Youths' Digital Participation in the Early Phases of COVID-19 Lockdown

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Abstract. On 18 March 2020 the Finnish Government declared a state of emergency due to COVID-19 causing public services to limit their capacity or to close completely. Well-founded concerns have been raised on how the restrictions affect young people's well-being and their possibilities to get support. Youths use digital technologies in their everyday lives, and it can be assumed that the usage has increased during the COVID-19 pandemic, which can also be a benefit when coping with the situation. This paper explores young people's subjective experiences regarding digital services, digital societal participation, and social interactions in the early phases of COVID-19 pandemic. Moreover, the youths' backgrounds in relation to their utilisation of digital technologies and services are examined. A mixed-method survey including closed-ended and open-ended questions was conducted in spring 2020. The sample included 49 young Finnish people aged 15–26. Results suggest that digitality supports youths in their activities, such as work and school, societal participation, and social interactions. Also, problems, such as inadequate ICT skills and technical issues were identified. Furthermore, the ICT-savvy youths seem to benefit highly from digitality in comparison to their less ICT-savvy peers. This paper contributes to the discussions of digital divides, equal access to societal participation, and the activities that may support youths' coping in similar future lockdown situations.

Keywords: Digital participation · Societal participation · Youth · COVID-19

1 Introduction

The very first COVID-19 infection in Finland was diagnosed on 26 February 2020 and by the end of May, 6 859 people became infected (THL). On 12 March it was recommended that remote work should be favored as much as possible, and citizens should keep physical distance to avoid social contacts. On 18 March 2020, the Government declared a state of emergency causing libraries, museums, youth centers and other public services, also several welfare services, to limit their capacity or to close completely. Restaurants, cafés, and bars were ordered to be closed and public gatherings were limited to a maximum of 10 people. From 18 March to 14 May 2020 contact teaching in comprehensive schools,

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secondary education institutions and higher education was suspended and replaced by remote teaching. On 19 March Finland's external borders were closed from passengers and goods traffic. From 28 March to 1 April traffic between the Region of Uusimaa, where the infection was most widely spread, and other regions, was restricted.

The Finnish Government's chosen COVID-19-strategy is called a hybrid strategy, in which the key principles are to prevent the virus from spreading but also to secure the capacity of the healthcare system and to protect people at special health risks. However, concerns have been raised in regard to the restrictions' effects on young people's well-being and COVID-19 fundamentally changing their lives and prospective futures. Moreover, the pandemic situation has put the youths in unequal positions in relation to for example their socioeconomic backgrounds and their possibilities to get adequate support.

Young people who had previously needed support have experienced the most difficulties (Herkama and Repo 2020), which can also be interpreted as an accumulation of inequality. Moreover, the crisis also appears to have had a detrimental effect on the mental well-being of youths (Wilska et al. 2020). Also, differences in coping strategies are affiliated with education (e.g., Mohammadzadeh et al. 2020) which implies further inequalities among youths. Additionally, Merry et al. (2020) express concerns on extending digital divides during COVID-19 as technologies provide access to services that support mental health. As information on COVID-19 is increasingly seeked digitally (Liu 2020), the concerns gain relevance.

Although general coping strategies during the COVID-19 pandemic have been studied to a degree, there seems to be a gap in research addressing the relationships between digital services, societal participation, social interactions, and coping responses among youths. This is an important research area as the various digital services enable societal participation and social activities that indeed support coping in hard circumstances.

According to Bandura (1977), the concept of self-efficacy is used to refer to people's internalised constructs concerning their preparedness to execute a task. These constructs can be for instance subjective beliefs and expectations of one's own abilities in regard to a goal that needs to be achieved (Ibid). The way that people experience their expertise in relation to an executable task, i.e., self-efficacy, is highly affiliated with motivations and commitment, and thus mediates behavior (Bandura 1995, 2006). Computer self-efficacy is used to refer to self-efficacy in ICT related contexts (Compeau and Higgins 1995). ICT skills and societal participation tend to fluctuate analogously (Meriläinen et al. 2018).

This paper aims to address these relationships through exploring the young people's experiences regarding digital technologies and services, digital societal participation, and social interactions in the early phases of COVID-19 pandemic. Moreover, this paper examines the youths' backgrounds (societal participation and computer self-efficacy) in relation to their utilisation of digital technologies and services for COVID-19 lockdown stress mitigation. This paper contributes to the discussions of digital divides, equal access to societal participation, and the activities that support coping.

2 Related Work

2.1 Societal Participation and Digital Participation

In the scope of this paper, by young people and youth we mean the people of ages between 15 and 26 (E.g., Pietilä et al. 2019; Finnish Youth Act 2017). Societal participation refers to various activities, such as taking part in decision-making instances (Checkoway 2011), involvement in societal processes, voting, or discussing political issues (Pietilä et al. 2019). Moreover, societal participation can be described to be affiliated with having an active role in sustainable societal development (UN 2018). As the various technologies have been developed and the wide audiences have adopted them, naturally societal participation activities are increasingly moving to digital and online settings (e.g., Xenos and Moy 2007; Auxer 2020). Furthermore, a majority of the youths may even prefer participation in digital and online surroundings in comparison to more traditional forms of societal participation (Weber et al. 2003; Omotayo and Folorunso 2020).

According to Youth Wiki (2020), eParticipation can be defined as the activities that aim to broaden the participation of the youth by using various ICT tools. Moreover, Albrecht et al. (2008) affiliate eParticipation with activities in digital realms among individuals, groups, and policymakers. Similarly, Panopoulou et al. (2014) describe eParticipation to make the societal participation available more broadly through the use of ICT. According to Nilsson et al. (2019) eParticipation services denote the plethora of digital online services that are intended to enhance societal participation, i.e., taking part in various democratic and decision-making processes.

While eParticipation consists of activities that take place in digital settings and are related to societal participation, digital participation in turn is seen as a wider frame of activities in digital realms. It is more common by the day that the youths take part in various of digital activities and some of these activities can be affiliated with societal participation (Xenos and Moy 2007; Auxer 2020; Van Kessel et al. 2020; Omotayo and Folorunso 2020) and thus be regarded as eParticipation. However, the digital activities that do not belong under the term eParticipation but still are participatory in their nature, constitute the concept of digital participation. In addition to that, in the context of this paper, we define digital participation as a sphere of activities, which can include discussing political or societal issues online, electronic voting (Sæbø et al. 2008), answering questionnaires online, and consuming digital contents (Meriläinen et al. 2018).

2.2 COVID and Coping

The most common human coping strategies during COVID-19 appear to be similar to general coping strategies. The coping strategies adopted during COVID-19 included seeking alternatives, self-preservation, seeking social support, and avoidance (Chew et al. 2020). However, young adults' strategies seem to associate especially with reduced distress, including keeping a daily routine, physical activities, and positive reappraisal/reframing (Shanahan et al. 2020).

To widely understand young people's coping strategies during COVID-19, and to foster their capacities of citizenship and societal participation, young people's individual capacities and skills, but also the societal environment and their possibilities to get

social and emotional support from their family and peers, should be taken into account (Volk et al. 2020; see also Salin et al. 2021). Furthermore, abilities to cope in straining conditions, can be supported by experiences of communality, i.e., through social interactions (Blanc et al. 2021; Petzold et al. 2020). Experiencing significance and receiving and giving support through social interactions are mentioned as significant conditions in prevailing the encumbrance imposed by isolation (Polizzi et al. 2020).

3 The Survey Study

To explore the youth's perceptions on digital participation in the early phases of COVID-19 lockdown, we conducted a mixed-method survey study in Finland. A mixed-method approach was selected for this study as qualitative research enables acquisition of knowledge regarding detailed descriptive subjective experiences, and quantitative research enables the exploration of relationships between the youth's backgrounds and behavior amidst COVID-19 lockdown.

3.1 Research Questions

To explore the youths' backgrounds in relation to their utilisation of digital technologies and services for COVID-19 related lockdown stress mitigation, and more specifically, the relationships of ICT self-efficacy and previous experiences in societal participation with regard to digital technologies and services, the following research questions were formulated:

RQ1: How, if at all, have digital technologies and services supported societal participation of various youths in the early phases of COVID-19 lockdown?
RQ2: How are youths' backgrounds related to their digital participation in COVID-19 lockdown?

A) How are previous experiences in societal participation related to digital participation in COVID-19 lockdown?
B) How is computer self-efficacy related to digital participation in COVID-19 lockdown?

3.2 Variables and Operationalisation

To answer the research questions, five constructs were assembled. These constructs represent the digital technologies and services supporting coping (Coping support), consuming digital contents related to societal matters (Content consumption), participating actively in online and digital settings (Active participation), lockdown-anteceding societal participation (Societal participation), and lockdown-anteceding ICT skills and self-efficacy (Computer self-efficacy). The construct measuring societal participation was partly based on the questionnaires used by Pietilä et al. (2019) and Pajares et al. (2006) and the construct measuring computer self-efficacy was based on the work of Howard (2014). All of the formed constructs exhibited a moderate or strong internal

consistency as they received more than .700 as their Cronbach's alpha value (E.g., Bland and Altman 1997). Although not an explicit measurement for reliability, higher Cronbach's alpha and higher internal consistency reflects higher reliability of a measurement (Cronbach 1951).

3.3 Methods: Data Acquisition, Processing Pipeline, and Analysis

Data Acquisition. The data was acquired through a digital questionnaire. The questionnaire was open from the 22nd of April until the 27th of May in 2020 and it was distributed on the research project [Removed for review] social media channels. Also, it was distributed on the channels of [Removed] University, and The Finnish National Youth Council Allianssi. The questionnaire consisted of four Likert scale sets, and four open-ended questions. Two of the Likert scale sets consisted of assertions regarding the usage of digital technologies and services during the lockdown. The other two Likert scale sets included assertions that concerned computer self-efficacy and societal participation. The four open-ended questions addressed experiences on how the digital technologies and services have provided support during the lockdown.

Data Processing and Analysis. To answer RQ1 the answers to the open ended questions were analysed. Grounded theory was applied as the data was subjected to categorizing that was led by concepts that were identified within the data (Glasser and Strauss 1967). More specifically, the formation of the categories was enabled by applying thematic content analysis (Braun and Clarke 2006). Analysis stages were structured similarly to analysis of Burnard (1991) and [Reference removed] followingly: 1. Forming an overview, 2. Systematic annotation, 3. Category creation by open coding (Malterud 2012), 4. Category iteration, 5. Juxtaposing the categories with theory and related literature.

In regard to research questions 2 A and B, the dependent variables are established by variables Coping support, Content consumption, and Active participation. In RQ2 A and B the independent variables are established by the variable Societal participation and the variable Computer self-efficacy, respectively. Due to small sample size, and to simplify the test setting, the independent variables were recoded into dichotomous variables by cutting the sample in half at each independent variables' median. Societal participation was aggregated followingly: if $0 < a_{old} \leq 4.50 \rightarrow a_{new} = 1$ and if $a_{old} > 4.50 \rightarrow a_{new} = 2$. Computer self-efficacy was aggregated in a similar manner as: if $0 < b_{old} \leq 5.64 \rightarrow b_{new} = 1$ and if $b_{old} > 5.64 \rightarrow b_{new} = 2$.

No strict alpha level was selected for the analyses due to the small sampling size. This was also supported by ethical consideration; A type II error could have more harmful repercussions than type I error (Trafimow et al. 2018). As there are two categorical independent variables and three continuous dependent variables, MANOVA was chosen as the testing method. The variables were considered to follow a normal distribution adequately after inspecting their QQ-plots. Variables multicollinearity did not violate MANOVA assumptions and the results of the Box's test of equality of covariance matrices suggests MANOVA suitability with $M = 25.811$ and $p = .536$. Thus, MANOVA was applied, and the results are reported in the Sect. 4, Results.

3.4 Participants

Altogether 49 young people from Finland participated in the study from 22 different municipalities. The youngest participant was 15 years old and the oldest was 26. Median age was 21 years. More than ¼ of the participants were under 18 (16/49). Seventeen of the participants were in the ages of between 18 and 24. Fifteen participants were 25 or 26 years of age. Twenty-six participants disclosed their gender as female, whereas 19 reported males. Two participants reported as else (Not male or female), and two of the participants did not want to answer the question regarding their gender.

4 Results

4.1 Digital Support for Societal Participation (RQ1)

As a result of the analysis, four categories were identified: Digitality supports regular non-freetime activities, Digitality supports connectedness, Digitality supports societal participation, and Recognised problems and needs.

Digitality Supports Regular Non-freetime Activities. Twenty participants connected the supportive aspect of the digital technologies and services with their regular free-time activities, such as school, work, rehabilitative activity, or work try-out. Online video lectures, work-related meetings and VOIP technologies were repeatedly mentioned as supportive activities. Also, one participant curiously phrased that "*Learning has completely migrated to online settings*" (Female, 25 years). Another participant experienced that the plethora of platforms and services they use had become more diverse.

Digitality Supports Connectedness. Twenty-three of the participants experienced that their social contacts and interactions were supported by digitality. Sixteen mentioned that they have used for instance video calls and instant messaging services notably more than normally to contact their close ones. One participant stated that "*I have taught myself to use Discord, so that I can keep in touch with my friends. […] These services have supported me to stay in touch with my close ones.*" (F, 25) Another participant elaborated "*Digital services have enabled communications and a certain kind of sense of community*" (F, 26). Furthermore, it was said that "*Communality and sociality are preserved as it is possible to talk to friends*" (M, 25) by one participant highlighting the importance of these tools. Additionally, observations that conflicted with the mainstream trend were identified, as a participant stated that "*Use of social media and use of phone have decreased*" (M, 19). Interestingly one participant also mentioned that they had used Skype for "*Distant drunkenness*" (M, 23), which the authors interpret as a social gathering of two or more people that involves alcohol.

Digitality Supports Societal Participation. In the answers to the open-ended questions, altogether seventeen participants elaborated their experiences regarding the digital services supporting their societal participation. Seven of the participants stated that news and official content consumption has been supported by the various services. Moreover, the possibility to attend gatherings online has been experienced as a factor that has enabled societal participation. More specifically, Twitter, Discord, Zoom, and Google

Hangouts were mentioned separately. One participant described their sentiment on the relationship of digital technologies and services, and societal participation in the following way: "*Feeling of being part of something bigger. Being able to keep up to date and information from many sources enables forming knowledge.*" (F, 26) Another participant elaborated: "*Organising meetings and events has been possible in services like Zoom and Hangouts. This has enabled us to keep up with societal participation. Supported so that activities don't stop.*" (A 23-year-old) Furthermore, four participants highlighted that digitality has enabled them to participate in activities of a local youth council in the forms of discussions and voting. One participant said that "*All the info is available digitally.*" (M, 23).

Recognised Problems and Needs. Eighteen participants separately mentioned technical issues that they had encountered. Issues such as services not functioning properly, connection problems, microphone and sound related challenges, and servers disconnecting were mentioned. Also, congestion and too many users in services were identified as problems. Three participants mentioned a surge in the amount of misinformation (but did not unfortunately elaborate in more detail). One of them wrote "*There is a huge amount of false and untruthful information*" (F, 26) and another participant described "*I run into misinformation in various social media services*". (M, 25) Furthermore, three participants mentioned that some users lack the needed ICT skills and therefore there have been problems in communications. In relation to this, four participants elaborated that through educating the users and tackling usability issues in the services many problems could be avoided. In more detail, two participants mentioned that the school personnel should be more trained regarding these ICT tools. Additionally, three participants had experienced increased negative interactions and people deploring more than usually in digital services. A participant described that "*…People are more lazy. […] Regarding local governing activities, moving from face to face interactions to mediated ones does cause the activity to paralyze.*" (Did not disclose gender, 26 years) Another participant wrote "*The topics in all of the channels make me anxious*". (F, 21) One participant described that they had "*…Overdosed on social media.*" (F, 25).

Additionally, not appointed to any of the categories, one person mentioned that their online shopping had increased, and they had food delivered to their home more often than normally. Also, a participant was concerned that their Pornhub subscription had expired. Another participant pointed out physiological issues regarding their eyes getting tired due to excess screen time. Twenty participants (40%) explicitly stated that the ways they use digital technologies and services did indeed change. According to 18 participants, usage increased, however two participants reported that their overall usage actually had decreased from normal.

4.2 Youths' Backgrounds and Digital Participation (RQ2)

To answer the research questions RQ2 A and RQ2 B, a multivariate analysis of variance, MANOVA, was applied. First the 0-hypothesis "There are no differences in the dependent variables between the two categories of the independent variable Societal participation" is tested. The results suggest very weak or no evidence at all for rejecting it as $p = .125$. However, testing the 0-hypothesis "There are no differences in the dependent variables

between the two categories of the independent variable Computer self-efficacy", the results suggest weak evidence advocating the rejection of 0-hypothesis, as $p = .073$.

Moreover, the MANOVA results are inspected at the dependent variable level in the two categories of the independent variable Computer self-efficacy, as weak evidence for rejecting the related 0-hypothesis was displayed in the previous step. Interpreting the test suggests that there is moderate evidence that supports rejecting 0-hypothesis "There is no difference in the dependent variable Content consumption between the two categories of the independent variable Computer self-efficacy" as $p = .036$. As visible in Fig. 1, there is evidence that the ICT-savvy participants consumed more digital contents than their less ICT-savvy peers during the early phases of the COVID-19 related lockdown.

In the same lines, weak evidence supporting the rejection of 0-hypothesis "There is no difference in the independent variable Coping support between the two categories of the independent variable Computer self-efficacy" can be observed as $p = .054$. Hence, the results suggest that there is weak evidence that supports considering H1 "There is a difference in the dependent variable Coping support between the two categories of the independent variable Computer self-efficacy". As described in Fig. 1, the ones that had more higher computer self-efficacy, gained more support to cope from digital technologies and services, than their peers with lower computer self-efficacy during the COVID-19 related lockdown.

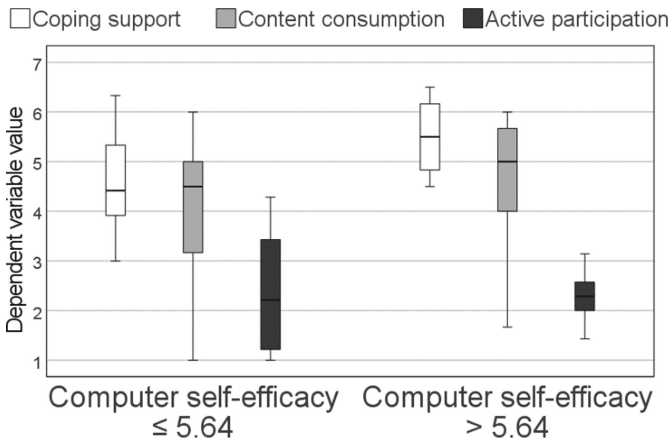

Fig. 1. A box plot describing the differences in the dependent variables between the two categories of the independent variable Computer self-efficacy

To conclude, the results suggest in regard to RQ2 A "How are previous experiences in societal participation related to digital participation in COVID-19 lockdown? that there is very weak or no evidence of differences in digital participation in the early phases of COVID-19 related lockdown between the youths that have more experience in societal participation and their less experienced peers. However, in regard to RQ2 B, "How is computer self-efficacy related to digital participation in COVID-19 lockdown?" The results suggest that there is evidence of differences between the youths with higher and lower computer self-efficacy. More specifically, the youths with greater computer

self-efficacy gained more benefit in the coping support brought by digital technologies and services and consumed more (informative) digital contents than their peers with lower computer self-efficacy.

5 Discussion

Digital technologies and services have indeed supported the youths in the early phases of COVID-19 related lockdown in many ways. A substantial portion of the support has manifested in the domains of school, work, or other non-freetime regular activity, social contacting, and societal participation. However, the youths have identified a plethora of technical, competence-related, and content-related issues that have posed as obstacles for their participation at their work or school, communities or in the societal sphere. Moreover, for the majority of the youth, the nature of digital technologies and services usage has changed when society transitioned from normal to lockdown, although a significant minority experienced no change in their use of digital technologies or services. For most parts, the change meant an increase in the amount of use, albeit two participants did report a decrease in overall use of digital technologies and services.

The themes that emerged with the qualitative analysis can be thought to be interconnected through sociality. In addition to being a key function in participation, sociality is essential in regard to coping (Blanc et al. 2021; Petzold et al. 2020; Shanahan et al. 2020; Chew et al. 2020). In this sense, the social dimension of digitality cannot be left unaddressed as digitality does indeed provide access to sociality for many.

The finding that the youths that are more skilled in information and communication technologies gained more benefit from digital technologies and services in the domains of coping support and informative digital content consumption than their less skilled peers, reflect similar phenomena as the findings described by Meriläinen et al. (2018). This may be interpreted in the way that to enhance equal possibilities to societal participation, everyone should be equipped with the adequate competencies to navigate in the information intensive and technological environments. Thus, special attention should be placed on how the technological and content related skills, knowledge, and attitudes are taught to enable further utilisation of digitality to provide access to information and coping support. Otherwise, these digital and societal divides may grow under exceptional circumstances.

However, there are limitations to this study as the sample size is relatively small and thus the results generalisability is questionable. Moreover, the results are likely to vary between countries as various relevant attributes, such as prevalent ICT skills, infrastructures, access to activities that support coping, and family-centeredness differ. Also, the more specific mechanisms through which high computer self-efficacy enables benefitting from digitality in regard to coping support in isolation and informative content consumption, should be studied.

6 Conclusions

In this paper, we introduced a study regarding the changes in youths' use of digital technologies and services when the Finnish society transitioned from normal times to

COVID-19 lockdown. Furthermore, we explored how the digital technologies and services have supported the various youths in the early phases of COVID-19 lockdown in the domains of work, school, or other non-freetime regular activities, social interactions, and societal participation. Additionally, we reported the various problems that the youths have encountered in regard to digital technologies and services. Finally, the benefits gained from the digital technologies and services regarding coping support and digital societal participation are compared between the youths that had more or less experience in societal participation as well as between youths with higher or lower computer self-efficacy. Through enabling the acquisition of adequate technical, digital, and media competencies for all youths, their societal participation can be enhanced, and the formation of digital and societal divides can be mitigated even when transitioning from normal to exceptional times such as remote education and closing down societies due to pandemics.

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