Digital Quarantine—A Case Study on How CoViD-19 Accelerated Digital Transformation at Our School of Arts and Design

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Abstract  Despite the fact that the so-called digital transformation is being seen as one of the megatrends of the past and ongoing decades, there does not seem to be a common picture of how schools of art and design should address this phenomenon or even actively shape the digital shift. The case study discussed in this paper, therefore, sets out to identify the main areas that schools of arts and design could engage with in order to become active players in digital transformation. It does so by conducting both, a series of qualitative interviews as well as an online survey that reached out to representants of the design and arts community at Lucerne School of Applied Sciences and across Europe. Initially, this sample was meant to be compared to a sample originating from the computer science community. Due to the lockdown of European Universities caused by the CoVid-19 crisis, this second part of the study had to be postponed. Instead, the paper completes the findings of the qualitative study conducted in the design and arts community with a series of observations made during the sudden shift to remote and e-learning at our own university of Applied Sciences and Arts. As a result, the emerging topics from the study get critically reflected with the fact that our school of arts and design suddenly became a “remote” school that had to shift exclusively to the use of digital tools and media.

Keywords  Digital transformation · Design education · Digital shift · CoViD-19

1 Introduction – Keeping up with the Pioneers

The ultimate goal of all art is the building! Its ornamentation was once the noblest function of the fine arts; and they were considered indispensable parts of the great art of building. Today, they exist in complacent isolation, from which they can only be salvaged by the conscious and cooperative efforts of all artisans. Architects, painters, and sculptors must recognize anew and learn how to grasp the multi-faceted Gestalt of the building both as an entity and
in its separate parts. Only then will their work be imbued with the architectonic spirit which it has lost as “salon art.” (Gropius 1919)

In his first paragraph of the “Bauhaus Manifesto”, the founder of the Staatliche Bauhaus Walter Gropius argues for an orientation of the arts towards a common goal—a goal, which he considers to be the art of building. In the following paragraphs of his manifesto he criticizes the “old schools” that according to him have not pursued this goal of creating unity between the different disciplines and, instead, kept raising an arrogant barrier between craftsmanship and arts (Gropius 1919). One hundred and one years later, one might wonder, which common goal should be put first in arts and design in order to unfold the same unity and power that once drove the Bauhaus to become the most relevant design school of its time.

On September 14th 2003, the former director of the Ulm School of Design, Thomás Maldonado, asks a similar question when giving a talk in occasion of the Ulm School’s 50th anniversary. In his speech he first emphasizes that is would be outdated to pursue the Ulm School’s quest in the 50ies and 60ies—especially, during its first period when former Bauhaus student Maxi Bill was trying to position the Ulm School as successor of the original Bauhaus. A critique that is not new, given that Maldonado already started this argument in 1955, when he published his article “La Escuela superior de diseño de Ulm” (Maldonado 1955; Maldonado 1974; Maldonado 2019) in the journal “Nueva Visión”:

“Not all of the theses supported by the Bauhaus pioneers continue to have the same validity for our generation. We live today with problems that they didn’t even know about then, or that they barely imagined. On the other hand, problems that were fundamental to them for us today are no longer topical.”

Instead, Maldonado puts his questions into the context of the advent of the third millennium. He does so by examining questions „that deal directly or indirectly with the spread of digital technologies, questions that examine the relationships between the natural and the artificial, the material and immaterial, between the digital world and the real-life world, between information flood and our effective knowledge, between individual freedom and social control, between the rich, who are continuously becoming richer and the poor, who are getting poorer, between the enormous extension of mass-production and the decrease of our natural resources.²“ (Maldonado 2003).

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1 Original Italian Text as published in 2019: Non tutte le tesi sostenute dai pionieri del Bauhaus continuano ad avere la stessa validità per la nostra generazione. Viviamo oggi dei problemi che essi, allora, non conoscevano neppure, o che intuivano appena. D’altra parte, dei problemi che erano per loro fondamentali per noi oggi non hanno più attualità.

2 Original German Text: Es handelt sich um solche (Fragen), die direkt oder indirekt mit dem Aufkommen der digitalen Technologien zu tun haben, Fragen, die direkt auf die Beziehung zwischen dem Natürlichen und dem Artifiziellen eingehen, auf die zwischen Materiellem und Immaterialiem, zwischen Digitalwelt und Lebenswelt, zwischen Informationsflut und effektivem Wissen, zwischen individueller Freiheit und sozialer Kontrolle, zischen den rauchen, die immer reicher, und den Armen die immer ärmer werden, zischen der gewaltigen Ausweitung der Güterproduktion und dem Schrumpfen der Umweltreserven.
With his words, Maldonado outlines what appears to be a massive increase in complexity compared to Gropius’ focus on the built environment. However, within this complexity, Maldonado also provides a key—or better the phenomenon behind the reason why the relationships that he is talking about need to be re-negotiated by arts and design: the spread of digital technologies. If one reviews Maldonado’s writings, his examination of the relationship between technology, humanity and design appears to be a continuous thread (Maldonado 1997). And when ten years back, I had the honour to assist Maldonado’s visit to our PhD class at IUAV University in Venice, it impressed me that even though, at the time, Thomás Maldonado claimed to dedicate most of his attention to his artistic practice, he started examining the appearance of the iPad that has been presented by Steve Jobs just one week before our encounter in 2010. Given Maldonado’s sharp attention towards identifying those areas of arts and design that are about to shape our future, it doesn’t come as a surprise that, a decade later, the so-called digital transformation is one of the main megatrends that are currently shaping our society not just by turning analogue processes into digital ones but by permeating a variety of relationships that Maldonado was talking about back in 2003 (Maldonado 2003). And in this context, again, it doesn’t come as a surprise that in his anniversary speech, Maldonado points out new technologies as main areas for investigation and starting-points for design—namely: computer sciences, robotics, bio-technologies and genetics (Maldonado 2003), while the latter becoming more and more tied up to the first ones, today.

Turning back to the initial question about which might be the common goal or area that schools of arts and design should address, today, it appears quite evident to me that it should be the transformations that are being shaped by (digital) technologies. Interestingly, there are, yet, few design schools that call themselves “School of the Digital”. When I set out to a desktop research to find some, I could identify just a few European Schools: the Macromedia Hochschule in Berlin, Germany that in its mission statement claims itself as “The University for Digital Transformation”; the University of Coimbra, Portugal where Design and Multimedia courses are taught together in their Department of Computer Engineering; the Technical University Vilnius Gediminas, Lithuania with its Department of Graphics Systems, and their programmes such as Multimedia Design or Communication of Innovation and Technology, the Hochschule Bremen, Germany and its “Fakultät 4 für Elektrotechnik und Informatik”, our own Lucerne University of Applied Sciences and Arts that started offering both, BA and MA programmes combining Computer Sciences and Design or last but not least the TU Delft, Netherlands that is internationally known for being the world’s leading design research University where design is strongly embedded into the context of engineering and technology. There is, for sure, many more that teach and research at the intersection between technologies and design. Certainly, there is a lot of schools advertising the digital transformation on their website or learning goals of their programs. However, in most cases the question remains if this thinking really pierces through the entire didactical concept of these schools, or if these are just first attempts to extend into a more holistic approach of dealing with the digital shift in arts and design education. The observation of just few schools dealing with the digital shift on a larger scale and the fact that many of them are schools or
universities of engineering, computer sciences or technology, became starting point for the research discussed in this paper. At a first glance there does not seem to be a common picture of how schools of art and design should address digital transformation from an arts and design perspective. Therefore, I set out to ask both main players involved in this question: people from an arts and design background as well as people from computer sciences.

When I wrote the initial paragraphs of this paper back in January 2020, I had no idea what was about to come. And now, four months later, the spread of the coronavirus disease forced all universities and schools across our country—and pretty much all across Europe—to change their way of teaching towards forms and formats of remote learning and teaching as well as most faculty and staff members are forced to working remotely from home. Under these circumstances, the shift towards the digital, instantly gained higher relevance. In many cases, schools and universities, just as our own university of Applied Sciences and Arts, had few days to transition from conventional learning based upon class instruction towards distance learning.

This situation had mainly two impacts on this paper: The first consequence is that part of the interviews with members of our computer science department had not been conducted due to the fact that all faculty members were completely working to capacity in order to deal with our shift towards remote teaching. Therefore, in this paper only the data gathered amongst members of the arts and design community will be evaluated and discussed. The second impact is that during the upcoming weeks of distance learning, we were already able to gather many insights into what it means to teach and learn remotely. Some of these insights might contradict the findings that are based upon the interviews conducted in December 2019 and will, therefore, be critically discussed and reported in the second part of this paper.

Before diving into the research design, the results and further discussion of the study, I would like to anticipate that due to the rather small sample of participants that mostly originate from our own University, at its current state, the study is rather to be considered as a case study analysis of how members of the department of design & arts at Lucerne University of Applied Sciences and Arts imagine to deal with digital transformation from an arts and design point of view.

## 2 Research Design and Methodology

The study discussed in this paper started out following a three-folded approach: One is a series of qualitative Interviews \((n = 9)\) with educators, learners and practitioners from our department of arts and design. The second is an online survey that reached out to a second sample \((n = 10)\) of people from the same backgrounds but with a larger geographical spread (Europe, UK). The third one was meant to conduct the same study (qualitative interviews and online survey) with a sample of people from the computer sciences community. As mentioned above, due to the lockdown of universities caused by the CoViD-19 crisis, these people could not or only hardly be reached at the present time.
3 Conducting the Interviews

A first exploratory interview with an expert in art history and contemporary art started with the question: “Try to describe the most important fields of the so-called digital transformation that could be actively shaped by universities of design, film and arts”. This first interview led to three main areas and leading questions that became the foundation for the questionnaire (Fig. 1) that has been developed.

Before starting each interview, interviewees have been shown an introductory power point presentation that outlined the main questions as well as a reference to the model of the “Agile Artifact” (Eckert and Eckert 2018). The model proposes artifacts, mentifacts or institutions (e.g. in this case schools and their programmes) that are configured to adapt to their context and shape the context itself in the process of this adaption (Fig. 2). Especially the latter—shaping the context—was meant to become a conversation starter for the interviews by focusing on perspectives on how our own and other schools of arts and design could actively shape the use and spread of digital technologies instead of asking the question of how to deal with the novelties provided by the tech industry. Based upon this procedure and in addition to the first

| Creating values through content and access to knowledge | The future of education and working together | The future of being human in the context of digital transformation |
|----------------------------------------------------------|-------------------------------------------|---------------------------------------------------------------|
| How can we shape the way society deals with (digital) content and access to knowledge in a way that creates added value for all people? | How can we shape the way people learn and work together? | How to shape “being human” in the area of friction between digital and analogue artefacts as well as natural entities? |
| Which are the most critical areas in content-creating and knowledge transfer that artists, filmmakers and designers should engage with? | How do you imagine learning in a future that is dominated by digital media and technologies? | Where do you see humanity’s biggest responsibility within the digital shift? |
| Which role do you think play art & design schools in the process of re-visiting these areas? | How would you describe the learners of the future? | How should we as artists, filmmakers and designers deal with this responsibility? |
| Digital Literacy: What Skills and competences in the field of the “digital” would you expect to learn/teach at a future arts & design school? | How should we engage with the topic of learning as artists, filmmakers and designers in order to shape its future? | How would you describe the role of art & design schools within this challenge? |
| If you imagine a future without work (e.g. intelligent systems and machines took over most of it) – what would be our contribution to society as artists, filmmakers and designers? | | |

| What must we not lose sight of? | What would be a revolutionary approach? | Which situations from my everyday life could represent a starting point? |
|--------------------------------|--|----------------------------------|
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| Which situations from my everyday life could represent a starting point? | What must we not lose sight of? | |

Fig. 1 Main subjects of the interviews and survey, author’s illustration, 2020
exploratory interview a total of 9 interviews have been conducted—each of them about one-hour length.

Each of the interviews has been transcribed to an “interview map” (Fig. 3) that summarises the interviewee’s answers with regards to the three main areas of the interview as mentioned above. In a secondary step, all answers have been analysed and coded by highlighting the most significant keywords and topics as well as such that would be named repetitively during one interview or mentioned by more than one independent interviewee.

4 What the Interviews Said

The examination of the interview transcripts has unveiled first arrays that would emerge from the interviewee’s answers. Some of them relating to just one of the

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3 1 art historian, Bologna, Italy  
2 students in design & arts, Lucerne, Switzerland  
1 design alumna, Lucerne, Switzerland  
1 head of a design study program, Lucerne, Switzerland  
1 Business Ethic teacher at a design program, Berlin, Germany  
1 junior researcher in design, Lucerne, Switzerland  
1 head of internal communication at a design school, Lucerne, Switzerland  
1 head of continuous education at a design school, Lucerne, Switzerland.
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Creating values through co-curricular access to knowledge

How can we shape the way society deals with digital content, and access to knowledge, in a way that creates added value for all people?

The future of education and working together

How can we shape the way people learn and work together?

The future of being human in the context of digital transformation

How to shape being human in the area of friction between digital and analogical experience as well as natural intuition.

Interview's main topics, others that would be mentioned across the entire conversation. A very first insight of this listing was that most interviewees would bring up topics and perspectives that are focusing the human and social component of digital transformation.

For instance, most interviewees reflected that the phenomenon, which we use to call digital transformation, only refers to a small part of the world’s population and many communities are facing completely different challenges that are driven by digital technologies than the ones that we are dealing with in the western or first world. A second focus that catches the eye is the demand for a human counterpart of the digital—or in other words: a healthy relationship between the human and the artificial. In this context, interviewees specified that they still see the human component (e.g. face to face teaching and learning) as something that cannot or should not be substituted by digital technologies. Another topic that emerged in many answers is the preservation of acquiring analogue techniques and skills (e.g. crafts) at schools of arts and design. Furthermore, many interviewees emphasized the role of design schools as places of critique and critical analysis of social, technological or economic phenomena. According to most interviewees, also phenomena related to the digital transformation should be examined critically at schools of arts and design. Based upon the first analysis of the interview transcripts four clusters have been derived (Fig. 4). These clusters summarize the most mentioned topics during the interviews and sort out all topics that have been mentioned less than nine times (number of interviewees was 9).
Human Relationships 21 Technologies and Humans 18

| Human relationships | Balance between humanity and AI |
|---------------------|---------------------------------|
| Conversation        | Emancipation from the digital   |
| Interactions with real people | Being human in a digital future |
| Teamwork            | Healthy relationship between humans and machines |
| Community           | Appreciation of «being human» |
| Collaborations      | Humankind has to decide on the digital future |
| Mentorship in education | “we must not delegate this responsibility” |
|                     | Humanising Technology |
|                     | Human Machine Interaction |
|                     | Human Centeredness |
|                     | “We need to change the face - the appearance of technology” |

Inclusiveness 13 Critical Thinking/Critique 13

| What we call the «Digital Transformation» only applies to a small part of the world's population. |
| All people and communities should be included. |
| We need to deal with the inequality that still exists amongst the world's population. |
| We need to act inclusive |
| Co-Creation and participation as inclusive approaches |
| Social Impact |
| Accessibility / Inclusiveness |

| Critical Thinking |
| Schools of Arts and Design as Places of Critique |

Fig. 4 First clusters after examining the interview transcriptions, author’s illustration, 2020

5 Crossing the Interview Data with the Online Survey

During the same period of time of the interviews (5 days), an online survey reached out to a sample of 10 students, educators and practitioners that work in the design and arts domain, all across Europe. The questionnaire allowed participants to formulate their answers without any limit regarding number of characters and was based upon the same set of topics and questions as the interviews (Fig. 1).

Again, the participant’s answers have been analysed by using the same codes (topics/keywords) that have been identified in the interview’s transcriptions by adding new ones as well. Based upon this analysis the clustered results from the interviews have been crossed with the analysis of the online survey. This comparison led to an updated set of clusters (Fig. 5) that included all keywords that have been mentioned more than 19 times (n interviews = 9 + n online survey = 10).
| Inclusiveness, Social Responsibility | The Future of Learning |
|-------------------------------------|------------------------|
| What we call the «Digital Transformation» only applies to a small part of the world's population. | Fast learning: adopting to change |
| All people and communities should be included. | Dynamic learning |
| Social Responsibility | Technology could speed up learning |
| We need to deal with the inequality that still exists amongst the world's population. | Learning how to learn |
| We need to act inclusive | Transformative learning |
| Co-Creation and participation as inclusive approaches | Personal development |
| Social Impact | Informal Learning |
| Accessibility and inclusiveness | Lifelong learning |
| Diversity | Trans-generational learning |
| Caring for each other | Real world experiences and practice-oriented learning |
| Schools of Design, Film and Arts need to inform the global society and include everyone. | Experiential Learning |

| Politics of Digital, Critical Thinking | Technology and Humans |
|---------------------------------------|------------------------|
| Critical Thinking | Balance between humanity and AI |
| Critique | Emancipation from the digital |
| Digital Anarchy: a lot of the «good things» we expected from digital media got out of control | Being human in a digital future |
| Most of today's technologies are in the hands of such naive minds. | Healthy relationship between humans and machines |
| Abuse of power on the Internet. | Appreciation of «being human» |
| Regulating the Internet | Humankind has to decide on the digital future – we must not delegate this responsibility |
| Data security | Humanising Technology |
| Politics of the Digital | Human Machine Interaction |
| Flatten Hierarchies through the digital | Human Centeredness |
| “We need to change the face - the appearance of technology” |

| Human relationships |
|---------------------|
| Conversation |
| Interactions with real people |
| Teamwork |
| Community |
| Collaborations |
| Mentorship in education |

**Fig. 5** Interview results crossed with evaluation of online survey, author’s illustration, 2020

It is obvious that due to the rather low number of participants of both, the interviews and the online survey, we cannot speak of a representative study. However, the qualitative approach and examination of the data has unveiled five thematic clusters that have been brought up by nearly every participant. These clusters can be seen...
as first evidence of areas that schools of art and design should address in order to become active participants and “shapers” of the context of today’s digital shift.

6 Discussion of Results

6.1 Inclusiveness and Social Responsibility

The first cluster proposes schools of arts and design as places that should promote and support inclusiveness and responsibility in the context of digital transformation. Most of the comments made in this array of topics relate to the observation that the phenomenon, which is called “digital transformation” only refers to a small part of the society compared to the global population. Therefore, a need for inclusive strategies emerges that could integrate communities and people that—so far—have been sidelines when it comes to the introduction and use of digital technologies. Participants of the study stated that if schools of arts and design want to actively shape the future of the digital, they need to take responsibility for an inclusive approach to the spread and access to digital technologies.

This includes the active participation and launch of a discussion about ethics of the digital and the digital transformation. It also includes participatory approaches and strategies of co-creation when designing our digital future. And first and foremost, it urges schools of arts and design to inform the global society about the multiple aspects of the digital shift—especially by identifying those factors that might have a major impact of our global and local communities.

6.2 The Future of Learning

The area of learning and its future appeared to be the second most discussed topic amongst both, interviewees and participants of the survey. Within this topic, mainly two observations or discussions emerged: the fact that education and learning as we know it today, is going to change and this change might be accelerated by digital technologies. Together with the fact that digital technologies are already being applied in learning (e.g. e-learning, blended learning) and these emerging forms need to be negotiated and shaped by schools of arts and design.

Covering the entire question of how our current approach towards learning and education need to be addressed by schools of arts and design would exceed this paper by far. However, the results of this qualitative study have shown that participants see an urgent demand for schools of arts and design to address questions about the needs of our future learners. And they see many of these needs being triggered or shaped by digital transformation (e.g. the diminishing half-life of knowledge and skills).
In this context, participants suggested that our future learners will confront schools with an increasing demand for lifelong learning approaches, trans-generational learning and learning that goes beyond institutional borders (Jewitt, 2008). The latter including experiential or immersive learning as well as transformative learning that focuses our learner’s personal development. Summarized, participants predict a fundamental change regarding our institutions. A change that might question both, our current didactical approaches to learning and the way learning biographies get subdivided into gets multiple-year degrees, postgraduate courses or continuous education.

The second topic that emerged in the cluster of the future of learning is the one of the existing and future use of digital technologies in the area of learning and teaching. Participants of the study seem to agree that while some approaches of including digital technologies in learning might increase its efficiency (e.g. faster access to information speeds up learning), others might prevent learners to acquire skills and knowledge that are only receivable through analogue means. Furthermore, an exclusive focus on learning based upon digital means might also exclude learners that might not have access to suitable technologies. The resulting question is how arts and design schools could explore and establish new forms of learning that blend the digital with the analogue in a way that a) digital learning doesn’t become a disadvantage for learners and b) connects to the physical and analogue world in an integrative way.

6.3 Politics of the Digital and Critical Thinking

The third amongst the most discussed areas of the interviews and survey spots the political dimension of the digital shift. Many participants emphasized the fact that most of the drivers of the digital transformation emerge from the tech economy and its actors. They also pointed out that they perceive a loss of trust towards most tech companies that do not know how to subdue their power when it comes to questions about internet security, privacy issues or the spread of untrusted information. Participants also mentioned that they consider the people behind the tech economy as “naive minds”, who are not prepared to deal with the challenges that come when pushing digital technologies into the market and into society.

As a consequence, the participants of this study see schools of arts and design as entities that should actively participate in the negotiation of the politics of the digital and engage with policy making with regards to the development, spread and use of such technologies—a task that even starts by scrutinising the way universities themselves deal with these technologies (e.g. pre-recorded lessons that might lead to a future decrease in lecturer’s hours/salary).
6.4 The Relationship Between Technology and Humans

In addition to the third topic about the politics of our digital transformation, participants identified an opportunity to participate in the active configuration and design of a healthy relationship between emerging technologies (e.g. artificial intelligence) and human beings. According to their feedbacks, especially, art and design schools should use their creative potential of exploring, prototyping and evaluating approaches that emancipate humans from the digital in a way that appreciates and celebrates the fact of “being human” in a future that might be dominated by artificial entities. This comes with responsibility, though, and has been pointed out by participants. A responsibility that ties back to the third area bout the politics and policy making for the digital transformation. One observation and comment that stood out in that area was the remark that as artists or designers we should give digital technologies “a face” by re-thinking its appearance that, nowadays, in most cases is limited to what people would consume on the screens of their mobile devices.

6.5 Human Relationships

The fifth of the most discussed clusters focuses the importance of human relationships and the interaction between human beings. Pretty much all interviewees and participants of the survey underlined that even in a future dominated by digital technologies, they see a high demand for interaction with real people. This interaction may result in synchronous ways of collaboration and teamwork, face to face teaching or mentorship—all of these being strong elements in art and design education. Especially, when talking about teaching and learning, most participants did not believe in design and art education that would be entirely based upon the means of e-learning or remote teaching.

Perhaps, this focus of the study represents the most contradictory outcome with regards to the current situation at universities all across the world that emerged due to the CoViD-19 crisis. Together with other observations this will be discussed in the following section of this paper.

7 From Conventional to Remote Learning in 7 Days—A Case Study

The crisis caused by the corona disease caused nationwide lock downs of universities in numerous countries around the world. Many of them had just few weeks or even days to transition from conventional ways of teaching and learning to distance learning and remote teaching. For most of the art and design schools this also meant to abandon their studios, workshops and labs that are so essential for craft-based
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arts or some parts of design education. All in all, it led to a rapid increase of the
use of digital technologies and e-learning platforms. From many points of view, this
increase questions some results of the study discussed in this paper. Especially, the
fifth emphasis on the importance of human interactions stands in contradiction to
the current situation that most arts and design schools had to adapt to. Therefore,
this section dives into a series of observations made during the first three weeks of
distance learning at our own university in Lucerne, Switzerland.

On March 13th, the Swiss Federal Council decided to close down all schools and
campuses. No forms of teaching that included the physical presence of both, learners
and educators, were allowed anymore. Due to this severe restriction, our university
based in Lucerne decided to stop all teaching activities (remote ones included), for
seven days, in order to establish new strategies and frameworks for distance learning.
During these days, all faculty and staff members were invited to re-configure their
courses and—in some cases—entire study programs. In the following paragraphs,
I would like to point out some of the most discussed and incisive effects of the
lockdown that relate to the topic of digital transformation that have been discussed
before:

- Rapid adaption of video conferencing tools
- Rise of asynchronous communication and peer learning
- Debriefing as part of the remote learning process
- Imitation of “analogue” formats and “analogue” ways of staying in touch
- Access to workshops and labs

7.1 Rapid Adaption of Video Conferencing Tools

Whereas before, applications for video conferencing have just been used sporadically,
the fact that most faculty members and learners were constrained to work from home,
pushed those tools to become the main instrument for synchronous communication.
I know of many schools that struggled to identify the right application that might
offer the best latitude of functions, which were required to cater the needs of different
use cases such as e.g. call a colleague, conduct a team meeting, communicate with
a large group of learners, subdivide a large group into smaller groups, etc.

Interestingly, most schools decided very briefly on a number of tools that were
available at the time. Something that rarely has been reflected while taking this
decision, was the fact that many of these tools perform very poorly when it comes
to security or privacy issues. It became evident that the performance for the main
functions of such a tool (e.g. making a group call, audio/video quality) became a
much stronger argument versus security concerns.

In the context of this paper, this comes as a surprise, when we think back of the
discussion about critique and politics of the digital that emerged amongst participants
of the study. Finally, it shows in a very brief timeframe, what was happening before
during a long period of time: all too often, for the benefit of efficiency, we tend to
accept technologies and instruments that come with many shortfalls when it comes
about security, our privacy, the spread of trusted information or also the access to such technologies as e.g. broadband internet.

### 7.2 Rise of Synchronous Communication and Peer Learning

Even, if in many places the access to broadband internet is not an issue, anymore, the sudden demand for synchronous video-based communication and/or live streaming services led to bottlenecks during some times of the day. As a consequence, people—and especially people working in the educational sector—had to define strategies that combine synchronous with asynchronous communication. Again, this might contradict to some of the findings of the study discussed in this paper. For instance, the participant’s feedback on the importance of face-to-face communication and mentorship might appear as the exact opposite of asynchronous communication.

However, first experiences with distance learning at our own MA program in design have shown that the right combination of live communication and episodes of asynchronous communication between learners and educators might turn out as very beneficial if orchestrated the right way. As head of our MA program, I, therefore, elaborated a “Distance Learning Blueprint” (Fig. 6) that provided both, course leaders and students a pattern to prepare for their courses that suddenly had to happen remotely. The main aspect of this blueprint is the steady switch between synchronous ways of communicating together (e.g. a live video session with a course leader) and asynchronous ways of sharing exercises or other content, too (e.g. uploading a screencast or exercise to a sharing platform).

While E-learning, MOOCs (Massive Open Online Courses) or other forms of distance learning, all together are based of logic of the so-called flipped classroom, for us this was an entirely new experience. Until few weeks before the lockdown, most of our seminars and courses would happen while physically working together in our studio. Very rarely, screencasts or other forms of providing learning content online would be used throughout our curriculum.

One experience that stood out, however, was the massive increase of peer-learning. Initially, our blueprint (Fig. 7) had foreseen some episodes of learners communicating and learning amongst each other. After few days that we transitioned to

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**Fig. 6** Distance Learning Blueprint, author's illustration, 2020
distance learning, it became evident that this form of learning appeared to be the most common and effective one: students started to communicate via group-chats, messaging applications or in break-out calls during the course days. This observation relates a lot to the second most mentioned topic of the participants of our study: the future of learning and its multifaceted ways of sharing and acquiring knowledge between learners and educators.

7.3 Debriefing

One of the most significant measures that we took during our switch to distance learning was the rigorous introduction of debriefing after each and every learning session. Students got provided spreadsheets on our file-sharing platform and have been invited to fill them out after each course day or evening. The sheet included three sections based upon three questions:

- What have we learned, today?
- Which experiences did we make with regards to distance learning?
- Have there been any technical issues?

While the last two ones related a lot to the situation that we have found ourselves in, the first question closed a gap that we’ve been spotting for a long time in our MA program: reflecting and discussing the way we learn and our learning process progresses. Again, this relates a lot to the request risen by our study’s participants to focus more and more on the topic of “learning how to learn”. And suddenly, even while learning remotely, we found ourselves in the middle of this discussion.

7.4 Imitation of Analogue Formats and Analogue Ways of Staying in Touch

One of the topics that has been widely discussed amongst both interviewees and participants of the online survey, was finding the right balance between the digital and the analogue. While in our study this mostly related to the way we design and create (e.g. design of physical artefacts), in the situation caused by the CoViD-19 crisis, we explored a new dimension of the “analogue”. As all of our colleagues and students had to work from home two needs emerged from the fact that most of our communication was now based upon video-calls and, therefore, also had to be planned and arranged beforehand. One is spontaneous and informal communication and the second is interacting with physical matter.

The first need led to a series of “coffee-meetings” that have been arranged amongst learners or educators: video calls without any specific topic but with a fixed point of time. This way people started to compensate what usually would happen if suddenly
bumping into each other on the corridor or during a real coffee break: informal communication.

The second was the fact, that as artists or designers, we mostly have a strong relationship to physical matter—building and creating with our hands is part of most of our fundamental training and hardly can be replaced by digital means. During our first three weeks of remote learning, a series of approaches to replace this loss emerged at our school of art and design: some teachers sent their students parcels that would contain a kit to do an exercise (e.g. design a lamp), others would send a set of cards to their colleagues to start a conversation about a topic represented on these cards.

Both examples show how much we are used to interact with physical matter as designers or artists. They also relate to our study’s finding that most participants see a big challenge in balancing the digital with the analogue—be it in design education or in our daily lives.

7.5 Access to Studios, Workshops and Labs

This last observation during the first weeks of lockdown at our School of Arts and Design relates to what appeared to be the main topic and issue to be discussed amongst our students and educators. Due to the lockdown, no one, except single faculty members had access to our studios and workshops. Amongst the many Emails and requests from our students the question of access to these facilities was by far the most important one. This, again, shows how tied up art and design education still is to physical space and creating physical evidence. With regards to the discussion and study about the role of art and design schools, this observation might indicate one thing: at last, Walther Gropius wasn’t that wrong when he wrote about hundred years ago:

*The old schools of art were unable to produce this unity (of the art disciplines); how could they, since art cannot be taught. They must be merged once more with the workshop* (Gropius 1919).

One question, however, remains: which are the future workshops of artists or designers? While for most conventional disciplines the wood-shop, metal-shop or 3D printing lab represent adequate physical platforms to work in the tension field between the digital and the analogue, for others such as e.g. Service or Policy Designers the workshop might need to extend to the real-life world: beyond institutional boundaries and beyond what we are used to call “the analogue or the digital”.
8 Conclusion and Final Remarks

This paper departed from the question how schools of art and design could actively take part in shaping the future of digital transformation. A qualitative study that has been conducted at Lucerne University of Applied Sciences and Arts unveiled five relevant areas that according to the participants should become starting points or even turning points for the future of design and art education.

Interestingly, the sudden move towards distance learning in universities that has been caused by the CoViD-19 crisis all across the world led to a push of digital tools and learning platforms that in most places had to be implemented in just a few days. Many observations made during this push relate to the study’s findings such as the importance of critically examining the politics of the digital as well as actively taking part in this political discussion.

Furthermore, a lot of relationships between the human and the digital as well as between the analogue, physical and the digital had to be re-negotiated. In this context, it also became evident that despite the extension of arts and design into 3rd and 4th order dimensions, the physical matter and evidence still represents a vital and even fundamental part of our domain.

A central term that emerged at the end of this paper and its examination is the “workshop”. It relates to both, Gropius’ manifesto that stresses the workshop as central locus of the creative disciplines and Maldonado’s “extension” of the common workshop to the “real life lab” dealing with complex questions of society and technology—questions that involve multiple stakeholders within and beyond one single domain.

This last observation or remark emphasizes that what once used to constitute the Bauhaus or the Ulm School of Design, nowadays needs to extend to a collective that goes beyond the arts and design domain as well as beyond institutional borders. And yet, entities such as schools of art and design might need to maintain their character of a “laboratory” as part of their independent and pioneering role in society by providing lively counterparts to the huge “real world lab” that we encounter all around us.

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Declaration of Interests Jan Eckert is head of the MA Programmes in Design at Lucerne University of Applied Sciences and Arts, Switzerland.

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