



## New teacher functions in cyberspace - on technology, mass media and education

### Mie Buhl, Ph.D

Associate Professor  
Danish School of Education  
University of Aarhus  
Email: [mib@dpu.dk](mailto:mib@dpu.dk)

### Abstract

*Information technology allows the education system to do its job in new ways. Conceptions of what it means to be educated are changing both for teachers and for students. A teacher's professional duties are not limited to acting as a disseminator of knowledge and facilitating learning processes for the student. Teachers must also relate their position to new constructions of time and space. However, these new constructions of what it is to be an actor in time and space mean that some of the functions that have as a matter of course been assembled in the person of the teacher have been displaced into other positions. Information technology exposes the teacher's performative choice in how teachers act in certain situations, which intensifies reflexivity. This article is about how teachers must meet increasing expectations to perform on the premises of mass media and how this displaces the premises for educational practice. Specific examples will be provided from a situation in the master's program in media and ICT.*

**Keywords:** teacher functions, media, visual culture, educational anthropology, learning, technology

### Late modern education and pedagogy

In late modern society, the education system is facing a complexity that raises questions about aspects of education that we have heretofore viewed as self-evident. This self-evidence is based on the fact that the actors, for example, in an education/learning situation are in the same physical space. Until now, this has been the premise for optimizing the conditions under which students acquire knowledge about a specific subject. Didactics heretofore has been able to focus on how educational practice could be implemented, focussing on two things – the student and the subject matter – with a view towards promoting learning. These two things have been the objects for didactic considerations, and it has been part of a teacher's job to do this.

The teacher must be professional, which includes thinking about how to initiate and implement processes for achieving specific goals and disseminating specific information and how to evaluate these processes afterwards. Erling Lars Dale describes this process in terms of three didactic skills that teachers must be able to master if their teaching is to achieve a

professional level (Dale 1989). The three skills are 1) the implementation of teaching, 2) preparation for teaching and 3) theoretical reflection on teaching.

New information and communication technologies and mass media mean that the basis for making these three skills operative is changing. At the *implementation level*, the actors have changed with respect to time and space; at the *preparation level*, a rethinking of the educational setting is required; at the *theoretical reflection level*, a rethinking of the premises underlying teacher functions is required.

With the title *New Teacher Functions in Cyberspace*, this article focuses on how the teaching profession is gradually changing from an anchoring in physical space to also being able to take place in virtual space or in a mixture of both. With the increase of new technologies, teachers must rethink their own self-understanding as a profession. In particular, this applies to the implementation of teaching and learning processes as well as to preparation and reflection about them. Teachers are no longer single actors in relation to didactic practice, and the functions of both teachers and students, as well as the idea of subject matter, are changing.

The present article argues that information technology makes clear a reflexivity in the teaching profession, which appears in the way teachers carry out their profession and can be observed in educational contexts. The reflexivity is articulated aesthetically as performativity and assumes to an increasing degree forms that make reference to the paradigms of mass media. This plays a central role in the ways we read each other in educational communication and the functions connected to the teaching profession.

### **Refocussing on the teacher**

My focus in this article is on the teacher, because the increased focus on learning and learner is changing the functions of the teacher without much attention being paid to making these changes explicit. My starting point is the “generation” that follows project-oriented and problem-oriented education in which the teacher typically has the function of guide and critical friend. Along with the increased use of information technology, the teacher’s function is being defined to an increasing degree as ‘facilitator’ and ‘moderator’. I am interested in thematizing what significance this has for the teacher’s didactic professionalism, that the conditions for establishing education and teaching situations are not only changing from being able to take place in a physically defined framework to a virtual reality but also that the conceptions of the actors (student, subject matter and teacher) are generated in a context that draws on communication codes outside the education system.

One of the technologies that have been brought into education is video-streaming. As a medium, video-streaming contains the potential, for example, to overcome geographic distance in educational practices and, by virtue of its asynchronicity, to make displacements in time possible. The actors in education no longer need to coordinate their physical and temporal presence with each other, which adds a new aspect to the teaching profession and, thus, the conditions for didactics.

The implications of this are set out in the present article with examples from a case in 2003, in which I myself was an actor who, for the first time, was to teach a group of students while simultaneously being video-streamed. This process challenged more than simply how to relate to the cameras. It challenged professional aspects of my teaching that had to do with how to relate to students in my capacity as a teacher on Dale’s three levels (Dale 1989): It challenged those aspects that deal with preparation and implementation, since my own teaching performance received greater

attention than usual. Furthermore, it challenged the conditions for didactic and pedagogical reflections and my self-understanding of the teaching profession.<sup>1</sup> I decided to take up the challenges and to approach it from a perspective in which I positioned myself as both teacher and researcher during the process of giving the lecture.

I found that my didactic decisions with regard to implementation required considerations and agreements that implicated technicians, just as I had to make dramaturgical decisions with those who were to run the camera during teaching. I could have chosen the classical view that the video recording could take place without my input with respect to, for example, camera placement, and simply consider the camera as a fly on the wall. But as a teacher, I was provoked by the fact that those who would be watching the stream were outside my reach in time and space. Furthermore, I noticed that my consciousness of this had an influence on my performance, which challenged my self-understanding as a practitioner of my profession and my understanding of the practical and theoretical dimensions of didactics (cf. Dale).

The challenge in this complex of didactics and technology has to do with the possibilities of technology, the performance of the teacher, the access of students to teaching, the character of the content of the teaching, and thus new conditions for education. My methodological ambition is to explore these opportunities from the conceptual approach of visual culture as a strategy of reflection (Buhl 2005)

### **Visual culture as analytical approach to the teacher in physical and virtual space**

I am interested in investigating this didactic complex from the ways the teaching profession is constructed in new ways. My focus is on how paradigms outside the education system are used and played out in the actual execution of those parts of education in which the teacher lectures, and what significance this has for how the teacher and the student act in an educational situation. It is here I believe that a performative aspect can be observed, since the teacher can either choose to ignore it or to relate to it reflexively. The performative aspect unfolds in the relationship between technology and mass media, which, making reference to Niklas Luhmann, I use respectively as dissemination media and a functionally undifferentiated system (Luhmann 2002). I find Luhmann's distinction useful for identifying the relationship between technological opportunities and new modes of communication without making technology into the determinative factor. Rather, I agree with Luhmann's assumption that technology clarifies features about late modern communication that are characterized by reflexivity. This goes for the researcher as well. Luhmann's understanding of reflexivity (Luhmann 2000:507) forms the basis of my development of the analytical concept of visual culture as a strategy of reflection (Buhl 2004a: 287, 2005:47ff), since this concept contains the possibility of pointing out, examining and raising questions about "self-evident" aspects of the education system that we automatically reproduce in physical space such as, for example, the classroom and transport to virtual space as metaphors and repeat in mixed forms of physical and virtual space. Thus I introduce a reflexive position to the development of conditions for 'professional amazement' as an analytical strategy in the field of education. Professional amazement is a concept I've taken from anthropologist Kirsten Hastrup's account of being at one and the same time ethnographically present and anthropologically distanced from the field in which I am acting (Hastrup 1992) and making it an object for reflection. Her approach makes possible the use of visual culture as a privileged position for studying performative aspects of teacher functions.

When visual culture is used as an analytical concept, it has to do with how the visual is a part of constructing the conditions for a concrete reality, which is in the present case an educational setting. Visual culture indicates that, when something is observed, it also implies a thematicization of how this 'moment of observation' is established. This makes visual culture into a dynamic practice that is characterized by change and implicitly contains reflexivity. It might be said, somewhat trendily, that *visual culture is about constructing a gaze upon the world, physical as well as virtual, and raising questions about the preconditions for seeing what one is seeing* (Buhl 2003:18). In this sense, I am using visual culture as a strategy of reflection for unpacking supposedly self-evident aspects of the teaching profession by pointing out those aspects of the teacher function that are articulated visually – for example, in the ways an education or teaching situation are established in a distant-learning context. In the present article, I use visual culture as a strategy of reflection to unpack the performativity that, on one hand, is always a part of certain aspects of a teacher's functions and, on the other hand, assumes new forms in the interplay with the paradigms of new technologies and mass media.

In my treatment of the relationship between technology and mass media, I introduce a distinction between the two concepts. Technology refers to various forms of hardware and software that make possible different codes that can expand communication. I juxtapose this with Luhmann's concept of dissemination media. Mass media, also with reference to Luhmann, is used as a designation for a social system. That is, the mass media system maintains a particular function in society that is coded in a particular way (Luhmann 2002:85). I base my reference to the mass media system in an interest in the paradigms for communication to which I believe the education system increasingly chooses to resort without necessarily articulating explicitly its relationship to the teacher function. Technology, mass media and pedagogy are thus components that contribute a number of new teacher functions and construct the performative teacher position.

## **Physical and virtual space in education**

Until now, pedagogical theory has been concerned with educational situations in which we are physically present in a physically-anchored world with physically-anchored teaching tools. Even though technology has been available, it has not seriously disturbed the premises for this view. More recent forms of technology, however, make it possible for education to take new forms, and the way a teacher has to think about students in a concrete situation rests to a higher degree on the model conceptions the teacher has about the student than on what plays out in the specific situation in which there is physical presence. By model conceptions, I mean the general framework that society creates about what is supposed to take place in various educations and the implicit expectations of the student and the teacher (Buhl 2002: 37 ff). However, it has always been the case that the teacher and the student have been positions that are primarily intended to facilitate educational communication. But the technological possibilities for establishing virtual space and virtual time have made this even clearer (Fritze 2004). It is not only the student who must adapt to learning in new ways. Didactics implies being able to imagine students as they could be. Media and IT scholar Yvonne Fritze has shown in her Ph.D. dissertation *Mediet gør en forskel [Media Makes a Difference]* from 2004 that the way we as teachers relate to didactics is still carried by the metaphor that the teacher, the subject matter and the student relate to each other on the same premises as if they were in the same physical space and the teaching methods reflect this. Even though the actors relate through video telephones or chat rooms, the traditional school metaphor lives on when it comes to conceptions for the rules as to how one acts in an educational situation. The teacher draws

unconsciously on experiences from education in which the teaching context was framed by physical parameters with everything that implies in terms of bodies in movement and expression, (smiles, wrinkled brow, yawn, looking out the window, etc.) as important parts of the communication. This also implies experiences with small talk about things other than the subject and empathy for the rules for being in the same space with everything that implies in terms of social conventions, regard of personal needs, mutual positioning and conflicts.

### **Changing teacher functions**

Thus there is a discrepancy between the functions of a teacher and their conceptions about their functions. If I were to frame it polemically, I would say that virtual education and teaching has robbed the teacher of the opportunity for engaging in a transformative process with students and reduced students' opportunities for engaging with a teacher. The teacher's function in a traditional teaching situation is complex *but gathered in the same person*. Here, the teacher and the student are able to support each other by insisting on pursuing a dialogue that one party, for one reason or another, is not interested in. The teacher is able to insist on 'the student doing something in the situation.' The teacher has established a space for the learning opportunities present in the situation along with others.

With new technology, other possibilities appear, but the possibility to be the person who automatically has authority and the experience and professional expertise to insist on challenging another's world view has been weakened. Likewise, a number of teacher functions that have not been articulated as clearly before have appeared. I am referring to the teacher's performative abilities (here, aesthetics plays a role), the options for dealing with the absence of physical presence, and – this is the most difficult – the teacher's self-understanding of his/her profession. What criteria are actually at the basis for one's self-perception as a teacher? What factors are more or less consciously ignored? What 'metaphors' for teaching are used? Our encounter with technology has made it common to focus on learning as opposed to teaching, because teaching is the teacher's project, and learning belongs to the student. The teacher has become a function permeated with demands for flexibility and a readiness to adapt, which follows in the wake of technology's facilitation of displacements in time and space. The function of a teacher has at one and the same time increased in complexity and had its complexity reduced. The staging of the teaching plays a role, because what was once an implicit part of the teaching and learning situation is instrumentalized. Fritze demonstrates this in her study of how different forms of lecture are staged in a distance learning context (2004:95ff).

### **Technology and mass media**

Recent technology has made it clear that communication takes place in ways that cannot solely be reflected in the familiar school metaphor, because technology is capable of establishing an *educational setting* in many different ways. By educational setting, I mean the circumstance that communication alone determines the extent to which what takes place has an educational function. Technology makes it possible to establish a space that is outside the control we are familiar with in school. It can construct a space that exists by virtue of digital coding but only makes sense when we attribute particular meanings to it from the experiences we each have. We can choose to interpret the shift from physical to virtual space with conceptions we have from our own school days when information technology did not exist, or we can choose to relate to it as if everything in reality is a fiction, or we can choose to try to

relate to it in both ways. This is where the paradigm of mass media becomes interesting in an educational context.

### **Mass media as universe**

In the following, with reference to Luhmann, I will focus on mass media as system (Luhmann 2002). Luhmann operates with a view of mass media as a reality in the sense that reality is not a physical reality but a component in communication in late modern society (op.cit:11ff.). Sitting in front of the television, sitting at a computer, going to the movies are components that make up realities in our view of reality. In the following, I will refer to this as the universe of mass media.

The universe of mass media has several aspects, because it disregards traditional rules for communication in which we are used to being able to see, for example, the person(s) to whom we are speaking. The mass media have no idea whom they are addressing. It can be said that a reality is constructed, which an unknown receiver may enter into well knowing that it is not a physical reality that directly involves the individual. A reality is created that is not reality (ibid.). The tricky thing is that, even though it is not reality in the sense that it gives us direct experience, it is nevertheless a reality that gives us a great deal of the information we use to understand the world. This puts us in a situation in which we have to live with the fact that we are provided with a reality that we know is not real but which still supplies us with information that becomes a sort of background reality that we use to construct our view of reality. Modern man lives with this paradox to a large extent. It provides a form of presence, because mass media references itself directly to 'me' (and a lot of other 'me's), at the same time as each individual has the opportunity to believe what they will about what is going on, because it has no influence on further communication. The crucial thing is not the opinions that are the result but that mass media provides a thematic community (op.cit.:89) – i.e., one is provided with a theme of an ethical, moral character, for example, about which the individual is not obliged to believe anything in particular without a communication partner to react to.

Mass media establishes a form of background reality that the individual can use in his or her own construction of different forms of reality (op.cit:85). The individual is placed in a paradoxical situation: mass media is directed in a way that makes the individual a target for communicative efforts at the same time as the individual is de-individualized, because this effort is also directed at a billion other people. As a result, the individual cannot be seen as a true identity but rather as a series of roles that are one thing in one context and something else in another, which makes the concept of identity as *a core* difficult to maintain. Even though different rules apply to online communication, there is no guarantee that identities are communicating rather a series of roles, or as I prefer to call them: avatars.<sup>2</sup> In this way, mass media can be seen to operate with a standardization of the human being as a 'social construct'. What was ordinarily obvious for parties to communication in a form of physical presence has established an expectation in communication that technology is helping to challenge in a new way. It appears that it promotes the development of *self-regulation* in the individual, which consists of being able to deal with the fact that the universe of mass media establishes a *fictive reality* that is accepted as reality, even though there is an implicit consciousness of the fact that it is not reality – i.e., it is accepted as a statement that can apply to how the world may be seen (op.cit.73f. note 8).

Mass media images may be seen as a trivialization of artistic images: the news shows realistic images, entertainment dramatizes narrative sequences, advertisements always try to do something new and trail blazing to pique our interest and make us want to buy a certain product, even though we know that

is the purpose of the ad. As users of mass media, late modern man has grown used to the different variances in the mass media and the universes and genres they make use of. Late modern man has gradually become comfortable reading and understanding the rules and playing the game accordingly. When the computer is made available to the form of mass media, it plays out in different variations.

Luhmann divides background reality into three areas: news, advertisement, entertainment (op.cit:39ff.).<sup>3</sup> These three areas make use of their own form:

**News:** *News makes use of an 'informative form' in its account of a reality.* News presumes the individual is a cognitively interested viewer who, as one among millions, takes what is presented as a statement about the world. An example is television news or net-based news pages (or newspapers), which provide information on everything – terror, assassination, political conflicts, events in the royal house, scientific discoveries, etc.

**Advertisements:** *Advertisements make use of a form in which attention is attracted to a product through paradox.* An advertisement plays openly on the fact that the observer knows the motive and the goal, but an attempt is made to establish a desire in the observer to deceive himself. Ads are directed at the individual as a calculator who considers the utility of being flattered into purchasing or not. For example, many ads make use of the paradox that you can save money by paying money out (for example, 3 boxes of washing detergent instead of two), or concepts are used that gainsay the product by making fun of the product or the ad's way of advertising.

**Entertainment:** *Entertainment presents a variety of mythologies that can be selected by the individual as a constant store for identification.* The individual is presumed to be the recipient of narrative fictionalities within various categories. These are presentations of the typical as an experience of commonality – for example, films and talk shows – and the ideal as a striving to distinguish oneself – for example, in sport.

### **Self-regulation and performativity**

Being able to regulate oneself with respect to various realities apparently goes further and develops performatively, understood in the sense that a consciousness of self-regulation has developed and may be that which the mass media has taught the late modern individual to exploit. This appears in the form of performative strategies that always point toward their own way of pointing. There is a reflexive play on the relationship between consciousness of the mass media's distortions of real and fictive realities but in a way that challenges them. This makes self-regulation into a theme for various forms of development. In this way the aesthetic is actualized, because it provides possible forms for dealing with this performativity (Buhl 2006). Thus, self-regulation develops as a reflexive positioning that suggests consciousness of one's own position and possible differentiation. The development takes place as a series of performative strategies. These strategies are especially prominent in the mass media at the moment, but they are also included in many of the ways we put things and social conventions. For example:

- *irony* – i.e., distancing oneself by indicating the opposite,
- *sentimentality* – i.e., exaggerating the means,
- *humour* – i.e., constructing a logic and taking a surprise turn,
- *noise* – i.e., disturbing expectation for order by adding or removing foreign elements (Buhl 2004b:51; 2006:221).

These strategies have made apparent special ways of communicating that call attention to the reflexive aspect in a form of performativity in the sense of

action-processing positions, since they tacitly presume their own premises (Buhl 2006: 221).

Thus various forms of reality are generated that enter into the space of experience for modern man and in the ways communication takes place. With respect to education and learning, a distance is built in that calls for performative strategies from the teacher and the student. This is clearly felt when there is a collision between physical and virtual space, when teachers and students have to act in the complex of the here and now and take into consideration displacements in time and space, when modes from the paradigms of mass media are activated in the form of assuming an observer role or commentary on the educational setting.

### **Technology, mass media and teacher functions – a case study**

As a teacher in a master's program in which media and IT are a central part of the program's content and form, I have garnered experience with what is involved in teaching in physical space, virtual space and a mixture of the two. I will provide examples from a program in which I, in collaboration with two colleagues over a period from 2003 to 2006, taught a 2½-month course, which we introduce with a seminar at an educational institution, evaluate the quality of content and frequency of contributions at an electronic conference, and finish with another seminar. The course deals with graphics, images and sounds as components of didactic design and the students are evaluated on their ability to discuss the learning possibilities of a selected object of analysis on an analytical and theoretically-based foundation. The theoretical foundation consists of didactic theories, learning theories, and theories on images, sound and graphic design. My specific area of competence in this connection is in didactic theory and the aesthetic function of images. During this period, I experimented with pre-designed educational settings, investigating the functions of teaching in the virtual reality of video-streamed sessions.

Thus, the educational setting is constructed in such a way that the communicative space unfolds as physical, virtual and both. Technology is included not only as a digital medium and as a way of communication, but the learning possibilities of technology are also the *subject matter* in the educational setting. The educational content thus consists of the complex of teaching *in* the physical and virtual space through communication in physical space, virtual space and a blended form thereof.

The question is whether this virtual-reality-based master's program (like every other educational program) rests on metaphors that relate to physical reality. If you entered into the program's virtual portal in 2003, it has the visual appearance of a campus with buildings and, in the workspace, a desk has been drawn along with other things that traditionally belong to a physical workspace. The metaphor thus makes reference to a physical world. You could ask whether teachers – including in this case myself – use this self-description as a position for how we view our own profession, using it as a 'filter' for disregarding aspects that are made self-evident by a long tradition of teaching. Even though you are prepared for the fact that it is a new situation to work with distance learning, there will be a paucity of seminars requiring physical presence, and technology will be used in a variety of ways in its development, the starting point as the teacher trying something new will still be anchored in the way the profession developed from its beginning: namely, the encounter between the person aiming at change for the purpose of gaining new insight (the teacher) and the person who receives the opportunity to gain new insight (the student).



Taking as my starting point a specific pre-designed sequence in 2003 and follow-up experiments in subsequent years, I will reflect on teacher functions below from three perspectives: 1) the physical communication space, 2) the virtual communication space and 3) mixed forms of physical and virtual communication space. The position for observing this is my reflexive and self-regulating positioning as both teacher and researcher.

### **1st perspective: The teacher and physical communication space**

In the first perspective, I am in the teacher position, the situation with which the education system has the most experience, which has to do with the use of technology in physical space. Here, my professional didactic skills are based on Dale's three levels (cf. Dale 1989). Technological skills, however, are required, because I have to deal with technology during the teaching process. The specific example has to do with the use of PowerPoint presentations. As an organizational method, PowerPoint has some technical advantages that make the program easy to use: It can organize a presentation;<sup>4</sup> there is a broad range of possibilities for varying visual and audio presentation through pre-designed templates or, if you so desire, slides you can design yourself. There are opportunities for working with embedded links offline and online, so you have a connection to Internet webpages and can use them in the presentation to document and demonstrate aspects that are topical in the communicative space.

In my specific presentation, I used options in PowerPoint (PP) for documenting how the universe of mass media generates particular forms of communication (cf. above). This meant that my preparation for the presentation consisted in part of organizing it in terms of how the universe of mass media reveals a form of self-regulation in the individual. As described above, mass media is not something that is outside reality but establishes a form of reality that takes part in our ways of constructing reality (cf. Luhmann).

These dimensions of technology and universes seem to generate a form of performativity in the teacher that, for example, results in the teacher assuming a complex of functions that imperceptibly take part in the construction of the role of teacher that arises. For example, this happens when the teacher fumbles around in her PP presentation while interweaving appropriate comments on what will appear on the screen very shortly. Something similar takes place if the links in the PP presentation cannot be made to work on the specific computer, either because a program is missing or it takes time to make the connection. This has introduced a legitimate waiting period into the communication situation that is used to expand on the subject matter or to comment on the technology. However, this is interrupted the moment the connection is re-established and everyone concentrates on the projection on the screen. The technology is in charge of the room and demands attention like a television! In spite of the technologically-mediated interruptions, the teacher can in a combination of physical presence and technology easily preserve the conception of her profession as the person who maintains communication and acts in the 'here and now' in the situation. The teacher functions are assembled in one and the same person:

- The teacher possesses, in the present example, the professional expertise to teach the subject matter. The teacher is the 'critical friend,' whose purpose is to alter the student's insight in a particular subject.
- The teacher possesses the technical expertise to deal with the use of PP in a way that can demonstrate relevant aspects of the subject.

- The teacher creates the framework or rules of interaction. In the present example, this means establishing an educational setting for communication about the subject.

This teaching situation is borne by the physical presence of the teacher and the student (body – eye contact – acting in the here and now), and as a teaching situation it does not distinguish itself markedly from the traditional teaching situation with blackboard or overhead projector. And yet – for the teacher, there is a difference. The PP presentation provides an opportunity to demonstrate sequences in time – for example, by embedding links to webpages that act as moving pictures. This means, for example, that the observer role takes over in the teacher, while the link is activated. This means that there is a form of timing implicit in the possibility of going online in the situation. This creates a situation in which teachers as well as students have experience with online connections from their own use of computers. That is, experiences with the use of technological skills are activated and experiences with the universe of mass media are activated. The field of attention shifts from a relationship between teacher-student eye contact to both parties being absorbed by what is happening on the big screen, since the teacher’s attention is aimed at the technology in order to comment and navigate through the PP presentation. The students’ attention shifts in order to follow along and they become an audience. In the moment technological refinements are intensified, physical presence is made more extensive. This is true for both the teacher, whose eye contact with students is reduced, and the students, who do not have sufficient eye contact with the teacher. The teacher’s voice may seem like a voiceover to what is going on visually. Students can become the audience, who comment on what is going on visually from a position of mass media (cf. above). The subject matter in the communicative space begins to take on a life of its own and is assessed on the basis of its performativity.

## **2nd perspective: The teacher in the virtual communication space**

In the second perspective, I am in the teacher position, knowing that the traditional experience of the profession in the form of physical presence between the actors is not in play. This has to do with the use of technology in virtual space. In my specific example, it had to do with the use of streaming videos at an Internet conference. What teacher functions are required here, and how is communicative space established? The teaching material, which is a recorded version of the aforementioned PP presentation, can be seen on the Internet and is the only access to the presentation described above, which has already taken place in physical space. The student can see a ‘film’ about the session in which the camera lens is aimed at the teacher and the PP presentation – i.e., you can observe the teacher’s lecture and a demonstration of visual/audio tools in the PP presentation. The teacher’s presentation – now video-streamed – becomes an opportunity for meaning construction (Fritze 2004:96) which the student can accept or reject exactly as in the universe of the mass media.

Even though the student, for example, may disconnect by pressing the pause button on the video player or simply walking out to get some coffee during the presentation, it has no influence on the way the teacher acts. It takes place as if in a classic teaching situation in which only those who have influence on the sequence of events are those present in the physical space (op cit.:99). It is the choice of the camera lens and the cameraman to determine what the distance learner has access to (ibid.). On the one hand, you do not choose for yourself which of your fellow student’s reactions you can see. Nor can you interrupt and ask for an explanation or more detail. On the other hand, you can rewind, if you want to hear something again.

This puts demands on both teacher and distance learner to imagine each other's intention but without entering into a dialogue. The teacher is able to draw on experiences he or she may have from teaching in physical space. With technology, the teacher can vary visual and audio tools. Because of the time frame and a general desire on the part of students to "get something out of it" the few times they meet their teachers in physical space (even though a weekend with a myriad of PP presentations can be too much of a good thing!), this type of presentation consists to an extensive degree of me, the teacher, speaking and doing demonstrations.<sup>5</sup> This has the character of a lecture and it is this type of lecture that is suited for being video-streamed.

As a further construction of what goes on in physical space, the distance learner can now observe how other students and teachers play out a scene in physical space called education. The 'film' on education can be seen and taken into consideration as news. The purpose is still that teaching is taking place with a view towards learning, but the premises have changed, because the distance learner is removed from what is going on. The distance provides the opportunity not only to relate to the content in the 'film' but also to assess the way the teacher performs – as interesting, entertaining or convincing (cf. above). Whether what is going on within the framework is relevant, or how it is relevant. The teacher is cut off from reacting to a reaction from the distance learner, because what is seen took place a long time ago in chronological time and because the communication is principally taking place independent of the distance learner. No changes take place in the presentation if the distance learner yawns or displays boredom in some other way. The premises that have developed in the universe of mass media become premises for the distance learner. The teacher's function is to provide a lesson that, in addition to a professional anchoring, either adapts to the form – or pretends the form isn't there.

With the development of information technology, another vocabulary has developed for communicative space, and the teacher's function is described in ways in which the classic views of the profession are taken out of play. This has taken the consequences of the old saying that you cannot teach somebody something, they have to learn it themselves. When this is coupled with distance learning, the price is that the distance learner is in reality outside the teacher's reach. The teacher loses the opportunity for being a critical friend that maintains communication with the distance learner in the process of change, which may lead to new insight. As a rule, processes of change are met with resistance, because becoming wiser in the world is always linked to insecurity and 'crisis.' It is possible to reject a downloaded 'invitation' from the teacher – for example, to reject the presentation as something 'I can't use' or 'I don't have time for now.' This is exclusively the student's choice. You can very easily interrupt the 'film.' For to the extent that education is communication intended to create change, this form of interaction places responsibility on the distance learner for what is relevant for shaking up one's worldview. The teacher is reduced to being a facilitator and a moderator. That is, the teacher can make learning possible and create the rules for how the communication takes place. Certain aspects of the classic profession gradually seep out. The most noticeable one is the loss of direct obligatory interaction with the possibility of supporting each other in the difficult process of change. To adhere to or to reject is a form of regulation that has developed from increasing and long-term experience with mass media.

Late modern man is capable of dealing with this complex of different levels, because over a long period we have grown used to operating on several fictional planes (Luhmann 2002:73). But it is necessary to build up a reflective relationship with respect to these possibilities in order to use them productively in a teaching situation.

### **3rd perspective: The teacher in physical and virtual communication space**

The exposure of the significance of the mass media is articulated clearly when the third perspective on my teaching position is applied, in which communication occurs in a mixed form of physical and virtual space. Here, the two other perspectives become a markedly changed term for pedagogical and didactic preparation in a teaching situation, since the teaching is carried out as a physical event and a potential virtual event. A consciousness of how the event takes place is brought into consideration. Here, the teacher's complex of functions becomes clear in another way in the preparation and performative strategies considered. In my concrete example, these considerations came into play on the basis of a technical-administrative inquiry:

A few days before the seminar mentioned, I was asked to give permission for my lecture to be videotaped and streamed for students who were not present. My first thought was that I wouldn't do it, because it would be useless for students who were not present as participants. They and I would not have an opportunity to meet in the communicative space about the subject. It would be me delivering something out into the air. On further reflection, I decided to use it as an opportunity to make it into the content and the form of presentation I wished. I wanted to make use of the fact that it was a master's program focussed on learning potential and learning opportunities in the use of technology. I saw it, therefore, as an opportunity to challenge the students' conceptions about media and IT by demonstrating the consequences in both theory and practice. Likewise, I would get an opportunity to test out and reflect on the complex of teacher functions that goes with it. Building on that decision, my new knowledge about performing in front of a camera raised a series of questions of significance for didactic and pedagogical considerations I then had. These are questions such as: How does this new situation affect my preparations, how does it affect the teaching situation, how will it work as a finished educational document? Can other forms of teaching be used or am I condemned to PowerPoint? To whom won't I speak? What won't I say, when I know it's going to be videotaped? Is the point for me to 'forget' I'm being filmed or should I use the occasion to perform? Even though I speak almost the whole time during the lesson, is there a difference between the student sitting there blinking and the distance learner watching the video on a computer while getting coffee or whatever? What about the person running the camera – does he have any influence on how I prepare for my presentation? Should he have a design in mind about what will take place (which he actually ended up doing)? What about the distance learner – should he know that I know that I'm addressing more people in the space (both physical and virtual)? Should I aestheticize my presentation? Or should I, like Fritze observed, simulate a traditional classroom and 'compensate' (Fritze 2004:91)? Should I indulge in some classic metaphors that the distance learner can feel secure with? The performative element in teaching has suddenly become central to the education and learning situation. The situation becomes complex from the fact that I have to integrate being a critical friend and participant moderator with technical expertise, professional expertise from the physical space with a learning facilitator, and an external technical expertise – both what I know about PP and the cameraman. When my talk is over, there will be a video of my presentation that will be accessible at *Virtual U*-platform, so all students will be able to view it. I will not know who will see it, I will have no idea what they will be thinking, but I can try to take their reaction into account in the way I do my

presentation (ibid.). I can see to it that I create a communication of *reality*, that the video will be done in a documentary style – i.e., I will operate with a teaching concept in which what happens is reality, and this reality takes place in the here and now. Of course, I will perform in a way to exude credibility but already I am taking into account how this performance will be broadcast into cyberspace. For example, I can look into the camera and speak to those who will be seeing me for the first time at Virtual U. They have no opportunity for asking questions along the way. On the other hand, they can communicate about it afterwards. I am directed to relate to them as *model students* (Buhl 2002:37), because I cannot see whether their eyes are attentive, rolled upwards, or closed. Whether they walk out for a moment, while I grind on. I can see when the students who are sitting in the physical space need a break, while the distance learner is sitting there, reading an event that is taking place in present time for the distance learner but, for me, the teacher, has already taken place when the distance learner sees it! The displacement in time constitutes a fascination for teacher as well as distance learner, because in the here and now – actions cease to exist. You can at most react to the teacher’s ‘virtual eyes.’

The experiential space from the universe of mass media apparently makes up a part of regulating the communicative space known as education not only for students but to a high degree also for the teacher. Some of the teacher’s ways of interacting with technology and some of the learner’s ways of interacting with technology are played out in the same ways as in the universe of mass media. Thus it may be said that the actors in the communicative space called education regulates the modes of communication from criteria familiar from the mass media. As a consequence, it may be that the ways in which mass media communicates are used in the space of education:

- Could it be imagined, for example, that the world view of the news plays a part in communication in the sense that the teacher primarily communicates in a way in which what is communicated is taken into consideration, because the teacher is addressing himself or herself directly to one person but no one particular person (Luhmann 2002:39 f.)? Anyone can turn on the TV and see the news or go to a website and watch the news: i.e., video-streamed education. The news program is not made with the idea that you and no one else is going to react to it. It encourages an anonymity that has a built-in distance: “You may have an opinion about what you are seeing (for example, the case being made seems reasonable and credible) without having any responsibility.”
- Could it be imagined, for example, that experiences with advertising with its calculation of whether you want to buy the goods or not play a role (ibid)? That student and teacher communication is regulated by the fact that one tries to negotiate with the other on the probability of the teaching content? That there is a consumer relationship in which the criteria for communication are borne by the extent to which one party in the situation decides to be convinced by what the other presents: “I know what the goal is here, but will I choose to let myself be convinced by it?”
- Could it be imagined, for example, that the typification project of entertainment plays a role in which the parties to the communication regulate the communication from a set of rules that resemble entertainment’s performative presentation of situations that primarily have to do with attracting attention? Where it primarily has to do with choosing between different types of options for identification. That the communication is carried by whether it immediately appeals to someone or whether “I see what you mean, but this is just not me

(ibid.)” Can one see, for example, performative strategies play a role in the relationship between teacher functions and student functions?

These aspects are not something we particularly think about in relation to the universe of mass media. We have grown used to a *background reality* (Luhmann 2002: 85f, 123) being created in which communication is directed toward one person and a billion others. A consequence of this paradigm is that the teacher and the student, both present and distance learner, learn to regulate and take into account something outside of ‘reality’ and consider it as a reality that is not real but ‘a reality’ (cf. above). The student practises taking something into account outside of ‘reality,’ namely, that this is an event that has already taken place. Therefore, the time aspect becomes random, because the setting, which is real in physical space, has already been dissolved. The teacher is directed to establish a sort of reality with the students who are present in the physical space and at the same time with a consciousness that she is addressing an audience on the premises of mass communication. The teaching is aestheticized, and this becomes a part of the learning possibilities that are made available! By this, I mean that the performative interplay, taking into account something outside the situation, is a part of the learning process. This promotes a distancing to the subject matter, and the development of the form of the subject matter comes to play just as significant a role as the content. It becomes easier to place a mass media paradigm over it, i.e., to take note of it (news), to calculate the subject matter’s ability to convince (advertising), to see it as an identification option (entertainment). But it becomes more difficult to hazard one’s own possibility for being changed and attaining new knowledge.

The teacher must be able to handle this complex at the same time she, as a critical friend *and* facilitator *and* moderator, has to ensure that communication continues while implementing a slew of technical skills in the use of technology – for example, operating the different links that a PowerPoint presentation makes it possible to demonstrate; for example, calling attention to what can be realized in cyberspace. The price may easily be that the teacher speaks with a form of introversion, perhaps because the performative setting was constructed more ambitiously than attention could permit. Perhaps because it requires training to deal with the fact that communication that is supposed to change cannot immediately reach the person to be changed. This requires a reformulation of the profession. That the actors in the teaching situation must be able to perform in the experiential space they already have with the forms of communication that technology facilitates and where the physically-based interaction is disregarded? What teacher functions are required here?

### **Education as a ‘setting’ that develops the paradox: reduction in teacher functions and increased complexity in teacher functions**

The teacher’s entry into cyberspace changes the conditions for didactics as well as practice. The teacher must be able to handle and unfold this paradox: both a reduction and increased complexity in teacher functions (Fritze 2004:335). This is a condition that has significance for the educational relationship between teacher, student and subject matter. This condition has to do, among other things, with a calculation of wanting to be involved or not. Obligatory interaction has become a calculation of the choice to be involved. “Crises of change” do not necessarily take place in physical space or not take place at all. This spurs consideration about when one can avoid taking a position, when comments are cost-free, and one can justifiably ask whether the education system is to an increasing degree cultivating the observer role by not taking a position on the new conditions for education? In the universe of mass media, it is the form that is cultivated. The education system acts on the basis of a

metaphor about the classic profession, and to this belongs a series of virtues in which the teacher is a critical friend, facilitator, moderator, or at least a professional in control. The conditions for the use of technology flow freely, because the frameworks may not work. They don't work, because they pretend that education is still the classic profession, while communication takes place in other ways – both in physical and virtual space. Attention is directed toward how the student can acquire some sort of learning content. The complexity that this entails for the teacher function becomes practised but not reflected upon.

One possible reflection and action is to unfold the paradox between the reduction in teacher functions and the increased complexity of teacher functions, which has been attempted in this article. I propose doing it reflexively, using the anthropologist's 'professional amazement' (Hastrup 1992) and implementing it through the reflection strategy of visual culture. I have only touched on the extent to which teacher functions are gradually changing in relation to one specific situation. Technology makes possible a countless number of variations that promote some aspects of education and weaken others. This requires a reformulation of teacher functions. The most difficult thing about it is that, as a didactician, you must begin to reflect on what you yourself will do in a specific teaching situation, and it is here all the filters come in. However – paradoxically enough – video-streaming may promote the beginning of such reflection.

## Bibliography

- Buhl, M. (2002). *Paradoksal billedpædagogik – variationer i læreruddannelsens billedkunsthøgskolefag*. Ph.D. dissertation. København: Danmarks Pædagogiske Universitet
- Buhl, M. (2003). Hvem skal jeg nu være...? *Unge Pædagoger* 7/8.
- Buhl, M. (2004a). Visual Culture as a Strategy of Reflection in Education. *Nordisk Pedagogik* 4
- Buhl, M. & Hemmingsen K. (2004b): Unges fritidsrelaterede æstetiske medieressourcer I en pædagogisk kontekst. København: Danmarks Pædagogiske Universitets Forlag
- Buhl, M. (2005). Pædagogisk Antropologi - forandrende forbløffelser. I: Krejsler, J., et al., *Pædagogisk antropologi - et fag i tilblivelse* (1 ed., p. 31-50). Danmarks Pædagogiske Universitet: Institut for pædagogisk antropologi.
- Buhl, M. (2006). The Aesthetic Actualization of Learning Potential with Media and ICT. I: Buhl et al., *Media and ICT - learning potentials* (1 ed., p. 207-225). København: Danish University of Education Press  
<http://www.dpu.dk/site.asp?p=8803>
- Dale, E. L. (1989). *Pædagogisk professionalitet*. Oslo: Gyldendal
- Fritze, Y. (2004). *Mediet gør en forskel – en komparativ undersøgelse i nærundervisning og fjernundervisning*, Ph.D. dissertation. Odense: Syddansk Universitet
- Hastrup, K. (1992) *Det antropologiske projekt. Om forbløffelse*. København: Gyldendal
- Luhmann, N. (2000). *Sociale Systemer*. København: Hans Reitzels Forlag
- Luhmann, N. (2002). *Massemediernes realitet*, København: Hans Reitzels Forlag

---

<sup>1</sup> My former background as trained teacher and a teacher trainer probably has a role to play here.

<sup>2</sup> Avatar derives from Indian religion describing a god of transformation and is familiar in modern media research as a concept for temporary roles that participants assume in cyberspace. The avatar concept is used, in part, about a form of social manifestation and, in part, about a development phase in a religious system of reincarnation. For more information, see Buhl 2002:106 ff).

<sup>3</sup> For further development, see Buhl (2006). The Aesthetic Actualization of Learning Potential with Media and ICT

<sup>4</sup> There are even templates for different genres of presentation that have primarily been developed for commercial businesses (for example, ‘how do I explain that things aren’t going well in the firm at the moment and how can I motivate my employees!’).

<sup>5</sup> It must be added here that education is constructed in a way in which project work and group communication (primarily virtual) are important ingredients. That is not what I am discussing here.