Teachers' dilemmatic spaces connected to students' net-based out-of-school activities

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Abstract

Purpose – The paper aims to investigate and describe the complex and dynamic dilemmas teachers are facing connected to students' net-based out-of-school activities.

Design/methodology/approach – The authors draw on the notion of dilemmatic spaces when thematically analyzing focus group interviews conducted with 41 teachers at three lower secondary schools in Sweden.

Findings – Two themes capture the teachers' dilemmas concerning their students' net-based out-of-school activities: negotiations of content and negotiations of professional identity. When teachers take part in professional discussions where dilemmatic spaces are recognized, rather than focusing on either being for or against digitalization, they are enabled to express a multifaceted view of professional identity.

Research limitations/implications – This study is a starting point for further studies investigating how pedagogical and didactic decisions are made in a digital time.

Practical implications – The findings are expected to be helpful to policymakers in understanding teachers' work. Also, teachers can be empowered by taking the departure in the findings and discussing how to handle dilemmas fruitfully.

Originality/value – In a rapidly changing digital society, it is important to investigate what dilemmas teachers face in their work in order to learn from them. This study is a significant contribution.

Keywords Digitalization, Digital content, Professional identity, Net-based, Dilemmatic space

Paper type Research paper

Introduction

Today, students' lives could be said to be net-based, since they often involve the internet in one way or another with few clear distinctions between activities on the internet and outside of it (Floridi, 2014; Toh *et al.*, 2019). They are used to easy and quick access to information and sometimes expect the same conditions in school, which could result in feelings of frustration by having to wait, or by not being able to quickly look things up (Mcwilliam, 2016; Engeness, 2021). Nevertheless, students' sometimes bring their net-based out-of-school activities to school while, e.g. texting or listening to music (Gurung and Rutledge, 2014), which could cause challenges to teachers requiring negotiations where teachers can reflect and express themselves in interaction with others (Johnston and Fells, 2017). The challenges should not be underestimated since they might have an impact on teachers' professional identities

(Fransson and Grannäs, 2013). Teachers' negotiations are dependent on cultural aspects, including different educational policies in different countries emphasizing various intentions and outcomes of activities in school (Olofsson *et al.*, 2021; Gabriel *et al.*, 2022). It is argued that in a net-based society, teachers need to cater for a holistic approach where students develop skills helping them to participate in complex net-based activities (Falloon, 2020). To answer this, educational digital frameworks promote teachers to facilitate student engagement and empowerment by developing their digital skills (Redecker and Punie, 2017; ISTE, 2022; Vuorikari *et al.*, 2022). These demands could create new challenges and dilemmas for teachers who have been used to being the knowledge resource or being the ones providing knowledge through various means to their students (Gurung and Rutledge, 2014; Pangrazio and Selwyn, 2019).

Even if net-based activities allows for opportunities to learn both in school and out-of-school (Twining, 2021), such new possibilities might put pressure on teachers to be digitally competent which in turn might affect their professional identities (Engeness, 2021), meaning "how teachers define themselves to themselves and to others" (Lasky, 2005, p. 901). In this article, we seek to investigate teachers' dilemmatic spaces on the issue.

Aim and research question
The aim of the paper is to investigate and describe the complex and dynamic dilemmas teachers are facing connected to students' net-based out-of-school activities.

> *RQ1.* What dilemmatic spaces are outlined by teachers in lower secondary schools in Sweden concerning their students' net-based out-of-school activities?

The remainder of the paper is organized as follows. First, we present a background, followed by a presentation of the method, the analytical approach and ethical considerations and limitations. Finally, we present the findings, a discussion and a conclusion.

Teachers relating to students' net-based out-of-school activities
For teachers to relate to students' net-based out-of-school activities, knowledge and skills, has been proven easier said than done and sometimes cause more or less substantiated discussions and regulations (Ott *et al.*, 2018). The barriers involve how schools act as cultural organizations, which sometimes define students' out-of-school activities as inappropriate for and in conflict with the classroom (Dinsmore, 2019). Even if teachers are assigned not only to cater for developing students' knowledge, but to care for their wellbeing in life as a whole, out-of-school and school activities are not always connected (Wood *et al.*, 2020).

In the early 2010, Tallvid (2014) investigated the early roll-out of laptops in Swedish schools and studied secondary school teachers' arguments for not using laptops. Among other things, he found that it was due to teachers' lack of professional digital skills, insufficient teaching material and their experience of diminishing control. Since then, school digitalization has continued to evolve, partly connected to Covid-19 and the demand for distance education and teachers have had to continuously develop their professional digital skills (Li and Yu, 2022).

In a survey conducted with 144 middle and high school teachers in the USA, 31% of the teachers experienced that their students influenced how they as teachers related to students' net-based activities when they tried to enhance their students' motivation (Sadaf and Gezer, 2020). However, the teachers experienced some dilemmas since it was difficult to control the students' net-based activities in school. The Internet could go down, laptops and smartphones could provide unwanted distractions and teachers sometimes had to figure out how to pedagogically use digital tools and applications by themselves.

Gurung and Rutledge (2014) emphasize the importance of teachers drawing on their students' net-based experiences to counteract students becoming disengaged during lessons. Nevertheless, becoming better informed about students' net-based out-of-school activities is challenging. Earlier studies show that teachers tend to ask students about problematic usage (Smahel *et al.*, 2020) or the amount of time students spend on net-based activities (Twining, 2021). Consequently, this line of inquiry potentially strengthens some misconceptions or enforces simplified conclusions about students' lives (Livingstone and Sefton-Green, 2017). Silseth and Erstad (2018) investigated what teachers in a lower secondary school in Norway tended to rely on when connecting their teaching to their students' out-of-school activities. The result showed that the teachers drew on experiences from the local community, personal issues which the teachers regarded as part of everyday life, concrete objects and experiences from traveling. Teachers drawing on contemporary culture were rare. The researchers discuss that even if popular culture is important to students, teachers might find it challenging to relate to. In a participatory study with 16 teachers in primary and secondary schools in Australia, teachers were involved in researching their students' net-based out-of-school activities. They tried to learn about their students' activities and to attune school activities to their students' experiences. Nevertheless, there were some challenges since teachers found it hard to move beyond their presumptions, resulting in a one-sided focus on cyber safety (Wood *et al.*, 2020).

The challenges teachers are facing calls for a shared responsibility, involving others than merely teachers, working on the discussed issues (Stoilova *et al.*, 2020). There is a lack of knowledge both on what dilemmatic spaces teachers are facing concerning their students' net-based out-of-school activities, as well as suggestions for how to address this.

The notion of dilemmatic spaces

To understand the challenges concerning students' net-based out-of-school activities, aspects of transformation and sustained change need to be taken into account. Moreover, teaching is always about decision-making in a space with considerable uncertainties. Dilemmas are always present, even if changeable and visible in various forms. According to Fransson and Grannäs (2013), this conceptualizing may de-dramatize dilemmas and make them less stressful for teachers. Moreover, the notion of dilemmatic spaces relates to a general level, thereby avoiding blaming individuals. For teachers, there is typically no one right way of acting. Instead, teachers need to consider ways of acting for the best (Honig, 1994). The concept of dilemmatic spaces in a teaching situation concerns aspects of control and is affected by expectations from both people and curricula. However, meeting expectations from different actors may compromise the teaching profession. The notion of dilemmatic spaces facilitates a broader understanding of the formation of teachers' professional identities (Fransson and Grannäs, 2013).

The concept of dilemmatic space is not intended to focus on single events. Rather, it is ever-present and involves an individual's experiences of dilemmas in relation to the surrounding context. Space is a relational category where an object is related to other objects dynamically, making its boundaries changeable (Fransson and Grannäs, 2013). Fransson (2016) stresses that dilemmatic spaces are relational since societal expectations and historical, institutional, organizational, cultural, political and economic prerequisites influence and are influenced by them. A dilemmatic space, therefore, appears differently to different people. How it is shaped and constructed depends on what task, position and values are emphasized.

This article focuses on how teachers talk about students' net-based out-of-school activities and how they affect their teaching. The relation to students' net-based out-of-school activities involves aspects of control where the teachers' professional identity, when meeting expectations from both students, curricula and society, is negotiated.

Method

To collect data on teachers reasoning about students' net-based activities we conducted semi-structured focus group interviews with open-ended questions. This approach allowed individuals to express themselves but also allowed us to conduct analysis of discussions among colleagues. The approach provided insights into disagreements, values and multiple views, which is the strength of focus groups (Duarte *et al.*, 2015). Teachers might contest opinions if they have the opportunity to discuss their views with each other and hear others' standpoints (Joyce-Gibbons *et al.*, 2018).

Data collection

Forty-one teachers from three different lower secondary Swedish schools were interviewed in five focus groups during October and November 2021. There were two focus groups each at two rural schools (School A and B) and one at a city school (school C). One teacher had only worked for one month, but the major part had worked for more than ten years, up to 35 years. In school A ($n = 15$), the average was 15 working years. In school B ($n = 22$) and C ($n = 4$), the average was 18 years. The interviews included teachers teaching all compulsory school subjects. In the excerpts below the teachers are presented using their school's name (A, B, or C) and a number.

It might be relevant to note that the teachers had all lately been facing the struggles of the pandemic of Covid-19 and had been obliged to use digital applications when restrictions made them teach online. Their students all have a laptop each, provided by the school and the teachers are experienced in using digital tools and applications. In relation to the focus groups, they are used to participating in collegial meetings where pedagogical matters are discussed, but the topic of the interview was new to them.

One of the three authors conducted all interviews, while all three took part in the analysis and writing of the paper. The interviewer informed the teachers that it was voluntary to participate in the study and that no data would be presented so that individual teachers could be identified. Prior to the focus groups the interviewer made sure the participants understood the purpose of the study and how data would be handled (See The Swedish Research Council, 2017). The interviews lasted between 55 and 75 min and took place at the teachers' respective schools during afternoons.

When seated together, but before the interview started, the teachers were asked to think about and write down their answers to the question: *What net-based activities do you think your students practice out-of-school?* The teachers were asked to share what they had written and discuss similarities and contradictions. One group (School C) did not write anything due to limited time. Following this discussion, the focus group worked with the question: *In what ways, if any, do you think these activities affect teaching?*

Thematic analysis

The interviews were audio recorded and transcribed. After the transcription the data was analyzed focusing on patterns of issues, e.g. problems or opportunities and relevant quotes from the whole data set were marked and labeled. Using thematic analysis, the researcher team subsequently discussed discernible aspects and their relevance to the research question. The analytical process was collaborative and reflexive, allowing for questioning the researchers' assumptions (Braun and Clarke, 2019). First, the aspects discussed were on a manifest level and showed the semantic content of what the teachers were discussing; *students*, *society*, or *teachers' working conditions*. To reach a theoretical thematic approach and capture the latent meaning (Braun and Clarke, 2006), the aspects were worked through using the notion of dilemmatic spaces (Fransson and Grannäs, 2013), since the two inductively created main themes indicated teachers' dilemmas: *negotiations of content* and

negotiations of professional identity. Inductively created sub-themes, further explain the main themes. See Table 1. Following the process of Braun and Clarke (2006), the researchers finally chose relevant exact examples to illustrate the findings.

Ethical considerations and limitations
All teachers in the study gave their consent to participate. Measures have been taken not to reveal their identities. There were some differences between the schools concerning the interviews, which could be seen as a limitation. The principals scheduled the interviews as collegial discussion meetings at schools A and B. The interviewer emphasized that the teachers could decide not to participate, but everyone did. At school C, the teachers could volunteer to participate in an extra meeting. Only four teachers did. The principals did not participate in the interviews.

Findings
The findings are drawn from the interviews and organized in two themes categorizing dilemmatic spaces outlined by teachers concerning their students' net-based out-of-school activities: *negotiations of content* and *negotiations of professional identity*.

Negotiations of content
The teachers discuss their students' net-based out-of-school activities, exemplified as playing games, watching films, shopping and scrolling. To explore this dilemmatic space, we present four sub-themes where teachers engage in negotiation: *out-of-school content versus school content*, *an abundance of content*, *bridging the knowledge gap* and *handling motivation for lesson content*.

Out-of-school content versus school content. The teachers describe how students sometimes ask about or propose content they have encountered during their net-based out-of-school activities. In crafts, for example, they can show their teacher a video clip of how to dye a T-shirt and ask if they can do the same in school. While some teachers, like the teacher who gave this particular example, find such questions easy to deal with and include in their lessons, others are more skeptical: "Some of them have watched some strange experiments on YouTube and ask if we can do the same in school.[. . .] And I do not think I have to do that. But sometimes, there are some cool things you can do" (A15). Even though the teachers elaborate on how students' suggestions and experiences can be brought into their teaching, they also raise concerns about whether they infringe on students' lives. "At the same time, I think like this; it is always like we should align to our students' interests, but we must not hijack everything, I think." (B6)

The teachers discuss whether knowing about the students' net-based out-of-school activities means that the teachers *must* handle those, sometimes troublesome, encounters at school: "Maybe the violations that occur between people are merging into each other, maybe the contexts blur in another way nowadays." (B10). Yet another teacher reflects that there might be fewer problems to handle nowadays since teachers do not know everything that

Negotiations of content	Negotiations of professional identity
Out-of-school content versus school content	Comparison to other resources
An abundance of content	Questioning reliability
Bridging the knowledge gap	Always being reachable through various resources
Handling motivation for lesson content	

Table 1.
The two themes and their sub-themes

happens in all the various digital channels: "Everything happens quickly and I do not think we get to know as much as before." (B3)

Playing digital games is an activity that the teachers know their students are engaged in out-of-school. Some teachers raise concerns about whether or not students will learn more from using pedagogical games during lessons and if it can be aligned with content stipulated in the curriculum: "There is a risk that it will be too far from what the lesson is supposed to be about. Maybe they think it is a fun game but will not learn that much." (C4)

One teacher reflects on students having a different view of what is essential to learn because of the ever-present availability of information. If the students do not consider the content to be interesting enough during a lesson, they might dismiss it by saying: "If I need to know that sometime in the future, I can learn it then." (C2)

An abundance of content. The teachers state that there is a wide range of digital teaching material available, both freely accessible on the internet and as licensed applications that can be utilized when adapting their teaching to their students' needs and experiences. One reason the teachers give for using digital teaching material is that the students can get someone else to explain things for them, thereby serving as an extra teacher. The problem is that the teachers do not always consider the material totally appropriate even if it is informative, e.g. sometimes it includes commercials which the teachers regard as unsuitable. Another problem is that if they want their students to access digital content outside of the classroom, students need to use smartphones. "It is something we do not provide. We only provide them with a laptop, so they have to stay in school." (A7). Also, in almost every lesson, the students' smartphones are gathered and put away.

One of the teachers in the study uses a data application in English that provides material at different levels of difficulty and finds it suitable for the students' various needs. Other teachers do not have the same experience of having access to relevant teaching material. Having access to an abundance of teaching material on the internet, the teachers also have to consider regulations like the General Data Protection Regulation (GDPR) (EUR-Lex, 2016). Even if the teachers can ask the municipal authorities for access to other applications than the ones decided, they sometimes think the process is too bureaucratic. For example, the teachers at one of the schools are uncertain if they can use a specific application available on the internet. They state that they probably will not get permission if they ask. Their solution is not to always ask for such approvals.

Bridging the knowledge gap. The teachers describe a larger diversity in terms of knowledge gap among their students and connect this to the digitalization of society and the students' net-based activities. "I wonder if digitalization has caused the knowledge range to become wider? Some know everything." (A5). At School B, they discuss similar issues and state that students either have excellent or feeble knowledge: "There are no ones in the middle" (B17). The teachers relate this to students' net-based out-of-school activities, which they say significantly impact students' knowledge in particular areas. For example, they see a positive effect on students' command of English (students' foreign language) since most material on the internet is in English. However, the teachers are concerned that students who do not participate in such out-of-school activities are left behind. Some students do not have free access to the internet at home due to costs or rules set by the parents and newly arrived non-English-speaking immigrants may have a hard time taking part in activities where English is the lingua franca.

The teachers discuss how this knowledge gap affects their teaching. Since watching series in foreign languages is reckoned to positively impact students' language skills, the teachers discuss how they can utilize this in their teaching. Concerns are raised that this would be a passive activity. However, they do not elaborate on how it could be transformed into a more active task. Another issue is finding materials that are suitable for all students: "The problem is to find something for everyone that is on the right level" (A9). When the knowledge gap between students becomes broader, this is regarded as problematic.

Handling motivation for lesson content. The fourth aspect concerns motivation. According to the teachers, the students are not used to working with a task for a long time if it is not entertaining: "They want to play games. It must be fast and . . . (A1). Another teacher fills in: "Rewards" (A11). The teachers also discuss that the students become distracted by notifications on their smartphones: "If you collect the smartphones, you hear the sound: bupp, bupp, bupp" (A4). However, some argue that experiences from net-based activities creates interest and motivates the students: "It is easier for them to participate in Physical education nowadays when it comes to dancing. The threshold has been lowered. Thanks to Tiktok, I guess" (B12).

The teachers discuss if shortening the lessons would be a solution to help the students stay focused but conclude that such a decision is not up to them. If the lessons are shortened, there are concerns about how much time remains for actual teaching after having dealt with issues of putting away smartphones at the beginning of a lesson. The teachers discuss the present organization of lessons and breaks and how they must deal with it, even if it does not align with their experiences from students' abilities to keep attention in class.

The relevance of teachers adapting to their students' experiences to handle the motivation for lesson content is also questioned by the teachers. They describe that they know that the national curriculum stipulates that education is supposed to address the surrounding society. Still, some want to stress the importance of the opposite: The students also need to learn "to adapt to various [educational] prerequisites, various environments and situations. [. . .] But maybe both, of course." (C1). Another teacher reflects on all the things teachers have to do and says: "I think it might be good for the students to be a bit bored during the lessons sometimes (*laughs*). We can do a little of both and sometimes have some elements of fun things" (C3).

Negotiations of professional identity

The teachers discuss how the students' experiences from their net-based out-of-school activities affect them as teachers, here themed as negotiations of professional identity. The three sub-themes are *comparison to other resources, questioning reliability* and *always being reachable through various resources.*

Comparison to other resources. There are extensive resources on the internet ready at hand and available to students. The teachers compare these to their teaching and find it challenging to be as entertaining or informative as the resources provided on the internet. When comparing their teaching to visualizations and effects used in such resources, some teachers are worried that they cannot provide the same enthusiasm as they think a film clip can do. Comparing teaching to watching videos of exciting experiments, a teacher says with some resignation: "You come to the classroom and stand there with your little jar of baking powder" (B21). Another teacher in another focus group is of another opinion and emphasizes the opportunity for teachers and students to learn from each other: "It feels like we learn a lot from each other. We combine their experiences with my experience in a way" (A12). Yet another teacher argues for the benefit of not knowing everything about the students' out-of-school experiences by asking them "very stupid questions because then you can get the students to do things which they did not want to do in the first place" (B12). A teacher states that students "become interested when you are interested in them" (A10), highlighting the need to pay attention to their net-based out-of-school activities.

Questioning reliability. Another aspect of having almost constant access to information is that the students can check if what the teachers say in the classroom is correct. In some cases, this is framed positively, proposing that students can find information about their areas of interest: "They might not read very much about it, but they get the information quickly, information they might not read about in a textbook" (B18). On the other hand, teachers sometimes feel monitored and questioned. The teachers talk about having to think about

being sure of providing correct information. One teacher solves the problem by downplaying the role as a knowledge authority in the classroom by for example adding: "Now I might be lying a bit" (A8). This is a way of avoiding questioning should the students check the information on the internet and find that the teacher might be wrong.

Always being reachable through various resources. Digital communication tools also provide students and teachers with possibilities for easy access to each other, sometimes experienced as blurring the separation of work, study and out-of-school activities. The teachers suddenly are called upon as teachers also outside of school, expanding into other areas and other hours than just day-time school. Some consider this as a convenience, while others are worried that it will intrude on their non-working hours: "The border between . . . When is it school time? When is it free time?" (B8). One teacher who regards it as convenient uses several resources to contact the students, some of them not provided by the school: "Since I sometimes need to get in contact with some students, I have various strategies. Sometimes I use Snapchat, sometimes Instagram, sometimes instant messages depending on which student it is" (B19). Others do not want to be reachable anywhere at any time when not working: "If there was a chat application in the [school] platform where the students could ask the teachers questions late at night about an upcoming test, we would definitely not want that" (C4).

Discussion and conclusion

We will here discuss two identified dilemmatic spaces. What is apparent in the teachers' discussions is that their ideas on how and whether they should take their students' out-of-school activities into account and how they can manage to be a teacher in a digital society varies among them. This is something that characterizes dilemmatic spaces since there rarely is one right way of acting (e.g. Honig (1994). However, the teachers try their best to consider possible ways of handling the dilemmas they face.

In the dilemmatic space that concerns the negotiation of contents, the teachers clearly express their thoughts on school activities in relation to out-of-school activities, even if the question is somewhat new to them. According to the teachers, it is obvious that students relate what they learn in school to their net-based out-of-school activities and vice versa. One question the teachers discuss is if they should also relate to the students' activities or mainly provide content the students are not familiar with to expand their knowledge. This connects to historical prerequisites, where the teachers' former experiences and values influence their understandings (Fransson, 2016). It also draws on cultural and institutional values, where students' out-of-school activities often have been seen as inappropriate or irrelevant in the classroom. In order to steer the students' attention towards the content provided by the teachers, time is taken from the lessons to gather smartphones and restrict the usage, something Ott *et al.* (2018) have critically discussed. The teachers take different positions here; some see students' out-of-school activities as problematic, which aligns with Dinsmore's (2019) findings and as something schools should counteract, while others regard them as valuable.

Aspects of control are apparent in relation to content. The dilemmatic space concerns the position the content in the students' out-of-school activities should be allowed to take in the classroom. An aspect of this can be seen in discussions about comparing the lessons to the allegedly fun and engaging net-based out-of-school activities. The teachers are concerned that this difference may draw the attention away from, or decrease motivation to, work with the content they regard as stipulated by the curriculum. What the teachers here identify can be understood as a struggle between what the students are used to, e.g. using smartphones while doing something else and what is rewarded in most schools, e.g. waiting and listening (McWilliam, 2016; Engeness, 2021).

Control of content is also an issue relating to regulations like the GDPR (EUR-Lex, 2016) as well as economic realities such as purchasing teaching material and licenses. The teachers acknowledge several constraints connected to such regulations and prerequisites and discuss how they try to handle them. Finally, social and political aspects come into play in this dilemmatic space when teachers discuss their experience of widening differences in their students' knowledge. They talk about this in relation to differences in the students' access to the internet and habits of net-based activities. Closing this knowledge gap is an essential question for the teachers.

The other dilemmatic space discerned in the analysis concerns the professional identity of the teachers. In a digital classroom, teachers are faced with new demands since teachers are one of several competing sources of information. The teachers compare what and how they teach to the content and the ways of presenting it in net-based out-of-school activities. Being and feeling questioned is one aspect the teachers discuss since they are not the only knowledge resource. Schools act as cultural organizations (Fransson, 2016) and as such, they might be questioned by the ones participating. The teachers give examples of this in their discussions. How to relate to students' net-based out-of-school activities, or contemporary culture, can be challenging for teachers when they are not totally confident in what these activities and such culture are (Silseth and Erstad, 2018). That may be one reason why teachers in this study express how they feel obliged to hold on to what they regard as school culture.

A dilemma relating to the teachers' professional identity concerns how they handle the fact that teachers and students are almost always reachable through digital platforms. When digitalization extends the possibilities to interact in various contexts and the contexts sometimes overlap, the distinction between them might blur (Twining, 2021; Gurung and Rutledge, 2014). In the discussions, the teachers share their strategies for handling such aspects of their professional identity by giving examples of their strategies. Doing so can be regarded as a way of finding new ways and taking control of their professional identities.

In conclusion, the two dilemmatic spaces presented in this article are ever-present dilemmas. They can be seen as constant, even predating net-based activities, but at the same time highly affected and transformed by them. Schools act as cultural organizations (Fransson, 2016) where teachers meet expectations from different actors, which may compromise the teaching profession (Fransson and Grannäs, 2013). The dilemmas the teachers are facing are affected by context, as well as individuals' experiences, norms and values. The teachers negotiate changes in prerequisites and demands related to net-based out-of-school activities. They still face the dilemmas Tallvid (2014) identified regarding insufficient teaching material and diminishing control. Even if there is an abundance of material on the internet, there are several demands related to regulations and pedagogical concerns which also have an impact on their professional identities.

Teachers' experiences should be helpful for policymakers when trying to understand teachers' work. Also, teachers can be empowered by taking the departure in the findings and discussing how to handle dilemmas they are experiencing themselves. Further investigations are needed, though, to reveal how pedagogical and didactic decisions are made when net-based activities are ever-present. Even if the teachers in this study express a multifaceted view of professional identity, further investigations are needed concerning teachers taking part in professional discussions where dilemmatic spaces are recognized. This in opposition to focusing on teachers either being for or against digitalization. This study is a starting point for further investigations.

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