Article

Activation by technology: Young people's use of digital tools provided by the government

by

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Abstract

Modern welfare agencies are increasingly offering clients digital tools in their service delivery. Since young people are prolific users of digital technology, this trend should be to their advantage. However, the quantitative study presented in this article investigates how citizens under the age of 30 use public digital services, compared to those over 30. The study found that clients were less active than older clients in using a digital plan while receiving support from the government. Accordingly, they may be less able to receive help from public agencies when it is offered digitally. Yet, the choices made by caseworkers in how they prioritized clients for more personal support may have reduced the risk of this disadvantage.

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Introduction

Young people are often trusted to have tacit digital skills that exceed those of the generations before them. Studies have supported this, showing young people to be more versatile and frequent users of digital technology (Serrano-Cinca et al., 2018; Statistisk sentralbyrå, 2020). Young people should therefore be in a position to benefit the most from the shift to digital platforms in the public sector. However, studies have found that while young people may have good skills with digital technology in general, they do not always benefit from these skills when using digital public services (Van Deursen & Helsper, 2015). Consequently, as digital public services increasingly depend on people's ability to use these technologies, digital government might cause groups that are less able to use them, such as young people, to become more marginalized, since they are now also outside the reach of government support (Asgarkhani, 2007; Nissen, 2020; Peacock, 2019; Ranchordas, 2021; Widlak & Peeters, 2020). Thus, the purpose of this article is to investigate how this issue of digital technology in public programmes impacts on young people below the age of 30.

The empirical basis of this article is a digital service provided by the Norwegian Labour and Welfare Administration (NAV). The service is a digital activity plan, introduced in 2017. The digital plan is offered to people who are unemployed or unable to work, and receive support from NAV to return to the labour force. NAV has a mandate to provide guidance and support to all citizens outside the labour force. Citizens receiving these services range from those temporarily between jobs, to those experiencing long-term exclusion. The digital activity plan is an example of a growing presence in modern welfare states of "platform social work", in which digital arenas are created for clients and caseworkers to interact and co-produce the client's service (Aasback, 2022). While young people are just one of many groups receiving work-oriented support, they are prioritized by NAV, as unemployment for them increases the risk of future labour force exclusion.

Previous studies have found young people to be active users of the digital tools provided by NAV (Kalstø, 2022). However, young people have also been considered a group that may lack a proper understanding of governmental bureaucracies to use

the digital service properly (Zhu & Andersen, 2021). This ambiguity makes it relevant to compare the rate of use by the young with those who are older. The ability of young people to participate digitally in their own guidance process, as NAV has intended, is thus a matter of how well NAV can provide labour activation services to young people. To help investigate this issue, this article poses the following two research questions:

- Are people under 30 less active than older clients in using digital tools while receiving support from the government to return to employment?
- Does a lack of digital activity affect how much support a client receives from caseworkers in NAV?

This case is relevant for two main reasons. First, NAV is tasked with providing services to everyone seeking entry or reentry into the labour force. As such, the wide range of citizens receiving reemployment support means the digital service studied in this article is not limited insofar as only being used by a small set of citizens. This diversity makes the findings of this study more easily transferable to other digital public services. Second, the study offers an interesting intersection between public policy, organizational priorities and digital technology. With the support of digital technology in these programmes, it is relevant to consider what technology does with the social and welfare agencies' ability to support their clients (Nissen, 2020). Good social work is dependent on that those in need of help are able to acquire its benefits. However, the ongoing digitalization of the public sector has raised concern that those who are most vulnerable to social marginalization are also experiencing digital forms of exclusion (Schou & Pors, 2019). As such, the motivation behind this study is providing knowledge of how digital solutions can be used in the welfare state to the benefit of all citizens.

The study is conducted on a quantitative dataset detailing the entries made by NAV clients and caseworkers to the client's activity plan. It contains 163,221 clients with 520,645 entries. As to the choice of defining young people as being under 30, this is in keeping with previous studies and policy initiatives (European Commission, 2012; Eurostat, 2015; OECD, 2020, 2021). Young people, described as people under the age of 30, are also singled out by the Norwegian government and NAV as a group to be prioritized for receiving governmental support during unemployment (Strand et al.,

2015). Even so, NAV's employment services are generally not for those still in the school system, which entails that there are very few clients under the age of 19. The rest of the article is structured as follows. After this introduction, the article continues with the theoretical foundation of the article, the concepts of the digital divide and digital citizenship. After establishing this theoretical lens, the empirical basis of the case is described, followed by a section on method. Finally, findings are presented and discussed.

Public sector digital divides

When first introduced, the concept of the digital divide was largely a matter of having and not having access to digital technology (Howland, 1998). Later, as the importance of digital technology grew, the concept gradually began to be used to describe a more profound social inequality (DiMaggio & Hargittai, 2001; DiMaggio et al., 2004). This inequality could eventually lead to meaningful differences in one's quality of life and ability to fully participate in society (Hargittai, 2010; Hargittai & Hinnant, 2008; Van Deursen & Helsper, 2015). To help pursue these issues, scholars have explored various aspects of differences in citizens' experiences with digital technology, for instance, what they have access to, what they use it for, and how well they use it.

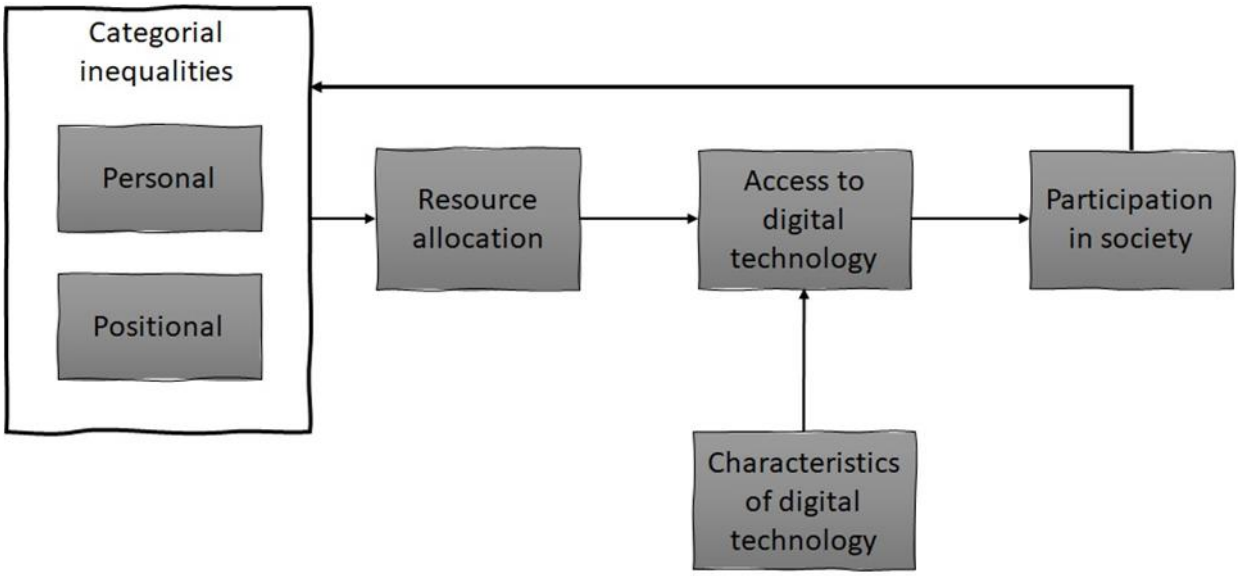
The digital divide caused by digital public services is increasingly being considered as a distinct type of divide, separate from divides in more commercial-oriented digital services (Lips, 2019). For example, a person can be skilled with using digital technology for advanced purposes such as programming or content-creation, but still have problems using digital public services (Van Deursen & Helsper, 2015). The implication of these divisions are that they can cause some people to receive poorer quality public services, or even be excluded all together (Ebbers et al., 2016; Ranchordas, 2021).

Van Dijk (2013) made a comprehensive attempt in his research at theorizing about the digital divide. The cornerstone of his theoretical work is a chain of causal relationships, resulting in a feedback effect (see Figure 1). Van Dijk begins by separating between divides that have been found in personal characteristics and

more structural positional differences. Personal categories refer to characteristics such as age, gender and personality, while positional categories include, among other things, income, education and employment. It should be noted that it can be argued that Van Dijk's distinction between personal and positional inequalities is artificial. Divisions shown to have been caused by age or gender can be as equally structural in nature as those explained by income or education, or by the design of the technology itself. Consequently, any explanatory value afforded these categories should be mindful of underlying causes.

Van Dijk argues that in previous studies of the digital divide, the categorical inequalities have been shown to correlate with digital inequality. This effect is caused by a divide in resource allocation, which causes inequalities in opportunities to benefit from digital technology. However, at this point the design of digital technology can both overcome and contribute to the emerging inequalities. Lastly, the net result of these factors results in the person's ability to participate fully in society. A marginalized position creates a feedback loop to the start of the causal chain, in which digital marginalization may lead to a poorer starting point.

Figure 1: Van Dijk's theoretical framework of the digital divide



This framework also considers for what the digital technology is used, and how well it is designed. The item in the figure labeled characteristics of digital technology is meant to capture this diversity of purpose. While not used implicitly, many studies of

public digital services reflect this framework. Correlation has been found between personal characteristics, for instance, age and the ability to use public digital services (Van Deursen & Helsper, 2015). Similar correlation has also been found for positional inequalities, e.g., employment, education and income (Serrano-Cinca et al., 2018). The feedback effect has also been explored, showing how digitally excluded citizens are even further marginalized by obstacles related to digital technology (Ragnedda, 2020; Warren, 2007). Scholars have attempted to make sense of how digital technology can contribute to a growing inequality by introducing the concept of digital citizenship. If a citizen's rights are protected from the malicious effects of digitalization, then the use of digital technology is less likely to result in exclusion, marginalization and inequality.

Young people as digital citizens

Since digital competency and rights are becoming increasingly important for the relationship between citizens and the government, the concept of the digital divide has been closely associated with digital citizenship, and put forward as an emerging issue in digital government research (Lips, 2019, p. 223). In the digital divide literature, digital technology can contribute to inequality in society, since everyone is not equally able to access, use and benefit from it (DiMaggio & Hargittai, 2001). Because digital technology is becoming increasingly important in the creation and delivery of public services, that too has become a part of the digital divide. Consequently, the digitalization of public services can threaten the value of a person's citizenship.

Overall, young people use digital technology for a wide range of tasks, and they do so across several types of platforms and devices. Digital services have proven to be successful at engaging young people when they are tailored to them (Chan, 2018; Meriläinen et al., 2018). Digital applications needs to be designed for ease-of-use, and attend to young people's priorities in order to be successful with young people (Russell et al., 2018). Yet, the design of public digital services must take into account a wide variety of users, and not only young people. This may add to the problems many government agencies already have with engaging young people in the delivery of social and welfare services (Van Parys & Struyven, 2013). Accordingly, the field of

educational studies has been particularly engaged with the levels and developments of young people's digital interaction with the government. An important topic in this field has been how to best prepare young people to become good digital citizens, and how the government can ensure their digital citizenship rights (Choi et al., 2017; Jones & Mitchell, 2016).

However, considering digital citizenship as a matter of education implies that digital competency is a prerequisite for other rights a citizen might have, demanding that citizens are more active digital participants if they want to be full citizens. Theorizing regarding citizenship has identified a passive and active view of how the rights of citizens are realized (Turner, 1990). If a citizen has passive rights, it is the obligation of the state to ensure these rights, while active rights are dependent on the individual citizen protecting and exercising them. The Nordic welfare states, including Norway, are largely built around a concept of passive rights, in which state programmes are designed to increase social inclusion and inequality (Esping-Andersen, 1990). To realize such a social ambition, the inclusion of those who are already marginalized, becomes particularly important.

The practical implications of digital citizenship are becoming evident in public policy. Denmark has made it a priority to educate young people on what the government expects from them in their interaction with government on digital platforms (Digitaliseringsstyrelsen, 2016, 2019). It has been noted that while government digitalization does not remove the need for people to perform basic administrative tasks to interact efficiently with government, the nature of these tasks has changed (Grönlund et al., 2007; Skaarup, 2020). As part of the Danish government's efforts to make young people good digital citizens, young people are taught how to successfully perform different types of administrative tasks online. The Danish strategy recognizes that young people are often skilled at using digital technology, but may lack experience in how to interact properly with government.

Still, there may be explanations other than competency for why young people fail to meet the expectations of the government as digital citizens. In the digital divide literature, there are attempts at categorizing the reasons for why a person is not fully engaging with digital technology. According to Lips (2019), a lack of access to digital

technology or a lack of ability to use it, for example, caused by a disability, can exclude someone at the most basic level. A person can still, even with access, be excluded due to a lack of skill with digital technology or knowledge about what digital technology can make available to them. These skill- and knowledge-related divisions have been shown to run alongside already existing socio-economic inequalities (Van Deursen & Van Dijk, 2011, 2019). For example, young people might be more skilled in using online gaming or social networking, but less experienced in using online services for seeking public services or health care (Van Deursen & Helsper, 2015). Finally, an important recurring determinate for whether young people use a digital public service is if they perceive it as beneficial or valuable to them (Russell et al., 2018; Taiminen & Saraniemi, 2018).

Considering young people as a group in need of government reemployment services, a recent Norwegian white paper described young people as a group with a wide variety of social or health problems that can be a hindrance for them in completing an education or gaining employment (Ministry of Labour and Social Affairs, 2016, pp. 33-34). While some quickly fluctuate between work, unemployment and education, others are at risk of permanent exclusion from the labour force. For this reason, the paper argued for the importance of NAV's prioritization of early intervention for young people to increase the likelihood of a swift return to either work or education. Among other things, the white paper recommended the use of digital services to help ensure user participation and early intervention (Ministry of Labour and Social Affairs, 2016, p. 9). This recommendation shows that, while welfare organizations may have difficulties interacting efficiently with young people, there is an ambition to use digital technology to help alleviate this issue.

Study context: Digitalization of the activity plan

The Norwegian government, like the governments of other Nordic countries, pursues active labour-market policies (Terum & Hatland, 2014). NAV was formed in 2006 in pursuit of these policy goals as a merger of several previously independent public welfare organizations. The aim of the merger was that as a unified agency, NAV could offer reemployment schemes to all citizens and residents, regardless of what was keeping them from full employment. For this reason, NAV assists a wide range

of clients requiring short- or long-term support. Clients receiving help from NAV usually do so by meeting with their caseworker. Through follow-up sessions, a caseworker can assist the client by providing support and advice about returning to full employment, although more extensive schemes, such as work training and placement, have been outsourced to private providers (Grødem & Vilhena, 2019).

Successful guidance from NAV requires user involvement. To better enable this, NAV has sought ways to empower clients. Street-level bureaucrats still perform regular follow-up meetings, but several digital applications have been developed for citizens to use while receiving support from NAV. This is a trend in public administration which Norway shares with most modern welfare states. The public sector is increasingly being supported by digital technology, and citizens are expected to communicate with the government through digital means. Norway, together with the rest of Scandinavia, has pursued a “digital first choice” policy, in which a large majority of citizens are expected to rely solely on digital technology when interacting with public agencies (Jansen et al., 2016).

In 2017, NAV launched a new digital activity plan in an effort to move some of the labour activation guidance over to digital channels (The Norwegian Labour and Welfare Administration, 2019). It was part of a wider effort to simplify the bureaucracy surrounding the agency’s follow-up of clients. It is somewhat of a misnomer to call it a new digital activity plan, as a digital activity plan had been used during follow-up for many years. Nevertheless, since only caseworkers had access to the plan on their work computers, entries could only be made if the caseworker met with the client, or if the client mailed the entries they wanted made to their caseworker.

The digital plan’s purpose was similar to many reforms introduced in the public sector in the last decades, as many welfare organizations have attempted to increase client participation and empowerment (Leung, 2011; Rivest & Moreau, 2015). Because activity plans can lead some clients to become less independent and conform to the demands of the bureaucratic system (Olesen, 2018), making them available online can help clients take back control. Nonetheless, the digital format may cause the platform to be underused by people who are less active or less proficient users of online public services. Several studies have discussed the problems of expecting

clients to register their activities in plans provided by the government, especially young clients with complex needs (Fossestøl et al., 2014; Olesen, 2018; Åsheim, 2018).

While the main practices used by NAV when providing support are similar for all clients, NAV has seen a need to categorize clients with different levels of needs. For this reason, most clients receiving support are assigned to one of four effort categories, based on the expected effort needed from NAV to help return the client to the labour force. “Standard effort” is the lowest category: These clients are expected to return quickly to the labour force without much help from NAV. For the three remaining groups, NAV completes a work ability assessment to see how much assistance the client is expected to need. The second level of effort is “situational effort,” referring to clients who are expected to need some help from NAV. Next, “customized effort” clients are expected to need more help over a longer period. Lastly, “permanent effort” clients are expected to have the most difficulty returning to- and remaining in full employment. Despite the recognition that some clients may struggle to find employment, there is a desire to move these clients, at least to a degree, into the labour force. To leave the labour force entirely would usually mean retirement or a disability pension.

Method

Two research questions are posed in this article. First, whether people under 30 years of age are less active than older clients in using digital tools while receiving support from government in returning to employment. Second, if a lack of digital activity affects how much support a client receives from caseworkers in NAV. The present study answered these questions by investigating the use of NAV’s digital activity plan. The investigation was made possible by a dataset extracted from NAV’s computer systems. The data were administrative in nature, and not created for the purpose of scientific research. Nevertheless, such data offer unique opportunities for studying clients’ actual behaviours (Dunleavy, 2016). As part of using NAV’s digital systems, clients are agreeing to the use of data from the interaction for use in management and research. However, all data extraction from public services should consider any potential violation of privacy rights. As a result, the collection of data for

this study was done in accordance with good practices regarding data minimization to make it impossible to make identifications of individual people.

The dataset was substantial, covering a wide range of clients in a variety of situations and needs. All of the people included in the dataset had received some level of career support from NAV, and have had entries made into their activity plan in 2019. The dataset included variables such as the clients' age, the number of registrations made to their activity plan in total, the year of their first entry into the plan, the percentage of registrations the client made themselves and the client's latest registered effort category.

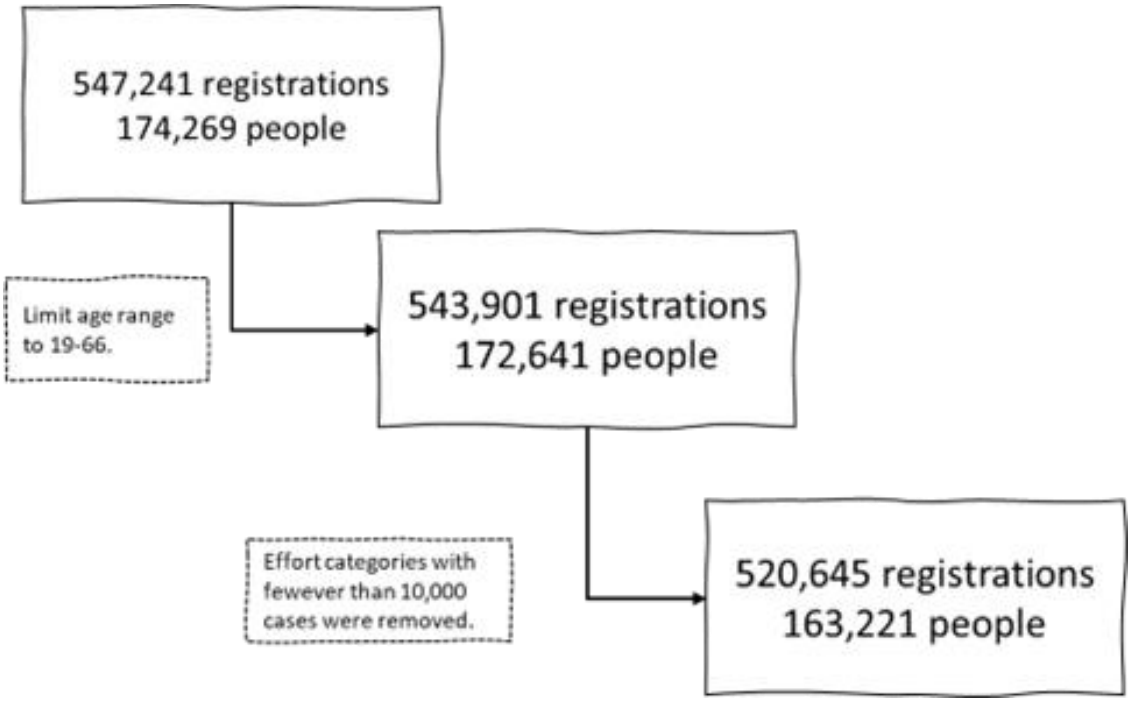
The effort categories were consistent with NAV's follow-up categorization discussed above, though with four deviations. There were two categories related to atypical counselling, a category for clients who were waiting for a work ability assessment, and a category for clients who were not yet in any effort category. For the last two categories, it is likely that the clients' need for help from NAV ended before further categorization could take place. In other words, these two categories were intermediary steps during follow-up.

Since the digital system was available for all people receiving counselling from NAV, some users did not fit the context of the study as described earlier. An important part of data selection is to define the boundaries of the cases that are studied (Hellevik, 2002). While the use of public digital systems by all types of citizens is relevant to the research question, not all citizens fell within the programme of work-related counselling provided by NAV. Consequently, it was necessary to remove some cases that did not fit the framing of the study. In most instances, people under the age of 19 or above the age of 66 do not receive counselling from NAV. They were therefore removed from the dataset. These age groups also had few cases, which could have made analysis difficult regardless.

Some of the effort categories contained comparatively few cases. The overwhelming majority of clients, especially young people, fell into four categories. The low number of people in some of the other categories resulted in some age categories having few cases. The low number of cases made it difficult to evaluate the level of self-

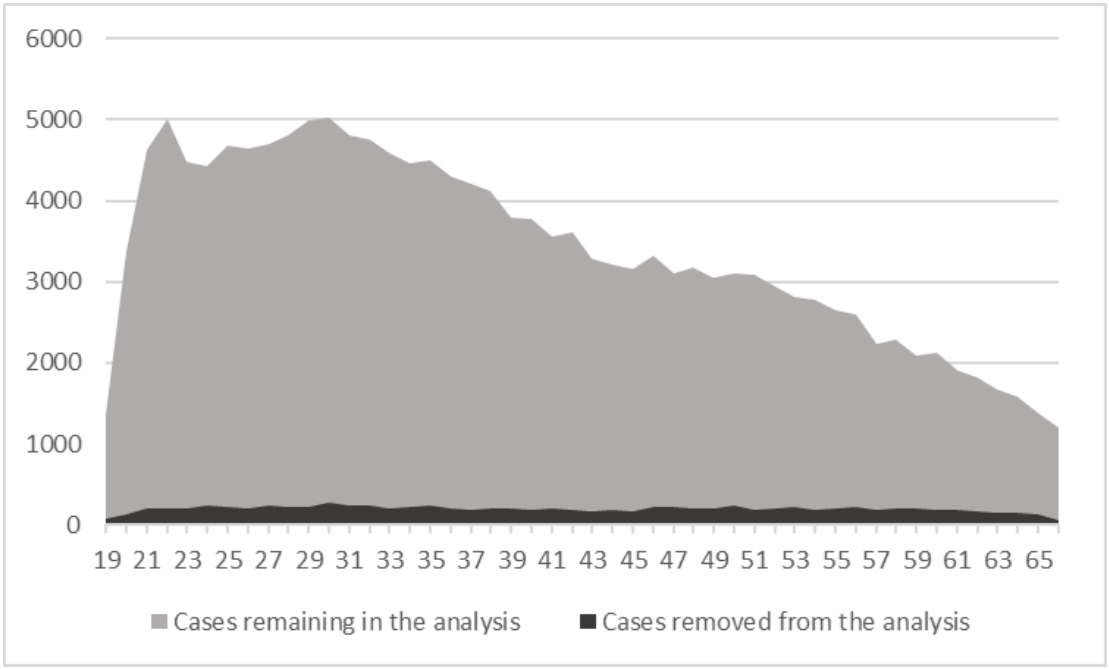
registration, as this could vary widely between age groups. As each of the effort categories constitutes a separate analysis, it was evident that some effort categories simply had too few cases to provide any valid insight. For this reason, only the categories that included more than 10,000 clients in total were included. The four categories included were the three first-effort categories and clients who had not been assigned to any effort category by NAV. In total, the dataset consisted of 163,221 clients with 520,645 entries in their activity plans; this constituted nearly 94% of the clients in the original dataset (see Figure 2).

Figure 2: Cleaning the dataset



Evaluating the age distribution of the excluded cases shows that they were mostly evenly distributed throughout the age range. Furthermore, the overall impact of the cleaning of the dataset was relatively minor. As the analysis was done on each effort category separately, the preparation of the dataset should have little impact on the results. However, the consequences of the distribution of age between the different effort categories will be discussed further in the analysis plan and discussion.

Figure 3: Age distribution of excluded cases



While this dataset design prevented missing data at the start of a client's case, it did not prevent missing data from the end. Clients entering counselling toward the end of the year had a higher likelihood of continuing their relationship with NAV into 2020—data which were not available for this study. However, this should not have had a significant impact on the analysis, as the analysis involved a comparison between various groups who should have been equally impacted by the limitations of the data. Any variables that could identify the client were not included when the data were extracted to ensure full anonymity. Because of this, the dataset does not contain additional variables of a socio-demographic nature.

Analysis plan

Descriptive statistics and a comparative approach were used in the data analysis to show whether- and how clients under the age of 30 used the digital activity plan differently from clients over 30. As described above, the support NAV offers covers a wide range of user groups. Young people are prioritized, both because they have different needs than those over 30, and because the consequences of labour force exclusion for this group are greater (Hyggen, 2013). As such, the findings can be explained by how people become more capable of interacting with the government digitally as they grow older, as well as by differences in the types of persons who

seek help regarding unemployment in different age cohorts. Considering the theoretical framework provided by Van Dijk (2013), age is the personal source of inequality most relevant to this study. Furthermore, considering the role of the digital technology as part of wider social policy, the analysis must also consider how NAV wants their social workers to engage with young people.

Distinguishing between an age effect and a cohort effect is addressed in part by separating the different effort categories. Because clients in the different categories were probably using the plan differently, the analysis was also performed for each effort category. Thus, this categorization reduced the risk that people with complex reasons for being unemployed within an age group were skewing the data. For clients for whom NAV expected less effort to be needed, the activity plan allowed the client to register activities in finding a new job. For clients for whom NAV expected the need for more assistance, the activity plan could be used to register participation in more long-term labour activation schemes, health rehabilitation or other government schemes and programmes. Since registering as unemployed triggers the government's support activities, as well as being a requisite for receiving unemployment benefits, it is likely that many clients used the activity plan only briefly, without being placed in an effort category, before returning to work or education. This division does also bring in positional inequalities, as those within the higher-level effort categories might be at risk of long-term exclusion, and in need of more governmental support. The intention of a strong digital citizenship is to prevent such exclusion, which shows the connection between social rights and protecting their right to be protected from digital discrimination.

A notable and important limitation of the dataset is its origin as administrative system data. Such data were not generated for research purposes, but rather a biproduct of digital systems. As such, the data have limitations in its explanatory value. The data accurately show the degree of use of the digital system, but are less accessible to explain why some people use it less. However, by engaging with previous research, the findings of the study can still provide important insight and knowledge.

Distribution of variables

Overall, a majority of clients receiving support regarding unemployment are in their 20s to mid-30s, with a steady decline in the number of clients of an older age (see Figure 2). There are several similarities between the different effort categories; for example, their mean and median ages are not far apart (see Table 1). Still, there are clear differences in the distribution of clients depending on age and effort category (see Figure 3). Most young people were not assessed, and therefore did not receive any effort category. Disproportionally, fewer young clients were placed in the customized effort category, hence indicating the greatest need for support. This indicates that many young clients were transient clients, receiving short-term or rudimentary support before returning to work or education. Naturally, young people's health and employment histories were shorter than those over 30. This may have given caseworkers less reason to believe they might require more assistance.

Figure 4: Number of people in each effort category by age

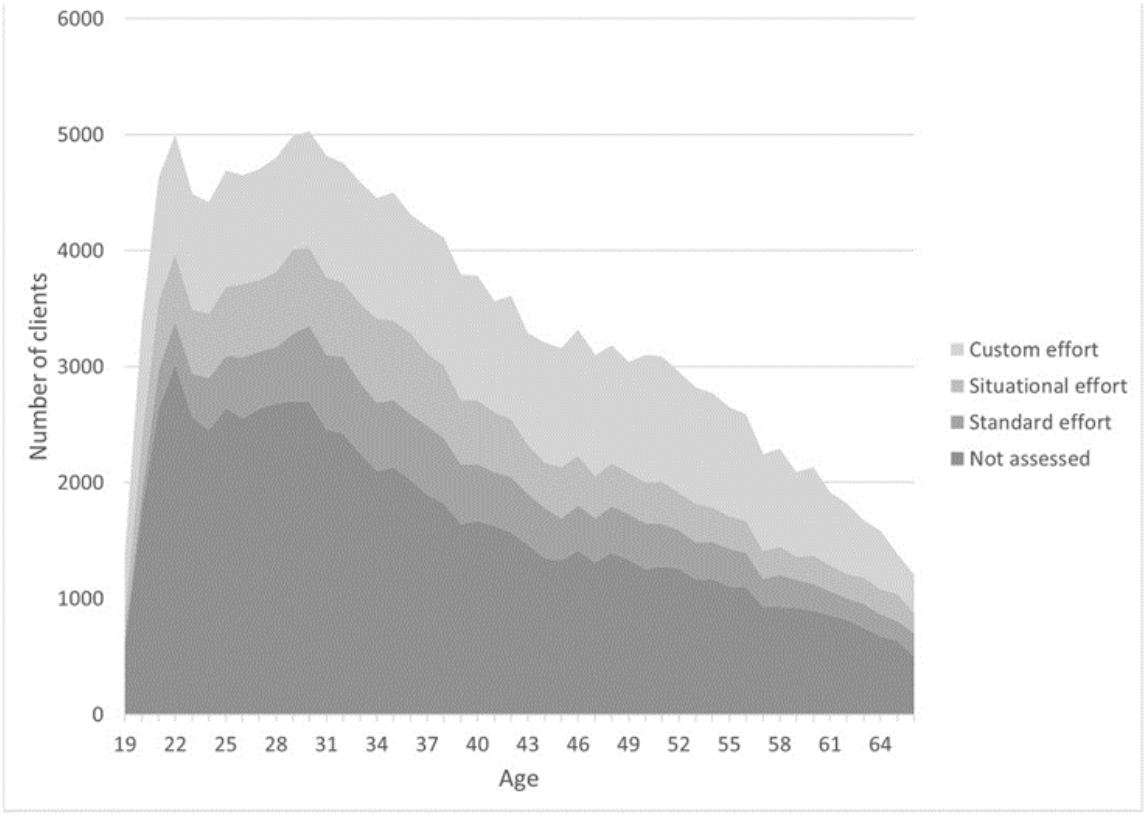


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Figure 5: Percentage of people in each effort category by age

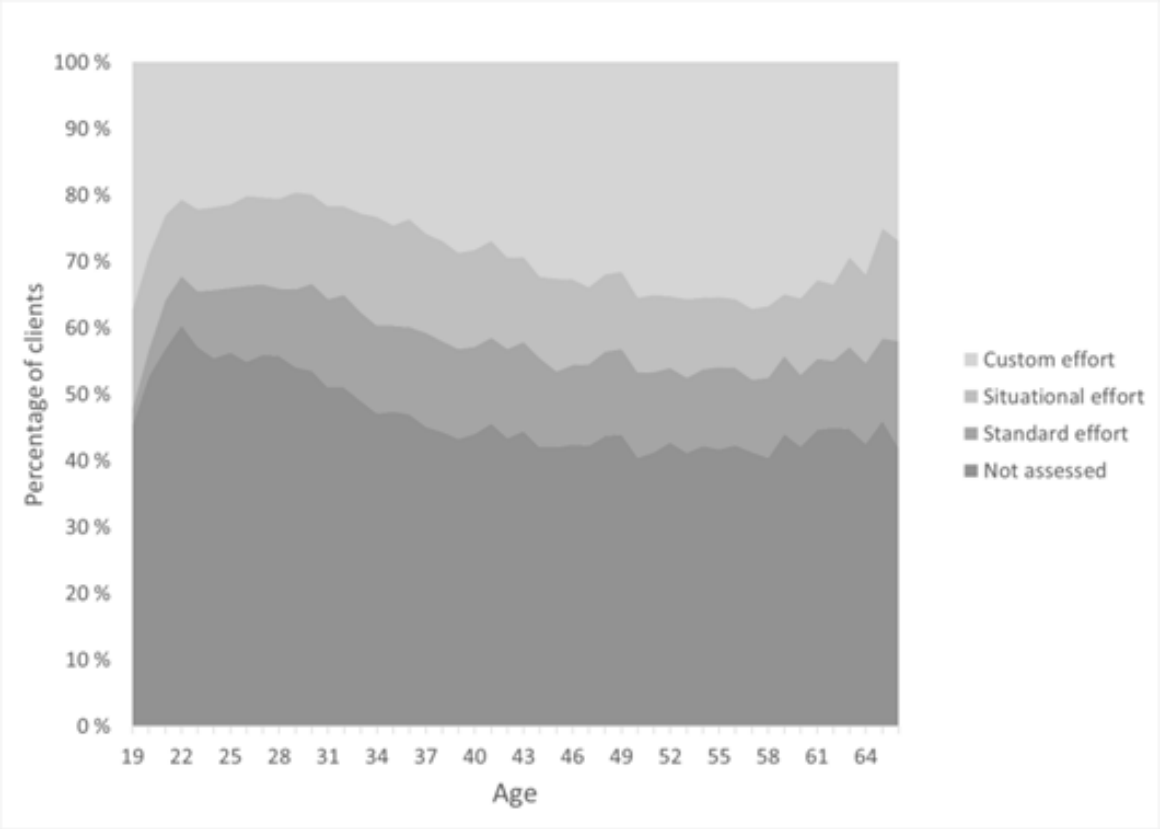


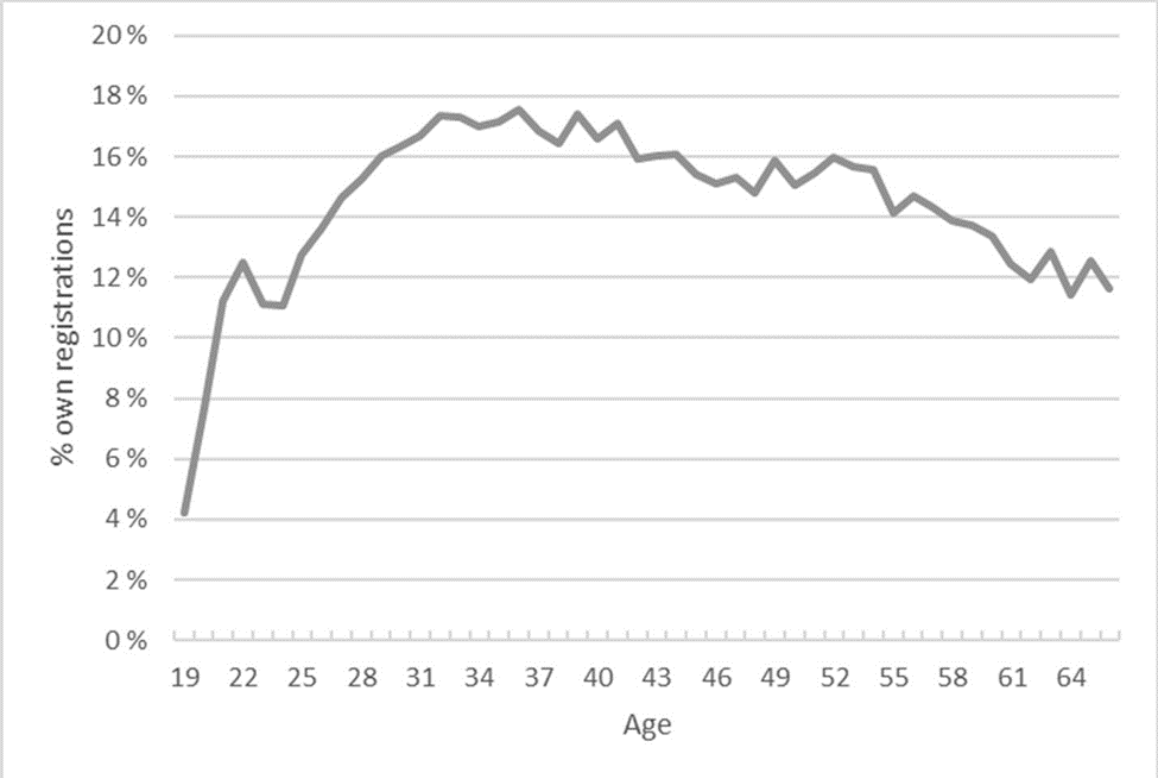
Table 1: Summary of effort categories

		Mean		Median		Standard Deviation	
	n	Age	Self-Registration	Age	Self-Registration	Age	Self-Registration
Not assessed	105641	38.5	0.175	36	0	12.9	0.314
Standard effort	25160	40.2	0.251	38	0	12	0.351
Situational effort	30532	38.7	0.252	37	0	12.3	0.352
Custom effort	69056	40.1	0.1	39	0	12.6	0.239

Findings

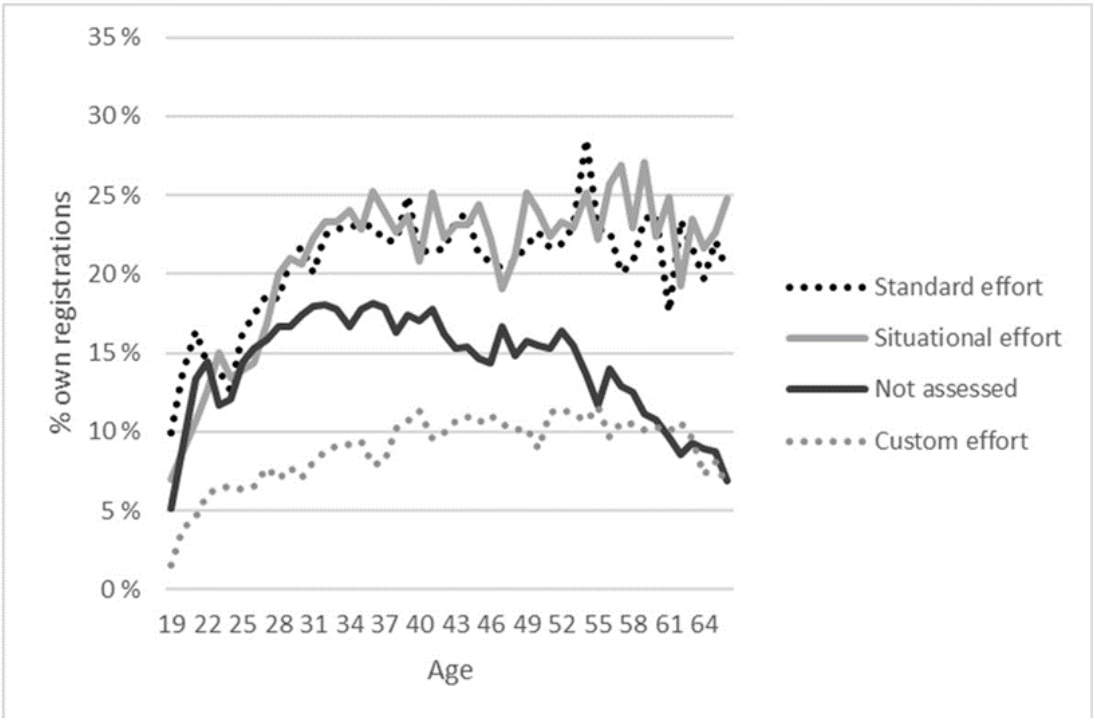
Overall, young people were less likely to make registrations by themselves in the digital activity plan (see Figure 4). Across the entire population, the degree of self-registration in the activity plan was 14.7%. On average, clients reached this threshold at age 28, and did not fall below it again until the age of 55. Despite the slow start, clients quickly reached the peak years of self-registration in their 30s. Even 60-year-olds, with a self-registration of 11.6%, are more active than those 24 years of age, who have a self-registration rate of 11.0 %, with the self-registration level of younger people falling even further.

Figure 6: Self-registration percentage in the activity plan by age



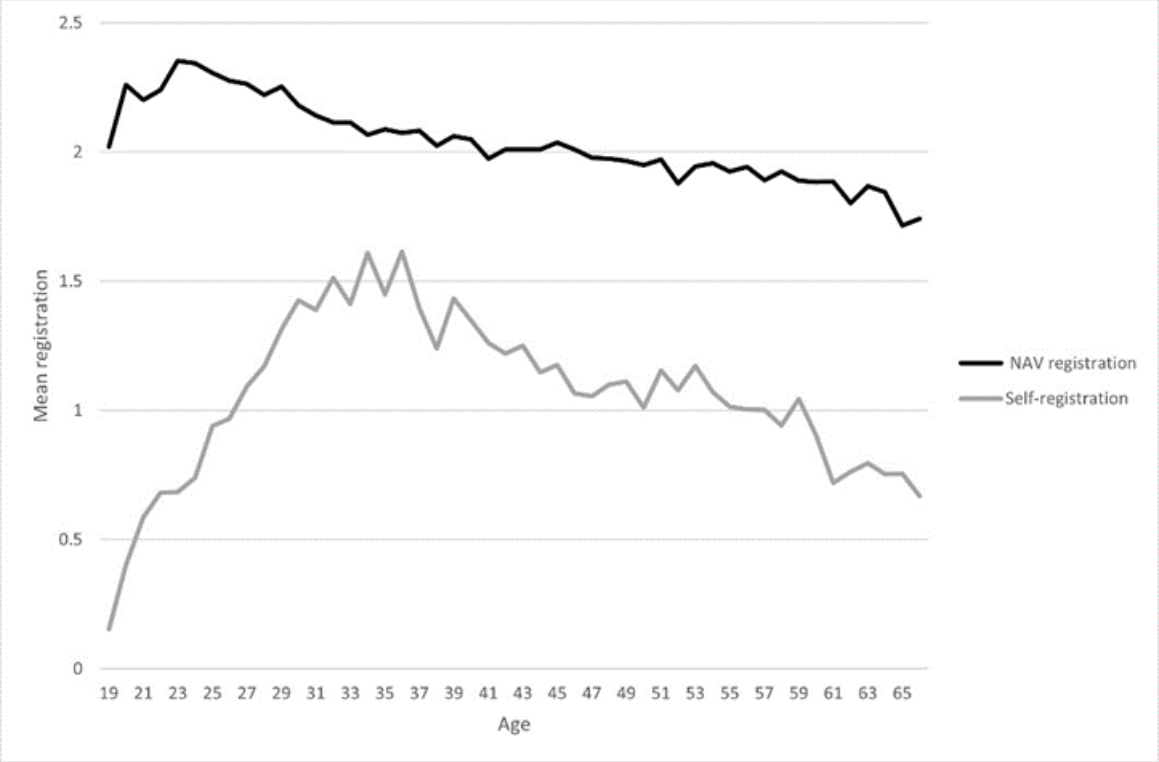
The age effect seen in the overall analysis was only partly evident within each effort category (see Figure 5). The lack of digital activity remained for young clients within all effort categories. However, except for those who had never received assessment, the rate of self-registration did not drop as the age cohorts grew older. For the three genuine effort categories, the degree of self-registration started low and increased rapidly before gradually levelling out as the age cohorts passed 30. The clients NAV expected to need more assistance used the digital activity plan the least, while the two groups that NAV evaluated as needing the least help used the plan the most. In between were the transient clients who were never assigned to any effort category.

Figure 7: Self-registration percentage in the activity plan by age and effort category



Considering registration in terms of absolute numbers show a similar trend as the relative figures above (see Figure 6). Young people make far fewer registrations by themselves in their own plan. However, there are also more registrations done by the caseworker for clients in most age cohorts under 30. Simply put, the caseworker takes a more active part in making registrations on behalf of young people. This could be a result of NAVs priority of young people, as caseworkers spend more time on their cases.

Figure 8: Mean number of registrations by age and registrant



Discussion

Addressing the first research question, the findings above show that young people are less likely than clients over 30 to use the online version of the activity plan to make their own registrations. This is true for both transient short-term clients, who remain in need of support long enough to receive an effort assessment and clients who are evaluated as being in need of the most support. Consequently, registrations are made by the client's caseworker or during meetings. From a social policy and public administrative standpoint, this raises a concern of the consequences for whether the investments made into digital platforms are benefiting young people. Considering the digital divide and digital citizenship, this has two major implications. First, it supports previous findings of potential hurdles for young people's interaction with the government through digital channels (Van Deursen & Helsper, 2015). As such, it is important to not view digital competency as a singular skill, as some people might be skilled with one type of digital technology while struggling with another. Second, it highlights the situational and positional nature of the digital divide affecting young people, in which the digital divide should not be understood only by personal characteristics, but also the situation a person is in and other opportunities they have.

Considering the first implication, there are several possible reasons why young people in general used the activity plan less than others. A common view of the digital divide is based on the idea that a person's use of digital technologies consists of a combination of several factors: motivation to use it, access to it and skill in using it (Van Dijk, 2006). Previous studies have shown that young people have good access to digital technology (Van Deursen & Van Dijk, 2019). This leaves the two other possible explanations. Here, too, previous research has given some indication of why young people used the digital activity plan less. As previously mentioned, a Dutch study found young people to be better overall at using digital tools, except in tasks related to government institutions (Van Deursen & Helsper, 2015). Consequently, some young people, particularly those receiving long-term support, may be unsure about what is expected from them, or be uncomfortable with providing information about their activities to the government for fear of losing the economic benefits they are receiving (Åsheim, 2018).

A good design of user interfaces greatly helps to move people over to using digital channels (Almaiah & Nasereddin, 2020; Trischler & Scott, 2016). Moreover, a design that is informed by the input of intended users also has an increased likelihood of digital services being used (Radovic et al., 2017). However, digital services with a large pool of intended users might struggle with incorporating the needs of all its intended users, as the needs of some users might be contrary to others. The digital activity plan might therefore not serve the needs of young people who are usually in different life and career situations than those who are older.

The argument that digital exclusion is only affecting those who are unaccustomed to using digital technology has led some to argue an overemphasis on skill in evaluating positive participation in the digital world (Falloon, 2020; Van Dijk, 2013). This is particularly poignant when considering groups, such as young people, who apparently have a high level of digital competency, while still not using digital technology for other important activities. A potentially relevant differentiation is offered by Lips (2019), who separates skill and knowledge as two sources of digital division. Using such terminology, young users may have adequate skill in using digital technology, but lack the knowledge of what to use it for. This is supported by

previous research indicating that an important part of the work of NAV's caseworkers with young people is helping to orient them in their lives and in society (Strand et al., 2015, p. 34). This indicates that young people often lack knowledge about social services and benefits, as well as about the rights they have. They understand the digital platform technically, but they do not understand the content. The comparable levels of self-registration between clients who were 24 years old and 66 years old illustrate this well. For the young people, the reason for the lack of registration was probably a lack of knowledge regarding digital public systems, while for the older clients the use was most likely more related to the technology itself. Consequently, clients in the middle range band were more likely to have adequate knowledge and competency with both.

Still, using age as an explanation for the lack of digital participation with public services shows the weakness of Van Dijk's (2013) division between personal and positional inequalities. While it is possible to argue that the lack of digital participation is caused by a lack of experience that comes with age, it is also possible to argue that the inequality stems from a lack of experience with younger people from the side of the public agency. While the former inequality is personal, the latter is a product of public agencies' structural discrimination.

Now turning to the second implication: How the digital divide affecting young people can be viewed in the context of their situation. A possible barrier to accessing welfare services leaves young people at risk of being marginalized in public service provision. The activity plan was intended to help the caseworkers and the client in planning the return of the client to the labour force. In Norway, participation in labour schemes and programmes, such as work training or work placement, has a positive effect on a client's ability to gain employment (Zhang, 2016). It is possible that a less informative activity plan could potentially cause a caseworker to make less-informed decisions. For social workers, digital systems provide an important source of information, but is a source that needs to be made sense of in the context of the person they are meeting with (Løberg & Egeland, 2023; Schmidt, 2023) A study in Norway highlighted the need of young people receiving support from NAV to get help quickly, but also for sufficient time to orient themselves in their lives and situations (Strand et al., 2015, p. 38). If the basic assumption behind the creation of the digital activity plan holds

true—that it enables clients to empower themselves while receiving follow-up from the government—young people are not receiving these benefits due to their inactivity. As shown in Van Dijk's (2013) framework, the outcomes of the digital divide results in a feedback loop, which strengthens existing inequalities.

Assuming governments create digital services not only for their own sake, but also to benefit clients, inactive users constitute a problem for the government. Denmark's creation of programmes for educating young people to become adequate digital citizens is the realization of scholars' urging of governments to promote digital citizenship to enable citizens to claim their rights in an increasingly digitalized society (Schuler, 2001). Still, there are limits to how much the government can expect citizens to educate themselves to conform to the demands of the government's administration. Consequently, the digital divide's impact on social policies increases as digitalization becomes more incorporated into the delivery of social services. While this might not impact everyone equally, the consequences are more significant when the digital divide meets other socio-economic divides.

The second research question asks if a lack of digital activity affects how much support a client receives from caseworkers in NAV. While the discussion above indicates that it could, the actions of caseworkers can make up for this deficit. A study of caseworkers in NAV providing advice and support to unemployed people has shown that they are particularly mindful to engage personally with young people to ensure they receive the best follow-up (Åsheim, 2018). In these instances, the need for a digital channel becomes less important. Government reports have also highlighted how some people may need more personal attention from caseworkers (Mandal et al., 2016). Previous studies of street-level bureaucrats and social work have shown a willingness to adapt their response when meeting with citizens who are not skilled with public digital systems (Schmidt, 2023; Buffat, 2015). Hence, a less frequent use of digital services for some citizens might indicate a well-functioning public administration. After all, the purpose of the activity plan is not that it is digital, but rather how it enables fruitful collaboration between caseworker and client. If this relationship is best fostered non-digitally, it should be within the caseworker's mandate to make it so. However, as caseworkers in NAV have been instructed to

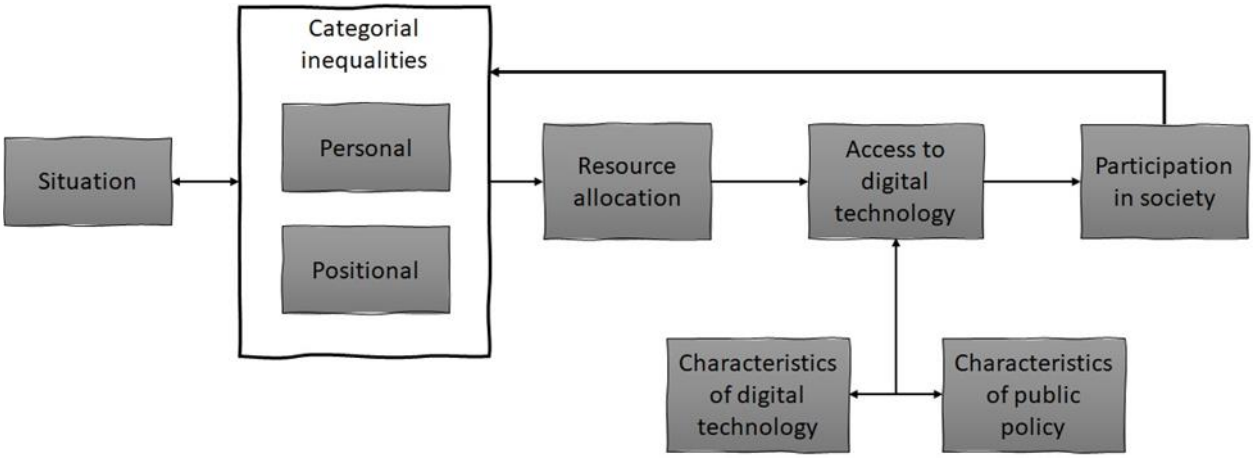
provide extra support for young people, this prioritization could leave other groups who have similar needs vulnerable to further exclusion.

Digital systems in the public sector are always embedded in an organization and a public programme. Divisions created by the characteristics of the IT-system can thus be both reinforced or tempered by how a public programme is designed, how a public agency uses the digital system, and ultimately, the actions of individual caseworkers. As digital technology increasingly becomes an important part of public services and programmes, it also becomes more important for public agencies to adapt their organization to handle citizens who are less able to benefit from the public services supported by digital systems. The concept of digital citizenship can help scholars and public administrators in understanding how the full range of citizenship rights can be upheld in the digital age. The manner of how citizenship is ensured would also depend on the policy context of the public programme. Inclusivity is essential in the case of the digital activity plan, as part of a national effort to ensure a high-level of labour force participation. Digital citizenship would therefore entail a right to use the digital system, but also the right for a non-digital alternative. A similar consideration is covered by the European Union's General Data Protection Regulation (GDPR), which allows citizens to demand their cases not be handled by automated decision-making systems (Calzada, 2019). However, a possible downside is that while the engagement of caseworkers is beneficial, it may cause clients to become dependent on their caseworker in making registrations to their activity plan. Such clients are thus further removed from the benefits of digital participation in later encounters.

Considering Van Dijk's framework, there are two theoretical implications to the findings in this study (see Figure 9). First, since a person's need for support from public programmes also triggers the possibility of receiving value from digital public services, it is relevant to consider the triggering situation as part of the casual chain that creates the digital divide. As such, many young people are not risking inequality in the help they receive from public services, simply because they do not require them. Yet, those in a socioeconomically perilous situation are also those who are more likely to experience situations that entitle them to governmental help. There is a connection between the categorical inequalities that create digital divides, with the likelihood of a situation requiring governmental support occurring. Second, the

characteristics of IT-systems interlock with social policy and the practices of the agencies carrying them out. Therefore, the digital divide is not only a product of the digital system, but also how the public agency implements them. For the young people in this study, as well as those receiving a more comprehensive follow-up, doing less self-registration could indicate a more personal relationship with their caseworker. The consequences of the characteristics of a digital technology can hence only be evaluated together with the social work practices they are intended to support.

Figure 9: Van Dijk's framework adjusted for digital public services



Limitations and future work

While the data in this study provided insight into the use of the digital activity plan, the study is limited by the available data in three ways. Some of these limitations have been discussed above but are repeated here, as they provide important topics for future research. First, the low number of variables makes it difficult to look for explanations other than age. Other studies have found socio-economic reasons for why many young people gain fewer benefits from their use of the internet (Hargittai & Hinnant, 2008; Ragnedda et al., 2020). Further studies could therefore explore when differences in use stem from differences in skill with digital tools, knowledge of public services or perceived value.

Second, the study is limited by its lack of qualitative data. While previous studies have been cited in this article to provide some possible explanations for why young

people used the digital tool less, it remains an issue in need of further study. While the digital habits of people are frequently studied qualitatively, they are rarely examined within the framing of public sector services and their creation of public value. If these questions are not resolved as the relationship between government and citizens continues to be digitalized, the erosion of some people's digital citizenship may not only prevent them from exercising their rights, but also diminish their trust in the government.

Third, as noted in the discussion, digitalization in the public sector is supposed to support social work and other social policies, not replace them. A citizen might voluntarily exclude themselves from using digital technology, or a public agency might decide that such types of technology are not to their benefit. Digital citizenship thus includes the right to, if necessary, services by non-digital means if that is most appropriate for you. While the present study indicated that social workers took such care towards young people, a more comprehensive study of such practices could provide more insight into how public agencies handle different categories of citizens with disadvantages related to their use of digital technology or digital services.

Conclusion

The findings in this study indicate that young clients are less likely than clients over 30 to use the digital plan as part of receiving support from the government during unemployment. This is not to say that the introduction of a digital tool is detrimental to the government's efforts to support people in returning to employment—only that clients over 30 were more willing to use the digital format. As digital technology is increasingly used in providing government services, it is easy to assume that simply providing the digital service ensures that it will be used.

As this study shows, while digital services may give clients the opportunity to contribute more to the support process, there is also the danger that the ability to make these contributions is unequally distributed. However, the study also found that caseworkers have made up for some of the lack of use by helping their clients make registrations, thereby indicating that the shortcomings of digital participation can be remedied by the priorities of the non-digital part of the organization. This considered,

digital divides created by digital technology in public services cannot fully be understood without also considering how public agencies organize to address these possible inequalities. When digital participation cannot be ensured, a proper digital citizenship also entails non-digital options are available when appropriate.

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