On the possibility of a digital university. Thinking and mediatic displacement

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Foreword: Study practices, or how not to work at home

Today, there is no shortage of books that deal with the future of the university. But books that deal with this issue taking the role of media as their starting point do not abound. Truly rare are books like this one that dare to ask about the possibility of a (purely) digital university. This book questions the future of the university starting from study practices and the media that are constitutive for their operation. In a really original and illuminating way, taking the practices of lecturing and academic writing as examples, and paying meticulous attention to the concrete gestures that they contain, Lavinia Marin shows very clearly that academic study practices are about collective forms of thinking crucially enabled through what she calls 'mediatic displacement'. It is *in* and *through* this displacement (e.g. from the oral presentation to the text, to the notes or from the screen to the lecture hall), that the space-time for collective thinking emerges and happens. No university without mediatic displacement. It is this intriguing characterization, and especially the notion of displacement, of moving from one place to another, in 'pandemic times' where we are confined, which actually made us think again about the university.

Maybe we could say that the experience of higher education which the COVID-19 pandemic entails, shows what it means when this mediatic displacement vanishes or is strongly limited. Universities went massively and often completely 'online'. It implied that the screen, and the way it functions as the interface of a (personal) computer that 'runs' on digitized communication and information (ideally without 'error', friction or interruption) was omnipresent. And as "God created men in his own image" (Genesis 1:27) so the screen today seems to create (wo)men in its own image: a transparent communicator of pure information (a stable 'placement', translated and coded without interference). This is at least what appears as an ideal to us; as something we have to strive for and aspire for in order to allow for optimal screen-work in today's universities. We all have become screen-workers, or at least have experienced what it would be like to work with and through a screen and its steering software. Of course, a lot of interferences, interruptions, technical malfunctions, disturbances and even breakdowns actually occurred, but the way we experienced them in fact confirmed that we seem to be primarily concerned about (transparent) information and communication. The disturbances and malfunctions are the frustrations in the daily lives of screen-workers. Maybe we could say that we have tried and savored a truly angelic existence, that we have tasted what it means to live as a pure 'messenger', a bringer of messages, to live in the cloud, free of gravity and weight, without body.

But maybe the angelic screen-work experience was also the experience of a life without real thinking, a mode of existence that, while being focused on passing information, making interventions and avoiding noise (and music for that matter), is no longer confronted with something that makes one think. And maybe, on the flip side of this savoring as it were, we could say that the experience with education turned digital in the pandemic made us also become conscious of another kind of displacement as a condition to make university thinking happen. The savoring of angelic life in the clouds made us aware again of how much we are attached (full

of affection) to a worldly/earthly existence. It is not just that this life online reminds us that we have bodies (probably we are now more than ever aware of that), but it reveals what it means when our bodies become 'mobile', that is, the 'total mobilization' of bodies in view of making screen-work possible. The screen-worker has to be mobile, should be able to go 'on line' and visit 'web sites' all the time, and can never walk 'off line' and 'off sid/te'. In that sense, she does home-work, even if she does not work at home. So maybe, the experience with the pandemic reveals that for a university to exist (i.e. for collective thinking to happen) there is also need for a bodily displacement, besides the mediatic displacement. The university, then, would not be the place where thoughts take-off or are launched, but the other way around, a place where they can land, can touch ground, become embodied. The auditorium is no church where our thoughts ascend to heaven, but the place where we want to make it such that thoughts can land. And this actually involves a displacement: to leave the home and the familiar but also to descend from the cloud to become a student, someone who is exposed and can become infected (and not only informed by a 'messenger'). A student is no angel, without body/matter, without friction, s/he is present in all respects when thoughts land or try to land and become 'matter', matter of thought. And just as the mediatic displacement implies a collective, so the bodily displacement as the condition for academic thinking implies equally a 're-collection' of bodies. In fact, this is what also seems to be implied in what Lavinia Marin writes towards the end of her study: "collective displacement of the screen without the actors being in the same room seems hard to imagine." If this is the case, then the digital university is the ideal place for weightless 'students' living an angelic and worldless/earthless life and always working at/from home. This book makes us think of the question of university as a question of how not to work at/from home.

Maarten Simons and Jan Masschelein

1. Introduction. The Media Question and the University

Abstract: This book is concerned with establishing the media conditions of possibility for a digital university by fleshing out what are media configurations specific to university study in the first place. This chapter explains why the media question concerning the university has been previously side-stepped in favour of instrumental and cultural approaches, thus neglecting the educational approach. I argue that the media question needs to be asked again, but this time from an educational perspective which should take as its starting point the study practices. After briefly explaining the distinctiveness of study practices, I introduce the Flusserian method of a phenomenology of gestures. I will use this method throughout the book to look for gestures with media technologies and materialities at the university which will then be used to give an insight into how thinking emerges in study practices.

Keywords: university, study practices, thinking, gestures, phenomenology of gestures, profanation, Flusser

Moving the university online

When I started writing this book, the term 'digital university' was used mostly by policy-makers and university managers, yet seldom found in daily educational practices. In educational research, the meaning of the 'digital university' was still found in an 'emerging context' (Goodfellow and Lea 2013, p. 2), in need of being fleshed out (Hazemi et al. 1998). However, many practitioners perceived it through its envisioned consequences such as personnel cuts and making education cheaper (Bowen 2013). It seemed that, for the managerial class, the digital university was yet another technical fix to a perennial problem of universities: too few instructors and too many students demanding their time and attention. The 'digital university' was yet another form of digital capitalism (Johnston et al. 2018; Peters and Jandrić 2018). Because the 'digital university' was something yet to come in a vague future, few steps were actually taken towards it. Most universities had some educational online platform to distribute course materials, but these were merely supplementing the core face-to-face education.

Things suddenly changed in 2020, when the digital university became a practical necessity in the aftermath of the Corona pandemic measures. The universities had to either move online or cease entirely their day to day operations. The abrupt transition from face to face to online education

happened in a matter of days or weeks. Administrators compiled documents with software tools and available resources to be used as-they-were. Teachers were sharing tips and tricks for online education with their colleagues in hurried chains of emails. The main concern was less with providing the best type of education, but rather with finding something that was good enough, a survival solution. After these nerve-racking experiments with online education, it became clear that universities needed to be prepared with an online version for all classes, as a safety measure for any future emergency. The digital university was no longer a distant dream of policy-makers, but something we all needed to prepare for. The crisis of the university during the Corona pandemic indicates the increased urgency of the questions explored in this book which aim to establish the function fulfilled by various media technologies at the university. By understanding the role played by media technologies at the university, we could find a way to answer whether the digital university is possible as a long term replacement for the face-to-face education.

This book proposes a philosophical exploration of the educational role that media plays in university study practices. While this seems to be a purely theoretical question, its practical implications are wide and concern what we do with media technologies in universities and whether such a thing as a 'digital university' is possible. By using approaches from media phenomenology and the phenomenology of gestures, this book aims to describe the limits and possibilities for using media in educational practices at the university. These limits, which are immanent to the media, give rise to normative demands: what is possible to be done with media, what can be dreamed, what cannot be attempted – all derive from the initial clarification of these limits. In addition to this, I add another normative layer through a morphological perspective on education (Masschelein and Simons 2013) in which one starts by outlining what is proper to each form of education and that, once removed, would leave that form unrecognisable from other kinds of activities. Assuming that we want to maintain that thre is a fundamental difference between universities and other forms of education such as schools, family education or training on the job, some normative consequences follow from this perspective, namely that thinking should play a major role in every genuine education form at the university. Without thinking, there is no university.

An important part of the everyday operations of a university is made up of media technologies which are understood here broadly as any artefacts used to communicate and to store information. Media technologies are not limited to only the digital devices, but also include blackboards, books, notebooks, writing tools, overhead projectors – usually called technical artefacts. The university-built environment mediates our sensory experiences by working together with media technologies: lecture halls are for listening and seeing, just as seminar rooms are for speaking and gathering around a common point of focus. We can understand these places and the media tools operating in them as affordances for education – where affordances are understood as 'opportunities for action that objects, events or places in the environment provide'

(Hirose 2002, p. 290). Affordances can be considered both as necessities as well as enhancements for education. Which material affordances are necessary and which are mere luxuries for a university? Does a university hinge on books, desks, and spaces for speaking face to face? The answer to this question will also give the limits of existence for a digital university.

Affordances are conceptually linked to kinds of actions which they support. Therefore, to speak of media affordances we need to clarify first what actions are necessary for a university to exist. In educational theory, we do not usually describe university life in terms of actions – too short to matter- but in terms of educational practices: long-term actions which shape the actors performing them. To begin answering the question of the role played by media at the university (understood here as both tools and spaces), we need to look at the interplay between educational practices and their media affordances. Underneath the question of what makes possible a digital university lies another normative question: what educational practices need to be transferred online after all? After all, the digital university is not fulfilled by moving the management or the day to day maintenance operations online, but by re-enacting the educational core practices online. We need to understand first what is the object about which we are asking the media question, namely what needs to be moved online without any compromise.

The object of the media question: university study practices

The notion of study practices comes to the forefront when we attempt to distinguish university practices from any other educational practices. Following a recent trend in philosophy of education, studying is seen as a signature practice for the university (Barnett and Standish 2003; Masschelein and Simons 2013; Hodgson 2016; Lewis 2014; Lewis 2019; Jimenez 2018; Schildermans 2019). In philosophy of education, studying is understood as a practice which enacts a certain kind of relation with the world, characterised by the following features:

- Intensity
- Open-endedness
- Slowing down
- Profanation or playfulness
- Disciplined attention

While the features are distinguished analytically here, these co-constitute each other and work together. For example, studying is seen as being engaged with 'intense fascination in the work at hand' (Barnett and Standish 2003, p. 220) but this kind of fascinated engagement would not be possible without enacting a discipline of attention (Lewin 2016, p. 263). When

we are fascinated with the object at hand, we allow ourselves to be touched by slowing down and paying attention to it, as we are trying to 'be present in the present' (Masschelein 2010, p. 47). However, the fascination and disciplined attention might give rise to obsession and perhaps even fanaticism. This is where the other features of studying come in, namely profanation and open-endedness. Profanation happens whenever the studier refuses to take anything as sacred or as a given, and instead 'disturbs, questions or disrupts all kinds of stabilizations, fixations or crystallisations' (Masschelein and Simons 2013, pp. 179–180). Profanation enacts a playful relation with the object of study and begins by removing it from its daily functioning, for example when a car engine is placed on a table in a workshop class, a body dissected in the anatomy lesson, and thus the object of study becomes something 'to be messed around with' (Vanden Buverie 2018, p. 43). Open-endedness is the absence of a predetermined goal or outcome (Hodgson 2016, p. 46), the refusal of turning the study into an instrument for some other purpose such as, for example, gaining skills or learning; yet open-endedness cannot occur without the simultaneous movement of profanation which is a 'movement of de-identification' (Masschelein and Simons 2013, p. 108). Studying has no end in sight, it is 'withdrawing from the very idea of goals in the first place' (Lewis 2014, p. 164) because the more we study, the more we discover the need to study even further, entangling ourselves with the object of study. Studying, characterised negatively, does not resemble prayer, nor adoration, nor artistic expression or creation. Rather, when we study, something captures our attention and it forces us to think it anew despite what has been said about that same object of study before us (Vlieghe and Zamojski 2019, p. 56). In addition to these conceptual articulations, I emphasise that a matter of study is recognisable by the fact that it makes us think about it. Thinking is an unavoidable epiphenomenon of the studying practice.

Studying has been explored to some extent by philosophers outside the educational field such as Giorgio Agamben (1995) who approached studying as an individual activity of a scholar, a particular form of thinking while doing research. However, studying at the university is not just an individual practice this distinguishes it from the solitary scholarly endeavour. Studying at the university is a practice entailing 'the arts of composition, problematization, and attention' (Schildermans 2019, p.138). In other words, any object which has the potential to gather a group around it, to capture our attention, and that asks us to problematise our relation to the world in an affective and existentially transformative way (Schildermans 2019, p.158) becomes a matter of study. Thus, there are no study objects out there, waiting to be studied, raher it is our gathering around them in a collective move that turns them into study objects. This potential to gather people around the matter of study is what makes university study be a fundamentally collective practice, in contrast to the study of Agamben's solitary scholar:

> [studying] involves a double movement: the detachment from established or shared ways of speaking and looking, and simultaneously a search for new attachments, for making sense of what struggles to speak or to show itself, for new ways of assembling and naming the world. (Simons and Masschelein 2018, p.57)

There is also an affective dimension of studying that needs to be carefully disentangled from group allegiances: in collective studying, the students are attached to the matter of study, not to their group. Furthermore, studying is not just about attachment, but also educational detachment (Marin 2018, p.93) as one needs to put a distance between the self and what is being studied. This interplay of detachment and attachment is needed because there is no practical goal for studying, but rather an always present potential that the studier might transform oneself (Lewis 2014; Vlieghe and Zamojski 2019). This potential for transformation of the self is what makes educational practices distinct from other kinds of practices that are meant to realise precise ends.

> Studying a thing does not respond to the desire of gaining more knowledge, skills, competences, or credentials. It is not about the strengthening of the subject, and the accumulation of its capitals. Instead, it consists of taking care for *das Bedenklichste* [the thought-provoking], and this might entail a transformation of the student's life. (Vlieghe and Zamojski 2019, p. 56)

Several examples of foundational study practices found at the university are lecturing, seminars, tutorials, exams, academic writing, study groups, laboratory experiments. I have chosen to look at the mediatic configurations of only two study practices: lecturing and academic writing.

Throughout this book, I will be taking on the perspective of an educational approach; by contrast with social-sciences approaches which have inspired much of the empirical work done in education, the particular educational approach I am using here is not a functionalist approach (Masschelein and Simons 2013, p.173). In a typical functionalist approach, the university is seen as an entity that performs certain functions for society such as 'the production of knowledge (research), the transmission of knowledge (education) and training and development (innovation)' (Masschelein and Simons 2013, pp. 173–174). In this functionalist understanding, the university exists for society only insofar as it fulfils these functions, and if some other institution appears that can fulfil these, then the university may become one day obsolete. By contrast, an educational approach is immanent: education is seen as good in itself - with no need of external justifications. The immanent goodness of

educational experiences is related to the experience of potentiality, namely the student feels ready and capable of an existential transformation (Vlieghe and Zamojski 2019). Following the educational approach outlined first by Masschelein and Simons (2013) and later expanded by Vlieghe and Zamojski (2019), I will begin by looking at study practices and the associated experiences of thinking while studying in order to discern what kind of media configurations make these experiences possible. In this book, I take gestures as a starting point for investigating how media configurations appear in our daily study practices at the university.

Gestures as Pointers to Thinking. A phenomenological approach

Thinking can be experienced in different contexts, not just at the university. Hence choosing the appropriate method to track down this elusive experience of thinking while studying is a crucial step. The work of Vilém Flusser on gestures as pointers to thinking appears to be well-suited in this context for two main reasons. First, Flusser has an inclusive concept of thinking which encompasses many activities that one would have not normally seen as conveying thinking, such as speaking, writing, painting, sculpting or dancing. I find it preferable to throw a large net and fish out multiple experiences at the beginning, rather than confining what counts as thinking to some fixed categories which restrict possible findings. Flusser's approach to thinking leaves it open also for new forms of thinking that Flusser himself never wrote about, thus making it an approach suited for discovery, not mere identification. Second, the Flusserian approach is phenomenological, which makes it the obvious candidate as we are looking for experiences of thinking, not a priori ideas of what counts as thinking. Flusser is among the few philosophers who explained how it feels to think, giving a phenomenological description and linking this experience to concrete human practices, namely to gestures. Gestures hold the key to identifying when we are in the presence of thinking.

Flusser's understanding of gestures departs from the ordinary usage of the word, as he appropriated the term and turned it into a technical concept as many philosophers do. In common language, gestures are usually what we do with our hands: we point, we touch screens, we show. Some would also say that gestures are also actions that we connote positively, for example saying 'that was a nice gesture' about someone's behaviour of giving up one's seat on the bus for an elderly person. For Flusser, however, a gesture is 'a movement of the body or of a tool connected to the body for which there is no satisfactory causal explanation' (Flusser 2014, p.2). His definition of gestures begins negatively: by excluding the categories of bodily functions and those of automatic reactions. Gestures are not natural: hence sneezing is not a gesture, it is a bodily reaction, we do it without attributing to it any meaning. Similarly, there are no automatic

or mechanical gestures, such as the movements of someone working at a conveyor belt, reacting in response to a machine. By contrast to the biological or the machinic automaticity, taking up the brush to paint and laying strokes of colour on the canvas is a gesture, done freely and consciously. 'A freedom is expressed' (Flusser 2014, p.164) in all gestures because we could have chosen not to do them, as opposed to sneezing or reacting to the conveyor belt's demands.

An example of a gesture of thinking is the gesture of writing. In its simplest form, writing 'is about bringing material to a surface (e.g., chalk to a blackboard) to construct forms (e.g., letters)' (Flusser 2014, p. 19). Writing can happen, as Flusser points out, on different materials and with tools: pens, typewriters, word processors, scratching surfaces such as clay tablets. Yet the gesture itself follows a certain pattern, what Flusser calls linearity: 'it begins in the upper left corner of a surface; it goes to the upper right corner; to go back to the left side, it jumps just under the line just written and continues to move ahead and jump back in this way, until it has reached the lower right corner of the surface.' (Flusser 2014, p. 20) By looking at how this linearity is realised against the different surfaces, Flusser can interpret the meaning of the gesture of writing as a particular mode of expressing thinking into the world: linearly. On the other hand, the writing gesture, as any other gesture of thinking, needs to be part of the intention of the author to express an affect. Thus, chimpanzees playing on typewriters, toddlers playing with their parents' keyboards, or typists taking dictations from others are not performing gestures of writing – in a Flusserian sense - they are merely taking dictation or pressing buttons randomly (Flusser 2014, p. 21). A gesture is always meaningful for the one performing it who, at the same time, wants the meaning to be recognised by others.

A key Flusserian insight is that thinking always takes place in the world and it is embodied. Flusser is criticising a certain dominant Western metaphysical tradition up to Husserl which had seen thinking as a pure, disembodied state, a quest for 'clear and distinct' reflection; this tradition has can be located in the Cartesian insights of thinking as being a non-extended state, hence the opposite of what could be experienced via our senses and bodies. Descartes begins his *Mediations* with a withdrawal from the world, isolated in a room, bracketing everything that might distract the pure act of thinking: 'removing all subjective and objective "impurities"; that means everything, which is not clear and distinct, and everything "out there"' (Krtilova 2016, p.5). Flusser explicitly rejects this idealist approach and instead proposes that 'there is no thinking that has not been articulated through a gesture' arguing that gestures 'concern the concrete phenomenon of our active being- in- the- world' (Flusser 2014, p.176) and we cannot disconnect our being in the world from our thinking in the world. This perspective foreshadows the embodied cognition turn which was going to sweep philosophy of the mind in the late 20th century through the works of (Varela et al. 2016) or (Clark 1997), also in line with

phenomenological thinkers such as Merleau Ponty who saw embodied action expressing our mind's workings (Krueger 2012). Flusser's approach is distinctive from embodied cognition approaches because he focuses on gestures as the privileged mode of expressing thought into the world, while counting as gestures only the voluntary and intentional movements, thus explicitly focusing on higher forms of cognition involved in creativity and discovery. This makes it different from enactivists, for example, who are focusing mostly on lower forms of cognition as being bodily enacted[1] and who also count involuntary acts as expressing cognitive states.

Gestures always express and enact an 'affect' (*Gestimmung*). Affect emerges as the public face of thinking, what we say and do to be understood by others. When performing a gesture, the mental state and its making public for others coincide. We can only see this public face of the mental state, for we never have access to the 'real' thinking, that interior monologue which cannot even be described without turning it already into a gesture – since speaking is also a gesture. Affect is thinking directed towards others, codified in a movement, the gesture, which gives it an artificial form:

> affect "intellectualizes" states of mind by formalizing them into symbolic gestures. (...) as affect, states of mind have become constructs (…) It is just this unnatural, represented, symbolic character of affect, exactly this "artificiality," that lends meaning to states of mind (whether real or imaginary) and so to life. (Flusser 2014, p.7)

Gestures are about enacting freely a meaning which, for Flusser, is connected to (common) world-making: 'To be free is to have meaning, to give meaning, to change the world, to be there for others, in short, to truly live' (Flusser 2014, p.70). Thus, Flusser does not understand freedom in a negative way, as being free from, but positively, as being free to, in this case, free to build a world. But this world which we build through gestures has to be common, others have to live in it. Flusser discusses freedom more clearly in an essay dedicated to the gesture of painting:

> The gesture of painting is a form of freedom. The painter does not have freedom, he is in it, for he is in the gesture of painting. Being free is synonymous with actually being there. The observation of painting allows us to see the concrete phenomenon of freedom. (…) Freedom is actually indivisible: it is the way we recognize that others are in the world with us. (Flusser 2014, p.70)

This idea of creating something as expressing freedom can be traced back to Flusser's interpretation of Husserlian phenomenology as the 'attempt to save Western thought from alienation by once again finding the concrete "ground" from which this thought proceeds'

[1] With some notable exceptions such as (Gallagher 2017)

(Flusser 2014, p.68). Flusser notices that there are multiple ways of abstracting from the world, hence of abstract thinking. This means that taking an objective stance from the world and pretending to observe it scientifically and detached will lead to only one kind of thinking which is biased towards only one form of abstraction. If we want to account for thinking and for the multiple ways of being in the world, we must find again 'the ground' and dirty our hands with multiple ways of doing, engaging in 'the effort to exclude prejudices of abstraction from observations of the concrete world' (Flusser 2014, p.68). This phenomenological approach entails understanding through a concrete 'engagement with phenomena, not through external observation of them' (Flusser 2014, p.66). Concretely, this means that one should take up painting to understand what painting expresses about the world or to engage in the gestures of study to understand what studying is about.

Gestures are performed around us all the time and most us know intuitively how to decode them correctly. Yet there is no clear explanation of how we do it, for 'we have no theory of the interpretation of gestures' (Flusser 2014, p.2). We decode gestures 'naturally', but we require a hermeneutics of gestures. Such a hermeneutics should not try to explain the gestures, because this would then reduce gestures to causal explanations and annihilate the residue of contingency which makes gestures an expression of human freedom. Gestures can only be interpreted - not explained - yet this interpretation cannot pretend to be systematic, rather intuitive. The jump from intuition to interpretation is the task of the philosopher, it is a jump from phenomenology to hermeneutics.

There are empty and meaningful gestures, gestures that enact thinking and gestures which create relations. What unites all the gestures is their intentionality, but not all gestures we make express thinking. For example, the handshake gesture functions as a reference to a peaceful message of 'I bear no arms', yet we do not think about this message anymore, as handshaking became a gesture empty of thinking, devoid of reference. We make the gesture, we signal the affect, yet there is no thinking involved. The gesture of handshaking creates a relation, but a very superficial one. By contrast, meaningful gestures are always about performing some kind of work, i.e. changing the world as '[w]ork presumes that the world is not as it should be and that it can be changed' (Flusser 2014, p.10). When we are thinking through gestures, we are almost always creating something new hence doing a form of work.

Most of the gestures described in Flusser's book are done with tools and technologies, except for the gesture of speaking which can occur by natural means, through voice alone. The technology-depepdence of gestures means that, with the invention of every new tool, something new can be created, a world comes about, hence a new freedom can be expressed: 'what makes a movement a gesture is not that it is free but that a freedom is "somehow" expressed in it. And "somehow" means "by means of some technology" ' (Flusser 2014, p.175). Materiality and

technology are important here because gestures are about expressing a freedom and this is possible only within the material limits of the technology itself. The freedom in gestures is not about breaking the barriers of what the technology allows to happen but working within the material limits to create something. Yet that creation is always performed against some material resistance. But this is what world-making is about: worlds do not appear spontaneously; we have to create them against some kind of resistance. Hence gestures with technologies and materialities performed at the university will give us an insight into how thinking emerges in study practices.

The media question and the university

This book is concerned with establishing the media (material and technological) conditions of possibility for a digital university. The possibility of a digital university depends on the relation established between university practices and the media employed in these practices. Two theoretical alternatives come to mind:

> A) either the relations between the university practices and the media employed are not essential, and then digitalisation of the university is something fully realisable in theory.
>
> B) or the mediality is constitutive for the university educational practices, and then the change of media into a digital kind cannot be proposed without a careful spelling out of the consequences for the existing educational practices, perhaps proposing altogether new practices; one should also consider the possibility that this project might be impossible.

Following these two options, it appears that one cannot answer the question of the possibility of a digital university without first answering the media question beforehand. The media question is the following: ***Is there a media configuration characteristic of university educational practices?*** Without clarifying it first, there is no theoretical ground for answering what can actually be digitised in a university. The main aim of this book is to answer the media question by analysing two university study practices through the lens of a phenomenology of gestures; the secondary aim is to use the findings from the first part and look at several attempts to digitise the university such as MOOCs and videoconferencing as lecturing – and to discuss what is currently missing from turning the university fully digital.

The media question concerning the university is not asked in a research vacuum. Media research in education has had a rich history, albeit the focus has been more on school than on university. Schooling has been linked inextricably with literacy training, while media technologies in school

have been described as ‘technologies of literacy’ (Vlieghe 2015). Meanwhile, it has not been that clear what are the media technologies doing at the university. In higher education, the role of media is usually understood in two ways: ‘firstly as a cultural element outside of the institution, and secondly as a technical element instrumentalized within educational contexts' (Friesen and Hug 2009, p. 71). In other words, media is seen as a cultural force from the outside, disrupting education, or as an instrument to be used for enhancing learning. In the first case, media interrupts the educational practices with its own logic – for example when students are using messaging apps during lectures – or is used for whatever pedagogical purposes one might have. As Friesen and Hug have shown, both these views are too simplistic and underestimate the role that media plays at the university (Friesen and Hug 2009). A more nuanced interpretation would understand that the university is influenced and changed by different information (and media) revolutions, but that there are also university practices which developed independently of any media revolution (Moodie 2016, p. 259). In this book, I inquire into the media configurations of university study practices; in doing so, I am drawing from the previous works of Norm Friesen and Ivan Illich which both paved the way for understanding what media do at the university by going beyond mere technological determinism or educational instrumentalism (Illich 1992; Illich 1993; Friesen and Hug 2009, pp.70–71). However, what I am adding new to their previous work is first, the focus on study practices and not on the university as an institution and, second, the educational approach which understands study practices as immanent experiences – worthwhile having in themselves, and third, the method of a phenomenology of gestures which I borrow from Vilém Flusser.

My research is about elucidating how media contribute to making possible experiences of thinking while studying. However, the contribution of media in university practices is not confined to fostering thinking: after all, media help us learn, memorise, communicate, etc. by externalising many of our cognitive habits which were already 'mediatically conditioned’ (Friesen and Hug 2009, p.74). The focus on thinking while studying is my answer to the normative question previously mentioned concerning what is worth saving from the university in the digital transition. Perhaps there are other aspects, but the experience of thinking while studying cannot be compromised as it is one of the most distinctive experiences one could have at the university.

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2. Experiences of thinking while studying at the university

Abstract: This chapter describes experiences of thinking at the university by using examples from two study practices: lecturing and academic writing. Lecturing is approached as a study practice, which, as I explain, entails taking a distance from the instrumental or functionalist understanding of lecturing. Using examples from Gadamer's writings, I show how thinking in the lecture emerges and how it is experienced by the audience. While trying to avoid any ontological commitments about what thinking is in itself, I describe the experience of university thinking as expanding the subject's range of experiences not just about the world, but about one's modes of thinking about the world. Similarly, thinking while being engaged in academic writing is a form of meta-thinking, as it concerns changing one's ways of thinking about the world. Thus, both lecturing and academic writing foster educational experiences of thinking since these both allow for a transformation of the self and of how we see the world, ultimately an experience of potentiality.

Keywords: lecturing, academic writing, study practices, thinking, meta-thinking, reflection

The university[1] has always been involved in the 'business' of thinking (Barnett, 1997, p.1), yet what was meant by thinking has not been captured by one understanding. University thinking has been designated throughout the ages by various names such as dialectic, reason, critical thinking, intellectual innovation, inquiry, etc. (Davies & Barnett 2016, p.2). Underlying the multiplicity of names for thinking there seems to be a common trend which regards thinking as an outcome. Be it an individual skill (as critical thinking was deemed), be it a new idea (such as innovative research), or even a cultural trend (as enacting a community of inquiry), the university seems to be instrumental in making thinking happen, as the place where one learns to think in order to use this ability later in life. For example, the thoughts stirred by studying can be seen as a by-product after learning new knowledge or some useful skills which are the really valuable outcomes. This outcome-oriented perspective makes sense: nobody envisions a university as the place where students should spend their entire lives until they retire. Students pass through the university to get something out of it, and then they move on with their lives. However, the university life is not merely a preparatory stage for 'real' life, nor something we merely endure

[1] Some parts of this chapter are adapted from Marin L. (2020) University Lecturing as a Technique of Collective Imagination: On Seeing Things as If They Had Taken a Bodily Form. In: Hodgson N., Vlieghe J., Zamojski P. (eds) Post-critical Perspectives on Higher Education. Debating Higher Education: Philosophical Perspectives, vol 3. Springer, Cham https://doi.org/10.1007/978-3-030-45019-9_6. Reproduced with permission

waiting for life to begin after graduation, rather it gives rise to its own specific experiences valuable in themselves (Marin 2018). These experiential moments are often of thinking while studying, moments felt with unusual intensity:

> the intensity that can sometimes be found – in the fascination of the engineer, the student's absorption as the metaphysical conceit unfolds, rapt delight in a mathematical proof, the characteristic puzzlement of philosophy. Such experience may be high points in the kind of study that goes on in a university. It could not always be like this. (Barnett and Standish 2003, p.230)

According to Readings, universities manage to create moments of thinking again and again and, although we can experience these moments, one should refrain from conceptualising the kind of thinking at stake. Readings claims that thinking at the university should remain an 'empty name' (Readings 1996, p.160). As soon as we try to give it some content, some features, it petrifies and becomes an ideal – implying that other forms of thinking are excluded from the canon. If '[t]he university is a thinking institution' (Barnett and Bengtsen 2018, p. 1), it remains to be seen what kind of thinking is at stake there, be it an output, quantifiable in some form, or whether thinking appears and disappears as a fleeting event in which one says 'I think' (Schildermans et al. 2019, p.186). For Readings, university thinking cannot be described outside the university practices which enact it, it is always immanent to the pedagogical relationship (Readings 1996, p.160). This is not to say that whenever we stage a study practice such as a lecture, a seminar, or a writing group, thinking will emerge necessarily (Barnett and Standish 2003, p.230) – that would imply positing a causal relation between study practices and thinking. Whenever a lecture functions educationally as a lecture, meaning that it does not fall into something else such as conferencing, monologue performance or school-like teaching (Masschelein and Simons 2013, p.113), then thinking is also present in that event. This is actually one of the major differences between teaching in a classroom and the university lecture: in the school setting, the teacher knows exactly what she wants to convey to the pupils, the subject matter is fixed and what can change are the modes of engaging the pupils, whereas in the lecture hall we are dealing with a speech in the making. As Humboldt (1810) had noticed, the lecturer stutters if the lecture deals with research in the making since the unfinished research can still surprise the lecturer with sudden flashes of insight while speaking. The hesitant nature of the lecturing speech is a sign that thinking is happening as the lecture unfolds, and that what is spoken about is not fully known in advance to anyone. The lecture is open-ended in a way that classroom teaching is not because the lecturer is thinking while speaking.

Although thinking as an experience 'remains the most opaque' (Savransky 2017, p.1) and therefore hard to pinpoint, we are still bound to try to describe how it feels to think. In the next section, I will give an experiential account of thinking while attending a lecture and, in the

following section, of thinking while engaging in academic writing. But first I need to explain what makes lecturing a study practice.

The lecture as a study practice

Approaching lecturing as a study practice entails taking a distance from the instrumental or functionalist readings of lecturing at the university. This will be a difficult endeavour because most of the accounts we have of lecturing in educational literature are functionalist. In this section, I will first outline several of the most important functionalist accounts of lecturing and then take a distance from these accounts by proposing an immanent perspective on lecturing in the next section.

Instrumentalist perspectives have shaped much of the debate on whether the lecture is useful or even fit for our times. As an example of these current debates, Diana Laurillard presents a clear argument against lecturing seen as a way of transmission of information to students:

> Why aren't lectures scrapped as a teaching method? If we forget the eight hundred years of university tradition that legitimises them, and imagine starting afresh with the problem of how to enable a large percentage of the population to understand difficult and complex ideas, I doubt that lectures will immediately spring to mind as the obvious solution. (Laurillard 2002, p.93)

Laurillard's question is instrumentalist, it ascribes meaning to lectures in view of an external goal, in this case, the transmission of information. However, the instrumentalist approach is puzzling because, throughout the history of the university, lecturing has been proposed as a means to achieve different aims: the understanding of a subject matter, knowledge transmission, book reading, memorisation, inspiring students, and even generating new ideas. Although the aims of lecturing changed – at least at a declarative level – the pedagogical form of the lecture did not change significantly for centuries. Instead, it was re-conceptualised to serve these new aims (Friesen 2011, p. 95). How is it possible to demand different outcomes from a practice that has remained almost unchanged for eight centuries?

At first sight, the lecturing situation seems to involve a speaker in front of some listeners who are also taking notes. This situation, which looks a lot like dictation, has led many researchers to claim that lecturing is only knowledge transmission. There are two ways of approaching lecturing as transmission: as the dictation of books in medieval times (Durkheim 1969 (1904) p. 105; Clark 2006, p. 83), or the transcription of the lecturer's commentary by the student-scribes (McLuhan 1971; also Kittler 2004, p. 245). In the first case, the main argument is that books were scarce before the invention of the printing press. In the latter, the publishing of lecture notes as manuscripts is taken as proof that professors used students as scribes. Both interpretations are

missing something essential: the first generations of medieval students were not taking any notes. The few students who had pens in their hands did so only to correct the mistakes on the manuscript copies that they had in front of them. This is strange for a practice of so-called knowledge transmission. Furthermore, lecturing should have ceased once the printing press was invented - an event that made books more available, a point made by Friesen: 'the Gutenberg revolution makes it clear that practices in the lecture hall are not to be understood primarily in terms of information, its abundance, its scarcity, or its efficient transmission. ... The printing press alone should have marked the end, or at least the beginning of the end' (Friesen 2011, p. 97).

Only after the printing press was invented students began to take notes in the lecture hall.

> Early modern students became note-takers in lectures, sometimes manically, according to some eighteenth-century reports. The sound coming from lectures—that 'clear, dry, tingling sound,' like the wind in late fall—arose from so many taking copious notes in eighteenth-century Wittenberg. 'We knew very many at Wittenberg who spent their three years there attending five lectures each day and who filled the remaining hours by rewriting their lecture notes … [or] when not rewriting them, then filling the holes in them by other notes' (Clark 2006, p. 86-87).

Student note-taking is just one striking case in which the practice appears after its instrumental function is made obsolete by other technological inventions. Granted, books were still expensive and often the students could not afford them, yet the note-taking in the lecture hall was never about copying books. Special sessions were dedicated to book copying in the middle ages, but these sessions were not proper lectures: called 'cursory lectures', these were taken only by students who could not afford to buy the manuscripts and needed someone to dictate to them the texts outside the regular university classes (Moodie 2016, p. 125).

A second instrumental explanation of lecturing is that it facilitates understanding. What students could not understand by themselves while reading the book becomes straightforward once a lecturer explains it directly to them, for them. This second instrumental explanation of lecturing is about the transmission of a certain way of seeing the world and doing things, an interpretation. The students learn how to approach this book, this text, this piece of knowledge by listening to the lecturer speak about it. The lecturer then transmits a paradigm (in the Kuhnian sense), and then the lecture becomes the stage where a certain *episteme* is given to the future generations, imprinting it in the heads of the students via the voice of the lecturer because the voice is more persuasive than the written word. However, this perspective seems to assume that university knowledge is fixed and stable. This was the case for the medieval university, but things changed starting with the Romantic thinkers on the university. As Wilhelm von Humboldt put it:

> it is a peculiarity of the higher scientific institutions that they always treat science as a problem that has still not been fully resolved and therefore remain constantly engaged in

> research, whereas the school deals with and teaches only finished and agreed-upon bits of knowledge. (Humboldt 1810)

Often, while speaking, the lecturer does not know exactly the conclusion to arrive at, she is searching with the students, in front of the students, for a possible answer. In the humanities and social sciences, students are presented with competing interpretations for the same fact or theory, in the same lecture. Of course, the multiple interpretations could still belong to the same paradigm, enforcing ways of understanding by telling students implicitly what should count as knowledge. However, this interpretation seems often to be hesitant and while the words of the lecturer stutter (Simons and Masschelein 2018, p. 56). In those moments of hesitation, there are moments of study enacted, bypassing the logic of interpretation transmission. Those happen to be also the moments that many students find most valuable in a lecture.

The lecture taking place from the medieval beginnings of the university up to the modern age university was understood as a form of knowledge transmission (McLuhan 1971; also Kittler 2004, p. 245). Beginning with the Enlightenment, the lecture seemingly changed its purpose while keeping the same format. The lecture was seen as an event for generating thinking. This is the third instrumental perspective - lecturing as a way of generating new ideas by brainstorming in front of a crowd. This Romantic idea is lost to our contemporary sensibilities (Moodie 2016, p. 123). One of the most pre-eminent exponents of it was Humboldt, in the same text quoted above:

> For the free oral lecture before listeners, among whom there is always a significant number of minds that think along for themselves, surely spurs on the person who has become used to this kind of study as much as the solitary leisure of the writer’s life or the loose association of an academic fellowship. (Humboldt 1810)

When Humboldt suggested that thinking is tightly connected to speaking in front of others, he was expressing an observation inspired by Schleiermacher and Kleist about the spontaneous generation of ideas.

> The teacher must produce everything he says before his listeners: he must not narrate what he knows, but rather reproduce his own way to knowledge, the action itself. The listeners should not only collect knowledge. They should directly observe the activity of intelligence producing knowledge and, by observing it, learn how to do it themselves' (Schleiermacher 1808, p. 63, quoted in Rüegg 2004, p. 21)

Similarly, Kleist had suggested that there are multiple ways of being inspired to think and that speaking in front of another is one of the best ways to come up with new ideas:

> The human face confronting a speaker is an extraordinary source of inspiration to him and a glance which informs us that a thought we have only half expressed has already been grasped often saves us the trouble of expressing all the remaining half. I believe that, at the

> moment when he opened his mouth, many a great orator did not know what he was going to say. (Kleist 1951 (1805), p. 43)

To speak then in front of another amounts to thinking out loud and discovering ideas while formulating them: '[t]his kind of speech is nothing less than articulated thought' (Kleist 1951 (1805), p. 44). It is not about delivering a speech or re-telling old thoughts, but about getting into a mental state where thinking is provoked and called forth. Kleist's technique for the provocation of thoughts includes starting with the problem to be solved, then naming hunches and half-baked ideas, intuitions in no particular order, and just speaking in front of the other, until the ideas emerge in speech. Kleist describes this experience as searching for connections between words while pressured by the expectations of the audience:

> since I always have some obscure preconception, distantly connected in some way with whatever I am looking for, I have only to begin boldly and the mind, obliged to find an end for this beginning, transforms my confused concept as I speak into thoughts that are perfectly clear, so that, to my surprise, the end of the sentence coincides with the desired knowledge. I interpose inarticulate sounds, draw out the connecting words, possibly even use an apposition when required and employ other tricks which will prolong my speech in order to gain sufficient time for the fabrication of my idea in the workshop of reason. (Kleist 1951 (1805), p. 42)

What matters about this technique is the presence of the other, that 'human face' in front of which one elaborates ideas. It is the other who guides and directs this process of thinking out loud through the mimic of one's face. Kleist's technique points at an important feature of the process of thinking, namely that we need to be understood and that the other acts as a kind of resistance to an unencumbered flow of thoughts. Both these observations will be restated by Flusser in his conception of thinking as an intersubjective event: we do not think for ourselves, we always think for others and in view of making our thoughts public (Flusser 2014). When we speak and the other does not understand, this breaks our process of thinking. We must stop and re-evaluate, find another approach, different words, so that the other may understand us. At the end of the thinking process, both speaker and listener must arrive at a common understanding, or else the thought is not complete.

If lecturing were just a technique for speaking while thinking in front of another, à la Kleist, then why do lectures need such large audiences? Wouldn't it be enough to have one student for each researcher to bounce off ideas? There seems to be something more at stake in lecturing than the mere generation of new ideas. We need to remember that lecturing is a collective event. As such, lecturing as a study practice should matter for everyone in the room, not just for the professor's sake, who would otherwise be speaking to a captive audience.

The lecture is the oldest surviving pedagogical practice in the university. If we assume for a moment that the university lecture was not kept around just out of respect for tradition, then we are faced with a difficult issue: is the practice valuable for the results it achieves or is the practice valuable in itself? The fact that the first line of defence for educational practice is its usefulness for something else, in other words, its instrumental value, does not mean that this should also be the last line of defence. Perhaps there are other ways about speaking of the lecture outside the instrumentalist perspective. For example, by adopting a post-critical perspective of interpreting educational practices as something worth doing in themselves (Hodgson et al. 2017, p. 17) and how the lecture gives rise to a lived experience of thinking for all those taking part in it.

Moments of Thinking in the Lecture Hall

Many students have forgotten the lectures attended while studying at the university. Some lectures series are eagerly awaited for by students, identifiable by the full auditoria. However, if one were to ask the students what they were waiting for, what was memorable about this or that lecture, they could not single out an instance, a moment, a word. It is rather the whole lecture, the atmosphere created, that attracts the students: a feeling that something very important is taking place and that they want to be part of it. It is something felt intensely in that moment, yet hard to describe afterwards. Let us look at someone who managed to recollect these moments to try to understand what is at stake in the lecture understood here as a study practice, beyond the instrumental approach.

When Gadamer was a student, he had the good fortune of attending many lectures which stayed carved into his memory and that he later described in his autobiography. One of his most memorable lecturers was one of Husserl's:

> Husserl's presentation was smooth and not without elegance, but it was without rhetorical effect. What he presented sounded in all ways like refinements of already well-known analyses. But there was an authentic intensity there, especially when he really lost himself in a description instead of developing his programs … His seminars began with a question posed by him and ended with a long statement in which the answer he had given earlier was redeemed. A question, an answer, and a half-hour monologue. But sometimes in passing he gave excellent insights into vast speculative areas that led up to Hegel. In his writings hardly any similarly large vision is to be found. His presentations were always monologues, but he never saw them as such. Once upon leaving he said to Heidegger: 'Today for once we really had an exciting discussion.' And he said this after he had spoken

> without period or comma for the duration of the session in response to the first and only question raised. (Gadamer 1985, p. 35-36)

The moments of thinking irrupted in the texture of a continuous monologue, as unplanned events that took even Husserl by surprise. Husserl was monologuing like an actor on stage, but rather he came prepared to say something, he said it, but in elaborating the speech, he lost himself in observations that led him elsewhere while facing the students' attentive gazes.

Gadamer recollects that, as he was attending in a lecture, he suddenly saw in his own imagination the thing described by Husserl. He was shocked that the description materialised before his eyes. Perhaps that description will not tell us much, like the *punctum*[3] in a photograph, everyone is touched by different things in the same image (Barthes 1981, p. 42). Gadamer mentions this in passing as a moment of feeling shocked, yet without describing it in detail.

Another lecturer, Max Scheler, spoke as if he was 'possessed' by thought. In the theatre-hall of lecturing, both speaker and listeners are carried on, like puppets on a string, by the thought that unleashes itself through words: 'Pulling strings, pulling on puppets - no, it was more like being drawn along, a nearly satanic sense of being possessed that led the speaker on to a true *furioso* of thought' (Gadamer 1985, p.29). One of the most enduring influences on Gadamer's thinking was Heidegger, who seems to have been also a memorable creator of lecturing moments: 'when Heidegger lectured, one saw things as if they had taken on bodily form. In a tamer form and limited to the phenomenology of perception, much the same thing could be said of Husserl' (Gadamer 1985, p. 47). These moments of materialisation of ideas in front of one's eyes happened more than once:

> Who among those who then followed him [Heidegger] can forget the breathtaking swirl of questions that he developed in the introductory hours of the semester for the sake of entangling himself in the second or third of these questions and then, in the final hours of the semester, rolling up the deep-dark clouds of sentences from which the lightning flashed to leave us half stunned. (Gadamer 1985, p. 48)

Gadamer was describing different lecturing styles with different approaches, but he was always pointing to the same thing, achieved by Heidegger, Husserl, Scheler (and several other figures not mentioned here, Natorp, Hartmann, Jaspers, etc.), namely this event which takes place in the lecture hall. He described these events as moments when a thought seemed to suddenly materialise in front of one's eyes, or when the image of a marionette becomes unbearably present, or when thoughts seem to coalesce in the flash of a moment and suddenly become images. These are the moments that made Gadamer and his colleagues come back to the lecture

[3] 'In this habitually unary spare, occasionally (but alas all too rarely) a "detail" attracts me. I feel that its mere presence changes my reading, that I am looking at a new photograph, marked in my eyes with a higher value. This "detail" is the punctum' (Barthes 1981, p. 42).

halls again and again. When reflecting on his many professors, Gadamer remarked that perhaps the same intensity of thinking could happen with other professors (naming Nicolai Hartmann) who employed a less dramatic style of lecturing, quite the opposite to Heidegger's style (Gadamer 1985, p. 48). It would seem then that it was not Heidegger's dramatic staging of the lecture that made it breath-taking, but the event itself of the lecture.

The moments of lecturing described by Gadamer had something in common: in those moments the students experienced a flight of imagination when ideas took on a 'bodily form' as if one could actually see what was spoken about. When recollecting these moments, Gadamer does not speak of himself, as an 'I', an individual student, but of a 'we'. It is as if he was saying: 'We, the students, suddenly experienced together the presence of an idea, a text, a concept, a law'. Something became present to the students via imagination and this thing spoken of united students into a collective. The shared experience of an event of thinking is what unites the students and the lecturer in a particular way, similar to the way in which tragedy witnesses are united for life by their shared memories of an event (Ilie, 2014; Ilie, 2015). These kinds of experiences cannot be replicated by oneself, while sitting alone at one's desk, which suggests that the students are an integral part of the lecturing event, and that, without them, there would be no intellectual fireworks, no moments of imagination taking on a bodily form.

Nietzsche once described the lecture as 'One speaking mouth, with many ears, and half as many writing hands' (Nietzsche 1910, p. 126) and his description seems to assume that the main character of the lecture was either the professor or the student. Yet, overlooked in Nietzsche's description is how the lecturer and the students functioned together to create something beyond themselves. If we see the two halves of the room as separate entities, the speaker on the stage and the audience at their desks, then it is as if a chasm opens up between them. Then the lecture might look like a mechanical marionette show: the speaker utters words that are not his, reciting knowledge passed on by tradition, whereas the students write manically something that they do not necessarily understand. If we look only separately at the gestures of lecturing, we will end up with descriptions of automatic, almost machine-like movements. however, if we understand the two halves of the room as performing incomplete gestures, we can begin to understand the entire event of the lecture as a collective gesture. In the lecture, there is no speech, but speaking to; not writing, but note-taking as listening; not watching but looking and being shown. All the movements in the lecture can be interpreted as individual gestures, but there remains something incomplete about them as if what is going on in the lecture takes only half of a form. The half-gestures of the individuals unite to form a whole gesture, the lecturing itself emerging collectively as a gesture.

The lecturer's speech is modulated by the interest and attention of the audience. One can read the signs of attention in how students write, either furiously scribbling everything, or slowly

jotting down here and there, by the ways they nod, or smile, or frown. All these reactions show that the students are mentally present. The importance of the audience shows to what extent the lecture is a co-production. The lecturer by herself cannot produce the lecture. The voice fails, the hand trembles, the line of thought is interrupted. Who can speak to an empty room and make sense? Even if the lecture looks like a discourse made by 'one speaking voice', it has to be open to the possibility of dialogue all the time. The presence of the audience makes possible a dialogue at the level of gestures. It does not need to become a disputation in the medieval sense, but at least a question must be implied: 'The irritated twisting of [students'] face muscles, certain movements of the head, hesitation in taking notes, and so on, remind the professor that his auditors do not understand him' (Meiners, quoted from (Clark 2006, p. 412-413). And, if the audience does not understand the lecturer, then he should change his pace, his tone, his words.

While it may seem that the lecture is similar to a theatre performance, there is a difference: the students perform along with the lecturer and, through their performance, they make the lecture possible. A lecturer cannot conjure the thinking event by herself, in front of a hostile or indifferent audience. Similarly, no matter how interested students may be about the topic, if the lecturer is bored and merely reading from one's notes, it is very hard for the educational experience to emerge. It is only when the lecturer speaks, and the students pay attention, when they follow with her the line of thought with their writing and gazes, signalling their presence and attention, that something similar to the flight of collective imagination becomes possible.

The lecture as a study practice manages to give rise to a form of collective imagination. The thing spoken about becomes present through the words of the lecturer, yet it is maintained by the students. Their gestures, their faces, their note-taking show that they are thinking with the lecturer, captivated by the topic that shows itself. In the lecture, thinking is not a dialogue between the lecturer and the students, rather, between all of those present who become students in front of the thing that captures their imagination. In those moments, even the lecturer becomes a student (Masschelein and Simons 2013, p. 179) and this is how we can distinguish the lecture from a speech or a conference talk. The lecture is not a communicational form, nor a way of school-like teaching. The lecture is like a giant magnifying glass over something from the past that is brought into the present, put into words, and allowed to hold us captive. In this respect, the lecture also functions as a test or a 'touchstone' (Vlieghe and Zamojski 2019) by showing us what is still part of our world and whether we still want something to be in it.

Academic writing as a study practice

If lecturing can be described educationally as a collective gesture leading to thinking, can we approach academic writing similarly? Many would describe the practice of academic writing as a

student writing alone in one's room. The collective aspect of academic writing is not that obvious, but one could still point at the experiences of thinking while writing which makes academic writing a study practice worth pursuing in itself. To designate academic writing as a study practice, it should be an experience valuable in itself, not just for the outcome – a correct or even beautiful paper, and foster some experience of thinking.

Academic writing is a university practice with many facets. It begins as a pedagogical exercise and it morphs into a research practice as the student goes up the academic ladder, moving from term essays, literature reviews, lab reports, to theses, culminating in the doctoral thesis, written by the doctoral student - an ambiguous figure, both researcher and student at once. Some authors use the term 'scholarly writing' (Huff 1999, p.1) for the pieces written by academics in view of publication so to separate the research-oriented writing from the pedagogical exercises of writing. In the practice of academic writing, students are asked to learn to write as academics even if they will not become themselves professors (Molinari 2019). Some universities offer dedicated academic writing classes, while many other students have to learn it on their own. Academic writing is also the name of a genre which encompasses multiple types of writings such as the thesis, the essay, the article, the book, etc. However, all these instances that we now take as belonging to 'academic writing' were initially literary genres which were turned into a 'pedagogical form' (Peters 2008, p.825) when used 'as a formal means of evaluating student's comprehension' (Peters 2008, p.825). The close link between evaluation and the genre of academic writing gives rise to a specific feature of academic writing: it is considered a technical skill, something which can be mastered through practice as opposed to literary writing which many would say requires innate talent. If teaching academic writing is usually focused on instilling technical skills through 'checklists, exercises, samples, the exposure of fallacies, practice workshops, and guidelines' (Peters 2008, p.825), then it becomes difficult to point at the experience of thinking while writing. A widely held view of academic writing is that it is a way of communicating to others one's thoughts or knowledge, hence that thinking should come before the act of writing which is merely the process of clearly conveying the results. However, at the same time, some theorists of academic writing claim that thinking cannot precede writing completely and that thinking is indeed shaped by writing (Huff 1999, p.7; Sturm 2012).

Similar to the lecture, the history of academic writing as a university practice has reconfigured the purpose and aim of writing several times. One of these major reconfigurations happens around the same time as the lecture's change, with the Early Modern period. What we call today academic writing, namely the creation of original texts, was born out of the disputation for a teaching place. Early medieval universities did not have a system of degrees. Someone could become a Master without even defending for a title: one needed only to do two years of teaching and presiding or responding in other's BA disputations to become a Master. However, when

graduates of other universities wanted to teach as masters in universities which were not their *alma mater,* master's disputations were introduced: 'Such masters, who were not "our masters" (*magister noster*), had to habilitate, that is, prove themselves with a disputation for a place' (Clark 2006, p.204). This practice was later extended to all master's students during the Early Modern period when everyone had to defend for a Master's title, yet this was not yet the birth of academic writing, the *disputatio* was still an oral exam (Clark 2006, p.204). Things started to slowly shift toward what we know today as academic writing when, due to the proliferation of printing presses, universities began to print out for the public the programme of these disputations. Such a printed programme contained the names of the examiner and of the student, together with a list of topics to be addressed in the defence. These programmes contained the theses to be defended and the speech to be given by the professor presiding:

> By the late sixteenth century, it was possible, then somehow customary, for the professor presiding over the dissertation, and thus presiding over the promotion or graduation, to put his oration on paper and have this printed in advance with the graduation program. Such graduation orations became professorial dissertations. The practice spread to the public disputations, where the presider might have a dissertation printed with the disputation's theses. (Clark 2006, p.204)

On the programme, the name of the professor examiner was printed in a larger font than the name of the student defending for a title because it was considered that the professor-examiner was the one who actually wrote the thesis, while the student only defended it and also paid for its publication (Clark 2006, p.204). The Master's thesis defence was a defence of the professor's theses done by the candidate:

> If the disputation was part of a graduation ceremony, then the student— as respondent and candidate—defended the professor's dissertation, written as presider and promoter... the publication costs of such professorial dissertations were often, perhaps usually, borne by the candidate and/or respondent. The student paid for the professorial publication since the program formed part of his advancement to candidacy or graduation ceremony. (Clark 2006, p.207)

Beginning in the 18th century, students increasingly asked to be credited for this publication because they had paid for it (Clark 2006, p.207). The struggle over authorship was resolved when the MA degree was split and the PhD was born. This idea belonged to Fichte and was adopted first at the University of Berlin. Fichte was among the first to connect the authorship of a publication with the idea of an original written work:

> In “Deduced Plan for an Institution of Higher Learning in Berlin,” Fichte not only argued (against the Saxons) that the doctor of philosophy should be instituted, but also premised (against the Austrians) that, in addition to passing an examination, the doctoral candidate should also produce a dissertation. “The masterpiece [of the dissertation] would best consist in a writing specimen . . . On the basis of this writing, his own composition, . . . [the candidate] will be publicly examined to the satisfaction of his teacher.”' (Clark 2006, p.210)

Thus, in the 18th century, universities slowly shifted towards writing a PhD thesis for a title instead of the oral defence: 'with the candidate as author, the center of the trial for the degree would shift, from the heroic theater of the oral disputation, to the prosaic publication of the doctoral dissertation' (Clark 2006, p.208). This means that authorship of an original text of research gains more importance than the oral defence of the approved theses. This claim of originality as linked to authorship was slowly extended to the other degrees. If during the 18th century, there was still a qualitative difference between the PhD thesis and the MA thesis – the PhD was the student’s original work, whereas the MA was a list of theses to be defended by the student and a speech by the professor, the originality slowly became a default demand. Yet what is supposed to be original in a Master’s or even a Bachelor’s thesis? The claim on originality should help us illuminate what kind thinking is entailed in writing academically.

Most Master’s and Bachelor’s theses do not change the field, although there is original thinking in the writing process. The kind of thinking showcased in the writing of the BA or MA thesis is not meant to be innovative for the field, but rather novel for the thesis-writer. If some theses do become ground-breaking, this is entailed in the potential of the university to make *everyone* think or to allow for unexpected discoveries.[2] Thesis writing usually leads to a kind of thinking that does not produce new knowledge for others, but it creates a new understanding for the writers themselves. Using Flusser’s terminology, this kind of thinking is *reflective thinking* or meta-thinking. Flusser describes it as thought turning against thinking itself: 'Reflection is … the inverse motion of thought, wherein thought is being controlled and decomposed into its elements' (Flusser 2005, p.3), or a thinking which produces nothing concrete, instead being just the process of the ‘devouring of thought by itself’ (Flusser 2005, p.3). This kind of thinking is to be contrasted with productive thinking which generates new knowledge and information. Writing while researching will create new knowledge and productive thinking, whereas writing as a student of academic writing will give rise to an experience of meta-thinking. In the writing of the doctoral dissertation, however, both types of thinking appear simultaneously. One can encounter new ideas and reflect on one’s knowledge and modes of thinking at the same time.

[2] I am grateful for an anonymous reviewer for making this point.

In the process of academic writing, students do not build new knowledge - although many thesis projects are framed as experiments, especially in the quantitative paradigm, usually the students replicate other studies or undertake experiments with a predictable outcome. This is a significant difference from the writing of a scientific article: while the article is pushing the frontiers of knowledge, the student thesis re-orders existing knowledge to show their understanding and engagement with the topic. In this process of becoming a Master, writing functions as a technology for thinking and, also, as a way of disciplining one's attention. Perhaps the topic did not matter to the student at the beginning of the quest - especially if the student is handed down a topic - but, in the end, it becomes 'my topic'. The topic belongs to the student in a way that no other area of knowledge does because she has invested time and attention into it. In this process, the student changes her relation to the field: she becomes a 'Master of [X discipline]' because investing so much attention for the topic at hand.

Thinking while writing academically is not a 'creative' way of thinking, it is hard to justify functionally other than leading to individual skills, yet it is creative in another sense because it changes the writers and their worldview. Academic writing, like any other original writing, is a gesture in which 'a freedom is expressed' (Flusser 2014, p.164) - and that freedom is about relating in another way with the given, with what is out there already handed down by others and thus opens up a new possibility of being in the world. This is what some scholars, following Arendt (2006), have called enacting an educational relation to the world (Masschelein and Simons 2013; Vlieghe and Zamojski 2019).

Thinking while writing academically is a form of meta-thinking, as it concerns changing one's ways of thinking about the world. These new ways of seeing the world through a theoretical lens are not merely some interesting perspectives that the student experiments with, these become part of the student's way of being in the world. The field is appropriated through the topic of the thesis, but the larger event is that the student adopts a theoretical perspective on the world which changes how they experience the world. This change cannot happen without a sustained effort from the student entailing self-discipline. Writing functions as a study practice when the self is changed by a constant discipline of writing as focusing one's attention. The educational experience of academic writing changes how one relates to the given field and, in this process, how one becomes someone else. This is an educational experience which has to do with the potentiality experienced in every educational endeavour (Lewis 2019; Vlieghe and Zamojski 2019). When we experience the possibility to be someone else or to expand our understanding, even if we do not engage in the activity that leads to this change, we are in the realm of an educational experience. Education, following an Arendtian reading, would be then about this possibility for newness and change.

In this chapter, we have seen how thinking is experienced in two different ways: while lecturing and while engaging in academic writing. These ways of thinking are experienced in different ways. Experiencing thinking while attending lectures seems to entail a heavy use of imagination which also expands one's range of experience. Furthermore, the collective aspect of lecturing plays a major role, as thinking seems to be experienced simultaneously as a collective event. A somewhat different experience occurs when we are engaged in academic writing, feeling more individualised and personal. In writing, we need to be much more self-disciplined and focus our attention on the topic at hand on our own. The experience in academic writing is individually felt, without being less public than thinking in the lecture. We imagine an audience which we address in our writing, we want to write something comprehensible for others - not just for ourselves. Writing functions as an expansion of the experiential realm just as the lecture does, except that the task at hand is for the student to elicit one's flight of imagination while reading and writing alone. Both experiences of thinking appear as epiphenomena of studying, and both entail an expansion of one's range of experiences. When engaged in studying, if we see old things in a new light, or if we notice things we had not seen before, then we are experiencing a form of university thinking.

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3. Mediality and gestures of thinking at the university

Abstract:

This chapter describes the main gestures enacted in the study practices of lecturing and academic writing in view of establishing their media configurations. To describe the media configurations, I use the concept of *sensorium* as an analytic tool and I look at how senses are called for or downplayed in gestures of study. After having described how students use their sight, hearing and touch while taking part in the lecture, I move on to academic writing which gives rise to more abstract gestures of disassembling, assembling and interlacing. This chapter also gives an answer to the media question through the concept of mediatic displacement. Mediatic displacement is a media configuration which manages to cancel the effect of one medium by using another one against it, and, in a series of transcoding movements, to enact an educational suspension of the world.

Keywords: lecturing, academic writing, gestures, profanation, mediatic displacement, linearity

Sensory configurations and mediality of gestures

After having described some experiences of thinking emerging during lecturing and academic writing, I will tackle next the gestures that appear in these practices. Since the focus of this book is to describe the media configurations of study practices, I will start heuristically from the gestures embedded in study practices and then describe the media configurations appearing in the gestures. I will not focus on particular media technologies such as books, notebooks, laptops or screens since the technologies changed faster than the study practices which they were serving. As Norm Friesen has shown, what made lecturing a long-lasting practice was its ability to take new media and reconfigure them to serve educational ends (Friesen 2011) while the practice stayed the same. Instead, I am looking for a kind of 'mediatic a priori' (Friesen and Hug 2009) functioning beyond particular technologies, therefore I will be studying mediatic configurations from the perspective of the senses called upon in the gestures. Media technologies affect us through the senses, hence looking at how senses are called for or downplayed in the study practices gives an entry point into the mediality of study practices. For this, we need to look at how senses function together or whether there is one sense which plays a leading part in contrast to others. If the latter is the case, then we are dealing with a *sensorium,* namely a configuration of 'the entire sensory apparatus as an operational complex' (Ong 2000, p.6). According to Walter Ong who had coined the conceptu, the *sensorium* is hierarchically

constituted because it is impossible for one human being to be equally devoted to one's senses at the same time:

> Man's sensory perceptions are abundant and overwhelming. He cannot attend to them all at once. In great part a given culture teaches him one or another way of productive specialization. It brings him to organize his sensorium by attending to some types of perception more than others, by making an issue of certain ones while relatively neglecting other ones. (Ong 2000, p.6)

If the lecture and academic writing have a distinctive sensorium, then this will give an indication of what kind of media technologies promote these study practices and which ones can hinder it. This can serve later for discussing the possibility of a digital university.

Before we proceed, the selection of the gestures specific to studying needs to be explained. Studying involves experiencing more than thinking alone, since it entails also being stuck, wandering or profanating, but, for the purposes of this book, I have looked primarily at gestures appearing in conjunction with experiences of thinking. Furthermore, there is no correct 'sample-size' for gestures: a single gesture is enough to illuminate the thinking behind it. This is because gestures are encoding intersubjective meanings, and the coding does not change from one gesture to another. Flusser's phenomenology of gestures is a philosophical method; it has no criteria of validation, rather it is meant to elicit recognition from the reader's side. The only 'validation' possible for an interpretation of gestures is the same kind of 'validation' that goes on in hermeneutics (Gadamer 2004, xxii), to create the event of understanding for the researcher and the readers:

> When I observe another person and see gesticulation, I do in fact have a criterion for deciding between reaction and gesture, between the expression of a state of mind and its codified representation. This criterion is the fact that I recognize myself in others and that I know from introspection when I am expressing a state of mind passively and when I am representing it actively. (Flusser 2014, p. 5)

This event of recognition was used in other phenomenological studies in education, for example by Friesen (2011) and more recently by Vlieghe and Zamojski (2019) who described recognition by comparing it to a 'touchstone' (p. 4), namely a device which was used to test whether something was made up of pure gold or whether it contained also other metals. Similarly to a touchstone, the description of the gesture and its interpretation is supposed to elicit recognition in the reader's mind because we are all experts in making and decoding gestures in our everyday life. Flusser selected gestures that he saw around him yet he did not actively seek the gestures to be observed, he wrote about the gestures that struck him as being interesting. But, since I am dealing with gestures in the university context, I had to look for them. I went to lectures and wrote down observations of gestures that struck me. I also discovered in scholarly literature

some gestures described, such as when Gadamer was casually unfolding his lecturing experiences as a student or when William Clark was painting vivid pictures of lecturing in German universities during Early Modern times based on historical records.

For selecting the gestures enacted while writing academically, I could have studied my own gestures while writing as I was engaged daily in this activity. But I wanted to observe from a distance this practice in which I was too immersed so I recorded a series of interviews with eight former or current master's students at KU Leuven in which I asked them about their gestures while writing their Master's thesis. These eight interviews were not read through the lens of a qualitative interpretative research, I used them to trigger recognition in myself and in the interviewees: their descriptions of the actions involved in academic writing helped me notice gestures that I would have not otherwise in my own writing practice. I asked my interlocutors to describe in detail what they did in the process of writing their MA thesis. Most of them did not remember their actions immediately, as if the writing gestures were a kind of scaffolding which was discarded once the writing had been completed. But, as the conversation progressed, they seemed to remember movements and actions, things they had forgotten. Even if they differed greatly in their writing routines, their stories converged in revealing several distinctive gestures.

Gestures in the university lecture

Lecturing is a sensory loaded situation. Nietzsche described it as 'one speaking mouth, with many ears, and half as many writing hands' (Nietzsche 1910, p.126). There are bodies in the room: some write, some speak, some move slightly - as not to disturb the others. Its sensory configuration seems to be quite straightforward: there is speaking, writing, listening, and looking; media employed include paper and voice, images and texts. Previous theoretical approaches to lecturing have relegated it to an 'oral' mode of communication (Clark 2006, p.4; Laurillard 2008, p.525). However, Norm Friesen has shown that the lecture cannot be reduced to mere orality because, already from its beginnings, the lecture involved multiple media and modes of speech, uniquely positioned 'at the confluence of oral and written forms' (Friesen 2011, p.101), neither just speech, nor just writing, but 'trans-medial' (Friesen 2011, p. 101). But is there a *sensorium* of the lecture, one sense which over-rules all others? The issue is not as clear since any scene of lecturing seems to appeal to several senses: the ear of the students is called upon by the voice of the lecturer, while the eyes of the students are attentive to the lecturer's gestures, to the blackboard or the slide-show, while their body sits almost immobile except for the handwriting. Lecturing presents itself as a situation of listening-seeing-speaking, and quite a complex one. Let us take a look at each of the senses called upon and used in the university and the related gestures.

The Speaking Voice

The experiences of speaking and listening are 'definitive of the university life' (Franzel 2013b, p.38). This kind of speaking needs to be carefully distinguished from giving a speech, conferencing, or monologuing. The lecturer is neither an orator, nor a public speaker, nor an actor and, alas, not a singer. In the lecture, the quality of sound is not so important as it is in music, but it must be good enough for one purpose: the speech should reach the students in the last rows, the voice must be heard clearly and that is not always an easy feat:

> When he gave his first lecture, Kant was surprised to see the auditorium full of students. He got very nervous. He started speaking quieter than normal, a disaster, since he had a weak voice. His power as a lecturer could not come from a booming oratorical manly manner, as one said then. His voice rather had to draw the listener in. (Clark 2006, p.412)

Lecturing is not about speaking in a 'booming oratorical…manner' (Clark 2006) because the lecture is not about delivering a speech on a special occasion. A powerful voice might help with the popularity of a lecture, but it is not sufficient to make it a good lecture. We know that Kant was a popular lecturer despite his voice - which became clearer and stronger with time, but never oratorical in the real sense (Franzel 2013a, p.3). Kant himself believed that the scholarly speech should not be mannered or affected, to avoid appearing as someone who 'is fond of the sound of his own voice, or who stands and moves as if he were on a stage, in order to be gaped at' (Kant, cited in Franzel 2013a, p.8). The lecture is not about the person of the lecture, therefore not about his/her voice.

The kind of speaking taking place in the lecture has been under-theorised. Bo Lindberg points out that lecturing, as a particular way of speech, appears for the first time on the radar of rhetoric around the 18th century; in a German dictionary of rhetorical terms, the lecture appears as *Vorlesung: '*It does not seem to have been identified as a genre in its own right until the beginning of the 18th century, when denominations like *oratio scholastic*a and *stylus scholasticus* turn up' (Lindberg 2012, p.40). Since we know that lectures were happening from as early as the 12th century, it can only mean that lecturing was not seen as a rhetorical genre before the 18th century[4]. For centuries, the faculties of arts well versed in teaching and theorising about rhetoric did not conceive of lecturing as something worthy of being studied in its own right. By contrast, the *disputatio* was an academic genre of speech which received quite some attention, there were even dissertations written on how to speak in a dissertation (*de arte disputandi)* (Lindberg 2012, p.40).

[4] It was not a genre of rhetorics, but it was a practice with its own name, delimited from others: 'Der Name Vorlesung stammt aus dem MA und ist die Ubersetzung von *praelectio*. Ihre Aufgabe ist die fortlaufende Darstellung und Erklärung des Inhalts eines wissenschaftlichen Stoffes.' Kalivoda et al. (2001, p.186). The lecture is not *legere*, not *lectio*, but *praelectio*.

This omission can be explained through the distinction between dialectics and rhetoric made by Aristotle: 'Dialectic proceeds by question and answer, not, as rhetoric does, by continuous exposition' (Aristotle 2007, p.28). Since dialectic was the method of philosophy, and since lecturers in faculties of Arts were mostly doing philosophy, it never occurred to them to view their own speeches as rhetorical situations. They probably thought that they were not persuading anyone, but simply telling the truth. While the situation of 'one speaking voice' (Nietzsche 1910) in the lecture is very similar to a rhetoric set-up, lecturing was not considered to be rhetoric. The three classical genres of rhetorical speech were political or deliberative, juridical or forensic, and ceremonial or epideictic (Aristotle 2007, p.31). All three were types of persuasion, but the means varied: the political speech persuades by appeal to the character of the speaker, the juridical speech used logical proofs and arguments, while the ceremonial persuaded by stirring emotion. Their goals were also different. The political speech was meant to show the best way of political action and to persuade the audience. The juridical was about proving innocence or guilt, by evaluating evidence. Finally, the ceremonial speech was about remembering people or occasions, praising or blaming them, and then showing to the audience what the good virtues or ways of life would be. The ceremonial and political speeches were filled with emotions. One can notice that lecturing belongs to none of these three. A good lecture cannot leave us indifferent; we are made to care about the topic at hand. At the same time, the source of our emotion is neither the character of the speaker, nor the logical argument, nor the blaming or praising of someone. We are stirred but we cannot say by what. Lecturing involves simultaneously reason as well as emotions, yet it is not persuasion because the speaker does not want anything from the listeners. Furthermore, the distinction rhetoric/ dialectic does not hold for lecturing, because dialectic - from Socrates onward - was about dialogue. It is easy to see how students and masters engaged in disputations were doing dialectic, but where was the dialogue when a lecturer was addressing a room of students who usually did not speak back?

The political orator, the opera singer or the actor interpreting a monologue all have in common something with the lecturer's situation. They stand alone on a stage, a podium, and address an audience, in a performative situation. However, the differences are more striking than the similarities, and these can be reduced to the kind of speaking and what it tries to accomplish. At the opera, we only listen to the voice of the singer, words do not matter as much as the music does. In the political speech, we are addressed as members of a community and we are told what this membership entails: action, emotion, or both. The speech is about us, its listeners, or about something related to us - whatever unites us: the country, the language, the history. In the actor's monologue, we are addressed emotionally, made to care about the situation on stage, usually asked to identify with the character.

Some lecturers, such as Schiller, seemed to believe that lecturing should also stir emotions:

> Gedike wrote [on Schiller], "He read everything word for word, in a pathetically declamatory tone, that very often did not fit the simple historical facts and geographical notes which he had to convey. Altogether the whole lecture was more an oration than a talk." Schiller was, of course, a poet. (Clark 2006, p.53)

Schiller, who was a poet and playwright, wanted that students felt something. Therefore he acted like an orator, he read to his students as if he was reciting poetry, passionatley. Despite this Romantic approach, the lecture should not be a speech declaimed with pathos because then the emotions or partisanships would close our listening ears. In a lecture, we do not listen to what we like, we are made to listen to things we may not agree with. The lecture does not aim at giving the students a common identity, nor in staging a show for them to watch and enjoy, nor about making them feel strong emotions.

Who or what is speaking then through that single voice? If the voice manages to not make the lecture about oneself (through the posturing of the self which Kant abhorred) nor about the audience (by appealing to their emotions or loyalties), then a space is opened where something else may be given a voice. Flusser's idea was that we are spoken by language whenever we try to articulate something new, as if words flow through us with a force or their own. This phenomenon would be most visible with poetry, Flusser thought:

> [Rilke] allows himself the speculation that there is no such thing as one's "own" words, or hardly any, and that in speaking, one is possessed by the words of others. And because these others are possessed in turn by the words of others when they speak, one could claim simply that one is possessed by words when one speaks. Should the word speak, then, it would say of itself that people don't speak but are spoken, and that groups of people do not speak a specific language but that each language trains a group of people. (Flusser 2014, p.27)

The poet allows a virtuality encapsulated in language to become actual through the gestures of speaking or writing. Just like a poet discovers new formulation while letting oneself be spoken through, similarly, in lecturing the voice is spoken by that which becomes present through the act of speech, the object of thinking.

But is the lecture about inventing something new so to deserve the comparison with the creative gestures of poetry? Many would say that, on the contrary, lecturing is merely a stale repetition. Clark shows that, during the Early Modern age, many lecturers were disengaged from what they had to say, because they took any available course, waiting for a chair to become available. Clark calls this a 'game of musical chairs' (Clark 2006, p.412). Since professors had to speak without saying anyhing of their own invention, Clark describes them as automata performing on stage since '[m]ost professors still had to lecture on canonical or required texts. That meant that they had to repeat the same chorus year after year' (Clark 2006, p. 412).

The professors were reciting a part to which they had no personal contribution. Many times they had received a course from the previous owners of the cathedra, and they merely had to deliver it to the next generation of students. Nobody forced them to follow these courses to the letter, but since they had no interest in the topic, it was easier to deliver the last year's course. This practice was the same in the German lands, in England, or the Scandinavian countries, for example, in Uppsala: 'the lectures of one professor were sometimes reused by his successor or someone else, who added some remarks and excluded others' (Lindberg 2012, p.41). This re-usage with a twist - adding remarks, changing things - makes of the lectures a collective work, thinks Lindberg. The lecture seemed to become an author-less speech propagated over generations, where each new lecturer gives it body and voice, attests it, but does not author it. Should one own the speech in the lecture in the same way as an author owns the words written on paper?

Clark's image of the professor as 'spiritual automaton' is based on the distinction he makes between speaking as an original author - for example when Kant spoke publicly of his critical project – and speaking as the voice for someone else's work, speaking in the name of knowledge - this would be the same Kant lecturing on topics he found obsolete. Clark's distinction assumes that a lecture should involve a speaking I, and everything else is just drudgery and routine. However, the lecture is not about the unique personality of the author, on the contrary, the lecturer needs to disappear as much as possible, to let the words shine on their own. To understand how little the lecture hinges on the individual speaker, we only need to realise that so few lecturers are famous, yet so many anonymous lecturers manage to capture the attention of their students, even fascinate them. Kant was a famous philosopher at his time already, yet he rarely - if ever - lectured about his books: 'Like generations of scholars before him, Kant always used sourcebooks authored by others and never systematically presented his own critical philosophy in the lecture hall' (Franzel 2013a, p.4). Yet Kant's lectures were packed, people wanted to listen to him lecturing about other's texts:

> Kant himself still taught from traditional texts that were eventually outdated by his own work. He used a textbook as a point of departure in lecture. Like the Romantics soon would, Kant began doing philosophy in the lecture hall instead of just talking about it. But whenever he had wandered too far from the text, he would say, "To sum up, gentlemen," and then return to a passage in the text. The professorial voice now had to let itself be heard, while also still singing in tune with a canonical chorus. (Clark 2006, p. 411-412)

In this scene, Kant is not an automaton lecturing with other's words. He uses the textbook as 'point of departure' but still makes his speech. Even when Kant lectured on something he did not agree with, this did not make him a mere functionary of the academic apparatus. Kant was not lecturing against his philosophical beliefs, nor was he telling lies. Rather, starting from something which he did not agree with, he presented it, and then let himself wander away from the text

and think what would this or that imply. These were typical moments of thought sparkling in the lecture hall. Anything can make us think without it being a validated piece of knowledge or a factual truth: an outdated book of metaphysics, some discarded concept like the luminiferous aether or the phlogiston, the zodiac signs. Following these observations, I propose to understand the voice in the lecturing as enabling an impersonal form of speech, letting oneself be spoken through in the moments of collective thinking. The impersonal voice of the lecturer entails a form of stepping beside oneself as to allow thinking to speak through oneself. When Kant spoke in class, he was still expressing his own thinking, after all another person teaching the same class would have allowed himself to be spoken differently by other thoughts. Due to the impersonal nature of this speech, one cannot command thinking to appear, but rather just let it flow and follow it while speaking.

The Listening Ears

It is hard to characterise the speaking voice without saying something about those who listen. The voice depends on the audience and their attention, there is some entanglement there. When Foucault gave his lectures at *College de France*, his voice was soft and weak which disappointed everybody: 'Foucault's "muffled and restrained voice" in his inaugural lecture at the *Collège de France* apparently shocked the audience because most knew that he was one of the best lecturers of the time' (Clark 2003, pp.53–54). Foucault could not bear lecturing to an audience which was not visible: they were sitting in the dark and did not ask any questions, not even after the lecture:

> At 19.15 [after exactly two hours] Foucault stops. The students rush toward his desk, not to speak to him but to stop their cassette recorders. There are no questions. In the pushing and shoving, Foucault is alone. Foucault remarks: "It should be possible to discuss what I have put forward... However a question never comes. (...) And as there is no feedback, the course is theatricalized. My relationship with the people there is like that of an actor or acrobat. And when I have finished speaking, a sensation of total solitude... (witness recollection, cited from Friesen 2017, p.128)

Foucault felt like an acrobat, alone on the stage, exposed in front of others who were not exposing themselves. This observation points at two things: that the lecture is not a representation given by a solo performer in front of an audience who watches, and that the audience in a lecture is supposed to do more than a theatre audience. The audience matters so much that the lecture fails if there is no one there to receive the speech. The voice breaks and fades out.

The kind of listening going on in the lecture has its own specificity. First, there is a distinction to be made between listening and hearing. Hearing appears to be a mechanical reception of acoustic sounds. Hearing imposes itself with an unavoidable force, according to Gadamer: 'he who is addressed must hear whether he wants to or not. When you look at something, you can also look away from it by looking in another direction, but you cannot "hear away"' (Gadamer 2004, p.478). Jean Luc Nancy described the hearing as a way 'to understand the sense' (Nancy 2007) because this is not just about the acoustic phenomenon when the sounds hit the ear drum - but also automatic recognition of the sounds, letters, words. While hearing, we get the sense but not the meaning, as if we are decoding the sounds but not yet interpreting them. By contrast, listening is not merely hearing, although it relies on hearing as mechanical support. We hear music when it is played in public spaces, we hear announcements and fire alarms, yet we can choose not to pay attention. Listening is intentional in a way that hearing is not. Listening implies a voluntary act to attend to the words one hears, to take them in, to reflect on them. One way to describe this difference is to designate, with Nancy, hearing as passive and listening as active: 'to listen is to be straining toward a possible meaning … [to] strain towards a present sense beyond sound' (Nancy 2007) as if I am going out of myself to encounter the other, to grasp that meaning intended by the other. This explains Nietzsche's remark that the lecturer never knows if the students are listening:

> "How is the student connected with the university ?' We answer: "By the ear, as a hearer". The foreigner is astonished. "Only by the ear ?" he repeats. "Only by the ear" we again reply. The student hears. When he speaks, when he sees, when he is in the company of his companions, when he takes up some branch of art: in short, when he lives, he is independent, i. e. not dependent upon the educational institution... He himself may choose what he is to listen to; he is not bound to believe what is said; he may close his ears if he does not care to hear. (Nietzsche 1910)

The students hear, their bodies are in the room, but do they strain for meaning? Do the students get out of their own inner space to encounter the words of the speaker?

The audience in the lecture hall contributes more to the lecture than it would seem at first glance. For one thing, the students have to be seen whereas, in theatre, the audience can be hidden in the darkness, the actors on stage only see the faces seated in the first row. But a lecturer has to see the students so as to be able to interact with them. Foucault's failed lecturing was caused also by the fact that he could not see his listeners, as they were sitting in the dark. Foucault found himself speaking like a puppet on a stage to some unseen public which gave no signs of recognition.

Listening is the lecture is a gesture on its own, expressed by students through their embodied reactions - frowning, nodding, looking away, whispering, moving their hands, shoulders, fretting or sitting still. The students are constantly showing whether they follow the lecturer's speech.

The writing itself became a way of signalling the presence of the student's attention. For Nietzsche, the note-taking was the only visible sign that students were listening (Nietzsche 1910). Nietzsche was a private lecturer and not a very successful one, so perhaps he did not know how to read the student's faces to see other signs of being present. But the fact remains that note-taking in a lecture is closely related to listening. In the lecture, students listen and write at the same time. Their writing is a way of listening with a tactile and haptic dimension to it.

The Writing Hands

What are students writing in the lecture? The first generations of students in medieval universities did not write. However, starting from the 13th century, writing became a usual task for the students in the lecture hall. It has been hypothesised that medieval students were taking dictation, either of the book itself or the master's comments of the book (Clark 2006). The main argument for this hypothesis is that books were scarce and that, even after the invention of the printing press books continued to be expensive. Not having enough books to study from was a very pressing worry for students. At the transition from the 12th century towards the 13th century, more and more universities required of their students to have a copy of the manuscript in front of their eyes so that they could better understand the lecture: 'because of the complexity of the subject matter, visual reading by the listener was essential for comprehension. While the professor read aloud from his autograph commentary, the students followed the text silently from their own books' (Saenger 2001, pp.258–259). Students were expected to have the text with them during the lecture and read it along with the lecturer: 'In 1309, Pierre Dubois (...) observed that students who did not have a copy of the text before them could profit little from university lectures' (Saenger 2001, pp.258–259). The ear alone was deemed insufficient for comprehending the arborescent scholastic argumentations (Illich 1993, p.91).

How did the students get their hands on the manuscripts back then if not by taking dictation after all? The students bought the manuscripts chapter by chapter (*pecica*) and sold them back after the exams. If students were too poor to own manuscripts, libraries were set up for lending book copies for a small fee. The poorest students had one more option: to attend dictation sessions. These were called cursory lectures, or *'legere ad pennam* (reading for the pen) or *modo pronuntiantium* (enunciation mode)' (Moodie 2016, p.125). These 'lectures' existed only for the sake of producing manuscripts to be used in the official lectures and were not educational. Eventually the dictation sessions disappeared altogether in the aftermath of the printing press invention (Moodie 2016, p.126).

To explain the student writing in the pre-modern age as merely taking dictation misses an essential feature of medieval education. At the end of their university studies, students were

expected to have committed to memory the great books. In vacations, students did not go back to their home-towns loaded with books in their coffers: they carried the books in their memory. At least in some medieval universities such as Paris the writing during the lecture was explicitly forbidden because students were supposed to pay attention to the line of thought developed by the master in the lecture:

> Since study is a vehement application of the mind, and requires the whole man, the scholars are forbidden to fatigue themselves with too many lectures—not more than two or three a day—and in lecture they are not to take down the lecturer's words, nor, trusting in writings of this kind, to blunt their "*proprium intellectum*". (Rait 1912, p.144)

The idea implied here is that, if students write down word by word explanation of the lecturer, then they will not think for themselves. Furthermore, if students focused too much on getting the exact words on the page, they will not pay attention to their actual meaning. Nonetheless, some students did not trust their '*proprium intellectum*' and went behind the official rules, trying to write down word by word the master's interpretation. If the master spoke too fast to take notes, students could become unruly, sometimes they were shouting or hissing. Still, the lecturer was required to maintain the normal pace of lecture, despite the student's discontent:

> In 1229 the Faculty of Arts at Paris made a statute on the methods of lecturing. It explains that there are two ways of reading books in the liberal arts. The masters of philosophy may deliver their expositions from their chairs so rapidly that, although the minds of their audience may grasp their meaning, their hands cannot write it down. This, they say, was the custom in other faculties. The other way is to speak so slowly that their hearers can take down what they say. On mature reflection, the Faculty has decided that the former is the better way, and henceforth in any lecture, ordinary or cursory, or in any disputation or other manner of teaching, the master is to speak as in delivering a speech, and as if no one were writing in his presence. A lecturer who breaks the new rule is to be suspended for a year, and if the students showed their dislike to it, by shouting, hissing, groaning, or throwing stones, they were to be sent down for a year. (Rait 1912, pp.142–143)

The ban on students' taking dictation was a 13th century matter. Starting with the Early Modern universities, students were supposed to write in the lecture hall, but ,again, they were not supposed to write every word spoken by lecturer. For this, professors spoke at normal conversational speed, while students struggled obstinately to capture all the words of the lecturer on paper. To do so, they used several procedures such as dividing in teams the tasks of writing and then assembling their notes together. In Germany, this popular technique was called *Schreibechor* or 'writing chorus' (Eddy 2016, p.86). Scotish students used a different approach: they attended the same lecture multiple times or compared notes with their colleagues from the same lecture. The Scottish students of the Early Modern universities had two types of notes:

‘rough notes’ (Eddy 2016, p.95) on unbound leaves of cheap paper while taking notes during the lecture; and the transcribed notes in a separate notebook, after having re-copied with nice calligraphy the rough notes, while also adding headings, indexes, and diagrams. These re-copied notebooks could also be sold to other students or to professors themselves who often used them to publish books from their own lectures (Eddy 2016, p.93). While the students were not required to have these beautifully transcribed notebooks, since they were not graded on them, the students found these practices essential for studying.

From these brief glimpses into the Early Modern practises of note-taking, we can infer that note-taking in the lecture was a major part of the studying process. Students spent a lot of time copying, transcribing, comparing notes, and in general crafting beautiful notebooks with perfect layouts of the lecture delivered by the professor. At the same time, professors did not lecture based on books anymore, but on categories and systems of knowledge: 'each course was a commentary on the categories that the professor used to systematise the subject matter under discussion' (Eddy 2016, p.88). Since the categorical system and its explanation was the main point of the lecture, professors would make printed outlines available beforehand to students, or a 'syllabus of lecture headings as a guide to notetaking' (Eddy 2016, p.92). While looking at these outlines which made clear what were the major categories talked about, students knew how to structure their note-taking, on what to focus their attention, what was essential and what was a digression. These printed lecture headings or outlines are the ancestors of the power-point slides which nowadays students print before class so that they can take notes on.

Notes - either taken on a laptop or handwritten - could be seen as the ‘outcome’ of the lecturing, some material evidence that the student attended the lecture and now has something to study. Similar to their early modern counterparts, contemporary students organise their studying sessions around these notes, not so much by re-copying them, but by re-reading and highlighting them. Such notes can function as learning aids, in view of the exam. However, I want to approach note-taking differently, as an educational experience of studying. What is note-taking doing in the moment of the lecture? Even though note-taking sometimes takes place also after the lecture, as a form of individual studying, I want to focus here solely on what note-taking shows about lecturing.

Another hypothesis, mentioned by Illich, is that note-taking helps to increase the students’ understanding while the lecture is taking place. Illich posited that the dialectical arguments of the medieval lectures were too complex and and arborescent to an extent that made it difficult to comprehend just by listening the lecturer. Thus, students adapted by first writing down the words, then reading their own handwriting, which eventually led them to understand the argument:

> The teacher’s spoken words were grasped by the student as he read back to himself the dictation he had just taken. Early twelfth-century students in miniatures are shown

> listening to their teacher. Late fourteenth-century students either take dictation or sit in front of an outline of the teacher's lecture that they have picked up from a public copyist before class. The scholastic argument has become so articulate and complex that it can be followed only if assisted by a visual aid. (Illich 1993, p. 91)

Notes would be then just 'optical crutches', aids for understanding by reading. This interpretation, however, poses a difficulty: if a lecture were aimed at reading one's own written words, then speaking would follow a different pattern: the lecturer would speak, then pause to give time to the student to write and then read one's own handwriting. But this pace is not characteristic of lecturing: rather, the lecturer speaks in a normal tempo, students write what they can, and comprehension happens while writing and listening.

Nietzsche pointed at the student's writing as the decisive sign that students were also listening, not just hearing: 'The student very often writes down something while he hears; it is only at these rare moments that he hangs to the umbilical cord of his alma mater' (Nietzsche 1910, p. 125). For Nietzsche, the problem with lecturing is exactly this freedom of students to not listen, to not understand, to 'close' their ears. He calls this a principle of 'academic freedom', against the common understanding that academic freedom means for the professor to say anything he wants, it is actually the freedom of the student to be touched or not by what is being said, to willingly withdraw one's attention. When the student checks out of the lecture, an invisible 'immense gap' (Nietzsche 1910, p. 125) opens up between the lecturer and the students, as if, suddenly, in the same lecture hall, they are inhabiting different experiential realms. This freedom to write or not to write which points to the other freedom - to listen or not - shows the contingency of the gesture of note-taking and the freedom expressed in it. Following Flusser, for note-taking to be a gesture, it must be indeterminate, hence allow for an interpretation of the freedom expressed in it (Flusser 2014). For the student, this is the freedom to listen or not. The ambiguity implied by the gesture of note-taking, which can be completely automatic or completely willed, is what makes it contingent, hence free.

What gives meaning to the gesture of note-taking is that it completes that of speaking, and articulating together a collective gesture (Marin and Sturm 2020). If we see the two halves of the room as separate entities, the speaker on the stage and the audience in their desks, then a gap opens up between them. Then we end up with puppets on a string, the whole event begins to look like a mechanical marionette show (Gadamer 1985, p.29): the speaker utters words which are not his, reciting knowledge passed on by tradition, whereas the students write manically something that they might understand later. But if listening is straining for meaning, going outside of oneself to encounter the other (Nancy 2007), and if the lecturer lets himself be carried away by thoughts, speaking to students which listen, then that encounter needs to be visible. Thinking leaves traces. Note-taking, like a seismograph, shows something about the presence of thinking in the room. That thinking is neither the lecturer's or the student's, but something

happening in between experienced intersubjectively by those attending the event. Through their attentive listening, the students call for this thinking, they sustain it by being present for it. In those moments, the lecturer speaks while forgetting who he is, and students feel compelled to write as if by a force which guides their hands. There is thinking in the room.

The Wondering Gaze

The eye of the student is addressed in a particular way in the lecture. Students do not look at something specific, their gaze shifts constantly. They may look at the slides of the lecturer, but only when the lecturer points at them. Otherwise, they look at their notes or at the face of the 'speaking voice' embodied by the lecturer. Long before the lecture-hall was endowed with the overhead beamer to project slides, lecturing was about looking at someone speaking or writing something on the blackboard. Sometimes the lecturer draws diagrams and makes schemes.

> *I took like a course in aesthetics and the professor had no powerpoint... and nothing in advance… no text... nothing... he just stood there and talked! For 2 hours! And it was... at one moment it was about a philosopher and the next moment... it was something completely different! ...and they talked about the movie ...and then they referred to a talk... and I just I was just so confused… I was writing to pass the time... but I just wrote things down that I thought... that I found interesting for myself. (student testimony cited from Bravo Palacios 2016, pp.51–52)*

The lecturer shows something, and the students look in that direction. Sometimes it can be a more abstract way of showing through a diagram. It can be a gesture with the hands which stress certain words, it can be as simple as writing a word on the blackboard and then underlining or circling it. By pointing at things, at words, at images, the lecturer makes the ideas and concepts material, brings them in the lecture hall.

Before a theatrical performance starts, lights are turned off, only the stage is lit up. By contrast, the only time when the lecturer turns off the lights is to show something on the screen, usually a movie. In those moments, the full attention of the students is captured by the screen. But in those moments, lecturing does not function like lecturing, it is transformed into watching something as a spectator. In those moments students cannot write.

Lecturing cannot be reduced to just sight alone, be it watching a movie or looking at an image. At the same time, there is no lecture in the absence of the gaze even if, at times, the gaze is secondary to the listening. Sometimes, if it is in *contre-temps* with the speech, the gaze can act as a barrier for understanding. For example, students cannot concentrate when the professor passes on something to the students to see - postcards, books, drawings - and, by the time the

visuals reach the last row, he is already talking about something else (Brown 2002, p. 7). The gaze and the speech need to be in sync.

Seeing should not distract the students from their listening and writing. Clark describes a medieval lecture hall and he explains the medieval set-up by stating that students should not have windows in their sight because their mind will start wondering about the things going on outside.

> The layout of the lecture hall cleaves it into two perspectives: the lecturer and the audience. The lecturer alone sits elevated and has a view of the only entrance. The lecturer has a view outside, of greenery, which matches the color of the bare walls. The walls direct the students' attention to the lecturer, while the latter's view of nature aids his concentration, or so one thought. (Clark 2006, p. 69–70)

Students were not supposed to see 'the greenery', it was only for the eyes of the lecturer who needed to see it for inspiration. This medieval description of the two sides of the gaze assumed that only students get easily distracted, whereas the lecturer could look outside without fear of losing one's train of thought. However, interesting moments of lecturing occur when lecturer gets distracted and the train of thought goes into unexpected directions, but this distraction should not come from the 'greenery', from scenes visible outside, rather from the process of thinking.

The lecture is not primarily a visual experience because it does not manage to capture the gaze and keep it fixed on one point. Ivan Illich noticed that 'the eye, of all the senses, is one most in need of an askesis' (Illich 1993, p. 34), implying that the eye is easily distracted but also, at the same time, that the hman gaze can be absorbed very easily. The screens which capture our attention through bright colours and moving images show just how easy it is to keep the gaze fixated on one small rectangular object. People spend hours with their gaze fixated at the screen - be it a desktop monitor, a tablet, a smart-phone - and they do not even notice how little they move in this time. We would find it extremely boring to stay put in one place and not move unless the screen were there to make us forget. Gazes are absorbed by the screen, but, in the lecture, such an absorption does not happen. Even when students are shown beautiful visuals on the PowerPoint slide, they will move their gaze away from the images towards the speaker. Visually, the lecturer is not so interesting to watch as the slide-show behind him, yet students are not fixated on the visuals.

Already from school, we are trained to downplay our gaze in a listening situation, and then we continue to use this trained attention in the lecture, at the university. Most of us are not aware of how schooled our attention is until we encounter someone who cannot do it. This fictional account might give an illustration:

> all of them controlled an art that he himself did not control: that of listening. Already at school, long ago, in the war, the words of the teachers did not come through to him, since he was completely preoccupied with looking at them, at their gesticulation, the skin of their hands, their hair, the way they had tied their ties, and what else happened in the classroom: the behaviour of the other students, the fly on the window, the fluttering of the tree leaves, the clouds passing by ... "Pay attention, Rudi!" - but he did not pay too little attention, he paid too much attention (...) "Word deafness" he used to call his deviation. That syndrome … was also the basis of his lifelong inability to follow a lecture, a play or even a simple thriller on television (...) The only situation in which he was able to listen was when someone did not speak in general but addressed him personally. (Mulisch 2009, pp.74–75, my translation)

Mulisch's fictional character cannot listen because he sees too much. He needs to be addressed personally to listen, he needs the lecture to turn into a dialogue, but then this would not be a lecture anymore. In a physical lecture, all students are addressed and yet no one in particular. The lecturer rotates her gaze around the classroom, gathers clues about the student's level of attention, but cannot speak to only one student, because then she would lose the attention of everybody else. It is a kind of speaking in a general direction, un-addressed speech.

Following Walter Benjamin's remark that 'he who listens hard does not see' (Benjamin 1969, 1968), then, following Mulisch, he who looks too hard cannot listen. The students look but they do not see anything in particular unless the lecturer points out a thing (an image on the slide-show, a diagram on the blackboard). Lecturing cannot then be described as an experience of only speaking, nor of listening, nor of seeing only. Lecturing is about speaking and seeing and listening happening at the same time without any of these taking over the event, as if these gestures cancel out each other.

But, in the university lecture, the eye is not the primary sense. Sight is balanced by other senses, by the listening ears and by the writing hands. Since the lecture relies on so many actors, they all have to be present and participate, nobody can slack off. They all need to have trained their senses. The speaking morphs into showing, drawing on the blackboard. The listening becomes writing and seeing. The lecturer needs the student's gazes, their nods, their words to go on. The students cannot get lost in their imagination, they need to be attentive to the lecture at hand, to be present in the room. Without the continuous attention granted by the students to the lecturer, and without the lecturer being present and responding to the students, the lecture fails as educational practice.

The lecture is ultimately not a predominantly visual experience, it certainly is not comparable to watching a movie in a cinema. Yet the eye is addressed in a particular way in the lecture, as a way of making the attention fluidly shift: the student looks, writes, listens, rotating between these

gestures or doing them all at once. A subtle switch of attention accompanies all these gestures in the lecture. None of these gestures entails distraction or losing one's attention, rather a different sense is called forth each time, the ear and the eye compete but also cooperate, while attention floats among all senses, rotating. This makes it seem that the university is not enacting a visual sensorium after all, despite our culture being a predominantly visual one (Ong 2002). Rather, the *sensorium* of the lecture appears as this shift between senses which makes attention float and flow so that the experience of thinking may emerge unencumbered by senses.

Gestures of academic writing

> 'It is difficult to put it into words what I've done with my thesis. I wrote, but how did I write? That is the question' (Student 3)

To understand the nature of gestures performed while writing, we need to grasp the specific resistance encountered in writing (Flusser 2014, p. 22). The world always opposes our gestures: the canvas and the paint resist the painter's imagination, the clay opposes with its texture the sculptor's will to give it shape. However, resistance is not always material: for writing, the particular resistance to overcome belongs to language and its words (Flusser 2014, p. 22). Words resist the order of writing because they 'have a life of their own', meaning that they carry all kinds of associations with them which makes it difficult to just combine any words as one wishes:

> They have their rhythms, harmonies, melodies. In their roots, they conceal the timeless wisdom of all history, to which I am heir. They project a whole framework of connotations. And so, from the words in my memory, I can't just freely choose the ones that "fit" the virtuality to be expressed. First I must listen to them. (Flusser 2014, p. 22)

These reflections on writing apply mostly to creative writing which usually encompasses literature or essayistic philosophy (Flusser 2002, p. 194). Language matters when we write, but there is a visible difference in how much words matter between the academic and the fiction writer. For a poet or a novelist, the choice between an 'a' and a 'the', between ending a line with a dash or with a dot, would matter immensely. However, the question of resistance confronts us differently in the case of academic writing, confined here to writing in the humanities and social sciences[3]. Most products of academic writing, be those student papers or polished theses,

[3] The kinds of academic writing performed in the hard sciences or mathematics demand different kinds of engagement and will not be tackled here. Tis is not meant to imply that educational experiences are not taking place in the scientific writing, rather that the gestures are somewhat different. To

are mostly made up of ready-made expressions. Such writing is supposed to be clear rather than beautiful, it has to focus on conveying the message. Some might be tempted to say that this could be a problem with the genre itself of academic writing, a compulsion to produce what Helen Sword has called 'uninspiring, cookie-cutter prose' (Sword 2012, p. 6). Sword has found that most academics prefer a certain style that makes their work difficult to read for outsiders (Sword 2012, p. 3). This is not a disease of scholarly writing, but a sign that, in this process, the choice of words needs to be dealt with faster so that the writer can get to the issue at stake: the ideas themselves - or, as Flusser would have put it, the virtuality being expressed in the gesture of writing. In academic writing, the main resistance to the gesture are not the words themselves, but the field in which one tries to write something new, a field made up of the previous writings. How a student orients herself in the existing literature gives rise to several specific gestures of academic writing as study practice. I have grouped them into three categories: gestures of disassembling, assembling, and interlacing. These will be explained next.

Gestures of dis-assembling

Academic writings usually have a list of references at the end because all academic writing starts from the writings of others. The list of references signifies that this piece of academic writing is part of a larger conversation, that it is a response to something already said by others. Responding to existing contributions is already difficult for established scholars, but even more so for students who feel newcomers to the field. If writing in the university is done in a field of possibilities already traced by others who wrote before, then the students need to do two things: first, to get to know the field, and, secondly, to somehow rise above it, to get an overall view. Thus, the first movement in any academic writing endeavour is dealing with the literature.

Nowadays, when there is so much information available online, students cannot resist the temptation to just google their topic and see what is out there: 'The first thing, I googled it' (Student 4). Then they feel overwhelmed by what they find, knowing that they need to somehow select what to read: 'I knew that I had to choose some focus points because, when you start clicking, you can keep clicking and then it was so much, there was already a lot of literature about it (…) I was in a web of a lot of literature.' (Student 4) The selection is done usually following the references: if they find an article that speaks about their topic, they will look for the references at the end and then go from article to article until they get a feeling of the ongoing scholarly conversation. Students are not alone in this quest for the relevant literature. Usually, their supervisors suggest a few articles or books, so that students do not jump blindly into the field. These suggested readings come with advice about how to approach them. Most of the

describe the gestures of study in the hard sciences would require a different book altogether.

time, these first suggestions of the supervisors already frame the students' research; at a later stage however, the student might feel confined by the supervisor's perspective.

> At the beginning, he [the promotor] was proposing what to read, but then I was also googling, looking for the articles, I had some ideas. But at the beginning, I wasn't so confident because I still didn't know the topic (...) but then I had a fear … that I'm just going to copy his [promotor's] thoughts because the literature that I got was with the same perspective (...) I don't want someone to impose their ideas, I want to try to be original somehow but still, this is very hard when it's something new for you. So first you have to read a lot, just to get in touch with the whole topic, so you could develop something. (Student 8)

This fear of being handed not only the topic but also the perspective, explains why the students keep searching for new materials, even if they already have received enough to read from their supervisors. If they want to make the topic also their own, they need to select the literature that also speaks to them. The problem is that the published literature is already huge and has its perspectives confined by certain angles which the student will take for granted. Immersed in all this reading, the students may find themselves looking for something else than their own research question because the trends in the literature go elsewhere.

> I wrote my literature review - but apparently based on the wrong research question so I had to change almost everything (...) Many of the articles were by scholars who also worked [in the … field] and they were like "these are good practices, you should do this" - or "it normally goes like this, and this is bad, and you should do this" - so you kind of copy that way of language, of thinking so at some point you kind of sketch the perfect idea (…) but that's more like a recommendation - not really the focus of my study. (Student 7)

The supervisors help their students to get out of this web of literature by pointing to them what to read or how to read, but ultimately it is up to the students themselves how to get out of the sea of literature.

As the students read more and more, they get a feel of the field and start to see which articles are relevant for them and which not. Their way of seeing changes, and this is a matter of seeing indeed, not just because reading is a visual act, but because many students scan-read their literature. Scan-reading is about looking at the article, not reading it in detail, the gaze hovers over, picks up a word here and there, but avoids intentionally to read the whole thing. It is almost as if the reader is looking at the text as if it were an image, focusing on certain parts of the text, but refusing to take in the whole text.

> In the beginning, I just read everything and at the end I was just searching for things that were useful for my thesis. (Student 7)
>
> but I can also, well, read not in very detail, to know if it's a good article, or if it's interesting, or it's something that I can use. And, if I can use it, I read it more in detail. (Student 4)

Scan-reading (or speed-reading) can be seen as a way in which the students are trying to keep the existing literature at a distance from their own emerging thoughts. This way of reading resembles the kind of reading made possible by the invention of the text in the Middle ages (Illich 1993, pp. 95–96). Illich has shown how the invention of the text allowed for something like random and instant access to the relevant parts of the text, creating a disruption to the book's linear structure. The medieval gesture of reading as pilgrimage (characteristic of *lectio divina*) where the reader was supposed to follow the thought of the author in the right order until the end of the book, was later replaced by the gesture of searching. This meant that the reader's order replaces the order of the text and that the writings of others are taken as basic building blocks for our own writings (Illich 1993, p. 105).

Reading the literature is essential for the initial phase of surveying the conceptual territory, yet reading never ends until the thesis is done: 'I am reading a lot and then you get some attitude towards it and it's easier to decide what is good or not to use' (Student 8). At the beginning of the documentation phase every piece of literature seems important enough to be read fully yet, after a while, the reading becomes more focused because the relation with the literature changes and now the student is exploring familiar territory, she can recognise shapes, patterns, roads already taken.

The initial gesture of academic writing is that of immersing oneself in the existing literature, but this is not passive reading. The students are actively engaging with what they read: they highlight passages, summarise ideas, add keywords in the margins, pick up quotes, take notes on their ideas, they interrupt their reading to look for something else. It is seldom a linear reading which follows the author's line of thought, rather a reading with a purpose, looking for something very specific (a problem, a concept, an approach) and, if the author fails to deliver, then the text is quickly abandoned. This kind of reading is focused on finding the right materials to build one's argument, it is a reading-as-searching. The strategies students have for extracting content from their readings vary greatly, but the same movement is implied in all of them, a movement of disassembling the text into bits and pieces, of smashing the text until it becomes almost unrecognisable. Some of the strategies mentioned by my interviewees consisted in building a digital document with quotes and ideas to jot down while reading, highlighting or circling the important words in the text, transcribing the quotes by longhand in a notebook together with one's thoughts about them, adding sticky notes with keywords in the margins of the books to

signal the relevant passages. All the students had a system that worked for them but they could not explain why it worked or how they arrived at it.

After this process of disassembling the readings goes on for a while, students end up with quite a lot of raw material to be used for their text construction. In composing their texts, they will start from these bits of other's texts materialised as outlines, schemes, documents with citations, sticky notes. All these forms of extracted texts are non-linear: when students start to write their own words, they do not have another author's full text in front of their eyes, but bits and pieces picked from here and there. This disruption of linearity helps students already think for themselves because they evade the linear order imposed by one author. When we read a text with our attention fully committed, we are carried away by the the author's sequence of ideas which is imposed upon us. But, when we read for writing, we need to create our own order for proceeding for the argument, we cannot just copy what others have said. A major strategy of making room for our own thinking is to interrupt the linear order of the other's texts by smashing them to pieces - as Flusser liked to say, citing his favourite verse by Omar Khayyam: 'we shatter it to bits - and then/ Re-mould it nearer to the heart's desire' (Khayyam, Quatrain 8).

Gestures of assembling and interlacing

According to Flusser, when we write we submit ourselves to a kind of a linearisation of our thinking shaped by the structure of the alphabetic code: 'our thinking, feeling, desiring, acting, and even our perceiving and conceptualizing are to a high degree shaped by the structure of the code in which we experience the world and ourselves' (Flusser 2007, p.19). For Flusser, linearity is a mode of perceiving reality and of making sense of it: for example, we assume a linear structure of time flowing from the past to the present, a linear structure of causality (A causes B), a logical structure of deduction. Even if the text as the outcome of the process of writing is linear, the gestures that led the writer to compose the text are not all linear. After all, the only linear gesture is that of putting words one after another on paper, uninterrupted, following a stream of thoughts. Yet academic writing, with its techniques of disassembling, rearranging, and writing in the gaps, looks more like assembling a collage.

Some writers start from a blank page, throwing words on paper. This technique, also known as generative writing, is employed as a preparation for writing, as an exploration of one's thoughts. But academic writing is not about putting words on paper or the screen one after another, translating the flow of thoughts into words and lines and paragraphs. The gesture of academic writing is about assembling something from the material already given. It is a gesture of construction, not of creation *ex nihilo*. After the students have gathered all their materials from readings, they start to play with these, trying to find some structure in there. They can either make a mind-map or an outline, a tentative table of contents, while they also manipulate the

pieces of text to see how these fit together. It resembles the gesture of assembling the pieces of a puzzle, to see what works with what. ‘I look at everything I have (this is why I need a lot of room, I clear out the table), I put on the table all the notes and stickies and I just look at it. I read and re-read them, but sometimes I just look at them without reading them’ (Student 1). To clear out a table is about making space for thinking, removing the temporality implied in the linearity of reading and spatializing the process of thought. When the student quoted above is making this gesture of puzzling, she looks at the notes without reading them, looking at them as images. Thus, she is evading again the linearity of the words because she is not reading what is said, she is thinking about the ideas. What the student has laid on the table are particles of text, keywords that stand for entire structures of thought. These are quanta of thinking materialised as sticky notes, index cards, or as bullet points. These quanta work as triggers for ideas, each one is a symbol of something more complex which would need to be expanded into paragraphs and articulated properly. At that point when all notes are on the table, the student is looking at her memory externalised in bits of paper.

After playing around with the ideas materialised as keywords, post-its or bullet points, the student arrives at a possible structure of the text to come. The next step is the writing which, for many, takes the form of filling in an outline, interlacing one’s text among citations from others and main headings: ‘I had some structure and then I made a table of contents, so I had the idea what I wanted to put in the thesis, that I knew I want to write about that topic or that, then I just wrote the subtitles and then I started writing under the subtitles.’ (Student 4) The writing process is not straightforward. The writers have a feel of the general structure of the text, but they still need to decide the micro-structure, namely what idea comes next, why say this here, where to put this interesting finding, how to split the paragraphs. Sometimes, as they write about something, they get inspired about something else. This is when they leave gaps for themselves to be filled out later, they signpost the road: 'I was writing and dividing at the same time' (Student 6).

Sometimes they write notes to themselves or leave comments on the margin about the order of subtopics to follow. It is as if, while dealing with the problem of the ordering of ideas, they also get insights on the content itself.

> ‘I don't have a structure to write something, like a scheme or a mind-map, but I would write sometimes on the paper. For example, I would just start some part, put the name of the part there and then I know that is there. (…) I started with that, and then I stopped because I had to return here and I left it like this, I never went back to it. So I would put my thoughts to not forget because, at that moment, I was dealing with those things. I put it there so I have it.' (Student 8)

The student leaves gaps for her to fill later. The thesis begins as an outline and only gradually it becomes a text when the gaps are filled with paragraphs. This writing between the gaps shows a gesture of interlacing or of writing texts between texts.

As the writing advances, the text structure changes because the students change their mind, they relate differently now to their topic. Some ideas just do not make sense when presented in a certain sequence, even if this made sense in the initial plan. The structure also changes because of the supervisors who advise moving things around. For students, this kind of advice is painful because the order of the ideas in their text is part of their original contribution.

> For me it was a lot of searching (...) to find a structure that really matched all the things that I had to write because I had so much and I felt that it wasn't clicking, it wasn't just that right. And when I thought I had found it, they [the promoters] said "you should change a lot of things" and I was like “Nooo!” but, when we did it, I found something that worked better with what I had wrote [sic]. (Student 4)

As the writing grows on the page, at some point the text seems to be writing by itself. Phrases call out for each other, things start to make sense on paper. The text gains momentum on its own.

> Sometimes it takes me quite a lot of time to make just two sentences in the beginning, and once the first page is there, it gets better and better. And when it gets like a body, it gets form, a certain shape, perhaps not the right shape, but a shape, then it starts to go quicker. (Student 1)

The major difficulty when writing a text is that its linearity is seductive even to the writer, since it all seems to make sense now that it is on paper. At this stage of writing, when there are already some paragraphs or even sections, the composed text gains more weight than the imagined text - the text that is yet to come. Students get seduced by their writing which may take them in unexpected directions, perhaps interesting ones, but it can also completely derail the thesis. At this point, students need again some strategies of displacing the linearity of the text, of gaining some distance from it. One such strategy, after the students have a first draft, the envisioned order from the table of contents is put to a test by showing it to another to see if it makes sense. Sometimes the students do not realise if it all falls into place or not, but then the supervisor’s suggestions help the students to see their text again with a fresh pair of eyes.

Another strategy is the “reverse outline”[5] in which the student makes a summary of each paragraph in a line and then looks only at these lines, then moves them around in a more logical order. This strategy resembles the strategy they already had for reading the existing literature. Another strategy for the students is to take a blank sheet of paper and asking themselves again

[5] See for example https://writing.wisc.edu/Handbook/ReverseOutlines.html

what did they intend to say and write a fresh outline. The blank sheet helps them to ignore what they have already written, to put the text behind them, temporarily suspend it: 'When it was too messy, then I knew that I have to start from clean paper. I used some things from the other document, but just sometimes for my head, it had to be a new document.' (Student 4)

The outline of the main ideas or the table of contents functions as a kind of a map of the whole thesis, an overview to which the students can return when they are lost in their own text. Outlines and similarly mind-maps, tables of contents, diagrams - function as a way of disrupting the linearity of the text, as methods of distancing from the text and for neutralising its force on the writer. The final text is ofcurse linear, as it needs to take the reader by the hand from a hypothesis to a conclusion via a structured argument, but, at the same time, the writers cannot let themselves be fooled by this linearity they are themselves creating. The writers have to remain in control of what they are writing, to resist the text being written and to take a distance from it at key moments. These key moments of taking control of the text are those when the writers decided to rewrite or restructure the whole thing, to start anew, and often from a new medium: if they had written the text on a laptop, they take out a piece of paper, and start to re-outline.

The gestures of writing described in this section were meant for creating a text in a field generated by other's texts. To become the author of a contribution in the disciplinary field, students had to find ways of distancing from the existing texts - by disassembling them into quotes, outlines, notes, etc. - then making something new by rearranging these bits into a new order - the gesture of assembling the existing ideas - and finally writing their own text in between these ordered bits - the gesture of interlacing one's text between the existing bits of texts cited or paraphrased from others. These gestures are typical for scholarly writing - albeit more on the humanities and social sciences side, while mathematics and the hard sciences rely on an entirely different kind of writing.

Mediatic displacement

Up to this point, I have looked at how media technologies and artefacts appear in two different study practices - the lecture and academic writing – while describing the specific gestures performed with media. At this point I can give a tentative answer to the question whether there is a specific media configuration characteristic of university study practices. The two practices previously analysed were strikingly different - one collective and the other individual - it may seem that there is no media configuration commonly shared. However, I phrased the question by asking about a media *configuration,* therefore I am not interested if this or that particular media is used, nor about this or that gesture, but about creating the entire media configuration

that enables thinking through gestures with media. In this sense, I will propose the hypothesis that the study practices at the university analysed thus far used gestures with media in a way that I will call a *mediatic displacement*. To explain what mediatic displacement is, I will first show how this is grounded in Flusser's theoretical work on transcoding, and secondly, I will give one additional example of mediatic displacement coming from the medieval university.

Transcoding is defined by dictionaries as 'to convert from one format to another'[6]. The data which is transcoded remains the same, but it can be interpreted by other types of programs. In a technical sense, transcoding is just an act of translation from a machine language to another machine language. In a wider and philosophical sense, transcoding is the operation described by Flusser of turning an encoded message into another kind of code: a picture into a text, or a text into a techno-image. A way to understand how transcoding works is to look at the invention of writing. The writing was invented as a trans-codification of images: first, painted scenes were broken into smaller elements, symbolised by pictograms (the Egyptian hieroglyphs), then pictographs were abstracted into the cuneiforms, and later these passed into the Greek alphabetic writing further abstracted. An Egyptian row of pictographs has still something visual to it, it can be read even if we do not know how to interpret it, but a row of letters leaves nothing to the visual. Alphabetic writing represents a rupture from the logic of the image: letters no longer signify little images or scenes, but sounds. The detour through spoken language was essential to understand that writing and the thinking enacted through it do not address imagination, rather criticise it (Flusser 2011a).

It is also possible to transcode between codes of the same type. One example is Flusser's work of translation between languages. Flusser regularly used to re-write his texts by translating them into the four languages he mastered until he would arrive again at the initial language:

> Flusser's writing practice consisted in translating each text into another language rather than just rewriting it in the same language. This text was in turn translated into another language. Flusser used four different languages altogether: German, Portuguese, English and French. These processes of multiple successive translations were generally ended by retranslating the last version into the language of first text, thus turning a straight line into a circle. This final text, a palimpsest of sorts, in a way, contained all other previous texts the same way that the technical image contains texts containing images. (Guldin 2013, p.227)

Instead of rewriting and revising the text in the same language, Flusser passed the same text through the different codes of other languages. The translation between languages remained

[6] Source http://www.yourdictionary.com/transcode

inside the linear consciousness determined by the writing code, but the resistance of the medium of language was experienced in different ways:

> A writer forces the spoken language to accommodate itself to orthographic rules. Language defends itself. Each language defends itself according to its character. German is slippery, English brittle, French deceptive, Portuguese sly. The writer's linguistic work is an assault on a language that twists, slides away, shatters, and seduces him as he grasps it. (Flusser 2011, p. 33)

Through these successive translations, Flusser achieved a particular experience in which thought emerged purified from the idiosyncrasies of each language. The act of translating back and forth gave rise to new ideas as it forced Flusser to clarify what he was trying to convey and how that changed its meaning through each language. Translating successively created its unique occasions for stirring thinking in the writer.

I call m*ediatic displacement* the event of transcoding in which more than one medium is used, successively, such that the effect of a medium is cancelled through another medium. Mediatic displacement is not a one way trans-coding but a series of transcodings, back and forth, between different media. It achieves a suspension and placing at a distance of something already embedded and structured by codes. Since we cannot but think in codes, mediatic displacement uses the power of a code against another code, a medium against another, voice against the gaze, listening against writing, reading against the voice, in a continuous circular motion to displace the media and create occasions for thinking. Mediatic displacement in the university is constituted by a double movement: an object of study encoded in some media form – be it a text, an image, a sound - is brought to our attention, but it is not left to take the centre stage. It is immediately displaced to the periphery by another medium, thus turned into a pretext for thinking. When lecturing, a text is suspended, profanated and appropriated, brought to the centre of one's attention and then forgotten again - in both the gestures of academic writing and lecturing which take up the text and then move it to the side. The lecturer's voice displaces the text, the student's gaze displaces the voice, the writing hand displaces the text and the voice, and then the text again is read and commented while displacing voice and writing, and so on, in endless circular movements of displacement. This educational suspension enables thinking to suddenly irrupt because the student's attention is captured by the matter of hand which bypasses its mediatic representation. This enables the double movement of attachment and detachment characteristic of studying (Simons and Masschelein 2018).

The concept of mediatic displacement was inspired by Ivan Illich's previous work on the medieval university. Although Illich does not use the term mediatic displacement, his depiction of a new way of reading emerging in medieval universities gives a similar conceptualisation of what study practices with media entail. Briefly put, Illich discovered that the universities appeared in Europe around the same time as a new reading practice was invented, the silent reading or what he calls

‘optical reading’ (Illich 1993, p.60). Optical reading had several major features: it was done with the eyes alone, in silence, and it was based on a certain page layout which allows seeing ‘the text at a glance’; furthermore, it was non-linear. When studying, one can start reading the book at any point, indifferent to the order dictated by the author. The new way of reading books was a striking departure from the monastic reading as prayer and it involved engaging one’s intellect in new ways which gave rise to a new kind of conceptual imagination (Illich 1993, p. 4). When the medieval writers would look at the written page, they could see the text as something ‘autonomous from the physical reality of the page' (Agamben 2017, p. 106). A new way of writing texts and of reading them made possible a new way of seeing which led to more abstract modes of thinking: ‘It is as though we were invited to focus our eyes not on the physical surface of the object, but on infinity as seen through the lattice’ (Hinks quoted from McLuhan 1971, p.104). The idea of the text as enabling a new way of seeing and imagining concepts was not invented by Illich, McLuhan also talks of a ‘visual take-off’ of the text from the page (McLuhan 1971, p.112) however he traces it to the printed page.

When describing how the medieval universities were giving rise to new modes of reading a text, Illich illustrates what mediatic displacement might have looked like back then. Before the first universities, the text was an object of devotion and prayer most of the time. With the invention of optical reading, the university creates practices and gestures of displacing the text by making it a pretext for one’s thinking, for the flight of imagination. This movement is akin to the profanation which is at stake in all study practices (Masschelein and Simons 2013, p. 108). Profanation concerns returning what was previously sacred ‘to the free use of men’ (Agamben 2007, p.73) not by restoring things to their natural use, rather making a new use for them (Agamben 2007, p.85). The optical reading promoted by the medieval universities found a new use for the book, from an object of pious veneration to an occasion for thinking while studying. The linearity of the book was thus suspended by the new mode of reading which was oriented towards study and thinking.

In the university lecture, mediatic displacement occurs at the level of the collective gesture. In a stream of listening and reading, seeing and writing, eyes, hands and ears are engaged at the same time, while not one sense dominates the experience of thinking. Lecturing manages to become a collective study practice when listeners and speakers create a middle space where one does not only speak, nor only listen, but allows for something to disclose itself. This can happen when the media are suspended, incapable of following their own logic of representing the world. The indications of suspension occur when the media does not function in creating its associated mode of consciousness. One can easily lose oneself in any media if the media is allowed to create an immersive experience: lost in hearing a piece of music, lost in one’s imagination while reading a book, in watching a movie, we are following the linearity of other’s thinking. However, this is not

the case with the lecture which functions by drawing attention to something, while also suspending the media which reveal it in such a way as these do not occupy the first position. Lecturing appears as a particular way of cancelling the representational power of media, thus allowing the media to point at something – the thing to be studied.

For academic writing, mediatic displacement occurs not at the level of the switch between paper and digital, but rather as attempts to neutralise the force of previous texts. These gestures are not merely gestures of destruction - of disassembling - but also of reassembling and interlacing one's words between the words of others. The displacement happens when a medium is continuously and repeatedly interrupted, moved to the side, and then back into the centre of one's attention. For academic writing, the texts written by others are cut into pieces, rearranged, placed to the side, ignored and then taken up again, revisited, written about, written against, used as props for one's thinking or as authorities. This continuous playful interaction with the text is constantly displacing other's texts while one's own writing is taken up and abandoned again and again, as thoughts arise and disappear, similar to Flusser's own practice of self-translation into four languages.

For Flusser, the event of thinking always starts as a form of encoding an experience but also, at the same time, of overcoming this encoding via trans-coding. We never think in an unstructured way, instead we are engaged in a particular mode of consciousness such as imagination, conceptualisation, or visualisation. The medium structures the thinking because the event of thinking takes place inside a particular mode of consciousness (Flusser 2011b). Flusser described three main modes of consciousness which were structured by a particular media and their dominant codes: pictorial, writing and digital codes. However, because the three dominant codes are historically nested and dependent on each other, every code is at the same time a transcoding of the previous ones: the pictorial code encodes the world in an image, the writing code encodes the picture in lines of writing, and the techno-image encodes the text in pixels, thus re-encoding the initial image (Flusser 2011b). Flusser tells us that writing is linear, leading to a dominant mode of consciousness based on criticality, while images are pictorial and favour magical consciousness, and digital images promote a techno-magical mode of consciousness. The mediatic displacement ensures that, whatever media we may use at in university study practices, no medium can impose its own logic and hijack our thinking into a particular mode of consciousness. When engaged in university thinking, we rise above the particular modes of consciousness and become aware of the object of study as such, the idea that captured our attention in the first place.

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4. The digital university

Abstract: This chapter describes two different practices which attempted to enact a digital university: MOOCs and videoconferencing apps used for lecturing. I show how regular MOOCs show little potential for mediatic displacement, since there is only one source of sensory input which tends to capture and overwhelm the students' attention, hence very little potential for study gestures. However, I also describe a new and experimental MOOC format, the bMOOC, that showed a possibility to stirr occasions for thought by disrupt the linearity of the classical MOOCs, by disorienting the student and by refusing to deliver some 'content' to be learned. Meanwhile, using videoconferencing apps to enact an online lecture cannot yet be an instance of a digital university since the collective experiences of attention-making were subverted by the individualising logic of the screen. The promise of the digital university seems to remain aspirational until we figure out how to enact the techniques of mediatic displacement currently flourishing at the physical university.

Keywords: digital university, online lecturing, MOOC, videoconferencing

MOOCs: The road not taken ,or lessons from a failed experiment

In the last decade there has been a rising trend to digitise and virtualise higher education, based on a normative assumption that digitisation and virtualisation are desirable phenomena (Decuypere 2015, p.7), presumably fixing something that was lacking in the physical and face-to-face university practices. Most universities already made some steps towards digitisation and virtualisation, usually starting with the administration, by allowing certain routine operations to be performed without being physically present. Students could download their reading materials, solve their exercises and ask questions through the e-learning portals without any face-to-face contact. After this phase, the next step was an attempt to digitise some educational practices. Electronic blackboards, slide-show projectors, network cables, wireless routers, and many other devices colonised the lecture halls and seminar rooms, bearing witnesses to the digital transformation. We are still in the stage of the 'physical university' albeit enhanced with some digital appendages: students still have to come to class and meet their professors face to face. Even though digital tools and processes have been incorporated into education, we do not conceive of this situation as a 'digital university'.

The digital university is not identical with the online university. While overlapping, they designate two different types of technological mediation. In a digital university, the educational operations that normally happen face to face would be mediated via digital tools. This could include activities

such as watching virtual lectures, feedback and communication via online platforms, and exams done on a computer. Yet a digital university could be conceived as being fully offline, maintained by a local network of connected computers. Meanwhile, the online university is one where all interactions happen online, in the virtual environment of the Internet. The online university thus adds a second layer of mediation, adding the online (Internet-based) over the digital (screen-based). In the next pages, I will use the term 'online digital university' to designate both aspects of mediation.

In the last decade, one of the most visible facets of the move towards the online digital university was the policy impetus to develop MOOCs (Massive Open Online Courses). MOOCs are usually defined as:

> courses designed for large numbers of participants, that can be accessed by anyone anywhere as long as they have an internet connection, are open to everyone without entry qualifications, and offer a full/complete course experience online for free. (OpenupED quoted in Storme et al. 2016, p.2)

The worldwide trend towards MOOCs (Johnston, MacNeill, & Smyth, 2018, p.15) has been also a preeminent point of EU-based educational policies. In the EU's *Digital Agenda for Europe* (Maciejewski and Gouardères 2019), *Action 68*[7] encourages EU-based universities to implement MOOCs in their curricula. In 2014, the EADTU (European Association of Distance Teaching Universities) launched its 'Porto Declaration on MOOCs', which called for a joint European response to the threats and opportunities posed by MOOCs. The policy impetus to digitise university education via MOOCs makes sense in the context of distance and open education which was the main focus of EADTU. It has been claimed that MOOCs bring no novel contribution to higher education, since the MOOCs promise of fully online model is a reiteration of existing instances of distance education (e.g. correspondence courses materialised through texts, books, video or audiotapes which were mailed to students via the Open University model). However, MOOCs are not just another failure of the distance education model, since the approx. 90% drop-out rate was much higher (Rivard 2013). This explains perhaps why the MOOC policy trend thus far has focused on offering MOOCs for the regular students enrolled at classical universities (Israel 2015) in a form of blended-classroom resources, instead of pushing for fully online classes.

MOOCs constitute a token example for a wider trend toward for the digitisation of the university and also perhaps the most visible trend for the general public. With the popularization of the MOOCs, the digitisation of the university came to the forefront of educational research. Some physical universities even engaged in an "arm's race" for MOOCs (Bali 2014; Godwin-Jones 2014), though the enthusiasm is not for MOOCs as such, but rather the idea of moving the university online. However, it must be noted that MOOCs are not the only way of digitising and virtualising

[7] http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1389115469384&uri=CELEX:52013DC0654

a university, only the most visible facet of the trend. This is because anyone can attend MOOCs provided one has an Internet connection, worldwide. MOOC proponents were among the first to disseminate the idea that a university course could be fully moved online, all packaged in one digital environment conveniently accessible anywhere. Of course, there are also other proposals for a (semi)digitisation of the university pedagogy. For example, the flipped-classroom model replaces lectures with video recordings, but still gathers students and instructors for exercises and discussions in a physical space.

In 2012 the MOOCs were boldly entering the educational scene through several major players such as Coursera, EdX and Udacity resulting in 2012 being dubbed 'year of the MOOCs'[8]. However, less than a decade later, MOOCs were proclaimed a failed experiment, an over-hyped promise which did not fulfil the expectations[9]. MOOCs are not dead, but the major platforms such as Coursera, EdX and Udacity restricted a large portion of their course offering solely to paying users (Knox 2014, p. 97) and reoriented themselves towards corporate customers by pitching their courses as replacements for professional training.[10] The MOOC's presumable failure was not about numbers of enrolment or coverage of topics. Even today the user base of the remaining free courses is still impressive: it was estimated that in the year 2017 about 23 million new students had enrolled in MOOCs, thus raising the number of people who had ever taken a MOOC to a total of 81 million, including users of all ages and levels of education[11]. The MOOC's commercial failure is of no interest to this book, but rather their presumable educational failure - albeit even this failure is contested by some (Bennet and Kent 2017).

The purpose of this chapter is to outline how digital media allows for - or hinders - educational gestures. By understanding what has failed in the MOOC educational endeavour, we can better conceptualise what is needed for online education and, more importantly, for a digital university. This chapter follows roughly the same concepts as the previous ones dedicated to the physical university, namely tracing the sensory configurations in the MOOC and the educational gestures enabled by the MOOCs. For collecting the educational gestures, I have used three separate sources of empirical insight on the student's perspectives: first, the observations I made as a student enrolled in an MOOC, second, the testimonials of other students cited in the scholarly literature on MOOCs, and third, several interviews with MOOC students taken by Maria Ariko and Jing Sun for their Master's thesis work at KU Leuven (Ariko and Sun 2018).

The configuration of senses in the MOOC

[8] http://joinlearningcurve.org/mooc/
[9] See for example: https://www.universityworldnews.com/post.php?story=20190123080937857
[10] See https://www.forbes.com/sites/alexkonrad/2017/12/20/coursera-goes-corporate-to-keep-alive-promise-of-moocs/
[11] Source: https://www.class-central.com/report/moocs-stats-and-trends-2017

Students interacting with a MOOC engage their senses by different devices such as the screen, the website's interface, the moving of the mouse, the touching of the screen, listening to videos and audio files, reading texts, etc. Is there a dominant sense in the MOOC - something akin to a *sensorium* (Ong 2000)? To investigate this, I have divided the sensory engagement of the students into seeing (as in watching and reading), hearing, and touching (clicking, scrolling, note-taking). Seeing is fully mediated by the digital screen, whereas touching and hearing require additional tools and devices such as headphones, speakers, keyboards, notebooks etc. Despite this technical diversity, as we will see next, all senses seem to converge and originate from one source: the digital screen.

Seeing

The students' gaze is captured by qualitatively different features of the MOOC: its interface, and the actual content of the MOOC. Most MOOCs are hosted by portals which aggregate them - like Coursera or EdX - and these tend to have the same design of the interface. The differences are minute and involve mostly the images used. As the students become more used to navigating the MOOC, the design of the interface tends to fade in the background, becoming unnoticeable. Concerning the actual content, students have access to it predominantly via sight: they watch videos and read texts on the screen (be those scholarly texts, messages of their peers, or instructions).

The consistent use of video clips as instructional materials is one of the most recognisable features of MOOCs. Not all videos are alike visually, but there are at least four categories of video materials: a live lecture filmed in class and uploaded later online, a talking head filmed in a studio-setting - produced especially for the MOOC, a diagramming video - where we only see the drawings on the screen accompanied by a voice-over, and the slide-show presentation with a voice-over which may or may not have a talking head in its corner (Guo 2014, p. 41). A way to distinguish qualitatively the videos is to inquire into how much attention these require from their user-students. The amount of attention demanded is unequal and depends on the visual set-up of the video. For example, there are very simple set-ups in which the lecturer is sitting at a desk and speaking towards the camera, or standing in a studio, against a dark background. Unless interrupted by visuals appearing on the screen or alternating slide-shows, these videos are difficult to watch by he users because nothing new happens.

> *The least I liked the videos, I didn't want to look at those (…) It just isn't engaging at all – a person has sat in front of the camera and talks about what s/he thinks. Even if it relates to the topic, it is tedious to look at it, to be honest. There's always the feeling that I'd like*

to fast forward it. I'd rather read it myself … as a story than hear someone narrating it to me. For me, this was really tedious. (Interview with M., taken by Ariko and Sun 2018)

Many students treat videos as audio-clips and just listen to these while doing something else, such as household chores or running on a treadmill. The users' inclination for multitasking indicates that actually looking attentively at the videos is not necessary.

If I felt like that the information was not so interesting or so relevant or I really wasn't in the mood, you kind of do speed it up a little bit, like… Cause it really is up to you. I think you could finish a lot of those things without really learning anything. I mean, if you wanted to. (Interview with F., taken by Ariko and Sun 2018)

I watched lectures while striding on my treadmill, while riding a train, while eating a spinach salad. I watched them on double-speed when my slow-talking cosmology professor lectured, and on three-fourths speed when my British epistemology professor tommy-gunned out his syllables. (Jacobs 2013)

MOOC designers knew of this tendency of students to skip the videos and tried to design ways of making the videos more attractive for the gaze, experimenting with different set-ups of the 'talking head'. Guo et al. (2014) have studied the level of viewer engagement with the videos and concluded that a closer shot of the professor leads to more engagement from the students. These talking-head videos, filmed frontally and up close, make looking away difficult for the students because they feel personally addressed. However, when the videos in a MOOC are optimised for attentive watching in this manner, then other study gestures -such as taking notes - will become harder to perform. The technique of filming up close ensures more attention from the viewers, but it is unclear how educational is the attention we direct at the screen. After all, who would want students to watch video lectures as they would watch a movie, eyes glued to the screen? Other types of videos are also fascinating for the gaze, for example the documentary-style story rich in visuals. Students feel compelled to watch these rich videos because the visuals cannot be minimised without losing information. The teacher's diagramming hand present in Khan-academy style videos is also hard to displace. As the lecturer explains something, we only see the drawings on the screen, and the drawing gets progressively complicated with arrows, equations, words, while the lecturer circles certain terms. The gaze of the viewer is led by the drawing.

The videos in the MOOCs seem to function in two distinct ways: either the video captures the attention of the student too well, and then the student cannot look away, similar to the experience of watching a movie; or the videos do not capture the student's attention enough and then students find themselves doing things unrelated to the course to fill up their time. Too much

attention and not enough attention – these are the two poles between which the video clips engagement fluctuates in the MOOCs I have observed thus far. By contrast, in the physical lecture, the lecturer addresses the students collectively and nobody in particular, hence the lecturing set-up does not personalise the student by addressing them individually all the time. The students do not feel watched by the talking head, and they can rotate their attention between taking notes, listening, looking at the slides, staying with their attention inside the lecture's space. In the physical lecture, attention is freely given by the student, since it is not captured by one single medium.

Another visual component addressing the gaze of the students is the textual: assigned readings, comments on forums, and instructions that students need to follow. Only the assigned readings are a common element with the lecturing set-up, yet even these function differently in the MOOC. In a lecture, students are usually required to bring to class the text to be discussed. However, the text does not confiscate the student's attention with its linear logic throughout the lecture. In the lecture, the text is picked up from time to time and then ignored, since the lecture is not a reading session. The text emerges and disappears constantly, evoked, read, put aside - this is what makes it possible for the text to participate in the mediatic displacement of the lecture. In the MOOC, however, the text is allocated one place in the linear progression of the course. At one point the student is supposed to read the text, and then, after clicking 'Next', the text disappears and the page shows a video lecture or something else. The text is made invisible so that something else can start. Of course, students may print the text and keep it in front of them while watching the lecture, or they can open the .pdf file and switch between the window with the video and the pdf. But the MOOC interaction is not designed for this kind of switching, and this is obvious from the fact that the MOOC videos sometimes place fragments of text in the video, to be discussed on the spot. In those moments, the piece of text is resurrected and brought to the centre of attention, placed on the screen yet hard to displace because of the video's fascination for the gaze.

Hearing

Although most MOOCs are designed around video lectures as main component, some of these videos can be consumed entirely by listening. Acknowledging this user tendency to multitask, Coursera launched a mobile app which allowed its users to download the courses and to watch them on the go. For many users who tryied the MOOC app while commuting or doing household tasks, the watching was replaced by listening to the videos.

> *Now with the application, you can also download the lesson and watch it on the go. But that I didn't like it very much, I tried it while I was taking a train to the work, I tried it a*

few times to do it like that, but that didn't work, because it was too distracting and noisy. So it was always at my desk when I was watching it. (Interview with A., taken by Ariko and Sun 2018)

MOOCs do not wish to emulate podcasts - an audio format which has been online for a longer time. Two distinctive features of podcasts are the length of the clips and the interaction. Video clips in MOOCs are rather short, aiming to not go over 9 minutes, whereas educational podcasts are typically 25-30 minutes in length but can last up to an hour[12]. The podcasts are clips of recorded speech, with no user interaction required after downloading the clips. From this perspective, giving someone a podcast is like giving them a textbook in audio format. Meanwhile, the MOOCs do demand user interaction, the student is not supposed to just absorb the knowledge through the video clips, but also to answer quizzes, do assignments, discuss in forums, etc. In a MOOC, knowledge is not received as such, but ideally worked with and transformed by the user-student.

Listening to a MOOC video is less engaging for the attention than the live lecture where, as established previously, a kind of active listening was taking place. By contrast, in a MOOC, the student can choose to 'hear away' (Gadamer 2004, p. 478) just by removing the headphones whenever the course becomes too tiring, or by multi-tasking which is a way of half-hearing. When multitasking, attention is split between the listening and doing something else. Meanwhile, the lecture demands a devoted attention from everyone in the room, yet it does not capture it in a focused mono-medial way. There is something educational just in the act of entering the lecture hall and dedicating to it one's time and attention. MOOCs, however, are targeted at the busy learners whose time is scarce. The MOOC study is usually interlaced with other home or work activities and thus makes it difficult to capture one's attention fully enough to give rise to a thinking experience. This is not to say that thinking is not possible in a MOOC, but this hinges on how well the students can protect their time and place for study from daily intrusions. Since MOOCs market themselves as the solution for learning in one's free time, in bite-sized installments, easy to be finished, then students expect to be able to finish them quickly and with minimal effort hence they are not inclined to carve out the necessary time and space for studying. Meanwhile, with university study, we do not have these kinds of expectations, as the university provides to its students the 'gift of the interval' (Oakeshott 2004, p.28), namely of free time for study.

[12] See for example Peter Adamson's *History of Philosophy Without Any Gaps (HoP*), a well-known philosophy podcast with educational relevance

Touching and note-taking

The MOOC is interacted with via the touch as well. Students type texts on their keyboards, use the mouse to scroll and click, some may use touchscreens - but there is no variation in the kind of gestures required. This is not a problem for study, after all, even the classical lecture did not require much from the sense of touch of the students. In both set-ups, the most important touch-related activity seems to be that of writing or taking notes. In a lecture hall, students often take notes without thinking why they do it, just because they see others taking notes at the same time. This is not the case with the MOOC. Writing as note-taking is not usually designed into the MOOC. Students can take notes if they choose to, or if they are explicitly encouraged to. Those who take notes on paper probably do it because they are used to act like students from the offline environment and carry this habit into the MOOC.

> *A: It was a habit from years of school and writing down helps me to fix things into my memory. (...)*
> *M: And what has happened to the notes now?*
> *A: I have them somewhere around. I have a binder. One of those binders (points).*
> *M: Do you think you will need those? Ever again?*
> *A: No, probably not.*
> *(Interview with A., taken by Ariko and Sun 2018)*

In a MOOC, the moments of writing, similar to the moments of reading, are delimited from other activities and demand switching tabs or windows. As long as digital note-taking is not integrated into the MOOC (by providing a window for note-taking next to the video and by explicitly encouraging students to take notes), then the only possibility of studying while note-taking in the MOOC can happen on paper. This implies that the MOOC allows for study precisely when it is bypassed through other non-digital means. The screen needs to be bracketed for the student to begin to think.

Based on the previous sections, I will try to describe how the MOOC is experienced as a sensory configuration. At its most basic level, the MOOC appears to the students through a screen, to be interacted with though its affordances such as video-watching, reading texts, solving quizzes, writing essays, clicking and scrolling through the user interface. The MOOC appears as a visual-auditory-tactile experience in which all senses are facilitated and limited by the screen. The sensorium of the MOOC is digitally mediated which means that the screen cannot (yet) allow for displacement. Since the sensory experiences are coming from the same source – the screen – it is very hard to take a distance from the source of these experiences. The screen is hard to bracket since nothing else remains after it has been shut down. Either the student dedicates all of one's

attention to the screen, or moves away from it completely to escape its influence. A rotation of the digitally mediated senses is not possible with the MOOC, at least in the existing formats. Advances in multi-media technologies keep focusing on making sensory experiences more immersive, more captivating, more real – yet there is no research into how to make the digitally mediated sensations cancel each other out in such a way as to allow for an experience of displacement and studying.

Study gestures in a MOOC

After logging in to a MOOC, the first thing students see are the instructions telling them explicitly what they have to do. These instructions continue on every page of the MOOC until the end of the course. This is to be contrasted with a 'regular' web-page, for example, a Wikipedia entry, where there are no instructions for users. On Wikipedia, the user can read a piece of information and decide for herself what to do with it, if anything. In a MOOC, however, every piece of information is offered together with instructions on what to do with it: one needs to read, to watch a video, to write an essay, to answer a quiz, to contribute to the forum, to fill in a survey, to download the material, etc. If a student wants a certificate of completion for the MOOC, then all these instructions have to be followed in a particular order. Some instructions act as thresholds - the student cannot advance through the MOOC without having ticked a box, performed a task, or scrolled through a video (even fast-forwarding counts as having "seen" it). Other instructions appear to be directing the student's attention in a certain way, not as thresholds but guidelines: 'read X and think of Y, do this in such and such manner'. The experience of taking a MOOC can be described as fulfilling a sequence of instructions which, in the end, unlock the certificate or just a page which congratulates the student for having finished. Because of the omnipresence of instructions, the MOOC appears as an ordered sequence of tasks leading to a predictable end, in a linear manner.

The MOOC's structure has been compared to the linearity of a book (Storme 2016, p. 5) since it presents itself through pages, discrete units of text and visuals, which are linked together by a table of contents. However, I think that MOOCs have a stronger linear structure than books do. For one thing, books meant for study allow their readers to jump back and forth through their content, to go to the index, or to skip pages. Books are not merely linear, but distinctively tabular. Tabularity is a way of 'spatializing information' which 'allows the eye to go where it wants and enables the reader to get directly to the point he or she is interested in' (Vandendorpe 2009, p.3); the order of the reader replaces the order intended by the author. Headings, chapter titles, footnotes and tables of contents allow us to start reading the text at any point, picking what they need from the content. The book allows its readers to jump ahead, to skip, to take whatever they need from it, without marking their progress with a visual counter as in MOOCs. The tabularity

of the book allows the reader to take a certain distance from the text which also created the necessary space for conceptual analysis and intellectual detachment (Illich 1993).

The linearity of the MOOCs is imposed by design: sequential pages and timed release of the lessons ensure this feature. Students are supposed to click "next" every time they finish consuming the educational material on a page and progress to the next page. This action has consequences: a green progress bar fills up and students are told how much of the course they have finished, motivating students to finish what they started. Of course, a MOOC can be studied in a different order than the one intended, it also has a Table of Contents through which students can skip and choose. However, the progress bar together with the weekly release of modules makes it most students are discouraged from finding their own path through the MOOC. Most MOOCs are designed as a set of milestones, sections to be completed and then to never return to them. The MOOC is not meant to be re-studied. It progresses straightforward into the future until it ends.

> *I definitely did feel that at the time that the structure was very useful for keeping you going in one direction … I definitely felt that it takes that extra level of thought out of it, you don't need to plan so much, you don't need to say that ok, I'm gonna do an hour of this management stuff – what do I need to do? It's like no, it's like, the next module is there, I just have to click the button and start it, it does tell how long it's gonna take, there's four different things to look at, so in that way, I think it's quite simple.* (Interview with F., Ariko and Sun 2018)

This linearity of the MOOC is more constraining than that of the book because it is also time-bound. The MOOC's content is released weekly hence it is completely available only in its last week when it is close to the end. Only once the MOOC is 'over' one can go back to revisit its content in a user-defined order. The MOOC can be studied only in retrospect, not while it is happening. An exception are the 'archived' MOOCs which are released as educational materials only. The archived MOOCs can be studied in any order, but they function more like textbooks since there is no teaching staff available to give feedback to the students revisiting a finished MOOC.

The MOOCs' linearity resembles that of an apparatus. Following Flusser, an apparatus is a black box with an input and an output characterised by the opacity of its inner functioning (Flusser 1984, p.15). The MOOC as an apparatus takes in the students, imposes some actions in an ordered sequence, and outputs students with additional knowledge and skills. Because of this constraining linearity, the actions performed by students in the MOOC are not gestures, but responses to instructions. To perform a gesture, one would need to mean it, to have an intention

behind it and to imagine an actual receiver. However, in the MOOC, it is hard to say who receives and decodes the actions of the students. The student clicking on videos and reading texts is not gesturing towards any humans, only to the interface and to the algorithm who keeps score of how much of the MOOC has been completed.

Therefore, if we want to look for gestures in a MOOC, we need to look for interruptions and for actions that students perform to break with this instructional linearity imposed by the MOOC design. Educational gestures appear as movements allowing the student to take a distance from the material. One such distancing gesture is the pausing of the video - to recollect one's thoughts, to write something down, to look up something online. Another gesture is watching the same video again and again which should, in principle, make it less fascinating. Another gesture is speeding up the video or slowing it down - most MOOCs offer this possibility embedded in the video player controls. Through these gestures, students can take a distance from the fascination of the screen and start to study what is said by taking notes or thinking about it. Other gestures are those of searching online for additional resources than the recommended ones. The gestures of study possible in a MOOC are those of slowing down the interaction, placing a distance between oneself and the educational material. However, these gestures do not achieve mediatic displacement in the sense previously explained: there is no rotation of senses nor a disabling of a medium by another, rather the effect of one medium is paused or rendered inoperative for a brief time. Thus, gestures of study are possible with a MOOC, but these gestures are not purposefully designed for.

Educational gestures could be purposefully designed for in a MOOC, but this implies changing the platform altogether and redesigning it from scratch. This was the case with the bMOOC[13], a small-scale experimental MOOC platform for the Arts students of LUCA school of arts/ KU Leuven, designed with the explicit purpose offering an alternative to the xMOOC model (Vansieleghem 2016, p. 2). The bMOOC bypasses the linear structure of a classical MOOC meaning that there is no table of contents, no list of instructors, no clear goals or finish line. When opening the front page of the bMOOC, the user sees a list of courses displayed in a network. After clicking on the title of a course, the user has multiple options of visualising its content: as a tree, a list of topics, a network, a grid. The navigation in the course is happening by clicking on items in no particular order. Almost all the 'content' items in the course are uploaded by the students, after following the active instruction which is a pop-up visible in the corner of the first page of the course.

The bMOOC was conceived to work in conjunction with a physical classroom, it does not function as stand-alone online class. The bMOOC is not a typical MOOC and this is visible first of all by the design of its instructions. If in a regular MOOC, there are instructions on every page highlighting

[13] http://bmooc.be/

the path to be taken by students, in a clear sequences of steps. By contrast, the bMOOC displays only one instruction on the front page for an entire week. In a course dedicated to *The Ignorant Schoolmaster* by Rancière, the instruction was to annotate pages 19-23 of a book. The following week, the instruction will change into annotating the next 10 pages. For other courses from the bMOOC , the instructions are about finding an artefact and sharing it with others. As example, in the course 'Pilgrimage to image' the first week's instruction reads:

> *7 weeks of online sharing of ideas and propositions on places that have become iconic / inspiring either for you or for a group of people // what place would be meaningful to make an Art Workers Pilgrimage to? // 7 weeks of delving // 7 weeks of planning // 7 weeks of shared hunting and gathering // 7 weeks of shared exploring the sacred // or the profane. (bMOOC)*

This is not strictly an instruction, it is a question: 'what place would be meaningful to make an Art Workers Pilgrimage to?' to which students respond with visual artefacts. Another course begins with the instruction 'Visualize or textualize world entering school'. After clicking on this instruction, instead of finding an explanation, the user is confronted with the image of a map of the world on which transportation networks appear as clusters. Neither this nor the previous instructions make it clear what is expected from the students. It seems that the bMOOC is playing with the format of instructions while refusing to give clear indications, deliberately making students feel lost.

The content in the bMOOC course can be visualised in multiple ways which evade linearity: as a network, as a tree, or as a list of the contributions ordered by date. Through this visualisation, students and instructors alike can see archaeologically what made them think in the other's contributions and what was left unengaged with. The bMOOC proposes other ways of interacting with the content and, through it, with other students than in the MOOC. The MOOCs usually have discussion forums where students are asked to engage but, with few exceptions, the overwhelming impression of these forums is of a waste of time. In MOOCs, students prefer to not interact with other online students.

> *here (i.e. in comments) was a lot of kind of… not really relevant texts. You know, people are so different and their language levels are different, right, and for me, it didn't give me anything. It was just what an individual thinks of this or that, right, there was really no… Well, one thinks that… and then what? (Interview with M., taken by Ariko and Sun 2018)*

> *I think there was a feeling that there wasn't really a lot of, like really good debate happening. Like you see a lot of times like individuals posting and they would have one response and it really wouldn't be a response to their comment, but just someone stating what they believe. So it just didn't feel like… Also 'cause there are so many people in it,*

you're like getting a lot of posts which means that it could not move very quickly so there's not a lot… you don't feel that there's like a debate. (Interview with F., taken by Ariko and Sun 2018)

In a regular MOOC, forums are used to give students some feeling of interaction with their peers or teachers. Yet what the students post in the forums makes no difference to how the course will evolve, whereas the words of a student can change the path of a face-to-face lecture. Discussion forums are many open-ended threads going nowhere, as students prefer to post their opinions without responding to anyone. In *The Great War and Modern Philosophy,* the forum was supposed to function as a way of collecting content. The discussion boards instructed students to post a picture of a painting or a propaganda poster and then comment on it or comment on someone else's postings. The result of this instruction was that students posted the same pictures multiple times because the users did not look at the other's posts.

By contrast, interaction with others is mandatory in the bMOOC. In the bMOOC, the student's interaction with their peers is more constrained and thus the engagement more deliberate. By design, a student cannot participate in the course unless she responds to someone else's contribution by adding another creation or artefact. The bMOOC is designed to work without the instructor's inputs except for the first theme/ artefact which is added to start the conversation. Even if this course is based on student's input, it is not a discussion forum, since there are no conversations but uploads. Students make artefacts which they upload as images, videos, or .pdfs. The content uploaded in the bMOOC always appears as a reaction to something previously posted by others. This cannot be a superficial interaction, just saying how nice everything is, it needs to be creative. It would seem then that the bMOOC allows for a collective form of interaction which does not emerge in the regular MOOC discussion board.

In the bMOOC, no student is an island. The bMOOC 'comment' is at the same time the 'contribution' and every upload changes the entire dynamic of the course, adds something with which other participants will have to interact. This design makes it impossible that the students ignore each other, as they are building the course from the ground up, as a group.

It is a collective project, it does not work if you are not contributing. (...) it is a collective practice, as a course, but it does not have a collective output. (…) It is collective in the sense that I'm not the teacher anymore. (...) normally in a course you never react to what the teacher is doing, you do what he wants (…) But there they reacted on my way of lecturing. (Vansieleghem 03.09.2017)

By contrast to a MOOC offering a clear progression through the course, the bMOOC fosters another kind of linearity, a kind of wandering through topics with no clear end. In the bMOOC,

each student experiences a different course, depending on the path taken while navigating the topics. The bMOOC interrupts the linear logic of online navigation which allows for mindless scrolling and clicking for hours without thinking. The bMOOC, on the contrary, causes mini-shocks with each new item displayed. For each item visited, the user must decide if she is going further or back, and, if going back to the root of the course, she needs to find her way through the network of the course again. In the bMOOC, each click is a decision with consequences.

The bMOOC shows one promising possibility to do a MOOC in another way, first by disrupting the linearity of the classical MOOCs, by disorienting the student, and, second, by refusing to deliver some 'content' to be learned, and instead inciting occasions for thought. However, a significant reason why the bMOOC manages to bypass the magic of the screen is that it does not function solely on the screen. In their final exam, students are asked to discuss what they did in the bMOOC, they have to argue why they chose a path, to reconstruct their choices. The bMOOC becomes an object of study in an actual classroom, something to discuss and gather around.

The kind of playfulness enabled by the bMOOC is very close to a profanation of a screen because it is working against the inner logic of the screen as medium and deliberately trying to impose another logic on it. The bMOOC is not yet a fully digital university since it needs some face-to-face interaction to discuss it and give it meaning, it is ultimately an experiment with a different kind of a blended classroom. However, the bMOOC shows a promising way in which one could design for educational gestures with a screen, clearly not the only way. A topic for future research would be to make an inventory of such profanating gestures with the screen and then investigate to what extent there is mediatic displacement of the screen, and what senses are called forth. The bMOOC thus opens a new way of understanding that the digital screen can indeed pe profanated but that the profanation happens once it is brought back to the classroom. Further research is needed to understand whether the profanation of study can happen at a distance, outside university walls.

The Corona effect: Lecturing on a video conferencing platform

In February 2020[14], the World Health Organization issued a warning about a new virus which had an unusual rate of infection and urged all countries to take some preventive measures. National governments implemented various social distancing and lockdown as measures to stop

[14] Note: Several of the gestures described in this section were uncovered while discussing with the students of the class on "Pedagogische cinematheek en theorievorming" during a seminar activity at KU Leuven. I am grateful to Benedikte Custers and Joris Vlieghe for giving me the opportunity to teach this seminar and learn from the student's own experiences with the online university.

the spreading of this virus. Almost everywhere, education was brought to a halt. Universities, as well as schools and other forms of institutionalised learning, had to move their activities online or cease completely. Face-to-face education was no longer an option for universities. Under these stressful conditions, many universities struggled with moving their education online effectively. Nobody was ready for this abrupt transition to the online environment: 'the students were just as unprepared for remote learning as we teachers were, and have improvised just as much, under really stressful conditions' (Petrulis 2020). In this general atmosphere of improvisation, rules of thumb became more precious than previous educational procedures. The choice of digital platforms to be used in this situation was motivated by availability and anecdotal advice, rather than research on digital mediation. The ways in which universities chose to transfer their educational activities online were similar worldwide as were the problems encountered: for lectures, some opted for pre-recording their lectures and sending the students the video-clips in advance, while others opted for synchronous lectures on video streaming platforms or with videoconferencing apps[15]. The adaptation to this online transition was full of hurdles and mistakes, but students were generally understanding. Nobody was expecting perfection from a survival solution.

The hassles of moving entirely the education online also revealed what was missing from these modes of interaction and a clearer picture emerged of the limitations of the digital online university. What worked as a survival solution for the university as an institution – after all, students still needed grades and degrees even in a pandemic situation – seemed to not be sufficient for a long term situation. By looking into what worked and what didn't, using anecdotal stories as well as personal observations from my own experience of teaching online, I have gathered a picture of the digital gestures performed while trying to replicate educational practices online. These gestures, to be described next, give an evoking picture of what we are still missing from the digital online university.

The main question for lecturing was whether to do it synchronous or asynchronous – with pre-recorded movies. The question touches at the heart of the educational meaning of lecture. If one believes that lecturing is just knowledge transmission or a one-way communication of sorts, then pre-recording the lecturer's speech and sending it to students as a video was the preferred way to go. There were ethical concerns with asking students to attend lectures synchronously since students were no longer the masters of their time (Petrulis 2020). In a lock-down situation, one could not control the availability of the laptop, of the Internet connection, or of one's own time. Students with care-taking duties in their families were particularly strained for time. Asking these students to be online at certain times and to stay online for a particular duration was too

[15] Software used included: Youtube, Skype, Zoom, Google Hangouts, BlueButton, as well as custom educational platforms such as Canvas, Blackboard, Brightspace, Toledo, Moodle, etc.

demanding. To adapt to these circumstances, some lecturers asked their students to be online during the lecture, but also recorded the lecture and made it accessible for those absent. The slides were made available for the students after the class or before it. Many lecturers who had gotten used to lecture without slides had to re-adapt and use slides.

> It takes a long time to rework a lecture into a recording. You can't just lecture from your notes and hope for the best. A lot of the "looseness" of my lectures – moments when I invite participation, discuss current events, or tell stories – need to be written down (or deleted!) when I lecture off a script. And the way I emphasize points has changed, too: Without real-time feedback from students' faces, and without my standard tools of emphasis (writing on a board, waving my hands), I have needed to adapt. For instance: When I worked in an earlier business career, I learned to minimize text on PowerPoints, but now I flash brief text on slides to underscore important points. (I'm also finding out where I should have organized and signposted my lectures more clearly in the first place!). (Petrulis 2020)

Striving to provide synchronous lectures, albeit difficult to attend for many students, was not just a whim of the lecturers. Trying to pre-record a lecture and speaking alone to a screen while imagining the students proved to be an alienating experience for many of the teaching staff. However, even speaking to the students attending the live lecture was a no less alienating experience. Depending on the software used, the lecturers could see some students or none at all because, when sharing one's slides and the screen, the windows with the student's faces were hidden. The online lecturers were speaking while looking at their slides, hoping to be listened by someone, assuming that the students were present, yet with no tangible clue of being listened to.

Students made it even more difficult for the lecturer to experience their presence when they would decide to close off their web-cameras and microphones. A rule of netiquette was to close off one's microphone while not speaking as to not bother other participants with the ambient sounds – a car passing by the window, a dog barking. However, closing off one's camera during the lecture was the student's way of reclaiming their privacy and autonomy. This started as an individual gesture, the students had not agreed to do it, but they saw each other close off their cameras, many students converged in this gesture. This is because one did not want to be the only student seen by the lecturer while all the others were 'invisible'. The effect was alienating for the lecturer who was speaking to a screen and no visual feedback was possible, except when students typed a question in the chat window. Those 'irritated twisting of [students'] face muscles, certain movements of the head, hesitation in taking notes, and so on' (Meiners, quoted from (Clark 2006, p. 412-413) were no longer available. Without these bodily signs of understanding or not, the lecturers were speaking in the dark, with no sense of being

understood, hence they could not alter their lecture's course to adapt to the student's understanding.

Even when lecturers could see their students' faces, another effect attributed to the videoconferencing setup appeared: a kind of alienation because nobody can look others in their eyes:

> It is impossible to make eye contact properly for instance, in today's videoconferencing systems, because the camera and the display screen cannot be in the same spot. This usually leads to a deadened and formal affect in interactions … Furthermore, participants aren't able to establish a sense of position relative to one another and therefore have no clear way to direct attention, approval or disapproval. (Lanier cited from Friesen 2017, p.644)

New gestures were introduced by the digital platforms used to stream the lectures, but these also inhibited other educational gestures taken for granted in face-to-face interactions. For example, clicking the icon of raising one's hand to speak allowed the students to ask questions and interrupt the lecture without making a sound. The interruption was visual, a flashing notification in the corner of one's screen. However, the students asking a question become also visible to their peers. Once the lecturer saw that someone had raised their hand, would call them by name to ask the question. This name-calling does not happen so much in lectures, where the audience is made up of dozens and perhaps hundreds of students. However, in the digital lecture, the professors could see the names of their students. This made it a more individualising experience for the students who consequently preferred to not ask questions. Some students used the chat function to type in their questions instead of asking the question out loud.

Norm Friesen, commenting on the kind of relations instantiated by the telecommunication software used for lecturing, noticed that one tends to look at oneself very much while speaking (Friesen 2020). The same goes for the speaking in a group setting such as the online lecture: one hears one's voice and becomes too much aware of one's tone and flaws. Friesen points out that the telecommunication software used for lectures made students and staff very much aware of their bodily presence as translated on the screen: their voices, their faces, their gesticulations became visible. As stated above, to avoid this self-awareness, many students preferred to turn off their cameras and hide. For the lecturers, however, this self-effacing was not possible. The lecturer could only speak and let oneself be seen, no matter how uncomfortable. Lecturing online seemed to be a one-way communication between alienated and self-aware parties, in which everyone felt an isolated individual, while group reactions were invisible. Students became even less responsive than in the face to face lecturing.

Giving seminars with a videoconferencing app posed similar difficulties as in the case of lecturing and introduced the new gesture of splitting students into groups. In a face-to-face seminar, the students are supposed to be active and engaged; to foster these activities, usually students are asked to split into smaller groups and thus they get to choose whom to work with. However, with platforms such as Zoom or Canvas collaborate, students are split into groups decided by the teacher's preferences or the algorithm's whims. The splitting and then later re-joining of groups gave teachers a kind of despotic power over the seminar: students could not choose where to go, and, if they wanted to continue the discussion longer they had no option, they were forced to discontinue once the sub-group was dissolved. The videoconferencing platforms introduced constraints that could not be bypassed. While time is always negotiable in a face-to-face seminar, as people can be late or continue discussing even after they are told not to, in the digital environment time divisions were strictly followed. Students are atomised and de-individualised by these platforms. Online, every student is a name or a nickname, something which can be manipulated by the moderator of the discussion. The right to speak can be taken away by muting remotely the student's microphones. This control introduced by technology could be perceived as a form of violence, while the student's reactions to close off their cameras shows a form of resistance. With a limited range of possibilities, students used the only freedom that they had left: that of refusing to make their presence seen.

Videoconferencing apps added at least three new kinds of gestures into the study practice of the lecture: gestures which introduce a distance, gestures of disclosure, and gestures of immediacy. Gestures of distancing were those that created a temporal distance between the student and the lecturer, for example emailing or typing in the chat instead of saying out loud the question. On screen, the lecturer seemed further away than in the classroom and many students preferred to not ask questions at all. Gestures of disclosure were those expressing the willingness to talk to others, to engage in creating meaning with others inter-subjectively. Turning off one's microphone or camera are gestures of hiding and distancing, whereas turning these on signalled to others one's presence and willingness to engage. These can be also gestures of resistance to the authority given by the technology: not letting oneself be seen is the ultimate form of resisting the manipulation of one's digital presence by moderators. Other gestures of disclosure were the sharing of one's screen, letting others see how one's private desktop looks like – the icons, the files opened, all the extensions of one's digital self. Gestures of immediacy are the opposites of distancing gestures: these bring closer some piece of content, but also the persons one interacts with. Searching online for information related to the lecture or translating unknown words are both gestures of bringing closer the information talked about. However, these options usually by-pass thinking, because these provide the students with an immediate answer to their questions. Searching online was available also for students who took notes on a laptop in the lecture, but the quick pace of the lecture and the attention demanded

by the event made it a less of a viable option. Meanwhile, the screen introduces a distance between the lecturer and the students which can hardly be bridged by gestures. Students become bored faster in videoconferenced lecture and they will tend to keep themselves busy with something else, such as searching online for information. But since the lecture is not about giving them information, the students use these online searches for more information to distract themselves from the difficult task of thinking with the lecturer about the matter at hand, here and now.

In principle, studying could be possible with videoconferencing apps, but only as an individual form of study. Videoconferencing apps individualise students: each student is perceived as a username and a square picture on the screen. The collective feeling of a lecture hall is lost and cannot be retrieved neither for the lecturer nor for the students. From these observations, it seems that digital screens cannot (yet) replicate any of the experiential feeling of a collective audience and hence of a collective experience of thinking. While videoconferencing apps used for lecturing and seminars give rise to their own range of gestures, these gestures are not needed for studying but rather were adopted as ways of adapting to the technological constraints of the apps.

On the possibility of a digital university

The previous sections investigated MOOCs and videoconferencing apps as possible instantiations of the digital online university. I focused particularly on the practice of lecturing and asked whether it was still possible via the digital screen. I did not look into experiences of academic writing because the digital screen has been used by students for writing purposes for a long time now. Most students already write their dissertations and assignments on laptops and many use digital devices to take notes in class. Academic writing with digital screens can be a study experience because the current text processing apps allow easily for gestures of disassembling, assembling and interlacing through the copy and paste, editing and track changes functions. Hence it seems that digital academic writing does not pose a big challenge to studying digitally as lecturing does, but this may be due to the fact that students do get live feedback on their writing at some point from their instructors – which was also a key element of why the bMOOC functioned as an educational experience. Meanwhile, lecturing loses a lot because digital tools cannot render the collective feeling of the lecture with the experience of shared attention and, ultimately, of thinking together. Thus, my main point in this section is that, while *individual* studying experience are possible with a digital screen, *collective* study experiences are not (yet). However, a digital university needs to foster collective thinking experiences, since these are the signature of university studying.

Thinking is experienced as an expansion of the limits of one's understanding. When we think, new worlds open to us, new objects appear in the foreground, new sensory perceptions – as if our attention is suddenly enlarged. Thinking is made possible by devoting one's attention to something seemingly familiar in order to make it strange again. As shown by Xavier de Maistre's novels *Voyage around my room* (1794) and *Nocturnal Expedition Around My Room* (1825), one does not need to leave home to have an experience of thinking, if one manages to refocus one's attention. De Maistre was confined to house arrest for almost a month and he used this time to examine the room in which he was living. Although he was writing about the room, he was in fact recalling memories stirred by objects around him and then reflecting on these memories in writing. This anecdotal example is meant to show that it is possible to initiate thinking even if one does not seek external stimuli, by choosing to examine every object carefully, giving them the gift of attention. Similarly, in his the *Meditations on First Philosophy* (1641), Descartes begins by sitting alone in a room, choosing to devote his full attention to a problem. This act of devoting one's attention can happen individually, by one's own volition.

By comparison with individual thinking, university thinking can happen equally by revisiting the old experiences, the same concepts and ideas, but also through learning about new things. However, it is the collective focus of attention that marks the uniqueness of university thinking. At the university, the experience of expanding one's individual understanding is facilitated through moments of collective study. The thinking is experienced individually, but the set-up is one of collective study. When studying individually, we decide what to think about, by choosing what to focus our attention on. By contrast, when engaged in collective study practices – such as lecturing or seminars - we focus our attention on issues which we would not have normally chosen, and thus these things demand to be thought with a force of their own. Perhaps one of the reasons why lecturing has such a bad reputation lately is because it forces us to do something which we would not choose ourselves. In the lecture, we are asked to let go of individual agency in order to allow for the collective study experience to emerge, by focusing our attention on what is offered to us. This ethos of collective attention may seem to be at odds with our modern preferences for individual choice and auto-determination. But the collective focus of attention yields more powerful experiences than the mere individual self-disciplining of attention. When the entire room is attentive to one issue, one's own attention is drawn to it like a magnet; this kind of experience cannot be replicated by the lonely studier reading on her own and it is qualitatively different. The experience of collectively focused attention is worthy of being pursued on its own since it increases our range of experiences of attentiveness, thus it is an educational experience of experiencing potentiality in a different way.

Collective experiences of university thinking are shaped by certain practices with media, but are not dependent on one medium. Rather, the effect of media needs to be silenced so that thinking can emerge. As described by Flusser, every medium imposes a mode of consciousness on the

thinking subject (be it imagination, conceptualisation, techno-imagination), but thinking emerges when we can transcend that mode of consciousness, engaging in 'transcoding' (Flusser 2011, p. 15). Transcoding entails switching from a code to another, alternating back and forth between different languages or codes until the message reveals itself freed from idiosyncrasies of the code. I was inspired by Flusser's transcoding to propose the idea of neutralising media with other media such that the matter at hand allows itself to be thought and captures one's attention. Thinking needs gestures to be enacted and those gestures need a mediatic support of some kind, be it words, images, letters, movies, clay, paint, photographs, screens. The structure of the medium needs to be bypassed with the help of another medium so that thinking can emerge. I have called *mediatic displacement* this procedure of cancelling the effect of a medium through another medium through successive transcodings back and forth. Mediatic displacement achieves a suspension and placing at a distance of something already embedded and structured by codes.

Mediatic displacement requires a particular ethos of attention from those attending the university. The students and lecturer have to be present and attentive. Without the collective focus of attention, there is no collective study. Students who are checking their phones while being in the lecture hall are not really studying, but removing themselves from the consuming demands for attention entailed in lecturing as a study practice. If all students checked their phones during the lecture, that would be disastrous because the collective gesture of the lecture could not be completed since one half would be missing. One cannot enact a university without the students' agreement to suspend their particular preferences in order to be able to look at something together. This act of coming together to think and to pay attention is very hard to achieve when mediated by a digital screen.

The bMOOC showed that it can give rise to instances of individual study and individual thinking experiences through a screen. After all, when students were uploading contributions on the bMOOC, they were sitting alone behing their screens. But for the educational experience to emerge fully, the bMOOC needed to be brought back into the classroom, thus displacing the screen. The bMOOC returned to the classroom the digital artefacts made by the students and subjected them to discussion. Through this move, the screen became an object of study, scrutinised collectively and displaced collectively. For this kind of displacement to work, the digital artefact had to be transposed in a space where it could be discussed and ignored. Thus, the bMOOC had two distinct parts: what students did at home, mediated entirely by the screen, and what they did after gathering in the classroom, while speaking about their screen experiences. The bMOOC became a collective study practice only once it was discussed and presented in a classroom setting, because it could be bracketed by the discussion taking place in the classroom. However, if the discussion would have taken place online entirely, then students could not have ignored the habits and behaviours demanded by the screen.

During the Corona pandemic, we were forced to interact with each other as online users and attempt to make gestures of studying with our screens. However, collective attention was almost impossible to elicit via videoconferencing apps. The university brought fully online failed to give rise to collective gestures and to moments of collective thinking because we do not know yet how to displace the screen when the screen is the only source of knowledge and access to the other's presence. The promise of the digital university seems to be still a vision for the future to come because we do not know how to enact entirely on a screen the sensory settings and the collective attention focusing techniques of the classical university. The screen seems impossible to be displaced individually because it is one medium which absorbs the user's attention, channelling it relentlessly. Meanwhile, collective displacement of the screen without the actors being in the same room seems equally hard to conceive. A digital university cannot happen after a few experiments with commercial apps and software, it needs to be designed for carefully, with gestures of mediatic displacement designed into the user interfaces, interlaced as well with moments of genuine collective presence of the actors in the same space. Until we manage to create this hybrid set-up, what we have for the moment are just instances of a hastily transposed university online, giving rise to alienating experiences at worst, boredom at best.

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Conclusions/ Backmatter

This book proposes a philosophical exploration of the educational role of media in university study practices, towards understanding what is at stake in the transition to a digital university. Are the media employed in university educational practices mere accessories, or constitutive of these practices? I confined this question to the issue of media configurations - hence refusing a kind of media determinism which would have attributed one medium to the university - which then was tackled by looking at gestures with media and their sensory configurations. I then proposed the hypothesis of mediatic displacement, as something achieved by university study gestures. In mediatic displacement, the effect of one medium is cancelled by using another one and, through a series of transcoding movements, an educational suspension of media is enacted so that thinking can emerge. Thus, my proposal for a media configuration characteristic for the university is this movement of rendering inoperative one media through another. The stake of mediatic displacement is a movement of profanation of media, which I traced back to the previous work of Illich on the medieval university. Following Masschelein and Simons, I take profanation to be a signature of university study, part of its fundamental ethos. To think about a matter at hand, we need to be able to step back from its influence, and untie it from its rituals and sources of authority. But we also need to be careful to step back from the influence that media might have on our experience of thinking. The profanation movement is doubled by mediatic displacement: with profanation, we refuse the authority of things and place them in a setting that allows them to be studied as such. With mediatic displacement, we refuse the logic embedded in each media, thus bypassing the modes of consciousness encoded in the media and focusing our attention on the matter at hand.

The digital screen needs to be displaced so that thinking can emerge at the digital university. Digital technologies do not have anything magical about them. At least in theory, mediatic displacement should be feasible even within the digital realm. However, digital technologies are still relatively new and we are not used to playing with them. There is also a possibility that digital screens do not allow playing with in principle. In common parlance, to play with a screen is usually understood as gaming: to play within the screen, by performing certain operations allowed by the algorithms and the user interfaces. Such game-playing is not playful in any way, since the users are expected to know the rules of the gaming interfaces, and to have sufficient skills to perform well enough. Meanwhile, in an Agambenian understanding of play as profanation, to play with the screen would precisely entail surpassing its afforded interactions and do something different with it, something unexpected. Yet a digital screen which is deactivated is nothing more than a black square, a dead weight.

The university shaped its study practices throughout the centuries by playing with different media configurations, often re-using old media to make new forms of thought possible. Mediatic displacement was not there from the beginning; it took time until the right gestures were embedded in study practices. Briefly put, the digital practices at the university did not yet have this luxury of time to experiment with mediatic displacement in different ways. The one optimistic example that I presented here, namely the bMOOC, took two years to be developed and had the advantage that the media question was a starting point for its initiators. Similar digital practices can be explored and will probably be found in the future. However, current plans for moving the university fully online - by adapting existing digital technologies and slightly tweaking them - are ignoring the complex media configurations needed to elicit thinking while studying. The Corona pandemic and its aftermath placed many universities in a crisis by forcing them to use telecommunications means to render educational experiences. The failed lectures and tutorials speak to the need to design educational technologies purposefully, with a clear idea of what study practices entail - as gestures and media experiences - and what kind of experiences of thinking we would like to foster at the university. Future research into media technologies could start by looking at how to displace the video format, by making it less immersive, and by experimenting with making the digitally mediated sensations shift one's loci of attention. Such ways of displacing the screen are not inconceivable, but we need more experimental set-ups and more empirical research. Furthermore, the concept of mediatic displacement needs to be operationalised empirically so that it can be experimented with.

The rich history of the university, spanning over 800 years, shows that new practices of study are conceivable, and perhaps the digital university can bring to light such practices by using new media configurations. But to achieve studying and thinking in an online university, we need to start with the media question as the bedrock. The digital online university is a genuine possibility provided that we design it from scratch, with care for collective as well as individual study practices and their media configurations.