Digitalization and Crisis at Roskilde University:

Collective monologue, clash of space and totalitarian digitalization?

Sebastian Dempsey, Philéas Le Quang Huy, Nadine Østby Hajjar, Tristan Lusignet-Liltorp

Roskilde University, RUC

02.06.20

Abstract

In March 2020 students at Roskilde University experienced a tremendous transformation into learning solely taking place online. In light of the outbreak of COVID-19, digital learning was now a part of the everyday life of students. Thus, this project will take a look at how learning processes unfold when they are confronted with digitalization. Furthermore, an essential aspect of this project will be to deepen an understanding of such a phenomenon by zooming out of the frame provided by online courses and further dive into the discourses surrounding the growing digitalization of universities around the world and how this could affect higher education. As both researchers and direct subject to the phenomenon of digitalization at RUC, this project research will be conducted based on self-observations. This paper concludes that both participation and communication is challenged inside online courses. Furthermore, the duality of space the subject is confronted with, in the emphasis of those processes. This project further explored how universities came to be datafied and how such a phenomenon could endanger higher education as we currently know it.

Indholdsfortegnelse

Introduction

"Contemporary events differ from history in that we do know the results they will produce. Looking back, we can assess this significance of past occurrences and trace the consequences they have brought in their train. But while history runs its course, it is not history to us. It leads us into an unknown land, and but rarely can we get a glimpse of what lies ahead"(Friedrich Hayek).

The COVID-19 crises changed something. Although none can be sure of its future repercussions and consequences (as Friedrich Hayek states) one can be sure that it had an impact on a lot of people since January 2020. A lot of new habits, behaviors, practices normalized themselves during this period (like social distancing for instance). The use of digitalized tools enhanced greatly because it allowed people to stay in contact, work, and of course study. Thus, digitalization proved itself even more worthy especially in other events to come (possible other pandemics, global warming). Therefore at Roskilde University (RUC), a digitalized process was implemented and increased during this crisis period changing considerably education, studying, learning, and teaching.

This project will gather data through the method of self-observations. According to Brinkmann, we, as subjects of the phenomenon this project ought to explore, have the capacity to conceptualize and reflect upon our own experiences. Through a process of qualitative generalization that will allow us to grasp the individual's subjectivity, we will both zoom in the phenomenon to understand it in its specifications as well as zoom out in order to depict an overview of it.
In order to analyze the self-observations, this project will draw on Situated Learning as understood by Lave. Learning is situated in a context. Such a context, as well as a change of context, is what this project ought to grasp. Lave describes the relationship between the learner and the context it is surrounded with, thus the theory of situated learning becomes relevant in exploring the changes we experienced when the context of learning and the notion of learning processes have changed in its digitalization. Indeed, when focusing on the self-observations the project will tackle the notion of communication and participation, as well as space. Through Lave's understanding of learning processes, this part will emphasize the lack of dialogue inside online learning and teaching as well as highlight the clash of space, and the consequences, students need to face.

Finally, this paper will zoom out of RUC's frame for a while to take a look at how this phenomenon of digitalization came to dominate universities. In a second time, it will emphasize how, through digitalization, higher education is facing a process of datadication and what could be the repercussions of such processes. To conclude, the project will challenge our conception of the digitalization of higher education by raising different issues surrounding what could be qualified as a totalitarian digitalization.

Therefore the project will aim to answer the following problem:

Drawing on RUC's online learning and teaching during the Covid-19 crisis, what learning processes are being unfold in this context and what can this phenomenon highlight on the future of higher education?

Sub-questions:
- *How can we unfold the learning processes at play in online learning and teaching through situated learning?*
- *What are the possible causes and consequences of such a change in the educational practices?*

Corona Context

At the beginning of March, the serious biological threat Covid-19, was now not only an Chinese crisis anymore, Denmark as well as the rest of Europe also started to get touched by the outbreak. As a result, the Danish government rapidly decided to close the borders, shutting down all institutions such as schools and universities, where they strongly advised all the population to stay home as much as possible. In that case RUC, as well as most educational institutions in Denmark, did not project to cancel all learning possibilities of their students until the end of this sanitary crisis. Thus, most Danish students have experienced, and are still experiencing, online teaching and learning at the moment. Those courses taking form online on platforms such as Teams resulted in students meeting weekly and listening to their professors teaching. In that sense, the Covid-19 poses an incredible fundamental shift in learning and teaching, as well as enlightening a new level in the relation between digitalization and learning. Learning at RUC before Covid-19 was already deeply connected to digital processes, but it is only during this period that learning at RUC became purely digital. Students at RUC do not meet their teachers and classmates in a classroom anymore, but gather on Teams instead. Also for the project work, students and their supervisors only meet on Teams or Skype whereas the only connections they have with their supervisors are digital. This shift in learning processes is also an eye-opening experience and a unique opportunity to explore what consequences digital learning and teaching can have for the outcome of the production of knowledge. In a society where digitalization increasingly influences learning processes at higher educational practices, we find it crucial to further explore this phenomenon as we have found a lack of focus on the influence it is followed with.

How to explore human experiences with digitalization

In the following part of this project, the aim is to discuss and clarify the choice of method along with how to pose relevant data for the research intended. The choice of method will be the base of this project to draw knowledge as well as introduce a structure for the argumentation presented. Methodologies such as self-observation, Zooming in & zooming out, Creative analytical practices (CAP) as well as the notion of generalization will be introduced and discussed in the following.
Firstly, the project will take a qualitative stance with data conducted from the experiences of the researchers themselves. As four students from Roskilde University (RUC) during the outbreak of the COVID-19, we experienced a transition from learning in a physical environment to solely participate in online learning and teaching processes. Learning now took place in a digital space, and we, therefore, believe that we as students are competent first-hand knowers taking part in this transition ourselves. Such a task however, requires a further understanding on how to draw on our own thoughts and experiences in an academic manner.

'Introspection' is defined by self-examination and *"the contemplation of one's own thoughts, and sensations"* (Collins English Dictionary, 2014). Introspection, also in psychology, can, therefore, be conceived as the art of examining and researching the inner processes and experiences of an individual. Some philosophers and psychologists within the field have variously been discussing the existence of such an examination and whether introspection is even possible during scientific research. This can be traced to the question of whether the subject is capable of accessing its own mental states and inner mechanisms, and express them as well as reflect upon them. The discussion often falls on human consciousness and how aware the subject can actually be in its own consciousness, especially when expressing feelings and experiences who inevitably will be subjectively conducted (Engelbert and Carruthers, 2010).

However, several methods have been presented in the conduct of such an introspection, and in this project, we will draw on the notion of self-observation posed by Svend Brinkmann as: *"the self is both subject and object in the process of observation"* (Brinkmann, 2014). We believe that the notion of self-observation inevitably falls under the notion of introspection, as the goal of this method is to look inward and examine our own thoughts and experiences during the process of digitalization and learning. In Brinkmann's words: *"As language users, we also have the capacity to conceptualize and reflect upon the ways we observe ourselves, and we can communicate our self-observations to others"* (Brinkmann, 2014).

The previous discussed notion of the validity of introspection also poses the question of the possibility of generalization through such self-observations. In relation to psychological fieldwork, generalization can be defined as *"discovering, imagining, understanding, and transforming the world and, within psychological science, it refers to oneself and others, and to the world of our experiences, actions and their implications"* (Busch-Jensen & Schraube, 2019). It is therefore about understanding a phenomenon in relation to its context and inevitably including experiences, emotions, thoughts, and actions along with these discoveries.

In the field of psychology, a quantitative approach creating knowledge validation has been dominating the field for a long time. Psychology has in many ways tried to live up to other sciences where the quantitative approach is dominating and central. Busch-Jensen & Schraube mention the fact that: *"major traditions of psychological research built on frequency generalization as the basis of evidence(...)" (2019)*. However, new fields of psychology helped demonstrate that the human subjectivity is unique. Psychology in itself is about dealing with this uniqueness of both human beings and their experiences, taking place in a world of constant change. As Jaan Valsiner puts it: *"We need to come to terms with the uneasy recognition that it is the personally unique subjectivity that is objective in psychology"* (Valsiner, 2014). The question surrounding generalization is now how to achieve this objective, without reducing this subjective uniqueness of given psychological phenomena to scales or superficial understandings.

A key point in answering the question is the fact that human beings are social beings. We live in a shared world; the general world is part of the particular human being just as a particular human being is a part of the general world. the world shapes us just as we shape the world when we take part in it. When we as humans experience and feel in the world, it is not solely inner processes taking place inside of us, but also inevitably with constant impact and relevance from the world surrounding us. (Schraube, 2019).

As the philosopher Günther Anders explains: *"As everybody else, I am a barometer, from which I can read, in fact permanently, the weather condition of our time. I repeat: Everybody is such a barometer. Everybody carries, by the fact of her/his existence, around a piece of the present world, free available material, from which she/he can always draw, not so much to recognize him/herself, but rather the world of today and the world she/he is together with . . . All yours, all what can happen to all of you, can also happen to me; all your possible reactions or deficits of reactions can be read from me – in short: who is looking into oneself is also finding the others and the world."* (Anders, 1965).

As we interact in the world we experience through internal relations, and as each human being is unique, different subjective understandings and versions of one phenomenon will always be the case. It is not the universal truth that is aimed at through generalization but a contextual one, thanks to the notion of situated generalization.

Coming back to the mainstream concept of generalization through frequencies, this has been the figurehead to plenty of psychological research throughout time, where drawing knowledge and justifying their validity happened through the multiplicity of data and cases. Taking a stance in this approach, drawing knowledge from one single case seems completely biased.

It would for example be completely impossible to conclude that every worker of a company is happy just because one of them is happy. In psychological research an epistemic approach would pose a narrow and one-sided conclusion as it often requires further in-depth analysis of the psychological processes in order to explore these phenomena within their specific context (Schraube, 2019). Drawing on concepts of generalization through frequencies can, therefore, pose methodological problems as they can discord, alter and even reduce the nature of a researched phenomenon and the subjective, unique, character of human experience lying behind it.

All this has contributed scholars working in favor of an epistemological shift in the tendency towards situated knowledge instead. Modern science is originally built on the assumption that the researcher is *"is an isolated knower, who stands outside the world and aims to represent it correctly. True knowledge, on this account, means correct representation"* (Brinkmann, 2014).

Such a representational notion of the production of knowledge from an external, abstract, and universalist perspective, disconnected from specific historical and societal relations, is challenged today. Knowing can therefore never happen outside social relations nor outside of a specific context taking part in a historical period: *"Knowing is not something that simply happens – as if we were able to magically represent the world 'as it is' – but rather . . . an activity. Knowing is something people do, as part of their lives... We need to desacralize knowledge and admit that if knowing is a human activity, it is always already situated somewhere – in some cultural, historical and social situation."* (Brinkmann, 2014: 32)

In this project, we therefore came to the understanding that situated generalization is a suitable way to gain and obtain knowledge on the phenomenon of digitalization and learning. Bearing in mind that we, while we self-observe, are taking part in a cultural context, where we will be representing our own reflections and points of view on our phenomenon.

After establishing the importance of situated generalization, dependent digitalization and learning as our phenomenon, content and subject matter of research, it is essential to discuss the analytical strategies of generalization used in our methodological circle (Valsiner, 2014).

A useful psychological inquiry posed by Schraube is the concept of zooming out to zoom in. This approach firstly takes a stance in a phenographic analytical dimension, where we aim to pose a detailed description of the phenomenon of digitalization and learning (Busch-Jensen & Schraube, 2019). For that matter, our data is separated into two categories for each student, the first part is called 'Observations' and serves a phenographic purpose. A further analytical dimension in this approach is the phenoconstructive dimension which *"includes a critical, constructive, and trans-descriptive analysis of the phenomenon"* (Bush-Jensen & Schraube, 2019) of digitalization and learning along with possible dilemmas posed from our own

experiences and reflections within our self-observation diaries. Those will take the form of 'Reflections' exposed in our second part of the collected data.

Based on an understanding of human subjectivity as contextual and situated in the world, the imagery zooming out to zoom in advocates that we investigate our psychological phenomena by looking with people and their worldly connections. It invites us to perceive the actions portrayed from the perspective of the acting subjects.

Social phenomenons that might seem trivial, strange, or even indefensible from an isolated and detached perspective, often transform into something more complex, important, recognizable, and understandable, when we are invited to see how it is actually lived, felt, made sense of, and accomplished by three-dimensional human beings engaged in their everyday life.

In our case, we, as students in Roskilde University, have all been participants to an already established cultural phenomenon namely an increasing relationship between digitalization and learning. This is not a new phenomenon, and for the specific case of Roskilde University, several platforms are used when learning processes take place. Digital platforms such as Moodle where one can find homework and readings for the course is an already integrated part of everyday life when studying at RUC. However, teaching usually takes place in a physical classroom where face to face teaching takes place and is highly valued in the learning process. But due to the dramatic shift from face to face teaching to Digital learning in a solely digital environment, students of RUC are forced to adapt to the phenomena of learning solely through digital platforms.

Usually in problem-oriented fieldwork, through methods of for example participant observation, researchers are considered professional newcomers to an established unknown context as they are investigating an unknown culture and become actively engaged in it. They engage professionally within the environment they aim to investigate and learn with and about the people researched in order to write about them later.

But in this particular project we are not professional researchers engaging as cultural newcomers in that sense. We are not researchers engaging in a strange environment, and despite the fact that we are cultural newcomers to a new phenomenon, we have been in the heart of this change ourselves. We as students have been positioned in the middle of this drastic change and the notion of self-examination, therefore, becomes relevant.

When self-observation takes place, one has to be aware of the fact that the self both becomes the subject as well as the object in this process. We are observing ourselves and at the same time, we are the ones being observed (Brinkmann, 2014).

Despite digital learning, we as students have been used to an increasing relation between digitalization and learning. But aiming to make the familiar unfamiliar, we need to take a step back and zoom out from our specific situation. The process of having lectures online did in some sense force us, students, to take a step back and zoom out, but the aim in this project, and therefore the method used, is to first describe our context along with how digitalization has had a major impact in the concept of learning. After zooming out, we aim to take a step inside again, explore the phenomenon, reflect on our experiences, and find common challenges within our reflections that require further constructive and critical analysis.

Before concluding on our use of generalization in this research, it is important to address some of the limitations and challenges that come with it. We have already established that human experience is subjective and lived on first-person. We, as individuals, cannot exactly re-experience psychological phenomena as we first experienced them since they are in flux as Valsiner emphasizes: *"Psychological phenomena are transient. A thought crosses my mind (and vanishes), I feel happy at the sight of a beautiful scene, and so on. Here is the problem – which is also the solution – the psyche is profoundly constructive. It cannot simply repeat what has been experienced before – it necessarily adds a new nuance of the novel moment. Consequently, it created many different forms of thinking and feeling, all of which may disappear."* (Valsiner, 2014)

By acknowledging the subjectivity of both the subject and the researcher it entails that the researcher, as a subject, is affected by his/her own research and that this needs to be taken into consideration and examined during the research processes. It will be essential to be critically aware of who and for what ends our data can be traced back to, as all knowledge, especially situated, has its roots from somewhere. Situated generalization does not proclaim to be innocent whatever the circumstances and therefore invites a self-critical standpoint.

In order to allow ourselves to move freely and creatively in our research, we have chosen to use what Brinkmann describes as Creative Analytical practices (CAP). This allows us to conduct notes and journals, in this case during five courses we attended in psychology, as a *"focused use of journal writing can refine the researcher's understanding of her role as a research instrument and also of the responses of participants"* (Brinkmann, 2014). When it comes to writing the self-observation in itself *"it is difficult to present guiding principles for how to work with self-observation in CAP traditions"* (Brinkmann, 2014). However, as Brinkmann explains, the writing of journals allows *"to describe and analyze personal experience"* (2014) in order to draw knowledge from it. Furthermore, the CAP method allows us to include the phenomenon of zooming out to zoom in order to reach a deeper understanding of our experiences.

Using the ontological triangle of self-observation, the group has decided to use the notion of the phenomenological self, as we will look into inner emotions and experiences along with our relation to the social environment we have been taking part in.

The ontological self is, by Svend Brinkmann, used to describe feelings and emotions during certain experiences in a social environment and researching the self as the object for its circumstances, and through direct self-observation, we are going to address our own experiences with Digital learning and how it has changed the conception of our everyday life. Learning is an essential part of our everyday life and it is, therefore, more relevant and approachable to grasp our own selves in the project.

Experience reports of online teaching and learning

Experiences: Student ”A”

When the lockdown was initiated in March 2020 all universities in Denmark launched several options of studying involving digitalization. At Roskilde University (RUC), the program was quite clear for the students as far as I know. Classes would be held on Microsoft Teams, we had to be in touch thanks to our RUC mail and other devices (Moodle, STADS, digital exam).

Our first digital class was part of a course centered around the idea of methodology in psychology. It was a bit of a shock in the beginning – no one really knew how to proceed, act, talk, or behave inside this digital space including the professors. Did we have to turn the webcam on? What about if I wanted to say something, did I have to write on the chat or turn my mic? This confusion stayed for a while but the more courses we had, the more accustomed we were with our new classroom - we finally began to have some sort of norm. people began interacting with each other even if the majority went silent. Our exams were then handed in on the internet and feedback given. Bellow can you find a couple of observation coming from my own experience during those online classes:

Unilateral dialogue: during the classes, there was no real build-up towards conversation and debate. In that sense, the classes were very traditional – the professor asks the questions and the students respond to them. It emphasizes and worsens the hierarchy between two different entities (students/professors) that still exist in our modern educational system. Furthermore, to support this idea the fact the professor was the only one with a webcam and microphone turned on created this power relation that implicitly told students to be quiet and not to disturb the class.

Approval chat: during the classes, the students were allowed to use the chat for different purposes such as disagreeing with something, notice the students when we have a break if one wants to implement or ask a question but in most of the cases it was used as a tool of approval. Each time the professor asked a question regarding the good progress of the class, the entire class would directly approve of the chat. It is as if there was a special key to press on our laptops. Thus, the chat was only used for those purposes and not inside the curriculum itself.

Distraction: the monotony of the classes made it difficult for some students to concentrate and to get easily distracted by something else especially because of the location of the classes at home. Students often assimilate their own place as a place of rest, not of work and this might have an impact on this non-concentration phenomenon.

PowerPoint hegemony: PowerPoint is usually used as a support for a presentation but during online learning, the PowerPoint was literally in front of us which shifts in the way our perspectives. PowerPoint is thus in a way in front of the professor who was more of a support to the digital presentation.

Reflexion student A

One of the first things I reflected upon during this episode was the fact that my fellow students and myself got used to this new approach very quickly. Within a week, everyone seemed to have gained certain habits in digital learning. Even if some questions were still troubling our minds (SU, exams, end of lockdown), a sort of digital-university shaped itself at an incredible speed. And it got me thinking: how is it possible to change a whole institution and to shift towards digitalization so fast especially during a world crisis never seen before? And then it hit me, nothing had actually changed. Of course, I now had classes online instead of going to the university but when I compared the way I studied before the crisis and during both were incredibly similar. In both cases my exams were online, the contact with the administration on email, the readings sent on Moodle, the arrangements with my study group done through messages, and most of the work shared on Teams. Even the lack of participation during the classes can be seen in both digital and physical learning and most of all the lack of presence at the campus itself.

The corona crisis didn´t digitalize studying – it already was. Our university was digitized from the day I started. Now, this may not sound like a problem for everyone, but digitizing education raises some big questions. It is a surprise for no one that digitalization can be helpful – but there is a tremendous difference between using digitized tools and relying solely on those for educational purposes.

Jean-Jacques Rousseau once said that learning wasn't about gaining time it was about losing it. Losing it in the sense that a student is supposed to be lost in its research. He is supposed to be like an old librarian searching for an old book, wandering around huge amounts of knowledge.

And looking back at the history, universities have always been places that fought efficiency, places of conflict and uprising, not a uniform straight line towards a job possibility. This opinion might sound farfetched, but this crisis has revealed in me a real concern: can I consider myself as a student in the proper sense of the word (etymologically the word student means “applying oneself to”). Looking back at digital learning during the COVID-19 crisis I feel more trapped in a Black Mirror episode than actually applying myself to a field of study and learning. And I think that this isn't only symptomatic of this crisis but also to studying in general.

In the Black Mirror episode “Fifteen Million Merits” we follow a character trapped in an enormous building where the only things he could do are: on one hand he can entertain himself (consume) and on the other hand gain credits by running (producing). Applying that to my student life this dichotomy between consuming and producing is extremely relevant because while using the digitalized space of my university I am in a sense consuming thus when I write exams and in a long term get a degree I am producing for the university.

Last but not least, one observation during this period was the idea of the physical space of studying. Though I understand that in those circumstances it was impossible to be at the university I realized how we spend very little time at the university in “normal” times. Before the crisis, the only time I went to university was only for classes and meetings. With digitalization, everything can be done at home and that truly defies the idea of a university. A university is before anything else a place, a space of exchange. This idea goes back to what I told before about the fact that nothing really changed during the COVID-19 crisis. It is therefore essential that students take back the place that is dedicated to them because of this where the political, social melting point happens.

One might even say that digitalization goes against the right to gather especially in places considered as political turmoil. As a conclusion to my observation, nothing really happened and thus nothing changed during the COVID-19 crisis in the perspective of studying and that is what scares me in a way. This digital shift scares me because we are not using it as a tool – we are replacing the essence of learning with it. On a more Foucauldian perspective, there is a reason why humans have literally built schools, faculties, universities it is because they gather people and knowledge (and obviously power). It might just be me being a Neo-Luddite or refusing change, being old-school as people say the only important thing for me is that I waste time reflecting upon it.

02.06.20

Experiences student B

Digital learning session one:

The first session with Digital learning was a bit weird to me. It was not the first Digital learning session ever, as we have just attended another class where we had to switch to digital learning in the middle of the course. In that sense I was already familiar with the two teachers, their way of teaching and I knew the audience or the faces of the students who were behind the screen. This was something else. Even though I had met The course teacher physically previously in my education she was now introducing a whole new course and behind the screen where people and names I have not seen before. Many of the names were still familiar which kind of made it seem like a more known environment after all. In the beginning, I was kind of optimistic and I sat on my bed with a decision to actually focus on the course lecture even though the environment of learning appeared kind of new. The course teacher said that we had to represent something during the course and I immediately jumped in and volunteered with my group for the presentation of the upcoming lecture two days later. In our group chat a fellow student texted that we should wait, but it was too late cause I had already written that we would take the presentation of next lure to The course teacher in the common class chat with the ongoing lecture. I kept my focus up until the second break, where I went outside of the room I was sitting into smoke. I kind of lost track of time and did not really think about going “back to the lecture”. Soon I remembered that the lecture had probably started and The course teacher invited us to a discussion about what she referred to as the “holy cows” in our countries. She invited people to turn on their microphone and participate in the debate.

People however probably felt more comfortable writing in the chat instead but there was good participation and flow in the examples which made it an exciting task for me at least. It was interesting to read the different perspectives but I noticed that you still could only hear The course teacher commenting on it and reading them out loud which kind of distanced me from the other students and made me focus on The course teacher as the only actual participant.

Course session 2

Preparing for the second lecture we in the group decided to divide the different texts for the presentation. To be honest I think it was because we already felt like we had to present individually behind our own screens. I personally was a bit nervous mostly because I imagined me sitting behind a screen all alone doing some kind of mistake while presenting. I felt as if I would say something wrong or maybe even blank out during the representation no one from my group would jump in and "save" me or help me finish the sentence. That is not to say that they would just leave me hanging there but more in the fact that I could imagine they would maybe be distracted or simply take some time to open the microphone and actually take action. In a normal classroom, it would be easier; you should just open up your mouth and speak.

But here it seemed like a much bigger effort if they had to help me out. During the first part of the lecture, I was honestly not focused on what The course teacher was saying, solely on what I had to represent in some time. And even though I was going to present my own experiences and literally it would be hard for me to mess that up, I still felt like there was something making me extra nervous for what I was going to say. When The course teacher told us to present it took the first presenter quite a while to turn on his microphone so there were maybe 40 long seconds of complete silence from the time The course teacher said start to the first one in the group actually starting to speak. In those moments I was considering if one of us should turn on the microphone but I saw no point in that as that would ruin the order of the texts. Seconds before I had to represent, I went outside and sat down in my stairway to make sure that no one would interrupt me while I was presenting after all many people were in the apartment I was sitting and having a lecture in.

I started to present in the stairway and all I could think of was if any neighbor would pass through me and hear me talking into a screen. I felt like I was talking to myself as I could not see anyone nor hear anyone. The course teacher even had removed her webcam to place the full focus on us, students representing, but to me it made me feel like I was talking to people who could hear me but I could not hear them. I could not see their facial expression or grasp if they were kind of understanding where I was heading or agreeing or disagreeing. Right after I presented, I didn't know what I had said but I was glad that it was over and that I could see The course teacher's face again.

After the presentation, I kind of felt encouraged to participate in the “written debate” The course teacher was inviting people to be critical towards the theories we had read. I posted a few comments but again I felt that the discussion was not leading anywhere. It was me writing and no one else (as many other students had done previously in the two first lectures). But this time I could feel it myself; that no one “picked up” on the comment of the other.

It was only The course teacher who elaborated on each thought. I kept on commenting two times again during that lecture because of the fact that I actually found the topic quite interesting but I lost interest again as it leads to no conversation. At some point, The course teacher invited people to talk about some personal experience in relation to family members and transnational processes and she gave us five minutes for people to participate and I felt sad about the fact that no one was participating including me. I was sitting with my friend and asked her if I should unmute myself and talk but I chose not to cause I felt like it would be awkward. Also to talk in front of my friend who had nothing to do with the digital environment I was taking a part of. It did not feel normal to sit at home and share my experiences with people I have not met and could not see in my friend’s kitchen with my friend sitting beside me. She called a fellow student out and asked him to repeat his conclusion from our representation and after some more silence, he unmuted his microphone and forcefully I think started to talk.

Course session 3

During the third session I was very demotivated and I considered not to “show up”. I had forgotten that I had an online course that day and remembered it about one hour before the class would start.

I thought about how I used to wake some of my fellow students or call them in the mornings when we actually had to show up physically and take the train. We would text and agree on which train to take at what time. Now I was the one forgetting about class and I found it rather everlasting to sit and listen to a woman talk through a screen with a PowerPoint for four hours. I decided to give it a go but I was lying in bed while I was listening to The course teacher and before the first break I had already fallen asleep. I decided to go for a long walk and act as if I was listening to an audiobook which I would often do when going for a walk

normally. So I went out for a long walk but on the way, I decided to go to the supermarket. A friend called me but I couldn't answer cause I had The course teachers lecture on my phone.

I texted him instead so in the middle of the supermarket I was actually attending a psychology class and texting a friend. I was doing three things at once; groceries, texting and attending a course. That made me think about modern humans. I had read in an article about how modern humans need constant entertainment and are always doing multiple things, not able to concentrate on one definite thing. But at home, I felt like it was very hard to focus on what The course teacher was saying, but getting outside in the streets made it ten times more difficult and she ended up as background noise that I stopped listening to. In the end, when I came home, I left my phone with my name attending the kitchen as I went into my room and cleaned instead.

Course session 4

Throughout session 4 I did not prepare myself for the lecture. I found it demotivating again that I was going to have the lecture from a screen, but a little bit excited however that there was going to be a guest lecturer for the course to present some of her points of views. She gave us a task that, not that we should participate or unmute or microphones to start off with, but we should draw our hands on a piece of paper. In each finger, we should write something we defined ourselves by for example as students, or as a friend, etc. I did the task and when she asked us to present what we had written, one person unmuted her microphone and spoke. I found that rather interesting that she unmuted her microphone and shared with the rest of the class what she had written. I compared what she wrote with what I had written and thought of the differences between what we identify ourselves with. However, no one else participated but I kind of felt the ping pong that I had been missing throughout the course. Even though I didn't participate myself I still felt like I had been a part of a conversation not just a monologue between one student and one teacher.

I listened to what the lecturer said and this is the first time throughout the course where I was listening quite well. However, the setting was still kind of fun, I was sitting outside in my Garden and tanning while listening to a teacher and attending an online course. And at the same time, I was snap chatting with one of my fellow students throughout the lecture. During the last course, I had attended RUC physically, I had improved myself a lot and did not use my phone during the classes. Only rarely did I answer messages etc during the lectures.

But during the digital learning courses, I had found myself to use my phone a lot more and get distracted a lot easier on my phone. After all, no one could see me during the lecture and it quickly became hard for me to listen to The course teacher and her never-ending PowerPoints even though it was probably exciting if one would bother. During this lecture, however, I felt like people I haven't seen participating before was actually engaging not only in the class chat but also by unmuting their microphones and telling their own experiences.

Class session 5

During the last lecture, The course teacher mentioned that it would be a long lecture and I thought about when we used to have real lectures where we would meet physically and have long lectures at RUC. In my head, I was kind of evaluating the process I had attended through e-learning and I thought of the lack of discipline I have had during the lectures. The notion of self-studying had been difficult for me. I did not feel like I had to read to be a part of the lecture as I had no plans of interacting in any discussions based on the texts we were supposed to read. When we had physical classes I could feel the consequences of not reading more. If I had not read, I could not engage in the small discussions fully nor could I discuss fully with my classmates when we were having smoke breaks which for me, motivated me to read the texts for the courses. Here I had no responsibility in participating and it did not feel personal having human communication through a screen. I felt like e-learning was limiting the potential discussions the otherwise physical environment would normally allow. Because people and students were picking up on the comments of their fellow students a lot more and where it did not feel as fluid and superficial as it did here.

Reflections student B

A few challenges seemed for me to generally apply for all the lectures taking part digitally. First and foremost, the lack of motivation resulted in a huge lack of concentration for me. I was never motivated to participate in lectures online as I personally did not feel like I was sitting in an environment suited for learning. And just like I didn't need to prepare for the lecture by getting dressed, taking a shower, and taking the train, homework didn't mean anything to me either. I felt that learning on digital platforms was an abstract intangible environment.

The second was the increasing monologue instead of dialogue. It seemed as if the black small screens with the different names on, and the group chat kind of limited the invitation for conversation and thereby a good dialogue and great communication.

For me, it was also confusing and hard for me to concentrate as too many things as happening on the screen. You had to focus on the group chat, as well as the PowerPoint, and you also wanted to see the lecturer's face while she was explaining. It was a huge obstacle for me that I couldn't see the facial expressions of people, their body language while they were explaining which in general contributed to an intangible environment for me at least.

Experiences student C

Since the COVID-19 crisis started, we kept on having courses, but those were being held on Teams instead of on the campus. For me, it has been quite strange and difficult to adjust to those new conditions. Having a class at home, lying down in your bed, or on a sofa makes it felt weird, unformal. Before, when I had a class I had to wake up early, eat something, get ready, take a shower, get dressed up, take the train to go all the way to Roskilde and then I was meeting my friends there, we were chatting and finally, I was having my class. My whole day was built around the fact that I had class. Whereas now, I could wake up 5 minutes before my class, still half-asleep in my bed, and connect to the classroom. Sometimes I could, and would, also do something on the side during the online class because I would get easily distracted if it's lunchtime, I was cooking at the same time as 'listening' to the class.

In those online classes, all the importance, formality and seriousness of it was removed in a sense, because you're at home, alone, it's like it's not important anymore, not interesting, at best I would just stay in front of the whole course, listening to a teacher making his presentation and that is it. The only time where I felt like I was actually getting something out of it was when I and a few other students had to prepare a presentation about a few texts for a class. To have to do this exercise brings a sense of 'okay I need to get serious there', we had to read the texts meticulously and then actively present something during the class, speak up, and eventually, the teacher would ask questions too, which was nice. There was a sort of discussion, the exchange between me, my group, and the teacher.

It brought back some of the dialogue and interaction from the classes we had on the campus. One thing that surprised me as well as the fact that it seemed that the classes, we had online was the exact same as what we were having on the campus. It was just the teacher ‘alone’ with its webcam on, talking and stopping sometimes to ask us if we were still following, if we had questions, or sometimes to come up with an example on the notion the teacher was explaining. Only a few students out of a group of 20, 25 students were answering on the chat by saying “yes". It was really a big gap with what we are used to at Roskilde University where student's participation and debate is encouraged in the classrooms and where their participation not only took the form of simply answering a question by yes and no but often with an actual discussion. There it felt like I was just watching something, without really being part of it, for the most part, I think that if it was just a video it could have been almost the same.

The situation also had repercussions on our way of working in our project groups. We used to meet up a lot physically and have really long, heated, and passionate debates but then we ended up having to do it through video calls on messenger. The meetings we had there were much shorter and less intense, we were sharing some ideas, deciding some stuff and that's it. There were no real discussions or debates, or at least much less intense and passionate than what we used to.

Reflections of student C

There are a few points that I personally was the most intrigued in and that I thought about. The first one is the struggle that I had regarding the environment. I am not used to studying from home and those lectures taking place inside my apartment on my Ipad made it really difficult for me to stay focused and ‘professional’, serious, or strict with myself. The second point was the lack of or troubles with communicating with the teachers and my classmates or the rest of my group. It seemed hard to establish deep and constructive communication as well as developing strong and constructive arguments or ideas in order to conduct an interesting debate.

And finally, it seemed like the courses were just taken from the physical classroom and exported in those digital platforms, assuming that it would work the same way. There were no noticeable differences between the courses we usually have and those classes on Teams.

That kind of surprised me because even though it was very sudden and we had little time to adapt it seems normal to me that one cannot take a course in a classroom on campus the same way online, and that one would need some kind of reflections to make the best use of those tools.

Experiences of student D

I felt my experiences were different every time I had a class. I noted that I didn't always pay the amount of attention as I normally would do in class, also I felt it was extremely disturbing not to be able to see who else was there, at the same time I was always thinking about if my own webcam was on, and if so, did anyone see me, I also noticed that I often received a message on my phone regarding the activity of class on Facebook. I taught at first on whether I should keep my sound on, or whether I should have everything turned on. I decided because of what seemed to be the general consensus of the class, to turn everything down and stay anonymous. I felt everything was very distant and unrecognizable. As a university student I have experienced a lot of different class environments, but what was my first impression, is that online teaching and learning was the one which seemed furthest away from the general picture of what I come to imagine when thinking about teaching and learning.

I recognized that what we taught during these classes, mirrored bits and pieces of what I had stumbled upon previously in RUC. But this time I was not trapped inside the authoritative setting of the Classroom. I felt a sense of unlimited freedom, where the only sort of discipline was to be created from the inside. I was caught between what I desired to do in the environment or setting I was placed in, and the constant battle of keeping my mind and attention directed towards the center of my computer and the practice unfolding.

I experienced that inside the online courses there was minimal communication between student and student, or teacher and student. It was of course not all removed but seemed very fractionated into tiny superficials of repeating patterns of communication. I also taught it was interesting how the chat seemed to be the easy option of participation. It seemed congruous, that the chat was one of the “new” elements that formed a general entity of participation under the etiquette of being able to stay anonymous and distant. What was my experience throughout the class, was that I felt that I was able to see, but not to be seen.

I had the ability to participate and “walk on stage”, but my instincts and motivation led me elsewhere. For me it seemed more like a long-range of presentations, instead of the former more negotiable structure, I have socially constructed as being the bond that serves the purpose and dynamics of the practice itself.

Reflections of student D

Throughout my experience and encounter with the phenomena of e-learning, a feeling of being juxtapositioned between two environments occurred inside me. At times, contradicting elements from both “spaces” conducted my lens of concentration and operational instinct, seemingly I felt that staying one hundred percent focused on what was going on “inside” the classroom, felt like a residue of what I used to consciously experience as the matter of educational practice in my life. In my case, the notion of “having class on teams” was something spectacular and singularly. I realized that the uniqueness of what was happening on a personal level, was not lonely felt, but experienced by several of my co-students.

I didn’t speak for more than 2 times in class besides when I had to present the group presentation. In general, I experienced the class as being more silent and un-operative. As mentioned I quickly realized that the chat was an easy option for participation, thus my impression was also that the dynamics and mechanism advocated by the sender (teacher), was gradually being organized after the latter (the chat) e.g I remember the incident where the question on where John W. Berry was from. I don’t point this example out because of its unique nature, but I certainly think that according to my subjective experience its “paints the nature” of the general discursive elements of the class. The time in between question and answer certainly also seemed “delayed” in the sense of partial features of the digital functions of the chat i.e there was a filter of having to undergo the process of writing instead of speaking. Where the latter to my understanding, a much more spontaneous psychological process. When one speaks in class or when I myself have spoken, my “choice” of words has come naturally and at the moment.

Distance and distraction are the two major limitations I will denounce in my own experience as being the major obstacles compared to real-life learning. Distance in the sense that “I didn’t really feel I was there” and distractive in form of the interplay between environment A and environment B. I had tried to avoid any substances of distraction, but my curiosity and ability to focus was guided away from the class due to two major sources.

I constantly felt drawn to my surroundings in an ambivalent way, the constant shift of active engagement between what seemed to be two very distinctive worlds or just actions. I had been used to “class” being inside the university facilities. There was a train to a catch, and breakfast to be eaten. Now it only required trust in my computer. The engagement on my behalf regarding the pre-constructed preparation for school, I think shifted because of this distinctive feature. I didn’t feel responsible on multidimensional levels. For example, I didn’t need to pick my clothes, or “eat to travel”, on the opposite the whole experience of going to school, was encompassed by the computer

Introduction to situated learning

In the following part, the project will take an analytical standpoint, where the theory of situated learning will be introduced. Furthermore, the aim of this part is to provide an analytical overview of daily life at RUC prior to the outbreak of COVID-19. Such a standpoint will, by drawing on the experiences posed in the self-observation, describe the change of participation and communication when learning entered a digital platform at RUC. For this manner, the theory on situated learning is quite relevant in supporting the self experiences and reflections. The reasoning for the choice of theory can be found in the way Lave describes the notion of learning to be situated in a context. Such a context, as well as a change of context, is what this project ought to grasp and understand. Due to the fact that Lave describes the relationship between the learner and the context it is surrounded with, the theory of situated learning becomes relevant in exploring the changes we experienced when the context of learning, and the notion of learning processes have changed in its digitalization. Furthermore, the change of space and how to define such a space as digital platforms in the realm of learning will be analyzed in the context of situated learning. The reasoning for applying her theory on digitalization in relation to teaching and learning can be found in the fact that digital learning exactly is situated in a community of practice despite the fact that it might be a rather unknown one.

Taking a stance in the theory of the social anthropologist Jean Lave, learners are not viewed upon as objects when it comes to learning. Quite the contrary, they are viewed as actors actively engaging and creating their own learning process. In posing theories embedded in the social nature of learning, many psychologists have been emphasizing the individual as the center of learning and often tend to suppress or limit the notion of the importance of the social world they take part in; “the organization of schooling as an educational form is predicated on claims that knowledge can be decontextualized, and yet schools themselves as social institutions and as places of learning constitute very specific context” (Lave, 2019). Learning is therefore often understood as a phenomenon that can be taken out of context and transferred from the teacher to student, where the assumption presupposed teaching as a precondition for learning.

In the creation of a learning theory, Jean Lave was interested in what such learning theories was really about, and how one could create a learning theory that not only assumed learning to be describing the psychological and cognitive processes of the individual, but view learning processes as a whole with the individual taking part and changing it: *"conventional explanations view learning as a process by which a learner internalizes knowledge, whether "discovered" "transmitted" from others, or "experienced in interaction" with others"* (Lave, 2019)

In her book, "Teaching and learning in practice" Lave, along with Professor of psychology Martin Packer, created what they saw as key components on how to construct a specific learning theory, and emphasized three crucial points for the development of such kind;

1- The notion of Telos describing the direction of movement or change that is expected through the learning process.
2- The Subject-world relation describing a general but specific situated relation between the subject and the social world it is engaged in.
3- Learning mechanisms which are ways by which learning comes about.

Teaching should according to Lave therefore not be seen as a precondition for learning, whereas the focus should explicitly and preferably be describing the process of the learners when they learn, how they develop, and how they change with such a learning space**.** Learning should further be viewed upon as mechanisms rather than treating learning within the realm of reification, as learning cannot be objectified in that sense. When researching learning processes the debate often, according to Lave, falls upon instructions to teachers on how to teach which is not the desired situation. Learning can, according to Lave, not be solely transferred from a learning curriculum posed by the teacher and directly provided to the learner in a trajectory model. (Lave, 2019).
In a learning environment, it is, therefore, the aim that both the teacher and the learner are viewed as active subjects actively engaging with each other when learning processes take place.

With these elements included, the situated learning theory fully emphasizes that learning is embedded in social activities taking place in a specific context engaging in a social-cultural world.

The following part will, therefore, take a further step into different important concepts used in the theory of situated learning posed by Jean Lave, in order to gather a more precise overview upon important concepts used later.

Community of practice

Learners are involved in what can be described as "a community of practice" acquiring certain beliefs and behaviors in the construction of the context of learning. A community of practice defines the authentic context in which learning takes place. It posits that knowledge should be delivered in an authentic context and learning, therefore, requires social interaction and collaboration with the other participants in a "community of practice". Through this learning process, and by engaging in an authentic learning context, the learner will gradually move away from the situated community practice and becomes an expert in more complex activities in the future; *"such an investigation would afford a better context for determining what students learn and what they do not, and what it comes to mean for them, than would a study of the curriculum or of instructional practices"*. (Lave, 2019). Such a learning environment is by Lave described as a "legitimate peripheral participation" and is an unconscious process the learner takes part in; *"The concept of legitimate peripheral participation provides a framework for bringing together theories of situated activity and theories about the production and reproduction of the social order"* (Lave, 2019)

Learning therefore only occurs when the individual is a member of such a learning community of legitimate peripheral learning where it is allowed to progress and develop. Rather than a sole achievement of knowledge posed by an individual, learning is formed and constructed in a social process of participation with the surrounding community.

How to understand learning

Learning is further always described as *"situated in a context"* (Lave, 2019). As learners and individuals function as appetencies to their own changing practice in the learning process they take part in.

One can never generalize from the understanding of a specific apprenticeship practice, as all learning and knowledge is situated and thereby engaged into a specific practice: *"our theorizing about legitimate peripheral participation thus is not intended as an abstraction but as an attempt to explore its concrete relations"* (Lave, 2019)

As learners or apprentices, in a community of practice, one can therefore not define the learner as being central to learning processes. There is no such thing as central participation in a community of practice, but rather multiple varied more or less engaged and inclusive ways of being located in the fields of participation defined by a community through the notion of peripheral learning.

It is therefore located in the social world, and if one was to say that learning was central, learning would inevitably be placed in a physical, metaphorical or even political space where the individual takes place in it instead of only being a part of it; *"It seems all too natural to decompose it into a set of three contrasting pairs: legitimate versus illegitimate, peripheral versus central, participation versus nonparticipation. But we intend for the concept to be taken as a whole. Each of its aspects is indispensable in defining the others and cannot be considered in isolation."* (Lave 2019)

The cognitive processes are therefore not, as other learning theories suggest, central to the outcome of learning in a community of practice. The learner is an active subject, but it is only by the craftsmanship of participation that the learner will learn and change with such a community.

Participation

Peripherally describes the notion of two types of participation posed by Lave; full participation and peripheral participation. This is not to suggest that peripheral participation is negative nor that full participation implies that the learner has reached the "maximum" curriculum of knowledge required.

It lies more in the question of whether the learner is to be conceived as a newcomer or an old-timer along with to what extent the learner is engaged in the community of practice. The more engaged the learner becomes, the more it can be described as a process of full participation: “peripherally" is also a positive term, whose most salient conceptual antonyms are unrelated or irrelevant to ongoing activity. The peripheral participation of newcomers is by no means *“disconnected” from the practice of interest.”* (Lave, 2019)

Participation is further viewed as crucial in the process of learning. The learner is in that sense not decentred but inevitably crucial in its relation as a subject-in-the-world, in its participation in the community of practice it takes part in.

Knowing, as earlier emphasized, is viewed as *“an activity by specific people in specific circumstances”* (Lave, 2019). Through participation and engagement, knowledge arises where posed understandings can never stand in isolation to the community of practice it is constructed in. It, therefore, becomes a part of a broader system where they are provided with meaning through socio-cultural relations. These relations are created from the already reproduced and further developed in social communities.

With learning the construction of identity also takes place, as learners change and move from the notion of being a newcomer in a community of practice, into the development of an old-timer. A community of practice therefore presumes, and depends, on the membership of participants and their transformation through cycles of production and reproduction of knowledge.

Legitimate peripheral participation does not only investigate the direct environment and context the learner takes part in, but take a step further into the mechanisms and activities taking place; *“changing participation within a community; about its characteristic conflicts, interests, common meaning, and intersecting interpretations and the motivation of all participant vis á vis their changing participation and identities – issues, in short, about the structure of communities of practice and their production and reproduction*” (Lave, 2019)

Despite the fact that there should be no fixed teaching curriculum, there are still goals for learning in the community of practice engaged in. While the specific curriculum is set, the learner should still, as a peripheral participant, be able to develop an individual point of view and learning should be an improvised practice in that sense; *“ A learning curriculum unfolds*

in opportunities for engagement in practice. It is not specified as a set of dictates for proper practice" (Lave, 2019).

In apprenticeship, opportunities for learning are often already provided with a certain structure where the learner is engaged in a space of "benign community neglect" (Lave, 2019).

Old-timer versus- newcomers

Following the notion of Lave, participation at multiple levels is entailed in membership of the community of practice. The term community does, in our point of view, not necessarily imply a well-defined, identifiable group nor socially visible boundaries. It simply implies participation in an activity system in which participants share understandings in relation to what they are learning along with how this learning is changing the community of practice in which they are engaged (Lave, 1991).

In the following part, we will contrast the experience presented in the former, with the mundane perspective of attending class pre-COVID-19, I e. Terms such as situated knowing, production of knowledge, re-production of knowledge, technologies, and the notion of time and space**,** are to be presented along the way, alongside certain quotations and paragraphs from the works of Lave herself.

Learning and teaching at RUC prior to COVID-19

In this part, we will briefly take a look at how learning processes and the community of practice participated in unfolded at RUC before implementing online courses. This part is essential to understand the 'original' community of practice RUC students' were part of, in order to fully grasp the change of community of practice.

When talking about the element of apprenticeship and communities of practice, it seems quite fitting, in this case, to apply it to the institution of RUC. Located inside the segment of RUC being a social arena of academic and educational ideologies, which according to Lave, often is presented in the limiting boundary of our understanding of learning processes and what we categorize as an apprenticeship.

Lave´s notion of newcomers and old-timers is something which we would like to understand in terms of the digital phenomena of learning we took part in. We believe that such a digital phenomenon and its notion of newcomers and old-timers are reconstructed from its mundane social roles into something partially different when entering the frame of it being “online”.

But before engaging in the talks of the former notion inside our experiences of online teaching and learning, we want to elaborate a bit more on how we tend to see the notion of newcomers and oldtimers prior to the online classes we participated in.

At RUC, master-apprentice relations are both active and dismissed in the more general learning and teaching process. We as students at RUC have the academic freedom to explore and do inquiry inside a broad field of problematics and phenomenons taking place in the social world. This particularity differs from other universities mainly of RUC´s history and birth. Founded in 1972 Roskilde University was born after the student revolts of May 1968. This historical and political uprising led to a huge reflection in many domains such as education, sexuality, marxism, politics and had an immense impact on how RUC perceives its curriculum embodying a more liberated, critical, and anti-traditional teaching and learning. The often referenced model, centralizing project work as the key and stepping stone for further learning development, serves as the fundamental core of production, transmitted through its students in the problem-oriented model RUC poses (see appendix1).

In other words, peripheral learning comes in forms of practice and participative interactions in constant relation with students (learners) and professors (teachers). In the production of project work, the role of each individual in the group is to communicate, produce, and reproduce aspects taking place in broader learning processes, experienced by the individuals. The project work in its finalized form symbolizes the production of situated knowledge, understood as a constant negotiation in what to include and exclude seen from an individual as well as on a collective level. Thus we, as active participants in a community of practice, constantly are mediated between project work and peripheral participation.

The mediation between peripheral and project work, in this sense, goes through our own cognitive and social filters. In other words, RUC as a community of practice produces its knowledge though the peripheral, as well as the element of it being mirrored and re-produced in the finalized project work.

It is the interplay between two separate production mechanisms, each having their own responsibility for the production or reproduction of situated knowledge. Thus RUC decided to provide to its student's digital platforms to ensure and center this peripheral project work education. For instance, Moodle provides an exchange of documents and lectures to simplify the student's access to a certain amount of knowledge and to follow with practicality their courses.

There are several forms of reproductive elements which can be connected to RUC. As students, we are constantly in the position of selectively including, constructing, or re-producing mechanisms or understandings gained through the community of practice participated in. The old-timers also work inside the cycle of reproducing and co-producing themselves as teachers, thus one could say that there are stages of activities of reproduction in the circulation of knowledge

The produced can be situated as the contextual or updated situated knowledge, learning, and teaching curriculums taking place in the general classroom in the meantime of being digitalized (access to PowerPoints or internal documents). It is the foundation and source of reference, which is constantly developed and re-constructed for its usage, I.e we reproduce from the already re-produced; *"knowledge of the socially constituted world is socially mediated and open-ended. Its meaning to given actors, its furnishings, and the relations of humans with/in it, are produced, reproduced, and changed in the course of activity (which includes speech and thought, but cannot be reduced to one or the other"* (Lave, 1991)

It is, in our case, important to reflect upon these processes of production and wider structures in our very own institution of peripheral participation, to allow the development and *presentation of a digitalized structure of productivity we experienced.* It is of course important to emphasize that "production" is not said to be mixed with its capital alliteration, but understood in products of the social-historical context and the very core of its social life.

The teaching curriculums at RUC often allowed us to engage as researchers in an authentic context, where learning was produced through the realm of active participation and guidance from the old-timers (supervisors). A lot of the courses also focus on methodology or theories in order to help the development of a project. In doing research, the aim was always to think of problem-oriented and conduct data through actively seeking the culture, sphere, or society we were to investigate.

Through classes taking place in a physical classroom, we were often allowed to discuss with our fellow students and thereby reproduce our own conception of a topic or field of interest. We, in that sense, were engaging in a full-participation in the community of practice we were engaged in, as this specific community of practice allowed us to constantly explore and discuss theories and situated knowledge represented to us roughly.

This part has been representing how our community of practice functioned at RUC prior to COVID-19. The following part will now take a step into how our daily life changed when learning took place online. Drawing on our experiences, the following part will, therefore, take a look at how the notion of participation and communication transformed.

Participation & communication during online teaching and learning at RUC

With learning transferred from the physical classroom at RUC to take place on digital platforms, we as students also experienced a change in the dynamics of the digital classroom. As noted earlier in the experiences, most of us felt a decrease in the notion of participation in our digital classes. A new possibility of participation had also occurred as a new tool in the realm of participation. Based on our experiences, students participating in the course tended to use the chat more than the possibility of the microphone.

The digital platform in which learning now took place functioned as a new technology in a new community of practice. Teams now functioned as the technology of practice where the chat and the microphone functioned as possible tools for participation (Lave, 2019). But as Lave suggests: *"Understanding the technology of practice is more than learning to use tools; it is a way to connect with the history of the practice and to participate more directly in its cultural life"* (2019*)*. At least in the case of RUC, we had little experience with learning through the technology of digitalization. Therefore, there was no history of practice to take a standpoint in, which resulted in all of us being newcomers to the technology of learning through digitalization. This also meant that the normal discussions, conversations, and active participation in our normal classroom had now changed into a more passive one with little participation. As posed in the reflections of student C: *"It was really a big gap with what we are used to at Roskilde University where student's participation and debate is encouraged in the classrooms and where their participation not only take the form of simply answering a question by yes and no but often with an actual discussion."*

We as students did not fully participate and the notion of learning was to be found in the artifact of listening to the teacher transferring knowledge directly to the learner. The failure of practicing in digital learning as technology must therefore inevitably result in a partial failure of participation through the tools or artifacts in terms of un-muting the microphone. Instead of being full-time participants in this new community of practice, we, therefore, found ourselves minimizing our participation through simple comments in the chat of the lecture. However, that is not to say that the lecturer did not invite students for participation and engagement in the course.

As student B noted: *"The course teacher invited people to turn on their microphone and participate in the debate. People however probably felt more comfortable writing in the chat instead but there was better participation (…) but I noticed that you still could only hear the course teacher commenting on it and reading them out loud which kind of distanced me from the other students and made me focus on The course teacher as the only actual participant"*.

This poses another dilemma; when participating through the chat, the usual dynamic of a response from the other students went missing. Lave argues that *"it seems typical of apprenticeship that apprentices learn mostly in relation with other apprentices, that where the circulation of knowledge among peers and near-peers is possible, it spreads exceedingly rapidly and effectively"* she further argues that in the effectiveness of learning depends on this circulation of knowledge among the participants in the community of practice. Based on the experiences, however, it is clear to see that there was a lack of circulation of knowledge further resulting in collective monologues rather than collective conversations.

Despite the fact that Lave does not view the physical classroom as an authentic context, it can in our case, prior to COVID-19, be argued for quite the contrary. We were a part of an authentic context in the sense that we were learning through participation with our fellow students. The circulation of knowledge was present in the sense that we were constantly engaging in conversations and discussions.

In the case of the physical classroom previously experienced, the subjectivity and background of the different individuals posed an interesting dynamic to the regular discussions in the physical classroom.

Although all of the students could be considered newcomers to the educational community of practice, everyone had different background knowledge in the realm of psychology which often contributed to interesting discussions.

When Brown, therefore, argues that: *"It is a fundamental challenge for both the school and the workplace to redesign the learning environment so that newcomers can legitimately and peripherally participate in authentic social practice in rich and productive ways to, in short, make it possible for learners to "steal" the knowledge they need."* (Seely-Brown on Duguid 1996) we still found ourselves, through for example project work and course lectures, to gain this dynamic.

With the possibility of actively engaging in authentic contexts through project work, the lectures functioned as an additional community of practice guided by professors as old-timers.

But as sole newcomers to an immediate transformation, neither the students nor the professors could be defined as old-timers to the new technology. This could pose the explanation of the courses taking a more traditional form of teaching, where the teacher was more present and took a leading role instead of a guiding one: *"The professor asks the questions and the students respond to them. It emphasized and intensified the hierarchy between different entities (students/professors) that still exist in our modern educational system"*

The reproduction of knowledge is therefore limited in the sense that the circulation of knowledge failed to be pursued in the realm of the technology of digital learning. Another lacking tool through digital learning, noted in most of the experiences, was the fact that the webcam of the students was turned off during the course. As student B notes: *"I felt like I was talking to myself as I could not see anyone nor hear anyone. The course teacher even had removed her webcam to place the full focus on us students, but to me it made me feel like I was talking to people who could hear me but I could not hear them. I could not see their facial expression or grasp if they were kind of understanding where I was heading or agreeing or disagreeing."*. We, therefore, need to come to the understanding of what consequences the lack of "seeing" the fellow students might have had on the communicative circulation of knowledge.

Psychologist Albert Mehrabian noted that the notion of communication not only lied in the fact of listening through the voice of what was being said, but that body language and the tone of the uttered had a significant impact on the outcome of understanding through communication. Developing the non-verbal communication model (see appendix 2), Mehrabian emphasized the fact that elements of personal communication are divided into three different categories; seven percent of the spoken words, thirty-eight percent on the tone of the spoken, and fifty-five percent on the body language (Mehrabian, 1967). A lot of communication is therefore to be found in the nonverbal form of communication. non- verbal communication embraces the notion of communication through body language as well. Body language defines the notion of eye contact, posture, gesture, orientation, etc (Euson, 2012).

Important features of communication tools, in terms of non-verbal communication, might, therefore, have been lacking in the realm of the community of practice through digital technologies.

As Lave notes: “Being in the presence of others who are working is not always enough by itself (...) In a similar way, the design of tools can affect their suitability for joint use… the interaction of a task performer with a tool may or may not be open to others depending on the tool itself”

In the realm of learning through digital platforms, students were able to “see” each other but choose not to. What reasonings for their not being any visual interaction between students seems like a far to a complex question to answer, But it seemed to be of huge significance that non-verbal communication was dismissed and prioritized for the old-timers, would a different pedagogy strategy that enforced us, students, to be “visible” have changed the dynamics of the course, or would it behold a superficial impact with minor applications to the practice in general.

“I felt it was extremely disturbing not to be able to see who else was there, at the same time I was always thinking about if my own webcam was on, and if so, did anyone see me”(Student C).

From this, we can conclude that learning in a digital community of practice has resulted in decreasing participation along with little communication among the participants. This was partly due to the change of relations with the technology and due to an eradication of the role of the old-timer, where both the professors and the students become newcomers in the realm of new technology along with new learning tools not seen before in our classroom.

We will now take a look at how learning processes unfold in relation to the notion of space along with how Lave defines space and the social relations co-creating it.

Space and technologies during online learning and teaching

"Space and time are the frameworks within which the mind is constrained to construct its experience of reality."(Immanuel Kant)

Common to all of our experiences represented was an inexperience entry, to the reconstructed composition of digital *space.* Each of our experiences and reflections contained mutual as well as different understandings of the notion of space. Each of us was aware of the fact that technology as well as the tools of the space had drastically changed. The consequences lied in the way we perceived the new realm of learning and teaching processes taking place through a digital platform. To further demonstrate this perception, a few examples from each student's Experience and Reflections is to be seen below;

- "A university is before anything else a place, a space of exchange"(Student A)
- "I personally did not feel like I was sitting in an environment suited for learning"(Student B)
- "For me, it has been quite strange and difficult to adjust to those new conditions. Having a class at home, lying down in your bed, or on a sofa makes it feels weird, unformal"(Student C)
- "As a university student, I have experienced a lot of different class environments"(Student D)

Student A and student D both share the comparison on describing the notion of space connected with a merely physical context of space. Student B and Student C situates space in their examples as located inside the practice after Covid-19.

In defining a space, Lave argues that space is places of activity where the circulation of knowledge takes place.

She further argues that these circulations are “about the structure of access of learners to ongoing activity and the transparency of technology, social relations, and forms of activity; about the segmentation, distribution, and coordination of participation and the legitimacy of partial, increasing, changing participation and the legitimacy of partial, increasing changing participation within a community” (Lave, 2019)

The notion of transparency of technology becomes rather complicated when entering the digital space. This form of digital space enters a new dimension in which we had never experienced before followed by drastic changes in defining such a digital space. Social relations among apprentices and participants of learning had also drastically changed. As student D notes; “ I experienced that inside the online courses there was minimal communication between student and student, or teacher and student. It was of course not all removed but seemed very fractionated into tiny superficial repeating patterns of communication”. Clearly, the social relations as well as the dynamic between the participating students had changed posing a limited circulation of knowledge. There was a further clear distinction between the former way of participation and the change of participation in the digital space.

Furthermore, the element of space has undergone a fissional transformation into two different spatial entities. One being the boundaries pre-constructed inside the digital apparatus, and the other being the physical and the ecological field. Both Shoshanna Zuboff and Gunther Anders emphasize that technologies, and the wider implications, will seek consumption of our inner subjectivity. What is important for now, is to emphasize the arrival of such digital technologies into the private “homes” of the students; “Like animals, human beings exist within an invisible ‘bubble’ of personal space or territory, where we feel secure. We tend to feel anxious if others invade this space; for example, by standing too close or by touching us.” (Eunson, 2012). The invasion of the community of practice taking place in a digital form poses the dilemma of an invisible space entering a private space. Home is defined as a space where someone feels that they belong (Mirriam Webster) and with the community of practice taking place inside the space of something as private as home, a clash of spaces occurs.

Lave defines the notion of becoming a full participant in “engaging with the technologies of everyday practice, as well as participating in the social relations, production processes, and other activities of communities of practice” (Lave, 2019).

One of the missing aspects of the theory of peripheral learning participation is when other spaces, and to some extent, other authentic contexts, interact with the digital community of practice in learning. Learning through digitalization allows for the individual to take part in a non-physical way while physically being in another located space. When student B mentions the fact that the student was “doing three things at once; groceries, texting and attending to a course” an interesting conception of the clash of spaces occurs. Not fully engaging in the situated community of practice, but participating in other spaces as well creates poor participation in the learning digital community of practice as we have discovered through the experiences earlier posed.

Furthermore, such learning technologies should be marked as encompassing a wider range of material substance in our practice of learning and teaching, and not solely maintaining the alteration of what is digitalized is technology. As already noted, digitized tools have been further accustomed in the modern realm of education, and in our case, after the outbreak of COVID-19. Such technologies have been cementing itself in various forms inside more pragmatic practices of such cases.

When Galina Ianchina was appointed as the vice principal of RUC, she emphasized that “Digitization should not be for the sake of digitization”. Innovative digital reforms and implementations are not a new phenomenon at RUC. As previously noted, platforms such as moodle, teams, digital-exam, etc. reveal an increasing digitalization of learning through digital technological tools. In general, there has been a tendency to view this rapid transformation of digital submission, as the decrease of power and control. Hanne Leth Andersen principal at RUC said in an interview the 2 January 2020 that:

“One of the biggest challenges today is that as a population, we engage in rapid technological development without knowing much about what the increasing amount of technologies in the various spheres of our everyday life means to us - as people and citizens.

Some researchers (such as German sociologist Hartmut Rosa) describe it as a problem of technological acceleration and a corresponding lack of resonance in the relationship between man and the outside world. This poses the need for further research into technological implications - good and bad - and systematically examines the importance of technology in the daily lives of humans. RUC as an institution of education further acknowledges that such new technologies should and must be systematically examined when it comes to education and learning. It is the acknowledgment of the possibility of such technologies bringing caution and dangers, leading to the possibility of a future with the total implementation of digital technologies for educational practices"

What can be posed as a risk is a causation that such technologies may influence and induce inside the productions and reproductions of communities of practice, such awareness was also presented in a previous course we attended to, where students in the course were invited to participate in the experiment of not using any digital tools during the lecture. For two lectures we were asked not to bring our phones nor our computers up in class, with the aim of making students aware of how digital technologies influence us in our daily life of learning.

It is however far from everyone at RUC who possesses a skeptical stance on digitalization of learning. In a conference taking place online during COVD-19, students, staff, and the rector were discussing the notion of digitalization of learning, along with consequences and experiences one might have had. Many of the professors attending the lecture took a rather positive standpoint on learning through digital platforms, and although they presented some difficulties they also underlined the fact that this was a new phenomenon at RUC explaining the reasons for the difficulties.

The question to be raised is whether such *engagement with technologies* and, *participation in social relations, production processes, and other activities of communities of practice*, undergoes a radical shift of control, and fundamental mechanism inside participation? It's fair to assume that we humans have partial control when engaging with technologies and their emplacement of the holistic environment of teaching and learning. We have the possibility to navigate our focus from peripheral participation, between technologies and space its located in i.e.

One may decide not to engage in participations and not to concentrate “on what’s going on”, while the binary participation of using a notebook and trying to stay focused on what is going on, situates us students as well as teachers, with the always possible option of being able to display power on such technologies, or as stated in the experience of student A; there is a tremendous difference between using digitalized tools and relying solely on those for educational purposes.

The human relation to machines are not fully implied and implicated in traditional teaching and learning participation, what is required from the isolated individual is full engagement with technologies, hence, the shift from partial to total emphasizes a radical re-deployment in the relation with apprentice and technology.

From this part, it can be concluded that the notion of space has changed due to the huge shift in the technology of learning. The circulation of knowledge has decreased as the tools taking place in the new community of practice have been changed as well. We have been experiencing a clash of space where learning has entered the private, and where the ability to participate in more than one ‘space’ at the same time has posed difficulties for the outcome of learning. Now that we are done analyzing, the discussion will aim to zoom out of RUC to understand how a phenomenon such as digitalization came to conquer higher education.

Critique of Jean Lave

In the critical article of Tangaard and Nielsen some critical standpoints towards the theory of situated learning is posed. They raise the critique of Lave that she neglects the subject in the realm of situated learning. There is furthermore a lack of understanding of the subject in the theory of situated learning. A situated perspective therefore tends not to differentiate between the objective and subjective processes in the realm of a situated learning environment. Groenbaek Hansen criticizes the fact that "the subject has a tendency to disappear in the community of practice" (Tanggaard & Nielsen, 2006). The community of practice is therefore treated as superior to the learner, where the learner solely functions as a passive subject swallowing everything it is presented with in the realm of the community of practice. The subject should of course not be seen as completely separated to its context. However, cognitive processes are according to Groenbaek crucial in its relation with different communities of practices (Tanggaard & Nielsen, 2006). One can therefore not neglect these processes as the individuals are important actors in the structural environment. It is the neglect of the learning subject along with the processes it undergoes when taking part in a community of practice.

As a main point in situated learning is the standpoint of the subject viewed in relation to its participation. The way the subject understands himself is developed through participation and in relation to other subjects participating.

In this project we were well aware of the fact that the theory of situated learning tends to move the focus from the individual, and solely focusing on the individual in relation to its sociocultural context. It might seem rather contradictory that the data of this project is our experiences based on our cognitive processes in the realm of learning. But the aim of this project has been in discovering the changes of participation in the relation with the learning and teaching environment, which is exactly what the theory of situated learning contributes to. Our data has in that sense functioned as a great balancing between our subjective introspective processes and its relation to how we understood the changes of participation. Although Lave does not value the cognitive and subjective processes of the learner, it is still crucial, due to the fact that learners never understand or reproduce knowledge in the same way.

The rise of digital technologies in higher education

So far in this paper, we have been focusing on specific learning processes surrounding digital technologies in our personal experiences. However, it is important to take a step back in our discussion to try to understand how those digital technologies came to be a still-growing part of our education but also what kind of issues and questions those can raise.

It is not a secret that digitalization takes a bigger space in our everyday life than ever, and one could tend to believe that it will keep increasing. In Denmark most people possess a smartphone that follows them almost everywhere, digital technologies conquered our homes, workplace, and for that matter, universities do not escape the rule.
But then one interrogation needs to be addressed; how come those digital technologies, that possess limitations as shown in the analysis, came to completely dominate the field of educational investments?

To start answering this question it is interesting to look back in the past and pay attention to the two opposite discourses surrounding digital technologies applied to the educational field. The first and dominant one that Selwyn identifies is the discourse of *boostering* that can be "characterized as advancing claims of enhanced efficiencies of provision, increased choice and diversity, speed and convenience" (2014). Digital technologies for that matter would be framed as powerful "drivers" and "enablers" of educational change. Early enthusiasts of digital tools predicted the imminent shift in universities. As Selwyn says, peoples viewed the change as being inevitable:

"Developments in multimedia increased communications and other ICT [information and communications technology] innovations are obviously key components of the information society. In this new era, [university] managers must be prepared to abandon everything they know – and the same may hold for teachers, educationalists, researchers, students, and policy-makers. Maintaining the status quo is not an option." (2014)

While it, for the most part, remains the same, the *booster* discourse is still present today, believing digital technologies to be the holder of *"substantial educational change [...and...] 'disruption' of traditional institutional arrangements"* (Selwyn, 2014). A new aspect that evolved with time is this "*'democratic' rearrangement of educational opportunities*"

(Selwyn, 2014) which strives to bring the benefit of knowledge to millions. An argument that is often encountered is the ability of digitals tools to provide universities with the possibilities to operate in more ‘open' ways and enhance meritocratic educational opportunities. As one UK government minister:

“[Digital technologies] present an opportunity for us to widen access to, and meet the global demand for, higher education . . . new online delivery tools will also create incredible opportunities for UK entrepreneurs to reach world markets by harnessing technology and innovation in the field of education.” (David Willetts, 2012, as cited in Selwyn, 2014)

This discourse presented by Selwyn visualized an imminent transformation of higher education by, in the first place, digital enhancement of all aspects of university education and, in the second place, a real “*freeing up of university-produced knowledge*” (Selwyn, 2014). According to Selwyn for some, *“digital technologies are seen as opening up possibilities for the development of cosmopolitan forms of higher education, ‘powerfully contribut[ing] to the worldwide democratization, civic engagement and action-orientated social responsibility’ of university educators and their institutions*” (2014). It seems reasonable to conclude that the historical, and still, the dominant discourse surrounding digital technologies in the educational field is highly positive and uncritical.

RUC’s position as an institution in this discourse is interesting. Few days after online courses had been established, RUC held an online conference with several teachers, students, and staff from the administration addressing digital technologies inside learning. The rector of RUC wrote a document summing up the main points of this conference and we can find the following position in the discourse: “*there is no doubt that digitalization is an area that we will need to address and increasingly incorporate into our future. But it must be done wisely and it must be driven by options rather than distress*”. Even though digitalization is treated carefully they still inscribe themselves in the booster discourse, seeing this phenomenon as inevitable and approaching it as driven by options and not distress.

This is also reflected in the following point mentioned in this document, where the only issues addressed are regarding how to make sure that those platforms function, on a technical level, and how to make sure the teachers are able to use it correctly.

There is a clear lack of profound reflections, in some sense the discussions that are held at RUC are remaining pretty superficial which is why we will try to explore them ourselves.

Before moving on to the next point, it is essential to quickly clarify that there is a vital need to be critical, which the *booster* discourse fails to do. Indeed, there is a lot to be critical about as "*technology and education remain an area of academic study, policymaking, commercial activity, and popular debate where promises of what might/could/should happen far outstrip the realities of what actually happen*" (Selwyn, 2015).

There is an essential need to be critical towards the resourcing, funding, and human effort that those investments require. To close this digression, as Selwyn reminds us:

"*Digital technology is hardly the benign, neutral presence in education that we are often assured it to be. As such, this is a cornerstone of the politics and ethics of contemporary education that demands the closest scrutiny of which the academic community is capable"* (2015)

The picture described by Selwyn when it comes to this *booster* discourse is rather interesting and enlightening, however, it seems important to complete it with what Winner roughly calls *techno-enthusiasts* or, to make the parallel, peoples situating themselves in this *booster* discourse. As described by Selwyn, the *booster* discourse is not a new phenomenon, when it comes to this technological enthusiasm in the educational field Winner trace it back to the 20th century: *"No one can say for certain when the modern enthusiasm for educational technology began. But as good a date as any is 1909 when the public health commissioner of Queensland, Australia suggested to Thomas Edison that the inventor's motion the picture machine could be used to make educational films."* (2009)

To understand how those digital technologies came to dominate the field of educational investment thanks to techno-enthusiasts, Winner highlights a rather interesting but also quite revealing process. Taking a market approach to the question Winner argues that Ed-tech companies see higher education as a giant and juicy waiting-to-be-conquered market. Therefore, when they develop products they approach educational administrators who, once convinced, will move up to convince the higher administration in charge of the purse.

Unfortunately, then "*the packages of machines and software are purchased (often at great expense) and introduced into classrooms, often resisted by teachers who were typically not consulted while these grand plans were taking shape*" (Winner, 2009).

This phenomenon that Winner depicts put in light how, often, those digital technologies are not introduced into universities because they are truly 'revolutionizing' education, benefiting both learners and teachers, but because they are trying to penetrate an attractive market and seduce administrators that want to *"appear fully up to date"* (Winner, 2009).
Even though those 'boundary pushers' can sometimes be attracted by a desire "to emphasize their roles as technical innovators, expecting that this will make them appear far more important" (Winner, 2009) it can also show a genuine ambition "to revitalize what has become dull, dreary classrooms" (Winner, 2009). But then, it reveals the crucial need for study and reflections over such investments in digital technologies.
Ironically, those techno-enthusiast investors "who do not appear wholly comfortable when encountering criticism of their boundary-pushing and innovation" (Selwyn, 2015) are the ones that sometimes cultivate this idea of amnesia, treating the vital need of reflections and criticism as a mere old-fashion and progress-skeptic way of thinking, as if we should fully, and blindly, embrace progress.
"In fact, the continuing waves of promotional zeal in educational technology are accompanied by a willingness to forget the results of earlier experiments and to forge ahead as if today's innovations were totally unprecedented" (Winner, 2009)

What Winner clearly emphasizes when inviting us to take a look back in the past is how certain techno-enthusiast developed a reflex of blindness. Indeed, we have been cultivating an incredible history of disappointment about the application of specific educational technologies as well as the disturbing fact that no one looks back upon the past century of ongoing edu-tech innovation. All those great innovations that were presented as revolutionary and groundbreaking appeared one after each other's but

"*despite the intense promotional campaigns and billions of dollars invested in extensive re-tooling, there is scant evidence during the decades from Edison to the present day that any of the heavily touted varieties of equipment introduced into schools and colleges over the years has done much to improve education at all"* (Winner, 2009). In that sense, techno-enthusiast

seems to be gifted of incredible capacity and "*willingness to forget the results of earlier experiments and to forge ahead as if today's innovations were totally unprecedented*"

(Winner, 2009) making them masters in the art of what Winner calls *educational amnesia.* In that matter, they are forgetting to ask basic questions about the goals of education and how to realize them; *"What do students need? What kinds of knowledge and competence are truly essential? What is known about the kinds of settings, human relationships, activities, and materials that foster genuine learning? What counts as reliable evidence that the efforts of teachers are succeeding?"* (Winner, 2009).

Hopefully, this dominant discourse of *boostering* digital technologies is not the only one, as mentioned earlier Selwyn identifies a second, opposite, and less dominant discourse of *doomster.* Drawing on the limitations identified by Winner, this discourse emphasizes on the fact that those technologies are not as efficient and miraculous as they ought to be. It also goes further by raising concern around the possible rigidity and simplification that could emerge from overuse of those technologies:

"*To some critics, computers were expensive gadgets that increased the cost and complexity of instruction without increasing its quality. Others worried that rigidly programmed machines might force all learners into the same mold and stifle idiosyncrasy. Finally, some educators feared that computer requirements would ultimately affect the choice of instructional content. Teachers using computers in instruction, they warned, might be tempted to teach only those things that could be taught easily by machine*" (Kulik et al, 1980, as cited in Winner, 2009)

Now that we are done exploring the emergence of digital technologies in higher education, it is crucial to be critical toward the current, as well as potential future, use of those in our universities. Situating this discussion in the discourse of *doomster* we will emphasize a phenomenon arising from the growing use of digital technologies known as the datafication of universities.

The datafication of higher education

To understand how our universities came to be ‘datafied' it is important to explore how our western societies came to be first. In her book “The Age of Surveillance Capitalism”, Zuboff describes a unique shift in the capitalist logic of our modern societies, evolving from a classic capitalistic model to what she conceptualizes as *surveillance capitalism.* Zuboff defines surveillance capitalism as:

“A new economic order that claims human experience as free raw material for hidden commercial practices of extraction, prediction, and sales; a parasitic economic logic in which the production of goods and services is subordinated to a new global architecture of behavioral modification; a movement that aims to impose a new collective order based on total certainty" (Zuboff, 2019)

The system Zuboff describes is not a system coming out of a science-fiction novel but the one we are evolving in. The digital technologies every individual uses in their everyday life are functioning as interceptors for data. Big Ed-Tech companies such as Google and Facebook (to name the leaders of the discipline) are developing tools and platforms that became essentials, almost vital, for most peoples. However, those tools that seem to be ‘free' to use, function thanks to a logic of renditions of users' data that are represented as free raw material for those companies. Once all those data are being collected, they serve the fuel for behavior prediction and modification which then allows those companies to build their benefits thanks to targeted advertising. The rising abundance, as well as preciseness and diversity of those data coupled with the incredible difficulty to resist the rendition of those, is what gives it its nature of surveillance.

Knowing that our use of digital technologies in higher education is rapidly growing, it seems like only a matter of time before those processes of datafication conquer our universities, in fact, they are already emerging. As Williamson state, “*education is widely understood as a public good, rather than a commercial enterprise (with some exceptions)”* (2020), which means that the extraction of data cannot, or at least not yet, be understood as straightforward as what Zuboff depict in other instances of *surveillance capitalism* and the masse gathering of *free raw material* for sale and profit.

Williamson describes a shift of knowledge production logic entering the 21st-century thanks to the emergence of Big data. Whereas in the 19th and 20th century we observed a certain *"trust in numbers",* the 21st century have seemed the emergence of "*dataism"* putting its trust in the "'*magic' of digital quantification, algorithmic calculation, and machine learning*" (Elish and Boyd, 2018, as cited in Williamson et al, 2020). Dataism is a style of thinking that is intimately connected to processes of neoliberalization, as "*competitive logic and the desire to compare the performance of entities against each other as if they are competing in markets*" (Williamson, Bayne, & Shay, 2020).

However, as one may tend to believe, data are not innocent, they are not neutral and do not depict an objective representation of reality, as Williamson argues:

"*Data and metrics set limits on what can be known and what can be knowable. They define what is rendered visible or left invisible, thereby impacting on how certain practices, objects, behaviors and so on gain value, while others are not measured or valued. Measurement involves classification, sorting, ordering, and categorizing people and things, which defines how they are known and treated"* (2020)

Data and metrics require a "*prefigured judgment"* which involves setting preferable outcomes and aims beforehand. The intensification of those measurements can lead to a form of "*authorization"* of certain outcomes, peoples, actions, and practices, thus claiming what to be truthful. It also increases "*automation"* which shapes human agency and decision-making, in Williamson words: *"automated systems of computation are taken as objective, legitimate, fair, neutral and impartial, and impact on human judgment"* (2020). Data and metrics are shown to have an impact on how we understand the social and natural world and thus shape how it is treated. In that sense, "*data practices materialize the competitive neoliberal impulse to ensure efficient market functioning and constant improvement through measurement, the hierarchization of winners and losers, and the attribution of quantitative value*". For that matter, we observe an unprecedented rise of datafication among higher education as "*the quantification, measurement, comparison, and evaluation of the performance of institutions, staff, students, and the sector as a whole is intensifying and expanding rapidly*" (Williamson, Bayne, & Shay, 2020).

The use of data in Higher education dramatically augmented as the result of `` *significant efforts by political centers and supporting businesses think tanks, consultancies and sector agencies*" (Williamson, 2018, as cited in Williamson et al, 2020). Data are being used to assess the quality of university teaching, university rankings and leagues affect the individual's and institutions' behavior as they now seek a "*way of maximizing their performance in terms of the measures they are scored on*" (Espeland and Sauder, 2016, as cited in Williamson et al, 2020).

Thanks to Big Data the scope of measurement has been enlarged in educational systems which enhance the fidelity of data analysis. We observed a shift in student's data collection, moving towards *"measuring and comparing students' 'learning gain', their 'engagement' in their studies, their 'satisfaction' with the 'student experience', and on the overall 'quality' of learning provision in different institutions and degree programs*" (Williamson, Bayne, & Shay, 2020). Making a small digression on RUC 's case, similar practices are already emerging taking the example of Moodle which is a platform that serves students to inform them about their courses, home works, literature, and so on. On this platform, teachers can upload the courses' information relevant to students as well as monitoring each students' activity, when they last connected, what they accessed, and so on.

Those measures are used as a proxy to analyze the performance of staff, education, teachers, universities, and courses, assuming that the "*higher education quality can be adduced from the analysis of large-scale student*" (Williamson, 2019, as cited in Williamson et al, 2020). Coming back to a point raised earlier, such practices raise questions surrounding what are the aims, outcomes, and settings that have been selected beforehand as beneficial and relevant and which one has been purposefully dismissed.

This datafication of higher education taking the form of increased measurement of student satisfaction, teaching framework, and impact is often understood as being part of an ongoing process of marketization of higher education. In Smyth word:

"*One particularly polemical critique describes a 'pathological organizational dysfunction' whereby corporate models of marketization, competition, audit culture, and datafication have combined to produce 'the toxic university*'" (2017, as cited in Williamson et al, 2020).

In that sense, higher education is heading toward a market dynamic where students, teachers, and staff are being put in competition against each other "*with measurement techniques required to assess, compare and rank their various performances"* (Williamson, Bayne, & Shay, 2020). The rise of measurement, or even tracking, of individuals inside universities, coupled with the commercials developments if digital technologies raise concerns over the monetization of student's data. As Gent says:
"*New organizations have even suggested that it may be possible to quantify the value of every university module, course or career choice and, by consolidating a permanent record of students' qualifications and skills from across the whole educational 'supply chain' – as 'learner wallets' hosted on blockchain technologies – offer AI-enhanced employability advice and enable students to securely share their data with employers*" (2020, as cited in Williamson et al, 2020).

The massive collection of student's data is not only seen as a mean to measure higher education's quality, but also accentuate the trend of "*' learning to earn' and 'major to wages"*' (Williamson, Bayne, & Shay, 2020). Williamson goes as far as coming to the sad conclusion that universities processes and functions are being disaggregated "*into discrete services and tasks, often outsourced or fulfilled by third-party providers* (McCowan, 2017, as cited in Williamson et al, 2020), *and then 'bundled' into new components and models, many of which may be monetized by commercial companies in the competitive HE market"* (Czerniewicz, 2018, Bacevic, 2019, as cited in Williamson et al, 2020) which leave universities to the mere state of an assemblage of different functions and objects that shift according to "*changing social, political, economic and technological circumstances and forces*" (Williamson, Bayne, & Shay, 2020).

Unfortunately, as Williamson states, *"not all forms of learning can be quantified and analyzed" (2020)* which means that, potentially, not all forms of teaching and learning will be measured and therefore count and valued. This poses a threat of a real risk of pedagogical *"reductionism"* (Williamson, Bayne, & Shay, 2020) which might limit both teachers and learners.

Moreover, the creation of what Williamson calls "*data double", which* can be understood as a form of profiling of individuals through data collection, can be used to make predictions of the behavior and recommendations, which would ultimately modify behaviors and shape subjectivities. It is highly problematic in the field of education as it could have potentially life-changing repercussions, as "*a prediction of future progress based on past outcomes could radically affect the future prospects of the student by foreclosing curriculum opportunities*" (Williamson, Bayne, & Shay, 2020).

With all those elements being exposed we realize that we are in front of higher education in crisis, facing processes of marketizations that raise important questions.
With the marketization of universities, Zuboff´s understanding of surveillance capitalism becomes more and more relevant. To conclude this part of the discussion we will take a look at Zuboff´s concept of instrumentation power and how it could describe a rather accurate, but disturbing picture of some of our current, and future universities.

Zuboff describes a society whose purpose is to fabricate predictions, which gain value as they approach certainty, the totalities of data being what gives the best odds to achieve certainty and surveillance. The current higher education system is alarmingly growing towards what Zuboff describes:

"*operations that construct this private knowledge kingdom and its lucrative predictions that evolve toward certainty in order to guarantee market players the outcome they seek"* (2019)

When Zuboff describes the instrumantarian power that is taking over our current surveillance capitalistic societies, and therefore our education, she theorizes it as a form of power that could be misjudged for totalitarian power because of its nature to 'take over' every individual however, as she argues, they are both profoundly opposed. Instrumentarian power operates through the "*means of behavioral modification" (Zuboff, 2019)* and not violence. It has no interest in our souls, principles, or ideology as totalitarian power could.

It only welcomes data, caring that what "*we do is accessible*" to its strategies of "*renditions, calculations, modification, monetization, and control».* In that sense, instrumentarianism is a market project seeking its own brand of social domination through digital technologies (Zuboff, 2019).

This domination of intrumentarian power in higher education would lead to the students being *"increasingly viewed as 'transmitters' of data that can be sensed from autonomic signals emitted from the body, rather than as sense-making actors who might be engaged in dialogue*" (Williamson, Bayne, & Shay, 2020). Instrumantarianism power's methods would work as a dehumanizing human through evaluation that produces "*equivalence without equality"* (Zuboff, 2019), reducing individuals at the state of sameness, as Williamson state:

"Algorithmic decision-making automates inequalities and discriminates along racialized and gendered lines. For example, controversy has arisen over automated recruitment systems, where applications for jobs are screened without human oversight, because they are found to disadvantage applicants from already under-represented groups, based on previous training data showing that predominantly white male applicants perform more highly" (2020)

If one may criticize Zuboff´s conceptualization of instrumantarianism is that, as observed before, digital technologies and the data they produce are not innocent and thus deprived of any political aims by any means. The fact that data, in order to be produced, requires to make choices over what is being considered as valuable and relevant and what already emphasizes a standpoint. It would, therefore, be totally possible, if one would like to lead this discussion further, to consider that the instrumantarianism notion of Zuboff might actually be interested in the individual's principles and ideologies because of the political dimension of data and digital technologies that she fails to identify. This observation would lead to a rather interesting, but also quite frightening, hypothesis that the instrumentation power that growingly dominates higher education might also contain some features of totalitarian power.

To conclude this part of the discussion, we observed how digital technologies came to dominate the field of higher education as Ed-tech companies tried to invade this appealing market. The rise of digitalization of universities accompanied by the datafication of those raised several issues as the individual evolving in is seen as a mere data-product and not sense-making actors. Finally, universities came to be growingly dominated by the instrumentarian power, inscribing for good higher education in a market dynamic and all the abuse that can emerge from it.

Towards totalitarian digitalization

"Nothing is more characteristic of the totalitarian movements in general and of the quality of fame of their leaders in particular than the starling swiftness with which they are forgotten and the starling ease with which they can be replaced"

Hannah Arendt (Arendt, 1951).

In her book "The Origins of Totalitarianism", the philosopher Hannah Arendt focuses on the idea of totalitarian dynamics and their use in history (Arendt, 1951). According to Arendt, the word totalitarianism expresses the idea that dictatorship is exercised not only in the political sphere but in all of them, including the private and intimate spheres, crossing all of society on different scales. Arendt brings out the specific characteristics of totalitarianism. For Arendt, totalitarianism is above all a movement, a dynamic of the destruction of reality and social structures, more than a fixed regime. A totalitarian movement is international in its organization, universal in its ideological aim and international in its political aspirations. The totalitarian regime, according to Arendt, would end if it were confined to a specific territory, or adopted a hierarchy, as in a classic authoritarian regime: it seeks total domination, without limits (Arendt, 1951).

Thus, totalitarianism is not defined (as a lot of people confuse with fascism or authoritarianism) by violence, totalitarianisms are those *"swift"* mechanics leading to the adhesion of a group. One might then ask: why focusing on totalitarianism when trying to discuss digitalization? First of all, the aim of this part is in no way to compare digitalization to totalitarian regimes, the aim is to reflect and discuss the similar dynamics, *mutatis mutandis*, between digitization and totalitarian approaches. Digitalization and thus technology, in general, are not innocent. Every object was made with a purpose, a man thought purpose indeed but still a purpose. if one must give a trivial example: a sword isn´t forged to be used as a kitchen knife. Even if every object is man-made it is essential to not only put the responsibility on some individuals on how they use a tool but also to put the responsibility on an object itself in order to criticize its purpose. In this case, it is essential to criticize digitalization as an entity and not as a tool so one can criticize and question the purpose and the totalitarian consequence that digitalization can have.

"*technological innovations are never only technological innovations, and this makes the danger so great, for nothing is more misleading than the assertion that machines are morally neutral*"(Anders, 1958).

This part will mainly be discussed thanks to the work of Gunther Anders. In Anders´s oeuvre "The Obsolescence of Privacy" written in 1958, the German philosopher depicts a totalitarian occidental society because of numerous technological advances (television, listening devices, etc.) (Anders, 1958). Anders´s philosophy can be parallelly analyzed with those of several dystopian authors such as George Orwell, Ray Bradbury, or Aldous Huxley in the sense that they all target the problem of totalitarian technology resulting at the end of privacy. Thanks to this analysis/research one can then apply those conceptual views into the context of modern digitalization within the spectrum of online learning throughout 3 main topics.

1- Privacy and anthropophagy.

At the beginning of "The obsolescence of privacy" Anders´s explain how the world has gone into our home but more interestingly that this contract also puts our home into the world (Anders, 1958). As one can easily see how television or a computer sets the world into our home thanks to documentaries, historical events (the moon landing in 1969), or knowledge (the use of Wikipedia for instance) it might be more difficult to see the opposite. When being on a computer or watching television, one puts himself into a connection on two different levels.

On one hand, there is a technological connection with a transmitter and a receiver which put the two entities into an osmosis thanks to wires, cables, antennas, etc. on another hand, there is a social connection/contract that allows a permutation of roles between the subject and the viewer meaning that at any moment a viewer can become a subject and *vice versa*. Even if some laws have tried to protect privacy in the western world, television or the internet will always find the information it needs if this information is worth the interest. This technological relation between the subject and the world leads to what Anders´s calls cannibalism:

"*One has transformed the viewer into a phantom-cannibal, who devours fellow humans who are ensnared by recording devices, a cannibal who is nervous, even feels betrayed, if the meal is not served at the usual hour or is taken off-the-air completely*"(Anders, 1958).

By “*cannibalism*” Anders means that the subject of one of those technological platforms is consuming what another subject has produced. Every article, post, reality show, the television program is then a different man-made meal for the subject to eat. Those platforms thus become the oven and the plate of the meal making everything to make it look more tasteful (Anders, 1958).

When looking then at the context of this project every information that is used on the platform of Roskilde University is thus more content to be eaten. Every email, every document, and every online class becomes more information that could be used by the university itself, but also by other external institutions. In the observation part of this project paper, there is mentioned several times a disturbing feeling to “class” coming into our homes when taking the online classes. This feeling that an entire institution is now inside every student´s location is understandable not only to be a psychological fear but also by a concern of everyone´s privacy. Furthermore, this shared classroom turns every student and professor into a possible cannibal in the search for something to consume during the class. The privacy concern is not only relevant during the online classes but also for every other aspect of online education at Roskilde University. Every information, document, exam, character is in theory comestible by any other subject.

2- Spectacle and distraction.

In this part, another theory will be used. Conceptualized by French philosopher Guy Debord in 1967 “The Society of the spectacle” (Debord, 1967) is essentially a radical critique of the commodity and its domination over life, which the author sees from the lens of "alienation" of consumer society. This is a form of continuation to Anders´s view in the sense that the anthropophagic society is not only a need for survival but also a form of entertainment and distraction completing the Latin expression “*Panem et circenses”* (roughly translated to “bread and games”). This Latin expression especially used by Machiavelli in “The Prince” is supposed to describe what the people need in order to obey and not to rebel against the power. So, on one hand, the “bread” is Anders´s concept of cannibalism and consumerism and on another hand, Debord's “*spectacle*” is the “game” focusing on distraction and entertainment (Debord, 1967).

The concept of spectacle refers to a mode of reproduction of society based on the production of goods, always more numerous and always more similar in their variety and their useless use. Debord advocates that this society of spectacle entertains every subject in order not to face any counter-power and thus staying in power imposed on by capitalist society. Digitalization allows every user numerous examples of entertainment (streaming platforms, social media, etc.) that can distract every subject at any time possible (Debord, 1967). As seen during the observation on online learning a lot of students felt easily distracted by other possible things to do instead of following the class. This sentiment is worsened by the monotone unfolding of online classes. One might then justify this behavior by the laziness of some students (a quite common narrative nowadays) but thus forgetting the impact that digitalization can have on our lives. The distraction seen during online classes can not only be a consequence of human laziness but also on the impact of behavioral bias used by digital spaces.

The Society of spectacle dissects the processes of individuation in post-industrial society then emerging. It describes the evolution of the practice of "separation" as a capitalist economic device. In a society where the worker is separated from what he produces, capitalist society since the 1950s produces the subject/consumer as being separated from his true desires by various socio-economic industries that allow the subject, not to revolt against consumer society (Debord, 1967). Furthermore, Debord argues, in the first chapter essentially, that the immanent direction of the show (spectacle) is also the goal and that thus, as, and when it is applied, it justifies itself exponentially. Every digital outlet is made to distract us and therefore is incompatible with a safe educational environment. Henceforth, several studies have shown that digitalization has an impact on human concentration (Fogg, 1996).

According to Debord, the spectacle is staged by capitalism like a play, it is a concrete totalitarian scenario. The spectacle is an economic ideology, in the sense that contemporary society legitimizes the universality of a single vision of life, by imposing it on the senses and on the conscience of all, via a sphere of entertainment, bureaucratic, political, and economic forces all in solidarity with one another. This, in order to maintain the reproduction of power and alienation: the loss of human reflection and questioning. Also, the concept takes on several meanings. The "*spectacle*" is both the propaganda device of capital's grip on lives, as well as a *“social relationship between people*

mediated by images" (Debord, 1967). Those propaganda tools are not hard to find. The use of Microsoft Teams is in itself a symbol of a certain capitalist ideology. And its automatic use at Roskilde University questions the independence and sovereignty of this university. Thus, the constant growing digitalization of RUC implies certain political stances not in accordance with RUC´s history and development. Roskilde university using those "tools" is in a way making a pact with the devil if one may say so in the sense that, as seen before, RUC puts a lot of effort in its sovereignty and in specific themes like Marxism, critical psychology, or post-colonialism - which is not only a bit hypocritical but also a trues conflict of interest.

In "*spectacular*" societies, the liberal market becomes a form of power, and thus, a device of the economic and social conditions producing them:

"In all its particular forms, information or propaganda, advertising, or direct consumption of entertainment, the spectacle constitutes the present model of socially dominant life. It is the omnipresent affirmation of the choice already made in production and its corollary consumption. The form and content of the spectacle are identically the total justification of the conditions and ends of the existing system"(Debord, 1967).

In so-called Western societies, the abundance and heterogeneity of producing companies and their products are described by Debord according to the term "spectacular diffusion" especially thanks to publicity whereas the totalitarian ideals are reproduced throughout the tools of capitalism within its diffusion.

3- Conformism and authority.

In the "Obsolescence of Privacy", Anders joins two terms that might at first seem opposable: conformism and totalitarianism (Anders, 1958). In different narratives, conformism is often shown as a social movement seeking the approbation of a population by giving comfortable standards of living and is often in opposition with totalitarianism which exhales in violence, cruelty, and propaganda. Nevertheless, Anders tears down that frontier by showing how close those phenomena/dynamics can work together.

"I have to forgo a discussion of how these circumstances can be corrected. I have simply listed symptoms and it would be foolish to make suggestions for cures. One will hardly expect a magic bullet against conformism, as a whole, that is, against our entire political and societal condition of today. I can, however, isolate the most terrifying aspect of the form of totalitarianism called conformism" (Anders, 1958).

According to Anders´s conformism is terrifying because it is "happening without terror" (Anders, 1958). In other words, when facing terror, individuals are more likely to fight against it since it clashes with strong moral "virtues". Thus, being in a "comfort sphere" totalitarian dynamics such as surveillance, security, or preventive measures are more acceptable since they don't clash with living standards or opportunities to join an elite (Cf the American Dream). In the case of online learning, the COVID-19 has intensified he empowerment of digitalization. Certain measures can be understood within a certain context such as a pandemic but shouldn't they then be limited in the time of the crisis? This "swiftness" as Arendt describes it is in accordance to the idea of conformism in the sense that giving people a tool with totalitarian purposes is more easily accepted by one if it also simplifies or makes more comfortable one´s life. For instance, a platform such as Moodle (that enhances to a certain extent the information that RUC can have on its students) is easily accepted because it also serves students to read documents or follow courses. The more natural totalitarian dynamics are presented, the more approbation they will receive:

"One should remember how natural it was to make oneself loyal by turning on a Hitler or Goebbels speech. Loyalty was here not so much displayed but secured, and not merely secured, but actually produced. It was really a duty to expose oneself to the din of those speeches and to subject oneself to it" (Anders, 1958).

With an ounce of provocation Anders´s implies that totalitarian values are transmitted through a discourse of so-called obviousness or naturality of things using concepts such as reality, simplicity, or Manicheism (for example: "this is the reality of things" or "if you are not with us you're against us"). Within digitalization, there are a lot of discourses telling how easy those tools are or how necessary they are for human development completely shaping a new digital man. Since 1996, the fact of shaping the human has even been erected in science thanks to captology, or the study of persuasive technologies.

Its inventor, B.J. Fogg published in 2003 a work called “Persuasive Technology: Using Computers to Change What We Think and Do” (Fogg, 1996). This researcher nicknamed since "the billionaire maker" (because of his impact on social media), prides himself on designing interfaces capable of bringing us to modify our behavior by relying on our psychological weaknesses. As for an example, the pull to refresh, this gesture of stroking the screen from top to bottom to update the content is a mechanism that uses a behavioral bias well known and used for over a century by slot machines (Fogg, 1996). Those behavioral biases are not only used within social media but on every digital platform uniformizing digital comportment. This is what Zuboff considers to be a part of what she calls instrumentalism:

“I name instrumentalism, defined as the instrumentalization and instrumentalization of behavior for the purposes of modification, prediction, monetization, and control” (Zuboff, 2019).

This instrumentalism is what Zuboff calls the “puppet” of capitalism and thus digitized totalitarianism. Digitalization has its own codes and laws to which it obeys and picks a direction to the most economically interesting in the meantime validating the exposure of neo-liberal ideals (Zuboff, 2019). One might say that the digitalized world can contain various political groups/stances going from the far-left to the far-right. Still, the great majority of platforms conform to a certain political approbation (contained between the center-left to the center-right) considered as “mainstream” even in the symbolic or the making of those platforms (an analysis of that would require whole new research and project visions).

As an example, the online classes at RUC were embodying a view on education very far from what the university stands and usually provides on in the idea that the professor had the microphone and the webcam on *contra* the complete shut down of the student’s voice because of this digital learning (not because of the professor). The symbol behind that is extremely clear and even the most well-intentioned professor can't change anything (It would be like for a professor to do a lecture in a class where the lights are down supplemented by a huge “noise” in the words of Anders).

In concluding terms for this part, the totalitarian dynamics of the digitalized world are to be taken (at least) seriously. The easiness and ergonomics of the digitalized world shouldn´t blind the critic of such a complex body. Especially in the case of a sensitive topic like higher education, digitalization shouldn't be visualized as just a tool that individuals use for "good" or "bad" purposes. According to Anders, this modern technology is an *"industry of creating phantoms"* (Anders, 1958) and even if this idea is debatable its reflection shouldn´t be blinded by discourses about being an inevitable fact that "must be an option".

Conclusion

This project put a strong emphasis on the idea of education. Within a constantly expanding digital world and a very unique context in which the research is based on, the COVID-19 crisis has worked as a form of an eye-opener for this project. At first the principle of "introspection" allowed the group to be aware of certain particularities of this paradigm inside the group's own university by self-observing their grasp on online learning. Then, the analysis allowed the researchers to be taken into learning theories thus analyzing what effects, phenomenons, and repercussions digitalization could have on students. In that sense, the analysis highlighted how communication and participation are challenged when confronted with online learning and teaching, transforming what ought to be a dialogue into a collective monologue. Furthermore, it also emphasized the importance of space, and how online learning needs to be thought in relation to the clash of space the students are confronted to.

Finally, the last part took a more ethical turn compared to the rest of the paper shows, thanks to some theories, the consequences and threats of the digital wrongly defined as being inoffensive and being just a reflection of human behavior. Digitalization is not innocent and just a tool for the service of humans. Henceforth, online learning should be limited or taken with seriousness in order not to face irreversible consequences on higher education leading students to be just "another brick in the wall".

Bibliography

- - Engelbert, M. and Carruthers, P., 2010. Introspection. *Wiley Interdisciplinary Reviews: Cognitive Science*, 1(2), pp.245-253.

- Anders, G. (1958). *The Obsolescence Of Privacy*. Edinburgh University Press.

- Anders, G. (1965). Warnbilder. In U. Schultz (Ed.), Das Tagebuch und der moderne Autor (pp. 71–82). Munich: Carl Hanser

- Arendt, H. (1951). *The origins of totalitarianism*. New York: Harcourt, Brace & World.

- Axel, E. and Tanggaard, L., (2009). *En Introduktion Til Situeret Læring Og Praksis I Forandring*. Syddansk Universitet.

- Ian Eunson, B., 2015. *Non Verbal Communication*.

- Brinkmann, S. (2014) Self Observation In: Qualitative Inquiry in Everyday Life: Working with Everyday Life Materials, 65-82, https://dx.doi.org/10.4135/9781473913905

- Brown, J., Collins, A. and Duguid, P., (1989). *Situated Cognition And The Culture Of Learning*. Champaign, Ill.: University of Illinois at Urbana-Champaign.

- Busch-Jensen, P. & Schraube, E. (2019). Zooming in zooming out: Analytical strategies of situated generalization in psychological research.

- Debord, G. (1967). Society of the spectacle.

- Fogg, B. (1996). Persuasive technology. Amsterdam: Morgan Kaufmann Publishers, an imprint of Elsevier Science.

- Lave, J., (2019). *Learning And Everyday Life*. Cambridge, United Kingdom: Cambridge University Press.

- Lave, J. and Wenger, E., (1991). *Situated Learning*.

- Mehrabian, A. and Russell, J., (1976). *An Approach To Environmental Psychology*. Cambridge, Mass.: M.I.T. Press.

- Schraube, E. & Højholt, C. (2019). Subjectivity and knowledge: The formation of situated generalization in psychological research..

- Selwyn, N. (2014). Digital technology and the contemporary university. Routledge.

- Selwyn, N. (2015). Technology and education – Why it's crucial to be critical. In S. Bulfin, N. F. Johnson & C. Bigum (eds.), Critical perspectives on technology and education (pp. 245-255). London: Palgrave Macmillan.

- Selwyn, N. & Gašević, D. (2020) The datafication of higher education: discussing the promises and problems, Teaching in Higher Education, 25:4, 527-540, DOI:10.1080/13562517.2019.1689388

- Tanggaard, L. and Nielsen, C., 2006. *Læring, Individualisering Og Social Praksis*.

- Valsiner, J. (2014). An invitation to cultural psychology.

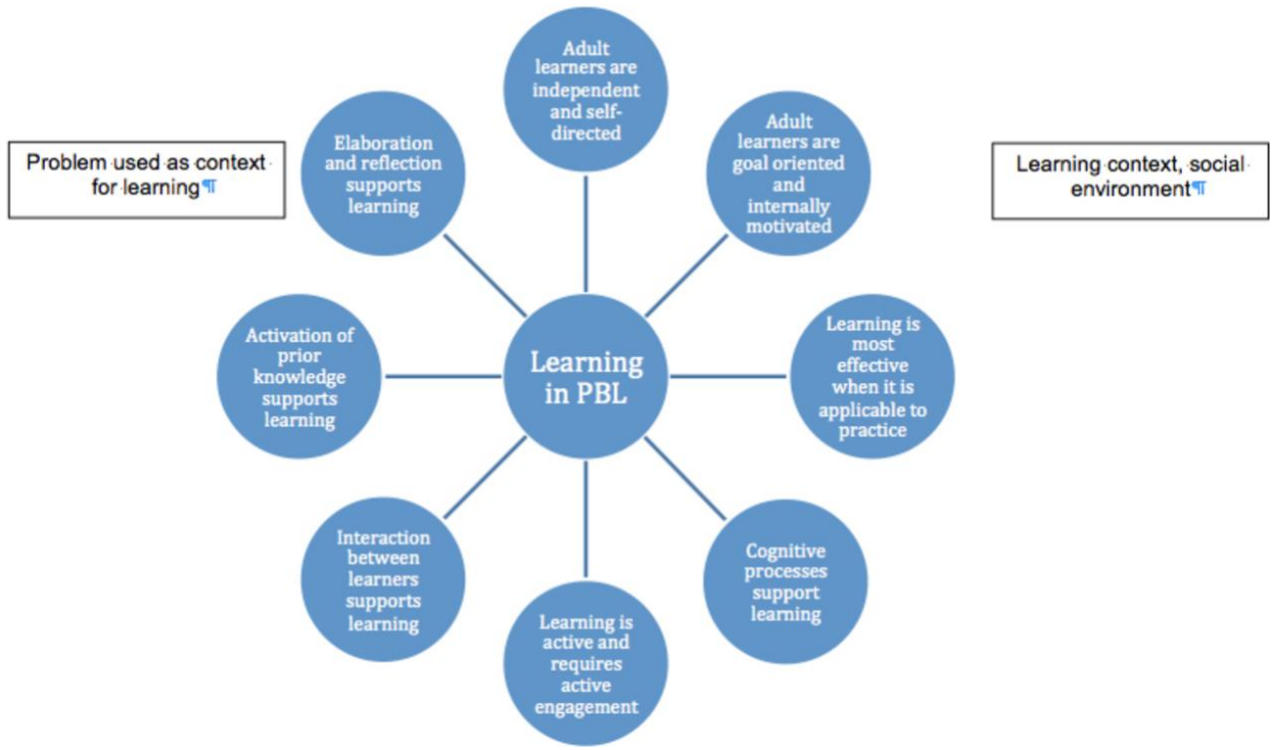
- Williamson, B. Bayne, S. & Shay, S. (2020) The datafication of teaching in Higher Education: critical issues and perspectives, Teaching in Higher Education, 25:4, 351-365, DOI:10.1080/13562517.2020.1748811

- Winner, L.(2009) Information Technology and Educational Amnesia, 2009. SAGE Journals. Retrieved 31 May 2020, from https://journals.sagepub.com/doi/10.2304/pfie.2009.7.6.587.

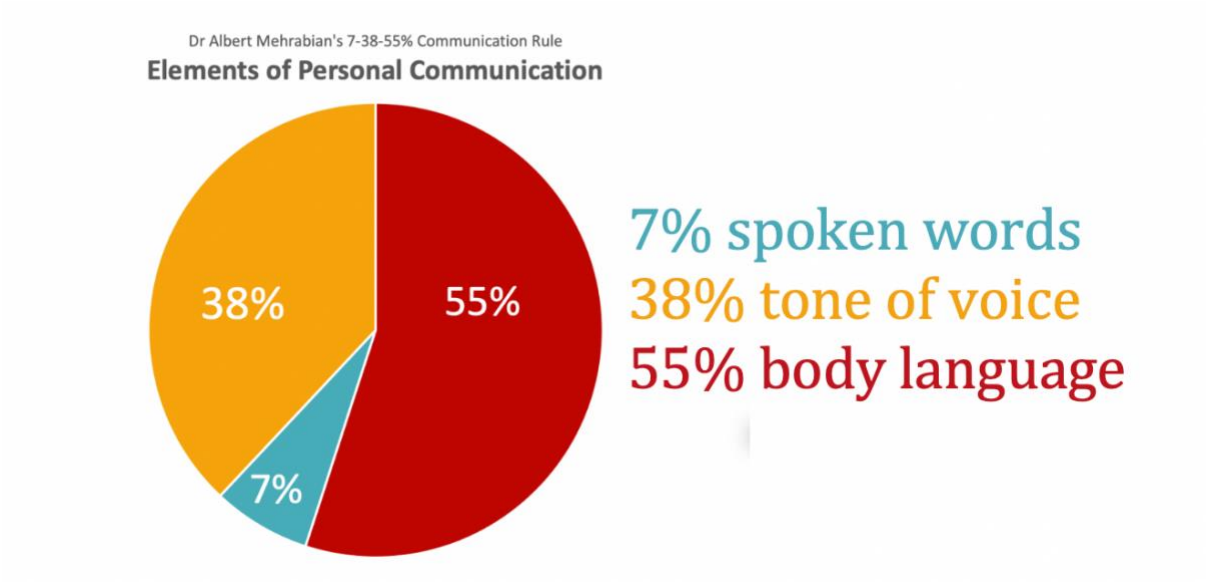
- Zuboff, S. (2019). The age of surveillance capitalism.

Appendix

Appendix 1



Appendix 2


Dr Albert Mehrabian's 7-38-55% Communication Rule
Elements of Personal Communication
38%
55%
7%
7% spoken words
38% tone of voice
55% body language