

Social Media and Teaching

- Education in the new media environment

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Introduction – the big Gap

New research in the Danish upper secondary schools shows that social media like Facebook is the number one attention diverts from the interaction about educational subjects in the classroom. At the same time international research shows that there is a great potential in using social media in the educational interaction. In this way there is a huge gap between the claimed learning potential and the negative effects that currently appears. This schism can be found in many educational institutions, but in this paper we will focus on Danish upper secondary schools, where we have done empirical research the past seven years (Paulsen & Tække 2009, 2010; Tække & Paulsen 2010). To find out if and how the gap can be reduced, we have initiated the action research project *The Socio Media Education Experiment*, and in the paper we explain both the background for the project and its preliminary results. The overriding purpose of the paper is to provide a research-based input to the discussion about the role of social media in schools.

Potentials of social media

Let's begin by looking at the potentials that the international research attributes to the new social media. With new social media we mean Facebook, Twitter, Spotify, Youtube, Instagram, Skype, Google+ and various other sites on the web, where people can interact with each other, create weblogs and share information,

knowledge and files. There are problems with the term 'social media', but it will not keep us here where we will show the overall picture (see boyd & Ellison 2007). Six potentials are worth highlighting.

Firstly, researchers point at potentials for better *learning*. If social media are used in teaching the opportunities to express oneself, participate, collaborate, find information, reflect and learn together are expanded. The opportunities for help, teacher feedback, knowledge sharing, student productions, differentiation, shared notes, knowledge storage and process writing are also expanded (e.g. Crook 2008; Moody 2010; Liburd 2011).

Secondly, researchers point at potentials for forming better *communities*. If the new media are used the researchers find better opportunities for getting to know each other, become familiar with each other, do things together, make friends, connect and maintain relationships, learn each other's friends to know and to form communities (e.g. Blanchard and Markus 2004; Wright 2010; Atkinson 2010; Webb 2012).

Thirdly, researchers point out that the *study environment* at a school can be improved if the social media are involved, the use of social media can expand opportunities for contact between the school and the students, contact between classes and between year groups, to alumni and future students and increase participation in activities at the school in addition to teaching. Also they find better contact with absent students and opportunities to create virtual homework help (e.g. McNely 2009; Reid 2011; Zeng 2012).

Fourthly, researchers find better opportunities for *contact* with the surrounding community, people in other countries, politicians, friendship classes etc. and thus more realistic learning and perspective expanding education (e.g. Lovari and Giglietto 2012).

Fifthly, studies show that an active involvement of social media provide better *motivation and commitment*, as it expands the possibilities for creating lessons that students find interesting and challenging. With new media it is possible to achieve greater diversity in teaching and exceed traditional classroom training (e.g. Junco 2010; Elavsky 2012; Yaros 2012,).

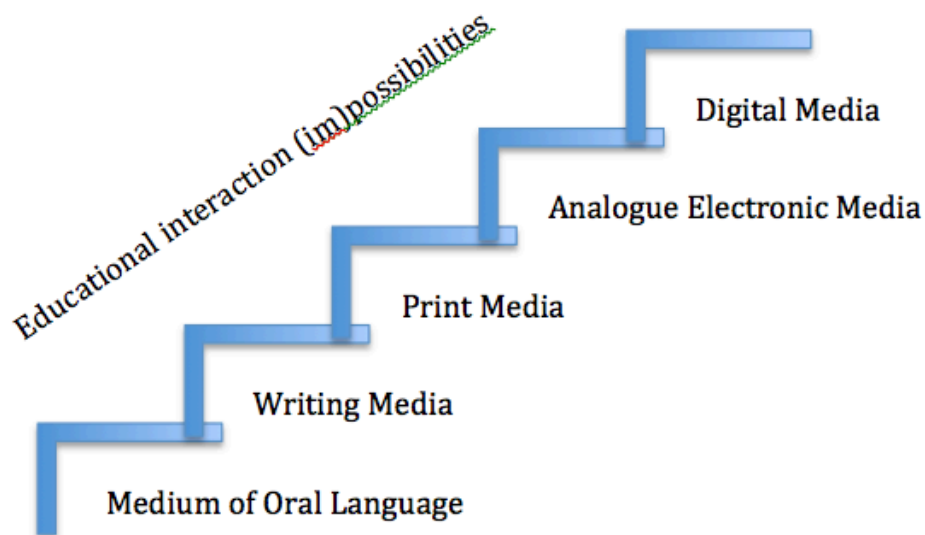
Finally, sixthly, researchers point out that students get better *media and IT skills* when social media are used actively in class and that students get better prepared for the contemporary society that is permeated by digital media (e.g. Lowe and Laffey 2011; Shannon 2011; Levinsen og Sørensen 2011).

A brief history of media

The expectation that the inclusion of social media in school can enable the above mentioned potentials seem plausible if we include a media historical perspective

(Finnemann 2005; Tække 2006). All teaching involves interaction between students and teachers (and between students and students) and such communication is only possible through media. The first major medium that enabled teaching was the medium of spoken language (Paulsen and Tække 2010). Before spoken language arose, there was virtually no teaching. Knowledge was mediated from generation to generation through genes, and socially expressed through instincts. With oral language it was possible to mediate learned experiences from generation to generation. After the acquisition of oral language, other media has been acquisitioned, which has expanded the possibilities for education: writing, the printing press, the analogue electronic media and now digital media.

Media history figure



This (admittedly perhaps the world's shortest) media history indicates that there most likely are important potentials of digital media in educational interaction. Exactly what potentials that can be actualised are not to say in advance. Media history indicates that only few opportunities in the long run will be selected in relation to normal teaching - for instance, the textbook in relation to the print medium, the blackboard in relation to the written medium and the talk in relation to the oral medium. Added to that, media history also shows, that every time the media matrix (term for all the media that at any given time is available in the community,

Meyrowitz 1986, 339) is extended with a new medium, society is faced with also new difficulties or even *impossibilities*. One major difficulty is that the standards with which society have regulated behaviour under the influence of the old media matrix, becomes insufficient in relation to the new and now extended media matrix (thesis inspired by Meyrowitz 1986). Consequently media history not only suggests that there is a potential that can be activated by a new medium, but also that there are difficulties that the very same medium generates which must be tackled if the potentials shall be triggered. In the following, we first describe the difficulties arising with social media in education. Then we turn to whether these can be minimized. And after that we focus on the prospects of one potential, namely the ability to promote active participation and learning through the use of social media.

The difficulties in the new media environment

The first difficulty we want to highlight is an uncertainty in the classroom resulting from the establishment of wireless networks and the use of computers, mobile phones and other devices. This difficulty is the most basic and generates all the other difficulties. The uncertainty lies in the fact that it is not transparent what is going on in the classroom. While the teacher goes through something on the blackboard, students can chat together, invisible to most others and even communicate with people outside the classroom. In addition, opportunities to participate in non-school-subject-matters are almost endless, and again in ways that are not visible to everyone in the class. For instance, you can discreetly follow and post status updates on Facebook, play online games, read news, invest money, etc. The new media situation means that the classroom is riddled with non-transparent opportunities for information enrichment and communication via computers, tablets, etc. which students and teachers have in front of them. The classroom is no longer definable by the four walls (Borgnakke 2007; Elf and Paulsen 2012).

All this makes teaching more risky than ever. It is *socially* insecure, who is participating in the teaching. It is *thematically* uncertain what can be communicated about. It is *spatially* and *temporally* uncertain where and when teaching begins and ends. It is *technically* uncertain which media works and can be used. Moreover, it becomes *culturally* uncertain how one should deal with the new media environment. Is it for example legitimate to answer a SMS message in the middle of a lesson, if it is an important message from your mother? Is it legitimate to live stream from the teaching? Is it legitimate to go on Facebook when the teacher for the third time explains something you already understand? Is it legitimate to take a very needed break with an online game? Is it legitimate to require that students write public accessible texts on the Internet? There are a host of new questions that society yet not has developed clear standards for.

The second difficulty is that many students seem to fall into addiction like drug abuse problems in relation to ICT and new media that go beyond the educational learning (Paulsen 2007:168-174; Paulsen and Tække 2009). Involving the abuse research (Greenfield 1999; 2000; Young 1999; 2006; Chou 2005) however, we can

see that addiction and abuse problems with regards to social media is so comprehensive and applies to so many students that it should primarily be interpreted as a secondary effect of the lacking normative regulation of the new digital teaching environment than as individual pathologies. Therefore we do not refer to these problems as problems of abuse or addiction, but as a number of ambivalences, because the situations which are not yet developed standards to clarify seems ambivalent to those present in them.

In addition, the third difficulty, which is associated with the first two, expressed by a term from Althusser (1971), is an *interpellation* of students through the new media, in the same way as when being hailed on the street and made to one who owes an answer, this just happens through the Internet to a completely unprecedented large extent. While students are expected to attend the educational interaction they receive a wealth of personal messages, technically generated notifications and they are exposed to advertising and other enticements that rips their attention from educational interaction. In the midst of the school lessons there is a battle about students' attention (Tække and Paulsen 2010), where social media as especially Facebook acts as an attention diverter, which for a while seems to be a much more effective *apparatus of capturing* our attention than teaching is - expressed with a concept taken from the philosophers Deleuze and Guattari (2005). The result is averted attention, distraction and diversion in relation to teaching.

However, it is not only because of external interpellation from the new social media that students are losing their footing at school. It is also linked to students' own perception of to what degree they can stretch their attention. Many students think that they can multitask, for example, make status updates while they are listening to what the teacher says - and even if they do not believe that they have the ability to multitask, they perceive *multitasking* as a very positive and cool quality, they can decorate themselves with. Yet, international research shows that it is not a valid opinion (Pashler 1994; König 2005; O'Brien 2011; Wood 2012; Lee 2012). On this background we see a widespread false consciousness among students in the Danish upper secondary schools, which makes it difficult for students themselves, as many of them believe that they can easily read and write status updates, keep an eye on SMS messages, read news, play games and share music - etc. - while they attend the teaching. The result is that memory and learning is weakened, which in particular is a risk of the academically weakest. This applies not only in the classroom, where the teacher is present, but also, and perhaps even more so when the students on their own do their homework (Beck and Paulsen 2012). The fourth difficulty is to recognize how the students de facto learn best in the new media environment.

The fifth and final difficulty, we want to emphasize here is how the teachers that perceive and recognize these problems should respond (for more difficulties, see Tække and Paulsen 2013). In brief, the initial teacher reactions, we empirically have detected in upper secondary schools, was either to prohibit the use of digital media, or ignoring the use of the new media and the problems related to them. None of the strategies teach students to use the new social media as effective learning and

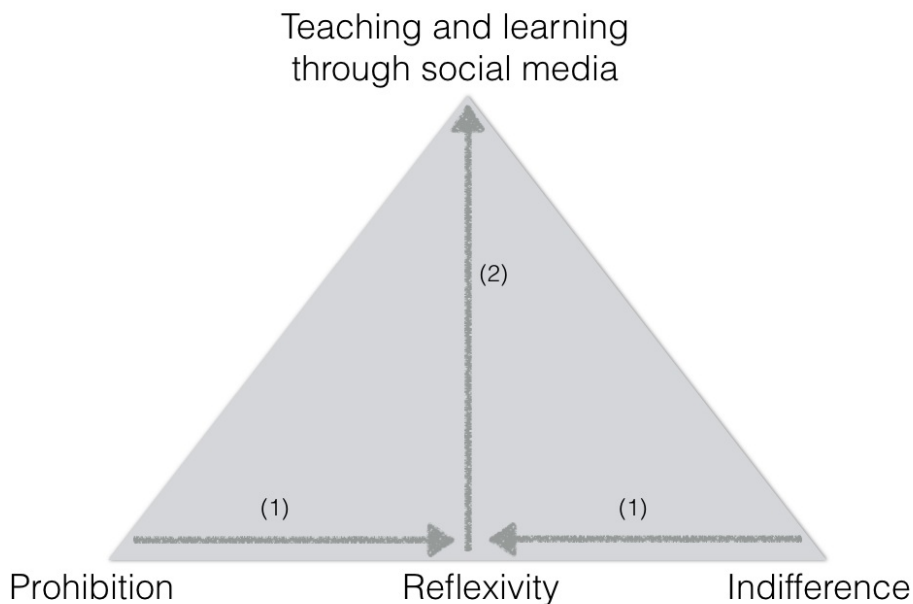
teaching tools, or to empower students to cope with the new media environment. In addition especially the prohibition strategy provide conflicts and a negative teacher-student relationship, exclusion, notoriously cheating etc. (Paulsen and Sørensen 2010; Paulsen and Tække 2010). But how should one react if not with prohibition or indifference when students go on Facebook? This is the thorny issue that we have put the action research project *Social Media Education* in the world to answer, and which we will now explain.

Social Media Education

In the school year 2011/2012 we initiated at Skive Business College the action research project Social Media Education (SME), involving that virtually all teachers in relation to a trial class tried to find solutions to the above mentioned problems in order to activate the also above described potentials of the new social media.

Overall, one can say that the SME-experiment follows a maxim that seeks to actualizes the potential the new media provide for learning, and simultaneously removes or reduces the obstacles the new media environment mean for students' academically attention. Following from this the teachers in the experiment must neither prohibit any use of media, nor be indifferent to any use of media. The gap between prohibition and indifference the teachers have to fill with *interventions* that aim at fostering students' media-reflexivity (make them become attentive to their own attention), and also the teachers have to use social media in their teaching (to make it likely that the reflexion become linked to "good examples").

The students in the experiment class are affected throughout their high school years, i.e. three years. The method has basically been a circular step-wise process where (1) researchers (us) has given input and suggestions to teachers, (2) teachers have designed ideas to affect the class, (3) the researchers have conducted field studies (interviews, data analysis, observations, questionnaires, etc.) to follow the effects, (4) the researchers and the teachers have met and discussed the ideas and (5) the teachers have redesigned their ideas to affect class, etc. The initial proposal from the researchers has been based on a didactic framework including two movements, the teachers have had to implement in the classroom. The first movement has been to move away from prohibition and indifference strategies and towards encouraging students' media-reflexivity (knowledge and ability to act proficiently in the new media environment). The second movement consisted in integrating social media in the teaching and educationally interaction. This was particular with the purpose of promoting a better and more extensive student participation in class (see detailed methods and design behind the SME-experiment in Tække & Paulsen 2013).



In order to promote students' reflexivity of media, the researchers particularly have suggested two focal points. First, to make students aware of their attention work in the lessons, including the difficulties in relation to multitasking. Second, to motivate students to find out how digital media are best used for learning, collaboration, interaction, storage, retrieval, etc. In relation to the inclusion of social media we have in the first school year, given the task that the teachers should try to use the interaction medium Twitter and the knowledge sharing medium Wiki. In both cases the aim has been to promote active participation and learning. In addition, with background in international studies (for example Junco 2010; Liburd et. al 2011; Crook 2008; Hostman 2012) we gave the teachers hints for how to use the media, both technically and pedagogically. In the following, we present some of the results from the first school year in relation to the initiation of reflexivity, and in relation to the use of Twitter.

Preliminary results

The first and perhaps most important result is that the prevailing teaching culture has been a enormous barrier in relation to the didactic move away from prohibition and indifference. For teachers it has demanded a radical change in their teacher role and way of being together with the students. However, the majority of teachers gradually switched to a reflection initiating teacher role, where both general prohibition and general indifference are avoided. Meanwhile, the experiment has also proved that teachers *to some extent* always have to resort to prohibition (when students cross boundaries, to the detriment of others) or ignore individual actions of students (since you cannot respond to everything). But again, the over-all picture

in the SME-class the first school year has been a gradual and successful movement away from both prohibition and indifference understood as general strategies.

The teachers who have switched their role (documented in research interview six months in to the project) expressed that they would not like to return to the previous strategies, neither in this class nor at all. The teachers now have a much better knowledge about their students than before, they do not experience a relationship of conflict, but a relationship of trust, and they can see the pedagogical benefits of using the new media in their teaching.

In relation to the students, we have witnessed a slowly improved media-reflectivity and a clearly improved communication between students and teachers. For students the prohibition culture also was a barrier, as it was so ingrained that it was difficult to unlearn. This meant that the students found it difficult to begin to take responsibility for their media use and only to a limited degree invited teachers to help them understand and act adequately in relation to the new media. To avoid *expectations* of prohibition and indifference is obviously difficult, but the change in behaviour appearing over time in the experimental class, shows that even small changes that approximates a situation where teachers because of students' trust can support the students' reflection on their own patterns of behaviour in the lessons actually helps the students. If the students get help to reflect on their own academic and attentional capabilities and limitations, they also *begin* to act accordingly, and go into a cognitive process in collaboration with teachers where they develop an appropriate behaviour.

In relation to the use of Twitter as a medium of education there has been several barriers originating from the students culture. First, most of the students were sceptical of the medium from the very beginning, since they would rather use Facebook and did not know Twitter in advance. Second, the use of Twitter throughout the first school year has been dependent on the teachers' initiative; they almost had to order students (how) to use the medium (which is also confirmed in international research, for example, Crook 2008). So even when experiments showed ways to use Twitter in teaching, that both teachers, researchers and students acknowledged have positive learning and participation effects, the students did not use the medium when the teachers did not initiate the use. However, students over time have become more enthusiastic about the medium, and we were able to detect 11 basic types of learning and participation promotional use of Twitter in a myriad of variation forms (see box 1 for examples).

Box 1. Successfully ways to use Twitter to promote active learning and participation

Twitter is a free public available micro-blogging medium where you have 140 characters to post a message (called a tweet). Twitter requires you to register on www.Twitter.com. In the following, we give examples of constructive use of Twitter in the classroom. The examples are only a small excerpt of the ways we have outlined in detail in our book about social media in education (Tække & Paulsen 2013). Tweets in teaching is coded in a way where students and teachers write hashtags (#) in their tweets depending on the subject, the messages belong to (e.g. #danish1Y or whatever you agree). If the teacher shows a sequence of tweets on digital whiteboard, only those that are tagged with the subject-related hashtag appear. This means that subject irrelevant messages are sorted out.

1. Questions and answers to the whole class. For example, the teacher asks an open question, and all students in the class correspond at once. The answers can then be displayed on the digital whiteboard and discussed. This brings many more "voices" in to the lessons than by ordinary oral conversation organized through show of hands. Scripture supports memory, learning and feedback options. The medium may further be used to support a polyphonic dialogue in class, where all voices are "heard".

2. Multiplexing during transmission. For example, during movie viewing or student presentations the teacher sits down among the students and tweet with them about the film or presentation. Educational focus, active listening and analytical framing are supported. Academically weak students will be better able to participate analytical - rather than if they just saw the movie as pure entertainment or went on Facebook during student presentations because they could not concentrate.

3. Sharing information. For example, the students are asked to search for information online related to the school subject and, in this context, to tweet links to the pages on the Web where they have found the necessary information. Tweets with links can then be examined critically in groups or in plenum. Critical information retrieval, shared frame of reference and systematic approach to knowledge sharing are supported.

4 Problem Solving. For example, students are encouraged to send a tweet when they need help because they get stuck in an assignment. The teacher and the other students are responsible for responding on Twitter with help, that does not give the answer, but the tools to move forward, such as the right formula. Can be used both in lessons and in homework. When help to a question is once given, everybody immediately can see it. It saves time, help is distributed quickly, everyone can quickly move on.

Through, among other things, a survey we have compared the SME-class' development in relation to social and academic engagement with the other classes at the school in the same year group, and the class shows a unique positive development. There is no doubt that an interaction medium like Twitter, which also international research shows, holds significant potentials in relation to the promotion of new forms of teaching, active participation and learning - especially when the medium is combined with a targeted effort to promote students' media reflexivity. Nevertheless, it is clear that the students do not - even though they through a year has been affected in that direction - have embraced the medium fully. Similarly, one cannot conclude that the students' media reflexivity (and their ability to act accordingly to their level of reflectivity) is sufficiently developed. Thus, roughly speaking, one can conclude that the SME-experiment until now has shown that a thorough involvement of an interaction medium like Twitter can provide significantly better participation and active learning when teachers go ahead and instructs the use, but also, that the students cannot be expected to take over and perform the good use by themselves as long as their media reflexivity is not fully translated into practice. It has been too difficult for the students to transfer the successful but single standing experiments into their own practise, which is related to a lacking encouragement by the teachers who have not put sufficient power behind the request for the application of Twitter use suggested by the researchers. The teachers have only to a lesser extent encouraged the students to use Twitter if they did not themselves embedded it in their planning as a part of their preparation before teaching. Therefore, the students have neither been able to cope with how to use Twitter unsolicited in classes, nor been motivated or more basically *expected* to do so.

Concluding remarks

On the basis of international research, media historically and media theoretically foundation and the application of an action research experiment and in-depth empirical data on the use of social media in the Danish upper secondary school, we have argued, that the new social media partly provide numerous difficulties for learning in school and partly, that these problems appears to be manageable and that an equally large number of positive potentials for learning and participation, can be triggered if teachers incorporate social media in teaching in an appropriate manner. We are aware that there are many intermediate calculations in this argument, which we have not been able to explain and dwell on exhaustively in this paper. Hopefully, however, the paper has managed to plant the argument, in a preliminary form of information and inspiration for anyone interested in future teaching that will inevitably unfold in the new media environment, for better or worse.

References

- Althusser, L. (1971): "Ideology and Ideological State Apparatuses" in *Lenin and Philosophy and Other essays*, Monthly Review Press.
- Atkinson, C. (2010): *The Backchannel*. Berkeley, CA: *New Riders, Peachpit*. Pearson Education.
- boyd, d. & Ellison (2007). Social Network Sites: Definitions, History, and Scholarship. *Journal of Computer-Mediated Communication* 13(1).
- Beck, S. og Paulsen, M. (2012) "Lektier mellem idealitet og realitet". Kommer i bogen *Kultur & Læring*. Odense: Syddansk Universitetsforlag.
- Blanchard, A. L. & Markus M. L. (2004): "The Experienced "Sense" of a Virtual Community: Characteristics and Processes", i *The DATA BASE for Advances in Information Systems - Winter 2004 (Vol. 35, No. 1)*
- Borgnakke, K. (2007). IT og nye læringsstrategier i gymnasiet. I *Gymnasiepædagogik* nr. 59. Odense: Institut for Filosofi, Pædagogik og Religionsstudier. S. 9-74.
- Chou, Condrion, & Belland (2005): "A Review of the Research on Internet Addiction" in *Educational Psychology Review, Vol. 17, No. 4, December 2005*.
- Crook, C. (2008): *Web 2.0 technologies for learning: The current landscape – opportunities, challenges and tensions*, Nottingham: Becta: Leading next generation learning.
- Elavsky, c. M. (2012): " You Can't Go Back Now: Incorporating "Disruptive" Technologies in the Large Lecture Hall" i *Social Media*. Noor Al-Deen, Hana S. & Hendricks, John Allen (Rad). Lanham, Maryland: Lexington Books. Pp 75 – 91.
- Elf, N. F. og Paulsen, M. (2012): "Brug af it i gymnasiet – muligheder og umuligheder", Kommer i Damberg et. al (red) *Gymnasiepædagogik*, 2. Udg. København: Hans Reitzels forlag.
- Finnemann, Niels Ole (2005): *Internettet I Mediehistorisk Perspektiv*. København. Forlaget Samfundslitteratur.
- Greenfield, D. N. (2000): "The Net Effect: Internet Addiction and Compulsive Internet Use" Hentet fra: http://www.virtual-addiction.com/a_neteffect.htm 20.9.2009
- Greenfield, D. N.(1999): "Lost in cyberspace: the web @ work" Hentet fra: <http://www.virtual-addiction.com/pdf/lostincyberspace.pdf> 20.9.2009
- Deleuze, G. and Guattari, F. (2005): *Tusinde plateauer – kapitalisme og skizofreni*. København: Det kongelige danske kunstakademis biblioteksskoler.
- Hosterman, Alec R. (2012): "Tweeting 101: Twitter and the College Classroom" i *Social Media*. Noor Al-Deen, Hana S. & Hendricks, John Allen (Rad). Lanham, Maryland: Lexington Books. pp 93-110.
- Junco, R., Heiberger G & Loken E. (2010): "The Effect of Twitter on college student engagement and grades", i *Journal of Computer Assisted Learning. August 2010 Blackwell Pub. Ltd*
- König, C. J. (2005): "Working Memory, Fluid Intelligence, and Attention Are Predictors of Multitasking Performance, but Polychronicity and Extraversion Are not", i *HUMAN PERFORMANCE, 18(3), pp 243–266*.

- Lee, J., Lin, L. & Robertson, T. (2012): "The impact of media multitasking on Learning", i *Learning, Media and Technology*. Vol. 37, No. 1, March 2012, pp. 94–104.
- Levinsen, K. T. og Sørensen B. H. (2011). Fremtidsrettede kompetancer og didaktisk design. I Meyer, B. (red). *It-didaktisk design. CURSIV, skriftserie udgivet ad Institut for Uddannelse og Pædagogik, Aarhus Universitet*.
- Liburd, Janne J. og Christensen, Inger-Marie F. (2011): "Web 2.0 i videregående uddannelser" Idéhæfte fra eVidenCenter® – Det Nationale Videncenter for e-læring Århus Købmandsskole Viborgvej 159A, Hasle 8210 Århus V.
- Lovari, Alessandro & Giglietto, Fabio (2012): "Social Media and Italian Universities: An Empirical Study on the Adoption and Use of Facebook, Twitter and Youtube" I © 2012 Social Science Electronic Publishing, Inc.: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1978393
- Lowe, Ben & Laffey, Des (2011): "Is Twitter for the Birds? : Using Twitter to Enhance Student Learning in a Marketing Course", I *Journal of Marketing Education 2011 pp. 33: 183*.
- McNely, Brian J. (2009): " Backchannel Persistence and Collaborative Meaning-Making", I *SIGDOC'09, October 5–7, 2009, pp. 1-7*.
- Meyrowitz, Joshua (1986): *No Sence of Place: The Impact of Electronic Media on Social Behavior*. Oxford Uni. Press. USA.
- Moody, Mia (2010): "Teaching Twitter and Beyond: Tips for Incorporating Social Media in Traditional Courses", i *Journal of Magazine & New Media Research*. Vol. 11, No. 2, pp 1-9.
- O'Brien, Jennifer (2011): UCSF Study on Multitasking Reveals Switching Glitch in Aging Brain. www.ucsf.edu
- Pashler, H. (1994). Dual-task interference in simple tasks: data and theory. *Psychological Bulletin*, 16, 220–244.
- Paulsen, M. (2007): "Gymnasiet som affektivt felt" i Zeuner, L. m.fl. *Lærerroller i praksis*. Odense: Gymnasiepædagogik, nr. 64.
- Paulsen, M. & Tække, J. (2009) Om den uformelle (mis)brug af medier i det formelle Uddannelsessystem. In *MedieKultur* vol. 46, pp. 56-72.
- Paulsen, M. & Tække, J. (2010) Digitale medier og magt i undervisningen. In *Dansk Sociologi* 3(21) pp. 29-48.
- Paulsen, M. og Sørensen, E. (2010): "Formel og uformel brug af it i gymnasiet" i Zeuner et al. *Ret og gyldighed i gymnasiet*. Gymnasiepædagogik nr. 76. Odense: Syddansk Universitet.
- Reid, J. (2011): "'We don't Twitter, we Facebook": An alternative pedagogical space that enables critical practices in relation to writing", i *English Teaching: Practice and Critique* May, 2011, Volume 10, Number 1. Pp 58-80.
- Shannon, B. Rinald, Tapp, Suzanne, & A. Laverie, Debra (2011): "Learning by Tweeting: Using Twitter as a Pedagogical Tool", i *Journal of Marketing Education* 33(2) pp. 193–203
- Tække, Jesper (2006): Mediesociograf Ph.d.-afhandling. IT-Universitetet i København. Innovative Communication (InC). Tilgængelig på: <http://person.au.dk/fil/17825022/mediesociografi>

- Tække, J. & Paulsen, M. (2010) Trådløse netværk og sociale normer i forandring. In *Norsk Medietidsskrift* (1) pp. 26-45.
- Tække, J & Paulsen, M. (2013). *Sociale medier i gymnasiet – mellem forbud og ligegyldighed*. København: Unge Pædagoger.
- Webb, Lynne M. (2012): "Faceboog- How College Students Work it" i *Social Media*. Noor Al-Deen, Hana S. & Hendricks, John Allen (Rad). Lanham, Maryland: Lexington Books. Pp. 3-23.
- Wright, Noeline (2010): "Twittering in teacher education: reflecting on practicum experiences" I *Open Learning* Vol. 25, No. 3, November 2010, pp. 259-265.
- Wood, Eileen et. al (2012): "Examining the impact of off-task multi-tasking with technology on real-time classroom learning" I *Computers & Education* 58 (2012) pp. 365-374.
- Yaros A., Ronald (2012): "Social Media in Education: Effects of Personalization and Interactivity on Engagement and Collaboration" i *Social Media*. Noor Al-Deen, Hana S. & Hendricks, John Allen (Rad). Lanham, Maryland: Lexington Books. Pp. 57-75.
- Young, K. (1999): *Fanget i Nettet*. Danmark. INTROITE.
- Young, K. (2006): SURFING NOT STUDYING: DEALING WITH INTERNET ADDICTION ON CAMPUS. Hentet fra:
http://www.netaddiction.com/articles/surfing_not_studying.pdf 20.9.2009
- Zeng, Lily, Hall, Holly, og Pitts, Mary Jackson (2012): "Cultivating a Community of Learners: The Potential Challenges of Social Media in Higher Education" i *Social Media*. Noor Al-Deen, Hana S. & Hendricks, John Allen (Rad). Lanham, Maryland: Lexington Books. pp 93-110.