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Machinery of dissent: Exploring the techno-social practices of modern protests

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Abstract: Protest mobilisation and coordination require competences that extend beyond political leadership and communication. Technology, which has become a daily part of humanity, pushes protest leaders to obtain skills in navigating social media to achieve effective communication and leadership. Labour practices behind protest mobilisation are gradually complexifying and require a broadening of our understanding of human actions behind the implementation of technological solutions in the context of political protests. Focusing on the example of the Belarusian protests of 2020, this article examines the human and non-human labour behind the production of protest mobilisation content, protest coordination, and protest reporting. Based on semi-structured interviews with 18 respondents, the paper is the first to examine the practices and routines of Telegram channel editors and moderators, activists, politicians, and marketing specialists. The analysis contributes to our understanding of protest-related labour, which is often unseen and divided between humans and technology, and its consequences for the protest movement.

Introduction

On 25 August, the owner of the Telegram messaging platform, Pavel Durov, was arrested by the French authorities on accusations of lack of moderation on the platform that provides for an uncontrolled criminal usage of the platform across the world (Mackintosh & Vernon, 2024). Although Telegram has faced criticism regarding its security standards over the last years (Doffman, 2024), the platform's affordances and structure appealed to many dissidents in autocracies (Rogers, 2020; Akbari & Gabdulhakov, 2019). While the platform does not provide an automatic end-to-end encryption, for several years it was the only messenger with a function of deleting previous messages on the receiver's and sender's sides. Additionally, Telegram allows for creation of clients and bots for the Telegram channels, that are friendly to users without developers' competences (von Arx & Paterson, 2023). For many, a combination of features of social media and a messaging platform made Telegram's interface user-friendly (Rogers, 2020). Finally, in 2018 Pavel Durov publicly stated that the platform will not comply with the demand of the Russian government to share the data and content of the encrypted messages of Telegram users: "Privacy is not for sale, and human rights should not be compromised out of fear or greed", wrote Durov on his Telegram channel on 13 April (Durov, 2018).

The Belarusian protests in 2020 provide one recent example of an event when these affordances of Telegram and the stance of the platform's owner impacted the unfolding of the protest episode. In the aftermath of the rigged presidential election in August 2020, political opposition and civil society mobilised Belarusians in a series of large-scale protest manifestations (Kazharski, 2021). A peculiarity of the protests was both their unprecedented scale (Onuch & Sasse, 2023) and the strong role of the Telegram messaging app. During the Belarusian electoral campaign of 2020, for the first time, Telegram took on the functions of mediation, mobilisation, serving as a political movement's maintenance platform (Wijermars & Lokot, 2022). However, while Telegram is often prescribed a key role in the Belarusian protests' mobilisation, protest-related tasks of oppositional politicians, activists, and owners of large Telegram channels often remained unseen.

This study views protest organisation as labour, which implies the performance of tasks related to mobilisation, obtaining, and sharing information, the coordination of protest-related actions. Labour as a set of tasks constituting work (van der Zande et al., 2019) is often divided between humans and nonhumans by means of delegation of some of the tasks to technology (Johnson, 1988). Adopting the lens of science and technology studies (STS), in particular, the concepts of *labour* and

delegation, this article follows traces of the protest organisers of post-electoral protests in Belarus in 2020. The analysis first discusses protest-related labour performed by protest leaders and practices of delegation of protest-related tasks to technology. It secondly presents a reflection on the opportunities and consequences of high reliance on technological solutions that emerge as humans and technology assemble within the socio-technical network for political protest.

Two research questions guide the article:

1. What type of labour was associated with protest organisation at times when technology became a mediating component of the protest network in Belarus in 2020, and what fuelled decisions of protest leaders to delegate protest-related tasks to technology?
2. What consequences emerge as a result of the delegation of protest-related tasks to technology?

Analysis of other actors of the network, such as ordinary Belarusians participating in protests, or the Belarusian authorities, – deterring and repressing protest movements – has already been published by several scholars (Mateo, 2022; Chulitskaya & Matonyte, 2024; Greene, 2022; Onuch & Sasse, 2023; Rudnik, 2024). This paper is the first study on Belarus to analyse practices of integration of technology into the labour of protest coordinators, based on analysis of in-depth interviews with key actors involved in protest organisation. By exploring protest-related labour and the division of protest-related tasks between humans and technology during the electoral campaign that merged with post-electoral protest in Belarus, this article seeks to contribute to a more nuanced understanding of how human-technology interactions play out during protests in autocratic states. The study identifies and critically examines automation of protest labour and organisation, contributing to scholarship on human-technology relation in social movements. The article first discusses an STS approach to understanding the labour and delegation that emerge as humans and technology co-construct relationships within a protest network. Secondly, I present the article's methodological approach to re-assembling the protest network and following the traces of its actants. Thirdly, I discuss the results of 18 interviews with Belarusian protest organisers, alluding to the concepts of labour and delegation. Finally, I conclude with a discussion of consequences of protest-related labour's delegation to technology.

Networks, labour, and delegation

> Knowledge, morality, craft, force, sociability are not properties of humans but of humans *accompanied* by their retinue of delegated characters. Since each of those delegates ties together part of our social world, it means that studying social relations without the nonhumans is impossible. (Johnson, 1988, p. 310)

STS is among the fields with a strong interest in examining what is at stake when humans interact with technology on a daily basis and the effects that their mutual existence produces for social and political life (van Dijck et al., 2018). A shared view among STS scholars suggests that humans and nonhumans interact within various networks assembled under particular circumstances and that both humans and non-humans possess agency, an ability to promote change in another entity or a network in general (Sayes, 2014).

Studying social relations implies paying close attention to humans and nonhumans interacting within networks. Networks are understood as chains of relations that emerge as a result of actors' performances, or actors exercising their agency (Gershon, 2010), and "an actor is always also a network" (Kirsch & Mitchell, 2004, p. 688). In that sense, networks are not stable chains of actors and relations. Rather, it is repeated performances, patterned actions, that grant stability to a network (Gershon, 2010). While, within a network, multiple roles are taken by actors, consciously or unconsciously, most of a network's nodes become mediators – entities that contribute to potential changes in other actors' behaviour or processes within networks (Gershon, 2010). Examining what appears to be an actor requires paying attention to whether an object or a person "makes a perceptible difference" (Law & Mol, 2008, p. 58). Adhering to this logic, the protest network examined in this study is understood as an unstable situational or contextual chain in which the actors engaged in protest organisation are seen as having a perceptible impact due to their contribution to the network.

Two of the concepts that inform this paper and are closely related to the performances of actors within networks are *labour* and *delegation*. Labour as a concept appears throughout various disciplines, from economics to political theory and STS (Acemoglu & Restrepo, 2019; Crawford, 2021; Latour & Woolgar, 1979). Although the interest in labour and work encompasses various aspects, a common foundation for understanding labour is that it refers to "tasks that constitute jobs", a set of functions, duties, and tasks that require the possession of certain skills and, usually, a workspace, where labour is performed (van der Zande et al., 2019, p. 47).

Labour manifests as either manual or cognitive and consists of both routine and non-routine tasks, depending on the workplace (van der Zande et al., 2019, p. 54). Van der Zande et al. analysed the potential of "labour substitution" by technology and argued that, although technologies have the potential for substitution in various types of tasks, they remain limited in providing labour related to "creativity, problem-solving and complex communication" (2019, p. 66).

Kirsch and Mitchell (2004) point out that, with industrialisation and the development of technology, "machines both compete and co-operate with workers, deskilling and cheapening much social labour but at the same time maximizing the efficacy of other forms of labour" (p. 697). Crawford addresses labour and its division between human and nonhuman actors, examining the daily work of an Amazon fulfilment centre. In a context where labour is shared between humans and machines while transporting and unpacking goods, humans are not always the most "valuable or trusted components of Amazon's machine" (Crawford, 2021, p. 55). During times of labour automation, humans often perform roles that give the impression of machines doing all the work. Additionally, human workers have to constantly adapt to how the machinery works, learn new duties, and expand their knowledge. As a result, much labour remains unseen, "downplayed and glossed over" (Crawford, 2021, p. 66). In view of a common understanding of labour and following STS' interest in the division of labour between humans and technology, this paper treats labour as a set of tasks related to the protests in Belarus during the summer of 2020.

Following the traces of networks, actors, and human-material relationships within these networks, scholars such as Mol (1999), Crawford (2021) and Winner (1980) have turned to anthropological methods of observation and the rigorous examination of workspaces, material infrastructures, labour, skills, knowledge, datafication, and automation. What Crawford refers to as labour automation, some other scholars define as delegation. For Latour, *delegation* implies replacing a human-driven process with a non-human or material solution that minimises the effort, work, or labour involved (Johnson, 1988).[1] Latour introduced the concept of delegation in the work "The Sociology of a Door-Closer" (Johnson, 1988). Passing from one room to another requires a human to go through a wall that separates one space from another. Since blowing a hole in the wall every time that a human needs to pass to another room seems impractical, ineffective, and definitely requires a lot of physical effort, humans created the door (Johnson, 1988). For smooth closure and opening, a door has hinges. Latour suggests that the amount of effort and work re-

1. Bruno Latour wrote "The Sociology of a Door-Closer" under the pseudonym of Jim Johnson.

quired to pass through the wall without a door with the minimal effort it takes to traverse the wall by pushing a door handle and opening a door. The door as a construction, with hinges and a handle, represents a *delegation* of labour that a human performs to minimise the effort of passing from one room to another. The hinges also allow the door to close when people forget to do so and, in this way, receives the function of delegation from a doorman, who would otherwise be needed to close the door every time passers-by forget to do so. The cost of installing the hinges appears to be much lower than paying the doorman for this disciplined work (Johnson, 1988). However, no matter how effective the construction of a door-closer is, there will always be humans whose efforts to open the door are insufficient: for example, the elderly or children. This is when the function of a doorholder becomes delegated to the carpet, or a chair holding the door open (Johnson, 1988). The door now possesses competences that it has received from a human, but in turn it disciplines and authorises particular behaviour in a human: gently opening some doors or pulling harder to open others. In Latour's understanding, the conversion of a significant effort to a minimal one represents a case of delegation. To trace examples of delegation to nonhumans, Latour suggests: "Every time you want to know what a nonhuman does, simply imagine what other humans or other nonhumans would have to do were this character not present" (Johnson, 1988, p. 299).

The concepts of *labour* and *delegation* open the way for tracing practices of competence transfer from human actors to digital platforms and material artefacts in mobilising, coordinating, and manifesting the Belarusian protests. The ambition to study a social movement and protests by applying the lens of STS is not novel; however, it still appears to be rather underexplored terrain (Breyman et al., 2016). Breyman et al. encourage integrating social movements into the loop of STS, which in turn enables a more nuanced understanding of contemporary movements (2016). STS scholars have shown interest in conceptualising interactions between humans and technology by exploring the agency of human and nonhuman actors (Breuer et al., 2015), examining the mediating role and actorness of platforms as they become an element of sociotechnical networks (Wijermars & Lokot, 2022; van Dijck, 2013). Applying the logic of obtaining knowledge through an empirical investigation of the labour involved in a protest network by following the traces of both the human and nonhuman actants that performed the labour (Law, 2010), this article seeks to broaden our understanding of humans and technology during times of protest, as well as exploring salient and unnoticed practices that render such protest mobilisation and organisation (Sayes, 2014). This approach is not only important in relation to a deeper understanding of the Belarusian uprising of

2020, but it is also a contribution to a deeper exploration of human-technology relations in autocracies, the integration of technology into protest movements, as well as the problematisation of automation of labour and practices associated with social movements.

Methodology

In this article, I aim to trace the labour practices that were associated with protest organisation, as technology became a mediating component of the protest network in Belarus in 2020; and to understand how the consequences of delegation of protest-related tasks to technology can be conceived. Inspired by the methodological tradition of STS described above, I first determined the actors involved in the organisation of protest-related activities by following traces of protest events, social media footprints, and people (Law, 2010). To do so, I drew upon public sources, such as analytical reports and independent media, and information provided during the interviews.

After mapping out the network and identifying potentially available respondents, I conducted semi-structured interviews with 18 participants who were related to the organisation, mobilisation, and maintenance of the protest movement in Belarus. Following the aim of exploring protest-related labour practices, I turned to the opposition politicians and their teams, representatives of the electoral and civic initiatives *Holas* and *Honest People*, moderators and administrators of Telegram channels that were popular at the time. Eighteen respondents were interviewed for this study in October 2022 and January 2023. The interviews were semi-structured, asking the respondents to reflect upon their tasks, routines, and work tasks during the summer of 2020 related to the active phase of the Belarusian political protests in August 2020 and the preceding electoral campaign in June – July 2020. In addition, the respondents were asked to reflect upon the unfolding of the political campaign, protest coordination and maintenance, security, and safety measures and risks. Most interviews were held offline in Vilnius and Warsaw, where most respondents resided at the time, apart from four respondents who preferred to talk online. Interviews lasted between 55 and 117 minutes and were held in the Belarusian and Russian languages, in which the author is fluent. The interviews were transcribed in the original language and the quotes provided below were translated by the author. As the interviews concerned the sensitive topic of political engagement and as most respondents had been targeted by the Belarusian authorities for pursuing their political engagement, the analysis excludes any identifying characteristics. Additionally, the study was approved by the Swedish Ethics Author-

ity.

Following the understanding of labour and delegation discussed in the previous section, I analysed the interview materials by tracing all the conveyed and salient protest-related tasks, analytically scrutinising them under several themes, and reflecting on the delegation of functions to technology mentioned by the respondents. Hence, working with the interview materials, I drew upon both participants' reflections of the work tasks and my own interpretation of salient labour practices performed by the respondents.

Following the actors: socio-technical network of the Belarusian protests

Belarus is a consolidated autocracy governed by one of the longest ruling autocrats, Aliaksandr Lukashenka (Bosse, 2021). Since 1994, after Lukashenka won the only free and fair election in the country (Bennett, 2011), within the next five years, the country saw a drastic decline in freedom of speech, an increased pressure on independent media, human rights organisations and oppositional elites, as well as increasing ties with Russia followed by Russification of education and state institutions (Rovdo, 2009; Rudnik, 2024). The opposition, represented by the leaders of the Belarusian national movement, made multiple attempts to contest Lukashenka's political decisions, such as during the 1995 referendum on granting the Russian language the status of the official language, and the 1996 referendum that significantly broadened the president's powers. By the same time, independent newspapers and radio stations were shut down or had to adapt to the harsh system of state censorship. In 1999-2000s four Belarusians, journalist Zmicer Zavadski, former minister for internal affairs Yury Zakharchanka, oppositional politician Viktar Hanchar, and businessman and oppositional politician Anatol Krasouski, disappeared, for which many public figures blamed Lukashenka. By the time of the Rose and Orange revolution, the Belarusian opposition was marginalised due to limited access to state media, a lack of institutional representation, and a rather narrow political agenda (Rouda, 2009).

Consolidated around several leaders, the opposition took a chance to mobilise citizens for the electoral campaign in 2006. Post-electoral protests, that united about 20,000 in central Minsk, resulted in a brutal crackdown: at least 500 Belarusians were detained, along with the two oppositional candidates, while the election was not recognised as free and fair by the international community (de Vogel, 2022). In the 2010 election, the opposition movement was unable to agree on a joint candidate, which resulted in nine alternative candidates on the voting ballot. Just as in

2006, the protests of 2010 were triggered by the lack of public trust in Lukashenka's victory in the election. This time, over a thousand Belarusians, including seven presidential candidates, were arrested (de Vogel, 2022). Trapped in a deteriorating political image, the Belarusian regime, that still attempted to balance its external politics between the democratic world and Russia, chose a new strategy of soft liberalisation. The authorities released political prisoners, relieved pressure on NGOs and independent media, engaged in promotion of the Belarusian language and culture, going that far as in 2018 issuing permission to celebrate the Independence Day traditionally celebrated by the Belarusian opposition on 25 March. Although the social contract between the state and society limited possibilities of openly engaging in politics, in 2015, the first female oppositional candidate ran for office. After the announcement of Lukashenka's victory, this time the opposition distanced themselves from any protest mobilisation. The impression of liberalisation allowed the regime to improve its international image. Additionally, a society, hungry for freedom, attracted foreign investments into the country, promoted Belarusian culture and art, developed its music and film industries, as well as civil society initiatives (Rudnik, in press).

Additionally, the use of technology in the country was rapidly growing. By 2018, almost 80% of the population had access to the internet (DataReportal, 2018). In 2017, social media were utilised for fostering mobilisation for the first time. Besides, these were the first non-electoral protests, where the opposition leaders did not have a central role (Navumau, 2019). Small-scale protest against the so-called anti-parasite tax revealed that social media represented a rather effective platform for mobilisation and coordination (Navumau, 2019). At the same time, the conditions for independent media, human rights activists, and opposition politicians remained similar to the pre-liberalisation period: reporting was censored, opposition had no representation in the state institutions, activists were detained, fined, and surveilled (Freedom House, 2020). However, for the citizens disengaged from politics, these forms of state oppression were rather unseen.

When in 2020, the electoral year, the COVID-19 pandemic hit the whole world, the Belarusian state mismanaged the pandemic by denying its existence and leaving the healthcare system without necessary resources; it laid a path to growing grievances within the society (Bedford, 2021). In February, the oppositional parties, active in the 2006 and 2010 electoral campaigns, announced their rally across the country. The meetings with these oppositional candidates attracted few people in every town, and with the spread of COVID-19, the oppositional candidates announced the end of the campaign rally. At the same time, many Belarusians mo-

bilised to volunteer in a campaign ByCovid, mediated by a group of activists. The initiative purchased and distributed medical supplies to hospitals under-financed by the state, relying on a broad network of volunteers, growing on social networking platforms. Although the campaign had little to do with political participation, it revealed the solidarity of the society.

The electoral campaign of 2020 started with an announcement of an intention to run for a presidency by three unexpected candidates – blogger Siarhei Tsikhanouski, businessman Viktar Babaryka, and former diplomat and founder of Belarus High Technologies Park Valery Tsapkala (Bedford, 2021). None of the candidates represented an existing oppositional movement or belonged to any oppositional party. The campaign offices of the three candidates have immediately integrated the social media into their candidates' support, who first needed to collect 100,000 signatures. The next month, Siarhei Tsikhanouski was detained and his wife, Sviatlana Tsikhanouskaya, took over his ambition and continued to collect signatures to run as a candidate herself (Way & Tolvin, 2023). Viktar Babaryka was detained on 18 June, and Valery Tsapkala left the country even before the official registration of the candidates. After receiving registration from the Central electoral committee, Sviatlana Tsikhanouskaya was supported both by the offices of Tsapkala and Babaryka as a single candidate for a presidential post (Way & Tolvin, 2023).

On the eve of her registration, a number of electoral initiatives emerged that shaped the future campaign. Firstly, the newly founded initiative *Honest People* announced that it will prepare and educate Belarusians who want to join the election as voting clerks or election observers. Secondly, the initiative *Zubr* set up an infrastructure for collecting and registering electoral violations. Thirdly, on 22 June, one of the top-IT managers of the company EPAM wrote a post on Facebook that led to a formation of the third initiative, *Holas*. The post was appealing to the Belarusian IT community to support the author's idea of organising "a digital check" of the votes at the upcoming presidential election of 9 August:

> A post for Belarusian friends with a proposal on how to try to make a digital recheck of votes in elections in order to reduce the human factor during recounting. The engineer in me believes that if the majority of the country's residents have a smartphone, then this crowd of people can be turned into one big digital polling station.

All the three initiatives (*Honest People, Zubr, Holas*) agreed to collaborate, distancing themselves from the support of the oppositional candidates and proclaiming

their ambition to monitor the election. The initiatives managed to mobilise dozens of thousands of volunteers across the country, disseminating invitations to join them via social media. It was intensely reported on by the independent media (Greene, 2022), along with the coverage of Tsikhanouskaya's campaign rally across Belarus. Offices of Tsapkala and Babaryka supported Tsikhanouskaya and also heavily relied on internet communications. Babaryka Headquarters produced daily streams on YouTube channels, Tsikhanouskaya rally, where she was accompanied by Tsapkala's wife Veranika Tsapkala and Babaryka's supporter Maryia Kalesnikava, was live-streamed, and broadcasted through Instagram stories and posts.

In parallel, the rumours across the country on the potential internet shutdown on election day, continued to grow. They were disseminated after the Belarusian government tested a two-hour internet shutdown across the country on 19 June (Netobservatory, 2020). Independent media, Telegram channels and public figures encouraged Belarusians to install VPN and a Telegram account to get quick access to main news. Two weeks before the election, every fifth Belarusian was estimated to use VPN (Netobservatory, 2020). Useful information on the upcoming shutdowns and ways to overcome them, along with increasing reporting on political campaigns and the upcoming election, brought hundreds of thousands of users to such Telegram channels as *Nexta, Nexta Live, Belarus Golovnogo Mozga, Maja Kraina Belarus*. To illustrate, three weeks before the election, the audience of the largest protest mobilisation Telegram channel *Nexta Live* grew from 300,000 to 1.5 million subscribers (Bykov et al., 2021). During the same period, identical channels with the name of the city and number 97 (e.g. Minsk97, Hrodna97)[2] appeared across the country. Within these and other chats that Belarusians opened based on their geographical, family, and professional ties, people discussed upcoming elections and their engagement, along with routine topics (Rudnik, in press).

Hence, by the day of the election, a significant part of Belarusian voters, including the older population, were educated in using VPN, prepared to register their vote with the alternative voting platform *Holas*, knew where to find important updates about ongoing political situations and where to report electoral violations. The engagement of Belarusians with technologies appeared tightly framed by the political event. The political agenda gradually increased in the Telegram channels with the upcoming election day. This in turn impacted the awareness of Belarusians about political repression, the regime's tactics and strategies of reacting to protests. On 8 August, the Telegram channel *Nexta* posted instructions on how to

2. The number 97 became one of the protestor's signposts that symbolised the belief that Lukashenka only enjoys 3% support, while 97% are against him.

act in case of detention or prepare for protests. While Telegram channels covered the scenario of potential upcoming protests, oppositional politicians deliberately distanced themselves from the protest agenda[3] It was another significant distinction of this protest episode. While the opposition leaders in 2006 and 2010 were preparing a strategy of mobilisation for post-electoral protests but had less luck in organising electoral campaigns, the opposition of 2020 demonstrated a high level of preparation and successful implementation of electoral activities and strategies but weak engagement into mobilisation of post-electoral protests.

Observing active reliance on technology by the opposition and electoral initiatives, as well as a growing usage of Telegram and VPN, the Belarusian regime responded by activating the deep package inspection technology, provided by Sandvine, to shut down internet across the country for at least three days until early on 12 August (Rudnik, 2024). This decision left Belarusians without regular access to the Internet but, at the same time, encouraged them to rely on Telegram, which surpassed the shutdown more favourably as compared to other platforms. Telegram was the main platform that provided both reporting from independent media, possibility to connect to local chats and friends, as well as information on manifestations' locations and timing (Mateo, 2022; Rudnik, 2022).

On 9 August, millions of Belarusians went to the polling stations; many wore the white armbands that were proposed as an attribute to express vote for Tsikhanouskaya; other supporters pleated their ballots that were visible in transparent ballot boxes. Following the call of the electoral initiatives, politicians and Telegram channels, Belarusians gathered by the polling stations at 8pm and anticipated to see the voting protocols in their respective polling stations. While some of the electoral commissions announced the victory of Tsikhanouskaya, most of the polling stations hesitated to report on results or reported Lukashenka's victory. Along with numerous electoral violations reported on the election day, the chances for official recognition of Tsikhanouskaya victory faded away (Bedford, 2021).

Telegram channels, that by then were available mostly through VPN, appeared as the only source of information. They started to call people to join the demonstrations from the evening of 9 August and for the next few weeks. Multiple local actors, activists previously involved in the organisation of the electoral campaigning, joined the demonstrations. Primarily mediated by Telegram channels, the manifes-

3. A position expressed by one of the respondents from the campaign office of one of the oppositional politicians.

tations gathered up to 10% of the country's adult population (Onuch & Sasse, 2023). De Vogel points that the turnout at one of the August rallies was 3.5 higher than a combined protestors turnout in the period of 2011-2019 (2022). Within the next months, the Belarusian regime tightened the traditional repression, but also intensified digital repression in forms of surveillance, information channelling, and censorship (Rudnik, 2024). The protest faded away under state pressure that targeted all main oppositional leaders, pushing them into exile or jail; authorities arrested several journalists, thousands of Belarusians, suppressed businesses and factory workers, who joined the strikes, and applied severe police violence (Way & Tolvin, 2023).

Hence, the socio-technical network of the Belarusian protest was assembled in the conditions of state failure to address the COVID-19 pandemic (Bedford, 2021), decreasing trust in state institutions and increasing social trust (Douglas, 2024), intense digitalisation of society. As the section above demonstrates, the socio-technical network of the Belarusian protests also involved actors (protest participants, NGOs, administrators of local Telegram channels, businesspeople, factory workers, the electoral commissions, the state officials, the law enforcement services) that fall beyond the scope of this study and should be further studied.

While the socio-technical network of the Belarusian protests includes numerous actors, the sample of respondents consulted in this study covers political leaders, activists, journalists and Telegram channel editors, whose principal occupation during the electoral campaign and protests during the summer of 2020 was related to political mobilisation, protest coordination, or reporting. In particular, I turned to the teams of the opposition politicians who had engaged in the electoral campaign of political leaders, such as Siarhei and Sviatlana Tsikhanouskaya, Viktar Babaryka, Valery and Veranika Tsapkala, Maryia Kalesnikava (Bedford, 2021; Way, 2020). Secondly, I interviewed editors of popular mobilisation Telegram channels, such as *Nexta, Nexta Live, Belarus Golovnogo Mozga* and *Maja Kraina Belarus*, led by political bloggers, former journalists and activists, that had emerged several years before the Belarusian protests[4], previously served as media, and acquired an additional function of informing people about possible internet shutdowns and ways to overcome them and publishing information about the upcoming protest manifestations (Mateo, 2022; Rudnik, 2024). The third group of actors in the focus of this study is represented by civic initiatives such as *Holas, Honest People* and *Zubr*.

4. Data from TGStat indicates the registration date of the leading Telegram channels: NEXTA – 19.04.2018; NEXTA Live – 14.02.2019; Belarus Golovnogo Mozga – 15.05.2016; Maja Kraina Belarus – 20.11.2017

These initiatives coordinated the work of tens of thousands of volunteers and electoral observers across the country and proposed digital instruments, such as alternative electronic voting, reporting on electoral violations, and the registration of results reported by the electoral commissions on the polling stations (Honest People.by; Belarus2020.org; Zubr.in). I view these groups as actors, in accordance with the understanding of actors as elements of networks that contribute to perceptible change or enable and promote particular developments, in this case within the protest network (Gershon, 2010).

Protest as "a working case, where society is a customer"

Organisation of protest-related labour

Previous research often relates labour to the workspace that provides an infrastructure for executing work (Latour & Woolgar, 1979; Crawford, 2021). For the respondents in this study, a workplace, where a preparation for the electoral campaign and protests organisation were held, appears somewhat different. Life during the campaigning period was organised similarly to that in any democratic country – office premises, work shifts, clear responsibilities – while others spent their time behind computers at their homes communicating with their colleagues exclusively online. For example, the office of the political candidate Viktar Babaryka became the main venue where politicians gathered, along with leading and management staff of *Honest People*. In contrast, Telegram channels' editors and thousands of volunteers for the initiatives *Holas* and *Honest People* worked away from offices and maintained their working communication via messaging platforms. Other organisations, such as the initiative for documenting electoral violations, *Zubr*, had relocated their teams abroad for security reasons. Some of the Telegram editors also resided abroad during the protests. For example, *Nexta*'s office was located in Warsaw and some editors of other popular protest maintenance Telegram channels resided in either Poland or Lithuania. In contrast to a traditional workplace, protest-related tasks executed remotely from home often required working during night hours, unregulated working time and a high degree of responsibility for the coordination of people protesting on the streets.

Respondents explained a work overload during the peak period of the electoral campaign and the start of protests in July – August 2020 by a lack of human resources and high security stakes related to organising opposition activism in this authoritarian state.

> For executing such a load of tasks, ideally, we had to have a media holding with 100 employees. However, due to high security stakes, we were only about 10 people. Some of us managed multiple channels at once. This was also due to the fact that Ihar Losik, who administered Belarus Golovnogo Mozga [one of the largest Telegram channels – author] was imprisoned and we had to take over so that the work of the channels didn't stop. (Editor of four Telegram channels in 2020)

Many Belarusians who joined the electoral campaigns had a background in marketing or IT. *Honest People*'s leader explained that the idea to create the initiative emerged within the network of marketing specialists who believed that they can create, maintain, and popularise a country-wide election monitoring. Similarly, as indicated above in the quote of *Holas*' leader, the idea of *Holas* emerged within the Belarusian IT community. The majority of the electoral initiatives' core team and thousands of volunteers worked for free, driven by the idea of a short and successful campaign. The representatives of *Holas* highlighted that, besides working for the initiative for free, the initiative's leaders invested personal money in creating the alternative voting infrastructure. For the politicians, private business investments became another way to fund their activities, although most of these businesses preferred to remain anonymous due to security risks. Telegram channels' editors mostly relied on advertisements and some seed funding from businesses and mostly worked overtime, even when the work was paid.

Leadership and high engagement of IT and marketing professionals within a protest network explains that at least half of the respondents described the campaign and protest organisation activism as a "working case", relating to their duties as a service they provided to their customer, the Belarusian society. Thus, the respondents saw themselves as fulfilling their work duties, specified functions and tasks. The electoral initiatives structured their work by creating departments responsible for communication, volunteering, the collection of signatures for candidates, the organisation of electoral rallies, and consultations with security experts.

> We saw the campaign and forthcoming protests as our working case, where society is a customer. Our media market doesn't have so many professionals, and therefore almost every talented person was engaged in some of the initiatives. We had a core team of three to five creators, who wrote texts, a couple of people who designed. Our work was organised into departments, with approximately 10 people managing it at top level. The full team was about 40

> people, 100 more coordinators across the country. At first, we engaged thousands of volunteers and later 10,000 were registered as election observers. We expanded and scaled our initiative with thousands of volunteers across the country who were in permanent contact with their managers and administered registration, education and feedback from the observers. (Representative of Honest People initiative)

The tasks executed by activists, oppositional politicians, and editors of Telegram channels on any given day varied in size and type, were often spontaneous and required skilful team members who could simultaneously perform several functions: from participating in a discussion on political strategy to making verification calls to members of the initiative groups: "Some of our days were chaotic as I would come to the office and take part in planning which political messages should be communicated by our politicians, organising the structure of our volunteering network and in the evening verifying initiative group members by phone" (Representative of the Babaryka team). This description echoes an STS-understanding of how most of the socio-technical networks are organised: with chaotical and unstable relations and role of network's members (Gershon, 2010).

In an attempt to reassemble protest-related labour practices among the respondents, I asked them to describe their daily routine by providing details of the tasks and functions they undertook and their responsibilities. Below, I analyse protest-related tasks that illustrate a variety of cognitive, creative, communicative, and organisational routines and ad-hoc duties performed by the respondents in relation to the protests in Belarus during the summer of 2020.

Protest-related tasks of protest leaders

The maintenance of protests and the organisation of the Belarusian opposition campaign involved numerous tasks that required leadership, marketing, and communication skills as well as political and strategic planning. In particular, relying on the interview materials, I identified the following tasks: facilitation of protest-related communication; development of strategies and tactics of mobilisation and coordination; framing of protest messages and demands; developing and managing networks of volunteers; organising digital infrastructure of alternative electoral participation.

While *facilitating protest-related communication*, Telegram editors and moderators were also collecting feedback messages from Belarusians on the streets. These

messages were anonymously sent to the feedback chatbots, a function available on Telegram. The moderators then verified the information and decided whether to share the updates received to the channels. In this way, a "substitution of labour" of collecting live-updates in one window, allowed Telegram editors and moderators to collect thousands of messages and facilitate protest-related communication via their channels (van der Zande et al., 2019).

> I can hardly remember how many messages we were getting on the Telegram chatbot. But I think it was thousands per 10 minutes. On 9-11 August, we had no verification at all, we were basically sharing everything we received, every 15 seconds we were getting new messages, so it looked like subtitles to a movie. (Editor of one of the Telegram channels in 2020)

What the respondent above calls "subtitles to a movie" resonated with how other interviewed editors and moderators of Telegram channels viewed their work during the most active phase of protests, in August 2020. In a way, the metaphor signifies the precision of the work executed by the editors. Just as subtitles should match the actual words spoken in a movie, the reporting by Telegram channels needed to match the events on the streets of Belarusian cities, covering as many events as possible. While for ordinary Belarusians the experience of using feedback chatbots was perceived as having a relationship with technology (Rudnik, in press), the labour that remained unseen included hours of work to verify information via additional sources, report on ongoing events, as well as based on the analysis of developments on the streets, to propose tactics of protest.

The *development of strategies and tactics for protest mobilisation*, coordination, and communication was another form of protest-related cognitive task that united multiple groups of activists. Four respondents described the process of performing strategic planning related to protests as follows. Politicians, independent media representatives, Telegram channel editors, and political bloggers created a closed Telegram chat for strategic communication related to democratic resistance during the summer of 2020. Between 10 and 20 opinion leaders were constantly discussing what should be communicated to the public, which protest locations should be chosen, or what the topic of a particular manifestation would be. The discussions in this chat, combined with online calls, led to joint strategies regarding protest organisation and communication. For example, one of the Telegram channels' editors explained that in the chat the members discussed: "which channels would publish information about the upcoming manifestation. In most cases it was *Nexta*, which then had most subscriptions, and other channels immediately

reposted this information." Some editors claimed that they felt the responsibility for protestors was in their hands and therefore cooperated with other editors and social media celebrities in order to secure the safest and most rational demonstration route, or an idea for creatively framing the marches' messages and slogans. The reflections of the respondents about how exactly their work was organised hint at the sporadic character of protest maintenance labour: "Sometimes on Friday we had no idea where to lead the manifestation on Sunday and what theme should be proposed for a protest" (Editor of one of the Telegram channels).

Respondents also highlighted that the *framing of protest-related messages* and ideas and developing mobilisation strategies, which were often referred to as bottom-up ideas, were mostly generated by politicians, Telegram editors and activists. For example, the initial plan to gather by the polling stations on 9 August at 8pm was generated among the narrow circle of politicians, as highlighted by one of the interviewed oppositional politicians:

> Many ideas that we think were self-organised, they came from us. For example, the idea to gather by the polling stations at 20.00 came from us. We discussed it among ourselves and sent a request to Telegram channels to distribute this idea.

This example somewhat contradicts a common belief about the purely horizontal character of protest mobilisation and coordination in Belarus. In addition, the example highlights the tasks of strategic planning and creative communication performed by the respondents (van der Zande et al., 2019). Respondents recalled the formulation of protest messages, such as creating short slogans and concepts, as their recurring task. Gershon points out that the patterned and recurring activities and performances impact the stabilisation of a network and decrease its chaotic state (2010).

Creative cognitive labour (van der Zande et al., 2019) required a specific set of professional skills, as the following story about the organisers of the women's marches illustrates. Two experienced marketing specialists decided to organise a women's demonstration that would publicly respond to the violence employed by the police against the protestors on 9-11 August 2020. They agreed upon "the most stereotypical image of anti-violence: females in white dresses with flowers" (one of the organisers of the women's marches), believing that the police in a patriarchal society would not detain female protestors. Knowledge of marketing strategies, the framing of messages, the functioning of social media algorithms,

and the perceptions of society helped them to match their protest proposal with the demands of society, gauged by the leaders via personal experience of protest participation offline and analysis of narratives on the social media. The organisers decided to openly write a call to join these women's manifestations on Twitter; the message read: "All who want to join in the organising of women's manifestations, join this Telegram group" (One of the organisers of the women's marches). Within days, this Telegram group had gathered thousands of participants. Women in this chat discussed the ideas and self-organised the manifestations without any moderation by the initial organisers.

> We had a closed group but after 12 August women started to share this link to different chats and on Twitter and in just one day there were around 10,000 women. We were in shock, but we realised that we'd hit the vibe of the people. Thousands of women started to generate ideas. (One of the organisers of the women's marches)

Beyond development of the strategies for protests and framing of protest messages, electoral initiatives *Holas, Zubr* and *Honest people*, offices of the opposition politicians and Telegram channels were responsible for *developing and managing networks of volunteers, assistants, protesters*. As the respondents from the electoral initiatives mention, the ambition to engage as many Belarusian citizens as possible into monitoring the election and maintaining the systems of alternative vote count required thousands of volunteers across the country. *Honest People*'s volunteer networks grew from dozens to thousands of local coordinators just in a few weeks. For *Holas*, volunteers played a crucial role in verifying registrations on the platforms, some of the voting ballots. In the case of the offices of the politicians, volunteers across the country were responsible for assisting in signatures' collection for the candidates, as well as organising local campaign meetings. When the electoral phase has merged into the protests, these networks of volunteers became platforms for coordination of the strategies for local protests, sharing useful links, and discussing the political situation. Creation and management of the volunteer networks required work from dozens of leaders, managers, whose main tasks related to verification of wannabe volunteers, education of new volunteers, and collection of information and data.

Coordination of the country's platform for alternative vote count, required *organisation of effective digital infrastructure*. As *Holas* respondent indicates, an idea of the founder was quickly supported by many within the IT-sector; the proposed infrastructure required skills of frontend-, and backend developers, designers, man-

agers, and many other professionals, to be found within the Belarusian IT-sector. In the end, the *Holas* team conducted multiple tests of Beta-version of alternative voting, tested multiple possible security breaches, and delivered a final version just weeks before the election. Promotion of *Holas* as an alternative voting platform was supported by other electoral initiatives, independent media, opposition politicians, Telegram channels, and volunteer networks.

The Belarusian protests are often referred to as horizontally organised (Gabowitsch, 2021). Nevertheless, my interviews with activists, politicians, and editors of Telegram channels shed light on various dimensions of power relations that emerged as the protest network unfolded. Decision-making regarding the location and timing of protests, as well as their themes, was primarily organised through the closed Telegram chat that involved between 10 and 20 people at different stages. The editors of Telegram channels, activists, journalists, and political analysts, as well as some politicians, collectively discussed proposals for protest framing, security related to protest organisation, and logistics. As a result, the chats, where protest ideas emerged, involved only a limited number of leading activists among thousands in the protest leadership network. As some respondents illustrated, ideas and flashmobs, which were seen as bottom-up proposals, such as wearing white ribbons on election day as a symbol of support for the opposition, were formulated by particular activists and promoted through digital platforms. Additionally, as Telegram channels became a primary source for live updates on the Belarusian protests, Telegram editors possessed greater power in terms of decision-making. Which information sent through the feedback chatbots by citizens would be published on the channels, which locations and timing for the protests would be selected – these decisions lay in the hands of about 10 people responsible for editing and moderating the largest Telegram channels. Although the Telegram channels' editors pointed out that Belarusians would not just do anything the channels suggested and would make a lot of decisions upon gathering, all the respondents in this group felt a high degree of responsibility and power in coordinating these large groups of people.

Protest organisation in Belarus in 2020 was closely connected to the preceding electoral campaign and implied various forms of labour that often remained unseen. Teams of opposition candidates, electoral monitoring initiatives, and media channels gradually expanded their primary functions to activate protest participation, coordination, and reporting. While organising the protest movement, framing protest demands, or supporting protest participants with electoral monitoring initiatives, the editors of Telegram channels and individual activists combined multi-

ple functions and roles. Often, small teams of people led processes previously unfamiliar to them (Jiang et al., 2022). Protest-related labour included both cognitive and manual tasks, involving both routine activities and ad-hoc duties related to the rapidly developing political situation (van der Zande et al., 2019). Additionally, the organisation and performance of protest-labour implied a tight integration of technology, that during the electoral campaign and the following protest episode acquired functions of the mediator that contributed to optimisation and acceleration of several processes within the protest network (Gershon, 2010). While some of the protest-related tasks were shared between humans and technology, creativity and problem-solving tasks related to framing protest manifestations and making decisions about whether to publish certain information received through the feedback chatbots were primarily executed by human actors within the protest network (van der Zande et al., 2019). In the next section, I examine how the delegation of some of the protest-related tasks to technology can be conceived.

Consequences of protest labour delegation to technology

To examine the delegation of protest labour technology in more detail, I asked the respondents to reflect upon how exactly they engaged digital platforms and technology into their work. As Latour (1988) had suggested, in order to analyse delegation to technology, I had to imagine what the human would have to do to fulfil the function executed by technology. As every respondent highlighted, protest-related labour was partially shared with, assisted by, or delegated to technology. Below, I rely on examples of human-to-technology delegation of two protest-related tasks outlined above – facilitation of protest-related communication; organising digital infrastructure of alternative electoral participation – to illustrate relations of protest organisers with technology during the protest episode in Belarus in 2020. This illustration allows me to later reflect on the consequences of such delegation.

One of the delegation examples regards organising digital infrastructure of alternative electoral participation via the alternative vote platform *Holas*. Prior to the election, the team of developers suggested that voters register on *Holas* chatbots on one of the existing messaging platforms, Telegram or Viber. Registration required a phone number for the Belarusians voting inside the country and a submission of a photo of a passport for the Belarusians voting in the embassies, which was verified by the trained neural networks and, in debatable cases, by humans. The respondent from *Holas* explained that what emerged as an idea to "verify the election" within the IT community, rapidly attracted other actors within the net-

work, which among all, was reflected in a number of people registering on *Holas* chatbots. According to *Holas'* founder, one tenth of Belarus' population and about one sixth of those eligible to vote, registered on the platform prior to the election day. Understanding the interest in the platform, *Holas* sought ways to recruit more volunteers and organise anonymous digital infrastructure to optimise verification and count of votes. Establishing a functioning alternative vote infrastructure, a decision to delegate such functions as verification and vote count was taken by *Holas* leaders: "to maintain such a system at the scale and quality we did, we would need over 1,000 people just for the verification of the ballots. Therefore, neural networks, the chatbots, wasn't just a choice but the only choice".

On election day, voters were to take a picture of their voting ballot. The picture illustrating their vote should later be uploaded to *Holas* through one of the communication channels, with which the voter had registered prior to the election. After receiving hundreds of thousands of ballot pictures, volunteers had to verify each ballot. *Holas* representative explained that one of the means to achieve voter security and at the same time verify each submitted vote was a digital infrastructure that engaged neural networks. To perform the verification, neural networks were trained to verify the ballots by identifying a vote for a particular candidate and two signatures from the voting clerks. Despite this, they granted each submitted vote an ID and eliminated any repetitive votes. The respondent clarifies, the repetitive submissions occurred very often as the voters, in an attempt to overcome an internet shutdown, sent their votes multiple times. Later, *Holas* in cooperation with *Zubr* collected official voting protocols presented by the polling stations' managers. They compared the verified votes with the official results reported by the electoral commissions using neural networks. As a result, *Holas* collected 550,000 pairs of official protocols and citizens' votes photographed and sent through the chatbots. Together with *Zubr* and *Honest People, Holas* shared data on alternative vote results, evidence of electoral fraud and violations in the reports that later served as evidence of electoral fraud in the Belarusian presidential election of 2020 (Voice, 2020).

The complexity of the data collection, verification, and analysis required not only the professional skills of marketing and communication, but also an understanding of how technological solutions could be incorporated with regard to users' security and the accessibility of the alternative voting to various groups of people across the country. Thus, delegation of human functions to technology during the electoral campaign involved the organisation of alternative digital polling stations, the analysis of election protocols, and voting ballots using neural networks and the

coordination of data collection through digital registration and photo uploads through Telegram and Viber chatbots. In a nutshell, this can be referred to as the *optimisation of protest-related work tasks*, – or in Latour's understanding, minimisation of labour and effort of the humans involved (1988) – which allowed these organisations to cover broader groups of citizens, speed up some processes like the verification of ballots, and increase the accuracy of the vote counting by delegating this task to neural networks.

Respondents in this study saw Telegram as the safest means of communication during the protest episode. In addition, the internet shutdown, ordered by the Belarusian authorities in the first days of protests, pushed millions of Belarusians to use Telegram, as it was one of the few platforms accessible via VPN, simultaneously providing for news, mobilisation instructions, and networking (Rudnik, 2024). The second example that illustrates delegation of protest-related tasks to technology concerns the facilitation of protest-related communication via feedback chatbots, created by the owners of mobilisation Telegram channels. Feedback chatbots represented an automated collection of information, where the users, communicating with Telegram bot, pushed buttons with a message pre-written by the Telegram editors, who created a bot, and proceeded further to the window that allowed them to submit photo, video, audio, or text content. On the request of Telegram channels, protestors regularly sent thousands of messages to the Telegram channels' feedback chatbots that served as a substitution (van der Zande et al., 2019) for information collection on the ground, or reporting from the streets. By delegating information aggregation, Telegram editors simultaneously gained access to thousands of live updates from town squares across the country. This automation broadened the geography of information aggregation and allowed for an increased scale of mediation by technology while relying on a rather small number of people (Gershon, 2010; Latour, 1988). Sometimes the automated collection lagged behind due to the internet shutdown and the need to identify what messages from their chatbots were important, to verify whether they seemed true and, finally, to decide whether they were worth publishing. Verification involved reliance on available sources and communication with editors of other channels (asking whether they had received the same message). This verification required human resources and could not be automated. At the same time, when a decision to publish the verified live update was made, the dissemination of this news reached millions of subscribers to the channels due to the infrastructure of the socio-technical network of Telegram channels, independent media, and local group chats. In this way, the aggregation of live updates and their distribution appeared highly mediated by the Telegram feedback chatbots. This example of dele-

gation to technology illustrates the decentralisation of information collection, distributed among human editors and the infrastructure of Telegram, which enabled the simultaneous aggregation of live updates from protests, while preserving the anonymity of the sender.

Contrary to the previous protest episodes in Belarusian history, high reliance on alternative platforms of communication was explained not only by the deprivation of any access to state media. Integration of technology into the campaign and protests was driven by the leaders of the electoral initiatives, oppositional politicians, and activists, many of whom, with a background from non-political occupations, had experience in instrumentalising social media in their professional life. In this regard, automation of electoral campaigns, organisation of digital infrastructure for the voters, and branding of political protest was seen as a natural work task for many engaged protest organisers. As a respondent from *Viktar Babaryka's team* commented:

> We focused on social media and we had a team that could provide us with good production materials, we had the best photographs, speechwriters, stylists, designers, lawyers. Because of that we were able to grow the audience quickly, we didn't have to raise interest from independent media because the political campaign had quickly fired up on social media.

On the one hand, delegation of maintenance of protest infrastructure to technology enabled growth of the protest network, broadening the movement's scope and its geographical outreach (Mateo, 2022). By mediating communication between peer-citizens, politicians, Telegram channels, digital infrastructure afforded the creation of an alternative politics, in which the voices of the independent media, Telegram channels, opposition politicians, and ordinary Belarusians were not directly censored by the state and impacted the broadening of space for alternative voices to be heard (Gershon, 2010). Technology provided platforms for wider coverage, the popularisation of protest-related content and enabled the significant scaling-up of the mobilisation potential of the resistance movement. As one of the respondents explained: "The technology we needed was already out there, people were using it every day, we just needed to come up with a creative way to use it" (Representative of *Babaryka* team). Finally, the movement's integration of technology allowed for the broad outreach to international audiences, as the country's internet was almost fully shut off for the first key days of the protests.

On the other hand, high reliance on technology problematised several dimensions

of power across the socio-technical protest network. Joining the opposition's proposals during the electoral campaign and post-election protests required particular knowledge of digital platforms. For example, using the chatbots to upload alternative votes to *Holas*, sending live updates to Telegram channels' feedback chatbots, or checking social media for live updates pushed certain groups to learn how a particular technology operates. The "choice to opt out" (Crawford, 2021) from using digital platforms proposed by the opposition initiatives would have left one in the position of a less active or less informed protest participant or make identifying with or belonging to the opposition political electorate less clear. As respondents pointed out, younger Belarusians educated their grandparents on how to use Viber and Telegram, and the platforms' chatbots specifically, to encourage their equal participation in the initiatives. The need to acquire new skills and knowledge about the operation of technology in order to participate in the protests therefore reflects what Crawford refers to as power asymmetries (2021). Additionally, in the Belarusian case, these power asymmetries were reflected in community pressure to use technology to become part of the democratic resistance network: by voting on *Holas*, by registering on *Honest People* as a volunteer or electoral observer, or by using Telegram as the platform least disrupted by the internet shutdowns, for communication and coordination.

Furthermore, high reliance on technology may have influenced the dispersed leadership and lack of centralised coordination of the protest episode. This was expressed by some of the respondents as a main concern related to joint or horizontal leadership of protests, where multiple leaders proposed a joint strategy of electoral campaign but failed to suggest an effective protest strategy. This argument echoes concerns of scholars critical towards high reliance on technology in social movements (Morozov, 2011; Deibert et al., 2010). Moreover, as the first months after the active phase of protests showed, reliance on Telegram as safe means of communication did not justify itself. This was reflected in multiple detentions of protest participants identified through their phone numbers, which permitted to reveal their Telegram IDs and monitor which channels, groups, and chats a user was a member of (Viasna, 2024).

Conclusion

In this article, I have explored the labour practices associated with protest organisation in Belarus during the summer of 2020 and the delegation of human protest-related tasks to technology that emerged during this episode. The analysis leads to three main conclusions. Firstly, protest-related labour was shared between hu-

mans and technology and comprised complicated creative and manual operational tasks, both of which often remained unseen and unspoken. Secondly, the delegation of protest-related work tasks from people to digital platforms and software was related to the optimisation of protest-related work tasks, the decentralisation of information collection, and the popularisation of protest-related content. Finally, along with delegation of protest labour to technology, the protest movement became dispersed and decentralised, the role of human actants was often downplayed, and the trust and reliance on technology made many of the Belarusian citizens victims of the regime's repression, as the latter incorporated digital technology into its repression toolkit (Rudnik, 2024).

While this article has focused on examining the protest network in Belarus, it illustrates a wider phenomenon – the impact of technology not only on protest mobilisation but also on how technology renders modern protests and produces particular effects of these protests. Functioning as a decentralised, somewhat coordinated, socio-technical network of the protest episode, the Belarus case during the summer of 2020 illustrates the complexity of how modern protests unfold within autocracies. For social movements and media scholars, who have already moved far beyond discussing how social media performs during protest episodes as channels for the mobilisation, popularisation, and coordination of protests, this article enables to dive deeper into an investigation of the functions performed by technology in the context of protests, as well as consequences of protest automation and high reliance on technology for protesters' leverage on governments, movement organisation, and coordination. For political scientists, this article can hopefully fuel reflections upon power distribution within networks of humans and non-humans in autocratic political regimes intensely hostile to freedom of speech. Lastly, the article seeks to appeal to science and technology scholars, for whom modern protests may provide a source of interest as a way to expand our understanding of political processes that are highly mediated by technology in both democratic and autocratic political regimes (Breyman et al., 2016).

References

Acemoglu, D., & Restrepo, P. (2019). Automation and new tasks: How technology displaces and reinstates labour. *Journal of Economic Perspectives*, *33*(2), 3–30. https://doi.org/10.1257/jep.33.2.3

Akbari, A., & Gabdulhakov, R. (2019). Platform surveillance and resistance in Iran and Russia: The case of Telegram. *Surveillance & Society*, *17*(1/2), 223–231. https://doi.org/10.24908/ss.v17i1/2.12928

Atanasoski, N., & Vora, K. (2015). Surrogate humanity: Posthuman networks and the (racialized) obsolescence of labour. *Catalyst: Feminism, Theory, Technoscience*, *1*(1), 1–40.

Baron, L. F., & Gomez, R. (2016). The associations between technologies and societies: The utility of Actor-Network Theory. *Science, Technology and Society*, *21*(2), 129–148. https://doi.org/10.1177/0971721816640615

Bedford, S. (2021). The 2020 presidential election in Belarus: Erosion of authoritarian stability and re-politicization of society. *Nationalities Papers*, *49*(5), 808–819. https://doi.org/10.1017/nps.2021.33

Bennett, B. (2011). *The last dictatorship in Europe: Belarus under Lukashenko*. Hurst.

Bodrunova, S. S., & Blekanov, I. S. (2021). A self-critical public: Cumulation of opinion on Belarusian oppositional YouTube before the 2020 protests. *Social Media + Society*, *7*(4). https://doi.org/10.1177/20563051211063464

Bosse, G. (2021). Authoritarian consolidation in Belarus: What role for the EU? *European View*, *20*(2), 201–210. https://doi.org/10.1177/17816858211061839

Breuer, A., Landman, T., & Farquhar, D. (2015). Social media and protest mobilisation: Evidence from the Tunisian revolution. *Democratisation*, *22*(4), 764–792. https://doi.org/10.1080/13510347.2014.885505

Breyman, S., Campbell, N., Eubanks, V., & Kinchy, A. (2016). STS and social movements: Pasts and futures. In Felt., U., Fouché, R., Miller, C. A., & Smith-Doerr, L. (Eds.), *The handbook of science and technology studies* (p. 289). Publisher.

Bykov, I. A., Medvedeva, M. V., & Gradzyushko, A. A. (2021). *Anonymous communication strategy in Telegram: Towards a comparative analysis of Russia and Belarus*. 14–17. https://doi.org/10.1109/ComSDS52473.2021.9422858

Chulitskaya, T., & Matonyte, I. (2024). State violence and pains of punishment: Experiences of incarcerated women in Belarus in the aftermath of the 2020 protests. *Nationalities Papers*, 1–17. https://doi.org/10.1017/nps.2024.10

Crawford, K. (2021). *The atlas of AI: Power, politics, and the planetary costs of artificial intelligence*. Yale University Press.

Czarniawska, B. (2017). Actor-network theory. In Langley, A. & Tsoukas, H. (Eds.), *The SAGE handbook of process organisation studies* (pp. 160–173).

DataReportal. (2018). *Digital 2018: Belarus*. https://datareportal.com/reports/digital-2018-belarus

Deibert, R., Palfrey, J., Rohozinski, R., & Zittrain, J. (Eds.). (2010). *Access controlled: The shaping of power, rights, and rule in cyberspace*. MIT Press. https://doi.org/10.7551/mitpress/8551.001.0001

Diamond, L. (2010). Liberation Technology. *Journal of Democracy*, *21*(3), 69–83. https://doi.org/10.1353/jod.0.0190

Dijck, J. (2013). *The culture of connectivity: A critical history of social media*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199970773.001.0001

Doffman, Z. (2024, May 14). Telegram's attack on Signal turns focus on its own security failings. *Forbes*. https://www.forbes.com/sites/zakdoffman/2024/05/14/telegram-warning-switch-to-whatsapp-and-signal-for-iphone-and-android/

Durov, P. (2024, April 13). Du Rove`s Channel [Telegram Post]. *Du Rove`s Channel*. https://t.me/durov/76

Fang, K. (2022). The social movement was live streamed: A relational analysis of mobile live streaming during the 2019 Hong Kong protests. *Journal of Computer-Mediated Communication*, *28*(1). https://doi.org/10.1093/jcmc/zmac033

Freedom House. (2021). *Freedom in the World 2021*. Freedom House. https://freedomhouse.org/country/belarus/freedom-world/2021

Gabowitsch, M. (2021). Belarusian protest: Regimes of engagement and coordination. *Slavic Review*, *80*(1), 27–37. https://doi.org/doi:10.1017/slr.2021.28

Gershon, I. (2010). Bruno Latour (1947–). In J. Simons (Ed.), *From Agamben to Žižek* (pp. 161–176). https://doi.org/10.1515/9780748643264

Greene, A. S. (2022). You are what you read: Media, identity, and community in the 2020 Belarusian uprising. *Post-Soviet Affairs*, *38*(1–2), 88–106. https://doi.org/10.1080/1060586X.2022.2031843

Herasimenka, A., Lokot, T., Onuch, O., & Wijermars, M. (2020). There's more to Belarus's 'Telegram revolution' than a cellphone app. *The Washington Post*. https://www.washingtonpost.com/politics/2020/09/11/theres-more-belaruss-telegram-revolution-than-cellphone-app/

Jiang, Y., Jin, X., & Deng, Q. (2022). Short video uprising: How #BlackLivesMatter content on TikTok challenges the protest paradigm. *Workshop Proceedings of the 16th International AAAI Conference on Web and Social Media*. https://doi.org/10.36190/2022.42

Johnson, J. (1988). Mixing humans and nonhumans together: The sociology of a door-closer. *Social Problems*, *35*(3), 298–310. https://doi.org/10.2307/800624

Jost, J. T., Barberá, P., Bonneau, R., Langer, M., Metzger, M., Nagler, J., Sterling, J., & Tucker, J. A. (2018). How social media facilitates political protest: Information, motivation, and social networks. *Political Psychology*, *39*, 85–118.

Kazharski, A. (2021). Belarus' new political nation? 2020 anti-authoritarian protests as identity building. *New Perspectives*, *29*(1), 69–79.

Kirsch, S., & Mitchell, D. (2004). The nature of things: Dead labour, nonhuman actors, and the persistence of Marxism. *Antipode*, *36*(4), 687–705. https://doi.org/10.1111/j.1467-8330.2004.00443.x

Latour, B., & Woolgar, S. (1986). *Laboratory life: The construction of scientific facts* (2nd ed.). Princeton University Press.

Law, J. (2004). *After method: Mess in social science research*.

Law, J., & Mol, A. (2008). Material agency: Towards a non-anthropocentric approach. In *The actor-enacted: Cumbrian sheep in 2001* (pp. 57–77). https://doi.org/10.1007/978-0-387-74711-8_4

Mackintosh, T., & Vernon, W. (2024, August 25). *Telegram CEO Pavel Durov arrested at French airport*. BBC. https://www.bbc.com/news/articles/ckg2kz9kn93o

Mateo, E. (2022). All of Belarus has come out onto the streets: Exploring nationwide protest and the role of pre-existing social networks. *Post-Soviet Affairs*, *38*(1–2), 26–42. https://doi.org/10.1080/1060586X.2022.2026127

Mol, A. (1999). Ontological politics. A word and some questions. *Sociological Review*, *47*(1_suppl),

74–89. https://doi.org/10.1111/j.1467-954X.1999.tb03483.x

Morozov, E. (2011). *The net delusion: The dark side of internet freedom*. PublicAffairs.

Navumau, V. (2019). Social media as a source of counter-hegemonic discourses: Micro-level analysis of the Belarusian 'Silent Actions' protest movement. *Demokratizatsiya: The Journal of Post-Soviet Democratization*, *27*(3), 297–317.

Netobservatory. (2020). *Blokirovka interneta v Belarusi [Blocking the internet in Belarusi]*. https://netobservatory.by/belarus-shutdown-2020/

Onuch, O., & Sasse, G. (2022). The Belarus crisis: People, protest, and political dispositions. *Post-Soviet Affairs*, *38*(1–2), 1–8. https://doi.org/10.1080/1060586X.2022.2042138

Onuch, O., & Sasse, G. (2023). The dynamics of mass mobilization in Belarus. *Nationalities Papers*, *51*(4), 736–743. https://doi.org/10.1017/nps.2023.22

Onuch, O., Sasse, G., & Michiels, S. (2023). Flowers, tractors, & Telegram: Who are the protesters in Belarus? A survey-based assessment of anti-Lukashenka protesters. *Nationalities Papers*, *8*, 1–26.

Rogers, R. (2020). Deplatforming: Following extreme internet celebrities to Telegram and alternative social media. *European Journal of Communication*, *35*(3), 213–229.

Rovdo, V. (2009). *Politicheskaia sistema respubliki Belarus [Political system of the Republic of Belarus]*. European Humanities University.

Rudnik, A. (n.d.). *Practices and agencies in the Belarusian protests of 2020: Perspectives of protest participants and leaders*. Researchgate. https://www.researchgate.net/publication/384676587_Practices_and_agencies_in_the_Belarusian_protests_of_2020_perspectives_of_protest_participants_and_leaders

Rudnik, A. (2023). *Digital transformation trends in Belarusian democratic resistance: Narratives, perceptions, and reaction of the state*. https://library.fes.de/pdf-files/bueros/belarus/20684.pdf

Rudnik, A. (2024). Co-option of technology: Digital repression and legitimation strategies of the Belarusian regime. *Communist and Post-Communist Studies*, 1–28. https://doi.org/10.1525/cpcs.2024.2125064

Rudnik, A. (in press). Political protests in contemporary Belarus: Mobilization, technology, and (un)utilized political opportunities. In *Handbook of Contemporary Belarus*. Palgrave MacMillan.

Sayes, E. (2014). Actor–Network Theory and methodology: Just what does it mean to say that nonhumans have agency? *Social Studies of Science*, *44*(1), 134–149. http://dx.doi.org/10.1177/0306312713511867

Suchman, L. A. (2007). *Human-machine reconfigurations. Plans and situated actions* (2nd ed.). Cambridge University Press. https://doi.org/10.1017/CBO9780511808418

Tufekci, Z. (2013). "Not this one": Social movements, the attention economy, and micro-celebrity networked activism. *American Behavioral Scientist*, *57*(7), 848–870. http://dx.doi.org/10.1177/0002764213479369

van der Zande, J., Teigland, K., & Teigland, R. (2019). The substitution of labour: From technological feasibility to other factors influencing the potential of job automation. In A. Larsson & R. Teigland (Eds.), *The Digital Transformation of Labor: Automation, the Gig Economy and Welfare* (1st ed., pp. 31–73). Routledge. https://doi.org/10.4324/9780429317866

van Dijck, J., Poell, T., & de Waal, M. (2018). *The platform society: Public values in a connective world*. Oxford University Press. https://doi.org/10.1093/oso/9780190889760.001.0001

Viasna. (2024). *Human rights situation in Belarus. July 2024*. https://spring96.org/en/news/115947

Vogel, S. (2022). Anti-opposition crackdowns and protest: The case of Belarus, 2000–2019. *Post-Soviet Affairs*, *38*(1–2), 9–25. https://doi.org/10.1080/1060586X.2022.2037066

Voice. (2020). *Final report on 2020 presidential elections in Belarus*. https://drive.google.com/file/d/1WnyAfVKDhZOQxxDd2tdi5xcH3eiOng0V/view

von Arx, T., & Paterson, K. G. (2023). On the cryptographic fragility of the telegram ecosystem. *Proceedings of the 2023 ACM Asia Conference on Computer and Communications Security*, 328–341. https://doi.org/10.1145/3579856.3582811

Way, L. A. (2020). Belarus uprising: How a dictator became vulnerable. *Journal of Democracy*, *31*(4), 17–27. https://doi.org/10.1353/jod.2020.0052.

Wijermars, M., & Lokot., T. (2022). Is Telegram a "harbinger of freedom"? The performance, practices, and perception of platforms as political actors in authoritarian states. *Post-Soviet Affairs*, *38*(1–2), 125–145. https://doi.org/10.1080/1060586X.2022.2030645

Winner, L. (1980). Do artifacts have politics? *Daedalus*, *109*(1), 121–136.

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