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From Texts to Pictures in Teaching Civics.
Participant Observation in Mark's Classroom

We are now living in a "new media age", with a dramatic shift from the linguistic to the visual, from books and book pages to screens and windows (Kress, 2003). This article offsets out to explore what happens to educational activities in schools when electronic media and pictures replace written texts. The article draws on interviews and classroom observations of a particular Swedish vocational upper secondary programme, where the social studies teacher observes that students are finding it increasingly difficult to benefit from written texts. Theoretically, the study draws on Meyrowitz (1985/1986) theories concerning the relationship among media, situations and behaviour and the effect of a shift from "print situations" to "electronic situations" on a broad range of social role and Bernstein's (1996/2000) notions of 'recontextualisation', 'framing' and 'classification'. The study shows that classroom relations are changing; hierarchies between students and teachers are being broken down, and classification of subjects is affected in the sense that the students' own interpretations and references are beginning to govern teaching when pictures and electronic media enter the educational discourse.

Keywords:
visual teaching, visual literacy, multimodality, framing, classification, recontextualisation, media ecology, electronic media, social behaviour

1. Introduction

Over the last four or five decades, the written culture has become increasingly challenged by the rapid development of new media. We live in a visual society where the position and functions of language in public communication have changed. From having been the primary communicative medium, language has now been transformed into only one among several important communicative media (Kress, Van Leeuwen, 1996/2000). We live in a "new media age", where the screen has replaced the book as the dominant medium of communication (Kress, 2003). This implies a dramatic shift from the linguistic to the visual; from books and book pages to screens and windows. Today's young people are therefore growing up in what has been termed a "screen culture" (Livingstone, 2002) or within a changing "media ecology" (Mackey, 2002).

The visually represented world is not the same as that represented by writing. It is a different world that creates different subjects and citizens (Kress, Van Leeuwen, 1996/2000). The changes are already noticeable in schools. School subjects are undergoing a great transformation, and the issue is whether everything that is communicable with the aid of scientific writing can be communicated also by visually constructed pages? Kress' & van Leeuwen's (1996/2000) question generates a number of issues that provide the focus of this article. What happens in educational discourse when pictures and electronic technology is introduced and the historically dominant textbook, for example, is abandoned in favour of pictorial representation?

A symbiotic relationship evolved for hundreds of years ago between church, school and literacy (Erixon, 2010; Johansson, 1977; Tyner, 1998). The relation between script and schooling has remained strong, not only concerning teaching content but also written text as a norm for communication. There is also an historical and metaphorical connection between teachers and authors. Seeing themselves as primary sources of knowledge, if not instruments of social control, both have tended to see the imposition of authority as an essential part of their work (Tuman, 1992).

When a (new) medium emerges, the patterns of dependency between people and power structures will change (Meyrowitz, 1985/1986). Transferred to the educational discourse a similar set of questions are raised about how the contents of different school subjects, classroom relations and the ways of organising educational activities are influenced when new technology in the form of e.g. pictures and media, is introduced. This article focuses in particular on what happens when the primacy of texts is challenged by both teachers and students and screen and pictorial representation becomes increasingly more important in multimodal teaching.

2. Visual Communication

Visual communication has been used since the infancy of humanity. Cave paintings convey messages to our generation from people who lived long before writing was invented. In our society, writing has been the dominant communicative tool for a long time. But now it is being challenged. For this reason concepts such as *literacy* have also been extended to denote not only in a limited sense the ability to read and write, but also the competences needed for communication in a widened sense, involving e.g. pictures. Such conceptual shifts have moved in different directions, partly due to changes in media technology itself (Cope, Kalantzis, 2000/2002; Elmfeldt, Erixon, 2007).

In a now famous manifesto, the concept of 'multiliteracies' was coined by the New London Group (Cope,

Kalantzis , 2000/2002), thus making it possible to identify different types of *literacies*, all of which comprise a set of social practices linking people and media together and offering strategies for creating meaning (Lemke, 1998). Each literacy constitutes an integral part of a culture and its subcultures and each plays a role in the maintenance of a society. Different literacies such as *visual literacy* consist of different technologies and provide a connection between the ego (the person) and society, and the means by which we act in a social context. When literacies change, so do we.

Visual communication in American colleges is more "subjective" since it does not function within the same restrictive frames as language-based communication (Matusitz, 2005). Visual communication therefore places greater demands on the observer than on the person receiving language-based communication. Visual communication includes a dialogic process where an individual' perception of something is connected to her/his previous knowledge and experience. Visual entities are thus subject to more active personal interpretation than written texts.

When elementary schoolchildren approach illustrative pictures in science textbooks they start from their own experiences when interpreting pictures and illustrations in books (Watkins *et al.*, 2004). They content themselves with looking at an illustration, identifying it, and then describing and explaining what they have seen, often with great interest but also often based on misunderstanding. The students rarely read the accompanying written text, and thus their intuitive constructions, often based on naïve assumptions and everyday experience; form the basis of their understanding.

What will happen in "future" educational settings that use only visual methods in teaching (Matusitz, 2005). The present study focuses on an educational context where written texts have been completely replaced by pictures. It will be argued, following Matusitz, that for this context at least, the future is already here.

3. Theory
Theoretically, this study draws on Meyrowitz (1985/1986) theories concerning the relationship among media, situations and behaviour and the effect of a shift from "print situations" to "electronic situations" on a broad range of social role and Bernstein's (1996/2000) notions of 'recontextualisation', 'framing' and 'classification'.

Meyrowitz (1985/1986) develops general principles concerning the relationship among media, situations, and behaviour and explores the potential effects of a shift from 'print situations' to 'electronic situations' on a broad range of social roles. The mechanism through which electronic media affect social behaviour is a discernible rearrangement of the social

stages, he claims, on which we play our roles and a resulting change in our sense of appropriate behaviour. Electronic media have thus rearranged many social forums so that most people now finds themselves in contact with others in new ways.

Meyrowitz takes his starting point in Erving Goffman (1959), who describes social life using the metaphor of drama. Goffman sees us each playing a multiplicity of roles on different social stages. Any individual's behaviour in a given setting can be broken down into two broad categories: 'back region', or backstage behaviour, and 'front region' or onstage behaviour. For each 'audience' we offer a somewhat different version of ourselves. It is not the physical setting itself that determines the nature of the interaction, but the patterns of information flow. Media, like walls and windows, can hide and they can reveal, as Meyrowitz (1985/1986) argue.

Print is a medium that requires a very special encoding or decoding skill and is more likely to be exploited by an elite class. High status is demonstrated and maintained through the control over this knowledge and skill. The diffusion of literacy and printed materials has divided people into different informational worlds based on different levels or reading skill and on training and interest in different literatures.

In general, authority is enhanced when information-systems are isolated; authority is weakened when information-systems are merged. Electronic media have thus both led to break-down of the specialized and segregated information-system shaped by print, Meyrowitz (1985/1986) claims, and an integration of information-systems by merging formerly private situations into formerly public ones. This shift is a shift from formal onstage or front region, information to informal backstage or back regions, information. Print has thus a 'front region bias' (95), while electronic media have a 'back region bias' (95). The new behaviour that arises out of merging situations, called "middle region" (s 47), contains elements of both the former onstage and offstage behaviours but lack their extremes. Electronic media put many traditional authorities at a disadvantage, bypass traditional channels and "gatekeepers" (p 163) and undermine the pyramids of status that were once supported by print.

The European curriculum theoretician, Basil Bernstein (1996/2000) emphasises the relation between knowledge and power, and also the connection between form and content, or in terms of his own concepts, between 'framing' and 'classification'. According to Bernstein (1996/2000) *the educational discourse* comprises two interspersed discourses: one discourse concerns various kinds of abilities and knowledge and their relations to one another and one discourse concerns social order. By means of *recontextualisation* the educational discourse creates a selection of imaginary subjects, i.e. school subjects. Authors of textbooks,

for example, work in the recontextualisation field, the rules of which are governed by *regulative discourse*. Bernstein draws attention to the influence of the power relations between e.g. teachers and pupils on the content and form of the teaching, i.e. its classification and framing.

Education is influenced from both above and from below (Dale *et al.*, 2004). Influences from above are normative by nature and include anything from school cultures, subject cultures and national curricula to various different global factors. Influences from below are on the other hand more informal and comprise young people's cultures outside school and the experiences they have concerning learning in various informal contexts. We know that it is precisely today's young people that are developing competences in the ICT area, which they bring into the classroom in different ways (Facer et al., 2003; Elmfeldt, Erixon, 2007).

When semiotic material, e.g. written text or pictures, is moved from one set of modalities to another, "transduction" takes place (Bezemer, Kress, 2008). A transduction from one modality to another one can never be perfect in the sense that all semantic material may be transferred. So, pictures have no words and words have no pictures. The concept of 'transduction' is close to Bernstein's (1996/2000) concept of 'recontextualisation', which he used to illustrate how discourses originating outside schools and teaching are realised in an educational context such as the school subject. When semantic material is moved between social contexts, say from one medium to another one or from one context to another one, a social and semiotic "remaking" takes place, and likewise, an epistemological change.

School subjects are social constructions that intertwine social relations and structures in the task of transferring the cultural tradition (Bernstein, 1996/2000; Goodson, Marsh, 1996). School subjects organise the knowledge communicated in schools and establish frames for how practical activities are organised. The text in the textbook is characterised by particular knowledge and ethics intertwined in an officially sanctioned manner is often concealed in the text (Selander, 1988). As part of the recontextualisation field, the textbook is thus disciplinary in several respects.

The visual and the verbal offer fundamentally different possibilities for capturing the world. Pictures are ruled by different semantic conventions to those of words, with their syntax affecting the relations between elements or parts, and rules mobile and subject to change (Kress, 1998). Sometimes it may seem as if there are no rules at all (Messaris, 1998). Electronic media and pictures therefore provide a range of epistemological advantages and demands, and social behaviour and knowledge content when compared to that based on written text alone.

4. Method

This study is based on interviews with one teacher and classroom observations in five of his classes. The interviews were semi-structured, i.e. characterised neither by open conversations nor by answers to questions from a detailed questionnaire (Kvale, 1997). An interview guide was used however to focus on certain themes and included suggestions for questions. The interviews were primarily aimed at gaining insight into the teacher's way of thinking on his teaching.

Statements in an interview lie at a rhetorical level in the sense that they do not necessarily say anything about practice. In order to gain a rounded picture of the teaching that Mark had planned, a number of classroom observations were carried out. The approach to the interviews was ethnographic (Delamont, Hamilton, 1986), in the sense that ethnographers use a holistic framework, which implies that they acknowledge complexity and use the totality as their database. Further, they reject preconceived ideas that are embedded in a predetermined system of (research) codes, which implies working with an open and incomplete methodology.

5. The Research Context: The Swedish Upper Secondary School

The classroom observations that form the basis of this article were conducted at an upper secondary school in a Northern Swedish town in September 2007. Upper secondary education is voluntary and free of charge in Sweden and provides opportunities for students between the ages of 16 and 19 years of age to acquire the knowledge and skills needed for further academic studies. Each municipality is legally bound to offer upper secondary education to all young people who have finished their lower secondary education (Skolverket, 2007). Municipalities are also expected to develop local curricula for each of the 17 three-year national study programmes. The programmes provide a broad and general education and also formal eligibility for academic studies. Each programme has its special character depending on its subject orientation, with some more practical and others more theoretical.

The school in which the study took place is relatively large with 1,700 students aged between 16 and 19 years. I accompanied Mark, a male teacher aged about 40, to his Civics classes in the Industry and Vehicle Programme. Mark also teaches mathematics for the same programme. The school is divided into seven different areas with a head teacher for each area. Mark shares his office with the other teachers in the Industry and Vehicle programme. He is the only teacher of Civics in the team and more of a "programme" than a subject teacher (Lundström, 2007). This implies that he is less influenced by the subcultures linked to the subjects he teaches. Research shows that school subject subcultures have a strong influence on the organisation and

practice of classrooms (Selwyn, 1999). Goodson and Managan (1995) argue that school subjects represent a special microcosm, each with a micro-world containing its own values and traditions. These traditions are rooted in the nature of each subject and also in the social and political process through which it is formed (Erixon, 2010).

Mark describes the practical programmes and his own physical position in relation to his subject colleagues, as a satellite going round the school's theoretical programmes. His description includes the claim to a proud tradition regarding the practical programme's success in various competitions. In previous years the school has done very well, nationally and internationally. The student welders have been especially successful and have become Swedish national champions. Students from different programmes were due to take part in the championships the following year (2007) in Japan. Mark claims that when the school was built in the 1960s it ran vocational programmes only. It therefore has a strong craftsman (person) tradition. The town is an industrial community with sawmills and two paper mills. There is a special mentality in the town, claims Mark, without really being able to describe what it stands for. There are many small villages around the central community also, where people "tinker and potter about with things"; "it is a tradition".

The so-called core or academic subjects are therefore not very appealing to the students coming from that tradition. They have to work hard to do well in academic subjects, which are seen as not particularly relevant. Nor does any support come from the parents, according to Mark, who attended the same school as a student. At that time there was a clearer division between practical and theoretical subjects but now they are more integrated.

6. The Study

In the interviews, which were conducted before the classroom observations, Mark describes one of the Civics lesson plans he has made for the classes that I am to visit. The topic is the constitution, with a special focus on conditions in Sweden, but also with comparative material from other countries. Mark intends to focus on the Swedish state, what it does, and the distribution of power between the Government, the Swedish Parliament, the Head of State and the law courts. The lesson is entitled "People, politics and power" and deals also with the opportunities that people have to influence decision-makers. Instead of the usual textbook, Mark has chosen to produce a compendium of material, chiefly consisting of various kinds of photographs. He also uses what he calls "new technology": "I try to use and introduce pictures and try to work on the basis of pictures and have a bit of discussion about them".

This has been developed in response to, as he sees it, the students' dissatisfaction with reading texts, not least because the courses contain a number of abstract concepts. Mark says:

> When I say, "represent", what does it mean? Or when I say, "limited" as in "limited democracy"? When you read the usual upper secondary school textbook, you encounter words used in the running text that are taken for granted by the authors. I have the textbook and I use it, but I try to be conscientious and focus on pictures for the discussion.

Mark rarely works with just the textbook: "To be honest I have more or less stopped working with the book. They [the students] don't have to read so much. This level of abstraction is too difficult for them".

During my visit, Mark will be teaching about the difference between monarchy and republic, introducing the topic by means of two pictures, one of the king and royal family and one of George W. Bush, the then president of the United States. Mark's aim is "to sound out" how the students perceive the pictures and their associations. Then they will be required to read a text on the advantages and disadvantages of monarchy and republic respectively. Mark has seen that student interest can be caught in this way. Another advantage is that he can re-use the same pictures the following week, and the students are likely to remember them:

> If they only see it in a [written] text, many of them will have difficulty remembering anything. The pictures make it easier for them to go back and continue the discussion. But it is me who has to organise it.

With this type of lesson design, Mark claims, the students understand more, they achieve more, and seem able to manage their learning more effectively. His ambition for the future is to include moving pictures:

> One of my goals is also to use more moving pictures, with some films and news features /.../ Pictures appeal to them with regard to learning. My vision is to organise more lessons based on pictures /.../ The reason is that we have had difficulties in achieving passes for the students and many of them have received a fail mark. I have worked here since 2001. I saw this in the first years I worked here. I had difficulty myself with changing my teaching methods, but I have seen possibilities in working with pictures that they can recognise themselves in.

7. The classroom observations

The pattern is roughly the same in the five lessons I observe, with differences mostly due to different classes adopting different attitudes to the lesson content as well as to Mark's comments.

The students attend either the Industry Programme or the Vehicle Programme, which implies, given the gender-divided characteristics of the students enrolled, that the classes consist mainly of boys. There is only one girl in the five classes, all of which are small in size with 10-15 students per class. The students sit in a u-shaped formation facing the teacher's desk and whiteboard, which are placed at the very front of the classroom. Here one can see that new technology creates preconditions for different social relations in the classroom. Students in Swedish schools have traditionally sat in rows, with their backs to the students in the row behind and facing frontwards towards the teacher and his or her desk. In the instance considered here, students can see each other and exchange both looks and talk in a way that is not possible in more conventional groupings of students. The ceiling is high, and the classroom is wedged between two workshop premises. A rattling sound is often heard coming from other practical and vocational activities.

Mark begins the lesson by addressing the students in words belonging to the back region, as regards choice of words and content, with the phrase "Tjena grabbar" ['Hi guys']. The tempo is brisk and before the students have had time to respond Mark is deep into a story about the honeymoon trip from which he has just returned.

The students seem aware of Mark's (recent) marital status, since one asks whether he "has married his wife or somebody else". Mark informs his class that he has lived with someone for twenty years and that he and his partner recently decided to get married. This also gives him an opportunity to relate details from the journey to North Spain and Southern France. Mark reflects that he feels a bit "untrained", by which he means that it seems, because of his holidays, a long time since he has taught and as a result, he feels a bit uncomfortable in the teaching situation.

Mark starts the projector and asks whether the students have brought the booklets they were given previously. The class is silent and Mark hands out a few extra copies to the students who indicate that they have forgotten theirs. With the aid of the computer mouse, Mark finds the correct file and document and some pictures taken from the students' booklets. Thus the material that the students have before them in the form of a booklet also have its electronic equivalent on the computer. "Please open the booklet at page one, the pages with the 'guys'", he says, while at the same time showing the pictures in colour with the aid of the projector. Mark goes through the first page, which instructs the students to state the names of the people shown and which party each represents.

The government is made up of a coalition of parties. The first is the Minister for Schools and Adult Education and leader of the Liberal party, Jan Björklund. Mark comments that Björklund has just been appoint-

ed leader of the Liberal party. In the front is Göran Hägglund, leader of the Christian Democrats, Fredrik Reinfeldt, Prime Minister and leader of the Conservative party, and Carl Bildt, Minister for Foreign Affairs. In the picture there is one "non-guy", Maud Olofsson, Minister of Industry, Employment and Communications and leader of the Centre Party. The names are worked through and the concept of 'alliance' (or coalition in English) is introduced by Mark, who says that it means those "who unite". Through such guidance, Marks continues with his teaching.

At the bottom of the page are the opposition parties to the government, it's "opponents" as Mark puts it; Lars Ohly, leader of the Left Party, Mona Sahlin, leader of the Social Democrats, and two "mates", Peter Eriksson and Maria Wetterstrand, spokespersons of the Green Party. Mark writes the second set of politicians' names on the whiteboard and designates them "the red-green bloc". In the same spread is a picture of Olof Palme, whom the students recognise without any difficulty. Mark confirms that Olof Palme was murdered in 1986 when he was Prime Minister, and was a Social Democrat and very well known abroad. This overview is a recapitulation of work done previously, thus Mark finishes with, "we went through this two weeks ago". Mark introduces the new topic by asking how old a person needs to be to vote. "18 years", one student answers.

The concepts 'direct democracy' and 'indirect democracy' are introduced. Mark writes them on the board, asks questions and pushes the conversation onwards towards what distinguishes the two. Concepts such as 'popular government" enter the discussion in terms, for example, the outcomes of two referenda, for entry to the EU (positive) and to join the EMU and euro-zone (negative). Mark explains that the then social democratic Prime Minister, Göran Persson could have forced through entry into the EMU, meaning that he was not obliged to comply with the outcome of the referendum.

Below the picture is written, "Note: visit the parties' homepages to check what they are called" with links to the seven parties and Swedish parliament provided. In this way, a connection is made to the world outside the educational context. The students know how to manipulate the clicking mouse and the outside world flows momentarily into the school without the teacher able or willing to pedagogise the action. It could also be said that the students depart from the educational discourse temporarily so that the boundary between the school and everyday life is erased. Thus Mark partially puts himself outside his role as, what Meyrowitz terms, "gatekeeper".

Mark likewise transfers the discussion of indirect and direct democracy to the students' everyday life by asking about their membership of any "club" and if and how, for example, chairpersons and board mem-

bers are appointed. In using language from the back region (club), Mark also attempts to demystify the role of politician and hence also to question existing hierarchies between politicians and voters. It is mutually concluded that this is how direct democracy works.

The pictures used in the lesson are taken from various mass media; the web, newspapers and TV. No comment is made, however, on the fact that they are being shown different pictures; or that the students are consciously interpreting their effectiveness as pictures. The pictures function mainly as starting point of Mark's and the students' discussion, opening the way for students to make their own subjective associations (Matusitz, 2005) and draw on their own experiences (Watkins *et al.*, 2004).

Discussion continues on about indirect democracy. Mark, who leads the conversation throughout, brings it round to the situation in the municipality in which they live, i.e. the level closest to the students' own lifeworld. The students are then left to work independently on reading and answering questions about how Swedish people exercise power, who has the right to vote, and what restrictions exist on freedom of speech. The word *inskränkning* ['restriction'] crops up in this context (Mark draws attention to it by linking to the *Swedish National Encyclopaedia's* homepage which is connected to the school's homepage, to look up the word *inskränkning*.

After several minutes, Mark goes through the questions he has written on the board, and a discussion arises about whether it is permissible to use the word *whore* given the importance of freedom of speech. This is one of several discussions that the students initiate themselves by enabling their responses to serve as triggers for the lesson. The students snigger and maintain that they hear this word every day. Also familiar to them are symbols from the Nazi regime such as Hitler memorabilia, swastikas etc. By allowing these issues to be discussed, the teaching has closer proximity to the every-day culture of the students.

The remaining lessons that I attend are organised in roughly the same way. During the lesson for the Transport Programme, Mark starts by giving some information about his recent honeymoon and then opens the file on his electronic desk to access the booklet they have been working with. The starting point of the (second) lesson is a picture that illustrates a lead-in to discussion of how democracy works in Sweden and Denmark as (p. 52). Here, too, it is the students' own responses that steer the development of the lesson.

The upper part of the picture shows the Swedish and Danish flags with the words *the people*, *the Parliament* and *the Government* written beneath. On one side are *the King* and *the Queen* and on the other, *the law courts*. There are arrows drawn between *the people*, *the Parliament* and *the Government*, though no arrows to *the King*, *the Queen* or *the courts*. Mark comments on

this by stressing the latter's independent role, for example that the King is merely a representative of the country and cannot take formal decisions on his own. Observing from the back of the classroom I see *the people* positioned at the top of the picture, and Parliament and the Government at the bottom, i.e. the present hierarchy turned upside down. In his capacity as "gatekeeper" Mark fails to assume full control of the technology he is supposed to know about, but none of the students says anything. What they might be thinking is another matter.

Mark starts with the election of 2006 and what happened when Reinfeldt formed a new government administration. Using the picture, government initiatives are discussed such as the lowering of unemployment benefits and real estate tax. Mark clicks on yet another picture, which portrays a pale blue sky and calm, blue sea. On the whiteboard he writes: "monarchy – republic". He shows a picture of the royal family not included in the booklet but from a newspaper or Internet and asks whether the picture is representative of a monarchy or republic. The boys are quick to comment: "Her on the right (i.e. Madeleine; my comment) is prettiest". Another boy says:" Why should Victoria be the next queen?" Mark avoids the question of what the Royal Family looks like, by referring to the Constitution which has decided on the next ruler: "Victoria is the Crown Princess", he says.

Another picture that Marks shows is of the House of Representatives in the USA, with President George W. Bush centrally positioned. Vice-President Dick Cheney is portrayed in the upper left of the picture and the new female Chair of the House of Representatives, Nancy Pelosi, on the right. The USA is in the centre. Mark asks: "Can you see George Bush? He is a president who has been elected – an example of republic".

Both pictures are visible and hence also the two forms of government, monarchy and republic. Mark asks about the difference between the roles of president and prime minister. An answer comes from one boy: "In the USA the President is also representative of the state". Another interposes: "It should really have been the other one, the one with "the climate thing". "Al Gore", somebody else prompts.

Mark takes up the thread and informs the class that though Al Gore received the most votes, George W. Bush became President because of the US electoral system. He asks: "What are the parties in the USA like? Is George Bush right-wing or left-wing?"

The students fail to respond so Mark asks them to refer back to the booklet. Even though the students may not wish to comment on the pictures, there is clearly a lot of activity going on in the class in interpreting and adopting perspective on the pictures. The issue of succession to the throne is not over yet however. After about ten minutes, a student queries: "Why do we have a female succession to the throne?"

By way of an answer, Mark asks about the pros and cons of having a president or monarch? On receiving again no response, he prompts: "There is nothing right or wrong about monarchy or republic".

The third lesson is for a vehicle class, and is initiated in a similar way to the first two. Mark re-uses the pictures of the Swedish party leaders, though begins somewhat differently. Mark says: "I want you to send an email to the party leaders, to Björklund. What about the proposal to introduce driving licences for mopeds?" Again, Mark does not get a direct answer, but the issue of driving licences seems of interest to the students. "Why can't we in the Vehicle Programme take our driving tests while we're still at school?", asks one of the boys.

Mark counters by asking for arguments for such a proposal. A boy retorts: "You should be able to a test to see if the car works!"

"You need arguments", says Mark, who then turns the discussion to political ideologies. But the topic of driving licences has not yet been exhausted. One student again asks about the requirement for driving licences for moped riders. "Who of them has proposed driving licences for mopeds?" asks Mark with reference to the politicians in the pictures.

Mark clicks to the Swedish Television's homepage and then to a recent programme on the issues accessible via web TV, and asks how many students know someone who has been injured in a traffic accident. Several raise their hands. Mark asks the students why they think the proposal is being raised right now, partly answering by stating the importance for a newly installed government of implementing as many reforms as possible before the date of the next election, 2010. "These are our representatives", says Mark. "What can we do to influence them?" Mark writes down the name of Fredrik Reinfeldt and of several local politicians. "It is possible to send emails", he says. "It is also possible to write letters to the editors of the local papers, or phone them or go out and demonstrate".

The discussion turns to a new subject, this time about the poor quality of school meals. Mark suggests that the students contact their representative on the student council and try to influence him/her about this issue. One boy looks particularly uncomfortable as he is a member of the student council, and he drops his head in shame and stares down at his desk.

To finish the lesson, Mark again clicks to the Swedish Television's homepage and its web TV to show again the feature about mopeds that has been broadcast several weeks earlier. It is clearly a topic that concerns the boys. "How many of you has a moped and do you turn on your indicator when you turn?" Mark asks. The lesson is over.

7. Discussion

All teaching or "figuration" is multimodal, as Jewitt (2008) points out. Each teaching occasion uses several modalities, e.g. talking, showing pictures, reading and writing texts, doing laboratory work. Historically, the written word has had a dominant position in education represented among other things by the disciplining textbook. The teacher in this study has noticed for some time how difficult his students find it to work with written texts. For this reason he has decided to base his Civics upper secondary school lessons mainly on the screen and pictures. This article has explored what happens in schools, influenced increasingly by electronic media and visual culture, when the written word loses its prominent position, i.e. when a "transduction" from the written to the pictorial medium is taking place (Bezemer, Kress, 2008).

The study suggests that changes to media technology and the written culture have importance for the classification, framing, social behaviour and social relations of schooling; that is, for the educational discourse as a whole, even though teachers' explicit motives may be mainly pedagogical.

8. Content and Classification

Different school subjects are differently "designed" (Jewitt, 2008) and differently "embedded" in ICT, meaning that some school subjects represent a cultural context that counteracts the use of media and ICT while others encourage it (Sutherland *et al*, 2004; Erixon, 2010). To Mark, the Civics is "a spot-on subject" meaning that it is well "embedded" in ICT and therefore requiring speedy and regular updating. He maintains that textbooks in contrast are hopelessly out of date even before they have left the publisher.

Apparent in Mark's teaching is the ways in which the students apprehend and react to the pictures shown which in turn governs how the lessons will proceed. Mark has of course decided on content, but it is the students who fill the lesson content with their own associations, although Mark emphasises in interview that he is the one who decides. The picture of the Royal Family is intended to illustrate the characteristics of monarchy. However, it also arouses personal responses from each student, e.g. about Princess Madeleine's appearance, since the semantic conventions of pictures are mobile and open to change (Messaris, 1998). Mark manages to stop the flow of potentially sexist association arising from this comment and is pleased when another student steers the lesson towards the issue of succession to the throne.

There is a constant exchange of quick retorts with Mark having to make instant decisions – in a tenth of a second – on how the discussion should proceed. This approach makes it more difficult to control the teaching context but at the same time, provides greater opportunities for identifying issues of interest to the students. The students' life world, it could be argued, forms a substantial part of the lesson content. Parallel to the teacher's ambitions, student interest also deter-

mines the development of the lessons. Mark invites his students to contribute through spoken questions and stories about the pictures shown. In this way, several perspectives are admitted into the talk. The use of a textbook would have emphasised concentration on one perspective. In allowing students to react to the pictures, Mark allows individual interpretations and thus acknowledges the social context in which the students exist. This accords with the study by Watkins' et al. (2004), showing that when students react to different kinds of pictorial illustrations, their intuitive constructions, are often based on (naïve) assumptions and everyday experiences.

At the same time the connections with the present time are clear. For example, below the pictures there is a request from Mark to the students, "Note: visit the parties' homepages to check what they are called", accompanied by links to the seven parliamentary parties and the Swedish Parliament. This suggests that Mark's reluctance to force a particular point of view on his students. When personal perspectives are recognised, such examples show that pictures and written texts generate different epistemological advantages and demands (Messaris, 1998).

Mark frequently refrains from interpreting seemingly simple pictures. However, he seems to have inadequate control over the presentation so that the concept 'the people' is placed at the top of the picture. What interpretation do students make of this? Perhaps it gives them a sense of "the people' being positioned at the top of the hierarchy and hence also that the people have considerable power.

Another example is the pictorial representations of concepts of 'monarchy' and 'republic', side by side. How do the students interpret this? Perhaps it communicates a notion of both systems being possible and hence democratic, which Mark seems to agree with. The interpretations follow one another at a rapid pace and therefore there is no time to problematise the relationship, for example, between the people and the politicians. The inclusion of several worlds and perspectives enables a dialogue to be created between different perspectives, thus weakening the normative element.

The pictures in the work booklet are drawn from different sources, such as newspapers and Internet sites. Unlike pictures in a textbook, they are not originally intended for use in an educational context, and thus are recontextualised, i.e. removed from one context to another (Bernstein, 1996). Hence the pictures are given meanings that differ from those originally intended.

In the case of politicians, pictures are used to represent parties and ideologies, creating a kind of personification but within a concrete context. The students recognise people from newspapers and TV and the pictures are thus connected to their life world. This creates proximity since the politicians appear as individuals rather than representatives of ideologies. Mark uses slang terms such as 'mates' and 'opponents'. These are taken from the discourse of games, and therefore it is likely that they make the students think of winning, scoring points etc. All this is important for how the students perceive the content. The teacher's control of the content and the interpretations is thus weakened, as is the subject classification.

In allowing pictures and students' own associations and life world to enter the classroom, the "gatekeepers" i.e. teacher and textbook which are jointly responsible for controlling the value systems of schools, are ousted. By tradition they are the representatives of the written culture and, as such, associated with officialdom and politically correctness. The textbook, for example, guarantees teachers' and society's control of teaching.

As students' interests, perspectives and associations increasingly govern the teaching context, its content also changes markedly. This means that subject boundaries, i.e. what subjects can and should be about, criss-cross each other leading to a weakening of the classification of school subjects. At the same time teachers lose control of the process of teaching, so that the framing also weakens.

The same process implies a shift towards less formality as regards both the shape and content of the language used. Thus, electronic media fundamentally influence social behaviour by rearranging social conventions, as evident in the ways in which Mark and his students interchange their respective roles in the classroom (Meyrowitz, 1985/1986).

9.   Social behaviour and social relations

Mark's educational ambition has consequences also regarding the relations in the classroom. Already at the beginning of the lesson, Mark strikes a backstage. By inserting his private life in educational discourse, he encourages the students to do the same (Ziehe, 1989; Erixon, 2004). This is a fundamental breach of the traditional linguistic norm of schools, which, according to Anward (1983), is closer to practical user-oriented prose texts, at least in the 1980s and before. The basis of this form of communication is that the content to be conveyed is designed as if it were independent of the communicative participants (Anward, 1983). 25 years later, this situation seems to have changed considerably in Swedish schools at least, where the pattern of communication now seems more based on the aspiration of "pure communication" (Erixon, 2004).

Mark adapt by using words and concepts that he assumes are close to the students' language community, with expressions such as *Tjena grabbar* ['Hi guys'], *gubbar* ['chaps'], *klubb* ['club'], *motståndare* ['opponents'] etc. When talking about the election, he refers to a world that is probably closest to his (male) students, namely that of sport. The language is asso-

ciated with a more informal space. Mark also tries to demystify politics and politicians by pointing out the possibilities for contacting politicians and by comparing and taking concepts from the students' own life-world. He depicts politicians as ordinary human beings who have become more accessible due to the new electronic media. Not only, he says, is knowledge becoming available to more people, but so are formerly isolated politicians and decision-makers at both local and the national levels.

One of the pictures that Mark works with, depicting a social hierarchy, is erroneously shown upside down. This suggests that perhaps he is not fully in control of the image medium and therefore that his authority might be challenged. This makes him vulnerable since his relatively high status is demonstrated and maintained primarily through his control over the knowledge, skills, and experience relevant to his gatekeeper role.

The teacher's actions in front of the computer are also familiar to the students. They do the same themselves each day either at home or in the library, the difference being that they rarely allow someone else to see the Internet sites they visit. Mark attempts to utilise the young people's everyday culture, and at the same time sets a good example of how to seek out information on e.g. the meanings of words, the Swedish National Encyclopaedia etc. Mark is merging (formerly) private situations into formerly public ones. New media tend to merge existing information-system and will lead to more side or middle region behaviours. The new behaviour that arises out of merging situations, called "middle region" (Meyrowitz, 1985/1986, 47) contains elements of both the former onstage and offstage behaviours, but lack their extremes.

The choices of transduction from one modality to another, from texts to pictures, which Mark illustrates in his practice, affect the social relations of the classroom. Mark's educational ambition to adjust to the students' media competencies and to allow the students' life world into the school, one can discern a breakdown of the hierarchies of schooling, for example, between teacher and student. When he encourages dialogue by inviting discussion not only about assignments but also about matters that traditionally lie outside the domain of schools, he also creates a "multivocal" classroom where different ideas and perspectives can be aired (Bakhtin, 1986).

10. Conclusion

This article provide examples of that the prerequisites for the educational discourse are affected when media ecology in school is changing and written text (script culture) is replaced by electronic media and pictures. It certainly leads to a breakdown of the specialized and segregated information-system shaped by print, as Meyrowitz (1985/1986) claims, and an integration of information-systems by merging formerly private situations into formerly public ones. Electronic media and new patterns of access to information through electronic media bypass traditional channels and "gatekeepers" (p 163) and undermine the pyramids of status, represented by the teacher for example, that were once supported by print. In line with Bernstein (1996) the classification and framing of school subjects as well as the entire recontextualisation apparatus and the educational discourse itself seem to be challenged.

A media ecological perspective on education draws attention to the importance of media technology for teaching, and for schools as institutions. Thus, new electronic media are viewed not only as neutral tools for developing teaching and learning in general but also as a technology that contributes to better educational experiences. School politicians have entertained such hopes for new technology over a long period. Media technologies, as possibly the most important agents of change currently, confirm the symbiotic relationship between the church, schools and the written culture in Sweden (Erixon, 2009; Johansson, 1977; Tyner, 1998) and also are predictive of dramatic changes that schools are likely to experience following the full impact of the new media on educational discourses. Thus the challenge to the written culture by new electronic media, not only destabilizes writing cultures in education but the entire foundation upon which education as an institution is built.

We can perhaps hear a reverberation of the forthcoming changes in the criticism directed at schools for, for example, their alleged inability to teach the children to read (good) books, to write (good and proper) Swedish, or to behave in ways that their parents were once taught, in other words, to respect and defer to power and authority.

In summary, the patterns of dependency between teachers and students are likely to be broken as electronic media bypass traditional channels and "gatekeepers", to undermine the pyramids of status that were once supported by print (Meyrowitz, 1985/1986).

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Appendix