



FEATURE

Opening up the classroom: Enabling and interrupting digital media practices in School

Annekatriin Bock, bock@gei.de

Georg-Eckert-Institute for International Textbook Research, Germany

Larissa Probst, probst@gei.de

Georg-Eckert-Institute for International Textbook Research, Germany

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Opening up the classroom: Enabling and interrupting digital media practices in School

Annekatriin Bock, bock@gei.de

Georg-Eckert-Institute for International Textbook Research, Germany

Larissa Probst, probst@gei.de

Georg-Eckert-Institute for International Textbook Research, Germany

Abstract

Rooted in media and communication studies, and drawing on Structuration theory, this feature utilises the concept of open spaces as analytical lenses to observe how 'digital education' is unfolding in classrooms today. We conducted in-depth fieldwork in one German school in a long-term project from 2012 to 2017. We present theoretically and empirically based research from classroom observation and teacher interviews that informs debates about open education and innovative digital media pedagogies. The feature embeds the project's findings in a reflection on digital practices in schools and, more broadly, in the contemporary global debate over the implementation of digital media in schools.

Keywords: open education, digital educational media, media change in school, pupils/students media use, Structuration Theory, classroom observation, teacher interviews

Introduction

Contemporary political debates mirror the challenges that frame ongoing media change in schools. There is a demand for schools to prepare pupils for social and economic change (OECD 2015: 3). This is accompanied by calls for schools to 'open up' in terms of integrating digital media into classroom pedagogy. Digital media are said to have an enormous potential to radically change education and enthusiastic debates frequently contain labels such as participatory culture, connected learning or 21st-century skills (see for example Ito et al. 2009: 19, Jenkins et al. 2007, also Loveless and Williamson 2013: 157). Politicians, educational practitioners and researchers concurrently discuss the challenges and necessity of the oncoming digital school reform that is enfolding through digital media use in educational contexts (see for example Selwyn 2014, Watters 2014, Peck et al. 2015). Generally, current debates, both optimistic and dystopic, consider schools to be 'innovation hostile environments' (OECD 2015: 4) which inhibits the potential of media change to evolve (Davidson et al. 2009). And more specifically, to date socio-political and research-driven discussions on innovative digital media use in school – at least for countries in the global north – remain fixated on the question of why schools do not change their media practices towards a more open, digital media embracing policy.

The background to our paper is the idea that educational institutions, such as schools, should be understood as spaces for teaching and learning. This means they are spaces framed by their institutional structures, the agents working within in them and the educational mandate they fulfil (Bock & Tribukait 2019, Fend 2006). At present, schools are challenged by high socio-political expectations to keep up with the digitisation of society and to enable digital educational media practices. And so far the institution has not succeeded in establishing strategies to master its educational mandate – neither in terms of rejecting this task nor in dealing with the mounting challenges.

Drawing on Giddens' (1984) structuration theory, we look at schools as educational institutions and focus on the classroom as the ultimate space in which educational media practices either unfold or are interrupted. In few other spaces in today's media-saturated world are children and adolescents required to specifically engage with particular media such as textbooks or learning tools. And few other spaces are as uniformly structured as classrooms with their standardised equipment and formalised rules or routines. In that sense, schooling provides a unique space in which to observe digital media practices.

We present initial findings that describe 'rich points' (Agar 1996, Bock 2017) from our classroom observations and interviews with teachers. Drawing on our interpretations of these research vignettes, we formulate arguments that we use as springboards for the ongoing data analysis. Our remarks direct attention to the entanglement between societal open education debates, institutional frames and media practices unfolding in the classroom. The aim is to present theoretically- and empirically-based research that informs debates about innovative digital media use and open education.

Our theoretical and methodological springboard

Rooted in media and communication studies, and drawing on structuration theory (Giddens 1984), we utilise the concepts of open and closed spaces as analytical lenses to observe how 'digital education' is unfolding in classrooms today. Structuration theory has frequently been applied as a main social theory within several scientific disciplines, including communication studies (see for instance Stehle 2015) and educational sciences (example.g. Rigby et al 2016, Bair and Bair 2014, Anagnostopoulos, Basmadjian and Mccrory, 2005). While a large corpus of available studies includes those that draw either on structural or agentic accounts, we intend to bring these perspectives together. A great number of studies focus on tertiary education (see for instance Li et al. 2011) but neglect digital media use (Burrige 2014), our approach, however, focusses on digital media practices in school. We ask how institutional constraints, technological equipment and individual teaching and learning routines are enabling/opening-up or interrupting/closing-down digital educational media practices.

We conducted in-depth fieldwork in a German school where we researched the administration, principal, teachers, pupils and parents from 2014 to 2018; accompanying the school's implementation of tablet classes and digital media practices (see also Sims, 2017; Livingstone and Sefton-Green, 2016). The study encompasses 12 hours of audio-recorded interviews, 24 hours of classroom observation, a structured survey of 320 young people and their parents, and detailed field-notes (Bock and Probst 2018). The long-term, multi-method research project maps the practices and spaces of digital teaching and learning, and generates evidence-based insights into how classrooms, as teaching and learning spaces, frame, enable or challenge teachers' and pupils' every day educational routines and digital media practices.

Open up or close down – digital media use in the classroom

In order to guide our understanding of classrooms as spaces for teaching and learning with digital media, we look at research vignettes through the lens of our theoretical underpinning, which is informed by Giddens' structuration theory and his understanding of schools, classrooms and agents: Giddens firstly understands school as a 'container, generating disciplinary power' (Giddens 1984: 135); secondly he sees classrooms as spaces in which 'most things both teachers and children do are visible each to the other' (Giddens 1984: 138) and where communication between teachers and pupils is asynchronous, or mostly controlled by the teacher; finally in classrooms the agents routinely interact with one another, performing their roles.

Vignette 1: The institution's constraints frame teachers and pupils digital media practices

The school in our study was one of the first in its district to implement individual 2in1 tablet computers as teaching tools. The school was harshly criticised by some parents for the technological incursion, so the principal was under pressure to ensure the controversial and

costly equipment was utilised in class. This obligation led to some teachers using the digital devices even in situations where the pupils challenged the teaching routines:

The teacher in a politics lesson instructed the pupils to take part in an online survey, using their tablets. One of the pupils asked whether they could use their mobile phones instead. The teacher initially attempted to prohibit this by insisting the pupils use their tablet, the 'work devices'. The teacher was also unsure how the students could access the online platform from their mobile phones. It transpired that the pupils were more familiar than the teacher with accessing the internet from their phones through the school's IT-infrastructure. When one pupil then commented that she could not get online from her tablet, the teacher then allowed switching devices.

The teachers with whom we spoke agreed that the use of digital media opens new doors for digital teaching and learning and that this in turn creates space for experimentation. At the same time the teachers stated that there are firmly established institutional parameters including fixed approaches to working with 2in1-devices in 45-minute lesson formats and that these structures curb innovative developments in teaching. In order to sensibly implement digital media into lessons, 'there must be innovation across all levels', one teacher told us. This change process would include the school administration and teacher education, but also refers to the school's IT infrastructure, including the classroom equipment which - despite being a vital component - is something the school has little influence on.

Vignette 2: The classroom sets the stage for rules and routines

One major parameter for digital media use in the classroom is the availability of resources. Faced with a number of classrooms without interactive whiteboards or blinds for shutting out light during projector use, teachers repeatedly find themselves wondering whether there is actually any point in preparing lessons using digital devices. The interviewed teachers would like to see comprehensive, standardised equipment and considerably better technical support: 'what I don't like are the technical obstacles over which one constantly trips [...] You quickly reach the limits of your own abilities. It's very frustrating, because you really want to have everything under control [...]'. (Teacher A). One of our teachers found the best solution to 'classroom equipment trouble' was to reserve a classroom that was, in the teacher's opinion, particularly suitable for working with digital devices. However, the class had its own logic as to who should sit where and work with whom, which was disrupted when required to switch rooms. Changing the room made it easier to work with digital tools, but challenged the social dynamic and the learning atmosphere. The pupils were less motivated to work in the 'new rooms' and needed more time to adapt to the less familiar environment.

In our observations we found the availability of facilities and the 'materiality of the classroom' (Macgilchrist et al., 2017) to be decisive factors that determine possibilities for digital teaching and learning. While the teachers in our interviews formulated concrete wishes, such as 'I need space to write on the board' or 'I want a large projection surface where we can develop ideas',

the current state of classroom equipment renders it nigh impossible to bridge the gap between expectations and reality.

Vignette 3: The agents confirming or challenging the rules

In one classroom situation we observed several pupils sitting at a group table and discussing how best to divide the group tasks between them. Pupil A asked B whether he should send the results by e-mail, or whether they should all make notes. Pupil B agreed that he should send the results round, at which point the others all closed their devices. In the meantime two other pupils at the table started searching in the textbook for information still needed for the tasks; pupil B was typing into his tablet what a further pupil was dictating. The teacher (Teacher B) approached the group and asked 'why are your tablets closed? I want you all to write it down' the pupil on the tablet replied 'but I'm going to send it around!' The teacher responded 'no, I want each of you to write your own notes, otherwise the others are just sitting there'. The pupils then picked up their tablets, although it was clear from their facial expressions that they believed it to be unnecessary.

In this case the pupils used the time saved – by not all having to type – to conduct more detailed research and discussion. The teacher had interrupted a structure organised independently by the group and attached value to taking notes by typing. The advantage of the digital media for collective data generation and distribution was not taken advantage of. In our interpretation this example represents those situations in which the teacher interprets the institutional mandate (in this case: 'pupils are to learn through writing') into classroom practice ('every pupil is to write') and chooses to confront the resistance of the pupils to the established routine of teaching with digital media.

Our research vignettes in the light of Giddens

Reflecting on our observations applying Giddens's ideas on institutions, classrooms and agents, and referring to structuration theory approaches (Rigby et al. 2016, Burrige 2014), we like to point out 1) that the observed school is still a disciplinary institution that restrictively fulfils its educational mandate while having little direct influence on the classroom materiality, including technology, equipment and IT-infrastructure, which is the responsibility of local and state administrations. 2) Within the classroom, as a space for teaching and learning, our teachers interpret the institutionalised educational mandate into classroom practices. Their approach to teaching with digital media is framed by the classroom materiality and by the teacher's impression of what the institution 'wants' digital teaching and learning to look like. The teachers need to be in charge of the classroom interaction, which relates to their responsibilities as educators as well as to the fact that their actions are visible to every pupil in the classroom. 3) The face-to-face teaching tradition cultivated by the institution places the teacher 'in charge' of the learning environment that frames the pupil's interaction, while the pupils, consciously or not, challenge teaching practices related to the use of digital media. The pupils use digital media as a gateway to the outside world and therefore as an opportunity to reach out beyond the

classroom borders (searching for information online) or as a tool to reduce their workload (through division of tasks). In bringing their everyday media experience into the classroom, these pupils opened-up or irritated the routinized teaching and learning practices.

Our findings add up to research that assumes school to be an 'innovation-hostile institution' (OECD 2015: 4, cf. Davidson et al. 2009), prone to disrupting open practices of teaching and learning. In addition our vignettes also show that schools (similar to the researched one according to infrastructure and teachers) are slow to adapt to digital media. But what is perhaps more considerable is that students in this or similar school settings appear to be the agents challenging the hegemony of schools and teachers and implicitly demanding more open/liberal practices of digital media use in the classroom. In light of current societal debates and the question of why schools are slow to pick-up on digital media practices, our findings strongly relate to research on open pedagogy (Wiley 2013) that sees students as active participants in the open process of teaching and learning, in terms of understanding the empowering character of digital media use in class. We regard this perspective on teaching and learning as our springboard for the ongoing data analysis and as an invitation for further academic exchange.

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