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Digital Technology and Rhetoric
in Swedish Educational History

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Introduction: The IT bubble at a glance

A little less than twenty-five years ago, on 7 February 1994, the Royal Swedish Academy of Engineering Sciences (Kungl. Ingenjörsvetenskapsakademien, IVA) held a commemorative symposium to celebrate its seventy-fifth anniversary. Carl Bildt, the then prime minister, was invited as a main speaker, and the title of his address was announced as ‘Sweden towards the IT Summit’ (Bildt, 2006). As one might conclude, Bildt’s speech was an homage to the new digital information technology. With this impassioned and, for a Swedish politician, unusually dramatic turn of phrase, Bildt acknowledged that the old industrial society had come to an end, giving way to a rapid transformation of global historical proportions. The collapse of socialist planned economies signified a decisive victory for the liberal world order, and the new technology was the driving force of the changes to come. Sweden now faced endless possibilities for prosperity, growth and improved welfare. Simultaneously, however, the prime minister stressed that it was of crucial importance for the whole society to mobilise behind this new technology. Otherwise, it could be a disaster in the making. ‘Nostalgic calls for returning to the ways that were is nothing but the Sirens’ song which will lead to a downfall’, Bildt proclaimed.

The prime minister’s IVA speech came later to be seen as one of the the starting points for Sweden’s so called IT bubble. Almost immediately, different spheres—politics, industry, administration—were gripped by feverish activity. In August 1994, for instance, an IT commission appointed by Bildt presented its first report, titled *Information Technology: Wings of Human Ability* (SOU 1994: 118). It considered the technology in the broadest possible sense. IT was something that concerned all sectors of society and would reach out to everyone. The report listed a number of different fields that were to enjoy the positive influence of digital technology, but significant change was necessary—specifically, in schools and academia—to achieve this effect. The new digital technology, said the authors, presented numerous opportunities for the renewal of the ‘education environment’ which would result in the ‘development of pedagogy and improvement of learning’. This in turn implied that creativity would get free rein ‘among both teachers and students’. Only in the marginal comments did members of the IT commission mention their apprehensions concerning, for instance, the status of the Swedish language.

Several factors were behind these new voices in Swedish politics and the public sector. On the technological level, the Internet breakthrough naturally

played a vital role. By the beginning of 1993, the huge potential of the Web was already dawning, thanks to the American release of Mosaic, the first user-friendly browser. The same year saw the first use of the word 'homepage' in the Swedish media (Augustsson, 2005, p. 71). In September 1994, the first version of Netscape Navigator was presented, and the so-called Internet boom became a reality. Only two years later, a package including a modem and a monthly Internet subscription was chosen as the number-one Christmas gift by the Swedish Institute of Retail (Handelns Utredningsinstitut, HUI). The Web became a broad popular movement.

On the conceptual level, the new tone was established by notions that referred back to discussions about the so-called information society in the early 1980s. At the beginning of that decade, the concepts of a crucial technology-driven change in the history of human society were already taking hold. *The Information Society as Post-industrial Society*, by the notable Japanese sociologist and technology scholar Yoneji Masuda (Masuda, 1984) played a big role in that development. Masuda declared the end of industrial society, which among other things meant the coming rise of new communicative communities and a dynamic information economy, as well as new and more democratic forms of government.

However, the growing obsession with IT in the second half of the 1990s did not limit itself to the reactivation of the techno-utopian visions of the future presented by Masuda and others. It also clearly echoed earlier, more blunt and technocratic expectations of technology's ability to contribute to the rationalisation of public management and industry. IT—just like the mainframe computers of the 1960s—would contribute to making Sweden more modern, effective and competitive.

The next few years opened the floodgate for techno-utopian ideas pouring into public life; most were associated with the concepts of the 'knowledge society' and the 'new economy'. Scholars have described this development in terms of 'IT-ism', a certain type of techno-positive concept-building (Johansson, Nissen & Stureson, 1998; Johansson, 1999). Gone were the gloomy spirits of the early 1990s, caused by cutbacks and tough budgetary issues. Within a short time the economic crisis was transformed into what was seen as a Swedish IT miracle. On the political level, there was no delay in addressing the subject, as the Social Democratic government that came into power in 1994 also formed an IT commission (led by Cabinet Minister Jan Nygren). Subsequent commissions were led by other ministers (Ines Uusmann and Björn Rosengren). IT bills from March 1996 and March

2000 were a clear sign that digital technology had made it to the highest level of state politics (Prop. 1995/96: 125; Prop. 1999/00: 86). For a short while at the end of the 1990s, the so-called broadband issue became heavily charged with political overtones.

The reason that politicians at the highest level were drawn to information technology was of course the rapid expansion that the sector was experiencing at that time. New dotcom companies and digital agencies were mushrooming, from unknown small businesses to heavy hitters with broad media exposure. Framfab, founded by Jonas Birgersson, a student from Lund, and Icon Medialab, whose founder, Johan Staël von Holstein, was a similarly young IT entrepreneur, became symbols for all things cutting-edge. Stock prices for these companies skyrocketed. ‘Nothing epitomised the Swedish economic revival as much as the new IT-entrepreneurs’, wrote the economist Stefan Fölster, just after the turn of the millennium (Fölster, 2000, p. 52). And when the fever was at its highest—during the winter and spring of 2000—*Newsweek* magazine’s enthusiastic report described Sweden’s capital as the IT centre of Europe, ‘Shining Stockholm’ (McGuire, 2000).

This development came to an end when the stock markets plunged in the spring of 2000. In March, the media reported falling markets in the United States, and soon Sweden was pulled along. During the next few years the fall in prices steadily continued, even though momentary gains could be noted. The decline for the large IT companies was a whopping 95 per cent, comparing the highest values with those of March 2002. The Stockholm Stock Exchange landslide was thus the largest from a global perspective, with the exception only of Tokyo (Fagerfjäll, p. 84f).

The bursting of the stock market bubble meant, inevitably, a shift in conceptual trends. The public sphere was now defined by scepticism and criticism. Gone were the idyllic landscapes of the future and the enthusiastic trust in technology. Slogans such as ‘the new economy’ lost much of their appeal. ‘Suddenly one started talking of the future with greater distance’, noted the ethnologist Orvar Löfgren (Löfgren 2001, p. 11). What were now perceived as the mad excesses of the IT bubble quickly became part of the folklore, and various anecdotes, filled with staggering details, started circulating. Insider stories of the crazy life in the bubble were also published in the form of literary fiction (for instance, Tomas Jacobsson’s novel *Morfin*).

The school system and the rhetorical situation

It is a well-known fact that these developments greatly affected the school system (see, for instance, Riis, 2000; Nissen, 2002; Mathiasson, 2003). But how did this relationship look in detail? Some years ago, I examined this matter in a research project funded by the so-called LearnIT project, financed by the Knowledge Foundation (KK-stiftelsen). The project was specifically focused on the mobilisation of Swedish teachers for the advent of the new technology between spring 1994 and spring 2000. What was the rhetoric formulated around IT in schools? What strategies were used to convince teachers that it was right and important to embrace the new technology? What consequences did discussions of IT have on the debate over schools as a whole? Those were the questions that I was interested in, and the text below is a summary of the results. They were originally presented as a monograph (Karlsohn, 2009) and further elaborated in later discussions (for instance Karlsohn 2017; Karlsohn 2018).

To understand the background and character of rhetoric around IT, I used the notion of a *rhetorical situation*. American scholar of rhetoric Lloyd Bitzer launched this concept in 1968 in a subsequently recognised and much discussed article (Bitzer, 1995). With this concept, Bitzer wanted to develop an originally ancient vision of human communication as something that is always situated and must be understood against the background of the context in which it takes its form.

The concept of a rhetorical situation allowed three specific aspects of rhetoric to be clarified. To start with, such a situation, according to Bitzer, always arises from an *exigence*, or an exigent problem. This means something specific that precedes and produces subjective interpretations. Simultaneously, an exigence involves an interest—an expectation has to be met, a blank must be filled, a challenge must be addressed. A crime demands a prosecutor's bill of indictment and a counsellor's defence speech; air pollution affecting the environment persistently claims the public attention, and so on. An exigent theoretical problem exists only if influence can be exercised towards those who have the ability to modify the problem itself.

The second element of the rhetorical situation that Bitzer points out is the *audience*. The audience consists of those people who are immediately influenceable and who can act as mediators of the change that the rhetoric aims to produce in relation to the pressing problem. In that respect, a rhetorical situation's audience, according to Bitzer, is different from, for instance, the audiences of science and of art. Those two forms of expression do not re-

quire an audience to mediate their desired effects, for they do not strive in the same manner for action and change. Thus, rhetoric's distinguishing mark is its direct connection to the latter phenomenon.

The third aspect named in Bitzer's article is the *constraints* that characterise each rhetorical situation. Such constraints can include convictions, attitudes, documents, facts, traditions, interests, motives and so on. They exist in both the audience and the rhetor, and they limit the opportunities that are at the latter's disposal in seeking the solution that a given exigent problem requires.

There are good reasons to question aspects of Bitzer's concept of the rhetorical situation (see, for instance, Vatz, 1973/1995). However, as a starting point for an examination of the rhetoric about IT in schools, as it took shape in Sweden during the second half of the 1990s, the concept fits quite well.

What, then, marked the rhetorical situation at that time? What characterised the context in which rhetoric concerning IT in schools took form? The distinguishing characteristic was the result of a historical convergence among several previously separate development processes. These processes overlapped precisely during the period 1994–2000 and defined a qualitatively new situation.

In general, we need to keep in mind the broad characteristics of the history of IT in Sweden. Beginning in the 1960s Sweden distinguished itself as an early adopter in the sphere of digital technology, with many aspects of both public administration and industry being computerised quite early (Glimell, 1989; Johansson, 1993; Ilshammar, 2002). In addition, we can see a strong increase in the use of personal computers towards the end of the 1970s and especially in the 1980s, which led Sweden to become one of the world's most computerised countries in relation to the size of its population.

Developments in the school system, in the meantime, took form in a different way. Here a number of extensive and occasionally ambitious ventures were launched, from the 1970s Computer at School (Datorn i skolan, DIS) project onwards (the overview of these projects is given, e.g., in Riis, 1997; Riis, 2000). Some of these efforts can be considered successful in a limited sense; others—among them the hardware development project for the so-called COMPIS computers—were, at least in respect to schools, an unequivocal failure (though they could be seen as important for the industry; see Kaiserfeld 1996).

Despite these shortcomings, on the level of ideas we can see how the dream of a broad and fruitful implementation of technology in the school system was a constant presence during the decades preceding the Internet explosion. The notion of the computerisation of schools as a key to economic growth and the future well-being of Sweden has persisted in discussions since the 1960s. But simultaneously, despite these repeated efforts, it has seemed impossible to achieve a broader introduction of computers in schools, not least due to disinterest on the part of teachers. In other words, it might seem that this was not a rhetorical situation in Bitzer's terms—a situation in which the circumstances allowed for a true change, caused by a rhetorical message.

The gap between developments among the general public, on the one hand, and in the school system, on the other, would gradually become obvious to more and more people both inside and outside the sphere of education, and its significance should not be underestimated. In fact, this gap is the central focus of the rhetoric on IT formulated during the period that I have examined. It seems that sedimentary memories of this historical disparity were reactivated with particular force in the new situation that surrounded the IT bubble.

When the Internet explosion took place in 1994, the terms of the rhetorical situation were drastically transfigured. On the level of history of technology, the new conditions were tantamount to a transition from isolated PC terminals to integrated networks, which now communicated by means of easy-to-use and widely distributed software tools (for instance, Netscape). On the conceptual level, one could witness new and crucial constraints, especially the prevailing and in many respects hegemonic IT-positive conglomerate of ideas which established itself during these years. These ideas permeated large parts of industry, politics and the tone-setting media, and had a strong popular influence. The concepts of an IT-led national restoration, and of all the possibilities of the new and different age that was now dawning, dominated for a few years almost without dissent in the Swedish public eye.

The abovementioned factors constituted and framed the rhetorical situation that shaped the rhetoric around IT in schools. This rhetoric was, in high degree, directed towards giving form to and addressing the situation's exigent problem: the legacy of a misbalance between technological cultures outside and inside schools. The new conditions that were established after 1994 led many to believe that it was possible for the transformed technology

to permeate the world of education. These distinct lines of development inside and outside schools, in other words, seemed able to be brought into agreement.

Thus, against the background of a general IT boom, massive pressure was put on integrating IT in schools—from the political side, from the public administration and, to a certain extent, even from industry. Education was regularly perceived during that period—starting from the IT commission's *Wings of Human Ability* document and onwards—as an important arena: perhaps the most important. It was frequently pictured as an arena where the future fate of Sweden as a successful nation could be decided. That huge focus on IT in schools, which emerged during the second half of the 1990s, has to be understood in its relation to conditions outside the schools themselves. I refer, for instance, to the so-called IT billion or the Knowledge Foundation's Lighthouse project, as well as the venture launched by the government under the name IT in School (ITiS).

In light of the fact that a new historical opportunity was thought to exist, the audience of the rhetorical situation also emerged. That is, the category of people that could be and must be influenced in relation to the exigent problem. For there was a category of central actors who as a result of alleged ignorance, lack of enthusiasm or insufficient preparedness, were a greater hindrance than anyone to the successful digitalisation of Swedish schools: *teachers*. It was the teachers' attitudes that had to be formed and strengthened in the affirmative direction. It was the teachers who could execute changes in the existing situation.

Teachers' mobilisation and rhetorical genres

What happened, then, in the attempt to mobilise teachers? In order to answer this question at least partly, I chose to examine the mouthpieces of the teachers' trade unions; more specifically, a number of articles from *School World* (*Skolvärlden*) and *Teachers' Paper* (*Lärarnas Tidning*). Both these publications are distributed among the members of the trade unions that dominate the organised teaching community in Sweden, the National Union of Teachers in Sweden and the Swedish Teachers Union, respectively. The former belongs to the SACO family (the Swedish Confederation of Professional Associations) and organises certified teachers as well as student counsellors and career officers. During the second half of the 1990s the union had approximately eighty thousand members. The Swedish Teachers

Union belongs to the TCO family (The Swedish Confederation of Professional Employees) and was founded in 1991 as a result of the merger between the Swedish Teachers' Trade Union and the Swedish Teachers' Union. It has a large target group and organises all sorts of employees—from teachers in preschools to adult education and faculty in higher education. During the second half of the 1990s, the union had about two hundred thousand members. Both publications had circulations that corresponded approximately with their membership. At that time, twenty-two issues of each magazine were published annually.

The very emergence of articles on the subject of IT in schools is an interesting phenomenon. As summarised by education scholar Karin Fransson in a pre-study to my research, it turns out that the number of publications rose dramatically during the second half of the 1990s (Fransson, 2004, p. 14, figure 1). This development corresponds naturally to the overall dissemination of IT-positive ideas, and it is this connection that stipulated the chronological limits of my research, from the spring of 1994 to the spring of 2000, that is, the period between the great Internet explosion and the stock market crash. In 1994 the number of articles that specifically dealt with the Internet was not very high, but by 1995 the commencing boom was visibly present in the content. It is worth noting that interest in the Internet and digital technology gradually declines in magazines published by teachers' unions after 2000. The decrease can already be seen in 2000, and in 2003 this interest, measured by the number of articles, drops to the 1985 level.

Given their large circulation and considering the fact that teachers made up the central target group for these new ideas, articles in trade union magazines are very interesting material for examining the spread of ideas connected to the new technology as well as the rhetoric surrounding these ideas. I examined several hundred articles from the teachers' magazines and selected approximately twenty for a closer rhetorical analysis.

In this analysis, I took as a premise Blitzer's reasoning on rhetorical situations as well as a couple of essential insights from the classical rhetoric developed in antiquity. Those include, first, the perception of rhetoric as an integrated whole (see Aristotle, 1991, 1356a). Arguments of reason, trust-instilling circumlocutions and emotional appeals—everything is part of an indivisible totality. Second, I found it inspirational that rhetoric in ancient sources is already shown as something open and indeterminate (Campbell, 1997; Schiappa, 2001). Rhetoric is characterised by a testing and explorato-

ry approach that is not theoretically strict. Instead, it allows a researcher to vary angles of approach and let the reasoning be ruled by the texts.

It is certainly necessary to keep in mind that ancient rhetoric was based on oral communication. It dealt with a situation in which a speaker was acting in front of the attendant public. Nowadays rhetorical messages are often spread by other means: via broadcasting media, the Internet or—as in the case I examined—newspaper articles. But despite this it still seems useful to work in accordance with these originally ancient insights.

What kind of pattern emerges from an examination of the articles in *School World* and *Teachers' Paper* that adopts these insights from the sphere of rhetorical thought? In my study, I have chosen to proceed from the concept of speech genres, introduced by the Russian scholar of literature Mikhail Bakhtin, in order to classify the material (Karlsohn 2009; Bachtin, 1952-53/1997). It is possible to distinguish among three different patterns, or three different genres: (1.) rhetoric of *instruction* (2.) rhetoric of *enthusiasm* and (3.) rhetoric of *alarmism*. This distinction concerns three different ways of addressing an intended reader, three different categories of rhetoric which reflect varying notions of the teacher who is being addressed.

Let us begin with the first genre, rhetoric of instruction. What characterises it? It is largely dominated and determined by a specific notion of the addressee. This notion is explicit in the texts in varying degree, but it is always easy to identify; the teachers, in general, are considered ignorant of the new technology's significance or at least do not possess the desired level of knowledge. These instructive articles suggest a partial solution to the exigent problem of teachers' opposition to the technology: presenting them with facts about the new age that is manifested by this technology, enlightening them about its function, teaching them about all the gadgets available, and clarifying the technical jargon used to describe it.

Here we meet a tradition of ideas and practice that has long been established in modern society. Primarily, it dates back to the Age of Enlightenment and its world of concepts. The underlying thought is that knowledge per se is worthwhile, and that it involves a sort of mastery of the studied object. In other words, knowledge induces familiarity, which displaces irrational aversion or fear and instead generates emotional acceptance of the object of knowledge. Knowledge demystifies and gives rise to familiarity and normalcy. Thus, an opportunity is created for the knowing subject to act in a rational way with respect to a given object—often as strived for by

various authorities. The teachers' trade union magazines from the second half of the 1990s published articles that aimed at waking interest, calming unease and overcoming what was occasionally called 'machine fear'—all with increased knowledge. The underlying idea is that every teacher, once provided with a rational understanding of technology, becomes a teacher who, with the help of acquired knowledge, is more positively disposed towards that technology.

What specific traits can we discover, then, with a closer contemplation of such instructive articles? It is worth noting that by a rough estimate they constitute about one-third of the material collected. Furthermore, the instructive articles are most frequently present at the start of the examined period, during the first phase of the IT bubble. This distribution has a ready explanation, since at that stage of the technological shift its implications and consequences were unknown to the majority of teachers.

Another characteristic of instructive articles is that in a higher degree than other articles they appeal to what is perceived as rationality in the teachers. This implies that facts of all sorts play the dominant role as a means of influence, and logically convincing arguments are often prioritised at the cost of more emotionally driven elements. These articles also describe the present in a typically deterministic way. They picture a situation and developments that are essentially fixed and inevitable. IT is on its way, in conformity with some historical law. But opportunities to act and elements of will are also included, for if developments were fully predetermined, then there would be no need for any rhetoric of instruction. Teachers were given at least a little bit of space for manoeuvre, which corresponds with Loyd Bitzer's statement: a situation is rhetorical only if it is open to action.

In the enthusiastic articles, the pattern is quite different. They entail a rhetoric which in higher degree is governed by a specific representation of the addressee. The rhetoric has much less to do with enlightening or with the transfer of knowledge. The reader is no longer ignorant but hesitant, ambivalent or undecided. To a larger extent, these articles are directed at arousing emotions and showing opportunities to act. They are by a wide margin the most common type of articles among those collected, constituting about half of the material.

How is enthusiasm produced? It is done by various means, but the most prominent ingredient in most of these texts is that they portray a *witness*. In the enthusiastic texts a rather numerous cast of characters tell of their encounters with the new technology and all its benefits. A teacher testifies

how easy and how rewarding it is to master computers and the Internet. Positive forerunners tell of closer and more intensive involvement with the technology than an average reader. Students talk about how stimulating it is to study in front of a computer monitor, or zealots fill their lives with all the novelties. Sometimes these are pure conversion narratives, more or less similar to tales of conversion from the religious sphere.

In the meantime, these witnesses are connected in that they are all held up as exemplary role models, thereby in a sense making these texts part of a powerful Western tradition of ideas, which has its roots in the ancient Greek concept of *mimesis* (hereto see, e.g., Gebauer & Wulf, 1992). This tradition combines in various ways a requirement to imitate by means of repetition, on the one hand, and the concept of the imitator creating something independently new, on the other. Different variations of such combinations are present in many parts of the enthusiastic articles.

As historian of ideas Michael Azar has pointed out in an essay on the history of witnesses and testimony, the basic requirement for a trustworthy witness is that he or she has to be *present* for the phenomenon or events that are being testified about (Azar, 2008, p. 23ff). The credibility of witnesses further depends on their character and reliability; and probability, thus, on the person who gives evidence. Therefore, it is worth mentioning that many of the witness accounts in this material combine evidence with the gold-plating of the persons who present the testimony. In the instructive articles the trustworthiness of the transmitted facts is dependent more on technical expertise, convincing subject knowledge and comprehensive familiarity. In the enthusiastic articles the stress is instead upon the purely personal characteristics of the individual presented. These qualities—openness, passion, ambition, creativity, fearlessness, flexibility and so on—are borrowed from a contemporary repertoire of ideas which contains positively loaded and desired character traits.

All these components fit well together and strengthen the overall rhetorical trend that marks the enthusiastic articles: they essentially describe the present as open for action, initiative and creation. These texts in general are *voluntaristic* or action-focused, and their emotional pitch can be described with words such as ‘elation’, ‘joy’ and ‘euphoria’.

Now to the last of the three rhetorical genres, the alarmist. What are its characteristics? Yet again, the notion of the addressee offers the key to the texts’ rhetoric. Now, however, it is not an ignorant or a reluctant teacher

who is being addressed but instead one unfazed by the technology or in some cases openly hostile to it. Therefore, the alarmist genre is characterised, as a rule, by its striving to challenge a technology-resistant or uninterested teacher with a more or less eye-opening representation of the future. Raising the alarm and warning signals are the major ingredients in these texts.

Here, as well, we face a rhetorical approach with historical resonance. The fact is that most of the alarmist articles incorporate notions associated with a common and traditional approach to technology. In a discussion of what he calls the grammar of technology debates, Martin Kylhammar, a scholar of literature and historian of ideas, labelled this attitude ‘system critical optimism’ (Kylhammar, 1987, p. 388ff). It is not concerned—at least not in a more definite and categorical sense—with waking a reader or a listener by warning against *technology as such*. Instead it points out different defects in the *context* that surrounds technology. Criticism of civilisation or techno-defeatism tinged with dystopia are conspicuous, thus, by their absence, and so are other types of criticism against the very core of technology. Instead, technology is perceived as something that possesses positive potential if only it could be allowed to develop in favourable conditions. It is the lack of such favourable circumstances that sets off the alarm in an attempt to wake people up—in our case, the readers of *School World* and *Teachers’ Paper*. This type of critical view of the context of technology is generally present throughout modernity and has been articulated by a number of influential thinkers. Of those, Karl Marx is a good example. In his theory, technology has a totally different meaning and nature in a capitalist mode of production, on the one hand, and in the socialist society of the future, on the other. Industrial technology in itself essentially remains the same.

A fact worth noting is that the alarm signals emanating from articles in teachers’ union magazines are not necessarily addressed directly to a teacher reading them, even though they may sometimes take the form of emotional blackmail. It can be instead a question of raising the alarm about a societal, cultural or institutional defect thought to counteract the positive potential of technology. But regardless of whether a teacher is challenged directly as a reading subject or he or she is made to face problematic circumstances whose cause lies at a different level, the rhetorical effect nevertheless is achieved by shaking up and waking the teacher, rather than by means of instruction or enthusiasm.

What other special characteristics do alarmist articles have? It may be worth mentioning that they constitute a relatively small portion of the material. They appear during the whole period of the IT bubble, with a slightly larger presence in the initial years. In terms of content, it is also clear that these articles—despite a wide range of topics—are permeated with a different emotional tone in comparison with the instructive and enthusiastic ones. Here we face a much more raised, disharmonious, crisis-inflected and sometimes explicitly ominous tonic chord. Besides, the emotional effect itself often is much more prominent in these texts than in others, even compared to the enthusiastic ones. Finally, the overall rhetorical tendency in these articles—just like in the instructive ones—is *deterministic* to a varying degree. IT's advance into schools is described as an unavoidable development governed by laws over which a single teacher has no power whatsoever.

Effects of the rhetoric

Can it then be said that this instructive, enthusiastic and alarmist rhetoric of IT in schools during the second half of the 1990s was effective? Is there any factual evidence that this attitude-changing rhetoric was successful? It is naturally impossible to say anything substantial and exact on the matter, based on the empirics from *School World* and *Teachers' Paper*. The articles' eventual effects cannot be established nor can these effects be isolated from the general IT-in-schools hype, or from the stream of money and influence that followed the widespread IT enthusiasm dominating the public sector during these years. Neither can we separate the specific effects of these texts from the influence exerted by numerous other articles, which are not included in my research. Yet it seems fruitful to contemplate the results of the general IT implementation during the same period, and rhetoric's relation to it.

To start with, the whole period of 1994–2000 was saturated with an underlying uncertainty over technology's place and usability in schools. Admittedly, the school system was computerised to a fairly high degree, a conclusion supported by various evaluations (from the Knowledge Foundation and the Swedish National Agency for Education). But at the same time, a number of studies clearly indicate other problems. In a report from the School of Business, Economics and Law at Gothenburg University, for instance, the researchers wish to minimise the effects of the efforts surrounding IT in schools and the associated rhetorical boom. Among other things,

this study maintains that those changes that can be observed in retrospect are ‘minor’ and that ‘school’s core business’ all the same ‘comes up trumps’ (Eriksson-Zetterquist et al., 2006, p. 219).

The power of the school system to resist change has also been noted in other studies. For instance Patrik Hall, a political scientist who together with his colleague Karl Löfgren conducted an ItiS project, consequently suggested that this venture, despite all the grandiose rhetoric, left only ‘an insignificant imprint on school’s daily life’ (Hall, 2008, p. 59). Other researchers noted that interest in computers tends generally to cool off despite high expectations, and that interaction with technology does not automatically lead to improved academic performance (Sandahl & Unenge 2000). And even those studies which uncover and reflect upon changes in schools during the second half of the 1990s cannot unambiguously attribute these changes to efforts to introduce new technology and rhetoric around the subject. Ulla Riis and the group who evaluated the Knowledge Foundation’s Lighthouse projects, for instance, were able to conclude that the changes they observed in the examined schools were not linked to the introduction of new technology. Other factors seemed more crucial, for instance, social and cultural factors, a new curriculum and collective bargaining agreements (see, i.a., the summary in Riis, 1998).

It would not be unreasonable to deduce that the rhetorical energy worked up in the days of the IT bubble had only rather limited long-term consequences for Swedish schools. One could even ask whether this rhetoric actually helped conceal the fact that changes were often perceived as minor and difficult to identify. Simultaneously, it is necessary to recognise that often rhetoric had an obvious effect. It would not be too bold to assume that the rhetoric of the teachers’ trade union press, alongside a number of other external factors, for a time contributed at least to arousing interest in technology among many teachers. It also had consequences, as during this time Swedish schools were computerised to a very high degree, and the use of digital technology in teaching expanded in a way that has no historical analogy.

While it seems that the new technology soon registered with the world of education and became an integrated part of schools’ operation, its charm waned rather substantially once the air went out of the bubble. ‘When the euphoria around the new technology died down, it found its rightful place in the school system’, as professor of education Roger Säljö noted (Säljö,

2001, p. 7). Not long after the passion for the new technology subsided, the rhetoric surrounding digital technology took a mainly subdued and polished form. The heightened overtones of immediate mobilisation and a unique moment in world history became rather uncommon, as clearly seen in the articles found in teachers' trade union magazines after 2000. Besides, the very quantity of articles about IT in schools decreased after the bubble burst.

The fact that the type of rhetoric described above gradually decreased after the economic and ideological crash of 2000 depends without a doubt on the disappearance of the fundamental problem that defined the rhetorical situation—the gap between high levels of computerisation outside schools and low levels within them no longer existed. In 2002, a so-called task force for new national IT strategy for schools ascertained just that. It asserted that the picture of schools as a lonely island amid the sea of a digitalised society 'now can hardly be considered valid' (Ds 2002: 19, p. 7). The school system had simply reached the point where at an overall level it was computerised, even though there were—and still are—big local variations. In that sense, one could say that the rhetoric concerning IT in schools was successful. It fulfilled its task as a sort of vanishing mediator under rather specific and short-term historical conditions, and then began to dwindle. If one, however, regards the actual outcome of the promise that was shown, then a different picture emerges. Computers evidently did not pull schools into a radical revolution, as it was often maintained that they would. The old and rather familiar pedagogical problems that teachers struggle with in their daily classroom activities have not disappeared. And that widely discussed explosion of technology-driven curiosity, hunger for knowledge, creativity and joyful learning has not yet arrived.

Conclusion: Marginalisation of criticism

If it is now doubtful that investment in IT in schools produced any lasting and profound effects on the Swedish school system, and if rhetoric concerning the technology rapidly diminished as the political, economic and social boom ended and computers had successfully arrived in classrooms, why then is this historical episode worthy of our attention?

One answer to that question, of course, is that large sums of money were invested into IT in schools. There are even grounds, as certain commentators have noted, to ask whether the allocated amount was rationally proportionate to the outcome now seen in retrospect. How sensible was it to allow

lagging schools, which with many complications were driven to considerable cost-cutting, to use their share of additional funds for information technology? Why were many thousands of kronas allocated for computers, while textbooks might cost a few hundred at the most? Such questions are quite relevant, but my argument is not primarily concerned with economy.

Judging by the articles that I examined, it is clear that the critical perspective was marginalised during the period under research. This outcome is in line with the available descriptions of similar situations in other countries. For instance, educational scholar Larry Cuban has highlighted in a larger study that the discussion in the United States overwhelmingly lacked criticism towards digital technology (Cuban, 2002). Without hesitation one could call the second half of the 1990s criticism-free years when it came to the issue of IT in schools. In that regard, there are many questions to reflect upon here and also, perhaps, to draw a lesson from (as much as it is possible to draw lessons from history).

What do I mean by a critical perspective in this context? Simply put, I am talking about those perspectives that involve more profound reflexions on the technology, its suitability, usefulness and function in schools. Questions implied by such perspectives are of the following type: Is technology invariably and purely a good thing? Why does the technology not perform all the roles that it is said to be able to perform? What do we lose—for example, in pedagogical and social terms—with the introduction of computers and the Internet into classrooms? Why would one want to force on schools a technology that is actually not created for their needs? Whose and what kind of interests are served by introducing IT into the school system? Such critical questions were conspicuous by their absence in the school debate during the IT bubble. This absence is analogous to the lack of more serious and influential criticism towards information technology in the broader national context—even though exceptions can be found—which strongly determined the course of politics, the economy and public life during these years.

If we limit ourselves to the articles from *School World* and *Teachers' Paper*, it is possible to discover distinct evidence of the lack of such critical perspective. After 2000, there are texts which contain various types of critical accounts and reflexion on information technology. However, in the period 1994–2000 there are only a handful of articles which can be called critical in the sense described above. Certainly, as mentioned, the material that I worked with is not comprehensive, but a very low frequency of critical texts in a rather big sample is an indisputable indication of the critical perspec-

tive's marginalisation. The school trade union press appears, in other words, to have functioned as an 'arena of transformation', to use the concept of Bo Lindensjö and Ulf P. Lundgren, where the interests that pushed computerisation in schools were given plenty of space to exert control through the media (Lindensjö & Lundgren, 2002, p. 175).

Thus, one could speak of a certain closing of the debate on schools during these years. However, we cannot say that it was caused by the fact that critically disposed teachers were few. There are plenty of indications that opposition to technology on the part of the teachers' collective was going strong during the whole period 1994–2000 (see, e.g., Riis et al., 1997; Falk, 1997; Bergman & Riis, 1999; Skolverket, 1997). It cannot either be established that those enthusiastic teachers abundantly portrayed in the school trade union press were characteristic of the unions' membership as a whole. On the contrary: this seemingly endless line of zealots who confronted the reader of *School World* and *Teachers' Paper* at that time was, in fact, a cadre of between 1,000 and 1,200 people, if we believe the estimate given by the task force for the new national IT strategy for schools a couple of years after the IT bubble burst (Ds 2002: 19, p. 27).

The question is, then, which mechanisms caused this marginalisation of the critical perspective? One factor is that information technology in itself had such a strong symbolic value that critical reflexions, contemplations and more distanced questions were almost automatically considered something negative during these years: at best a passing whine, but more often a hopeless backwardness and lack of a sense of reality. Carl Bildt already set that tone in his speech at the Royal Swedish Academy of Engineering Sciences in February 1994, when he condemned all those who were not willing to join the national gathering around the new technology.

The fact that it could be costly to express criticism and to pose questions certainly played its part. The abovementioned report from the School of Business, Economics and Law at Gothenburg University gives examples of how difficult it was for school heads to ask questions outside the established bounds. The researchers stated in their study that it seemed 'impossible for a school rector to express criticism' towards the imposition of IT in schools, 'regardless of what happens later in terms of computer use and such things' (Eriksson-Zetterquist et al., 2006, p. 24). For teachers the situation could be even more precarious, as often money was involved. The so-called Agreement 2000 stipulated that those who were inclined to make changes and were development-focused could claim a higher salary. Since development

and change during these years were concepts largely connected to IT, there was a strong incentive to hold back critical objections and questions. Thus, marginalisation of the critical perspective in the public debate on schools was also caused by teachers' self-censorship out of consideration for their salary level and position in the workplace (see hereto SOU 1998: 70, p. 21).

But alongside these specific and distinct reasons for the critical perspective's consignment to a quiet underground existence, I also would like to emphasise the function of rhetoric. The overall effect of these different types of rhetoric must have pivotally contributed to the marginalisation of the critical perspective. It concerned the general public, but it also concerned those who were connected to the world of schools. In summa, it seems as though the rhetorical varieties outlined above formed a fairly well-oiled rhetorical machine—a machine that worked in all directions. The rhetoric wove a very tight net of discourse, an almost impermeable hegemonic tracery, which was exceedingly efficient in excluding any criticism or reflection.

References

- Aristoteles (1991). *On Rhetoric: A Theory of Civic Discourse*. (G. A. Kennedy, trans.). Oxford: Oxford University Press.
- Augustsson, F (2005). *They Did IT: The Formation and Organisation of Interactive Media Production in Sweden*. Stockholm: Stockholms universitet/Arbetslivsinstitutet.
- Azar, M. (2005). *Vittnet*. Göteborg: Glänta Produktion.
- Bachtin, M. (1952-53/1997). Frågan om talgenrer. (H. Bodin, övers.). I E. Hættner Aurelius & T. Götselius (Red.), *Gentreteori*. Lund: Studentlitteratur.
- Bergman, M. & Riis, U. (1999). Lärares förväntningar inför en IT-satsning. I Skolverket, (Red.), "...Utvecklingen beror då inte på användningen av datorer". Stockholm: Skolverket.
- Bildt, C. (2006). *Sverige mot IT-toppen*. Hämtad 7 september, 2006, från www.bildt.net/index.asp?ar-tid=353.

- Bitzer, L. (1995). The Rhetorical Situation. In W. A. Covino & D. A. Joliffe (Eds.), *Rhetoric: Concepts, Definitions, Boundaries*. Boston: Allyn & Bacon.
- Campbell, J. A. (1997). Strategic Reading: Rhetoric, Intention and Interpretation. In A. G. Gross & W. M. Keith (Eds.), *Rhetorical Hermeneutics: Invention and Interpretation in the Age of Science*. Albany: State University of New York Press.
- Ds 2002: 19. *Nästa steg. Delrapport från Arbetsgruppen för ny nationell IT-strategi för skolan*. Stockholm: Utbildningsdepartementet.
- Eriksson-Zetterquist, U., Hansson, H., Löfström, M., Ohlsson, Ö. & Selander, M. (2006). *Ett möte med förhinder: om IT-satsningar i skolan*. Göteborg: Handelshögskolan/Bokförlaget BAS.
- Fagerfjäll, R. (2003). *Historiens största börsbubbla: hur modelltänkande, flockbeteende, girighet och dumhet förstörde ditt sparkapital*. Stockholm: Aktiespararna Kunskap.
- Falk, F. (1997). *Första hjälpen: lathund för lärare i IT-djungeln*. Stockholm: Lärarförbundet/LIAB Läromedia.
- Fransson, K. (2004). *Retoriken kring IT och lärande – en förundersökning av material från 1985 till 2003*. Rapport. Stockholm: Lärarhögskolan.
- Fölster, S. (2000). *Företagarens återkomst: den nya ekonomin och det entreprenanta samhället*. Stockholm: SNS.
- Gebauer, G. & Wulf, C. (1992). *Mimesis: Kunst, Kultur, Gesellschaft*. Hamburg: Rowolt.
- Glimell, H. (1989). *Återerövra datapolitiken! En rapport om staten och informationssamhället under fyra decennier*. Linköping: Linköpings universitet.
- Hall, P. (2008). IT kan inte beordras fram. *Forskning & Framsteg*, 3.
- Johansson, M. (1993). Informationssamhällets rötter ur ett svenskt perspektiv. I L. Ingelstam & L. Stureson (Red.), *Brus över landet – om informationsöverflödet, kunskapen och människan*. Stockholm: Carlssons.
- (1999). Skola, IT och demokrati. I SOU 1999: 117. *IT i demokratins tjänst: Demokratiutredningens forskarvolym VII*. Stockholm: Demokratiutredningen.

- , Nissen, J. & Stureson, L. (1998). *"IT-ism": informationstekniken som vision och verklighet*. Stockholm: Kommunikationsforskningsberedningen.
- Ilshammar, L. (2002). *Offentlighetens nya rum – teknik och politik i Sverige 1969-1999*. Örebro: Örebro universitet.
- Kaiserfeld, T. (1996). Computerizing the Swedish Welfare State: The Middle Way of Technological Success and Failure. In *Technology and Culture*, 37(2).
- Karlsohn, T. (2018, forthcoming). "Digitalisering och historia. En essä i kölvattnet av ett forskningsprojekt". *Teknik bortom optimism och misstro*. Ed. Tobias Wessely. Gothenburg: GFFP.
- (2017). "Profession och institution. En historikers tankar". *Flip the System. Förändra skolan från grunden*. Ed. J. Evers, R. Kneyber & P. Kornhall. Lund: Studentlitteratur.
- (2009). *Teknik – retorik – kritik: om IT-bubblan och datoriseringen av den svenska skolan*. Stockholm: Carlssons.
- Kylhammar, M. (1987). Teknikdebattens grammatik. I B. Sundin (Red.), *I teknikens backspegel. Antologi i teknikhistoria*. Stockholm: Carlssons.
- Lindensjö, B. & Lundgren, U. P. (2002). *Utbildningsreformer och politisk styrning*. Stockholm: HLS Förlag.
- Löfgren, O. (2001). Den nya ekonomin – en kulturhistoria. *Kulturella perspektiv*, 1.
- Masuda, Y. (1984). *Informationssamhället*. (S. Karlsson, övers.). Malmö: Liber.
- Mathiasson, L. (2003). Någon borde ha slagit till bromsen. *Pedagogiska magasinet*, 1.
- Nissen, J. (2002). "Säg IT – det räcker". I J. Nissen (Red.), *"Säg IT – det räcker". Att utveckla skolan med några lysande IT-projekt*. Stockholm: KK-stiftelsen.
- McGuire, S. (2000, February 7). Shining Stockholm. *Newsweek*.
- Prop. 1995/96: 125
- Prop. 1999/00: 86.

- Riis, U. (1997). Den nationella politiken på IT-området i nutidshistorisk belysning. I U. Riis, G. Jedeskog et al (Red.), *Pedagogik, teknik eller ekonomi? En baslinjebestämning av KK-stiftelsens kommunbaserade utvecklingsprojekt*. Uppsala: Uppsala universitet.
- (1998). ELOIS: Elever, lärare och organisationer kring informationstekniken – IT – i skolan. Installationsföreläsning. *Pedagogisk forskning i Sverige*, 4.
- (2000). Skolans datorisering under 1980- och 1990-talen. I U. Riis (Red.), *IT i skolan mellan vision och praktik*. Stockholm: Skolverket.
- & Jedeskog, G., Axelsson, B., Bergman, M., Edström, R., Fahlén, L., Nissen, J., Pedersen, J. & Samulesson, J. (1997). *Pedagogik, teknik eller ekonomi? En baslinjebestämning av KK-stiftelsens kommunbaserade utvecklingsprojekt*. Uppsala: Uppsala universitet.
- Sandahl, A. & Unenge, J.(2000). *Varför har det inte hänt som skulle hända? Slutrapport från projektet Datorn i grundskolan – ”Dig-projektet”*. Jönköping: Högskolan för lärarutbildning och kommunikation.
- Schiappa, E. (2001). Second Thoughts on the Critiques of Big Rhetoric. *Philosophy and Rhetoric*, 43(3).
- Skolverket (1997). *Informationstekniken – en revolution eller ett verktyg i undervisningen? Lägesbeskrivning*. Stockholm: Skolverket.
- SOU 1994: 118. *Informationstekniken. Vingar åt människans förmåga*. Stockholm: Statsrådsberedningen.
- SOU 1998: 70. *Skolan, IT och det livslånga lärandet*. Stockholm: IT-kommissionen/Kommunikationsdepartementet.
- Säljö, R. (2001). Informationstekniker och bilder av lärande. *Datorn i utbildningen*, 1.
- Vatz, R. E. (1995). ”The Myth of the Rhetorical Situation”. In W. A. Covino & D. A. Jolliffe (Eds.), *Rhetoric. Concepts, Definitions, Boundaries*. Boston: Allyn & Bacon. (Originalarbete publicerat 1973.)

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