

On the expression of hegemony in the field of educational technology - a case study of editorials in a Norwegian academic journal

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Abstract

This article has emerged from a project aiming at gaining an overview of actors and key figures, their perspectives and results after more than 30 years of ambitious governmental efforts to introduce computer technology in school. The main focus of the article is on what we consider to be dominant arguments, discourses and issues related to the hegemonization of meaning formation. Our line of reasoning is based primarily on a case study of the leading journal in the field of educational technology in Norway over the last fifteen years, the Nordic Journal of Digital Literacy. This is a mainstream research journal, which publishes peer-reviewed articles. However, being subject to the Norwegian Ministry of Education and Research, it represents a rather interesting case for interrogating the issue of hegemony. Placing the journal's policy at the forefront, the focus of our analysis will be on the editorials. The main findings, based on issues of the journal over the first ten years are that the editorials are in keeping with what can be regarded as the political priorities and the prevailing political discourses in the field. They contain relatively few, if any, critical perspectives and scant reference is made to the research articles and research

area it claims to serve. The method used is document analysis, inspired by discourse-analytic approaches.

Keywords: educational technology, historical perspectives, academic journals, editorials, hegemonic discourses, discourse analysis

Introduction

The widespread introduction of computer technology in schools in many Western countries during the 1980s was received enthusiastically. Yet the evidence for the claims that the new technology yields results in learning is scant (Livingstone, 2012). Much attention has been paid to how teaching and learning can be made easier and more effective by the use of new technology and how its implementation can increase motivation and learning outcomes. Problematization and critical reflection have been rare. This paper aims to identify the advocates of this trend and the way the figures are presented.

Analysis of the main journals in the field might offer an avenue for investigation. Moreover, a series of studies has given rise to some interesting research approaches (Bulfin, Henderson & Johnson, 2013; Selwyn, 2012; Bigum, Bulfin & Johnson, 2015). These provide a reliable starting point for our enquiry. We start by highlighting a Norwegian case, the *Nordic Journal of Digital Literacy*, an open access scholarly journal initiated by “The Norwegian Centre for ICT in Education”. The main purpose of the research presented in this paper has been to identify the discourse of the editorials of the journal and then to consider the extent to which it relates to what might be regarded as the dominating political discourse in the field.

From its inception, the aim of this journal has been to create “a platform for the critical analysis of digital literacy and competence, and the use of ICT in an educational context”.¹ What is of particular interest here is that the Centre publishing the journal has been falling under the responsibility of the Norwegian Ministry of Education and Research.² The Centre explicitly consolidated its position at the outset by stating that its mission was “to implement government policy within our area of responsibility using the resources made available to us”.³

Yet, the *Nordic Journal of Digital Literacy* has continued to be a standard research publication that carries peer-reviewed articles. It ranked briefly as one of the most prestigious journals in Norway. It was for a period a level 2 journal. In the Norwegian system scientific journals are divided into two tiers. Tier 2 journals are ranked significantly above tier 1 journals, accounting for approximately 20% of the publications in any given

¹ The main aim as presented in the journal: <https://www.idunn.no/dk?languageId=2#/about>

² The Centre was in 2018 relocated to the the Norwegian Directorate for Education and Training, which is the executive agency for the Ministry of Education and Research.

³ <http://www.scientix.eu/national-contact-point-norway>

field.

However, based on the Centre's position with respect to the authorities it was interesting to learn how and to what extent the journal reflects the prevalent political discourse as well as how these matters are presented and discussed. More generally, greater importance should be attributed to the way its position as a policy-directed journal produced to a high academic standard deals with the inherent conflict.

The *Nordic Journal of Digital Literacy* was founded in 2006. During the first four years it was titled "Digital kompetanse" ("Digital Competence"). Our analyses are based on the journal's first ten years – 2006-2015 – in which regular articles and editorials appear. A total of 24 editorials are taken into consideration excluding those written by guest editors. If we had focused our attention on the journal's guest editors and the published articles the impression gained would have been different. However, the editorials analysed are not linked in any way to the articles.

We start by presenting the method of analysis and go on to outline the theoretical framework and the research literature with a main focus on journals and editorials. The analysis of the editorials is based on: the visions and premises, the basic concepts, the journal as part of the evolution of society, the dominating actors and key references, how learning and technology is addressed and examples of challenges, contradictions and dichotomies.

A discourse-analytic approach

Our method for the analysis is document analysis, which has been established as a discourse-analytic approach (Haugsbakk, 2010). This concerns the way meaning is created through language; it endeavours to reveal patterns of meaning-making (Wetherell et al., 2001). The project is inspired by Norman Fairclough's ideas concerning the recontextualization of the dominating discourses in society, and how discourses from one domain in society influences another (Fairclough, 1992; Chouliaraki & Fairclough, 1999). This is a matter of how education is influenced by external discourses about technology, as computer technology was not originally developed for pedagogical purposes (Haugsbakk, 2011). The particular focus of our article is on the impact of the dominating political discourse on an academic journal.

For Fairclough a key question is if the recontextualization process entails a colonization by the external discourse into new areas or whether this takes place through an active process of adaptation and independent, critical reflection. This is an important aspect in analysing the editorials. We wanted to identify the differences and similarities between political and academic discourses. A part of this is how and to what extent the editorials relate to the main strategies of the political field compared to the variety of research findings in the

educational field.

The result of a widespread colonization of discourses is hegemonic forms of meaning construction being developed. As Ernesto Laclau and Chantal Mouffe (2001) point out in their discourse theory this might involve creating unambiguity out of ambiguity. Reinhart Koselleck (2004) underlines the critical importance of the use of key concepts, which have proved highly relevant as part of our analysis.

A basic premise for the project presented in this article is that the editorials of the journal might be valuable for reflection on the dominating discourses of the field. In this respect, we have to some extent been inspired by Michel Foucault who argued that analysis should not be limited to a particular type of material. For him, diaries were as important as canonical works. In his studies of psychiatry as a new discipline in the 19th century, Foucault relates to a discursive formation that was expressed in various ways in the organization of society. It manifested itself in very different types of statements, "in legal texts, in literature, in philosophy, in political decisions, and in the statements made and the opinions expressed in daily life" (Foucault, 1972, p. 179).

In our examination of scientific journals, we have also drawn on research which considers new journals to be equated with important events.

New journals as important events

The founding of a new journal in any academic field is always significant. Mulkey (1979) suggests that a new journal indicates a magmatic movement in the field has taken place, and room is made for a contender in the new territory. Once established, the selection of editor(s) and editorial board members reflects how the journal positions itself in relation to current trends and tendencies. Vanderstraaten, Vandermoere and Hermans (2016) have investigated scholarly communication in AERA journals from 1931 to 2014, focusing on how authority and authorship have evolved over this period, followed by how the national/international orientation has shifted. They have also examined how the AERA journals are linked to journals in other domains - in particular psychology and sociology. They describe how the editorials of the journals were used to to integrate and complicate the basic tenets and purpose of American educational research. They see scholarly communication in a journal as representing:

“[...] scientific communities as precariously constructed and historically contingent networks of specialists. They depend on social contexts that support the development of particular interests [...]. these networks depend on regular communication among their members. Publication venues, such as scholarly periodicals, channel this communication process” (Vanderstraaten et. al, 2016, p.3).

They contend that these journals “control and steer the communication process among

specialists”, and they therefore shed light on the “morphogenesis” of their specialization”. Mulkey’s (1979) analysis is derived from the sociology of science and broadens the critical perspectives of R.K. Merton and Thomas Kuhn concerning how journals portray conflicts and disruption in otherwise stable fields. How can conflicting or contentious topics be expressed in the “communication process” of a scientific community? It is worth asking exactly how hegemonic and critical perspectives are created and articulated. In this respect the *Nordic Journal of Digital Literacy* is worthy of attention since as well as providing a forum for researchers in the field its goal is to follow governmental policies and promote one particular line of thought.

Xie, Wu and Li (2019) claim that the editor occupies the highest position in the scientific power hierarchy. Zdeněk and Lososová (2018) and Oleinik (2014) point out that the editors are supposed to have academic capability and therefore the scholarly power of making decisions about the acceptance, revision and rejection of articles (See also Resnik & Elmore, 2016; Roth, 2002). The fairly new approach called *editormetrics* has been developed to produce quantitative evaluation which takes the editor/s of the journals as the empirical method for scientific analysis “[...], based on the idea that the prestige of a journal is closely linked to the journal’s editors” (Xie, Wu & Li, 2019, p. 1334). Some findings suggest for instance that a journal’s impact has a strong correlation with how productive the editorial staff is in terms of research output (Walters, 2016). Another finding presented by Zdeněk and Lososová (2018) is that if members of an editorial board publish in their “own” journal, this correlates with low impact figures for that journal, implying that the base of authors should extend very broadly. The constellation of a journal’s management structures is vital. Teixeira da Silva and Al-Khatib (2017) list the following as typical management structures:

“[...] that are operated by professional societies in which editors are elected by members of the society, journals that are operated by scientists with a particular area of expertise who select editors and editorial board members based on professional relationships and expertise, journals that are operated by university departments or programs, and journals that are operated by private for-profit or non-profit companies” (p.1802).

This suggests that the sociometric pattern that memberships of editorial boards offer, shape the pattern of knowledge management thus making the “invisible college” effect very visible. This may result in networks that act as “gatekeepers” and decide which discourses have significance and which do not. Proprietors of journals will therefore seek to consolidate relationships with established scholars to enhance their status and improve the journal’s (Teixeira & Oliveira, 2018; Zuccala, 2006).

In this article we will consider editorials as expressions of a management structure with an editor as the director and “judge of the judges” (Ray, 2002). The texts in the *Nordic Journal of Digital Literacy* were signed by the editor. Whether this indicates that the

editorial board had been directly involved in producing the text or not is not easy to establish. The maintenance of ethical standards in editorial decisions is, as suggested by Ray (2002), a comprehensive and complex duty, which in the case of medical research journals implies identifying the influence of the pharmaceutical industry, health policies, and paradigmatic rivalry. The editorials in this case will show signs of that particular morphogenesis of the journal in question. The sole sponsor of this particular journal is the Royal Norwegian Ministry of Education and the question is how the scientific aims of the journal are handled within this ethical context of politics, industry and the research community.

Previous research on morphologies expressed in Norwegian journals

Vanderstraaten et. al's research indicates that it is useful to see new journals as the expression of a network of specialists in an emerging field. Harald Jarning (2016) offers a critical analysis of the century-old ideology of the most prominent Norwegian educational journal, *Norsk pedagogisk tidsskrift*, which first appeared in 1917. He traces various "knowledge regimes" ranging from the initial rural and anti-modern editor and founder, Torstein Høverstad, who - in keeping with the *Zeitgeist* - was an exponent of the nationalist spirit, up to recent developments with a blurred understanding of "pedagogy". This journal expressed the views of an engaged network of specialists situated partly in teacher education institutions and partly in teacher organizations before the academic field of "education" had become established.

Sæther (2011), who has written extensively about the evolution of Norwegian educational sciences, suggests the following "regimes" are applicable to the Norwegian discourse on education: the technocratic regime versus the critical humanist regime. It is evident that he is describing five different lines of thinking: 1) the liberal progressive tradition, 2) the socialist tradition, 3) the political instrumental tradition, 4) the Christian conservative tradition and 5) the anti-authoritarian tradition (Sæther, 2011, pp. 225-226).

In historical overviews, the split in the Institute of Educational Research at the University of Oslo, between the "traditionalist" and the "revolutionary" in 1973/74 reflects the split between the technocratic and the anti-authoritarian regime.

This split was significant for broader movements in the Nordic scene of academic publishing. For several years the "traditionalists" were in charge of the *Scandinavian Review of Educational Research* (now published by Taylor & Francis). The oppositional group closed ranks on a Nordic platform, forming in 1972 the Nordic Educational Research Association. This organisation adopted annual Nordic conventions, and from 1983 had its journal *Nordisk Pedagogik* (Nordic Studies in Education, published by Universitetsforlaget/Scandinavian University Press).

Researching journals of educational technology: morphongenic investigations

In this paper we aim to describe and analyse the editorials. Journals in this field have previously been analysed for content of journal articles using quantitative techniques. A survey conducted by Bulfin, Henderson, Johnson and Selwyn (2014) on 468 researchers claim that journal articles in the field of educational technology are primarily based on “relatively basic forms of descriptive research” (p. 409). Olofson and Lindberg (2014) offer similar criticism. Summarising critical reviews from Diane Laurillard, Neil Selwyn, Roger Säljö and O. McGarr, they point out a) the lack of theoretical coherent positions, b) that the studies presented are seldom connected to other research results and c) claims of generalisability are overstated. Selwyn (2012) comments that as a relatively new discipline it suffers from lack of consistency and struggles for identity and status. There is therefore reason to expect that the editorials might express the striving for an identity and position in relation to the scientific community.

Why target Nordic Journal of Digital Literacy?

Bulfin et.al (2014) say that they ask simple questions in order to claim that they interrogate their research material in a straightforward fashion: “what do we do?” and: “how could we do things better?” (p. 343). The first question is crucial: What does the journal “do” and how can we analyse the dominant ideas, perspectives, outcomes and assessments, in light of the above factors? Since it is a Norwegian journal, the way it is influenced by the politics, social movements and modernisation of Norwegian society is important. How does it relate to the division between technocratic or humanist values? Can it be related to the liberal progressive tradition, a socialist tradition, the political instrumental tradition, the Christian conservative tradition or an anti-authoritarian tradition (Sæther, 2011) all of which are specific to the Norwegian (and Nordic) tradition? How is it possible to establish theoretical positions, purposes and intentions, or traits that suggest that the weaknesses described above - namely, the lack of historical and political contextualisation, positivist claims and lack of constructive attempts - foster theoretical coherence?

Visions and premises

The visions presented in the editorials of the *Nordic Journal of Digital Literacy* enjoy a relatively independent status in relation to the articles. They appear initially as comments on current topics and to a limited extent provide introductions to the articles. This differs significantly from the editorials written by the guest editors. One of the main parts of the visions is, as we perceive it, to create the “school of the future” and to be part of an indispensable digital knowledge promotion to reach that goal. The very first issue states: “In the journal we will report on projects, activities and networks that contribute to the

digital knowledge promotion" (1-2006).⁴

Creating the school of the future entails enhancing learning by the use of ICT, and an important part of this is to draw on the competence acquired by young people outside school. This vision is for instance expressed through such statements as “give pupils a voice on their own terms”. Part of the visions expressed through the editorials involves the creation of a network of researchers and developers representing unified approaches in the field of educational technology. A clear message is repeated: developing a policy for the implementation of ICT in an educational setting requires holistic actions that need to be shared by its stakeholders. The editorials describe a successful line of development since the inception of the Norwegian Centre for ICT in Education, and they place the Centre in the middle of a winning team of consecutive governmental action plans, white papers and national curricular reforms. The editorials also explain how the development of the Centre goes hand in hand with international events. The politics of the EU and the OECD point in the same direction, and Norwegian policies are well advised to follow. The rationale for this is twofold: ICT is instrumental for keeping up with economic development in the OECD. Moreover, the information and knowledge society requires constant change and adjustment to new technology. This is in keeping with such positive traits as creativity, community and a “digital culture for learning”. By referring to the European Commissioner for Education and Culture the editorials claim that ICT contributes to economic growth and that “digital literacy is becoming a prerequisite for creativity, innovation and entrepreneurship” (1-2006).

Furthermore, it is suggested that an agreement on a common set of concepts is needed, and a key term for describing and approaching the field is essential. This term is digital competence.

A common set of concepts - digital competence as a password

The editorial of the 10th anniversary edition of *Nordic Journal of Digital Literacy* states: “The term digital competence has been something akin to a password into new fields politically as well as pedagogically”. Related to this, “passwords” are understood as generating ideas and contributing to new ways of thinking and providing access to discussions (Ann.-2015).

“Competence” is regarded as a common agenda setter: “Digital competence has set the agenda for innovation, education and pedagogy in Europe” (3-2013). The concept is perceived as having a double function. On the one hand, it is “the principal policy concept in innovation policy and in educational reform”, while on the other, the concept has

⁴ The authors’ translation.

become “an objective in the development of schools and in practical pedagogy”. We go on to read that “educationalists are now working on anchoring digital competence in theories for learning and media development and further developing the concept”.

A broad and open concept of competence is promoted. This includes skills and knowledge as well as various aspects of academic critical thinking, ethical considerations and Bildung. This is in keeping with how the concept is perceived by the OECD and the EU, and is also closely related to their definitions. It is claimed that the OECDs DeSeCo-report (Definition and Selection of Competencies) has become “the foundation for international collaboration on work related to the concept of competence” (3-2013). The DeSeCo program was established in 1997 and focused on three basic competency categories: (1) using tools interactively, (2) interacting in heterogeneous groups and (3) acting independently. These competencies are required by most people on a daily basis in a variety of situations.

Likewise, references are made to the Recommendation of the European Parliament and of the Council on key competences for lifelong learning (3-2013). It is argued that the definitions of digital competences in Norway and in the EU are built on common ground and that the concept is closely related to new concepts such as “the 21st-century skills” (1-2008).

Reflecting the evolution of society

It is assumed that “the school of the future” reflects developments in society (3-2013). To meet the complex demands inherent in a rapidly changing society, it is necessary to promote a digital culture for learning (4-2006). Referring to the OECD it is stated that “the educational sector must follow the impact of technological development” (1-2-2013). Education is crucially important for social development, and competence is society's most important resource. But the promotion of knowledge has to be combined with the use of new technology. This is essential for economic growth, as exemplified in the following statement made by the European Commissioner for Education and Culture: “Digital literacy is fast becoming a prerequisite for creativity, innovation and entrepreneurship” (1-2006).

An example which has been much discussed in an editorial in 2007, is “Wikinomics”, based on Don Tapscott's book *Wikinomics: How Mass Collaboration Changes Everything*. The author is supported in his contention that not only will wikinomics dramatically change the way we produce goods and services, but also the way research and education are conducted (4-2007). According to Tapscott, wikinomics is based on four ideas: “openness, peering, sharing, and acting globally”. However, a prerequisite for the development of wikinomics as a global trend in innovation is the “Net Generation”. As early as 1997, this new digital generation was described by Tapscott in the book *Growing up Digital. The Rise of the Net Generation*, and the editor adds that this is book has had a

significant impact on the development of the Norwegian Centre for ICT in Education. As far as wikinomics is concerned, the conviction is that the presence of Internet will usher in a new era in which individual businesses will be involved in extensive collaboration with the outside world, and this is regarded as the key to innovation in the future. Tapscott uses the Canadian mining company Goldcorp Inc. as an example. The company's fifty-year-old gold mine in Red Lake, Ontario, failed to produce enough gold and risked bankruptcy. They were subsequently inspired by the development of Linux and the collaboration between volunteer programmers worldwide. The editor presents this as a success, and the conclusion, according to Tapscott, is: "The world is your R & D department".

Dominating actors - key references

Based on the references made in the analysed editorials, the most prominent actor is OECD. OECD is mentioned 50 times in the 24 editorials. There are references to several reports: *The definition and selection of key competencies* (2002), *Schooling of Tomorrow: Think Scenarios, Rethink Education* (2006), *New Millennium Learners* (2007-2012), *Inspired by Technology, Driven by Pedagogy: A Systemic Approach to Technology-based School Innovations* (2010), *1-to-1 in education current practices, international comparative research evidence and policy implications* (2010), *Connected Minds* (2012), *Innovative Learning Environments* (2013), *Measuring Innovation in Education* (2014). The references are used to confirm the editor's arguments. They are presented and justified without any critical commentary. What appears to be important is the way OECD points things out, argues, what is emphasised and so on.

Likewise, reference is made to reports from the European Commission/Parliament, including: *eLearning: Better eLearning for Europe* (2003), *Key Competences for Lifelong Learning: a European Reference Framework* (2004), *Survey of Schools: ICT in Education* (2013), *A Digital Agenda for Europe* (2010), *Europe 2020: A strategy for smart, sustainable and inclusive growth* (2010).

The Norwegian Centre for ICT in Education is also mentioned quite often in a self-referential way. This is true of reports like *Digital kompetanse: fra 4. basisferdighet til digital dannelse* (2003), *ITU Monitor 2005, 2007, 2009, 2011 and 2013*, *Digital Skole Hver Dag* (2005), *SITES 2006. Norsk rapport* (2008), *Nye Nettfenomener – Staten og delekulturen* (2008).

One interesting example of experts who are awarded prominent positions is the New Media Consortium (NMC) presented as "an international community of experts in educational technology" (4-2013). Considerable attention is given to their report *Technology Outlook for Norwegian Schools 2013-2018* published together with The Norwegian Centre for ICT in Education which presents emerging technologies and forecasts their potential impact. Interestingly, the NMC was founded in 1993 by a group of

hardware manufacturers, software developers and publishers. They recognised the potential of developing close relations with the foremost colleges and universities.⁵ In the *Nordic Journal of Digital Literacy* the experts are presented as a community embracing “practitioners who work with new technologies on campuses every day to the visionaries who shape the future of learning at think tanks, labs, and research centres, but also staff, boards of directors, advisory boards, and others helping the NMC conduct cutting edge research” (4-2013).

The NMC’s ambition was to help educational institutions, museums and research centres worldwide to “stay at the leading edge of emerging technology” (NMC, 2015). They realised that “the ultimate success of their multimedia-capable products depended upon their widespread acceptance by the higher education community in a way that had never been achieved before” (ibid.). “Strategic partners” have included Adobe Systems, Apple, AutoDesk, Hewlett-Packard and Intel. During the years in cooperation with experts in different countries, NMC has explored emerging technologies and forecasted their potential impact. Reports have been produced for Ireland, India, Scandinavia, Asia, Latin America, Australia, Brazil, New Zealand and Singapore. The important contributions made by large private companies are clearly visible as in the case of “outlook” for Singaporean education. Through the acknowledgements at the start of the report we are clearly informed that the project and report “were made possible by the generous support of SingTel” - “Asia’s leading ICT provider operating in 22 countries with 40 offices”, and that this company has played “active roles in shaping the education landscapes of Singapore, Hong Kong and Australia by deploying innovative ICT solutions in schools”. And we are reminded that “SingTel powers the future in education” (Johnson et. al, 2012).

The category of “gurus” and philosophers showcased in the editorials include Nicholas Negroponte, Don Tapscott, Marshall McLuhan and Jean Baudrillard.

Learning and technology

One of the main assumptions in the editorials is that the use of ICT enhances learning. However, the relation between technology and learning is in general expressed in somewhat vague and well-known ways. A number of examples can be mentioned. It is widely believed that digitization promotes dialogue, cooperation and problem orientation (2-2006), that “digital tools can support and facilitate learning in new and better ways” (2-2010) and that this can lead to “better and deeper learning” (1/2-2013, Ann.-2015).

With references to the survey *Monitor* (2013) published by the Norwegian Centre for ICT in Education it is concluded that eight out of ten upper secondary students believe that the use of computers or tablets helps them understand the subjects better and that it gives

⁵ Based on their own presentation: <https://web.archive.org/web/20150908060814/http://www.nmc.org/about/nmc-history/>

“more desire to learn and makes it easier to learn school subjects“ (3-2013). These findings are confirmed by results from a local innovative school development project in Sweden presented as “an engine for promoting learning quality” (1/2-2013) and “a lot of evidence” from international sources stating that ICT-tools in combination with relevant pedagogical practices “have beneficial effects on outcomes” (2-2010).

The changes from what is perceived as traditional teaching methods are considered to be profound. Whereas the teacher so far has imparted knowledge supported by the linear message of the book, digital media are interactive and offer a variety of communication and collaboration. Referring to Tapscott, this is presented as a move towards interactive learning (4-2007). We are supposed to be in a new phase in the evolution of technologically enhanced learning that is characterised by “seamless learning spaces” (4-2006). The new environments are perceived as richer and more personal since the digital arenas are as much a place of differentiation and cultural diversity as a driving force for homogenization. However, to exploit them “the learning theories must be updated and be in line with the digital revolution” (2-2006).⁶

The editorials convey a positive attitude towards learning analytics that may be used to support decisions made in the educational system in the same way as analysts in business use consumer data to target potential customers and personalise advertising. In education learning analysts may “harness student data to build better pedagogies, target at-risk student populations, and assess whether programs designed to improve retention have been effective and should be sustained”. A main impression expressed is that “students are beginning to experience the benefits of learning analytics” as part of their online engagement that leaves data “to create responsive, personalised learning experiences” (4-2013).

Challenges, contradictions and dichotomies

Through several of the editorial’s challenges regarding increased use of new technology in education are given a lot of attention. These are mainly related to the lack of equipment, lack of competence and lack of coherent efforts within schools, but the focus is gradually shifting from equipment to competence acquisition and coherence. To a large extent, however, such considerations are based on a perceived contradiction between two somewhat antagonistic positions within education, one anchored in notions of the schools of the future, and the other in what might be regarded as traditional schools.

In the first case, schools of the future are seen to reflect development in society and are characterised by the innovative use of new technology, the inclusion of the students’ leisure time use of technology as well as a new pedagogy embracing new possibilities. In these

⁶ The authors’ translation.

kinds of schools, students will “use digital media innovatively and with confidence to develop the skills they will need as individuals, professionals and interactive participants” (1/2-2013). The schools will have a wide range of technology-based systems offering the possibility to “transform schools into important agents of innovation”. This might in turn revitalise the school “as a powerful arena for learning”. Unlike in the existing schools where motivation is gradually draining throughout primary education, the students’ natural motivation for personal development will be sustained. New media and new technology are expected to “serve as an impetus and hub for innovation” and thus making it possible to develop “a virtual school” offering “online and pupil-centric education” using “new forms of learning and collaboration”. Then “24-hour teacher availability” might be possible (1-2011).

The students’ leisure time use of technology is considered to be vital for developing a “productive and creative digital competence”. This competence should be used in school (1-2006), which to some extent is already the case (3-2008). Young people are presented as role models referred to as “The Net Generation” (inspired by Tapscott), “The Next Great Generation” (Wim Ween) and “New Millennium Learners” (OECD) (4-2007).

New trends that may be realised in Norwegian schools “in the near future” are presented including “virtualization”, “cloud computing”, “service-oriented architectures” and “context-aware systems” that can adapt their behaviour according to the situation at hand (1-2011). In a school of the future scenario Norwegian education is seen as “the best in the world regarding the development of digital competence”. The school is recreated as a learning organization in which active use is made of the ICT competence developed by the students in their leisure time. Technology is “tailored to the needs of the individual”, and digital tools are used “to promote personal learning and collaboration” (4-2006).⁷ “A new pedagogy” paves the way for new possibilities and gives scope for the innovative use of new technology.

Once again the descriptions are rather vague and the arguments on a quite general level. Overall, this appears to be a stereotypical version of a desired type of school. So are the descriptions of the traditional school, and the result is a dichotomous presentation of school systems.

Traditional schools are described as neither reflecting society, nor reaping the benefits of new technology, while showing resistance to technology and partly seeing technology as a threat. It is maintained that they are based on a traditional pedagogy with a hidden curriculum of technophobia. Scepticism towards technology is perceived as widespread and several pedagogical researchers are seen as “closet technophobes” (1-2011).⁸ This scepticism is described as a stance which informs the entire history of education. Instances

⁷ The authors’ translation.

⁸ The authors’ translation.

mentioned are: the fear that Plato's writing would destroy memory (Ann.-2015), Jean-Jacques Rousseau's warning against using globes and maps (1-2006) and the controversies regarding Gutenberg's printing press.

One explanation provided is that technology is perceived as a threat before being subsumed into culture. Culture is defined as "the sum of all the functions and values which oppose technology" (4-2014). Both critical and traditional pedagogy are based on the ideals of enlightenment and linked to a humanistic orientation where education is viewed as a protection against technology. Pedagogy has therefore developed technology knowledge only to a limited extent. There are concepts and tool metaphors to describe technology, but these terms have not been developed to embrace today's media and technology. As the editor of the journal observes, this results in the establishment of technophobia as a hidden curriculum in pedagogy. This is presented as a paradoxical situation since information technology and learning are seen as converging in the current interdisciplinary trend including computer-supported collaborative learning: "Digitalization promotes dialogue, cooperation and problem orientation" (1-2011).⁹

The editorials present the traditional school as part of a status quo scenario, or as a prolongation of the existing school system. The main reasons for the failure in reaching the goals of a digital knowledge promotion reform are to be found in the combined opposition from bureaucracy, teachers and various interest groups. It is observed that no attention is paid to digital competence developed by children and young people during their leisure time. Moreover, Norwegian schools do not recognise the ideas of the digital domain as part of the curriculum. Then the importance of the school as a knowledge arena is weakened, and digital divides are developed (4-2006).

The total absence of references to the research articles presented in the journal, indicates either that the editor and editorial staff take for granted that they contain a message that is wholly in line with the hegemonic ideas presented in the editorials, or that they are perceived as being uninteresting or irrelevant to the discursive level of the editorials. Both positions raise serious ethical questions. The lack of a critical discourse inside the journal, between the editorials and the journal articles, needs further attention.

Concluding remarks and discussion

One of the main insights from the analysis of the editorials is that they are consistent with what might be regarded as the dominant political priorities. The editorials are to a large extent based on governmental plans and reports, national curricula, OECD and EU documents. They contain few, if any, critical perspectives and few references to research in the field. They are also characterised by presenting dichotomies based on stereotypical

⁹ The authors' translation.

descriptions of schools.

In the editorials we can note a marked negative attitude towards the “traditional school”. In outlining the alternative, we have repeatedly seen an open school where extensive use is made of advanced home technology and regulated by social networks. A wide array of ideological terms like “Millennium Learners” and “The Net Generation” are used, and the future is mapped out by different sorts of learning systems of technology, benefiting from “learning analytics” and “cloud computing”. In addition, the hope is expressed that schools might be revitalised and transformed into “important agents of innovation” where the students’ natural motivation for personal development and learning is sustained. The dichotomic version of this is the traditional school where the students’ eagerness to learn gradually diminishes over the course of their primary education. Criticism is directed to those who disapprove and “doomsters”. The negative attitude towards those teachers and educators who resist the digital wave is persistent. Readers are repeatedly reminded of the technophobes through history. The current ideology dominating education is proclaimed as a humanist conception that is fundamentally critical towards “the technological” and which still spells out its hidden curriculum.

It should be noted that consensus is being reached in the editorials on various perceptions, which are seen as “true” and “self-evident”, and presented without objection. Laclau and Mouffe’s descriptions of hegemonic meaning construction (Laclau og Mouffe, 2001) is here evident. It can be seen as an expression of hegemony when the most important arguments are taken from OECD and EU documents and transformed unquestioningly into the school planning documents. The importance of the use of commonly accepted key concepts as put forward by Koselleck (2004) is clearly demonstrated. In many ways, following Fairclough’s arguments, this might be regarded as a colonization of the education system (Fairclough, 1992; Chouliaraki and Fairclough, 1999). The recontextualization that takes place when computers which have been developed for other purposes are introduced into the school, shows little sign of active adaptation to the needs of teaching and learning. Thus, it is hard not to reach the conclusion that the editorials are aiming at creating a kind of clarity and simplicity out of ambiguity and complexity.

Another noteworthy finding was that the messages in the published research articles that may challenge or criticise hegemonic views, or give context and reflective ideas to the highly politicised editorials, seem to have had no impact on the editorial positions. The question this will raise for future research is if the selected and published articles do in fact align themselves with the expressed editorial positions, and how this might reveal more about the morphogenesis of a national knowledge structure of this field of research in Norway.

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Appendix

The analysed editorials

- 1-2006 - Formatering
- 2-2006 - Det skjulte pensum
- 3-2006 - Proteser
- 4-2006 - Morgendagens skole
- 1-2007 - Cool Memories
- 2-2007 - Digitalt kunnskapsløft?
- 3-2007 - Digital stillstand i lærerutdanningen?
- 4-2007 - Wikinomics
- 1-2008 - Learning spaces
- 3-2008 - Delingskultur, sosial web og læring
- 4-2008 - Program for digital kompetanse (2004–2008) – posthumt
- 2-2009 - The digital state of affairs in Norwegian schools 2009
- 3/4-2009 - 1-TIL-1 i utdanning
- 2-2010 - We Are the Champions
- 1/2-2011 - Lower Secondary School Dot Com
- 1/2-2013 - Synergies for Better Learning – Where Are We Now?
- 3-2013 - Learning to Be: Developing and Understanding Digital Competence
- 4-2013 - Horizon: Technology Outlook for Norwegian Schools

Mapping and analyzing prospective technologies for learning

- 2-2014 - Learning Analytics
- 3-2014 - Look to Denmark
- 4-2014 - Hidden Curriculum in Teacher Education

On the expression of hegemony in the field of educational technology

- 2-2015 - Finnish education system
- 3-2015 - Children testing tablets and apps
- 10th anniversary edition-2015 - Digital competence - a password to a new interdisciplinary field

Total - 24 - 2006-2015 - 4+4+3+2+1+1+0+3+3+3