Main Features in the Concept of Digital Bildung

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Abstract
The question of this paper is how we can understand the concept of Bildung in the time of digital media seen from a Klafkian perspective. It draws on Klafki (2014) by extrapolating what he suggest is the main features of Bildung, answering six questions: how can education 1. Foster persons who can improve the world? 2 Cultivate the capability to self-guidance, co-guidance and solidarity? 3. Secure that everybody get equality of chances of Bildung? 4. That everybody learn to address epochal key problems? 5. Develop all-round (versatile) interests? 6. Learn general skills and habits? These six features of Bildung are then discussed in regard to digital media. We do this by relating the Klafkian concept of Bildung to (1) a general theory about how schools seem to respond to the new digital challenges and possibilities. Our main point is that these responses can be divided into three waves, bringing about different levels of what we from a Klafkian perspective call *Digital Bildung*. (2) We relate the Klafkian concept of Bildung to an action research experiment called *Socio Media Education* (SME). In this research project we have worked together with teachers in an upper secondary school-class, aiming at moving from *wave one* to *wave two* and from *wave two* to *wave three*. In this paper we analyse to which degree the Socio Media Experiment provides *Digital Bildung* in the Klafkian sense we develop.

Introduction

The aim of this paper is to analyse if a special form of media education or pedagogic provides a possibility space, where students can form a kind of Bildung that empower them to take part in a society, which is forming its structures on a digital infrastructure, in a good and constructive way. The key concept of the paper is *Digital Bildung*, which is construed from the view of the German Bildung tradition. We will outline this view following six of Klafki's (2014) main features of a new common [algemeine] Bildung concept, which we through a redesign makes sensitive to the new societal situation provided by the digital media revolution. In our argumentation we also include theoretical insights from Kant (1888), Luhmann (2006), Rousseau (2007) and Biesta

(2006). Theoretically seen the six reworked main features of Bildung together define what the paper observes as digital Bildung.

First the paper shortly presents our general theory, which says that school responses to the new digital landscape can be divided into three successive waves. After this we present the Socio Media Education (SME) experiment that gave birth to the theory of the three waves. Thirdly each of the reworked main features of Digital Bildung is presented, discussed and confronted with empirical findings from the SME experiment. Finally we conclude on both the theoretically and empirically findings and discuss if and to which degree the SME media pedagogic contribute to Digital Bildung.

The theory of the three waves

We are living in a time of the digital revolution comparable to the time when the printing press altered the conditions for society and broad about the conditions making modern society possible. With the current digital revolution the societal conditions for all sectors are changed again. Also in the education system the conditions are changed. Many of its basic characteristics originate from the society that came about following the introduction of the printing press, for instance, centralized distributed textbooks, students in classrooms and the teacher as interpreter of the books. In a Bildung perspective this school system were created following the ideas of thinkers like Rousseau and Kant. Following Jacobsen (2016), while Locke and Voltaire moved the focus from religion to nature, Rousseau took it a step further to policy. For Rousseau (2007), man is born free and citizen's freedom is restricted only by the laws itself provide. Only when the people rule, it is free. The social contract generates a virtuous circle where citizens create and form the state, which in turn creates and shapes the citizen. In the extension of Rousseau's considerations, Kant's publicist principle is central. Kant (1888) notes that the general public has the potential to promote rationality. Participation in the general public cultivates the individual to free itself from the self-inflicted immaturity (Jacobsen 2016). If we see the culture formed as a public sphere produced by publicists, we can say that in the view of the enlightenment philosophers, we by taking part in the public sphere get the

ability to think autonomously and provide ourselves with Bildung. In the classroom the students are discussing with the wise teacher what the great authors have written, and in this way gain Bildung. Now the structuring of this education system is made antiquated because the communicative processes in the public sphere alter with the introduction of digital media. In the meantime the school system is not totally isolated from the rest of society why the digital revolution also washes over it. It is this transformation of the school system that we describe as happening through three waves.

In the first Internet wave the classrooms are opened up, meaning that the students get *access* to content, conversations, computer games, friends etc. from all over the world through the Internet. Before the Internet the walls around the classroom protected the educational system: "In order to minimise distraction from the outside world, the interaction takes place in closed spaces that are not publically accessible " (Luhmann 2006: 131). Since 2005 upper secondary schools in Denmark have been demanded by law to make use of information technology in all school subjects. Yet, there is no doubt that what we still 10 years after generally observe a huge drop in educational relevant attention (Mathiasen et al. 2014). Also we know that activity irrelevant to the educational purposes (e.g. responding to private messages) significantly harm grade, recalling of information and note taking (Kuznekoff et al. 2016). The teachers are facing huge difficulties in using the new media for educational purposes and either prohibit or ignore the use of digital media in this first phase of the Internet (Tække & Paulsen 2013; 2017). Both strategies – prohibition and ignorance - generally fails for several reasons, but first of all because the new problems with Internet-related distractions in the classroom come from a lack of norm building adequate with the new situations provided by the new communication space of digital media (ibid., Meyrowitz 1985). This means that we see a Bildung of students belonging to yesterday's medium environment. In the first wave we consequently do not observe an actualisation or realisation of a new and improved teaching, but a destabilised teaching with students trying to multitask between computer games or social media and the educational interaction with teachers that do not know what to do (Tække & Paulsen 2017).

The second wave arises when schools, teachers and students begin to make use of the possibilities of digital media for making better interaction between the students and the teachers. The teachers begin to use the new media to draw attention back to the classroom by using social media for written interaction monitored and guided by the teacher. The result is an intensified educational interaction where the attention is won back and more and new possibilities of *participation* arise. For instance it becomes possible for teachers to get answers from *all* the students simultaneously through the use of Twitter, instead of only hearing one voice at a time. Through the written interaction and shared documents more students are involved and engaged in the educational interaction (Tække & Paulsen 2013; 2015; 2016; 2017).

Despite the positive impact of the second wave it only consists of "more" and "better" interaction, not altering the classroom setting and the educational form radically. Teaching run more like a machine with monitoring of the students than like a form of education that makes a kind of Bildung possible that is suited to the new digital medium society. Yet *the third wave* – which is truly radical – is made possible by the digital literacy developed during the second wave (Tække & Paulsen 2017).

The third wave arises when other persons than the students and the teachers become part of the educational interaction through social media. When this happens on a regular basis it radically changes the form of the educational practise that has existed almost without alterations since the modern society came about, after the invention of the printing press. Instead of a closed system of interaction between teachers and students we now observe an open system of interaction, in which other persons outside the classroom participate and contribute. This provides new perspectives to the form of education. Now students meet persons with other perspectives, views and responses and the teacher becomes a 'mediator of otherness'. In this wave the teacher supports networks for educational proposes outside the classroom. Students connect to groups, other school classes, individuals and databases using the new medium environment as a natural part of their education. They are taking part in the

convergence culture (Jenkins 2008) doing *produsage* (Bruns 2008), learning to navigate and take part in the new society and its forms of production, networks, communications and cultures. The upshot is that teaching shift from being a *closed production* to an *open activity*, inviting many different people to participate. Instead of transmitting knowledge to the students the role of the teacher becomes to connect students with a relevant otherness and make knowledge production possible across borders and differences.

The SME-experiment

The empirical findings that the theory of the three waves build on comes from the action research project *The Socio Media Education Experiment* – a project we carried out in an upper secondary school class during its three years of being from 2011-2014 (Tække & Paulsen 2013; 2015; 2016; 2017). The teachers in the experiment were called to abandon both prohibition and ignorance as general strategies in relation to media use. Further they where called to make use of digital media for educational purposes and in connection with this provoke 'media reflexivity' in the classroom, for instance, helping the students to take informed decisions in relation to multitasking or singletasking. On this basic the teachers experimented through multiple actions like using Twitter during film watching and student presentation. From the second school year and onwards the teachers also had to make contact out of the classroom and include Internet-based otherness in the teaching. We have documentation in various forms like thousand of tweets, observations, pictures and interviews (ibid).

Main features of Digital Bildung

In the following we take six of Klafki's (2014) main features of a his concept of common (i.e. public, algemeine) Bildung one by one outlining them and discussing them in regard to digital media and the SME experiment. The purpose is to describe what Bildung could be in a digital based society. The concept of Bildung were developed in the time of enlightenment and most clearly defined by Kant: "Enlightenment is man's emergence from his self-imposed immaturity. Immaturity is the inability to use one's understanding without guidance from

another." (Kant 1784).[1] According to Kant, Klafki and others education have to uplift individuals to think autonomously so they can make informed decisions in social situations for the common good. In the following we discuss this ideal in details, going through the six features of Bildung suggested by Klafki, relating these to the empirical results of the SME experiment (Tække & Paulsen 2016b).

1. Bildung and society

Klafki suggest that Bildung must consist in a wish of forming humans that can improve society, not just fit into it. The ideal therefore is that the individual becomes reflective, able to take part in decisions and dare to act. From the overall idea of *common* Bildung, every individual must have the chance to co-decide over the societal development (Klafki 2014 66-69).

In regard to *Digital Bildung* students must have the opportunities to become reflected, co-deciding and acting through their participation in education in relation to choice of medium and media use. They must be encouraged to become humans that relate to and take a stance in the new medium environment. Also they must be stimulated to develop the necessary capabilities, which enable self-determination and empowerment to act. Central in the new medium environment is to grow out of the inability consisting in being captured in addiction or inexpedient multitasking strategies. The ideal is critical students who relate to the overall situation they take part in. In continuation it is important that Bildung is a maturation of the single individual person, but also that it at the same time is collective. If we imagine that only one person had Digital Bildung, this person would not for real obtain vigour to transform society, why the conception is false: Digital Bildung is not something you can achieve alone. In this sense Bildung is a collective process. Or in other words: Bildung is a relation between the individual and the collective. Only together we can achieve Digital Bildung. Therefor the important thing is not if the individual student is offered the acquisition of special competences. The important thing is that teachers and students together works with the challenges of Digital Bildung.

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[1] In the December 1784 publication of the *Berlinische Monatsschrift* (*Berlin Monthly*), edited by Friedrich Gedike and Johann Erich Biester, Kant replied to the question posed a year earlier, see: http://www.artoftheory.com/what-is-enlightenment_immanuel-kant/

In the SME experiment the teachers were not allowed to neither prohibit nor ignore the students media use. Instead they had to work with initiating reflectivity helping the students to make decisions themselves. In regard to the problem of multitasking they could tell the students about the impossibilities of doing two different cognitive demanding processes at the same time like playing a computer game while paying attention to instructions in math. Also they tried to provide the students with tests like half of the class were playing a computer game under instructions to a math assignment while the other half were only listening to the instructions and it became clear that the half that were only listening had fewer errors. Even though all the students according to interviews got more end more knowledge about their cognitive abilities, not everybody managed to change their habits (Tække & Paulsen 2013). On the other hand nobody can concentrate like eight hours and it were obvious that when the students found the educational activities interesting they concentrate and did not try to multitask. Of course the monitored activities in the second wave called for more singletasking and the very interesting actions in the third wave interpellated all students (Tække & Paulsen 2016). The focus on media in the SME class had the consequence that students got more reflected in relation to what different media are good for. Even though we did not observe many democratic processes in the class their intense use of Twitter for Q and A and discussion etc. over time meant that the students learned to both take part in decisions and to act in a variety of social situations. In relation to relating to the overall situation and taking part in the collective; again the intensively use of digital written interaction provided many more situations for trying it (training it), than if the class had just worked in their closed classroom using oral speech and writing on paper. The Digital Bildung attained through this form of teaching, consisting in communicative educative processes leaded by the teacher using social media became clear in the third wave, when the students met with people from outside the class through social media.

2. Bildung as a nexus between three basic abilities

Secondly Klafki suggest that there are three abilities that must be cultivated, which is self-determination, co-decision (co-determination) and solidarity. They can be viewed as a concretisation and elaboration of Kant's idea of self-guidance (myndighed). Following Klafki (2014 69) Bildung must be seen as a nexus between these three basic abilities that the individual work on and personally takes responsibility for: 1. The ability to decide one's conditions of life and meanings about empathy, business activity, ethics and religion. 2. We also have responsibility for our ability for co-decision because every human being have a right to, possibility for, and responsibility to the development of our shared culturally, societal and political conditions. 3. The ability for solidarity underlines that our right to self-determination and co-decision not only can be justified in regard to recognition, but on the contrary, by the effort to take the perspective of them who is cut off from self-determination and co-decision.

In regard to Digital Bildung *self-determination* means that the students are not prohibited any form of media use. On the other hand they are not left alone (ignored), but can have the teacher and the rest of the class to help reflect on what is decided. Through feed back from teachers and other students the individual student learns to act empathically etc. in the new situations provided by digital media. In regard to *co-decision* students must participate, for instance, in debates and discussions and through that learn to voice their meanings and contribute to the on going development of our culture. In regard to *solidarity* the students must develop abilities to take the perspective of others, not only in the class, but also of every single person in the new public sphere of the Internet. We do not only have freedom of speech, but also a responsibility for developing a speech culture that helps us not to harm or hurt others and a direct responsibility for what we utter (Jakobsen 2016).

In the SME class the teachers did have problems both with not prohibiting and with not ignoring the media use of the students. But because there were discussions about both prohibition and indifference (but also about being a good buddy, how to act in the new situations of the Internet etc.) there were a culturally development that could help the individual student in his or her

reflections over how to act. There were a clear maturation of the single student over the three years of the project, but this is happening everywhere in the upper secondary schools, so it is hard to conclude what was the profit of the SME experiment and what were normal maturation. But it is clear that freedom can only be trained if it is provided. First when the student is set free to decide for him- or herself it is possible to train responsibility in regard to one's conditions and meanings.

In regard to co-decision the use of digital written interaction in the class trained the students to later in the third wave participate in debates and discussions on the web and here by let their voice and view be a contribution that meant a difference and made the students different individuals. In regard to solidarity structures and traditions in the Danish school system made things difficult. Much of the self-determination and co-decision do not exist why it is hard for the students to really develop a fundamental solidarity. Firstly there is a tradition of group work, where students with no motivation, without a teacher, with other students they have not chosen to be together with, have to work together. In that situation the students do not necessarily develop the needed solidarity. Secondly a leftover from the old school system means that there still is a prohibition of remix and produsage, which in practise gives a climate with sharing, copying and remix in different networks operating *secretly* (with no academic supervision from a teacher). Therefore the most talented try to keep their work and knowledge to themselves instead of helping the lesser talented. The problem is that there is a risk that a good assignment is also handed in by another student not being able to rewriting it to unrecognizability, resulting in that both students get a minus and other problems. In other perspectives of course the SME class developed and showed solidarity with each other and with others that they worked together with over the web (Tække & Paulsen 2016).

3. Bildung as common and common Bildung
Following Klafki (2014 70-71) everybody should have the chance of Bildung. In this sense Bildung is identical with common Bildung (Bildung for all), and also identical with equal chances to all humans.

In this context Digital Bildung means that the school must take on its shoulders a Bildung role cultivating the use of media. Otherwise we see a pattern where those with the poorest support from their homes are getting hit hardest by the difficulties in the new media society. Social media provides the teachers with new possibilities fighting the unfair inequality, because the media can help students with the poorest social basis and learning networks to develop stronger learning networks that can compensate for the negative social heritage. Hereto the media can be used to provide contact between students and Bildung persons from the surrounding world that they from their own narrow perspective would otherwise not have had contact with. The new media also provide possibilities for students with weak qualifications in regard to classical literacy giving them a voice through new forms of media expression. Last, social media provide a communicative space where more students can have a voice. You can only talk one at a time and the usual pattern is that the same four to five students will do all the talking, while in written communication all can and should race their voice.

In the SME experiment all the students were invited to learn to use the social media to academic, social and organisational purposes. All students had the possibility to get help with their homework in the evening both provided by teachers and by other students. Through not only oral interaction but also written communication, all students were included in discussions. They were both learning the respective subjects and also the use of social media for academic, social and organisational purposes - and in this regard - got the chance for obtaining Digital Bildung. Later in the third wave they used this basic form of Digital Bildung to initiate contact to Bildung persons from the surrounding society and by these actions levelled up their Digital Bildung.

4. Bildung and epochal key problems

Following Klafki (2014 74) students can learn to think and act for the common good, if they work with *epochal key problems* in their education. Such are problems concerning all humans, present today on a global scale and at the same time affecting us all individually. Examples are the climate problem, peace

problems and inequality problems, but also common problems linked to the new media. The idea is that the students shall work with exemplarily understanding and analysing these problems and also propose solutions, or relate to suggested solutions, which is discussed critically in the teaching. The ultimate measure for the discussion should be if the suggested solutions could be generalised, that is if they have a common aim (or merely serves narrow interests).

In relation to Digital Bildung – or what more broadly should be called *media Bildung* – Klafki as mentioned, has this topic as an epochal key problem. For Klafki (2014 78-79) the new media both provide dangers and possibilities to societal production and social communication. We must combine introduction to these media with reflections about how the use of them can bring about of social consequences and abuse. In this way education in and about new media stands in between to extremes – media phobia and media euphoria – leading to a critically acquisition of the new media. In relation to digital media and the Internet we see an infinite number of risks and possibilities. To focus on the risks we can mention surveillance, fake news, censuring and filter bubbles. Epochal education would take such topics up and train student's ability to think critically, have empathy and think about the elements of the problem as a whole (Klafki 2014 82).

In the SME experiment an important part of the philosophy taken from medium theory (Meyrowitz 1984) were that our social norms is lagging behind the new situations made possible by the new media, so they cannot guide us satisfactory. First when the following problems themselves are dealt with within the new medium new and adequate norms are developed. The strategy we came up with did not only include the use of, for instance, Twitter; both the teacher and the class also continuingly reflected over their use of Twitter. In regard to fake news, disinformation and false information the class both worked with source criticism and build a wiki. Reflectively it means a difference in the way information in a wiki is evaluated, if the student him or herself had tried to build one. The students, for instance, found information about a Danish author on the web and send a tweet with the selected hashtag for evaluation and discussion with the

teacher and the rest of the class. What was valid information that had the quality of storing and later use were the question of the discussion. In the big picture the third wave actions in principle open up for meeting with real otherness, real exponents for an epochal key problems like a refuge or an unemployed or a responsible politician. In practise the class, for instance, interacted with local business and in this way were confronted with real problems and found real empirical data to analyse with their theories. This showed to be much more relevant and applicable than the examples in their textbook (Tække & Paulsen 2016, a). The SME experiment clearly shows a way forward to work with epochal key problems that were only partly actualised within the three-year project.

5. Bildung as developing many-sided abilities
Klafki (2014 89) also point out that common Bildung must contain a many-sided development of human interests and abilities as possible. This is a consequence of the ideal about working against narrowness and instead provides the students and the humankind as such, with the widest possible horizon and outlook. Klafki formulates this as an ideal about that the students must learn to learn. This is not just an abstract formula, but means that humans must pick up a broad range of interests and abilities, which allowing them to concretely open up multiple different fields and circumstances.

In relation to Digital Bildung it means that the students must learn to use different media to different good purposes in different contexts. What is important here is the exemplary principle. It is not about students leaning all possible forms of media use. Its about being many-sided in interests and abilities, so it becomes possible for the student, in the future to explore, investigate and work with new and unknown mediated contexts with an open mind.

In the SME experiment Twitter were used in all the different school subjects. One form of use was to find subject relevant links and tweet them to the rest of the class with a short description of the relevance and content. Sharing of links prepare the ground for the use of the entire Internet. At the same time the teaching is enrich with actual and useable content (Tække & Paulsen 2013 206).

As the Danish upper secondary school is designed to provide the students with common Bildung through the bouquet school subjects the continuous use of the Internet through Twitter upgrades the classical Building to also include the digital Bildung and hereby prepares the students to the life in the digital age. This also counts opening and preparing the students for various interests and providing them with the needed abilities in a social world that in a lager and lager degree works through a digital infrastructure. Many other activities could be mentioned here, especially the interest and engagement brought about in the third wave activities where the students were interacting with an author, local business life and other school classes and hereby, in the meeting with real otherness were introduced to other people's outlook and knowledge.

6. Instrumental knowledge, competences and abilities

Meaningful education following the previous descried conceptualization of common Bildung according to Klafki (2014 96) always also include *instrumental abilities* (literacy) like reading and writing, precise understandable speech, basic arithmetic, precise ability to observe, information technics etc. Such literacy abilities are not aims in themselves and because they can be used both for the good and for the evil, they must be integrated as instrumental necessities and only secondary virtues in the teaching. Such instrumental competences must not be separated from humane, emancipatory and democratic aimed education.

In regard to Digital Bildung we see a new layer of needed instrumental competences like the ability to search information on the Internet, conduct digital source criticism and express your self in the new media formats. Like the earlier instrumental competences mentioned by Klafki, also the new digital instrumental competences, for the same reasons, are not aims in themselves. Another aspect is a double sided problem, which is that the students, as young people sometimes are seen as digital native (meaning that they actually have good digital literacy competences, which they have not) and that both teachers and parents often (normally) lack digital literacy. This is a serious problem with many bad consequences like teachers that cannot use the Internet in their humane, emancipatory and democratic aimed education.

In the SME experiment we had workshops helping the teachers getting started with Twitter. During the first half-year of the project they practiced together with the students and slowly both teachers and students got the needed instrumental competencies. This meant that the training was embedded in the humane, emancipatory and democratic aimed education. To have a functional transparent and democratic debate on Twitter require that you can express yourself in 140 carters, use tags and hashtags, short links and different clients. On a higher taxonomical level it also becomes important to address others with respect and to formulate tweets in an academically language. This second wave activity later opened for the third wave activities, where the class made contact with Bildung persons from the surrounding society. In regard to use the digital media's new forms of expressing yourself in the new media formats the students also worked with making weblogs and podcasts. The challenge here is to use text and pictures and even sound and video using different applications. On the higher taxonomical level the humane, emancipatory and democratic aims of education were embedded so that the content were assignments in different school subjects, which were also evaluated for its presentational qualities. Also the wiki (the SME class made) must be mentioned, which fall into the pattern of the already mentioned training of digital literacy which was embedded in the educational practice of the class.

Conclusion

The pedagogy of the SME experiment does qualify as a practise providing students and also teachers with Digital Bildung in the Klafkian sense. However, this is a retrospective reinterpretation of the project because it was not born directly following Klafki's conception of Common Bildung. On the other hand this only strengthen the argument, because replicate of the SME strategies in the future with an explicit Klafkian philosophy of common Bildung reinterpreted as our concept of a *Common Digital Bildung* would have a great claim of providing students with the opportunities of achieving common digital Bildung. Because Danish upper secondary schools are build on a Klafkian perspective of common Bildung we took this dimension for graded in the SME project. Now it seams

clear that common Bildung is challenged and undermined and must be *reinterpreted* and *re-intervened* in the new media situation. This means that it is a historically and culturally new challenge that the students are facing in relation to the new situations brought about by the new media. The risk of multitasking is one example. In the medium situation *before the Internet*, with Foucaultian power of discipline (see Tække & and Paulsen xxx), the student only had its own mind to escape to when the teaching were too boring or demanding. Now the rest of the world is only a click away, and one glance on a social medium like Facebook can mean that the student is only partly concentrated on the teaching for the rest of the lesson. On the other hand the SME experiment did work with this problem, but what shows it self now is that the teachers always have had the responsibility to help the student get Bildung also in this respect. This means that the teachers already had a normative obligation to work with this problem - and all the other problems of Digital Bildung - and we as researchers, only are translators of this teacher obligation. Here many of the problems we meet in the schools with teachers seeing us as predators and techno euphoria fundamentalists from the Klafkian Bildung tradition is more wrong than ever. The classical concept of Bildung were developed in the wake of the society emerging after the invention of printing technology. No wonder that we must reinterpret it now in the wake of the digital media. The students must be encouraged to become humans that relate to and take a stance in the new medium environment. They must develop the necessary capabilities, which enable self-determination and empowerment to act in this new media society. The ideal is still critical citizens who can relate to the overall situation they take part in, and show responsibility in a mature way, as single individual persons, acting within the collective for the collective. Actually we can come closer now than in the former medium societies because we now, for instance, can do a better work helping out the inequality of chances. At least the SME experiment shows some promising ways of doing this.

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