although they typically ask for the presentation used during the lecture, too. This approach, represented by quite a few colleagues, can be surprisingly efficient and also appreciated by the students. Though both synchronous and asynchronous classes had to be offered at ETH Zurich, many students choose to attend the synchronous class because it helped them organise themselves within the weekly timetable and prevented them from backlogs that tend to arise when following all their classes in an asynchronous mode.

There are five main differences between lectures given physically in the lecture hall and remote lectures that have quite an impact on distance teaching. First, in contrast to 'real' lectures, during synchronous, but remote lectures, the lecturer cannot be aware of the audience's 'mood' as he or she usually can in the lecture hall. Is the audience bored, did the audience lose their attention? While in synchronous classes a lecturers' means of real-time reaction on students' degree of attention and questions is very limited, it is completely missing in asynchronous classes. Second, students can escape more easily from a remote lecture than from the lecture hall, as soon as they feel bored. They just leave the online meeting. Third, during remote teaching, no one will notice when a student is busy with activities not related to the lecture, such as reading, checking email or gaming. Forth, thanks to mobile devices, students can 'attend' the remote lecture while walking the dog, shopping or cycling. Finally, there is no interaction between students during the remote lecture. In the classroom, students can communicate with their colleagues if they are losing connection to the narrative or topic of the lecture, or are getting bored or do not understand. Typically, this encourages at least one of the students to interrupt and ask the question. They feel the support of their fellow students in this action. This, of course, does not happen in a virtual class. The chat function offered by the different video conferencing tools does not help, either, because it is difficult for a lecturer to check the chat for questions while teaching. Even if the questions in the chat are checked during a break and answered after the break, this still means that questions are not answered as they come up. As a result, the inhibition threshold to 'escape' or stay busy with other activities drops compared to 'real' lectures. In both cases, students are not reached by the teaching. On the other hand, for the teacher, 'talking to the computer' and not being able to follow and sense the reaction of the students is difficult, too. Concentration also drops on the side of the lecturers. Only they cannot 'escape'.

Comparing synchronous classes (remote teaching) and asynchronous classes ('lectures in a tin') the latter can be followed non-sequentially, i.e., students can both fast-forward or rewind the video. This means students can skip parts of the recording/video or play the recorded lecture at a higher speed (which students do as well). The latter is often done because the lecturer speaks slowly and/or pauses very often. As a result, the main message the lecturer intends to deliver might be missed by the student. This decreases the overall quality of teaching. At the same time, students at ETH Zurich reported that non-sequential use of recorded lectures or videos can also enhance the quality of teaching, as it offers the opportunity to rewind and re-watch parts of a video that a student has not fully understood in the first instance. From students' feedback, we know that

all types of non-sequential use of recorded lectures are common: rewinding, fast-forwarding/skipping and fast mode.

The autumn term at ETH Zurich started in a hybrid mode, i.e., whenever possible, lectures had to be given in the lecture hall with students attending them (while following the rules of social distancing). For students who could not attend physically due to Covid-19-related military service, quarantine, or because they belonged to an at-risk group, lectures had to be offered for asynchronous use in addition. As not all university rooms were equipped with recording devices at that time, the recording of the author's lecture series on the History of Spatial Planning proved to be very difficult. Results for recording a 'fake lecture' without any audience at all before or after the 'real lecture' were not promising, therefore, the decision was made to start an experiment, i.e., to produce videos by combining recorded voice and a mixture of slides, images, historical audio and video documents related to the lecture's topic, and short video clips from case-study sites. This process to produce the required asynchronous classes proved to be very time-consuming, but as students appreciated the results and the videos can be used for upcoming course as well, the experiment seemed worth finalising – even when lectures had to be moved from hall to internet after a couple of weeks. Anonymous feedback from students at the end of the semester was as follows: "The lecture videos are great because you also got a good visual reference to the material." "I could rewatch the whole lecture at my speed if I liked." "The recordings make it possible to stop and go back and forth. This helps to get more information from one lecture." "Watching the lecture was interesting as other media then just slides were included in the video." "The videos were entertaining and therefore I enjoyed watching them."

Part of the experiment that started in autumn 2020 was to try to find answers as to how to deal with student behaviour that is typical for asynchronous classes (behaviour that soon became obvious from their early feedback during the first lockdown in spring 2020): skipping, fast-forwarding or escaping. Based on the experiment, we will discuss how these challenges to remote teaching could be addressed in general and in planning classes more specifically.

The first crucial point to prevent skipping and fast mode, which is reported in the literature, is that recorded lectures and videos require, as a rule, higher information density in order to keep students watching the lecture and prevent fast-forwarding. Choe (2019: 10) emphases the need to "ensure good pacing" and "maintain energy", which can be achieved by editing videos in order "to maintain pace and flow" and by using more illustrations, animations and schematics than usual for teaching in the lecture hall. The second crucial point is that both synchronous and asynchronous classes have to be more attractive than lectures in the lecture hall to prevent escape and successfully reach students: "maximise visual learning", "prepare material that will be engaging and interactive" and, in the case of asynchronous classes, also "minimise errors in the video" (Choe et al. 2019: 8).

Hughes et al. (2020: 21, Box 4) emphasise that, in the course of remote teaching, "shorter lectures are usually a better option than longer ones". This is in line with Choe et al. (2019: 10), which state that "shorter videos are perceived more positively". Student attention span for watching lecture videos wanes after approximately 20 minutes. This is in line with the fact that 'lectures in a tin' require a higher pace and density of information. The information density that is necessary to keep watching exhaust students at the same time and requires a break after about 20 minutes. Hughes et al. "strongly recommend incorporating a modular structure, as an online course needs a more regular structure than a face-to-face course. The more asynchronous the course, the more canalised the structure should be" (2020: 17).

Hughes et al. (2020) discuss the possibility of limiting a single video to 20 minutes at a maximum but also state that breaking up a lecture into single videos decreases the probability that a student will watch all of the videos, i.e., they will miss parts of the lecture or even the lecturer's main message.

The findings by Hughes et al. (2020), who recommend a modular structure, were also in line with the experiences at ETH Zurich with pre-processed videos for the asynchronous class of the lecture series in planning history during the autumn term in 2020. The video was delivered as a whole but was structured in several parts with "breaks" in between. Some breaks were short exercises (see also below) that students were asked to do before continuing with the video. Other breaks were organised by inserting historical movie clips, mainly from the Swiss historic newsreel. Each newsreel illustrated a topic presented in the lecture. For example, information about the impact of the typhoid epidemic in 1963 on Swiss spatial

planning was followed by the respective newsreel about this epidemic. As a result, the video lecture was broken into different parts. Due to film distribution rights, the newsreels could not be copied into the video, but instead were presented using a QR code that led directly to the selected film in the online newsreel collection. This required students to pause the video lecture and access the newsreel via QR code on their smartphone.

We also used statements given by planning history witnesses, both audio and video. These elements gave the opportunity to let other people than the lecturer speak and bring in different opinions. Over the last ten years, these audio- and video-taped oral-history statements were presented in the lecture hall, but as part of a slide presentation. Therefore, including them in the remote lecture and pre-processed video was not a completely new experience, but we noticed that the impact of the statements was more impressive in 'lectures in a tin' because the difference between the (recorded) lecturer and video-taped oral-history witness was diminished. This made the planning history witness (many of them already deceased) more 'real'.

In addition to the modular structure, Hughes et al. also recommend increasing the attractiveness of remote teaching by introducing "dynamic visual elements to the lectures, instead of just 'talking over slides'" (Hughes et al. 2020: 8) and Choe et al. (2019) even demanded lecturers "make an entertaining product". Teaching in lecture halls often affects students because of unforeseen, surprising, and, last but not least, hilarious elements. Often, good lecturers are talented storytellers who use elements of surprise and humour to keep the attention of their audience. These elements require spontaneity and the dynamic of the moment and, therefore, cannot be transferred to recorded or pre-produced lectures unaltered. Based on the 'lectures in a tin' produced during the experiment at ETH Zurich, we have positive feedback from students for elements of surprise that helped to keep their attention. As elements of surprise, we mostly used video clips from on-site visits, for example, someone in the street who takes off their shoes and continues barefoot, a horse-drawn carriage driving by, a forklift truck rushing at high speed from left to right, a barking dog (for real-site video clips, see also below). These incidents from real-world places replace incidents from the real-world lecture hall, for example, a phone ringing, a class-mate dropping a pencil, someone entering the lecture hall. Bringing real-world videos into planning lectures offers the opportunity to link planning-course issues closer to real spaces and places and real-world incidents. They also teach planners-to-be that it is important to observe socio-physical spaces in order to become aware of rules of use and deficiencies of environments that should be addressed by planning.

The higher pace and density set a limit on taking notes during the lecture. Based on our experiences, this limit can be managed by delivering handouts that require less note-taking or by offering a modular structure that provides pre-set break opportunities, so students can finish their notes and then proceed with the video. On the other hand, when using video or recordings, students do not make their own notes as often as during the traditional lecture because they tend to keep busy with other things.

During remote lectures, as has already been mentioned, it is quite difficult to keep a high level of attention all the time, thus, breaking the lecture into standard 'lecturing' slots and discussion/assignments slots can be helpful in avoiding the monotony of looking at a screen for 90 minutes. The assignments can be designed in such a way that they correspond to the content of the lecture. For example, during a lecture on urban climate, in the 'assignment time', students can be asked to find examples of how cities try to reduce effects of the heat island. This could help students to remember the content of the lecture.

The number of students attending the lecture can create some limitations on this method, which is aimed at engaging them more actively when using a synchronous method of lecturing. It looks relatively easy to split the group into smaller groups and give them an assignment or problem for discussion in the break-out rooms when there are 30 or 40 students attending the lecture. The problem begins when the group is relatively big, for example, around 200 students. The experience from Gdańsk University of Technology demonstrates that one person is not able to help too many groups at a time. Furthermore, there are limitations on the number of break-out rooms on the majority of platforms. On the other hand, students are not able to discuss effectively in a group of 20 participants in a short period of time. What helps instead is when students are invited to bring a planning problem from the real world, which can be explained or contextualised during the lecture. This proved to be an interactive element of teaching with high value

as it engaged students in remote classes to an above-average extent.

A widely discussed question concerning remote teaching and 'lectures in a tin' are whether the lecturer should be visible – or not. Based on Mayer's findings, "people do not necessarily learn more deeply from a multimedia presentation when the speaker's image is on the screen rather than not on the screen" (Mayer 2014: 345). However, Choe et al. (2019: 8) recommend lecturers "make sure that speaker is visible" and "talk directly into the camera and establish a connection with the viewer". Taking this into consideration, at ETH Zurich we choose to personally address students of the planning history lecture series by being visible in the video at least for the welcome and to communicate the lesson's outline, as well as for the presentation of pivotal main messages, i.e., key knowledge or conclusions. These 'address clips' were intended to establish a more personal connection to the students. The 'welcome clips' can also be used as elements of surprise in synchronous classes; in this case, the pre-produced clip can be presented at the beginning of the lecture. A similar approach was taken for quite a few lectures at Gdańsk University of Technology.

In order to, again, link remote teaching of planning issues to real places and spaces, the welcome address was always produced in the real location of a place that was related to a case study area or topic from the specific lesson. The lecturer was on-site talking directly into the camera, addressing students and introducing the lesson's special guest location and its relevance for planning history. Later, the specific location was re-addressed in the further course of the video for illustrating a case study and/or for 'break' clips. For example, for the planning history lecture that discussed pioneering landscape protection, a nearby lake that has been under protection since 1941 was the location for the welcome address and was also used as a case study area. Most of the locations chosen could be reached by bike, which was advantageous during lockdowns. As the welcome addresses had to be pre-produced for the online lectures, the re-visiting of the location to take the video clips gave additional input to the teaching and, therefore, enhanced the quality of the lesson. This was because it was regularly noticed during the on-site visits that the necessity to decide on a place to produce the lesson's intro and find performing locations for additional clips increased the lecturer's own awareness of the location.

There is no planning programme without case studies. Planning is real-world problem-solving. During AESOP congresses, many participants experience the greatest knowledge gain during the mobile workshops when they obtain first-hand information and on-site insights. Bringing case studies and the case teaching method to remote lectures offers the opportunity to bring real-world problem-solving and real-world images into the virtual classroom. Planning is space-related and bringing spaces and places into online classes and virtual teaching is a planning-specific element that should not be underestimated in remote teaching. The experience at ETH Zurich demonstrates that preparing case studies by enriching them with short video clips taken during an on-site visit can bring life to case teaching and make teaching more diverting. Hughes et al. (2020: 17) emphasise that they understand "the transition to online as a process of serialising" a course. As each case study can be presented as an autonomous entity, it also helps to meet the goal of having structured courses with regular short 'breaks' in virtual lectures. Moreover, real-world vision and sound from case study sites compensate for the lack of real-world stimulations that usually originate in lecture halls from real-world classroom life and class-mates – which is absent during remote teaching. Single video clips taken during on-site visits can be produced with smartphone cameras (or a camcorder if available). We have to emphasise that smartphone cameras produced appealing video clips and, therefore, a camcorder is helpful, but not essential. These video clips from on-site visits are an alternative to (static) images from a case study site and video clips can also bring in short video statements from site experts, politicians or citizens. These video clip statements from experts can, for example, be recorded during online meetings if interviewees have been informed about the purpose and agree to the recording.

Case-study videos can be pre-produced as stand-alone videos that are available online in a case study collection. Single videos from the collection can be presented as a video block in a synchronous class (remote teaching in real-time without recording) or integrated into an asynchronous class ('lecture in a tin'). During synchronous classes, playing a short pre-produced video offers the lecturer the opportunity, for example, to check the chat for questions. Moreover, they are not only helpful for teaching in pandemic times, but case-study

videos can also be presented in the lecture hall in post-Covid-19 times. However, case-study video modules cannot replace real-world experience. There is no temperature to be felt, no fragrance to be smelt, no people to chat to.

There are a few conclusions that can be drawn from this experiment.

First, the need to produce 'lectures in a tin' with an entertaining style confronted lecturers with the fact that students' attention to a remote lecture – be it synchronous or asynchronous – wanes after about 20 to 30 minutes. An important question is whether it is the same in the real classroom. Were we mistaken before the pandemic, maintaining the academic tradition of 45-minute lectures (typically multiplied by two, which makes 90-minute lecture slots)?

Second, most of the lectures need to be updated each year. Planning history is an exception in this sense, because history rarely changes. Although, even in this subject, there are new discoveries or shifting paradigms. For all other courses, the effort of producing the videos has limited usefulness. Thus, this material might have documentary rather than practical value. Bearing in mind how much time and effort production of the video requires, there is an important question about whether this effort is justified. Having both teaching and research obligations, not to mention quite a lot of administrative duties, should academics be burdened with film-making every year?

Third, is a 'lecture in a tin' really something that increases students' knowledge or does it rather increase their general interpassivity (Pfaller 2017; Žižek 1998)? "I have a lecture at hand, I can watch it anytime … but I never do." The potentiality of the video might never be used. This, of course, is not the case for a synchronous lecture that is not recorded and, thus, does not have this everlasting (and never-used) potentiality.

Fourth, the connection and interaction between students is typically zero during the remote lectures. Lectures and studies that rely on developing critical thinking and need the interaction of and between students cannot be replaced by 'lectures in a tin'.

Though for planning curricula it seems unrealistic to replace 'real' lectures with 'lectures in a tin', some experiences from remote teaching are promising. At ETH Zurich we delivered a pre-produced 30-minute instruction video on how to build arguments for an essay in order to enable students to write a mid-term essay. This video will be kept in post-Covid-19 times as feedback from students made it obvious that it helped them while working on the essay to re-play the videos when questions came up. There was also an increase in the quality of the essays compared to previous years when the information was given in the lecture hall, and not just before students started writing the essay, but some time before. We conclude that students used the online instruction video immediately before they started preparing the essay – and even again during the writing process. This video, which is a short module offering a recurring item of teaching content, might help future students to build a special, planning-related skill, in addition to the 'real' lecture. Therefore, having short modules of instructional videos to build special skills instead of offering whole lectures as recorded or produced videos seems the better way for future teaching.

Finally, post-Covid-19 or 'in future' there should perhaps be stronger association of the lectures with the reading list for the students. This became obvious during the remote teaching. We tend to think about the lecture as a means of transfer of knowledge, while perhaps a better metaphor would be a lecture as a knowledge guide. At present, almost every planning topic has a huge volume of literature. The picture students get from lectures is, in any case, a subjective simplification and should be complemented much more with self-organised study. In many planning schools, we tend to accept that the students refuse to read, especially longer textbooks. This problem is much more fundamental and will not be discussed in this paper, however, it should be addressed in the future.

Remote critical thinking

There is a meme circulating on the internet. On the left side it shows a teacher in a normal class and on the right side — a teacher in an online class. The former is a big creature standing in front of the class saying "stop talking" while the latter is a quiet soul meekly sitting in front of the computer asking "please guys say something". Well, this looks like the shortest description of remote interactivity.

There is wide consensus about what forms the foundations of critical thinking – this is: debate, discussion, questioning and verifying the methodology, interpretation and conclusions of every exercise. This should be supported by the literature.

Though we had some promising experiences with transferring planning lectures from lecture

halls to remote teaching in 2020, remote studios and elements of learning that required interaction in particular (for example, discussions to foster critical thinking) were problematic. The main challenge was to encourage students "to say something" and take part in discussions. Fostering critical thinking is one of the pivotal goals of teaching planning. But it is a big challenge in remote teaching as it requires active participation and students' involvement in discussion. Our experiences based on two semesters of remote teaching suggest that increasing interaction of students in remote teaching requires certain rules to be followed – rules that have to be communicated in advance. We had good results with the rule to switch on the camera during interactive sessions. As students sometimes attend remote teaching in places that are noisy, for example, shared flats, hostels or university buildings, they need to know in advance whether interaction is requested. We had better results in interactive sessions when they were concentrated in limited timeslots and not widely distributed throughout a remote lecture, or even having special sessions in the evening that were offered with advance notice. It was crucial to omit recording during discussion sessions to increase the participation of students. Notwithstanding that active online involvement of students remained difficult, both team-based studio work and discussion were also supported by splitting classes into smaller groups by use of (separate) break-out rooms. Tutors had the chance to join the groups in their break-out rooms to answer questions, to give input and discuss further steps of their project work. This was very valuable during studios. In groups of three to six students, discussion was more lively compared to virtual classes with many participants. The rule was: the smaller the group, the higher the interactivity. All these actions, however, can be seen as substitutes for the real interaction, which cannot be replaced by any digital tool available at the moment.

However, remote studios lacked interactive work compared to real-world studios and onsite input of tutors was missing in particular. Input and skill training that is usually achieved when tutors sit down with a group of students at a table to discuss project work was missing and it was difficult to establish such teaching settings online. Though different programmes or platforms offer online tools for working together on documents, these tools are costly and availability is limited or handling is complicated and, therefore, efficiency of co-working and tutoring is difficult.

Required interactivity is still limited by the technology. While in the real classroom there is the option of multitasking – discussing simultaneously with the group, drawing, referring to the internet sources or books – remote work does not allow for this spontaneous interaction. First, because of the delay in reaction (even if this is only seconds, it does matter). Second, because of the limitation in simultaneity. If more than two or three participants have their microphones on, there is often difficulty in understanding what has been said because of the overlaying voices. Third, because of limited use of different activities. It is not possible to point out the picture on the screen while, at the same time, drawing something and looking at whether the students understand the connection. These are only examples of the limitations of the technology for which interactivity needs to be structured and ordered. Currently, we can only adapt to these limitations.

Instead of trying to employ imperfect technology for a truly interactive activity, the deeper engagement of the students into research can be considered as an alternative. This might build their responsibility and sense of practical use of the knowledge and skills used in the exercise. In spring 2020, students at three European universities – Gdańsk University of Technology, Sorbonne Université and Fachhochschule Salzburg – were mobilised to join the observation of the interaction between the lockdown measures implemented and the urban space following the same protocol. They were confined within the environment they knew, be it their family home or students' accommodation, and they were able to deliver not only results of the observations but also their analysis, taking into account the spatial context (Mironowicz, Netsch, Geppert 2021). The work was widely appreciated by the students, not only because they saw the practical application of their skills and knowledge, but they also felt useful in the unprecedented situation to which they were able to respond. Similar experience is described by Verdelli and Brevet (2021, this issue).

Engaging students with the research in the situation of distance communication requires very strict definition of the methodology, aims and expected results of the research. Additionally, it needs to develop verification methods in order to ensure reliability of the data collected. All these actions can be undertaken effectively in remote mode.

Thus, strengthening the role of students in the planning research could be one of the results of remote teaching.

Personal meetings and work with the tutor can be counted as one of the most essential experiences for students. Time when they have the whole of the instructor's attention is extremely valuable, especially while working on their Bachelor's or Master's thesis. Paradoxically, remote teaching allowed for more intense individual contact with the tutors compared to on-campus teaching. This happened because the availability of the tutors visibly increased. It was no longer necessary that both professor and student should be present at the university at the same time. Additionally, there were no disruptions such as other students or colleagues entering the office. Time schedules became more flexible. Students were able to arrange meetings in the evenings or during weekends. They truly appreciated both the availability of the tutors and the flexible time frameworks. For academics, this situation was advantageous too – there are lecturers tutoring students from distant or sometimes even exotic locations where they decided to spend time during the lockdown and/or restrictions. The only thing that is indispensable is an internet connection. They were no longer physically tied to the university location. In the future, this remote individual (on-demand?) tutoring may become more popular than personal meetings.

Practical skills

Teaching planning, similarly to teaching other disciplines deeply engaged with practice (such as medicine or engineering), requires not only interaction between educators and students, it requires practical experience and contact with the real world, too.

Thus, depending on the profile of the university, we used to teach students how to understand spatial context during site visits, how to design on different scales, how to prepare legal documents, how to mediate, how to negotiate, how the institutions work … But this clearly requires rehearsing, practising and learning from successes and failures. How can this be done in remote mode?

Lawhon (2003: 204) is sceptical about providing adequate preparation for the planning profession without "the interaction, socialisation, and collaboration that a classroom setting offers."

Last year probably cannot serve as the best example of how to teach these kinds of skills because, typically, we had been building upon previous (pre-pandemic?) students' experience. They were able to collaborate only because they learnt this beforehand. They knew their strengths and weaknesses, preferences and modes of working. And thus, they were able to use what they had learnt before in this emergency situation. In the summer semester 2019/2020 at the Gdańsk University of Technology, there was a plan to have five visiting professors in the spatial planning programme thanks to a grant dedicated to the development of the Faculty. Three of them prepared not just lectures but also assignments for the students attending the course. They all required group work. And the students did very well. They were able to organise work and present the results shortly afterwards in a very short time, sometimes almost in real-time. The visiting professors were really surprised with the quality of the work the students delivered in the very limited time. They were only in the first semester of the Master's programme, however, the majority of them had been studying together for 3.5 years at Bachelor level. Thus, they were already used to group work and were used to working together. This case, therefore, cannot answer the question of whether students who have never met before in the real world would be able to respond equally well to the challenge.

The other habit that emerged from the social distancing situation was that students can ask for help during the site visit using mobile communication. Thus, the supervisor could draw their attention to the specific features of the place and they could jointly analyse the spatial context of the place. This could also be useful for the future.

Remote teaching of practical skills, be they technical or social, does not look very promising. We are limiting the damage rather than implementing an innovative tool. The main issue that affects the quality of developing both critical thinking and practical skills is quite weak "group learning experiences, and collaborative learning approaches that encourage student-to-student interaction" (Godschalk, Lacey 2001: 476). We can assume that here face-to-face teaching cannot be replaced by distance learning without losing essential parts of the educational outcomes.

Is this the end of exams? How can we verify teaching outcomes?

There are funny stories about how to check whether the students are not cheating during re-

mote exams. One of the methods is an oral exam undertaken under specific conditions: students should be sitting in front of a computer with the camera on and be blindfolded. Or, as some universities have done, with a mirror behind the student to check what is in front of them … Is this really what we want to practice?

First, there is good news. Both Master's and Bachelor's theses defences went quite well in the remote format. This was partly because there were already practices that enabled the entire process of assessment of the final dissertations, based on the online tools. In Poland, for example, (and a similar procedure is reported by colleagues in many countries) students need to upload the theses, be it a Bachelor's or Master's, to the university documentary system and the file needs to be sent for antiplagiarism checking, with the feedback report going to the supervisor. When the supervisor accepts it, the student no longer has access to the file and it is sent to the reviewer. Both the supervisor and the reviewer type their assessment into the system. Thus, there was nothing new in this procedure during distance teaching. The only novelty was that the materials for the defence were made available for the members of the jury on the university teaching e-platform. The defence followed the standard procedure except that it was online. Students were dressed the same as for a real-life presentation and the members of the jury tried to keep the mood of celebrating the final degree as they typically do.

This experience could actually encourage making the defence of the B.Sc. and M.Sc. theses more open to the wider professional environment. If streamed online, they could bring other experts into the discussion, such as professionals from outside the defence location. This could, in turn, give better insight into the quality of teaching and help the professional environment contribute to the development of the planning curricula.

Second, there is also some not-that-good news. Exams are not really easy to organise in the form of distance learning.

The oral exams look like quite an easy solution, however, only those with the camera on and official access to the sources (such as books, for example). There is no option to verify whether students do not have access to the sources when this kind of consultation is not allowed.

When the group of students is quite large and the oral exams are difficult just because of the time they need, quiz tests with very limited time could also be useful. Practically every e-platform offers this opportunity to prepare the test, which is available for the students only within a specific time slot and with a defined time for submitting it. Typically, there is an option to select a random order for the questions and answers (if the test format is used). This, however, is a good solution only for really basic exams, and certainly is not suitable for every course.

More general questions that the experience of remote teaching raises

We are not qualified in psychology or sociology and thus we will not try to assess the possible effects of remote teaching on the personalities of the students and academics. But, obviously, there are issues that could be quite objectively addressed in relation to distance teaching (probably not only in planning).

First, there is the question of equipment. Shall we state that a pre-requisite for studying is personal computer and internet access? The last year of remote teaching proved that there are students 'disappearing' from the system. At Gdańsk University of Technology, for the first time since the programme has run, one-third of the students accepted onto the Master's programme 'disappeared' from the courses after the first month of the semester (around April 2020) and have never been seen since. There is no clear answer as to why this happened but, within the group that continued their studies, students reported the technical problems they had been experiencing. Not everywhere offers sufficient internet access and not everyone in the household can have exclusive access to it.

Second, not all students have adequate housing conditions to focus on remote learning. Sometimes they share a flat with their family or other students and their environment makes it difficult to follow the programme in the form of distance learning.

The universities responded to these problems by offering students space in empty classrooms, however, this is only helpful for students who either live or have some form of accommodation it the university town.

Thus, the danger of exclusion remains.

The other issue is that students who do not live permanently in the university town typically do not have any accommodation there. When the university announces distance teaching, they do not rent a flat, they do not apply for the students' dormitory. Thus, any task which requires (or could require) the physical presence of the students is difficult. Stu-

dents are not willing to travel and pay additional costs just for a half-day or single-day assignment. This, of course, puts some limitations on the activities that can be developed in the times of remote teaching. Additionally, it makes it extremely difficult to switch from remote teaching to on-campus teaching during the semester. Thus, even if the pandemic is miraculously over in a week's time, we would probably be teaching online until summer.

The literature (see, for example, Evans-Cowley 2018) and voices from the conferences[1] indicate the use of social media as a good solution when engaging with students. There is, however, the very sensitive question of entering the world of social media, which not everyone is comfortable with – not because of the technical constraints, but because of issues around privacy and values.

There is a question about access to the university facilities like the library, for example. These typically remain open under specific circumstances, however, when students are not in the town, access is not easy for them. Not all textbooks have a digital version, and there is also the problem of copyright when the university would like to scan books for the students for distance teaching.

Finally, there is also the teachers' perspective, which includes longer working hours and losing their privacy and private time during weekends and holidays.

There were optimists who thought that remote teaching will create more free time for the educators and open new perspectives for research instead. Regretfully, nothing of the kind happened. On the contrary, remote teaching takes much more time and requires more bureaucracy. In the case of preparing asynchronous lectures, the working time is significantly longer and this does not increase the quality of the content; it is just time-consuming. Emails are the main means of communication; they need hours to be read and answered.

When students are working on their Bachelor's or Master's theses it is quite difficult for the supervisors to refuse to get in contact with them, no matter whether it is the Christmas break or a holiday. There is an understanding among academics that working practically alone on complex problems can cause difficulties that need assistance; however, this creates a new habit that students would very likely want to repeat in the future.

The pandemic reduces the costs of work for the universities. Academics cover part of the costs of their work; they use their homes as offices, they pay for their internet connection and electricity costs. They work longer hours. Nobody reported any kind of compensation from the side of the university.

The danger here is that, having discovered how to reduce costs for the universities, the authorities will now be 'encouraging' higher education institutions to continue as much remote teaching as possible. This threat is more real in the case of universities where it represents the business model of the institution.

Question for the future: how might all this change teaching planning?

De-localisation of both students and teachers can be seen as a wider choice for both groups – but only under specific circumstances. If the students can sign up for any course in the world and teachers can deliver their lectures/courses all over the world, how could this change the organisation of studies and the way we teach?

The experience of remote teaching planning raises the question of where the critical points in this education are and what can be transferred into distance-teaching mode when the restrictions are over? What, on the contrary, cannot be taught in an e-learning format?

Though the end of the pandemic is still not in sight, we are already dealing with the question of how the pandemic's remote teaching will change post-pandemic teaching.

There is one thing for sure: we will never return to the state of (teaching) affairs that we had previously. The experiences we are gathering now in these times of remote teaching will shape our future behaviour, expectations and preferences, and with them, future teaching. During recent months, our students have got used to the availability of recordings of lectures and videos that can be watched whenever and wherever students like. This experience of spatio-temporal autonomy will have a lasting impact on many students. It will free them from travelling to the lecture hall for just one lecture on a Friday or from getting up for lectures on Monday morning. It will also give them the opportunity to choose two lectures with conflicting schedules in the same timeslot. This was already happening before the pandemic by exchanging notes with colleagues, but will be more comfortable with videos available. With 'lectures in a tin', now double-booked students will manage lectures with time conflicts by following in parallel – one synchronous and the

other asynchronous. Having a video for every lecture will be the new standard. What we have experienced in these times of the pandemic is just the beginning.

Students report that re-winding and replaying videos in part helps them to better understand and to achieve better results in exams. Another advantage of the availability of 'lectures in a tin' mentioned by students was that remote teaching meant that they are not expelled from the lecture hall at the end of the lecture because new students enter the hall, but that they have time to finish their notes and even rework a topic they had not understood before the next lecture starts. It was reported that this made remote teaching even more efficient than real-world teaching in the lecture hall.

Klaus Kunzman insisted (2012, 2015) that language is crucial in teaching planning. With video lectures, this problem can be easily solved – there can be subtitles or dubbing (or both) in any language students prefer … Of course, language is about deep cultural context, however, with globalised problems (such as adaptation to climate change, for example), planning can respond globally to local needs. This looks like a paradox at first sight.

Therefore, we are quite sure that students will request the availability of video-based asynchronous classes after the pandemic as a new standard. This brings in two aspects: quality and competition. Keeping 'lectures in a tin' as asynchronous classes will offer the possibility of increasing the quality of remote teaching over the years. At the same time, lectures that are offered by different lecturers (such as basic courses) will increase competition. Students will only use videos from lecturers that are able to offer engaging lectures. As a matter of fact, boring, unappealing lectures in a lecture hall will lack students when engaging 'lectures in a tin' from other faculty members will be available. As a result, not only competition between universities but also between faculty members will increase. 'Voting by feet' propelled by the availability of high-quality 'lectures in a tin' will lead to the extinction of boring, low-quality lectures. Moreover, shifting the teaching of basic skills to asynchronous online teaching will afford time and opportunities to foster interaction and engagement in the classroom.

Planning is space- and place-related. And so should the teaching of planning be. Remote teaching using 'case study modules in a tin' offers the opportunity to bring in more real-world impressions – compared to classical teaching in the lecture hall. A collection of video clips taken during on-site visits and collections of pre-produced case-study video modules offer the opportunity to continue to use these real-world visual elements post-Covid-19.

There are also other, perhaps not very visible consequences, of this 'entertaining' trend in lecturing. We will have to rethink reading and the role of reading lists in planning education. Levels of reading in many European countries are extremely low. Krzysztof Warlikowski, the chair of the jury of the European Book Prize in 2018, in his speech to the European Parliament on 5 December 2018 stated that:

"Today almost 40% of Polish people do not understand what they read and an additional 30% understand very little from what they read. 10% of those who completed primary education are illiterate. 10 million residents of Poland (25%) do not have any books at home. One in six people conferred with a Master's degree is functionally illiterate. 6.2 million Poles live outside of writing culture, meaning they read nothing last year, not even an article in a tabloid. 40% of Poles have problems with reading timetables and weather forecast maps. This data is so incredible that it is even funny. But this is scary. According to the statistics, readership is decreasing all over Europe. There are rare exceptions, but generally the situation is really bad. They do read in the Netherlands and in Scandinavia. In Central and Southern Europe a very sharp decrease is noticed: in Greece, in Hungary, in Italy … Is it an accident that in those countries populist and nationalist movements/parties are growing in an inverse ratio to readership?"[2]

Sadly, statistics confirm this picture. According to the World Literacy Foundation in Europe "one in five 16–65 year-olds have poor reading skills" and "55 million adults between 15 and 65 years of age have literacy difficulties" (ELINET 2015). And our students are not outside this group. They have difficulties reading long texts, they have difficulties recalling academic discourse during discussion. Having difficulties with reading is an obstacle for students to move from knowledge to judging and action. While reading one has to analyze, to question, to scrutinize and to assess what he or she is reading. This process is a kind of active dialogue with the text.

As students' active involvement in discussion is a big challenge in remote teaching, reading and reading lists are even more essential in remote teaching. While the dialogue with the students is poorer and more difficult in virtual lecture halls, students' dialogue with a text, i.e.

reading, gains more importance. At the same time, the remote teaching experience reminds us that enabling students to think critically, to judge and to listen to other opinions requires discussion in the classroom and reading lists, now and post-Covid-19.

Why does this matter for planning education? Planners' central competition is the ability to imagine alternative worlds. Klaus Kunzmann proposing the name of Aesop to the Association of European Schools of Planning bore in mind that "this name is linked to ambitions of planners, to plan for people, to communicate with people, and to use narratives and storytelling in planning and decision-making processes, not just plans and maps" (Kunzmann 2012). How can future planners effectively develop this ability without reading? Mario Vargas Llosa, one of the greatest storytellers ever, in his Nobel Prize Lecture on 7 December 2010, said:

"We would be worse than we are without the good books we have read, more conformist, not as restless, more submissive, and the critical spirit, the engine of progress, would not even exist. Like writing, reading is a protest against the insufficiencies of life."

And instead of encouraging students to read more, to slow down their switching between mobile devices, we try to keep them entertained even more … Is this really the right direction?

If this aim of expanding students' imaginations were to be abandoned, we might produce "copy-and-paste planners" instead of "leaders of change" (ECTP 2013). Thus, for the future, we need to rethink the means that would help with this ambitious task.

Thus, perhaps a 'side effect' of the experience of the pandemic will lead to a split in traditional academic form. The online video lecture could help a kind of 'boutique lecture' to emerge, a revived seminar, which would ensure a short distance and deep intellectual connection between professor and student, a dialogue grounded in the literature and professional experience. This, however, is not an experience that could be offered to many students … unless it is offered online.

There are classes for which remote teaching is clearly inadequate. Projects, involving group work, discussion, brainstorming can somehow be a substitute in an emergency situation, but definitely not replace the real experience of the classroom. Moreover, site visits and field trips cannot be replaced by remote teaching. Presenting case studies using video clips represents video-makers' perception and neglects the perception of the student. Not to mention that it misses a wide spectrum of real-life experience. Thus, it could help to illustrate case studies, but only as an insufficient substitute for real experience.

Klaus Kunzmann (2015), while analysing e-learning options in planning, called for "obligatory face-to-face education" as crucial for preparing planners for professional work. This request seems to be justified by our experience of 'pandemic education'. We cannot agree more.

Notes

1 See, for example: https://www.youtube.com/watch?v=jR1wW18Yb_E (online symposium organised by the Epidemic Urbanism Initiative on 29-30 January 2021, entitled, "International Perspectives on the Future of Architecture and Urbanism in the Post-COVID Age").

2 Text from the official website of the European Book Award http://livre-europeen.eu/?p=6027.

References

Baer, W.S. (1998): *Will the Internet Transform Higher Education?* Santa Monica, CA: RAND Corporation. Available online https://www.rand.org/pubs/reprints/RP685.html (accessed 9 February 2021).

Batty, M. (1991): New Technology and Planning: Reflections on Rapid Change and the Culture of Planning in the Post-Industrial Age. *The Town Planning Review*, 62 (3), pp. 269–294. Retrieved 9 February 2021, from http://www.jstor.org/stable/40113073.

Brooks, D.C.; Pomerantz, J. (2017): *ECAR study of undergraduate students and information technology. Educause Center for Analysis and Research.* Available online: https://library. educause.edu/-/media/files/library/2017/10/studentitstudy2017.pdf (accessed 10 February 2021).

Choe, R.C.; Scuric, Z.; Eshkol, E.; Cruser, S.; Arndt, A.; Cox, R.; Toma, S.P.; Shapiro, C.; Levis-Fitzgerald, M.; Barnes, G.; Crosbie, R.H. (2019): Student Satisfaction and Learning Outcomes in Asynchronous Online Lecture Videos. *CBE life sciences education*, 18 (4), ar55.

Ciesielski, M. (2021): Public Participation in Planning Processes under the Confinement Regime – Perspective of Municipality Urban Planning Studios in Poland. *disP – The Planning Review*, 56 (4) (this issue).

European Council of Spatial Planners – Conseil européen des Urbanistes (2013): *The Charter of European Planning. The Vision for Cities and Regions – Territoires of Europe in the 21st Century. Approved by the General Assembly of Barcelona 22 April 2013.*

Evans-Cowley, J. S. (2018): Planning Education with and Through Technologies. In Frank, A.; Silver, Ch. (eds.), *Urban Planning Education. Beginnings, Global Movement and Future Prospects.* Springer, pp. 293–306. DOI 10.1007/978-3-319-55967-4.

Frank, A.I.; Mironowicz, I.; Lourenço, J.; Franchini, T.; Ache, P.; Finka, M.; Scholl, B.; Grams, A. (2014): Educating planners in Europe: A review of 21st century study programmes. *Progress in Planning,* 91, pp. 30–94. DOI: 10.1016/j.progress.2013.05.001.

Godschalk, D. R.; Lacey, L. (2001): Learning at a Distance. Technology Impacts on Planning Education. *Journal of Planning Education and Research,* 20, pp. 476–489.

Hamburg, J. R., Creighton, R. L. (1959): Predicting Chicago's land use pattern. *Journal of the American Institute of Planners,* 25, pp. 67–72.

Hughes, M.; Bertram, S. M.; Young, A. M. et al. (2021): Teaching animal behavior online: A primer for the pandemic and beyond. *Ethology,* 127 (1), pp. 14–31.

Hughes, M. C.; Henry, B. W.; Kushnick, M. R. (2020): Teaching During the Pandemic? An Opportunity to Enhance Curriculum. *Pedagogy in Health Promotion,* 6 (4), pp. 235–238. DOI: 10.1177/2373379920950179.

Kunzmann, K. R. (2012): Giving Birth to AESOP. *disP – The Planning Review,* 188, 1/2012.

Kunzmann, K.R. (2015): Challenges of Planning Education in Times of Globalisation. In Mironowicz, I. (ed.), *AESOP Planning Education, 3. Excellence in Planning Education: Local, European and Global Perspective.* AESOP.

Lawhon, L. L. (2003): Do Distance Learning Efforts in Urban Planning Education Cut Short the Educational Experience? *Journal of Planning Education and Research,* 23, pp. 202–205. DOI: 10.1177/0739456X03258949.

Mayer, R. E. (2014): Principles based on social cues in multimedia learning: Personalization, voice, image, and embodiment principles. In Mayer, R. E. (ed.), *Cambridge handbooks in psychology. The Cambridge handbook of multimedia learning.* Cambridge University Press, pp. 345–368.

Milman, N. B. (2020): *Pandemic pedagogy. Phi Delta Kappan.* Available online: https://kappanonline.org/pandemic-pedagogycovid-19-online-milman/ (accessed 10 February 2021).

Mironowicz, I.; Netsch, S.; Geppert, A. (2021): Space and spatial practices in times of confinement. Evidence from three European countries: Austria, France and Poland. *Urban Design International,* 26 (2). DOI: 10.1057/s41289-021-00158-6.

Moore, M. G.; Kearsley, G. (1996): *Distance education: A systems view.* Belmont, CA: Wadsworth.

Pfaller, R. (2017): *Interpassivity: The Aesthetics of Delegated Enjoyment.* Edinburgh: Edinburgh University Press.

Sheppard, A. (2021): Online, but not isolated: addressing a key challenge of digital distance learning. In Frank, A. I.; da Pires, A. R. (eds.), *Teaching Urban and Regional Planning: Innovative Pedagogies in Practice.* Cheltenham: Edgar Elgar.

The European Literacy Policy Network (ELINET) (2015): *Literacy in Europe. Facts and Figures.* Available at: http://www.eli-net.eu/fileadmin/ELINET/Redaktion/Factsheet-Literacy_in_Europe-A4.pdf (accessed 12 February 2021).

Vargas Llossa, M. (2010): *In Praise of Reading and Fiction.* The Nobel Lecture, 7 December 2010. New York: Farrar, Straus & Giroux.

Verdelli, L.; Brevet, N. (2021): Frustration in Paradise: social aspects of spatial policies in the wake of the Covid-19 lockdown in France. *disP – The Planning Review,* 56 (4) (this issue).

Willson, R. (2000): Comparing in-class and computer-mediated discussion using a communicative action framework. *Journal of Planning Education and Research,* 19 (4), pp. 409–18.

Žižek, S. (1998): Cyberspace, or, How to Traverse the Fantasy in the Age of the Retreat of the Big Other. *Public Culture,* 10 (3), pp. 483–513, DOI: 10.1215/08992363-10-3-483.

Corresponding author:
Dr. Martina Schretzenmayr
ETH Zurich
Institute for Spatial and Landscape Development
Stefano-Franscini-Platz 5
8093 Zurich, Switzerland
schretz@ethz.ch

Prof. Dr. Izabela Mironowicz
Gdańsk University of Technology
Faculty of Architecture
Chair of Urban Design & Regional Planning
G. Narutowicza Street 11/12
80-233 Gdańsk, Poland
izabela.mironowicz@pg.edu.pl