

Article

When Sociotechnical Imaginaries Become True: Digital Transition of Public Services and Inequalities during the Pandemic

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Abstract: As a response to the COVID-19 pandemic, many public institutions in Europe designed policies that increased the use of ICTs with the public to provide or collect information, offer support, and perform educational activities. This process was in line with a sociotechnical imaginary where people's lives are increasingly "smart" and enhanced through digital innovation. We provide an analysis of the implications of this imaginary during the pandemic for people belonging to vulnerable categories, to understand how these actors are considered in the digital transition process at the European level. This analysis is based on qualitative data collected in 30 European countries in the frame of an EU project aimed at understanding how COVID-19-related public policies shaped social inequalities. Building on the intersection between gender studies, science and technology studies, and media studies, this analysis aims to contribute to a more inequality-aware policy reflection on the digital transition.

Keywords: imaginaries; inequalities; digital; transition; pandemic; divide



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1. Introduction

Since the turn of the last century until the present day, a new trend has been gaining traction in Western countries. It concerns the significance of the digital transition of public services as a crucial objective to enhance their effectiveness, transparency, and accessibility. Initially, this trend found resonance within specialized circles, but it has gradually permeated the broader public discourse. This process can be described as the development of a sociotechnical imaginary, a concept that is defined as "collectively held, institutionally stabilised, and publicly performed visions of desirable futures, animated by shared understandings of social life and social order attainable through, and supportive of, advances in science and technology" [1] (pp. 4–5). This imaginary describes technological and digital transitions as the solutions for the main contemporary economic, social, and democratic problems of life [2–4]. The imaginary of the digital transition of public services is mostly based on a solutionist view of digital technologies [5] and on a "future essentialism" [6] that leaves no space for alternatives to an inevitable future where these technologies have a primary role in organizing the interaction between human and non-human actors. As we will see, this is evident in EU and national policies where this imaginary has been codified and institutionalized, with their specific focus on connectivity and digital skills.

The COVID-19 pandemic, with the sudden need for digitalizing many services to avoid isolation and the interruption of important activities (e.g., work and education), highlighted how the reality is more complex than the imaginary, particularly for people who are vulnerable in relation to gender, sex, age, socioeconomic background, nationality, disability, or ethnicity/race [7,8]. First of all, the consequences of the pandemic on the health and organization of people's lives were more severe when interacting with these vulnerabilities and the intersections between them (e.g., [9–11]). For instance, some minorities, such as the Roma people in Romania [12], experienced greater restrictions than other people living in the same country because of stigma and discrimination. These dynamics were also

fostered by the increasing spread of nationalist and discriminatory ideas, which found fertile ground during the crisis (e.g., [13]).

In addition to this situation, the increased need to use digital technologies and ICTs during lockdowns to carry out social and institutional activities exacerbated existing inequalities related to these vulnerabilities or created new ones, in many cases due to the impossibility of using and taking advantage of digital services by some people (e.g., [14,15]). In the UK, for instance, in 2018 there were still 5.3 million people who did not use the internet [16]. This number means that around 10% of the population, to a greater or lesser extent, may have been excluded when interactions moved online. Despite this, as described by the joint-chair of the UK Government Department of Digital, Culture, Media, and Sport working group on digital inclusion and skills [16], organizations and governments have been acting as though access were already universal. Indeed, there is still a great “[...] distance between frequently utopian technological claims as framed by industry advocates and policy champions, and the messy social realities they are called upon to adjudicate and support” [17] (p. 157). Poole and colleagues [18] and Ramasawmy and colleagues [19] pointed out how Public Health England’s pandemic policies based on “digital first”¹ pushed for the increased use of digital technologies to improve national health and mitigate inequalities. However, this posed an obstacle for minority ethnic groups (especially older adults) in managing, and exiting from, the pandemic, due to the digital divide.

Lockdown policies contributed to reinforcing this process of the digital exclusion of certain groups of people through the closure of services that usually offer them digital access and support (e.g., [20]), such as libraries and community centres [16]. There was an increase in the isolation of specific categories of people with more limited opportunities to access information and communication technologies (ICTs) and related skills, such as older adults (in particular from ethnic minorities) and the disabled [21]. Berg [22] highlights how the increase in the use of ICTs in public life determined the dynamics of exclusion and the increase in inequalities for refugee women living in accommodation centres in Germany that lacked internet and technological devices. This dynamic also resulted in increased distrust in the measures taken to combat the pandemic and a greater risk of relying on misinformation [22]. Shen and colleagues [23] point out how some Chinese government-sponsored digital platforms, created in response to the problems that arose with the pandemic, were then used even after the crisis was over to innovate the public service system. At the same time, they emphasize the need for more research on the role of the digital divide and exclusion in these processes.

In this paper, we offer an overview of the dimensions of the interaction between digital transition and inequalities. First of all, we consider European-level strategies and policies related to the digital transition of public services and what consideration has been given to issues of inequalities. We observe these dynamics through the lens of science and technology studies, where technoscience and inequality is a widely discussed topic (e.g., [24]). Within this debate, feminist and gender studies have had the critical role of highlighting the power dynamics and the actors that are taken for granted or hidden in the processes of knowledge and technology production (e.g., [25,26]). Specific attention has been paid to the digital divide and, in particular, to digital social inequalities (see, for instance, the 2010 special issue no. 7 on “Digital Social Inequalities” of the journal *Information, Communication & Society*, e.g., [27]). We contribute to this debate by offering an overview of strategies and policies at the EU level to respond to the following question: how has the topic of digital social inequalities been codified and institutionalized at the institutional level in the sociotechnical imaginary concerning the digital transition of public services? [1].

Secondly, once we describe the imaginary at the EU level, we offer an analysis of what happened once the imaginary had to be translated into concrete national-level actions during the pandemic, in particular in relation to vulnerable groups and inequalities. To this end, we analyse policies that were designed to deal with the socioeconomic consequences of the pandemic and required some interaction with digital technologies on the part of

the targets of these policies. We focus particular attention on the education system, where the consequences of this process are more evident. In this way, we respond to the following question: how did the sudden digitalization of public services during the pandemic contribute to the worsening, construction, or mitigation of socioeconomic inequalities?

We consider strategies and policies at the European and national levels as discursive indicators within which the sociotechnical imaginary about the digital transition has been codified and institutionalized, as these are the levels on which EU institutions “encode, reinforce and represent visions about their societies’ cultures and identities and futures in technological projects” [28] (p. 2). In addition, we focus on policies concerning the support of vulnerable groups during the pandemic for a two-fold advantage. First of all, it allows us to analyse the sudden acceleration of the digital transition in public services and education as an attempt at repairing or “mending the texture of social practices” [29] after a breakdown of the social order [29,30]. In such a situation, actors and power dynamics taken for granted become visible. Secondly, this specific focus allows us to understand how the imaginary about digital transition and digital inequalities has been translated by policymakers and public institutions into concrete actions. The comparison between the imaginary and what happened in practice during the sudden digital transition due to the pandemic allows us to identify those people who have been excluded from these plans and which sociotechnical dynamics are not taken into account.

Building on the intersection between gender and feminist studies, science and technology studies, and media studies, this analysis aims to contribute to a more inequality-aware policy reflection on the digital transition of public services. We underline that the policies dealing with digitalization and digital exclusion cannot focus only on the relationship between people and technologies/the internet (although these are of great importance), but they should also take into consideration the interactions between these actors and the ecologies of artifacts and services related to the lives of these people. We therefore offer empirical evidence of how the lack of consideration for these dynamics has contributed to increasing inequalities for several categories of people already in a situation of economic vulnerability, so that a debate can be opened to push for the construction of a more inclusive sociotechnical imaginary.

In the next section, we will offer an overview of the debate about the digital transition of public services in Europe, also in relation to the digital divide and inequalities, and how this process can be observed through the lens of sociotechnical imaginaries. Then, in the Section 3, we will introduce RESISTIRÉ, the EU project that enabled the collection and analysis of the main data of this research. Next, we will describe our findings. On the one hand, we will highlight how the main EU policies take into account the digital divide/inequalities debate; on the other hand, we will observe how the sudden digital acceleration driven by the pandemic has also highlighted inequality dynamics not included in that debate. Finally, in the Section 5, we will propose some reflections for a policy debate on digital transition that is more inclusive and more attentive to the specific sociomaterial dynamics of actors belonging to vulnerable groups.

2. Literature Review

2.1. Sociotechnical Imaginary—The Digitalization of Public Services in the EU

As a response to the recent pandemic and the restrictions on movement and closures of offices and activities, many public institutions in Europe designed policies that increased the use of ICTs by the public to provide or collect information, offer support, and perform educational and work activities. During the lockdown restrictions, for instance, many of the support services governments offered the public could only be applied for through e-government tools, and educational activities moved fully online. This phenomenon can be considered a sudden acceleration of the digital transition of public services that decision makers and public administrations have been implementing over the last two and a half decades² and that has been framed to fit the dimensions of a specific sociotechnical imaginary defined over the years. The sociotechnical imaginary is a concept that Jasanoff

and Kim [1] developed to describe “collectively held, institutionally stabilised, and publicly performed visions of desirable futures, animated by shared understandings of social life and social order attainable through, and supportive of, advances in science and technology” [1] (pp. 4–5). This concept has been used to describe very different contexts, such as the “fourth industrial revolution” [6], “the development and regulation of nuclear power in the US and South Korea” [31], and “the formation of Austria’s technopolitical identity” [32]. Using it allows us to observe how an imaginary concerning certain technological futures promoted within the ICT sector is ‘integrated into the discourses and practices of governance, and thereby structure the life worlds of larger groups’ (Jasanoff in [33] (p. 6)). Although the concept was initially constructed with reference to national contexts, it was later shown how the construction of imaginaries can also take place at the level of transnational collectives (e.g., [6,33–35]). Through the analysis of the sociotechnical imaginary, it is possible to observe the idea of “progress” that digital transition strategies contain and, consequently, what kind of order, i.e., power dynamics, inclusion, and exclusion, it presupposes.

As early as the late 1990s, a discussion about the best strategies to build a “virtual state” started, where the internet was considered by policymakers “[...] either as a force to increase the responsiveness of government to its citizens or as a means to further empower the state” [36] (p. 3). With the beginning of the new century and the increasing use of the internet, the concept of e-government (e.g., [37,38]) started to spread as a new model of interaction between public administration and citizens. E-government leverages ICTs to provide access and deliver services to citizens, businesses, and employees, moving from paper-based to digital-based systems [38]. One of the main debates around this new approach concerned the possibility of using technologies to create a partnership between public administration and citizens. O’Reilly [39] described how this new collaboration would allow for the transformation of public services into a continuous dialogue and cooperation between these actors, thus abandoning the previous model of a “vending machine government” (Donald Kettl in [39]), where citizens pay taxes in exchange for services from public administrators and the only form of participation is a complaint. This participatory framework was reinforced later by the idea of Government 2.0, described by O’Reilly [39] as the “[...] use of technology—especially the collaborative technologies at the heart of Web 2.0—to better solve collective problems at a city, state, national, and international level” (p. 14). In this framework, the government is considered an open platform [39] where innovation is produced by public and private actors together. The idea of smart cities, which is still very much in the mainstream among many European public governments, is also partly the result of these evolutions in the approach between government and the digital world. Tan and Crompvoets [38] recently described how in the last few years advances in the development of technologies and broadband have ushered in a new era of digital governance, one that is mainly concerned with processing large volumes of data and automatically extracting information from the analysis of data intersections.

School education is one of the public services involved in this digital transition, through the digital transformation of educational processes and the digital transformation of interactions among educational stakeholders (e.g., students, parents, teachers, etc.). Selwyn [40] describes how, over the last 30 years, policies concerning the relationship between schools and the use of digital technologies have mainly taken three forms: (1) promoting digital use by simplifying access to technologies, software, and connectivity for students and teachers and by creating teachers with digital qualifications; (2) including different aspects of technology among the subjects studied at school; and (3) the digitization of the organization and governance of the school system. Anita Say Chan [41] highlights the large amount of public and private investments that have been made in educational technology (edtech, e.g., laptops for students, online courses, etc.) in recent decades and how these investments are linked to cyclical hype about the centrality of the role technology plays in education. Reflecting on the policies designed by European countries for socioeconomic recovery from the pandemic, Zancajo and colleagues [42] found digitalization of the system

to be one of the main themes being discussed in the area of education: “Although Ios [International Organizations] were advocating digital education policies before the COVID-19 crisis, the novelty of the post-COVID-19 scenario is the level of consensus and emphasis placed on digitalization policies as a priority strategy for improving education systems” (p. 8).

The debate on the digital transition of public services thus highlights how in recent decades a sociotechnical imaginary has been constructed that pushes for a “technological future” in which people’s lives are increasingly “smart” and enhanced through digital innovation. This imaginary is also the result of, among other things, the layering of various discourses present in the public arena. These discourses see the emergence of an information society [2], a digital age [3], and electronic governments [4], etc., as processes that are meant to solve the main economic, social, and democratic problems of contemporary life.

In the following sections, we will highlight how the imaginary concerning the fundamental role of the digitalization of public services in improving the lives of citizens is now institutionalized in the public discourse of European policies and will reflect on how people from vulnerable groups are (or are not) a part of this imaginary. To this end, it is necessary to introduce some concepts related to the debate on the digital divide and digital inequalities.

2.2. *The Digital Divide and Digital Inequalities—The Debate So Far*

The ever-increasing pervasiveness of digital technologies and ICTs in everyday life has triggered an important debate on how this process risks excluding specific categories of people who do not have access to such technologies and thereby creating inequalities. This debate has developed around the concepts of the digital divide and digital inequalities. The digital divide can be summarized as referring to “a division between people who have access and use of digital media and those who do not” [43] (p. 13). Over the past twenty years, this concept has given rise to a lively debate that has identified three levels to the digital divide [43]. The first level relates to the obstacles to physical access to technologies and connectivity. This divide is mainly observed as existing between the more and less industrialized countries or between people in relation to their socioeconomic status, race, and age [43–45]. Lately, the focus has moved to the second-level of the digital divide [46], where research primarily focuses on differences between people in terms of their technological literacy, competence, and skills (e.g., [47]). The results of these researches, for instance, has shown how age, gender, and education strongly influence different types of internet use (e.g., [43,48]). Finally, the third level of the digital divide [49] concerns the outcomes, benefits, and harms of using digital technology and the internet [48]. In this case, the goal of research is to understand the role of people’s characteristics (sociodemographic or level of motivation, skills, etc.) in predicting specific outcomes (benefits or harms) from the use of the internet. Some results, for instance, show how specific categories, such as people with higher education and income, young people, and, in some cases males, are the ones who benefit the most from the positive outcomes of digital media (e.g., [43,48]).

As already mentioned, the debate on the digital divide has been very prolific [50], especially in the field of media studies. There have also been several proposals for moving beyond this concept. Some authors (e.g., [51–53]), for instance, consider it too closely linked to a binary vision of having, or not having, material assets (devices, internet) or cultural capital (skills). They suggest focusing instead on the interaction between social and digital inequalities. Ellen J. Helsper defines socio-digital inequalities [52,54] as “systematic differences between individuals from different backgrounds in the opportunities and abilities to translate digital engagement into benefits and avoid the harm that might result from engagement with ICTs” [52] (p. 6). She explains that they must be observed through the intersection of how people engage with ICTs (access, skills, attitudes) and the influence of their economic, social, and cultural environments [52].

Drawing on feminist theory, Pierre Bourdieu’s field analysis, and actor–network theory, Halford and Savage [27] underline how the digital divide’s focus on both access and

skills/use considers ICTs and inequality to be independent entities, and fails to observe the processes of connection and co-construction between them. Recently, this debate also took advantage of recent experiences during the pandemic to look at the interaction between ICTs and inequalities. Various authors (e.g., [16]) point out that there are still many internet nonusers, who were excluded from access to information, services, and social activities during lockdown. Blomberg and colleagues [14] describe how women recently released from prison faced serious problems finding jobs, education opportunities, etc., due to the lack of a stable internet connection and electronic devices. This attention to a specific category of women is in line with Zheng and Walsham's [15] call to adopt an intersectional approach in investigations of digital inequalities during COVID-19. They suggest moving from the concept of a "divide" to that of "inequalities" to better consider the interaction between the use (or not) of digital technologies and the intersection of specific grounds of vulnerabilities, such as age, gender, and education. Since digital exclusion mirrors social inequalities, they propose focusing on how IT and individuals continuously interact with "systems of power".

In the following part of the article, we build on these calls for an intersectional approach in the observation of digital inequalities to better understand the interaction between and co-construction of vulnerability grounds and the digital transition. First, however, in the next section we describe how the imaginary at the European policy level incorporated and codified the discussion about the digitalization of public services within the main strategies and documents about the digital transition of the EU.

2.3. *The Institutionalization of Digital Public Services*

In recent years, there has been a growing impulse on the part of international institutions to accelerate the digital transition of various public services in EU Member States. The institutionalization of this sociotechnical imaginary is evident, for instance, in the various metrics and indexes on this topic that have been developed by international organizations such as the OECD or the UN. The UN's E-Government Development Index (EGDI) monitored the evolution of e-government services (both concerning their complexity and their diffusion) worldwide from 2008 to 2020 [38]. In the European Union, since 2014, the European Commission (EC) has been monitoring and summarizing the digital performance and progress of EU countries through the Digital Economy and Society Index (DESI).³ One of the key areas this index looks at is "digital public services", where it monitors, among other things, the number of e-government users, the array of digital public services available to citizens and businesses, and the transparency of digital government processes, etc., in EU countries.

The index is just one example of the many policy instruments and strategies developed in recent decades as part of efforts to design the path to the digital transition of public services at the European level. Already in the early 2000s, the European Commission developed several strategies with this aim (eEurope 2002 plans,⁴ eEurope 2005,⁵ and the i2010 strategy⁶), which included the improvement of digital infrastructures, e-learning, and e-government services [55]. The eEurope 2002 strategy, for instance, stated that "EU institutions and national public administrations should make every effort to use information technology to develop efficient services for European citizens and business" [56] (p. 15). With reference to e-learning, the same document states that "four areas are particularly urgent and therefore require targeted action: the training of teachers; the adaptation of school curricula to fully exploit the potential of the Internet for education and innovative pedagogical methods; the assurance of access to high-quality multimedia resources through broadband connections" [56] (p. 13). In 2010, the digital agenda for Europe,⁷ the flagship initiative of the Europe 2020 strategy,⁸ contained measures to improve the process of the digitalization of social life and the economy and underlined, among other things, that Member States needed "to promote deployment and usage of modern accessible online services (e.g., e-government, online health, smart home, digital skills, security)" [57].

The goal of improving the digital public services is also evident in the EC's Digital Single Market strategy of May 2015⁹ and in the recent Digital Compass,¹⁰ presented in March 2021, which lays out the vision for Europe's digital transformation by 2030. Among other things, the document sets the goal that by 2030 there will be 100 percent online provision of key public services available for European citizens and businesses, 100 percent of European citizens will have access to medical records (e-records), and 80 percent of citizens will use a digital ID solution. The role the pandemic has played in supporting the digitalization process's underlying narrative is evident from the very first lines of this document: "In just a year, the COVID-19 pandemic has radically changed the role and perception of digitalization in our societies and economies, and accelerated its pace. Digital technologies are now imperative for working, learning, entertaining, socialising, shopping and accessing everything from health services to culture" [58] (p. 1). Referring specifically to the area of education, Zancajo and colleagues [42] point out that the digitalization of the system is one of the preponderant themes in policies aimed at recovering from the pandemic crisis.

The discursive construction of the digital transition at the EU policy level portrays this process as an almost purely positive phenomenon capable of improving people's quality of life. In the next sections, we will highlight how, in this framework, the issues related to the digital divide, exclusion, and the creation of inequalities are addressed.

2.4. *The Digital Divide in EU Policy Documents*

In the strategic documents for improving the digitalization of the EU, there are often mentions of the importance of addressing issues related to the barriers to accessing digital infrastructures (e.g., broadband availability, with a focus also on rural areas) and the provision of digital literacy, skills, and inclusive digital services (especially for people with disabilities) [59]. Negreiro [60] also highlighted these specific focuses in a briefing for the European Parliament Research Service called "Bridging the Digital Divide in the EU". Helsper [61] describes how some of the first Digital Agenda for Europe's¹¹ (2010–2020) pillars focus on digital inclusion issues such as access, skills and literacy, engagement, and outcomes, echoing the debate on the three levels of the digital divide. Target groups are also identified based on gender, socioeconomic status, education, and disability. Within the Europe 2020 strategy, the Social Investment Package (SIP) emphasizes the importance of ensuring access to the internet, including through personalized involvement and services, for vulnerable people (people in need of care and benefits) [61]. However, through an analysis of national policies connected with these frameworks, Helsper notes that the effort is still to work on the "supply" side (connectivity, skills, etc.) without taking into account the stories of specific vulnerable groups (ibid).

Most recently, the above-mentioned Digital Compass, which is part of the second Digital Agenda for Europe¹² (2020–2030), stresses the difference between a previous digital divide, mostly related to the different levels of connectivity between urban and rural areas, and a new one experienced by people that generically cannot benefit from digitalization:

A new digital divide has also emerged, not only between well-connected urban areas and rural and remote territories, but also between those who can fully benefit from an enriched, accessible and secure digital space with a full range of services, and those who cannot. A similar divide emerged between those businesses already able to leverage the full potential of the digital environment and those not yet fully digitalised. In this sense, the COVID-19 pandemic has exposed a new "digital poverty", making it imperative to ensure that all citizens and businesses in Europe can leverage the digital transformation for a better and more prosperous life. The European vision for 2030 is a digital society where no-one is left behind. ([58] p. 2)

In this extract, the salvific aspect of the narrative about digitization, which sooner or later is to benefit everyone, is clearly apparent. The Compass is part of the EC's 2030

Policy Programme “Path to the Digital Decade”,¹³ which sets among its goals to equip at least 80 percent of the European population with basic digital skills, to increase ICT specialists by 20 percent, to mitigate gender inequalities, and to provide connectivity to all through data connections. Progress in achieving these goals will be monitored through the aforementioned DESI, which contains specific sections on digital skills, the rate of internet use, and connectivity in Europe. In this report, these dimensions are in different cases analysed in relation to variables like gender, education, age, rural/urban, and employment status. The report mentions the concept of the digital divide to underline the importance of skills and to stress how the EU has been supporting strong investment to connect rural regions. Some attention is given to women’s inclusion also through the Women in Digital (WiD) Scoreboard,¹⁴ an action aimed at assessing Member States’ performance on women’s inclusion in the areas of internet use, internet user skills, and specialist skills and employment.

This brief overview shows how the digitalization of public services has been promoted at the European policy as a way to improve people’s lives and the democratic system. At the same time, we can see that the issue of the digital divide is addressed in these policies primarily through attention to improving connectivity and digital skills among the European population. In the following sections, we will show how the need generated by the pandemic to transfer many services to digital platforms has highlighted how this sociotechnical imaginary poses more complex issues for specific vulnerable groups of people.

3. Methodology

3.1. *The RESISTIRÉ Project*

The analysis in this article is part of RESISTIRÉ, a European project funded by the HORIZON 2020 framework. The aim of RESISTIRÉ was, first of all, to understand how the COVID-19 pandemic crisis, and its policy responses, interacted with behavioural, social, and economic inequalities in 30 countries in Europe. The project also aimed to devise, design, and pilot solutions for policymakers and other stakeholders to mitigate these inequalities. To this end, the project collected and analysed qualitative and quantitative data and mapped the main policies on inequalities implemented during the pandemic. RESISTIRÉ built on an intersectional theoretical approach [62] that focused on the intersection of specific gender inequality domains (work and the labour market, the economy, the gender pay and pension gaps, the gender care gap, gender-based violence, decision making and politics, human and fundamental rights, and environmental justice) with selected inequality grounds. Specifically, these inequality grounds are social class/socioeconomic background, age, disability, nationality, ethnicity, religion/belief, sexual orientation, and gender identity. Data were collected by a group of 30 national researchers (NRs) and representatives of the 30 countries under investigation (the lists with their names can be found in the ‘Acknowledgements’ section of [63,64]). The project lasted 30 months, from April 2021 to September 2023, and was divided into three homogeneous cycles in which the same analysis and output design activities were repeated. The project relied on an eleven-partner multidisciplinary and multisectoral European consortium with a predominance of social scientists specialized in gender and feminist studies. The author of this paper is a social science researcher who led the work package of the project that dealt with the mapping of policies and civil society initiatives. He was responsible for creating the data collection tools, i.e., the grids that the national researchers completed mainly with qualitative data (but also with some quantitative data) to provide information about national policies from the point of view of their contents, design processes, and implications. The author of this paper then also dealt with the analysis of the data.

3.2. *Data and Analysis*

The empirical material analysed here is mostly based on the mapping and analysis of key policies on pandemics and gender and other inequalities carried out in the first two

cycles of the project. A summary of the data collected in the project's two different cycles and how they were analysed is provided in Table 1. In the first cycle, national researchers were asked to provide two types of output related to their country of reference: first, a general report describing the situation of COVID-19 policies with particular attention to inequalities (a total of 30 country reports were produced) and second, the description of at least ten policies produced during the pandemic and focused on domains and vulnerable groups, produced from a grid the researchers completed to understand the policies' content, design process, implementation, and omissions from an intersectional perspective (a total of 298 of such grids were produced). In the second cycle, the mapping focused on the different National Recovery and Resilience Plans (NRRPs)¹⁵ produced by the EU27 Member States to access funds from the Next Generation EU, a financial stimulus tool promoted by the European Union. Through the NRRPs, the EC asked each country to define an investment policy plan to address the main socioeconomic issues that emerged, or increased, with the pandemic crisis. It is important to underline that each Member State, in order to have its plan accepted, was obliged to direct at least 20% of its investments towards the digital transition. For this mapping, the national researchers analysed the plans to understand if and how they considered the gender inequality domains and inequality grounds under the project's lens (a total of 26 grids regarding the NRRPs were produced).

Table 1. Data collection and analysis.

	Cycle I (15 May–30 June 2023)	Cycle II (1 December 2021–30 January 2022)
Data Collection	29 country reports: situation of COVID-19 policies with focus on inequalities and vulnerable groups (29 countries). 298 grids: each grid analysed a national or regional policy dealing with inequalities and vulnerable groups during the pandemic.	26 grids analysing the National Recovery and Resilience Plans with a focus on inequalities and vulnerable groups.
Data Analysis	Data analysed through thematic analysis (inspired by situational analysis). Identification among the policies of interactions between public services, digital technologies, and vulnerable people. Focus on actors, artifacts, and issues at stake.	

For a previous analysis not related to this article, the data were coded and analysed according to the general objectives of RESISTIRÉ, i.e., to observe how the policies in question took into account (or not) the specific domains and inequality grounds listed above. This process highlighted the critical role played by digitalization processes within these dynamics during the pandemic, pushing for a new analysis of these data, which is the focus of this article.

For the purpose of this article, the data were analysed through thematic analysis [65], and taking inspiration from situational analysis [33,66] in selecting the main elements that had to be observed in the situation under the focus of this research. For this reason, the data were again coded and analysed to specifically observe the discourses around digital services and the digital divide in the policies and public services related to vulnerable groups during the pandemic. The reports and information concerning the policies in the grids were analysed to identify the presence of interactions between public services, digital technologies, and people belonging to vulnerable groups, with a focus on the problems that emerged and attempts to solve them. Drawing on Adele Clarke's situational analysis, the actors and artifacts involved were carefully coded within these situations, together with the main issues at stake. Special attention was paid to how the institutionalization of the digital transition contributed to the construction of "implicated actors" [67], which are "actors silenced or only discursively present in situations. In discourse data, they are usually constructed by others for others' purposes" [65] (p. 16). The implicated actors can be present in the situation but are silenced, ignored, or made invisible by those in power. Alternatively, they can be absent and just discursively constructed, usually disadvantageously, by others. In the case of our analysis, this meant, for example, identifying policies that did not consider

particular categories of actors or that created particular barriers to their freedom without leaving them any agency over the issue.

4. Findings

4.1. *How the Imaginary in Practice Excluded Some Vulnerable Groups*

During the first phase of the pandemic, different measures were promoted by public authorities in European countries to provide different kinds of support for different vulnerable groups. In many cases, access to this type of support was only possible through online requests, taking for granted the possibility of people having access to devices and the internet. The consequence was that various people in conditions of vulnerability had difficulties obtaining support.

One obstacle was the well-known lack of access to technologies and connectivity. In Spain, for instance, a policy¹⁶ provided a special allowance for many domestic workers, usually women and immigrants, who found themselves without an occupation due to the pandemic restrictions and were not covered by regular unemployment benefits because they belonged to a separate social security scheme. However, the support had to be requested through an online application enclosing related documents. In Italy, various social measures were promoted by the government, such as financial support for households in economic difficulty¹⁷ and extraordinary parental leave.¹⁸ Most of the time, access to these services was only possible by registering on specific institutional portals. In some cases, a Public Digital Identity System (SPID) account was requested, which is a certified account that involves a fairly complex process to obtain. In Ireland, a policy offered income support to those who lost their jobs because of the pandemic. To apply, the candidate needed to use a specific web portal for the welfare services of the Republic of Ireland and create an account through an email. It was possible to apply also by post, but only after requesting a form by email. In all these cases, the NRs reported that those who did not have access to the internet had major obstacles in benefiting from these services.

Another obstacle that limited access to the internet was residing in rural and isolated areas. Despite the fact that increasing the connectivity of these areas is one of the objectives of European and national policies, during the pandemic there were cases that demonstrated that these areas are still victims of digital exclusion. For instance, various Hungarian civil society organizations (CSOs) located in rural areas were forced to close because of the lack of internet and IT tools. In rural Croatia, the lack of quality internet coverage made it difficult for students to regularly attend digital classes.

The digital transition of public services and education added a further layer to the physical and cultural barriers that already existed for certain groups of people, such as those living in accommodation centres or having difficulties with language. For instance, education was problematic for the asylum-seeking children living in camps in Greece, who could not attend online lessons due to the lack of technical infrastructure. At the same time, during the main phase of lockdown, they could not go to school even when schools were open because of specific restrictions on movement. In Poland, refugees' and migrants' children experienced similar obstacles to accessing remote education, such as a lack of devices, software, internet connection, and support, the existence of language barriers, and the lack of IT skills on the part of parents [68]. In general, the Advisory Team for COVID-19 at the Polish Academy of Sciences [68] stressed that Polish refugees and migrants were often also excluded from important information related to the crisis because of language barriers and a lack of IT technology and connectivity.

Barriers to accessing digital technologies or the internet, however, were not the only problems highlighted within this sudden digital transition. The national researchers from Hungary, France, and Greece, for instance, reported that many students lacked not only internet access and appropriate equipment to follow the online lessons but also a space at home to use those technologies. A different example comes from Greece, where the digital platform used for the online lessons was an issue, as it soon became overcrowded, creating problems for both the teachers and students involved in the learning process on one hand

and for the parents who had to spend a lot of time helping their children work with this problematic technology on the other. In the Netherlands, the need to move education online represented an obstacle for refugees in the formal process of obtaining citizenship. In this country, asylum seekers are obliged to follow three years of classes in the Dutch language before passing a final exam. For those who were not native speakers, online classes were more difficult to understand than face-to-face classes would have been. In addition, most of the refugees had little experience with digital technologies.

These stories illustrate how the digitalization of public services promoted during the pandemic did not always consider the kinds of situations characterized by the first and second levels of the digital divide as they pertain to vulnerable categories of persons. At the same time, the examples show how this digital transition entails new practices that interact and must align with specific situations where the role of the socioeconomic context must be taken into account to avoid creating or increasing inequalities. The appropriation and use of new technologies involve new practices that cannot simply be determined from above, since they must integrate with artifacts, information, and communication ecologies [69] already present in the situation.

4.2. Technocratic Responses to Digital Inequalities

The acceleration of the digital transition of various public services has contributed to increasing inequalities for different vulnerable groups. The area where this process has been most visible is education, where many students were excluded from classes when they moved online. This area is also where European governments have made the biggest efforts to mitigate digital inequalities, mostly through solutions related to the distribution of digital devices and the improvement of connectivity.

In the first phase of the pandemic, these solutions often took the form of short-term actions aimed only at plugging the lack of technology. The City of Ghent, in Belgium, for instance, lent laptops or tablets, with a free Wi-Fi connection, to 147 sixth-grade elementary school students without a computer at home;¹⁹ this helped them to finish the 2019–2020 school year, but this activity was not continued. Sometimes, these policies aimed at mitigating certain inequalities ended up creating new ones, as in the case of Romania. The Romanian government²⁰ provided electronic devices and internet connections to students belonging to vulnerable groups in line with specific conditions: first, the pupils had to be Romanian citizens and second, their families could not own any devices connected to the internet. These conditions excluded families in which devices were present but may not have been suitable for online education. At the same time, they excluded children without Romanian citizenship, highlighting how citizenship is a feature that can be prioritized with respect to the right to education for young people.

The distribution of technology and internet access alone, however, are not sufficient to replace the function of schools and eliminate the inequalities in access to education created by the shift to online education, as demonstrated by what happened in the Czech Republic. In August 2020, the Czech government²¹ launched a policy to fund digital devices for teachers and students to fight exclusion in online education. The goal was to be prepared to tackle a new school closure due to new pandemic waves. However, the distribution of technology was not enough to fight inequalities. Even though the provision of new IT equipment helped to decrease the number of students who were excluded from online education (the Czech Inspectorate underlined that the initial figure of 250,000 such students then decreased to 50,000), the education of many students was still at risk because of other factors, such as families' socioeconomic situation and parents' ability to assist with online education (especially difficult in single-parent families), which were not addressed by any policy, thereby contributing to a further increase in education-related inequalities [70].

In some cases, compromise solutions have been found to facilitate access to technology while providing other services usually provided by the school in addition to education. In Lithuania,²² for instance, the problem of access to digital technologies for students from low socioeconomic backgrounds was tackled differently from what is described above. At the

beginning of the pandemic, a survey among students conducted by the Lithuanian Ministry of Education showed that about 25,000 students lacked computers and the internet. For this reason, a new measure allowed students from unprivileged socioeconomic backgrounds to follow “remote” lessons at school using the school’s infrastructure and devices. The measure also guaranteed the provision of food to these students. This policy is a good example of how the digitalization of services makes visible not only the difference between those who have access or not to digital technologies but also how this difference links to other socioeconomic inequalities.

While the policies above focused on what could be called the first-level digital divide among students, other policies tried to offer solutions for overcoming the second-level divide for other kinds of vulnerable groups. The Federal Government in Belgium, for instance, increased financial support to all Public Centres for Social Welfare (PCSW),²³ which are public institutions based in municipalities to offer social services, including digital support (e.g., assisting with online applications, digital education). Very few measures also focused on tackling different intersectional grounds of inequalities related to digital transitions. In Portugal, the Pact Against Violence,²⁴ signed among various public entities to provide urgent responses and support the work and structures of the National Network for Support to Victims of Domestic Violence (RNAVVD), had among its initiatives the donation of computers and empowering victims through digital literacy.

When present, the institutional responses to the problems created by the digital transition during the pandemic’s initial phase were mainly focused on reducing barriers to material access to technology for students. In a few cases, some measures tried to support training in digital skills for other vulnerable groups. However, with the exception of a few cases, there was no space for considering other different vulnerability grounds, and an intersectional approach to digital inclusion was almost absent. However, it must be emphasized that the policies outlined above suffered from the problem of having been defined and implemented in a short time in an effort to respond quickly to the pandemic’s initial consequences. In the next section, we will see if and how the recovery policies designed to overcome the socioeconomic damage produced by the pandemic, which had more time and information at their disposal, addressed these issues.

4.3. The Recovery of the Imaginary: National Recovery and Resilience Plans

The National Recovery and Resilience Plans (NRRPs) offer excellent viewpoints for understanding whether and how countries have taken digital divides and inequalities into account when trying to respond to the digitalization issues that emerged during the pandemic. One of the requirements for the approval of these plans by the EC was that 20 percent of the total national investment had to be directed toward digital transition. In some plans, albeit marginally, this translated into some generic proposals and (sometimes) concrete measures to make this digital transition more inclusive. In most of these NRRPs, this inclusive process is imagined first and foremost through the enhancement of access to digital education and training. In particular, specific attention is given to young people, who are targeted by policies concerning a few main objectives: the increase in digital skills, both through school and vocational courses (e.g., Ireland, Slovenia, Denmark, Spain, Slovakia, Poland); the improvement of digital infrastructures within schools (e.g., Ireland, Poland, Czech Republic), in some cases giving priority to contexts with a large share of students from disadvantaged socioeconomic backgrounds (Czech Republic); and the distribution of computers and connectivity to disadvantaged students (e.g., Ireland, Austria). In the schools’ digital transition process, the Slovenian plan envisages learning assistance (also individual) for children with special needs or minorities such as Roma people. The Greek and Slovak plans seek to improve the digital skills of older adults. The Slovak document also foresees the distribution of tablets to seniors.

Another target for enhancing access to digital education and training is women. Some plans (e.g., those of Italy, Spain, Romania, Cyprus, Greece, Belgium, and the Dutch draft) define strategies aimed at increasing digital skills and competencies, with the primary

goal of increasing the possibilities of accessing the labour market. More rarely, proposals also take into account the intersection of different grounds of vulnerability. The Romanian plan, for instance, sets a quota where 50 percent of students in media literacy courses are to be women, and it mainly targets vulnerable populations (people with disabilities or special requirements, people at risk of poverty or social exclusion, elderly people, Roma or other minorities, people from isolated communities). The Spanish plan contains vocational training on digitalization that focuses on women living in rural areas.

The Portuguese NRRP proposes introducing a measure to fight digital gender issues not only through the provision of digital skills: one of the objectives of its Reform for Digital Education is the fight against gender stereotypes and sexual segregation in the field of digital technologies through the analysis of data disaggregated by sex and the involvement of students in practical laboratory activities, role model sessions, and mentoring.

Although, as we have just seen, young people and women seem to be the main intended recipients of strategies on inclusivity in the digital transition, some other plans contain generic reflections on other groups of vulnerable people as well (Hungary, Poland, Romania, Ireland). Most of the time, these plans state that these actors could become more attractive to the labour market through increased digital skills. The Polish plan, for instance, emphasizes the importance of increasing digital skills and education in particular among seniors, people with disabilities, people in a difficult life situation, women, and children of single mothers, but also among local government administrators, teachers, educators, students, and parents supporting remote learning. This process is imagined through the creation of a network of local digital champions that will support the institutions and offer training tailored to the recipients' needs. The Irish, Czech, and German plans underline the intention to increase the access of people from under-represented or socially/economically disadvantaged groups in their digital learning processes. In some plans, there are also general proclamations about how investments in new digital services or devices will improve the quality of life of people with disabilities (Czech Republic, Italy, Portugal, Lithuania). In addition, the Croatian and German plans mention the importance of doing more to ensure the inclusion of children with disabilities in the digital learning process and the creation of digital skills. Estonia and Cyprus mention the importance of improving digital access for this category of people.

Finally, the attention to people vulnerable national minority groups can be found in two plans. In Finland, there is a measure for creating a platform aimed at digitally monitoring the migration of the skilled labour force. The Greek NRRP plans to digitalize the procedures and the archive of the Asylum Service "to improve control over migration flows and achieve faster inclusion of legal migrants, asylum-seekers, and refugees" [71]. It is evident that these policies are aimed only at the inclusion of particular categories of immigrants related to skilled professionals and to contrast the arrival of people from a lower socioeconomic background.

The examples just listed show how the NRRPs largely focus on digital inequalities through generic attempts to improve the digital skills of some vulnerable people without devoting specific attention to particular intersections between inequality grounds, usually with the sole goal of increasing their appeal to the labour market. This situation contributes to the definition of a future whose imaginary continues to exclude taking care of the problems of part of society.

5. Discussion

5.1. *The EU Imaginary: More Devices, Connectivity, and Skills Will Improve Everyone's Lives*

By observing European policies on digital transition, we were able to understand the dimensions of the sociotechnical imaginary that is constructed around this topic, which actors are included in this imaginary, and what the main objectives are. In particular, we analysed how the topic of digital social inequalities has been codified and institutionalized at the institutional level in this sociotechnical imaginary.

We illustrated the existence of an imaginary concerning the need for the digital transition of public services, that is reflected in the implementation and diffusion of e-government and e-learning services. As represented in the upper part of Figure 1, we found that this imaginary is based on the discourses that in recent decades have been describing technological and digital transitions as the solutions to the main economic, social, and democratic problems of contemporary life [2–4]. These discourses are mostly based on a solutionist view of digital technologies [5] and on a “future essentialism” [6] that leaves no space for alternative visions of an inevitable future where these technologies play a primary role in organizing interactions between human and nonhuman actors. In this narrative, the attention to inclusion is mainly represented in the focus on the number of people who have access to and can use digital services, building on a binary reflection that is typical of the first- and second-level digital divide and ignoring the interaction between social and digital inequalities as proposed by different authors (e.g., [51–53]). In recent years, there has been an attempt to move the debate from the digital divide to digital inclusion, also bringing the narrative to bear on how the use of ICTs can produce different outcomes for different types of people. As we observed throughout the findings and we will discuss in the next section, there is still a lot of work to do to stop considering ICTs and inequality as independent entities and to start focusing on the processes of connection and co-construction between them, as suggested by Halford and Savage [27].

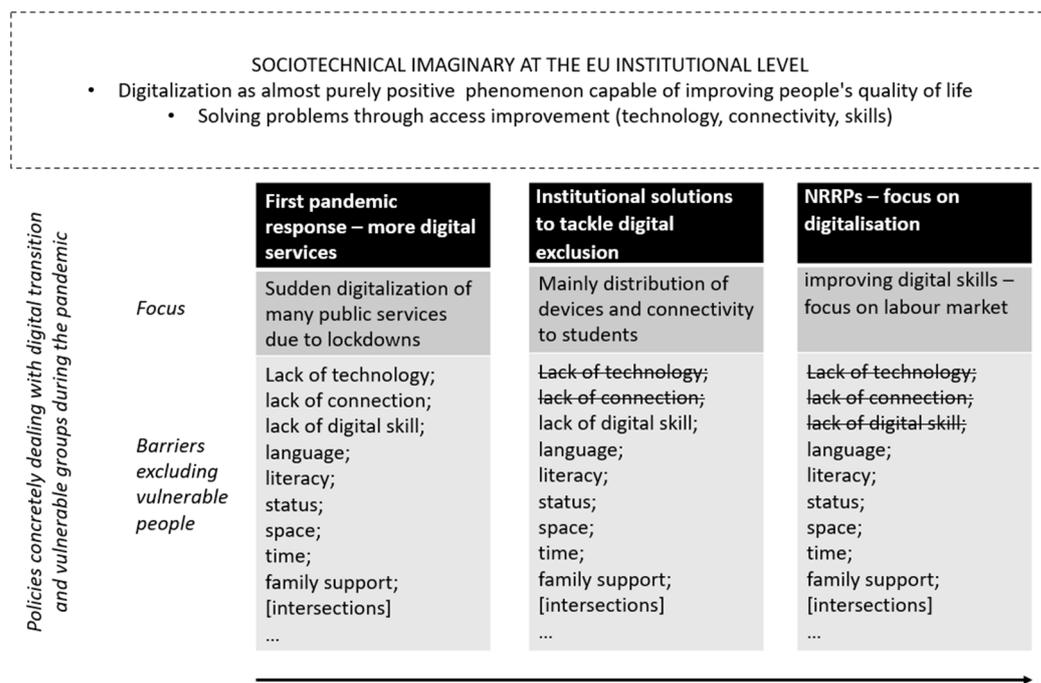


Figure 1. Pandemic digital response and barriers for vulnerable people.

5.2. Devices, Connectivity, and Skills Are Not Enough for Digital Inclusion

After clarifying what the imaginary promoted by European institutions on the topic of digital transition and inequality was, we analysed how it interacted in the everyday reality of vulnerable people when translated into national and regional policies during the pandemic (lower part of Figure 1). In particular, we observed how the sudden digitalization of public services during the pandemic contributed to the worsening, construction, or mitigation of socioeconomic inequalities.

The analysis of policies that were designed to rapidly implement digital solutions in order to offer support during the pandemic to people belonging to vulnerable groups allowed us to observe how the visions present in these sociotechnical imaginaries behave in interaction with real cases. We suggest that this rapid shift to digital solutions brought the sociotechnical imaginary of digital transition from rhetoric into practice. As is well

known to those engaged in the study of technoscientific controversies [72], it is during the interruption and breakdown of stabilized routines and processes that it becomes easier to observe the elements present in a given situation, the power dynamics, and the sociotechnical infrastructures that would otherwise remain hidden [73]. Through the creation of similar conditions in the process of digital transition, the recent pandemic has offered insight into a more complex picture regarding the digital divide.

As depicted in the first block in the lower part of Figure 1, the policies of the digital transition of public services promoted at the beginning of the pandemic resulted in the most vulnerable people being confronted with the barriers typically described in the digital divide debate (a lack of technology, connection, skills, etc.) (e.g., [43]). However, the exclusion of vulnerable groups from the digital services also occurred due to other barriers, such as a lack of knowledge of the language, family situation, a lack of suitable spaces to work, etc. As already mentioned, in many cases, there was an intersection of these barriers. For this reason, we can say that the imaginary contains a very precise idea of vulnerability that implies a discursive construction of implicated actors [67] endowed with, for instance, citizenship, a stable economic condition, a comfortable home in an urban setting, a non-violent partner, and a good knowledge of the language. In this way, those lacking these features are almost entirely forgotten, or silenced, through this process: immigrants and asylum seekers locked up in centres, foreigners without citizenship, foreigners without a good knowledge of the language, women victims of violence, the poor, residents of isolated and rural areas, residents locked in nursing homes, etc.

As the second block in the lower part of Figure 1 shows, national and regional government responded to these dynamics of exclusion primarily by distributing devices and connectivity, whereby they removed only some of the barriers for some people but still left many others excluded from public services. It is evident that the solution to these issues cannot always be more access or more literacy: Poole et al. [18] propose a “digital alongside” policy, in which digital channels are accompanied by other communication tools and strategies that are more appropriate for the digitally excluded—for instance, “engaging with community leaders, charities and social enterprises with local connections; culturally appropriate messages and communication media; and using co-production approaches” [19] (p. 3).

The NRRPs represented an opportunity for the EC and different Member States to mend the social organization that had been disrupted by the pandemic and to work on making the digital transition more inclusive. While it could be said that the initial policies designed as an immediate response to the pandemic could not count on much evidence and experience on the topic, the NRRPs have had more time to incubate. These plans placed greater emphasis on the digital transition as a tool for creating better futures, since the Member States were required to allocate one-fifth of planned investments to this area. However, our analysis highlighted how, in general, the work performed to improve the digital transition has mainly aimed at creating a new workforce to meet the demands of a market that increasingly needs digital skills (the third block in the lower part of Figure 1). As Zancajo and colleagues [42] describe, the digitization of the education system was a major theme in these documents that gathered the consensus of all EU governments. This has mainly translated into policies for providing education, training, and, in some cases, digital infrastructure. In a few cases, these measures refer to specific vulnerabilities, mainly through generic proclamations of inclusion. However, with a few exceptions, the specific needs of the implicated actors seen above are not addressed. When considering digital inclusion, policies have mainly focused on answering questions related to “how many?” and not “why” or “for whom?”, to paraphrase a recommendation by Helsper [61], without reflecting on the broader consequences of these dynamics and without an intersectional approach: each category is a silo.

We also observe that the imaginary is based on the presence of implicated actants [26], which are nonhuman artifacts (e.g., objects, laws) discursively constructed by people. In our case, the implicated actants are the digital technologies, discursively constructed as neutral

objects without any consideration of how they will interact within different processes of appropriation and within different ecologies. In particular, further reflection is needed on the interaction between these technologies and space, combining an analysis of the digital space with that of the digital-in-the-space. In the case of the digital space, for example, there needs to be more reflection on new forms of digital violence. In the latter case, instead, there needs to be a discussion of the appropriation of these technologies by asylum seekers in detention centres, the differences between the urban and rural digital contexts, and the use of ICTs in relation to the space in which one resides. As the example of Lithuania has shown, it would also be interesting to focus more attention on the intersection between digital and remote spaces as a way not only to address the digital divide but also to take care, face-to-face, of issues related to situations of vulnerability.

6. Conclusions

Through this study, we have provided empirical evidence of how current strategies for the digital transition of services at the European level, and the consequent national policies implementing these strategies, risk increasing inequalities for certain categories of vulnerable people if a more focused approach to inclusion and intersectionality is not adopted. To this end, it is necessary to reflect not only on the greater accessibility of technologies but also on how these technologies interact in specific contexts. Furthermore, it is crucial to keep in mind that technology cannot be the solution for everyone, so alternative channels for sharing information must be envisioned – for example, through collaboration with civil society. At the same time, this article has some limitations. The scope of the RESISTIRÉ project, which focused on providing a general overview of gender inequalities and other grounds in relation to pandemic policies in 30 European countries, does not allow us in this article to go deeper to observe the interaction between people, technologies, and policies within specific situations. Further research is needed to better understand the different ways in which this sociotechnical imaginary influences people's lives, to observe the strategies used by people for coping with digitalization processes and appropriating technologies, even in the light of different types of vulnerability, and to observe how technologies fit into or resist these kinds of interactions.

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Notes

¹ <https://www.gov.uk/government/publications/digital-first-public-health> (accessed on 5 October 2023).

² Recently Bellon and colleagues offer an interesting description of this process in the call for papers No. 13 'Digital administration in the light of work' of the journal RESET. <https://journals.openedition.org/reset/4119> (accessed on 5 October 2023).

³ <https://digital-strategy.ec.europa.eu/en/policies/desi> (accessed on 5 October 2023).

⁴ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52001DC0140> (accessed on 5 October 2023).

⁵ <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52002DC0263> (accessed on 5 October 2023).

⁶ <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52005DC0229> (accessed on 5 October 2023).

- 7 [https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52010DC0245R\(01\)](https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52010DC0245R(01)) (accessed on 5 October 2023).
- 8 <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52010DC2020> (accessed on 5 October 2023).
- 9 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52015DC0192> (accessed on 5 October 2023).
- 10 https://eur-lex.europa.eu/resource.html?uri=cellar:12e835e2-81af-11eb-9ac9-01aa75ed71a1.0001.02/DOC_1&format=PDF (accessed on 5 October 2023).
- 11 <https://www.europarl.europa.eu/factsheets/en/sheet/64/digital-agenda-for-europe> (accessed on 5 October 2023).
- 12 <https://www.europarl.europa.eu/factsheets/en/sheet/64/digital-agenda-for-europe> (accessed on 5 October 2023).
- 13 https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/europes-digital-decade-digital-targets-2030_en (accessed on 5 October 2023).
- 14 see Note 3 above.
- 15 In 2021, the EU member states collectively responded to the social and economic challenges stemming from the pandemic by establishing the Next Generation EU (NGEU), a financial stimulus package amounting to EUR 806.9 billion. At the core of the NGEU, the Recovery and Resilience Facility (RRF) plays a pivotal role, earmarking the majority of the funds (EU 723.8 billion) for distribution to Member States. However, access to these funds was contingent upon the formulation of a National Recovery and Resilience Plan (NRRP) by each Member State. The NRRP was required to delineate a set of reforms and investments to be executed by individual states by the year 2026. https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_en (accessed on 25 September 2023).
- 16 (RDL 11/2020 and Resolution 30 April 2020).
- 17 Decreto legge n. 34/2020 (articolo 82).
- 18 Decreto legge 17 marzo 2020 no. 18 “Cura Italia”—Art. 25.
- 19 <https://persruimte.stad.gent/187344-147-kwetsbare-leerlingen-gebruiken-thuis-straks-laptop-van-de-stad> (last consultation 26 July 2023).
- 20 Governmental Decision 370/2020 and Order of the Minister of Education 4738/2020/.
- 21 Resolution of the Chamber of Deputies of the Parliament of the Czech Republic on the Government Bill amending Act No. 355/2019 Coll., on the State Budget of the Czech Republic for 2020, as amended/Chamber of Deputies Press 889/No. 1209.
- 22 Lietuvos Respublikos Švietimo, Mokslo Ir Sporto Ministerija 2020-08-19 Nr. (1.1.11 E-02) SD-4332 Nr. SR-3842.
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