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Page, text and screen in the university: Revisiting the Illich hypothesis

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ABSTRACT

In the age of web 2.0, the university is constantly challenged to re-adapt its 'old-fashioned' pedagogies to the new possibilities opened up by digital technologies. This article proposes a rethinking of the relation between university and (digital) technologies by focusing not on how technologies function in the university, but on their constituting a meta-condition for the existence of the university pedagogy of inquiry. Following Ivan Illich's idea that textual technologies played a crucial role in the inception of the university, we will first show the structural similarities between university thinking and the text as a profanation of the book. Secondly, we describe university thinking as a type of critical thinking based on the materiality of the text-on-the-page, explaining why the text has been at the centre of university pedagogy since the beginning. In the third part, we show how Illich came to see the end of the culture of the text as a challenge for the university, by describing the new features of the text-as-code incompatible with the idea of reading as study. Finally, we challenge this pessimistic reading of Illich's and end with a call for a profanatory pedagogy of digital technologies that could mirror the revolutionary thinking behind the mediaeval invention of the text.

KEYWORDS

University; text; screen; Ivan Illich; profanation; digital technologies

Does the 'age of the screen' spell the end of the university as we knew it? With this question, Ivan Illich ended his keynote address titled *Text and University* (Illich, 1991b) given at the Bremen University's 20th anniversary. Perhaps Illich's question might appear strange nowadays. Why should screens and the digital technologies that these stand for be a threat for the university at all? At a time when computers and other digital technologies were just beginning to have a wider impact on the everyday life, Illich was expressing his concern about their influence on the future of our universities and on the larger culture of the text. Illich was speaking at a point in time when computers were still strange new things. By experiencing first-hand this strangeness of computational devices, mostly through their interfaces or screens, Illich had the opportunity to observe the effect of personal computers on his own thinking. Nowadays, we have lost that point of observation, as we live immersed in digital technologies and surrounded by screens. Illich's later writings help us regain a certain distance from what we take for granted, namely the culture of digital technologies.

This paper will show how the question of university's future in the digital age formulated by Illich is still relevant for us today. The aims of this paper are theoretical in nature. We do not want to describe how digital technologies are being used in current universities. Instead of entering into the

rich debate concerning the limits and opportunities of particular digital technologies for shaping different university pedagogies (Garrison, 2011; Laurillard, 2002; Selingo, 2013; Selwyn, 2014), this paper will take a different approach and try to show how the culture of the text-as-page, as the prevailing culture in the last 800 years, constituted a meta-condition for the existence of a university pedagogy of critical inquiry. As this text-dominated culture is approaching its end, another culture is rising as its replacement—the digital culture or the culture of ‘the screen’ as Illich had called it. Can universities function at all in this new culture? We will try to give an answer to this question by dividing the paper into three sections: first, we will show how the university’s beginnings in the twelfth century are linked to certain innovations in reading and writing technologies; secondly, we will show how these changes made possible a new way of thinking which we might call a ‘university thinking’ and, related to it, the university pedagogies of inquiry; third, we will describe the current digital culture as a challenge to the old textual culture and, hence, how this constitutes a challenge for the university.

1. The university beginnings and the invention of the text

1.1. The ‘Illich Hypothesis’

Ivan Illich is not usually known as a ‘university scholar’. Higher education appeared briefly in his well-known book *Deschooling Society* (1971), positioned at the apex of the hierarchical and corrupting system of institutionalised school, but otherwise he was not interested in this topic. In the later part of his life Illich shifted his interests towards the history of ‘writeability’ (*Schriftlichkeitsgeschichte*) in the Middle Ages. This is when he re-encountered the university almost by accident. Now the university appeared to him not as a corrupting institution, but rather in the purer form of gatherings between masters and students in the Middle Ages. Illich disliked academic institutions though he lived and taught in them, yet in the Bremen lecture he made a nostalgic reverence to the first universities. The widespread success of *Deschooling* had the unfortunate effect of shadowing Illich’s later scholarly work, including his reflections on technology and universities. In this article, we want to bring back the public attention Illich’s insights which can help us develop a new understanding of the university’s digital challenges today.

The ‘Illich hypothesis’ starts from the observation that the first universities appeared in twelfth century Europe at the same time when innovations in writing and reading were occurring:

the university, 800 years ago, grew strong on the tree of the *artes*, as a new branch. I will insist that this innovation was tethered to a technical breakthrough that is generally overlooked by both historians of culture and those of technology. The historically important technique is that of creating texts that can be read at a glance. (Illich, 1991b, p. 2)

From this connection with the technological revolution in writing, it follows for Illich that the primary mission of the university since its beginnings, was to take care of the text: ‘As the monastery had been the world for the culture of the sacred book, the university came into existence as the institutional framework and symbolic tutor for the new bookish text’ (Illich, 1993, p. 118). The ‘Illich hypothesis’ outlines a complex relation between text and university which cannot be reduced to simple causation, nor temporal simultaneity. Although Illich himself was unclear on the nature of this relation, we think that there are elements in Illich’s work which, further elaborated, can lead us to understand this relation as co-constitutive.

In order to understand the assumptions of the Illich hypothesis, we must first look at the kind of history Illich was working in. Many established scholars working on the history of the universities usually attribute the rise of the universities to a complex of political, religious, and economic factors specific to the Middle Ages (Cobban, 1975; Rüegg & Ridder-Symoens, 1992–2011; Verger, 1997). The ideas of Illich do not challenge this scholarship as such, but rather propose an alternate view of the university inscribed in a larger history of the senses which opens up new possibilities of dividing history, thus echoing the genealogical tradition of Foucault, including the focus on the history of spiritual discipline and the body (Foucault, 1978, p. 148).

1.2. *The changes in textual technologies around the twelfth century*

Illich traces the formation of the first universities to the historical period around the twelfth century when a sensory split between the ear and the eye occurred in Western Europe. This sensory split amounts to an ‘epistemic gap’ for Illich and is symbolised architecturally by the divorce between the monastic *scriptorium* and the academic *aula*. At the level of daily practices, the split can be discerned in the striking differences between monastic and scholastic ways of reading. Though contemporaries, the scholastic masters approached the written page in a very different way than their monastery counterparts.

Before we analyse what kind of connection Illich saw between the two events, we must explain first what was innovative about the texts readable ‘at a glance’ in the twelfth century. Reading in Europe before the twelfth century was practised mostly in monasteries which preserved the knowledge from Antiquity by copying the authoritative books in the *scriptorium*. In such a religious context, the practice of reading was an essential part of the monastic rituals of the care of the self, as reading was conceived mainly as a spiritual discipline, connected with meditation or prayer. The name for reading and prayer was the same: *lectio divina*, which implied knowing the word of God through bodily knowledge (Illich, 1993, p. 50).

From a sensory perspective, reading was an activity involving multiple senses such as hearing and touching:

The reader’s ears pay attention, and strain to catch what the reader’s mouth gives forth. In this manner the sequence of letters translates directly into body movements and patterns nerve impulses. The lines are a sound track picked up by the mouth and voiced by the reader for his own ear. By reading, the page is literally embodied, incorporated. (Illich, 1993, p. 54)

Most people would read to themselves out loud and only by hearing their own voices they could understand what they had just read. Reading out loud was necessary because, before the twelfth century, the words on the page were not yet separated by spaces and the eye could not distinguish the words as separate entities. Around the twelfth century, something changed, and reading became split into two different practices: the monastic reading (*lectio spiritualis*)—which continued the sensory practices inherited from *lectio divina*—and the scholastic reading.

1.3. *Scholastic reading: The eyes rule supreme*

Scholastic or ‘optical’ reading appeared after the gradual accumulation of certain innovations in writing which gave rise to a new layout of the page which was readable at a glance. Some of these innovations were slowly discovered in the course of several centuries—such as the separation of words through white spaces known already from the seventh century AD in Ireland but not yet adopted in continental Europe (Illich, 1993, p. 87), others were known from Antiquity—such as the cursive script—but had been forgotten and re-emerged in the twelfth century. Other innovations took form in the course of a century: the widespread usage of Latin alphabet for vernacular languages, using punctuation, chapter titles, footnotes, marking the words of the author differently from the words of the commentator, separating paragraphs, adding tables of contents and glossaries (Illich, 1991b, p. 5).

Whenever we pick up a page nowadays—be it handwritten or printed—we expect to be able to read immediately the text on it. But for the mediaeval reader, this was not the case. The history of the written page in the middle ages is too long and complicated to be summarised here, but suffice it to say that the written page in the mediaeval manuscripts was not legible at a glance. Around the twelfth century there were two prevailing types of writing: ‘book hand’—reserved for copying books such as the Bible, with big letters, interrupted strokes between each letter and leading to a very slow speed of writing; and Merovingian, a cursive script used for rapid taking notes in notarial contexts (Hajnal, 1952, p. 179). Neither of the two scripts was legible at a glance which required a voicing out loud during the reading.

During the twelfth century something changed and a new type of script emerged. Mediaeval palaeographers call it ‘modified Carolingian cursive’ or ‘Gothic minuscule’ but, since it appeared first only in university contexts, we think the name ‘university script’ would be more appropriate. This new

script bears distinctive features: the letters have round shapes, but are written separately as in a staccato movement, joined by very fine lines. This 'pearl-like' (Hajnal, 1952) script is so beautiful and symmetric that it resembles strikingly the not yet invented printed page (Illich, 1991b, p. 8). This is one of the most innovative theses advanced by Illich in the Bremen lecture: that the university invented the text as a legible layout at least 200 years before Gutenberg's first printed page, thus going directly against McLuhan's intuition that the specific university culture of 'abstract visuality' (McLuhan, 1971, p. 112) was formed only after the invention of the printing press (Illich, 1991b, p. 8).

The new university script ushered in a new era for reading and modified the ways humans approached books for centuries. This new way of reading was named by Illich 'bookish reading' with a term borrowed from George Steiner (Steiner, 1988, p. 754). Bookish reading has several major features: it is done with the eyes alone, it is silent, presupposes a certain page layout which allows seeing 'the text at a glance' and is done non-linearly—one can start reading the page at any point, indifferent to the order dictated by the author:

Bookishness is a historical singularity, a mental climate which results from a unique coincidence of technique, ideology and social texture. It depends on the possibility to own books, to read them in silence, to discuss them *ad libitum* in echo chambers like academies or coffee shops or periodicals. (Illich, 1991a, p. 191)

We must be careful at this point not to confuse optical reading with merely silent reading. Silent reading had been encountered before the twelfth century, albeit sporadically. Illich is aware of this, as he reminds us of the famous testimony of Augustine's amazement when seeing Ambrose reading in silence (Augustine, 2003, § 6.3). Illich explains that the very amazement of Augustine is proof enough of the exceptionality of silent reading as a practice. Silent reading became more popular after the twelfth century, but it was only one change in the larger constellation of shifting practices conducive to optical reading and ultimately to the invention of the university text.

Prior to the twelfth century scholastic reading, the mainstream practice of reading in the monasteries involved all the senses: 'The reader moves through the line as through an orchard, picking the words, sampling and tasting them. Page-by-page progress through a book is understood as a journey, a pilgrimage.' (Illich, 1991b, p. 4) But this implies that the reader could not take the necessary distance from the text; without this distance, neither analysis nor emotional detachment from the book was easy. Simply put, to read something was to believe it: 'reading was understood as a work of *oboediencia*, of obedient listening to the sound of wisdom descending from the past' (Illich, 1991b, p. 7).

Optical reading made possible a 'somatic' shift in the senses which privileged the eye above the ear and the other senses (Illich, 1991b, p. 9). The transition from a fully sensory activity to reading-with-eyes-alone paved the way for reading to become a critical and analytical task, as 'the page was suddenly transformed from a score for pious mumblers into an optically organised text for logical thinkers' (Illich, 1993, p. 2). Only after the scholars started to approach the page through eyes alone could the text be ready for analysis. Here, Illich follows the classical trope of connecting visuality with the intellect. This is a very old connection, as Derrida reminds us, even from the age of Aristotle knowledge was associated to the sight (Derrida, 1983, p. 4).

2. University thinking as profanation of the page

2.1. Text as a new layout

Not only was the new 'university script' very legible, it was also accompanied by a more visual arrangement of words on the page, altogether a new layout of the text on the page was invented. For example instead of the commentaries being written with smaller letters between the lines of the authoritative text, now the commentaries were placed in marginal notes. The text was broken into paragraphs, sections received a title, and an index was added at the end so that the readers may find the relevant bits with ease:

By the early thirteenth century a terse sequence of glosses at the beginning of each chapter gathers the argument which will be treated. These arguments are put into a numerical sequence, *prima causa, secunda... quinta*. Standard rhetorical questions, like punctuation, precede the conclusion of each argument. These questions are 'marked' by a formula which frequently begins with *obicitur*, which means 'one might object.' An *auctoritas*, a quote or 'straw man'

expresses doubt about the author's just-treated *argumentum*, and gives the author a chance to clarify his point of view with a *responsio*, his answer. These signs are highlighted on the page by special colors. The reader immediately recognizes where the tempter or *adversarius* has been given his say. (Illich, 1993, p. 99)

The new layout imposed a new order of the words on the page which made it possible to see at a glance the arguments, the opposing sides, and also to jump with the eyes in the text and read in a non-linear fashion. This new layout coincides with the invention of the text as an entity separate from the material page, thinks Illich: '[t]his new bookish text did have material existence, but it was not the existence of ordinary things: it was literally neither here nor there. Only its shadow appeared on the page of this or that concrete book' (Illich, 1993, p. 119).

Another novel feature of the text pointed out first by Illich was **the map-like character of information which made it accessible from different entry points**, Illich had no name for this essential feature of the text, but later Vandendorpe calls it 'tabularity' while also emphasising the contribution of Illich to its discovery. 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). Tabularity breaks with the linear order imposed by the author, because now the text can be read from multiple access points. Headings, chapter titles, footnotes and tables of contents allow us to start reading the text at a point chosen by us, while still understanding the text. This non-linear reading allowed the reader to take a certain distance from the text which also created the necessary space for analysis.

Text, as a visual-friendly layout, was invented by university masters, such as Aquinas, while they were composing lecture notes to be read to their students (Illich, 1993, p. 91). It is not the case that monastery copyists while transcribing the authoritative works stumbled upon this layout. Rather the university masters, while preparing their lecture notes, found it easier to teach and to explain by modifying the order of the text and inserting their own comments: 'It is scholarship that brings forward the art of script and not vice-versa' (Hajnal, 1952, p. 183). The need for teaching led to the need for clarity of exposure which led to the invention of the text as a visual layout. Students from the twelfth century were still listening to their master reading a text; in the thirteenth century the structure of the argument became so complex that the students needed to read the argument for understanding: 'To be able to follow the complex Gothic *ordinatio*, a student simply needs an optical crutch, which he finds in the architecture of the book in front of his eyes' (Illich, 1991b, p. 7). In a mutual process of co-determination, the clarity of the layout led to more sophisticated arguments which required even more legibility. The text became indispensable for teaching and studying (Illich, 1993, p. 91).

2.2. University thinking and the mechanism of profanation

In the current debates about the mission of the university, an idea is recurrent: that the task of critique is specific to the university, the distinguishing feature from other institutions (Loughead & McLaren, 2015, p. 81; Barnett, 1997). This prevailing idea may have its roots in the twelfth century when the university staged an overthrowing of the reading-as-prayer in favour of optical reading through the invention of the bookish text. We will explain next what are the structural links between text as 'profanation' of the book through spatialisation and critical thinking at the university.

The book is no longer sacred for the university reader and this amounts to a 'profanation' of the book through the text, as argued by Masschelein and Simons who use Agamben's definition of profanation as 'to return them [the sacred objects] to the free use of men' (Agamben, 2007, p. 73). The profanation movement is inherent to the university in its attempt to make things public: 'The invention of the readable text allows words to become disconnected from a particular usage by a particular group, and, in that sense, they are no longer "sacred"' (Masschelein & Simons, 2013, p. 109). Using the text as an instrument of study, by analysing, commenting and dissecting the authoritative texts, the university brought the book down from its pedestal and freed it from its 'sacred name'.

This movement of profanation was specific to the university and remained confined to its walls for centuries while outside the university life people were still approaching the written page in non-analytical ways: in monasteries they continued to worship the sacred books, whereas the laity enjoyed the

literary works through public readings up until the middle of the fourteenth century (Coleman, 2005). This is why the university needed to create its own textual genres such as the lecture outlines, or the *summae*, or to appropriate and transform others such as the *questio* (MacIntyre, 2009, p. 63). These genres were intended neither for literary enjoyment nor for devout prayer, but for elaborating systematic commentaries on authoritative texts (MacIntyre, 2009, p. 63). These types of text required from the reader to ‘profanate’ the written page: one was expected to analyse the text, memorise it, understand it, and then use bits of these texts in constructing arguments in public disputes. The instrumental use of the text had become the norm in the universities.

The invention of the optical text made possible a non-linear reading which gave rise to a new kind of thinking which we may call critical or profanatory. Being able to read a text starting from any point implied that readers could purposefully subvert the order intended by the author, projecting their own order on the text. The book used to be an object of adoration and unconditional belief, pointing only to itself, as it needed no other authority to stand on for unconditional belief. By contrast, the bookish text became an instrument used in the universities for building arguments in order to advance one’s own thoughts, regardless of the author’s intentions. Implicit in the operation of study is changing one’s relation to the world; this implies a stepping back from the world and finding a medium through which to analyse it. The text acts as a pointer to the world, as it stands in reference to something outside it. Text provided a means to take distance from the world while also making possible its study.¹

Through the bookish text, the university opened up a new epistemic space populated by universals, ruled by dialectics, and best captured by the genres of lecture outlines, *summae*, *questia* and comments on authoritative texts. We could name this the space of ‘university thinking’. Illich himself does not really stress the relation between the emergence of the university and a new way of thinking, although, we argue, this is a direct consequence of his hypothesis. Thinking was for Illich inextricably connected to literacy. He defines it in at least two places either as a materialised ‘process of abstraction’ (Illich, 1993, p. 120) or as imagining written symbols: ‘thinking for her is a way of silently spelling things out’ (Illich, 1991a, p. 206). A new kind of thinking is implied in each step of abstraction entailed by the text, characterised by a new ‘mental topology’ (Illich, 1993, p. 120) and a new relation to the world posited by the student’s attitude. This new type of thinking can be called ‘critical’ without being anachronistic. Following Foucault, we understand critical thinking as an ‘act that posits a subject and an object’ (Foucault, 1994, p. 459) as well as something in between the two, a ‘mediating’ third. In our case, the text creates a space between the student and the world. The text represents the world into a linear form which can now be discussed, commented and analysed, hence an object of study.

In line with Illich’s hypothesis, we could argue that every time students and masters gather around a text it in order to think with it about something external, a *universitas* is enacted. This gathering around the text has certain fixed elements that help us differentiate the university from a book club or other forms of intellectual gathering: the text is at the centre of the gathering—spoken of or read directly – the gathering happens in certain spatial configurations meant to focus the attention on the speaker (such as the lecture-setting or the seminar), a book is at the centre of the gathering, yet the book is never taken for granted as an authority, rather ‘profanated’ through the text and used as an instrument for thinking with.

3. The university in the age of the screen

3.1. The ‘new’ text as code

For Illich, the story of the text has a beginning and an end. The beginning starts in the twelfth century with the new layout invented by university masters while preparing their lecture notes. The invention of the text-as-code is the second major revolution in the history of the text, in the second part of the twentieth century. Illich traces this change to a point in time when geneticists started comparing the sequences of DNA with the letters of the alphabet and named these compounds ‘texts’. Upon hearing it for the first time, Illich was appalled by this new usage:

these biologists used 'text' for a sequence of characters which no one had written, no one was meant to understand, no one was meant to interpret. They spoke of 'writing' and 'reading' as functions performed by things, not by people. (Illich, 1991a, pp. 195, 196)

The text-as-code became the new paradigm of understanding what a text is in the twentieth century. This new text-as-code has acquired two original features that oppose it to its text-on-page step-brother: it closed itself from interpretation, and it lost its culturally privileged status.

The first feature of the code, disturbing in Illich's view, is that it can exist without addressing someone, without speaking to a person: 'The new "text" has no meaning, no sense, and no author; it is conceived of as a command sequence, and upsets the meaning of reading' (Illich, 1993, p. 118). Codes are the ways in which machines interact in the absence of persons. Both the genetic code and the computer generated codes as scripts need no human readers because codes do not render intentions, only instructions. The operation of interpretation, hence hermeneutics, becomes useless for a code. The information as the sole content of a code becomes more important than the intention (if any) or the context of the writing. Inspired by Flusser, Illich calls this 'the dissolution of alphabetic technique into the miasma of communication' (Illich, 1993, p. 117), meaning that the text-as-code has replaced the classical meaning of the text and we came to believe that every sentence is primarily about communicating some content. This also implies that the main task of the university has shifted towards the management of information: 'The prevalent "language" in the aula is that of information' (Illich, 1995, p. 47).

The second puzzling feature of the new text is its decay as a metaphor. A civilisation for which the bookish page was the dominant metaphor through which the self and the world were represented for many centuries, now replaced it with the computational metaphor: 'The book has now ceased to be the root-metaphor of the age; the screen has taken its place' (Illich, 1993, p. 3). Today's screen is a 'paradigm' (Illich, 1995, p. 47) for a radically new way of being in the world triggered by the digital technologies. In itself, this metaphor could be harmless, but it happens that the 'screen' became the dominant metaphor of our culture, and this is making it hard for the old culture of the bookish text to survive: 'The screen, the medium, and "communication" have surreptitiously replaced the page, letters, and reading' (Illich, 1993, p. 1).

Nowadays, we can easily observe in the structure of web-pages a contemporary confirmation of Illich's idea that the page has been replaced by something else. The page, as a space filled in a particular way with horizontal lines of text (Vandendorpe, 2009, p. 137), is a fundamental arrangement that has shaped our way of thinking and visualising space since ancient time, as it used to be 'the spatial unity of perception, action, thought, and intentionality' (Serres, 2015, p. 22). Yet we can easily see that today the rendering of a text on a screen implies re-shaping its initial layout in order to present and transfer information. A web-page resizes in function of the screen-size, hence the lines can be longer or shorter unpredictably, the font-family is changed, and other unnecessary ornaments get lost in the 'translation' of the page on the screen. The digitisation of a page on the screen is an operation which starts from the premise that the text of a book can be reduced without remainder to the information it carries, while the design of the book was an unnecessary ornament. To transform a text into information means to neutralise its potential of meaning giving, while also changing reading into an operation of decoding. All information is true, formally speaking, hence, if we do not understand a text, then we only need to search for other information that might replace it. The first reflex of the modern reader is to search on Google when she does not understand something, rather than dwelling on the difficult text itself.

These particular features of the text-as-code lead us to conclude with Illich that bookishness, as a way of being in the world, has been lost. The bookish text was about materiality, about silent reading, but also about making people come together while reading, be it in a university or a coffee shop. This means that the kinds of human relations mediated through the written page are also lost. Illich is not alone in measuring the culture of the screen with the yardstick of the bookish culture. Other thinkers have also pointed out that the new relations made possible by digital texts are still of an 'uncharted complexity' (van Manen & Adams, 2009, pp. 20, 21). We do not yet know how to speak of the relations mediated by the text on the screen or whether reading as decoding of information can be conducive to another kind of relationality and also, perhaps, to another kind of thinking with the text.

3.2. *The screen as a symbol for the 'age of the systems'*

Illich sees 'the screen' not as a physical device connected to a computer, but primarily as a paradigm for several new ways of interacting with the text: first, text is translated into code; secondly, the text is removed—or 'interfaced'—from senses; third, the reading is reduced to searches for information, skipping lines and scrolling. The screen stands as a sign that we have entered the 'age of the systems'. If 'people derive both their self-image and their conception of society from their tools' (Illich & Cayley, 2005, p. 160), and the text was such a tool, then the main problem for Illich is that we now use a system to symbolise the world and self. The tool could be used for a purpose, it stood for the extension of a human organ, but the system envelops its user and turns her into an operator:

In order to use a tool, I have to be able to conceive myself as standing apart from the tool, which I can then take or leave, use or not use [...] This [distance] becomes a pure illusion when I create a macro in WordPerfect to organize my footnotes. As an operator, I become part of the system. (Illich & Cayley, 2005, pp. 157, 158)

The peculiar way in which texts appear to us currently is usually through a screen. This gives texts almost a spectral presence, the digital strings of letters are 'shapes on the screen, ghosts which appear and then vanish' (Illich, 1993, p. 118). These screen-shapes do not speak to the senses anymore, not in the same way as a paper page used to speak to its reader. Inspired by Illich, Agamben picks up this peculiar point in his book *The Fire and the Tale* and tries to explain why the page on the screen is not immaterial in itself, rather another kind of materiality. The essence of the screen is its being hidden from us, because we see a screen only when it is turned off or broken (Agamben, 2015, p. 123). The issue of materiality of the digital is too complex to be tackled here, and Illich did not have a specific answer on why is the digital less engaging for the senses than the paper. But he did have a clear idea of how different we behave in front of a screen than faced with a paper page. His most telling example is that of writing.

Writing on the screen is not a real writing because computers are not just some other kinds of typewriters. Illich experienced this when he tried to teach newbies how to write on a computer:

[t]he first function the newcomer must learn is 'DELETE.' I have observed how six people, all of them learned readers, reacted to their first encounter with the delete key: all were upset, two actually became sick. The disappearance of a blocked sentence, and the closing of the gap by an onrush of words, were experienced by each of them as something offensive. This is not how we forget, nor is the command 'RESTORE' an analog to how we remember. (Illich, 1991a, pp. 192, 193)

The computer trains its users to do certain mechanical actions, to respond to its functions in a certain way. The computer makes all of us functionaries who act with pre-programmed movements and gestures:

What I face [in front of a screen], what lies in front of me, is a flood of programmed arrangements that train me to select, retrieve, block, insert, delete, save, restore, merge, release and go to, to toggle on and off between files that are neither present nor absent. (Illich, 1991a, p. 193)

When we face a computer, we are becoming part of a system with its own logic of possible actions and reactions. Illich believed that we cannot be spontaneous in how we deal with the computer functions, we can only obey the flow of instructions. This is a gloomy vision concerning the status of the text in the university, yet must it spell the end of the university itself? We do not think so. Where Illich sees the end of an age and of the university with it, we see the promise of a new beginning.

3.3. *The end of the textual university as the beginning of the digital university*

It can be inferred from Illich's nostalgic tone that what bothered him about the 'age of the screens' is the decline of the culture of the book. The problem with the current age is that it renders the book powerless, thought Illich. Hence, to construct a university pedagogy around the book nowadays amounts to a harmless pedagogy, speaking only to the past. This is the main point where our views diverge from Illich's. Looking back at the examples provided by Illich himself, the invention of the text was already a profanation of the book through its instrumentalisation. To take the very words of the author—already conceived as an authority—and impose one's own order on them implies a certain lack of respect. The

text represented the instrumentalisation of a previously sacred object, the book, rendered useful for teaching and less authoritative. Following Agamben, to profane an object implies to use it in another way than it was first designated, for example to play with it: 'to profane means not simply to abolish and erase separations but to learn to put them to a new use, to play with them' (Agamben, 2007, p. 87). The game implied in the de-sacralisation of the book does not result in the book becoming trivial or risible. The profanated object is not destroyed, but opened to new meanings, however, these meanings are not static. Through profanation, all fixed meanings are suspended. The textualisation and fragmentation of the book in teaching renders its content less authoritative, making it an instrument for thinking.

The profanation is not possible if the object profaned was not sacred and authoritative in the first place. The book had to be important for the scholastic culture so that its profanation through teaching would work on it. We agree with Illich that the book is rendered harmless in our age, hence that its profanation while teaching is less powerful than it used to be the case in the last centuries. However, what Illich fails to recognise is that, nowadays, something else than the book has become sacred, hence in need of profanation: the screen itself. Taking the same logic that Illich had employed in describing the book as the dominant metaphor for 800 years, it follows that the screen, as the dominant metaphor of our time, is in need of the same treatment of profanation.

Almost a quarter of a century after Illich's lecture, digital technologies mediated by screens are omnipresent in daily university practices, yet the consequences of this presence cannot be described straightforwardly. On the one hand, the screen has been credited with significant changes in university pedagogies, reshaping student's relation with their university towards a more democratic engagement, or by changing student's relation with the content-matter, leading towards a multi-modal engagement. Nowadays, students do not only write text-based assignments, they also use blogs and wikis, making videos, creating themselves the content to be studied. Thus, it has been claimed that students are encouraged to participate more actively in their learning process through 'the development of opportunities for user-generated input to digital repositories, crowd-sourcing and social media' (Beetham & Sharpe, 2013, p. xvii). On the other hand, there is some scepticism about the radicalness of this change in pedagogical practices. For example, Diana Laurillard has showed that often digital technologies are used 'to support traditional modes of teaching' (Laurillard, 2007, pp. xv, xvi) by improving modes of delivery of content, but not really leading to a 'transformative' (Laurillard, 2007, pp. xv, xvi) pedagogy. Neil Selwyn agrees that digital technologies 'have not yet led to a widespread renewal of higher education' (Selwyn, 2014, p. 5). There is a lot of promise of change in digital technologies, but the extent to which this promise has been fulfilled varies from case to case. The interesting question for us concerns the terms in which the promise of change has been formulated.

Returning to Agamben's idea, the point of profanation is 'the liberation of that which remains captured and separated by means of apparatuses, in order to bring it back to a possible common use' (Agamben, 2009, p. 17). However, we must stress here that there is a distinction between the common and the democratic. It is undeniable that digital learning technologies have the potential to foster increased student participation but, as pointed out by Masschelein and Simons, 'making information, knowledge and expertise available is not the same as making something public' (Masschelein & Simons, 2015, p. 93). To make something public implies displacing it in order to make it visible. The mediaeval university's profanation of the book was enacted through a displacement of the linear writing from the book into a tabular text. Once the linear media was displaced, something new was made visible, hence thinkable. Only after having profanated the book, the text had the power to gather around it students and masters, to turn them into a community of thinkers, a *universitas magistrorum et scholarium*.

Both the prophets of pedagogical change via digital technologies and its detractors seem to agree on the assumption that the question of digital technologies in the university concerns the proper use, be it efficient or innovative. However, profanation is not about the use of a technology, rather about exposing the technology itself as a matter of concern. The central question of a profanatory digital pedagogy is how to render the screen itself visible in order to pose it as the starting point for a new kind of thinking. For example, instead of asking: 'what can we do in the classroom with this screen?', one could ask 'what does the screen allow us to do and how does it constrain our actions and

thoughts?' Taking this question as a starting point, one could continue asking: 'how can we displace the screen in order to make it work in a different way, bypassing its inherent logic?' From this point on, the improper use of the screen would become a central concern, leading to new ways of seeing and thinking with the screen.

The argument presented in this article does not claim that there are not yet profanatory pedagogies of the digital, on the contrary, such pedagogies are already developed or envisioned by educational theorists (Lewin & Lundie, 2016). The authors of this article want to plead for a different way of conceptualising 'the screen' and its current doings in the university. Instead of asking the question of efficiency, or the question of how to better use the screen for our pre-existing purposes, we argue, inspired by Illich, that we could also ask about the profanatory potential of 'the screen' and, perhaps, by starting from this question we could develop new pedagogies, or reframe the revolutionary potential of already existing university pedagogies into something new, something that one could truly call a 'digital university'.

Conclusion

Illich's argument traced the inception of the university to a profanation of the book, enacted by the linear writing displaced into the tabular text. The text emerged as something new, a playful remediation of the linear writing, and this gave it the potential to gather a community of students and masters around it, forming the first universities. Now that the screen is the dominant metaphor of our times, the screen itself stands in need of profanation and displacement. This article has pleaded for a re-thinking of the profanatory potential of digital technologies starting from Illich's ideas concerning the text as a technology. Probably that there are already profanatory pedagogies of the digital in many contemporary universities, but the trending concern for effectiveness and proper use of technology hinders us from conceptualising these pedagogies in a new light. By bringing to light what is at stake in the profanation of a technology, we tried to show how Illich gives us new conceptual tools and a new vocabulary to deal with the impending digitisation of our universities.

Note

1. One could object that the text was not the only device needed for study in the early universities. For example, in the anatomy lecture, a body was needed to be an object of study. However, the anatomy lectures in the mediaeval universities were based on authoritative texts by Galen and Aristotle, because actual dissections were rare events, more like shows for a general audience outside the university. Only later, in the early sixteenth century, did the actual dissections start to challenge the medical corpus of texts (Friesen & Roth, 2014, p. 1115)—as illustrated by the work of Andreas Vesalius—but, for the early mediaeval scholars, medicine was a text-based discipline just as much as law or theology.

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