

# Are you talking to me? – calling laypersons in the sphere of data economy ecosystems

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## Abstract

**Purpose** – Data economy is pervasively present in our everyday lives. Still, ordinary laypersons' chances to genuine communication with other stakeholders are scarce. This paper aims to raise awareness about communication patterns in the context of data economy and initiate a dialogue about laypersons' position in data economy ecosystems.

**Design/methodology/approach** – This conceptual paper covers theory-based critical reflection with ethical- and empirical-based remarks. It provides novel perspectives both for research and stakeholder collaboration.

**Findings** – The authors suggest invitational rhetoric and Habermasian discourse as instruments towards understanding partnership between all stakeholders of the data economy to enable laypersons to transfer from subjectivity to the agency.

**Originality/value** – The authors provide (1) theory-based critical reflection concerning communication patterns in the data economy; (2) both ethical and empirical-based remarks about laypersons' position in data economy and (3) ideas for interdisciplinary research and stakeholder collaboration practices by using invitational rhetoric and rational discourse. By that, this paper suggests taking a closer look at communication practices and ethics alike in the data economy. Moreover, it encourages clear, rational and justified arguments between stakeholders in a respectful and equal environment in the data economy ecosystems.

**Keywords** Communication, Data economy, Dialogue, Ethics, Habermas, Stakeholder collaboration

**Paper type** Conceptual paper

## 1. Introduction – a strictly involved outsider

Data economy is pervasively present in our everyday lives. Still, ordinary laypersons' chances of genuine communication with other stakeholders are scarce. Being undeniably involved in the data economy while being a powerless outsider may cause harmful consequences to laypersons.

Citizens living in a market economy have been used to their role as customers. While existing a valid role in a traditional context, laypersons' role in the data economy is more complicated. Besides being a customer, everyone is also an endless mine of raw material for data markets – although not necessarily knowingly. Only by living as a part of the present society, data are produced about us constantly. These data are collected, processed,



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transferred and traded (see, e.g. [European Union, 2016](#)). Thus, not only the roles laypersons have but also the possible impacts are wholly transformed. Gradually, people have started to realise their new role as data producers and value creators ([Lammi and Pantzar, 2019](#)). Along with that, there is increasing interest in securing individual rights in the current digital world ([Belanger and Crossler, 2019](#); [Lee et al., 2019](#)).

Although most laypersons may not even think about the data economy, no doubt they are central topics in that sphere (see, e.g. [Lammi and Pantzar, 2019](#); [Koskinen et al., 2019](#)). Because of laypersons absence, it is professionals, not laypersons themselves, who decide how the others address them and which kind of positions (compared to others) they put them in the sphere of the data economy. It is done entirely by communication. And indeed, communication is not just about innocent words; on the contrary, it is a purposeful activity with the power to make choices and affect others.

For clarity, we present some current communication choices next. When the market economy is in the case, citizens are commonly called by customers or consumers, while in the case of the data economy they are called by (data) subjects (see, e.g. [European Union, 2016](#); [European Union Agency for Network and Information Security \(ENISA\), 2018](#); [De Hert et al., 2018](#)). Furthermore, as consumers, patients and service users, laypersons are frequently represented as being put to the centre of solicitous attention in numerous data-intensive affairs both in the business and public sector (see, e.g. [Banos et al., 2015](#); [Brenner et al., 2014](#); [Leimeister et al., 2014](#); [Hickey, 2018](#); [Morgan, 2018](#); [Palomera and Cowing, 2019](#)). Data subjects are informed, protected and given some rights. Further, they are warned about potential risky issues and governed with protective guidelines ([European Union, 2016](#)). All these things are certainly both valuable and necessary. The point is how this all occurs, that is who are on the scene defining laypersons' place and making decisions suitable for themselves.

When invisible actors make decisions beyond the reach of laypersons, the process does not help laypersons feeling like equal actors and valued members of the data economy. They remain powerless to influence how the data about themselves are processed. Certainly, laypersons need support from society to obtain credible status in this game of data economy, where laypersons privacy is at stake. Currently, their position is not in balance with their role as central stakeholders who enable data utilisation for organisations. Remembering the meaning of a stakeholder such as the Stanford Research Institute defined it in 1963 – “those groups without whose support the organisation would cease to exist” (SRI1963 quoted in [Freeman and Reed, 1983](#)) – laypersons' status as vital stakeholders is plain to see. Additionally, if we apply stakeholder theory ([Donaldson and Preston, 1995](#)) to this problem, legitimating their stake and considering their interests would guide us towards an ethically and socially responsible solution. It is essential also because all stakeholders (laypersons, companies, society and the third sector) have distinct interests. These interests are not only diverse but also conflicting ([De Hert et al., 2018](#); [Couldry and Mejias, 2019](#); [Koskinen et al., 2019](#); [Eur, 2017](#)) with different aims, knowledge and power. All of these may hinder the stakeholders' mutual understanding and cooperation. Accordingly, investigating communication and interaction between stakeholders is needed to enable functional and productive data economy ecosystems, where laypersons would be equal and included. Laypersons' active participation is necessary because of their vulnerable position. Focusing on agency and communication patterns guides us to discover ways for productive partnership and inclusive collaboration. Thus, the questions in this paper are as follows: (1) what kind of agency laypersons have, ought to have or would like to have, concerning communication in data economy ecosystems (will be answered in [section 3](#))? and (2) by which methods we could develop productive stakeholder collaboration in the context of data economy ecosystems (will be answered in [section 4](#))?

Aiming to raise awareness about communication patterns in the context of data economy and initiate a dialogue about laypersons' position in data economy ecosystems, we will bring together relevant literature from communication, data economy and ethics. We will reflect on the issue critically by using invitational rhetoric and Habermasian discourse as methods. In other words, we will utilise a critical, multidisciplinary approach to open novel perspectives on laypersons' position in data economy ecosystems. In that way, we contribute to the current conversation about societal factors in information and communications technology (ICT). Overall, we provide (1) theory-based critical reflection concerning communication patterns in data economy (or more generally in ICT) when handling significant issues to laypersons, (2) both ethical and empirical-based remarks about laypersons' position in data economy and (3) ideas for interdisciplinary research and stakeholder collaboration practices by using invitational rhetoric and rational discourse, where clear, rational and justified arguments between stakeholders are utilised in a respectful and equal environment. As a whole, these are steps towards the realisation of ethical shortcomings in the data economy, transforming communication practices and calling laypersons into the sphere of data economy ecosystems. It would not be only reasonable but also beneficial for societies and thus in our common interest.

The structure of this paper is as follows: first, we will take a closer look at the concepts of both the data economy and communication. Next, we will present laypersons' diverse positions and agencies in data economy ecosystems and argue that steps forward are required for achieving stakeholders' shared benefits in the data economy. Then, we will suggest invitational rhetoric and Habermasian rational discourse as instruments towards understanding partnership and collaboration between all stakeholders. They could enable laypersons' transition from subjectivity to agency. Finally, we will sum up with conclusions about communication in the data economy and suggest how to utilise communication for calling and collaborating with laypersons in the sphere of data economy ecosystems.

## **2. Background – communication is interaction also in the data economy – or is it in truth?**

In this paper, we employ the concept of data economy for referring to the digital economy with a constant production and fast circulation of data masses (see [Lammi and Pantzar, 2019](#)). Data economy is an enormous system where digital technologies generate, collect and store data to be analysed, processed and distributed. It occurs in the complex machinery of personal and organisational players with a wide variety of aims. Needless to say that communication between these diverse players is exceptionally exacting even for well-motivated actors. Regarding the data economy, involved actors and their doings can group into data market and data users. The data market is a highly dynamic ensemble, where international data corporations mingle with all sizes of other companies from the field of technology and data analytic (see [Krämer and Wohlfarth, 2018](#); [Cao, 2017](#)). Apart from them, data users – companies from traditional sectors, which utilise data – are included in the data economy. However, the data economy is not just a matter of companies' doings concerning data by digital technologies but also the direct, indirect and induced effects of the data market on the economy ([Ilves et al., 2019](#)).

Besides the aforementioned established concepts, we use the concept of data economy ecosystem to illustrate diverse actors, their connections and their acts in the field of the data economy. Thus, the definition that we use from this kind of network system is following one:

Data economy ecosystem is formed by different actors of the ecosystem, that are using data as the main source or instance for business. Different actors and stakeholders are connected directly or indirectly within the network and its value chains. The data economy ecosystem also incorporates the rules (official or unofficial), that direct action allowed in the network. ([Koskinen et al., 2019](#))

Significantly, the data economy ecosystem consists not only of companies, organisations and professionals but also laypersons are involved. Further, because of their key position, they should have an accepted status to communicate and influence the matters of the ecosystem.

Any ecosystem with various actors needs appropriate communication to work. When aspiring to suitable communication, we should keep in mind that the way we communicate with people and about them does matter. It matters to the people in question, us and people who listen to us or read our writings. Communication does impact all involved (Foss, 2009a; Littlejohn and Foss, 2011). Therefore, when thinking about the data economy ecosystem, it is not insignificant how to address laypersons. Communication creates meanings and impacts on those who are speaking, those in question (laypersons) and those who are listening. Moreover, both interpreted meanings and effects may be quite different than was even meant. Communication is defined here as

[...] a systemic process in which individuals interact with and through symbols to create and interpret meanings (Wood, 2004, p. 9).

First, being systemic means that multiple interrelated parts affect each other when communicating. So, not only persons but also the physical environment and time, likewise the elements and the history of the system, affect communication. Second, being an ongoing process means that communication from both past and present may affect future interactions. Third, when communicating, we use symbols, such as language and many kinds of non-verbal behaviour. And finally, the meanings are not given to us by communication. Instead, we create meanings actively by ourselves on the grounds of interaction (Wood, 2004, p. 10). So, we are communicating not only by talking but also by being, listening and interpreting. In any case, as communicators, our behaviour rests on our values (Littlejohn and Foss, 2011). We may, for example, express power (see, e.g. Dunbar, 2009; McLuskie, 2009) or put ourselves and others in certain positions (see e.g. Harré *et al.*, 2009; Kroløkke, 2009). These rhetorical acts may promote, but also hinder, mutual understanding and relationships, no matter if they are intentional or not (Foss, 2009a; Littlejohn and Foss, 2011).

If we now think about communication between different actors in data economy ecosystems, laypersons' position seems peculiar. The data obtained from and about them are crucial for the data economy: if there is no data, there is nothing to sell and no profit from sales. However, other stakeholders have put laypersons in a position where some information is given to them – although not necessarily understandable – and hardly any chance for asking, questioning or arguing is not given to them. Furthermore, opportunities for making a real impact on conditions or control the data are missing. So, as we mentioned earlier, communication is interaction. What do you think do laypersons for real have such kind of status and agency that they would need for communicating interactively? Do they have even a voice for that, and would somebody listen to them?

### 3. Laypersons' status and agency in data economy ecosystems

In this section, we will elaborate on three different views about laypersons' status and agency in data economy ecosystems. First, we will reflect on laypersons' current status as data subjects. After that, we will point out their status as it should be according to the ethics guidelines. Then, we will present laypersons' status preferred themselves according to a survey conducted in Finland, France, Germany and the Netherlands. We will end the section with suggestions for required steps towards laypersons' novel status.

#### 3.1 Laypersons' current status: a "data subject"

As mentioned above, laypersons are commonly called data subjects in the sphere of data economy (see, e.g. European Union, 2016; European Union Agency for Network and

Information Security (ENISA), 2018; De Hert *et al.*, 2018). At first sight, this seems to be quite a neutral concept. However, when considering it more closely from a communicative perspective, it turns out to be problematic. Originally being a subject has meant that one is under legal control (Gunn, 2009). According to the Oxford Dictionary of English, subject is “a person or thing that is being discussed, described or dealt with”, “a member of a state other than its ruler, especially one owing allegiance to a monarch or other supreme ruler” and “a thinking or feeling entity; the conscious mind; the ego, especially as opposed to anything external to the mind” (Kielikone, 2020c). In a philosophical context, a subject indicates a self-conscious human expressing difference to an object (Gunn, 2009). Therefore, when addressing laypersons as data subjects, they are seen as thinking and feeling entities but defined as controlled and ruled. Of course, there are indeed rules and laws, which citizens should obey. However, they are drawn up as a part of a democratic system and formulated by persons to whom laypersons have given mandates. So, from this perspective, it is ultimately the citizens who are in control, although they employ it by their representatives. Accordingly, would it be reasonable to apply a concept denoting laypersons equal right to interact as one integral partner in the data economy?

An actor and an agent are close concepts, albeit distinct from the subject (Gunn, 2009). As such, they could be potential constructs for replacing (data) subjects. An actor refers to “a participant in an action or process” (Kielikone, 2020a). An agent denotes even a more powerful person, namely to a person who “takes an active role or produces a specified effect” (Kielikone, 2020b). Hence, the issue at stake is person’s capacity to act and cause change. These are qualities, which generally are signified by the agency. Thus, a self-conscious subject who possess agency is an agent and can bring about change. Therefore, the difference between agent and subject is that a subject may lack agency (Gunn, 2009). When considering the difference between a subject and an agent, being seen as a controlled entity must feel quite different from being encountered as a powerful and active participant. Further, when calling laypersons as subjects owing allegiance, instead of calling them active agents justified in possess power, addressing reveals quite a different attitude. Therefore, with potential impacts in mind, it is worthwhile to consider carefully the concepts we address others and communicate with them.

There is no doubt that the aim was genuine when the concept (data subject) to address laypersons has chosen. Possibly, the purpose was even to underline their status as subjects instead of objects. However, when thinking about modern societies, the way laypersons are called and encountered does not make sense; it sounds like they were not interlocutors or active, autonomous agents by any means. As if they would need patronising, and it would be reasonable that things only happen around them. The things that should be very much their own. Accordingly, from the modern layperson’s perspective, just being called as subjects is not yet enough.

In addition to the concept of the data subject, there are problems in the implementation of communication. Novel digital services are constantly presented to them for “free” or favourably by describing their usefulness and numerous benefits. However, while framing laypersons (Volkmer, 2009) to the principal gainers, gathered data, its forthcoming usage and financial victors stay without appropriate attention and understandable explanation (Karwatzki *et al.*, 2017). As for the public sector, their professionals protect laypersons by informing, warning and formulating guidelines (see, e.g. European Union, 2016; High-Level Expert Group on Artificial Intelligence - AI HLEG, 2019). All of these protective actions aim to laypersons’ good and are necessary. However, when thinking about current communication practices in the data economy, it appears that laypersons are not recognised as fully authorised stakeholders. It seems more like professionals from the public (governmental) and private (business) sectors would act mainly by themselves or together at best without being sincerely interested in interacting with laypersons.

We argue that when thinking about current communication practises, laypersons are mainly bypassed as if they were not fully authorised communication partners and whose active collaboration would not be beneficial for all stakeholders. As a consequence, discussions and decisions are out of their reach. The exclusion of laypersons may not be intentional. However, it signals that laypersons are not appreciated, and there is no interest to communicate with them. Additionally, it signals an act of domination and control over laypersons in data economy ecosystems. By saying this, we want to emphasise that, of course, achieving national and international guidelines have been and still are essential. Moreover, there has been an urge to provide instructions for companies as well as other organisations. In this situation, dialogue between professionals is understandable. Nevertheless, would not it be appropriate to communicate also with laypersons?

### 3.2 Laypersons' status according to ethics guidelines

Ethics guidelines are significant because they serve a uniform basis for ethical choices steering our everyday practices. Guidelines published by the European Commission ([High-Level Expert Group on Artificial Intelligence — AI HLEG, 2019](#)) and Association for Computing Machinery (ACM) ([Gotterbarn \*et al.\*, 2018](#)) are among some recent ones published in the field of ICT.

The European Commission designed the ethics guidelines for trustworthy artificial intelligence (AI) for the whole society and all stakeholders (individuals, both public and private organisations) partaking some point in systems' life circle either directly or indirectly ([High-Level Expert Group on Artificial Intelligence — AI HLEG, 2019](#)). The role of all people as stakeholders of computing is emphasised in the ACM's guidelines as well. Furthermore, professionals' obligation to promote fundamental human rights and protect each individual's right to autonomy is highlighted ([Gotterbarn \*et al.\*, 2018](#)).

The way individuals are described and spoken about in those guidelines cohere extremely well with the above presented viewpoint, where laypersons were regarded as powerful agents possessing their agency, making choices and being in control. Individuals' self-determination and freedom to control their choices are represented like this:

[...] freedom of the individual means a commitment to enabling individuals to wield even higher control over their lives [...] ([High-Level Expert Group on Artificial Intelligence — AI HLEG, 2019](#)), and

[...] Humans interacting with AI systems must be able to keep full and effective self-determination over themselves [...] AI systems should not [...] herd humans. Instead, they should be designed to [...] empower human cognitive, social and cultural skills. The allocation of functions between humans and AI systems should [...] leave meaningful opportunity for human choice. ([High-Level Expert Group on Artificial Intelligence — AI HLEG, 2019](#))

Moreover, it is not only the spirit of guidelines, which acknowledges human agency, it is mentioned in requirements as well. To implement human agency and oversight direction,

[...] AI systems should support human autonomy and decision-making, as prescribed by the principle of respect for human autonomy. This requires that AI systems should both act as enablers to a democratic, flourishing and equitable society by supporting the user's agency and foster fundamental rights, and allow for human oversight. ([High-Level Expert Group on Artificial Intelligence — AI HLEG, 2019](#))

Further, along with the guidelines, stakeholder participation and social dialogue should be enforced:

[...] To develop AI systems that are trustworthy, it is advisable to consult stakeholders who may directly or indirectly be affected by the system throughout its life cycle. ([High-Level Expert Group on Artificial Intelligence — AI HLEG, 2019](#)) and

[...] Computing professionals should foster fair participation of all people, including those of underrepresented groups. (Gotterbarn *et al.*, 2018)

[...] The benefits of AI systems are many, and Europe needs to ensure that they are available to all. This requires open discussion alongside the involvement of social partners and stakeholders, including the general public. Many organisations already rely on stakeholder panels to discuss the use of AI systems and data analytics. These panels include various members, such as legal experts, technical experts, ethicists, consumer representatives, and workers. Active participation seeking and dialogue on the use and impact of AI systems supports the evaluation of results and approaches, and can particularly be helpful in complex cases. (High-Level Expert Group on Artificial Intelligence — AI HLEG, 2019)

As we can see, humans' autonomous agency, right to choose and systems' trustworthiness, among other things, are clearly articulated in these guidelines as well as professionals' duty to enable those issues. Next, we will present how laypersons themselves see the data economy and their role in it.

### 3.3 Status preferred by laypersons' themselves

Values highlight, what we stand for, what is important to us, and which actions and goals we find desirable. So, when seeking to understand laypersons' preferred position in the communication of data economy ecosystems, exploring their values in this context guides us in the right direction. For doing so, we present some data about laypersons' preferred values. The data are from the citizen survey conducted by Kantar TNS in Finland, France, Germany and the Netherlands in 2018. The survey questionnaire was developed and ordered by the Finnish Innovation Fund SITRA. SITRA aims to develop a fair European data economy, which creates a value basis to all actors involved (see SITRA, 2019).

Rantanen and Koskinen (Rantanen, 2019; Rantanen and Koskinen, 2020) studied the data from this survey and discovered that seven distinct themes emerged from the answers reflecting the values of individuals. These themes were as follows: (1) The user's control over data and data sharing, (2) transparency and being informed, (3) security, (4) trust and fairness, (5) compensation or benefits for users, (6) supervision and rules and (7) negative attitudes towards data collection and data economy. The methods and results of this study have been presented in more detail in the original research papers (Rantanen, 2019; Rantanen and Koskinen, 2020). Later, the analyses of themes were continued through three main branches of ethics. The conclusion was that values expressed are ethically justified. In other words, these values are good and should include in the value basis of the human-centric data economy in Europe (Rantanen *et al.*, 2020).

Here, we will explore the themes in light of laypersons' current situation regarding communicative actions in the data economy. And further, we will also discuss how those valued things have manifested in the past, and how they could be considered in the future when arranging interaction with the other stakeholders of data economy ecosystems.

Control over data and data sharing (1) were the most commonly valued things among European respondents in these studies (Rantanen, 2019; Rantanen and Koskinen, 2020). This kind of desire is not so surprising. During the last years, legions of handheld devices and applications have emerged on the markets promising easiness and entertainment to our doings. Adopting novel ways to handle things with new technology have kept laypersons busy. In the meanwhile, the data economy has transformed massively without laypersons' awareness. In other words, novel devices and services have been generated for consumers. However, as laypersons have been in the role of consumers (objects), they have been voiceless outsiders in data negotiations. Maybe, the wish for control might indicate that while they have now realised their new role as data producers and value creators (Lammi and Pantzar, 2019), they are no longer satisfied with available means for guarding their autonomy.

Control, autonomy, freedom to make one's own decisions or, more generally, self-direction are highly valued universally (Schwartz, 2012). Individual autonomy is an essential value. The importance of safeguarding it was recognised already in the 19th century by governmental regulations. Regulation like this, along with early models of informed consent, was first done in the context of human experimentation. The Nuremberg Code (1947) (BMJ, 1996) and Declaration of Helsinki (1964) are early international regulations about autonomy (Vollmann and Winau, 1996). Later, individual autonomy and power to control have stated as a significant principle, for example (1) in clinical guidelines as a principle of respecting individual self-determination and their wishes regarding treatment choices (Nandi, 2000), (2) in the context of Health Databases and Biobanks (World Medical Association, 2013, 2016) and (3) in General Data Protection Regulation (GDPR) (European Union, 2016).

Being able to have control over data and its sharing can be seen as a strong wish to possess agency to act as autonomous agents who have the power to make ones' own decisions. As this was the most commonly valued thing among European respondents, having a decent opportunity to choose by oneself about giving or withdrawing consents for secondary use of one's data appears as a quite essential quality for data economy to be fair, with mastery like that individuals would be able to safeguard their data, and by implication of that, also their privacy.

Transparency and being informed (2) were also widely valued data principles among European respondents (Rantanen, 2019; Rantanen and Koskinen, 2020). It is understandable as individuals need the information to actualise their most valued thing controlling data and making considered decisions about it. Without decent, understandable information, laypersons would remain powerless and unable to control their data by reasoned choices. Transparency is also clearly an instrumental value that is needed to ensure the fulfilment of all other values.

Earlier, the value of transparent information has been recognised as essential in the healthcare context leading up to ethical education and rigorous regulations both in clinical (Nandi, 2000) and research (World Medical Association, 2013) settings. Medical research has led the way in articulating required information practises in detail to guide the ethical practices and protect the legal rights of individuals. In that context, provided information must contain aims, methods, any possible conflicts of interest, anticipated benefits and potential risks, and also the right to withdraw consent at any time (World Medical Association, 2013). Additionally, instead of indicating just one event for consent subscribing, informed consent is intended to be a process where individual interests are constantly guarded (Hall *et al.*, 2012).

As the case was with control (above), transparency and being informed also can be seen as a wish to possess agency and make one's own decisions on the grounds of received information. As a transparent, ethically and legally regulated method informed consent might be applicable also in data economy practises. No doubt, we had to consider how to modify those practices to fulfil the requirements characteristic of this particular context. In addition to that, it would be wise to consider possible obstacles beforehand to evade communicative and practical pitfalls. Namely, regardless of the long-lasting implementation of informed consent practices, shortcomings with readability and intelligibility in divergent culture and language settings are reported repeatedly (Tam *et al.*, 2015; Mandava *et al.*, 2016; Samadi and Asghari, 2016; Paasche-Orlow *et al.*, 2003). People may, as an example, read and subscribe to a consent document without understanding and, consequently, being truly informed (Epstein and Lasagna, 1969; Schultz *et al.*, 1975). It naturally jeopardises the whole idea of informed consent. Besides, as the data economy occurs globally, a wide variety of cultural, educational and socioeconomic factors should evaluate diligently to achieve internationally acceptable, useable, and suitable methods for giving consent (Krogstad *et al.*,

2010). Therefore, it is obvious that when consent for data collecting and use is in question, considerable effort is needed to inform people not only appropriately and clearly but also in such a way that offers a decent chance for comprehension and choice.

In general, security (3) is highly valued universally (Schwartz, 2012). In this study, it was as valued as transparency and being informed (see above). In some cases, security was linked with being informed (2), but more commonly with trust and fairness (4), which proved to be the fourth of widely valued issues by respondents. Confidentiality, anonymity and privacy were repeatedly pointed out as significant issues by respondents, as well as the need for restrictions on data gathering, handling and locations (Rantanen, 2019; Rantanen and Koskinen, 2020). As mentioned earlier when discussing control, the magnitude and speed of changes in data processes have been tremendous for years. Possibly all these changes with troubles to understand and control them have generated a sense of insecurity. In that case, the wish for safety would seem quite reasonable.

Trustworthiness has also been emphasised as extremely valuable in various guidelines, like ethics guidelines for trustworthy AI as one of the latest (High-Level Expert Group on Artificial Intelligence — AI HLEG, 2019). As for fairness, it has been internationally recognised principles with Fair Information Practices (FIPs) already from the 1970s, when the initial articulation in the USA and the UK occurred. Throughout FIPs multiple revisions, the privacy of information about individuals has remained at the core of these guidelines (Gellman, 2021). Therefore, guiding principles for the collection, use, retain, manage and deletion of personal information appears justified. Although the issues like these have been articulated in recent legislation (European Union, 2016), there is an ongoing need to update regulation as a new type of technology with novel functions highlighting new privacy challenges (Proia *et al.*, 2015). Further, clear communication, transparency in practices and people's right to make their own decisions about personal data are intrinsic issues in recent guidelines (European Union, 2016; Gotterbarn *et al.*, 2018; High-Level Expert Group on Artificial Intelligence — AI HLEG, 2019). Dynamic consent could be one practical tool, which would have the potential to be applied from biobanking to any data-intensive situation. Open, personal and two-way communication instead of often obtained broad consents has numbered pros (Kaye *et al.*, 2015). When aspiring people's trust in the data economy and suggesting a European model to rectify the current situation, both people's values and chances to safeguard themselves should be acknowledged.

Compensation or benefits for users (5) are frequently stated as significant aspects of the fair data economy. However, it was clear that compensations and benefits were seen both as hedonic value and universal benevolence. Some people wished to have compensation for disclosing their data, while some perceived public good as a satisfactory benefit (Rantanen, 2019; Rantanen and Koskinen, 2020). This duality accentuates the complexity of the ends that people value in the data economy systems. People regard data economy ecosystems as a business with data as a traded product. From this view, people want something in return for themselves, whether money or better services. Malgieri and Custers (2018) argue that people have a right to know the value of their data. However, the worth is not much as the sum for most individuals' data is less than a dollar (Malgieri and Custers, 2018). Personalised services and offers are often traded to personal data. In these kinds of situations, data and privacy can regard as payments for services (Elvy, 2017). At the same time, people are assessing the value and benefits of their data in a larger scheme of public good (Rantanen, 2019; Rantanen and Koskinen, 2020). It differs from the hedonic compensation as the people might not get anything in return for themselves. Of course, using personal data to create either private or public good should not endanger the autonomous agency of individuals. Benefit achievement for compensation should be explained clearly. Only then people can make active decisions about their data. Thus, the assessment of benefit gained links back to transparency and autonomy, which require communication and acknowledgement of agency.

Supervision and rules (6) were significant issues of fair data economies. A clear set of rules and nonpartisan supervision were regarded as enablers of the whole ecosystem. People demanded that the violations of the rules should have “hefty punishments” so that the data economy could stay fair. Institutions having a claim to this power should be independent of the data economy that they govern. Such institutions could be, for instance, governments (Rantanen, 2019; Rantanen and Koskinen, 2020). As mentioned, there are legislation and rules that should be complied with in data economy ecosystems, such as GDPR (European Union, 2016) and codes of ethics (Gotterbarn *et al.*, 2018). However, it appears that people do not see these as sufficient safeguards of fair data economy ecosystems but demand clearer rules and more convincing safeguarding by trustworthy institutions.

Lastly, negative attitudes towards data collection and data economy (7) were presented. Cynical comments towards the current and possible practices of data economy ecosystems emphasise the distrust among the people (Rantanen, 2019; Rantanen and Koskinen, 2020). Trustworthiness, as discussed earlier, is one of the issues that laypersons value. Trust also is one of the key predictors in technology use (Li *et al.*, 2008), and it connects strongly to the willingness to disclose personal data (Punj, 2019). Trust between people and data economies can regard as institutional trust, where the trustee evaluates the trustworthiness of the rules, roles and norms of institutions instead of people occupying within them (Smith, 2010). To resuscitate the trust between people and the data economy ecosystem, we should focus on the trustworthiness of rules, roles and norms from the laypersons’ perspective. It, yet again, showcases that the laypersons need clear and transparent communication that is currently missing.

### 3.4 Required steps towards a novel status

As expressed in previous subsections, the issues laypersons prefer are rather parallel with those presented in guidelines. Noteworthy is that both stress laypersons’ agency with the right to make choices and be in control. In addition, obtainable benefits from collaboration and dialogue with laypersons were mentioned in guidelines (High-Level Expert Group on Artificial Intelligence — AI HLEG, 2019). However, when comparing these qualities to the “data subject’s” current status, the difference is evident. Furthermore, laypersons’ status is not in isolation. Instead, it links with other stakeholders and their communication.

As there is a consensus among normative theorists of cultural pluralists, that dialogue is the key for securing just relationships between different groups (James, 2003), our suggestion for governments, organisations and developers is to take a couple of steps further for enabling just relationships and dialogue with laypersons. To do that, laypersons should be encountered as justified stakeholders (see, e.g. Dempsey, 2009) and credible communication partners in data economy ecosystems. For that, (1) laypersons should be seen as equal partners that have both ability and right to speak for themselves, (2) communication practices should reflect respect for their autonomy and (3) genuine opportunities for stakeholder collaboration should be established. Hence, both changing the way of speaking and giving opportunities to contribute as actual (communication) partners are vital.

In the next section, we will show how these recommendations would work as a combination of invitational rhetoric and Habermasian discourse, and how to utilise them when aspiring towards understanding partnership with shared benefits in the data economy.

## 4. Invitational rhetoric and Habermasian discourse: communication tools for stakeholder collaboration

In this section, we will present communication tools for stakeholder collaboration. We will start with introducing invitational rhetoric and continue with Habermasian discourse. After that, we will sum our suggestions for implementing the presented tools towards more appropriate communication and collaboration with laypersons.

#### *4.1 Invitational rhetoric as a starting point*

When communicating – about data economy, data government or whatever – we take simultaneously certain rhetorical action by our attitude, words, signs and pictures that we choose to utilise. As communicators we put persons in certain positions, give them either power to act or leave them powerless. Therefore, it is worth thinking what kind of positions, tools and power we provide to our communication partners with our linguistic choices and other practices. Moreover, are we even listening to them or taking trouble for shared understanding?

As a starting point for appropriate stakeholder communication, an environment, which enables respectful, responsive and supportive collaboration, is needed. For creating such a mental environment, we suggest implementing invitational rhetoric. As a critical theory, invitational rhetoric has fundamentally different premises and aims than the well-known rhetorical tradition. It was Sonja K. Foss and Cindy L. Griffin who proposed this theory in 1995. They defined the theory as “an invitation to understanding as a means to create a relationship rooted in equality, immanent value, and self-determination” (Foss and Griffin, 1995).

When thinking rhetorical tradition, Foss’s and Griffin’s perspective was a revolutionary one. As is well known, traditional rhetoric is about persuasion. As such, it is a conscious intent to change others. Accordingly, it aims to dominate and gain control over others. An endeavour to employ this kind of power over others can regard as a devaluation of others’ perspectives. Therefore, with this theory, Foss and Griffin did not only abandon the idea of rhetoric as persuasion but also challenged traditional rhetoric. In the very heart of invitational rhetoric lies a genuine willingness to listen, present ideas and collaborate with all stakeholders respectfully (Foss and Griffin, 1995).

Considering the enormous step invitational rhetoric took, it is not a surprise that this broad-minded theory has received critique from the proponents of traditional rhetoric. However, as the years have passed, criticism has been addressed, Invitational rhetoric has applied in various situations, and axiological, epistemological and ontological assumptions have been given to extensions (see, e.g. Foss and Griffin, 2020). Thus, the theory of invitational rhetoric has strengthened to be way more accurate than it was in its early days.

Invitational rhetoric premises base on creating an atmosphere and a relationship of safety, value and freedom. As for communication, it bases on equality, inherent value and self-determination. Hence, it is about a certain attitude, which is reflected both by external conditions and communication. Instead of an aim to change and dominate others, the issue at stake is an effort to see the world from others’ perspectives, appreciate and understand different standpoints and generate alongside the others greater understanding than anybody had before interaction. In that way, invitational rhetoric may ultimately lead to mutual transformation although the purpose is not to achieve any change in each other (Foss and Griffin, 1995; Foss, 2009b).

#### *4.2 Deliberative, rational discourse as a second step*

When a secure and respectful environment for collaboration is created by invitational rhetoric, it is time to take the second step with communicative action and rational discourse to develop data economy ecosystems.

Habermas has already a long history in information systems and has been a part of the paradigm change that the field has gone through (Lyytinen and Hirschheim, 1988; Hirschheim and Klein, 1989; Ross and Chiasson, 2011). Emancipatory principles of discourse in information systems development were stated in 1990s by Hirschheim and Klein (1994). Habermas offers a practical approach for information system (IS) through discourse ethics (Mingers and Walsham, 2010), that is among the main ethical theories that combine the

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universalist and particular perspective in specific contexts with its “method” called rational discourse (see, e.g. Scherer and Patzer, 2011; Schlagwein *et al.*, 2019). Likewise, discourse ethics and Habermas work overall has had a profound impact on management and organisation theories and seems suitable in the global environment by offering a solution for tension between different ethical and cultural positions (Scherer and Patzer, 2011). It is crucial in data economy ecosystems, which are global phenomena and thus will eventually face the challenges that different value backgrounds can and will entail.

Habermas’s rational discourse and discourse ethics base on the theory of communicative action (Habermas, 1984, 1987), which Habermas developed further in *Between Facts and Norms* (Habermas, 1996). Therefore, here we focus more on rational discourse as is defined in Habermas later work *Between Facts and Norms*, where he analysed ethical ways to provide legitimated laws with the deliberative and discursive participation of all stakeholders. Even discussions of data economy ecosystems are not the same as legislative ones, similar fundamental issues are behind both of those – what are legitimate ways to use power over individuals in society/data ecosystem.

In some cases, it is plausible to say that through information technology, it is possible (by dominating actors) to use so much power that laws do not have such an effect in everyday life. The companies collect such volumes of detailed information that most democracies could never collect from their citizens without facing protests and harsh criticism. The extreme example of the power of an organisation that control information is Cambridge analytics, a case where information was used to affect the heart of democracy – voting – in a very questionable way (Berghel, 2018).

Data ecosystems are becoming more and more powerful parts of our world, but not without some concerns. It is obvious when thinking about systems as Habermas in his system – lifeworld model of society (see Flynn, 2014). In Habermas’s model, individuals share the lifeworld. It is an arena where encounters and communication occur, and the world is observed. At best, it leads to mutual understanding and consensus-seeking discourse. By systems, Habermas refers to economic systems, political systems and administrative systems, where actions serve the institutionalised goals of systems (see Habermas, 1984, 1987, 1996, *Ibid*). Notably, systems are not separate from the lifeworld but a part of it. However, they may colonise the lifeworld. It happens when systemic power is used to manipulate individuals “in lifeworld” for serving the ends of system’s needs – organisational goals – and thus limiting the space of the lifeworld of people. These systemic powers use the aforementioned traditional rhetoric in communication: aim to control and dominate the individuals in their lifeworld. Instead, invitational rhetoric focuses on collaboration with all stakeholders – including individuals – and thus enriches the ethical discourse in the lifeworld.

We claim that the data economy is an area of systemic powers in society as it is controlled mainly by corporations, organisations and state-level policies. However, the data economy intersects and affects both systemic (organisations) and the lifeworld (shared, individual lives) as it is an integral part of both in the current digital society. Hence, stating that the data economy is colonising the lifeworld by being driven by economic, administrative and political powers is justified. It underlines the need for open, transparent and truthful discussion about the data economy and highlights the need to governance it for protecting the lifeworld from dominating systemic powers.

The problem is that we have already entered into an era of this new colonialism: data colonialism, which has normalised the exploitation of humans through personal data. Nevertheless, we should resist building societies based on total algorithmic control, where humans are lessened to a resource of economic purposes. It does not mean a rejection of data use and collection but a rejection of current data practices (Couldry and Mejias, 2019). It is necessary because we need more humanistic, person-centred ways of using data when striving for a fair data economy based on the justified values of people. It means that we need

to bring individuals to the core of discourse about the data economy and create a more appropriate lifeworld where they can participate as active actors in discourse without being dominated by systemic powers.

Habermasian rational discourse is based on the view that all stakeholders can participate in discourse (Habermas, 1996). All arguments in rational discourse are evaluated in terms of how convincing and plausible they are. Those arguments can vary depending on the issue at hand and can base on logic, ethics or another justified basis. A crucial aspect of rational discourse is that no strategic games are allowed. The strategic game is a way of influencing others by using something other action than a better argument. Bargaining, hidden agendas, use of authority over others are some examples of strategic actions (James, 2003).

Like James (2003) points out, communicative action, which drives towards understanding between different groups, lies at the core of inter-group dialogue. However, solidarity between distinct groups with different lifeworlds may be fragile, as administrative, economic or strategic aims are not overlapping between distinct lifeworlds (James, 2003). When considering the main stakeholder actors of the data economy ecosystem: corporates, individuals (source of information) and society, the divergence of their lifeworlds is evident.

In the context of data economy ecosystems, group conflicts and strategic games should be considered, especially in relation with the following five logics (see James, 2003) as those commonly lead to the diminishing of rational discourse and create a ground for unwanted and unethical outcomes:

- (1) *The resource logic* aims to secure resources as wealth and its sources. Cultural practices and language that advances the group work as an incentive for collective action on behalf of the group.
- (2) *The political logic* aims to gain political power by the political elite and tend to benefit group-based mobilisation.
- (3) *The information logic* is based on that elite and ordinary actors have different possibilities to gain and control information. Information can advance the group interest in many ways. Individuals and corporate players have completely different capabilities to gather, use and disseminate the information in the data economy.
- (4) *The positional logic* is based on that individuals defend their individual or collective identities by positioning themselves above others. Threat towards group position creates economically irrational, violent behaviour and concomitant emotive antipathy towards other groups.
- (5) *The security logic* is a situation where some party fears the security of its own and may confront violence to prevent threats they fear to face.

Instead of falling under the strategic games that may lead to conflicts between different interest groups and stakeholders, we should utilise rational discourse for a fair data economy.

From an ethical perspective, discourse ethics is a promising tool to bring different views under constructive debate and reveal the strategic logic behind group conflicts presented above. Like Stahl (2012) has noted, the discourse ethics – based on Habermasian rational discourse – provides a mechanism to consider different moral views and gives tools for solving conflicts between stakeholders. Our argument about discourse ethics as a fruitful basis for data ecosystems bases on three reasons. First, it avoids rigid standpoints such as the big three ethical (deontology, consequentialism and virtue ethics) theories do and thus can integrate different ethic views more easily, which makes it more adaptable. Although reaching theoretically universal justifications by discourse ethics is questionable, it seems useable to resolve problems, misunderstandings and disagreements in specific and limited

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areas (Scherer and Patzer, 2011). Second, it bases on the deliberative consensus approach, where the rules should be agreed upon commonly. It is in line with not only the democracy itself but also within the existence of varied and diverse stakeholder groups that are common in data economy ecosystems. Third, discourse ethics offers a tool to analyse and research communication action and discourse itself to see problems in communication (see, e.g. Yetim's model: Yetim, 2006).

#### 4.3 Signposts on the way forwards

In this subsection, we will sum up our suggestions for facilitating the implementation of invitational rhetoric and Habermasian discourse when aiming towards more appropriate communication, which includes understanding partnership, collaboration and laypersons' real agency in the data economy ecosystems.

The aim should be to establish a foundation for understanding partnership, discourse and collaboration by equalising existing power imbalances between professionals and laypersons. First, we suggest (1) creating safety arenas where laypersons feel welcomed and valued, (2) using familiar and respectful language and (3) expressing willingness for listening and collaboration. By arenas, we refer to particularly mental environments but also physical ones. Second, we suggest fostering laypersons' engagement by using multi-directional communication during open lectures, seminars, focus groups or other events. For engagement also online media (web sites, Twitter, Instagram, YouTube, slides and blog posts) and other visual means (infographics, comics) can be utilised. Third, we suggest inviting all stakeholders (laypersons, companies, governmental actors and third sector) to participate and present their viewpoints in discourse ethic workshops. We recommend it because Habermas' rational discourse is a promising approach for gaining insight into and understanding the social aspects of information systems (Lyytinen and Hirschheim, 1988). Likewise, Habermas' work has played an important role when developing IS, and it has enormous potential to develop it further (Ross and Chiasson, 2011). In addition to that, rational discourse and discourse ethics are ways to create consensus between different stakeholders (Scherer and Patzer, 2011; Schlagwein *et al.*, 2019).

When arranging a workshop like this, we recommend two different roles for two conducting hosts. The other host takes care of practical issues: makes recordings and notes while observing the dialogue. The other host is a facilitator: if the dialogue lacks rationality, validity or clarity, the facilitator directs towards a rational one. The idea is to avoid strategic games basing on power structures instead of the strength of the argument – it is forbidden in rational discourse. Arguments' validity is analysed by four classes: (1) comprehensibility (clarity), (2) truthfulness (veracity), (3) sincerity (correctness Vis-à-vis speaker's intention) and (4) rightness concerning norms (appropriateness) (Lyytinen and Hirschheim, 1988). To foster the rational discourse in data economy ecosystem(s), one requirement for the above-mentioned validity claims (Lyytinen and Hirschheim, 1988) is needed. That requirement is transparency. Without transparency, there is no chance to involve all stakeholders in discourse based on justified claims. Transparency is a central instrumental value in the fair data economy. Lack of it is harmful as individuals have no real chance to evaluate the rationality behind other stakeholders' communication, which make especially laypersons vulnerable.

### 5. Conclusions – from outsider to insider

With this paper, we have contributed to the current conversation about societal factors in the data economy. We highlighted communicative aspects, such as concepts and practices, which may hinder cooperation with laypersons. In addition, we analysed laypersons' diverse

statuses and agencies critically in the data economy ecosystems and argued that steps forward are needed for achieving stakeholders' shared benefits in the data economy. For that reason, we suggested invitational rhetoric and Habermasian discourse to aid towards understanding partnership between all stakeholders. It would enable laypersons to transition from subjectivity to agency. In other words, we offered ideas for stakeholder communication practices for calling and collaborating with laypersons in the sphere of data economy ecosystems. Although we discussed communicative issues in the data economy, the ideas presented here can apply more broadly to the ICT sector when laypersons are involved. However, interdisciplinary research concerning communicative issues in technology settings is needed more in future – both theoretical and empirical. The research collaboration should include at least communication and information technology ethics with the disciplines from the prevailing context (e.g. economy, healthcare, law, public administration and technology). To define the required communicative actions more accurately, we will continue with empirical studies about invitational rhetoric and Habermasian discourse in diverse ecosystems.

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