



Adequate digital competence - a close reading of the new national strategy for digitalization of the schools in Sweden.

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Abstract

In this paper, the notion of 'adequate digital competence', as it is used in the 2017 Swedish strategy for digitalization of the school system, is in focus. Based on a close reading of the strategy, three dimensions are formulated for discussion: time, context, and interpretation. These dimensions open a more general discussion about the content of policies regarding digital competence. The notion of striving for an 'adequate digital competence' for children, students, teachers, school leaders, and other school staff is loaded with a variety of possible meanings. The strategy provides guidance in some aspects, but leaves a lot to local enactment of the strategy.

Keywords: ICT, implementation, policy, school, strategy

Introduction

Questions concerning how to implement and use technology in K-12 schools have been around for more than half a century. When the earliest forms of teaching machines were introduced, the expectancy was that the advanced machines, with their automated responses and user-driven feedback, would ultimately replace the teacher (Ferster, 2014). Today, such issues are still present, though associated with other, somewhat wider, concerns as well (Serholt, 2017). Given the prominence given to the current ongoing

digitalization of society (Cöster & Westelius, 2016), it is unlikely this attention will decrease.

One area in which it is visible that education and technology are closely connected is in government policies of different kinds. High on the educational agendas of most Western countries has been the adaptation of a policy or strategy for introducing and supporting information and communication technology (ICT) in education (Moonen, 2008). Even though western countries have similar economic preconditions, the content of the ICT policies and their implementation display differences (Austin & Hunter, 2013; Moonen, 2008; Ottestad, 2010). Kozma (2008) distinguishes between strategic policies on the one side and operational policies on the other. Both seem to be connected with some specific rationales. Examples of strategic policy rationales are to support economic growth, promote social development, advance education reform, and support education management. Kozma (2008) states that operational rationales often display some of the following five components: infrastructure development, teacher training, technical support, pedagogical and curricular change, and content development. Thus, different rationales can be said to underlie policies, and often there is an explicit and implicit over-optimism about ICT in K-12 schools (Convery, 2009; Egea, 2014; Jordan, 2011) and the use of ICT as a tool for teaching and learning in education (Hammond, 2014, Haugsbakk & Nordkvelle, 2007; Selwyn, 2010).

Since the mid- and late 1960s, several initiatives have been taken to introduce computers and other digital devices into the Swedish school system (Karlsohn, 2009). During the 1970s, the initiatives were mostly small-scale trials and projects, but from the early 1980s and onwards they started to be more widespread and of more common concern for the K-12 school system. Jedeskog (2005) describes these initiatives as campaigns or waves that have swept over the Swedish educational landscape. The first wave in the mid-1980s was concerned with computer science education, the second from the late 1980s to the early 1990s focused on computers as pedagogical tools, and the third wave in the latter part of the 1990s centred on the large-scale investments made by the Swedish Knowledge and Competence Foundation in IT in schools, primarily through 27 so-called 'lighthouse projects'. The fourth wave came in the early 2000s with the broad IT in Schools (ITiS) program, which focused on both technological investments and in-service training of teachers (in which all 289 municipalities in Sweden and about 60,000 teachers took part). In the years directly after Jedeskog's report, there was another state-financed initiative to provide further in-service training and competence to the Swedish teachers. The web-based competence training modules called Practical IT and Media Skills (PIM), an initiative that came out of *Government Proposition 2004/05:175* through a directive to the, at that time active, Swedish Agency for School Improvement. The PIM modules were no longer supported as of 2013.

Swedish policy on ICT in education – 1983-1994

Over the years, there have been several Swedish policies and decisions that have been concerned with the area of ICT in education. Going back to 1983, *Government Bill 1983/84:100* (which regulated the state financial affairs for the years 1984/85) had in its appendix 10 new suggestions for the teaching of computer science in the lower secondary grades. The bill was built on arguments about the global influence on culture that could be foreseen; the consequences for humans, organizations, and society that also seemed present; and gender issues where knowledge about computers for girls was an issue. The areas that were primarily in focus in 1983 were time in curricula for computer science education, the provision of subsidies for schools to buy equipment, and preparation for more qualified professional development for one or two teachers at each school.

In 1985, a report in the Swedish Government Official Reports Series (*SOU 1985:50 Broad Computer Education*) suggested a broad computer education directed towards adults, based on the assumption that their competences in this area needed to be better for future work. The arguments in 1985 were about strengthening Swedish industry, but also issues of equality and democracy. Technology was seen as affecting all. The suggested education had a syllabus that concerned areas such as the use of computer systems and how activity, work organization, content, and professional knowledge related to computer systems, systems and programming, and the structure and function of the computer. General knowledge about computer technology and the importance of the 'invisible' software, positive and negative consequences of computerization, and knowledge of data policies were also of concern. Further, it contained elements of some training in running different application programs and the importance of having knowledge of continued computer education.

In 1994, another report in the Swedish Government Official Reports Series *SOU 1994:118 Wings to man's ability* was largely devoted to the use of information technology (IT) for learning. The argument in 1994 was that technology drives globalisation of the economy, trade, science, and culture. IT was seen as an issue for the whole country, and technology was thought to release creativity and develop learning and instruction. The areas of primary concern in 1994 were that all students should learn to use IT and that IT was to become an integrated tool in all school subjects. It was suggested that K-12 schools should have local IT strategies and that on a national level there would be information networks. The teacher was seen as a role model, and teacher education was supposed to lead the way. It was also directed at providing equipment and services for teachers and the development of electronic learning materials.

Swedish policy on ICT in education – 1994-2016

The report from 1994 was followed in 1997 by a decision for a large investment and professional development program for the schools (*Government communication 1997/98:176, Learning Tools*). It was built on arguments about lifelong learning and how IT drives societal changes, which will lead to new demands for education and competence. Schools must relate to changes in society and adapt to the conditions of tomorrow, and it will be important that all students know the new tools for knowledge and learning. Included areas in the 1997 initiative were professional development and computers for teachers, Internet connections to all schools, and e-mail for all students. IT was also to be a tool for working with students with disabilities. The Swedish school net was going to be built, and rewards for teachers who made specifically good pedagogical use of IT were to spread good examples.

In 2002, the ministry memorandum *Ds 2002:19 Next step* suggested an IT strategy for the schools. The argument in 2002 was that Sweden faced international competition in a knowledge-based economy. Areas included in the suggested strategy from 2002 were additional professional development for all teachers, preschool teachers, and school leaders; the development of learning resources; support to local municipalities in technical issues; support for international cooperation; integration of IT in curricula and syllabi; and a follow-up on the goal attainment for teacher education (since it had been a goal for some years that new teachers would be well prepared to use IT in their work). The strategy suggested school-based research and development, included the area of special education, and suggested a national function for implementing the strategy.

In *Government bill 2004/05:179 From IT policy for society to policy for IT society*, the government put forth arguments based on a view of IT as a part of a global economy; IT should be made use of with efficiency, and IT should

enhance quality. In 2004, issues of sustainability were also raised. Areas in focus were how to include IT in curricula and syllabi, include more competence development for teachers and staff members, cooperate with industry, increase focus on monitoring and evaluation of IT usage, continue work with the Swedish school net, place focus on soft infrastructure for the schools, include IT already in preschool, and provide teacher training. From the ambitions in the 2004 government bill, the PIM web-based online tool was developed, which ran from 2005 until 2013.

Then, in 2014, the report *SOU 2014:13 A digital agenda in human service - a bright future can be ours* came. The arguments in the report were still based on a view of global competition; digitalization could increase innovation and quality and counter gender inequity. In the digital agenda, in 2014, the focus continued to be on revised curricula and syllabi with a digital perspective, how to promote and include digitally based national exams in primary and secondary school, greater acceptance for remote teaching in primary and secondary school, additional professional development in digital competence for teachers, and professional development in digital competence for school leaders. It was also suggested to clarify the digital element of teacher education and to promote innovation projects for future learning.

Swedish policy on ICT in education – 2017

The latest government initiative was when the Swedish National Agency for Education suggested a strategy for digitalization of the schools. In the strategy, the aim for 2020 is that students, teachers, school leaders, and other staff members working in the schools have to develop an adequate digital competence that is relative to each group and its specific conditions, that access and use are distributed according to needs and conditions, and that research is directed towards the possibilities of digitalization for schools. In 2017, the government decision I:1 (2017-10-19) came, with a supplement in which the framework for a strategy for digitalization of the schools was presented.

In the strategy, digital competence is defined with a reference to the Swedish Digitalization Commission that was appointed in 2012 in order to promote the digitalization of Sweden and work to achieve Sweden's IT policy objective to be the best country in the world at utilizing the opportunities of digitalization. In turn, the Commission's definition of digital competence falls back on the EU competences for lifelong learning, and the digital skills are said to be 'determined by the extent to which people are familiar with digital tools and services and have the ability to keep up with digital developments and their influence on our lives' (SOU2015:28, p. 32).

Swedish research on the ICT in education – three examples

In Sweden, there have been a few reports and dissertations that have given notice to the introduction of ICT in Swedish schools, analysing its introduction over several decades. Hernwall (1998) analysed the debate about ICT in schools (1957-1997) and describes two views: (a) ICT is needed to follow the development or change of the society, and (b) ICT is a means for bringing about development and change in the society. In a similar manner, Johansson (1997) claims that although the technological developments over the years have been dramatic, many arguments used for and against computers have had the same basic content over time. Johansson sums these into two contrasting 'visions', named 'nothing changes' and 'everything changes'. Both these examples of analysis point towards the ambiguities that surround the implementation or introduction of ICT in education in Sweden; the arguments change and stay the same at the same time.

Söderlund (2000) combined an analysis of how IT has been argued for in different programs and initiatives from a government perspective with an in-depth analysis of the activities that have taken place in one municipality. He claims that in the 1970s and 1980s there was a pressure from central levels on the schools, but with a widened interest during the 1990s in IT from the schools as arenas of realization, there has been more of a meeting of local expectations and needs with central or national initiatives.

With this backdrop, the aim of this paper is to present a close reading of the most recent national policy in the area of ICT in K-12 schools in Sweden. In particular, the paper focuses on how a specific notion – ‘adequate digital competence’ – can be understood in the policy in relation to aspects of who is in focus for an adequate digital competence, when a notion of adequate digital competence is supposed to be fixed, and what a notion of digital competence should include. The notion seems to play a central role, not only in making the policy appealing to all actors involved in the implementation of the policy, but also to make the policy conceptualized as ‘doable’. First, some notes on the concept of policy before the paper moves on into the notion of adequate digital competence.

Some notes on the concept of policy

Policy can be conceptualized as a ‘programme of action, or a set of guidelines that determine how one should proceed given a particular set of circumstances’ (Bell & Stevenson, 2006, p. 14). These guiding principles can be manifested in texts as legislations or guidelines, as well as in speeches or gambits by authoritarians. Though policy has often been viewed as being part of a top-down process, where policy is formulated in one arena and then realized in another (Lindensjö & Lundgren, 2000). From this perspective, policymaking can be (mis)understood as a rational and straightforward process in which policy is implemented in practice as originally intended and formulated. Policymaking can here be seen as a process that involves a complex interplay of actors (for example, politicians, school leaders, and teachers), ideas, concerns and social processes on multiple levels of a system in which ongoing processes of negotiations and transformations are taking place (Datnow & Park, 2009). However, policy formation processes (Edwards, 2012) are often more complicated than that and can also be understood as an enactment (Ball, Maguire & Braun, 2012). For instance, to acknowledge processes of policy formation is also to acknowledge processes of micro-political manoeuvring (Keltchermans, 2007), power, and negotiation in practice, and to relate the policy enactment processes to the existing preconditions, structures, and activities of the educational contexts in which the policy is to be realized.

The theoretical ideas of policy as text and policy as discourse can analytically focus some aspects of policy (Ball, 1993, 2015). Policy as text refers to the textual aspects of policy, as in legislations and guidelines and how these are construed, interpreted, translated, and enacted in practice (Ball, 1993). Policy as discourse is about the ways ‘in which policies are framed and the discourse that develop around policies, shape and constrain the scope for individual agency’ (Bell & Stevenson, 2006, p. 18). Taking a discourse perspective means that, rather than understanding policies as a response to actual problems, challenges or needs, policy can be understood as a discourse on how tasks, challenges, solutions, and policies are construed, conceptualized, and presented. From this perspective, the notion of ‘adequate digital competence’ can be understood in relation to its discursive frame. This frame may be uncovered by analysing sense-giving entities (Gioia & Chittipeddi, 1991) contextualising the policy text. According to Ball (1994), the policy discourse is about what can be said, thought, and done as well as what’s emphasized and what is downplayed. Thus, a policy discourse is about how something ‘ought’ to be conceptualized and what to be recognized as

‘problematic’, ‘inappropriate’, ‘suitable’, ‘solutions’, etc. This way, policy discourses influence how actors conceptualize and frame issues, what they do, and how they understand and frame educational practice and themselves – all of these with implications for ‘what we are’ (Ball, 2015, p. 306). For instance, in terms of an ICT-skilled teacher acknowledging innovations or not. In a similar way, a policy discourse gives cues and directions for how the notion of ‘adequate digital competence’ in a policy text ought to be understood and enacted by different actors in a K-12 context. Questions such as ‘Who does a policy address?’, ‘When is certain activities expected?’ and ‘What is expected?’ has a central position in policy analysis. Thus, in the following, a close reading of the newly presented strategy for digitalization of the schools in Sweden will be presented within three themes answering to the questions, *who*, *when*, and *what*?

‘Adequate digital competence’ – a close reading

The supplement to the government decision on a digitalization strategy for the school system is not a long document. In fact, it is only fourteen pages, divided into five main headings (GD I:1, Supplement, 2017-10-19). The content of the first is one page long and titled ‘The modernization of Sweden begins at school’. The content under the second heading is slightly more than one page, and titled ‘The overall goals and focused areas of the strategy’. Headings three to five are the main focus areas of the strategy, beginning under the third heading with focus area one: ‘Digital competence for all in the school system’. The content under heading three is thereafter divided into three milestones, each under separate subheadings. In total, focus area one is just over three pages. Under heading four is focus area two: ‘Equal access and use’. This is, in turn, divided into four milestones under separate subheadings. The content in focus area two is just over three pages. Under the fifth heading, focus area three is described: ‘Research and follow-up on the possibilities of digitalization’. It is one page long and divided into two milestones under separate subheadings.

Adequate for whom?

Within the first focus area of the strategy, digital competence is said to be a question for all in the school system. But the conceptualization of, and need for, digital competence is expressed somewhat differently for different groups involved in the school system. (GD I:1, Supplement, page 6). For children, students, and staff members, issues of access and use relate to access to digital tools departing from their needs and conditions (page 10). This implies that ‘adequate digital competence’ is about having the ability to use digital tools in relation to needs and conditions of each group. In that sense, it is dependent on the context of those involved. Since technology is not only a matter of access in the physical sense, access and use in an effective manner is to be related to the needs and conditions of children, students, and staff members as well as to the assurance of appropriate infrastructure and technical and pedagogical support (page 10). To ascribe the notion ‘adequate digital competence’, relevant meaning, it is claimed, needs to be connected to the curricula and syllabi. The possibilities of digitalization are to be used to reach the objectives given in the curricula and syllabi; it is said to be a matter of equivalence and quality (page 7). In this part, the strategy connects the increased use of ICT in the school system to gender issues and the interests among girls in ICT. Increased use is said to contribute to a decreased bias in the recruitment for higher education in ICT. Gender equality is therefore an issue for the continued work with digitalization in schools in order to provide all children and students with equal conditions and possibilities (page 7). Gender issues in relation to technology have been present in Swedish policies in the area since the early 1980s (see for instance *Government Bill 1983/84:100 Appendix 10*). This seems to be one area in which nothing changes (compare Johansson, 1997).

On page 10, the strategy departs from the demands that are put on all staff members in the school system working with children and students to handle digital technology for teaching and learning; it is stated that it is important that staff members have good access to digital tools (page 10). For preschool, teaching and learning with digital tools does not imply that every child needs access to a digital tool of his or her own. On the contrary, it is stated that there is often an advantage when children use digital tools together or with a preschool teacher or other staff member (page 10). Including arguments about the kinds of equipment to be used is also present in earlier policies, all since 1983 and up until now. Students' school-related work is referred to as not being constricted to the time students are at school, and this is said to be more apparent in higher grades. A large part of the teaching and learning in the school system is claimed to depart from access to digital resources, and more work is claimed to be conducted with digital tools. This implies access to teaching and learning outside of schools and a practice of extending school time, for instance, by homework. This, in turn, might imply digital tools that are transferable between contexts, school and home. But since it is also stated that teaching and learning should be accessible to everyone, tools that are adapted to different needs and conditions are needed. Here, the example given is digital tools, for instance, from a disability perspective (page 11). Including technology for special needs and disabilities is also present in earlier policies, for instance in the government communication from 1997 and in Ministry memorandum from 2002.

In the introductory part of the strategy, the Swedish Media Council study (Statens Mediaråd 2015) is referred to, in which the access and use of digital tools is said to vary depending on gender, socioeconomic circumstances, and other demographical variables. This emphasizes the need for a national strategy providing opportunities for all children and students to develop their digital competence (page 3). On page 4, the main objectives and focus areas of the strategy is described. For the objectives to be reached, it is said to take cooperative and coordinated efforts not only from those working in the school system, but also from other stakeholders such as trade and industry, the civil society, and the academy (page 4). Cooperation with industry was suggested in the 2004 Government bill *From an IT policy for society to politics for the IT society*, as was coordination and local support.

Adequate related to when?

In the first heading of the strategy, IT is said to be part of a process of modernizing Sweden, beginning in the schools. The Swedish schools are thereby implied to be unmodern (p. 1). On page 6, digitalization is claimed to be an ongoing process. The abilities and knowledge that make up digital competence today, it is claimed, are not necessarily enough to make for digital competence a few years ahead. Children and students also need to have the abilities they need to be able to update and continuously develop their digital competence. In this part, the strategy relates to the work of the Swedish Digitalization Commission and its definition of digital competence as 'the extent to which people are familiar with digital tools and services and have the ability to keep up with digital developments and their influence on our lives' (SOU2015:28, p. 32). Being able to keep up with development is a concrete reference to digital competence as something bound in time. 'Adequate' is said to capture the idea that digital competence changes over time and is aligned with the development and use of digital tools. Therefore, on page 7 in the strategy, it is stated that the curricula in all parts of the school system must contain the knowledge and skills that are needed in future education, on the labour market, and for active participation in civil society. This echoes prior policy texts in the area from 1983 and onwards. The relation to the labour market and to global competition is, to

different degrees, present in the discussion about the timeliness of the competences needed. Competence is for now and for the future.

Even though the notion 'adequate digital competence' signals a competence that is relative over time, there are also meanings ascribed to the competence needed, as well as to the technologies associated with it, that are more explicitly stated in the strategy. One example of such is the need for all children and students to have an understanding of the way digitalization is affecting the world and their lives, and how programming is controlling not only the flow of information they meet, but also the tools they use (page 3). The school system is also given a specific responsibility to develop the ability to use and create with digital technology and to provide an understanding of how digitalization is affecting individuals and society (page 3). All students are supposed to develop their ability to use digital technology, since it will be important for future working life (page 3). Even though this was present already in the *SOU 1985:50 Broad computer education*, whereas it was directed towards adults and their assumed needs in 1997, today, this is supposed to be directed towards children and youth in the entire school system.

In the strategy, teaching and learning are also aimed at educating responsible Internet users. It is said to be of importance that preschool teachers, teachers, and other school staff members have knowledge about copyright issues, as well as knowledge of issues of personal integrity (page 8). Staff members are also to have an understanding of net abuse and tools to counteract this (page 9). These issues can be seen as timestamps in the policy, providing a temporal position for its formulation in relation to present problems and agendas. As such, it mirrors aspects of lifelong learning in the *Government communication 1997/98:176 Learning Tools* of 1997, and issues of sustainability in the *Government bill From an IT policy for society to politics for the IT society* of 2004. It can also be seen as examples of what Hernwall (1998) describes as a view of technology in schools, where it needs to follow the development and change in society.

Other issues where the strategy departs from the way technology is conceived today are references on page 11 to appropriate infrastructure, hardware and broadband, and systems that have interoperability. Coordination and cooperation are said to be of importance for providing technological infrastructure that ensures easy access to, and use of, digital learning resources. Infrastructure is said to be of importance not only for the use of learning resources, but also for administrative solutions for schools. Examples of appropriate infrastructures are given, such as access to wireless net, enough broadband capacity, and other relevant equipment and support (page 11). Examples of technologies can be recognized as having importance today, similar to the importance that was given in the *SOU 1994:118 Wings to man's ability* 1994 and the development electronic learning materials and in the *Government communication 1997/98:176 Learning Tools* of 1997 when including e-mail addresses for all students and broadband for all schools.

Adequate related to what?

The question of what kind of competence is meant by 'adequate digital competence' is described first and foremost in relation to the context of its use for different actors (page 1-2). For children and students, it is related to the conditions for them to develop digital competence to an 'adequate' degree in the schools. For school leaders and school authorities, 'adequate digital competence' is in the same logic related to their ability to lead digital development work. For all staff members, 'adequate digital competence' is related to their competence to choose and use appropriate digital tools in education. In this sense, 'adequate digital competence' is in need of interpretation from each position and in relation to each context. The digital

resources used for teaching and learning are to be appropriate and result in the effective use of the possibilities of technology (page 1). What appropriate and effective should translate into is not given any precise and operable meaning. For school leaders and school authorities, 'adequate digital competence' is about knowing how to provide appropriate support structures, technical and pedagogical, and appropriate infrastructure (page 11). As such, it needs to be interpreted from the context and position of the others involved in education. That digital resources used for teaching and learning are appropriate and related to the possibilities of technology to be used effectively implies that there is a position from which these possibilities can be established. Since technology is not only a matter of access in the physical sense, access and use in an effective manner is to be related to the needs and conditions of children, students, and staff members as well as to the assurance of appropriate infrastructure and technical and pedagogical support. These, it is said, ought to lead to an easier working situation for staff members (page 12). This is more in line with later policies, for instance, the *Government bill From an IT policy for society to politics for the IT society* from 2004 and *SOU 2014:13 A digital agenda in human service - a bright future can be ours* from 2014, which are more strategic than operational (Kozma, 2008). In the *Government Bill 1983/84:100 Appendix 10* of 1983 competence in relation to technology was given more emphasis as computer science, and also in the *SOU 1985:50 Broad computer education*, of 1985 where a broad computer education for adults was suggested. When technology gradually has shifted from content to tool to integrated aspects of society, the competences needed seem to be more and more difficult to describe.

Within the context of teaching and learning, the strategy suggests that research about the effects of digitalization on teaching and learning should be initiated (page 14). Schools are understood as places where students learn how to change the world (page 3), which implies a view of teaching and learning as transformative. At the same time, the curricula and syllabi are said to follow technical and digital development (page 7), which implies a reactive and reproductive view on schooling (again, the different views of Hernwall (1998) are present in the strategy). Education is also considered as a tool for other political ideas, such as gender equity (page 7). Including research on the use of technology in education was suggested already in the *Ministry memorandum, Ds 2002:19 Next step* from 2002. The focus has shifted slightly from school-based research and development towards the suggested follow-ups in the 2017 strategy where the effective use of digitalization is focused.

Discussion

In the strategy, the notion 'adequate digital competence' implies that digital competence changes over time in line with the development of both technology and its use. It is also implied that an absolute level of digital competence is not possible to provide, since it needs to be developed in accordance with the local conditions of the schools and the students as well as societal demands. To provide a relevant meaning for 'adequate digital competence', it needs to depart from the curricula, which in turn need to reflect knowledge and skills related to education, working life, and society. Therefore, the curricula need to be aligned with technical and digital development (GD I:1 Supplement, p. 7). The meanings possible to ascribe to 'adequate digital competence' can therefore be said to depend on, at least, three dimensions: (1) a dimension of time, (2) a contextual dimension, and (3) an interpretative dimension. The use of 'adequate digital competence' allows different actors to interpret the meaning of what is to be regarded as 'adequate', dependent on context and circumstances related to all aspects of the educational system and to different aspects of time.

Through this close reading, it seems possible to describe the notion of 'adequate digital competence' as being both multi-layered and somewhat stretchable. It

can be understood in relation to almost all aspects of education, and it offers a position that is not easy to contest. As such, ‘adequate’ places the enacting of a policy in the hands of different actors in the K-12 school system – the local school authorities, the school leaders, the teachers, and all other staff members who are involved in education. Arguments provided in the national strategy for digitalization of the school system are not easy to contest. Different actors are given voice in pronouncing the positions from which the notion of ‘adequate’ is to be decided. The Swedish government, school authorities such as the National Agency of Education, The Swedish Media Council, The Swedish Digitalisation Commission, trade and industry, software developers, and hardware suppliers all have legitimate says in providing points of departure for the notion of ‘adequate’. The cues to decode the notion of adequate digital competence are there for the actors to first interpret and then enact, without clear views of what might be in their own local and specific contexts. This specifically does not regard the years to come.

The reading also provides an understanding of how the notion of ‘adequate digital competence’ operates as ‘policy as text’ but are at the same time dependent on being interpreted in relation to overall discourses about digitalization in K-12 schools and in relation to educational contexts and local policy formation processes. By offering sense-giving entities (Gioia & Chittipeddi, 1991), the policy operates as ‘policy as discourse’ in relation to context(s) and the interpretation(s) of ‘adequate digital competence’. Thus, the meanings possible to ascribe to ‘adequate digital competence’ are dependent on (at least) three dimensions – the interpretative and contextual dimensions and the dimension of time. With other dimensions to guide an analysis, it seems reasonable to expect other issues to emerge from a notion that has such loose boundaries.

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ⁱ This annotation is in the following short for the reference ‘Government decision I:1 (2017). Supplement to Government decision I:1. (2017-10-19)’.