Towards a Democratic Smart City Design:

The importance of Trust and Participation for democratic Smart Cities

Linus Niemann

University College Fryslan
University of Groningen

BSc. Global Responsibility and Leadership

CFB063A10: Capstone Project

Dr. Karsten Schulz

Jun 10, 2022

Linus-Benedikt Niemann

Abstract

Urban challenges have continuously grown with the steadily increasing number of urban dwellers. The development has given rise to a proposed solution, originally propagated by some of the largest tech companies in the world, of implementing information communication technology (ICT) as a way of tackling urban problems. This proposition bears severe consequences for a democratic society calling cities their home, as the unprecedented growth of ICT has outrun societies' capabilities of adapting democratically. Citizen trust has been eroding over the last decades, posing difficulties in engaging citizens in democratic participation, thus tearing on a pillar on which democratic society rests. This research study utilized a qualitative approach in both consulting citizens and smart city experts in order to understand the implications of trust and participation for democratic smart city designs.

Table of Contents

Introduction

Urban living is the new normal. For a long time, more and more people have started to settle in cities in search of modern life, jobs, and a better living. This development has caused existing cities to increasingly expand and densify, as urban dwellers are now making up more than half of the world's population in 2020, a number that is expected to grow to more than two-thirds by the year 2050 (Ritchie & Roser, 2018). The challenges are affecting the heart of modern life, cultural exchange, innovation, movements, and social development (Keymolen & Voorwinden, 2020). The challenges have forced governments and institutions to adapt, prompting city leaders and national governments to search for new ways to effectively manage urban space, the home of most of their citizens (Toriz Ramos, 2019).

The introduction of smart cities to tackle urban challenges has received much attention from city leaders and governments. Advanced Information and Communication Technologies (ICT) as well as the Internet of Things (IoT), two of the most impactful technological innovations of our time, are expected to offer numerous opportunities for sustainable urban development and address urban challenges (Toriz Ramos, 2019). Smart cities rely on these digital technologies and more importantly, on data gathering. Put simply, smart cities are built based on ICT and IoT, gathering unprecedented amounts of data, which in turn is analyzed by Artificial Intelligence (AI), producing the output based on which policies and decisions can be made by governments to "effectively" manage urban space (Atkinson Foundation, 2021). To highlight the influence and power that ICT will increasingly have on society the following quote strengthens the necessity for a democratic smart city design.

"Those who control data, AI, and digital infrastructures will determine the nature of future institutions. To maintain European social models and defend values and rights, citizens must hold the reins of technology"

Francesca Bria

Former Chief Technology officer of Barcelona on smart cities

The latter quote from the former chief technology officer of Barcelona, highlights the pressing need to address the development of smart cities and explore efforts to design democratic cities governed by their citizens (Traldi, 2018).

However, many parts of the world have recorded a decline in citizen trust in governments and their institutions (Brezzi et al., 2021). Citizen trust is generally considered to be a core pillar of democracy and a prerequisite for citizen participation and the strengthening of democratic institutions (Van de Walle et al., 2008). Viewing the issue of trust in light of smart city developments, thus, evokes profound questions on how democracy may evolve given the unprecedented challenges it faces with the rise of smart cities.

Accordingly, this research paper aims to investigate the concept of trust and its relevance concerning designing and living in smart cities, as well as citizen participation and its political implications for current smart city design. These aspects will then be discussed in light of their importance for democracy. To answer the research question, interviews were conducted with specialist on smart city developments. Additionally, a qualitative citizen survey was conducted. The research does include interviewing specialists on trust and trust-building. While discussing

the findings an interpretative approach was utilized. The following research question and hypothesis have been formulated in order to investigate how current smart city design is taking into account trust and trust-building as well as participatory approaches, vital for a democratic and citizen-centered smart city.

Research question:

"What are the political implications of citizen trust, trust-building, and participation towards the development of democratic smart city designs?"

Hypothesis:

"Smart city design poses new challenges to trust-building and democratic citizen participation."

Methodology

The following section will outline and justify the methodological approach that was employed in this study. The key aim is to investigate the implications of participatory democracy and the corresponding level of citizen trust in their governing bodies for the development of smart city design.

In order to understand existing frameworks, regulations, and the development of different concepts relevant to the study, an extensive literature review has been conducted. The literature review helped to develop a more in-depth understanding of trust and trust-building, as well as participation and the dangers of smart city design for democracy. This approach allows for the examination and mapping of different concepts of trust relevant to identifying the implications of citizen trust in smart cities. Furthermore, a literature review will provide a critical discussion of the dangers smart cities potentially pose to democracy. Lastly, it will provide an understanding of the importance of trust and participation for democracy in light of smart cities.

For the literature review, specific keywords were utilized: "Participation", "Democracy", "Smart City Design", "Trust", "Government Trust", "Technology", "Trust-Drivers" and "Governance". Applying and combining these keywords in the search engine libraries Google scholar and Smart Cat (Rug Online Library), provided the necessary literature covering the essential topics and studies to answer the research question and confirm the hypothesis.

The research study utilized a qualitative approach in the form of a citizen survey and in-depth interviews with experts from various fields related to the notion of smart cities. A qualitative

approach is deemed to be well suited for this study, as it promises to provide important data from the social world. In political science, formal interviews are usually considered ideal for gathering first-hand data on recent developments and for understanding the interlinkages between undefined and still developing concepts and frameworks. Broadly speaking, a qualitative approach is appropriate for this study, as it allows for a phenomenological analysis of key concepts such as democratic participation, smart city design, and trust. It also allows for an interpretative approach to the survey results on trust, as well as their effects on participation and democracy.

For the purpose of this study, it was crucial to analyze and understand people's trust, or mistrust, in government institutions, as well as public attitudes towards the increasing development of smart city designs. To measure the attitudes of the participants concerning the latter topics, Likert scale questions, accompanied by an open answer field, served as an indicator tool. A Likert scale is ideal in survey research as it allows the collection and assessment of data on attitudes, perceptions, and opinions (Bhandari, 2020). A scale from 1-5 was chosen, as it provides the possibility to precisely indicate one's attitude towards a complex issue and strengthen deeper insights while maintaining an overview, depending on the specific question. The response items ranged from 1: No confidence, to 5: High confidence, thus including a neutral item at 3. Additionally, the study utilized a "Multipolar scale" to measure more than one attribute. In this way, it could be guaranteed that the data measured would be more precise while observing different attitudes. (Bhandari, 2020).

The open question field ranged from asking the participants to shortly justify their choice of the item on the scale to single open questions concerning their attitude towards specific scenarios. This inclusion was vital for the research study as the "Why?" was important in order to provide

an even deeper understanding of the attitudes and to enable better comparison between the frameworks and models of the literature review.

The participants of the survey were informed about the anonymity of the survey's design, thus creating no inhibition and enabling the anonymized use of data. To ensure the latter, Qualtrics was established as an online survey tool.

Moreover, a second qualitative approach was deployed in this study, namely, conducting formal, in-depth interviews with specialists in corresponding fields. Most importantly, by utilizing interviews, this study aims at linking political theory and practice. Interviews provide a well-suited view of the bigger picture, allow to discuss the current and possible future developments, as well as outlining their implications in light of the different concepts (Sullivan & Sargeant, 2011)

Seven qualitative interviews were conducted with specialists in the field. The professionals are situated in practical and theoretical settings such as participation, development of smart city frameworks and in research settings. The purpose behind the selection of interview partners from various fields in smart city design was to gather information on a broad and diverse range of smart city developments in an attempt to gain insights into the different concepts that are currently evolving. Additionally, so as to receive a full overview of smart city developments, the specialists chosen for the interviews were situated in leading positions at UN-Habitat, research institutions, and project management positions in local smart city initiatives. The interviews were structured with open-ended questions, thus enabling the interview partners to elaborate accordingly. A semi-structured interview method was chosen to allow flexibility and new ideas to be explored within the themes covered in the interview (Adams, 2015). Due to the nature of

the topic, with no static set of frameworks or approaches, follow-up questions could differ as redeemed fitting, allowing interviewees to report on their experiences and speak from their perspectives. Thus, the interviews differed in their questions and structure slightly, while maintaining a framework of the given themes. However, the main set of core questions related to the themes: "Democracy", "Participation", and "Smart city designing" were set not to diverge.

Prior to the interviews, interviewees were asked to sign a consent form that included the right to record, transcribe and use the anonymized data gathered through the interviews. The recordings were deleted immediately after transcription, whereas the scripts were saved securely digitally with restricted access to the individuals involved in this research study. All consent forms were received and signed.

This combined qualitative approach was decisive in producing the required interpretative discussion that sought to answer the main research question and confirm the hypothesis. Comparing and interpreting data from qualitative research and the literature review was deemed to be best suited to provide a holistic view of this research topic.

Literature Review

Democracy: The Importance of Citizen Trust and Participation

Citizen trust and participation are core pillars of a well-functioning democracy (Van de Walle et al., 2008). Trust and participation are closely interconnected as they are mutually dependent in fostering stable and strong democracies (Kikuchi, 2008). In the absence of citizen trust, participation decreases accordingly. Similarly, the absence of participation indicates reduced citizen trust. For this research study, it is not necessary to limit the discussion to one definition of participation, as the aim is to investigate participation through the lens of smart city designing, for which the degree of impactfulness linked to different forms of participation could vary. (Brezzi et al., 2021). Accordingly, trust is additionally examined in a broader scope and its importance for democracy. The ensuing section will thus determine the different dimensions of trust which are important to be considered in light of smart city developments.

Trust has been described as the very basis of society. Trust enables the social contracts that have formed and molded modern society and provides the ground upon which citizens can trust each other in upholding these very contracts (Kikuchi, 2008). At the core, trust facilitates a state in which people can depend on one another without a higher entity regulating this dependency (Kikuchi, 2008). Yet trust is by no means a simply guaranteed phenomenon, nor does it exist or should exist in its absolute.

The OECD as well as the United Nations refers to trust as a predictor for democratic, legitimate and good governance (Kikuchi, 2008). It is viewed as a vital factor in producing good policies and determines whether open and collaborating government structures can be shaped through the agreement between both society and the governing institutions (The United Nations, 2006). In turn, trust facilitates an open and transparent government approach, as governments are able to openly and transparently communicate their actions (Moyano et al., 2012).

Declining trust in governments has been a worrying development across most parts of the world. Declining public trust is undermining democratic legitimacy and the ability to govern in cooperation with citizens to address societal challenges and needs (Hetherington & Husser, 2012).

Trust in turn has vital implications for citizen participation, representing the heart of citizen engagement with the political system. Political participation has a twofold impact on a political system, it strengthens both the individual as a democratic citizen and the democratic system as a whole. Participation increases "democratic values" and "fosters civic skills" (Brezzi et al., 2021). Participation is vital as it establishes the representation of differing interests and needs within the population (Putman, 2000), thus ensuring a balanced accumulation of power that does not serve the interest of an elite minority (OECD, 2021).

The extent to which citizens engage in political participation is determined by several factors. Two of the core underlying initiators of participation are political attitudes and the ability to comprehend political processes. A further decisive aspect is both the individual perception and

reality in "being capable" of influencing the political arena (Prats & Meunier, 2021). The latter is positively associated with an increase in political participation such as voting, engagement with political content, the boycotting of specific products, or the uptake of communication with political actors (Prats & Meunier, 2021). Thus, the capability to understand and influence the political arena is vital for participation and in turn for the development of democratic values and hence democratic citizens.

Government openness has proven to be an indicator of increased participation, in contrast with the "distant" or "closed" (operating beyond citizen influence) governments. The "open government" describes a "closeness" between citizens and public institutions by enhancing the possibilities of democratic participation. In order to enhance citizen representativeness and thus democracy, the collaboration and exchange between citizens and governing institutions are vital, in turn strengthening democracy. Accordingly, exchange platforms are the basis for increasing the interconnectedness of citizens and the government, thus allowing for a representative democracy that tackles social problems, with a constant awareness of citizens' needs (Schmidthuber et al., 2021).

Smart Cities and Democracy

In order to understand the general implications for democracy, this section will focus on the dangers posed to democracy by smart city developments. These will be illustrated by a discourse on both possibilities of democratic erosion as well as current examples, in order to justify the need for trust and trust-building to strengthen participation, in turn fostering a democratic

environment. In order to evaluate the negative implications for democracy in smart cities, one has to examine the different forms of smart cities, as smart city designs can differ significantly with respect to democracy.

A universally agreed definition of the term "Smart City" does not exist. Broadly speaking, smart cities can be defined as cities that use information and communication technology (ICT) to obtain real-time data that is utilized for various purposes (see Table 4) (Bua & Bussu, 2021; Gupta et al., 2019; Helbing et al., 2021). Generally, the implementation of ICT refers to different types of sensors and cameras to collect data from all across the city (see table 4).

The idea of smart cities has received increasingly substantial attention across the globe over the last few years (Toriz Ramos, 2019). Firstly propagated by the private sector and more specifically transnational tech giants, technology was spread to serve as the solution. At the core of this topic lies the discussion around the ICT, which is able to offer valuable data to improve life in the city and address urban as well as environmental issues (Welzer, 2016; Zuboff, 2019). On the other hand, excessive data gathering and analysis raise major concerns for citizen's privacy and fundamental democratic rights. Given the possibility of fostering both empowerment and oppression, there is a broad discussion surrounding the regulatory framework, and specifically the question of who controls what kind of technology and data for what purposes (Atkinson Foundation, 2021).

Smart cities have been subject to much criticism with under starting at the definition of "smart" over technocentrism and surveillance capitalism (Zuboff, 2019; Welzer, 2016). It is vital to

understand and raise attention to the criticism expressed toward the early dominance and influence of the private sector and its influence on the evolution of smart cities. Starting with the use of the word "smart", which is a mere extension of the "smartphone", providing meaning that is connected to the thought of smart technology making everything easier (Welzer, 2016). This connects to the aspect of technocentrism, also a narrative that places technology at the center of society, ascribing it the value of an "all solving" entity, capable to counteract any environmental or human challenge. Propagating its rationality and abilities, the private sector has made many promises to governments worldwide, to tackle urban problems with ICT (Welzer, 2016).

Offering technological solutions to urban problems, governments across the globe have been eager to cooperate with large tech companies such as IBM, CISCO, Alphabet, or Siemens. Driven by a neoliberal, neocolonial, and capitalist mindset, the omnipresent objective of these giant transnational companies is profit, evoking a smart city development that is subject to economic powers with a fundamental interest in citizens as the producers of raw material, namely data (Helbing et al., 2021; Keymolen & Voorwinden, 2020; Reuter, n.d.; van Zoonen, 2016). Due to the dominance of the private sector, the danger of "handing over" public institutional functions, by letting the data govern, to a profit-driven agenda, has the potential to seriously undermine democracy (Reuter, n.d.). The following table highlights some of the core structures existent in the latter form of smart cities (Table 1).

Smart Cities and the Negative Implications for a Democratic Society	
Top Down	- Alliance of government and private sector with little to no citizen input → Technocratic/Top-down governance
Technology as THE solution	- Change driven by Technology → One size fits all solution
Privatization	- Institutional functions managed by private sector (profit driven)
Privacy Surveillance	- Data gathered from citizens is utilized to surveillant, predict, categorize, and profile individuals or groups
Security	- Hacker attacks on critical infrastructure

(Table 1) (Muggah & Walton, 2021)(Araya, 2015)

The table above, summarizes core aspects of the originally proposed smart city design, propagated especially the private sector. However, these have taken shape in several cities around the globe. The most severe and prominent example are the smart city developments in China. However, similar developments are taking place in parts of Latin America, Africa, and the USA, with under incentivized by Chinese companies (Muggah & Walton, 2021). The form of smart cities presented in (Table 1), utilized vast amounts of ICT and IoT, deployed across the city including biometrics facial recognition cameras, trackers, satellites, sensors, drones etc to monitor the behavior of citizens, gathering unimaginable amounts of data, generally utilized by governments and private tech companies (Araya, 2015; Muggah & Walton, 2021).

On the other hand, the Fab city foundation offers an approach that, at its core, is centered around the people, proposing a bottom-up philosophy that, from the very beginning in the attempt of designing technology and tackling challenges, is driven by people. The framework and core ideology underlying the concept of a smart city are presented in (Table 2).

Fab Lab Foundation as a Democratic Smart City Design	
Open data	- Commons approach → Open-source data - Exchange of data - Innovative development and shared solutions
Democratizing production	- Localizing production - Democratizing production through - Building public skills - Ownership of innovation
The Smart Citizen	- Engagement with all stakeholders - Decision making through empowered citizens - Inclusion of all regardless → Focus on people and culture before Tech - Participatory design of technology → Design around the citizen
Sustainable	- Production chains locally - Local use of resources → Circular Economy - Sustainable, inclusive, resilient cities → addressing interdependencies
Smart cities are built bottom up, locally, out of the innovation that locally arises with participation, tailored to the need of the people and the environment.	

(Table 2) (Fab City Whitepaper, n.d.) (Fab City Manifesto, n.d.)

At this point, the fundamental role that data has to play in smart cities has become evident. Thus, it is crucial to emphasize the role and power of Big Data (Welzer, 2016; Zuboff, 2019). This is a concept that lies at the heart of smart cities. Data has become of significant value to the

economy, politics and society, thus the interest in its value is steadily increasing (Zuboff, 2019). Due to the profound objective data will have in the 21st century and the core feature it presents in smart cities, it is vital to raise the aspect of surveillance capitalism firstly presented by Shoshana Zuboff (Zuboff, 2019). Big data and powerful AI´s have been widely adopted not only to understand human behavior, but to predict human behavior. In the private sector, predicting human behavior serves to provide certainty of human action. Behavioral certainty is utilized as an omnipresent economic exploitation mechanism and is consequently sold to companies in order to maximize profit (Zuboff, 2019). The incentive to manipulate, push and shape human behavior has thus become of interest to some of the most powerful and influential companies on the globe. The processing of data has created a new frontier of power that is crucial to emphasize when attempting to discuss smart city developments (Zuboff, 2019).

Building Democratic Smart Cities through Trust and Participation

This section will determine the necessary architecture of trust, which is important to consider when viewing smart city developments. The following table (Table 3) summarizes the different dimensions of trust that compose the identified architecture of trust, vital to consider for smart city designing. Table 4 presents the core drivers of trust that were identified. The drivers of trust build the foundation on which smart cities can develop in a participatory and democratic manner. These characteristics determine the level of trust citizens place in institutions and the government system.

Architecture of Trust for Smart cities		
Dimensions of Trust	**Definition**	**The Implications**
Interpersonal Trust	Interpersonal trust is the acceptance of being vulnerable towards the other party including the evaluation of the parties' ability, good-will and honesty characteristics.	Trust in one another evokes a behavior in which we are certain about the future. This increases the belief in a positive future, expecting others to have positive intentions. It enables us to foster social ties and thus makes social life possible. Without ignoring the vulnerability, it reduces complexity and makes social life possible even with uncertainty.
Trust in Institutions (Government system)	Two core dimensions of trust determine trust in institutions and the government system. Relational trust and performance trust. The notion of relational trust is the trust "we" ascribe to the institution to not misuse its power, undermine democracy, and erode the fundamental rights of citizens. Performance based trust rises and falls with the perceived initiative that institutions undertake to perform their duty.	Trust in institutions can vary in its value significantly depending on the type of institution. Trust in government is a strong predictor of public support for the government as well as compliance and the acceptance of rules and regulations practiced by the government as an authority. Trust is important to increasing policy effectiveness across institutions, as it determines the behavior of the public. This trust is vital in tackling the long-term challenges society is facing today, such as climate change to name the most pressing. It is a core predictor of transformational governance to a participatory design.
Trust in Technology	In Philosophy it is widely accepted that trust in technology is not trust in the actual artifact but rather trust in the people or institutions that are responsible for its creation and or management. Accordingly trust I technology itself will not be adopted, but rather considering the players "behind" the technology. The technological artifact referred to here will be data gathering technology such as sensors and cameras.	Considering this trust is vital as it increasingly determines numerous parts of our lives. We rely on a vast amount of technology to function as we trust them to. However, they withhold numerous risks, unprecedented consequences and often have a substantial influence on human behavior. Posing vast philosophical and ethical implications.

(Table 3.) (Accenture, 2007) (The United Nations, 2007; Baier, 1986; Brezzi et al., 2021, 2021; Kikuchi, 2008; Möllering, 2001)

Drivers of trust in Government and Institutions			
Values		Competencies	
		Reliability	Responsiveness
Integrity	• Public institutions driven by public interest through ethical values and principles • Ethical resource treatment • Fight corruption • Independent institution upholding and representing interest of public	• Addressing the needs of society • Address and reduce un-expectancies • Address and tack action on challenges with cooperation and policies	• Quality, effective, timely and citizen centered services • Coordination across government institutions • Innovative, efficient services
Fairness	• Fair treatment of people and businesses regardless of any preconditions • Improvement for all		
Openness	• Clear and open information on the actions taken by government • Citizen participation and equal opportunities • Representative democracy		
Government trust in Citizens			
• Citizen's perception that they are trusted increases citizens trust respectively • Governments perception of citizens to be trust-worthy increases initiatives undertaken for participation			

(Table 4) (Jones, n.d.; Moyano et al., 2012; OECD, 2021; Yang, 2005)

Interpersonal trust lies at the heart of numerous concepts of trust (Keymolen & Voorwinden, 2020). It is considered here in light of smart city developments due to its importance for interpersonal relationships, thus posing implications for singular politicians or other agents involved in smart city developments (Keymolen & Voorwinden, 2020). Trust in institutions and the government system is also important, as it shapes how citizens perceive the implementation

of smart cities to be beneficial to them and to serve the common good, especially with hindsight to the relational trust component (Domański & Pokropek, 2021). This is due to the fundamental role that governments and institutions have in the development of smart cities. It is a basic trust on which governments can effectively and democratically govern (Rodríguez Bolívar, 2016). Trust in technology is self-evident as smart city developments largely rely on the implementation of technological artifacts. However, it has been widely accepted that the public placement of trust, rather than being directed towards the material artifact itself, includes the same aspects of trust that we place in the people, institutions, and companies we believe will support ethical implementation, by serving the common good (Nickel, 2013).

As previously mentioned trust largely determines the participation of citizens, the latter forms of trust will largely determine the participation with regard to smart cities and will predict the participatory actions that citizens undertake in smart cities. These can range from voluntary data sharing to the adoption of knowledge on new developments, in turn fostering innovative participation or informed decision-making like voting, petition signing, or direct participatory actions with regards to smart city developments, thus strengthening and possibly enhancing democracy (Prats & Meunier, 2021).

<u>Survey Results</u>

<u>Trust in the Government</u>

Trust in Government was measured via three multiple-choice questions with a five-point Likert scale, asking for the participants' general degree of trust in the <u>democratic functioning</u> of the political system in their country followed by a question asking their agreement with the <u>statement:</u> The political system in your country safeguards a free, open, and fair democracy. These questions were followed by an open question asking the participant to indicate the reasons as to <u>why they are not fully</u> confident in the functioning of democracy in their country, including several sub-questions about why they think it is "unfair" and does not benefit the citizens, etc., thus providing the opportunity to qualitatively measure why people do not trust their government.

Generally, there was a wide consensus on several points as to what undermines the functioning of democracy. Several respondents indicated that the interest of the economy dominates the political arena more than the interests of the citizens. Indicating <u>"economic interest being placed above people's interest"</u>, or mentioning the <u>influence of the industry</u>, <u>companies,</u> and <u>lobbying</u>. <u>Corruption, manipulation</u>, and the perception of politics serving the <u>"upper class"</u>, as recurring narratives. One participant stated, "<u>The</u> rich hold the money and the power" which was also mentioned in less extreme wording by other participants. Similarly, a number of people indicated their concern about not being represented by the political system. The latter concerns ranged from mentioning low voting participation, over politicians making promises in campaigns which

they do not fulfill when governing, to stating "Neoliberalism is intertwined with politics, putting the interest of the corporations and the economy, above general welfare."

Trust in Data

Generally, it is important to note that over 50 % of respondents had never heard of the term "smart city". The participants who did were asked to state their understanding of what smart cities are. The answers given by respondents largely included the terms "Technology" or "Digitalization" and used these terms in combination with increasing efficiency, making cities more livable and more sustainable. Additionally, the general consesus was that technology would serve to evoke the latter and increase sustainability, livelihood, and efficiency.

When asked to imagine living in a city where data is collected from public and personal devices and what their confidence would be, if they were to live in such a city, skepticism was relatively high (illustration 1).

(illustration 1)

Concerning the participant's justification of their answer and when they were asked to provide a scenario in which they would possibly be confident, answers differed drastically. On the one hand respondents made clear that in the right framework, one which would protect their privacy and protects against misuse, they would be willing to share certain data. Respondents emphasized that a perfectly transparent and comprehensible procedure would increase their confidence as well as the assurance of functioning processes. Additional weight was placed on the importance of the individual or entity controlling what kind of data is utilized for what purposes, and the assurance that it would remain confidential as well as not shared with third parties. Some respondents stated that in the presence of a transparent framework, used for environmental and societal purposes, they would be more confident about data gathering in a city.

Participants were additionally asked to state what kind of data they would be willing to share and under which circumstances. These ranged from the willingness to share no data at all, which was mentioned relatively often, to sharing all data that one produces about oneself. Other frequently

stated responses were geolocation data, address data, and general data about oneself such as age or any personal information. The most often mentioned precondition was complete anonymization or the absolute assurance of confidentiality, a transparent holder and communicated purpose of use.

When asked an open question as to [how confident](#) they were that data collection could produce benefits for society, answers diverged and varied greatly. However, it stood out that numerous individuals indicated that they were "unsure", as they made statements such as "don't know" or deemed themselves "unable" to evaluate that, etc. alongside other additional respondents who were not confident that sharing data could produce benefits at all, stating "not at all confident" or "little confidence" and "Little benefits". Additionally, others indicated that they believe data collection could bring about great benefits for society, but that they believe that "it does not happen" or even "don't believe it ever will". On the other hand, there was a clear understanding of the possibilities stating that society could derive great benefits for societal development and bring attention to societal challenges and needs. However, several of the benefits that were stated were accompanied by statements that doubted that these benefits would establish themselves.

Trust in Smart City Components

Trust was generally measured towards the different possibilities of who will be shaping and in control of smart city developments. Thus, questions were asked as to what system of control they would trust the most as well as what enhances or reduces their trust in the specific controlling party for gathering and processing data from across the city. These players were defined as the

government, private companies, and an open-source system. Generally, the following table summarizes and clearly outlines people's opinions when placing their trust in smart city players (illustration 2).
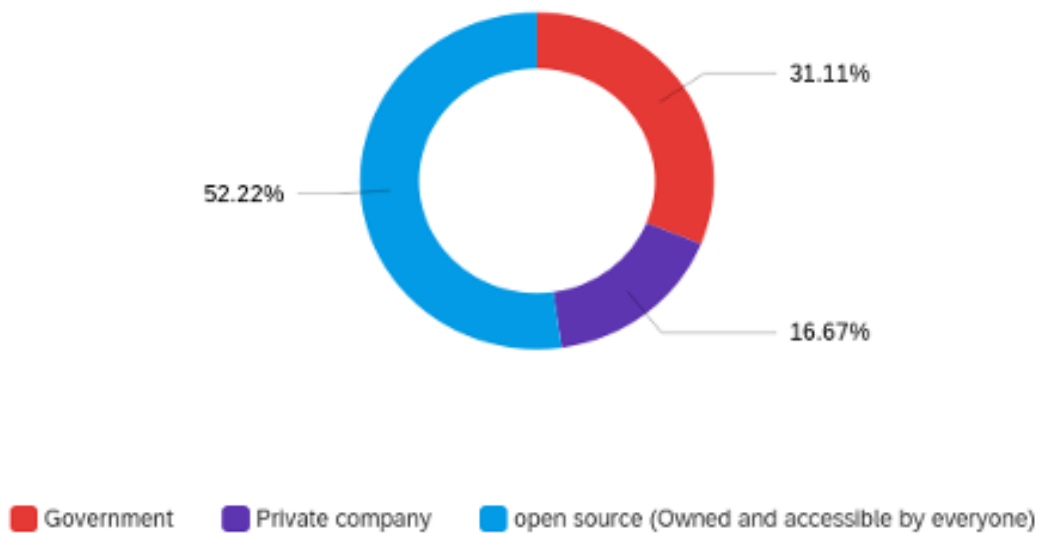
Illustration 2. clearly shows that people tend to trust an open-source system for data collection and processing the most, with 54.88% indicating this. Followed by the Government with 29.27% and private companies with 15.85 %.

Trust in Open-source Systems

To the question of why people trust an open-source system towards the government and private companies, a vast majority of participants indicated the aspect of transparency, open access, and public control. Close to all participants who indicated that they trust an open-source system the

most indicated that this is the most transparent option. Numerous individuals coupled this with their perception that it offers equal access and control of the data that is gathered, what is gathered, and for what purposes. Some indicated that with an open-source system power would not be centralized and could not be misused and profitable for single parties. Statements to this were clear and straightforward. "It can be checked by everyone", "High transparency of data processing", "Everyone can see and search for the truth", "most democratic", "decentralized", and "Transparent and accessible to everyone and not controlled by a single entity".

The same participants were asked the question of why they do not trust the government and private companies. The answers given presented the opposite perception of why they trusted an open-source system. Misuse was stressed the most frequently, indicating that people distrust the government or private companies to not abuse their power. According to the latter, participants stated that governments and private companies would have other interests, such as "profit" or "exploitation". Participants placed great distrust in companies or governments, often indicating that data would provide too much power for centralized entities which could not be sufficiently checked and controlled by the public.

Trust in Government

Answers as to why participants placed the most confidence in the government to collect and process data were not straightforward. Nevertheless, numerous participants indicated that the government is a trustworthy entity because it "serves" the people or could be "checked and controlled by its citizens". Additionally, participants indicated that they were voted for by the citizens and that they are subject to rules, laws, and regulations that could safeguard the process.

Two participants also indicated their faith in the government and that it would handle data in the most respectful manner. However, there was also some mistrust represented, stating: "At least it is intended" with regards to the government functioning in a law-protected framework. Moreover, one participant stated "the lesser of two evils", and that governments "should" have the "goal" to consider the interests of all.

When the same participants were asked why they do not trust an open-source system and private companies, there was a general consensus amongst numerous participants that it lacks a regulatory framework, stating "too little control", and "Violation of security guidelines", "not closely watched" or "not bounded to limits as the government". Additionally, concerns were raised about the data being utilized to generate profit, which was largely connected to the private company entity. A further concern of some of the participants who trust the government the most was that an open-source system or private companies would not secure the right kind of anonymization. Similarly, others also indicated that data privacy would be a concern, or that data would become subject to generating profits.

Trust in Private Companies

Participants generally trusted private companies the least, with distance to governments and open-source systems. Nevertheless, the most outstanding consensus was with respect to the private companies' ability and the perceived lack of interest that private companies have, in data revealing sensitive information that could be used against oneself. One participant stated that private companies possess the necessary capabilities to protect data and the resources to develop useful data sets. Others stated that there would be the necessary flexibility or innovative capacity.

When these participants were asked why they do <u>not trust the other parties</u>, participants indicated that governments and open-source systems would not sufficiently protect data. Open-source systems were generally viewed as too dangerous with regards to hacker attacks or in case individual with the wrong interest laid hands on the data. The separation of power was also seen to be the basis of democracy and it was argued that thus governments should not be responsible for data.

The citizens perceived distance to their governments and the concerns of misuse of power, representation of economic interests and perceived inability of influence are concerns found both with regard to the trust citizens place in governments generally and the distrust they place in governments responsible for smart city developments. Coupled with the call for more transparency, representation and accessibility, and it provides a clear picture of the need for an open, transparent and inclusive system behind smart city designing.

Interview Results

The frameworks of participation and cooperation in current smart city developments

The following section will present the results derived from the qualitative interviews with seven experts in the field of smart cities. Due to the nature of the topic, the aspect of trust and trust-building will largely remain subject to discussion as this includes an interpretative approach to the information obtained during the interviews.

Input and cooperation partners in smart cities

The interview partners were all presented with a question as to who are the input or cooperation partners surrounding the smart city developments. Two of the experts working with and for United Nations Habitat talked about their global program named "people-centered smart cities", including more than 250 cities, serving to produce a report to establish a governance framework that serves to advise governments on how to deal with digital technologies and issues regarding digital rights, ethics around technology, and digital service standards (Interview 2,7). Similarly, several experts mentioned the existing "capacity gap" between the private sector and governments regarding technology, stressing the need to close this gap. A major gap was also mentioned to exist between Northern and Southern countries regarding the capacity for technological innovation (Interview 1,2,6).

When asked about private company collaborations with the government, one interview partner from the United Nations Habitat replied that "Oh, there are so many… I would say that almost all big tech companies have a variety of different collaborations with… local governments" (Interview 2). The interview partner provided an example of MasterCard who, have 100 cities they collaborate within a network, his colleague and a researcher mentioned Google (Interview 1,2,7). A different expert also mentioned that these kind of services are often connected to secondary interests, i.e. to sell that data to governments. A further research expert also collaborating with the UN also made clear that governments highly rely on this data from the private sector and will continue to do so for some time (Interview 7). From the UN habitat a specialists also indicated that the private sector is "absolutely fundamental" stating that the collaboration with the private sector will be much more important compared to government collaboration in other sectors, also stating that almost all tech will come from the private sector (Interview 2).

The core topic of another expert interview was the hypothesis that those controlling "data and AI and the digital infrastructure are the determinants of future institutions", a perspective provided by the chief technology officer of Barcelona (Traldi, 2018b). The expert did not agree and drew on an example of urban planning, where it was stated that the governance between the division of private and the public is clear when it comes to planning and building public space. However, the expert states that this framework does not exist when it comes to the smart city sector. Stressing the need to produce a clear governance framework in which "the division of

responsibilities are clear" (Interview 2), and adding that the private sector will probably have a more fundamental role in smart city designing than in other sectors.

On the other hand, the interview partners from smaller bottom-up projects such as the Fab-City Foundation or the City Lab Berlin, to some extent, portrayed a very different approach, stressing the collaboration and partnerships with local stakeholders and emphazised technological innovation to develope locally (Interview 4). However, the city lab Berlin expert tended more towards the previously discussed approach (5). The expert from the Fab city foundation stressed that their proposed approach is "an alternative way of understanding the city" (Interview 4), also mentioning the issue of private tech companies following the interests of profit maximization and the creation of new needs (interview 4). A researcher from the Alexander von Humbolt institute, also advising the German government, was asked what his idea is for the Fab city concept. The expert stated that an uphill climb is undesirable, adding that it does not withhold the capabilities to build a community or city, based on their ideas. Additionally, he placed emphasis on the capabilities of the private sector to deliver due to mass-production possibilities (Interview 3).

The Fab City Foundation on the other hand functions to coordinate and provide a functioning framework under which these local projects can develop. Providing the infrastructure and framework from above to foster and empower local bottom-up approaches (Interview 4). On the other hand one United Nations Habitat expert proposed that due to a not yet existing framework, as outlined previously, this take of "Community-based" and "community-owned" networks have arisen which are not necessary when the governmental framework is in place (Interview 3).

Furthermore, some experts were asked about the development of open-source data frameworks in their field. Generally, there was a consensus among the experts regarding the increasing development towards open-source and open data (Interview 1,3,4,5,7). However, several experts emphazised the EU General Data Protection Regulation (GDPR), as a framework for data collection (Interview 3, 1). Whereas the Fab Cits expert states that their underlying ideology is an open exchange of data between different fab labs and makerspaces around the globe.

The developments in Africa were viewed critically by several experts (Interviews 1,7,6). It was stated that the smart city developments is a "...super worrying trend. Super worrying trend." and that smart city projects and collaborations were still subject to the old idea of smart cities once proposed by the mostly Western tech industry (Interview 1). The expert on African countries confirmed the trend and emphazised the role of especially chinese companies in providing technology and consulting governments (Interview 6).

Participation

Participation was a core aspect covered during the interviews. All specialists were firstly asked very open questions such as how do you view participation in smart city design? Or, How is participation included in your field? What does it look like? According to the field of the expert and their answer, follow-up questions differed.

Across all experts, except the specialist on African cities, the interview partners placed citizen participation as a top priority (Interviews 1,2,3,4,5,7). From the experts in the United Nations Habitat to the smaller Fab-City or City Berlin projects or the experts from research institutions, all emphasized the importance of citizen participation. Both experts from the United Nations Habitat mentioned the Minecraft participation tool they utilize (Interviews 1,2). One specialist stated: "We use Minecraft as a recreation and public participation tool working with… marginalized communities young people all over the world…" (Interview 2). To a follow-up question to a UN-Habitat expert, asking about the necessity of a "push" for participation, the research expert answered: "No I don't think so… I think it's difficult to get" and added, "... if the administration in place is able to perform the duty without participation, well I am happy" (Interview 1). The expert further elaborated that a well-designed participatory process could entail finer and more precise information about how the city works, yet added to this that actually the democratic system, such as the possibility to vote is the fundamental participatory process (Interview 1).

The interview partner from the smart city project Berlin emphasized the "deliberation process" they conducted, involving different kinds of local stakeholders involved in the smart city projects (Interview 5). They began by consulting the people, conducting so-called "silent groups", interviewing ordinary people including refugees and homeless people, and only afterward conducting workshops, interviews, and questionnaires with other parties such as the private sector or the administration. They utilized the public participation platform to inform and ask the public about current drafts and ideas they had with regard to smart city ideas (Interview 5). The Fab City expert stressed maker spaces and fab labs as local engagement possibilities. With a

philosophy that smart cities arise out of the needs of local communities, thus not only including consultation dn workshops with citizens, but the core idea of developing technologies together with citizens, designed to tackle the local needs (Interview 4), as well as having fab labs an makerspaces to empower and inform citizens.

Discussion

Citizen trust and the implications for trust in smart cities

The literature review is viewed in this section with hindsight to the results retrieved from the citizen survey. This section serves to discuss the current trust framework and its political implications for smart city design. Hence, the three dimensions of trust outlined in (Table 3), will be discussed in light of the citizen survey results.

The perception of citizens that democracy is undermined by the influence of the economy as well as the representation of economic interest in governments, showcases the wide distrust towards governments functioning to represent and benefit its citizens and underlines what the literature review presented (Domański & Pokropek, 2021). Applying relational trust and performance trust as a lens portrays that both forms of trust are eroding (Brezzi et al., 2021). Inferring, that citizens perceive that power is misused, undermining democracy and their fundamental rights.

With regards to smart city developments, this has negative implications right from the start. It is vital to note that low relational and performance trust will not only make an ambitious task to

enhance trust and adherence towards policies and actions taken regarding smart city designing, but makes it difficult no matter the "design" of the policy, as trust is generally low precedently to any development, percieved to be only to the benefit of the economy. In turn, the difficulty rises to enact an open and, collaborative government system responsible for smart city designing. However, necessary to maintain citizens' relational trust.

Viewing the citizen results with hindsight to the drivers of trust in government and institutions, which are values on the one hand, including integrity, fairness, and openness, as well as competencies on the other hand, including reliability and responsiveness (See table 4), indicates huge deficits that citizens place in their governments to be at the forefront of smart city developments. The citizen notion that governments will abuse fundamental rights with the power of data through surveillance, misuse and representing economic interests, shows that the values governments project are not trusted with data collection and processing. Citizens fear that the ethical values and treatment would be undermined as well as the equal and fair treatment of citizens, with the possibilities gained through data. Additionally, the emphasis on a transparent system and the fear of exceedingly centralized power indicates that the openness which governments currently project is not trusted with data collection. The trust in the competencies of the government was equally low. Data collection by the government was generally perceived to not benefit or address citizens' needs. The respondents who trusted private companies more, even indicated that they perceive the government to be ill-equipped to effectively and ethically manage data collection.

From a perspective of interpersonal trust, which lies at the heart of the other identified concepts of trust (Yang, 2005), the high uncertainty and distrust towards both governments and data collection, conveys that citizens are and will be uncertain about the future, decreasing the belief that a positive future with smart cities is possible. This distrust increases the citizens perceived complexity of the world (Keymolen & Voorwinden, 2020) and thus can be assumed to increase those of smart city developments, in turn reducing the positive beliefs about the future of smart cities. The citizens call for an open-source system that is transparent about what data is being collected and for what purposes, as well as voicing the need for accessibility, shows that citizen trust in central actors deploying and managing data gathering technology in smart cities is comparatively low, not trusting a central entity in control of the deployed technology and its functions. The uncertainty in governments representing interest equally and for the benefit of society portrays that trust in smart city design that is based on the current framework of economics and politics and thus the power structures of the status quo bear potential severe consequences to the trust people place in the government's initiatives regarding smart cities.

Trust and participation, and current smart city designing

The following section is dedicated to examining the current smart city developments and viewing these in light of participation and trust. The interview results will be critically discussed with hindsight to trust and trust-building as well as participation and how they are included in current smart city developments.

Trust and current smart city designing

Viewing the current smart city developments with a lens on trust and trust-building is crucial as citizen trust determines strong, stable, and resilient democratic smart cities (Van de Walle et al., 2008). Viewing the current smart city design, proposed by the UN and several researchers, has shown that the implementation is proceeding in the current political and economic framework. The existing ties to the influential private sector and their still existing role in the development of smart cities withhold little citizen trust, as both governments and tech companies are viewed very critically with regard to the responsibility of data. With hindsight to the importance of citizen trust for the adherence and support for corresponding policies and regulations, this poses the danger of less effectiveness and impact of smart city designing. The notion of an UN Habitat expert that "there is no need for trust when the system is right" (Interview 1), portrays the approach of designing a "system" that may be well-intended yet does not address potentially already lacking citizen trust or the approach to increase it. The citizens' perceived lack of representation within the political system raises additional questions as to the smart city approach that is currently taken as designing remains subject to existing and old structures and processes, in which people place little trust previously to any development. Thus, even with emphasis and initiatives to construct a framework in which smart cities are "citizen-centered", potentially pose little trust enhancing approaches. In other words, the status quo, serving as a starting point, already withholds decreased citizen trust, out of which it may be difficult to gain more trust for future initiatives.

The Fab City approach, however, withholds a more "innovative" idea with regard to trust. As a bottom-up approach, not subject to the present, relatively untrusted governing system, as well as

possessing an ideology of citizen empowerment and sovereignty in already designing and deciding on technology and its use, proposes smart city designing "closer" to the citizens. From the perspective of citizen trust and the emphasis on transparency, accessibility, and control, this decentralized, bottom-up approach potentially promises not only a trusted but also a smart city design that has the potential to withhold much greater levels of trust in the "system" behind smart cities. Knowledge production and digital sovereignty are further initiatives that are maximized through the bottom-up approach and increase trust towards data and the system operating behind smart cities as citizens are in direct contact. At this point it has to be noted that a desirable participatory design does not require all citizens to participate, yet it maximizes citizen involvement and most importantly the initiatives and existing possibilities strengthen citizen trust.

Participation and current smart city designing

It is vital to distinguish that the fab city movement rests on the vision of designing technology locally with local stakeholders toward local challenges and needs, representing the most sophisticated participatory design in smart city developments. Promoting a notable core difference towards other proposals, the fab city ideology does not rest on the idea of implementing ICT technology across the city continuously gathering data. Contrary it includes citizens and stakeholders from the start, in the decision process on the "why" and the "what" of technology, to tackle local and specific challenges. This participatory vision drives for a relatively new or uncommon way that arguably provides the most inclusive approach. By localizing even the designing and production of technology, driven by the innovation, needs and challenges of local stakeholders, the political implications of participation propose that technology is truly determined by the interests of the public, strengthening comprehension and

fostering informed citizenship and engagement of the public. With regard to political attitudes and comprehension (Prats & Meunier, 2021) this approach will enhance the perceived capability to participate, thus posing a higher likelihood of citizen participation.

On the other hand the smart city developments at the higher level such as those from the UN-Habitat and projects that other interview experts were involved in have an entirely different approach. Also stressing participation and attempting to tackle the issues of the digital divide, pushing for open source and consulting the public in advance, the framework in which smart cities are to function, arguably utilizes a very different approach. Namely, with the great difference to the former, that ICT technology is still provided by large private companies, thus still relying, possibly for a long time, on the capabilities of transnational tech giants. Accordingly, one could argue that this form of smart city designing utilizes the current possibilities that are provided by large, monopolistic tech companies, reluctant to initiate, arguably a very time-intensive and transformational approach. The latter smart city designing drives for citizen participation in form of citizen consultation via platforms, focus groups, and participatory designing of public space via digital platforms. Thus, providing what are currently the possibilities of initiating public participation. In other words, a form of political participation as we know it.

A smart city design with high trust would lead to higher levels of participation enriching the system in multiple ways. Not, only representing diverse interests and thus approaches to tackling societal challenges in cities would increase, but more importantly, society would make the pressing step in developing democratically, enhancing democratic values and actions. In turn, the

latter would contribute to a collaborative open form of government that locally engages with citizens, hopefully proceeding to a state in which societies democratic development counters the unprecedented technological development and most importantly evokes the unity and strength for a strong democracy that collectively tackles the challenges of the 21st century.

Designing Smart Cities: Towards trust and participation for Democratic Smart Cities

The following section is dedicated at jointly discussing the previous two sections. Thus, discussing smart city designing from the interviews and critically discussing them in light of the citizen survey, whereby referring to the literature review and taking an interpretative approach on the political implications for democracy in attempting to answer the research question:

What are the political implications of citizen trust, trust-building, and participation towards the development of democratic smart city designs?"

And confirm the hypothesis:

"Smart city designing poses new challenges to trust-building and democratic citizen participation."

Firstly, one can assume that not all smart city initiatives are receiving equal attention, hence their influence on the designing process and narrative. The highly influential private sector as well as the global initiatives undertaken by the well-established intergovernmental organization UN-Habitat, a branch of the UN, can be assumed to have a greater influence on smart city initiatives than the movement of the Fab City foundation.

Both the Fab city approach and the broader UN initiatives attempt to include the drivers of citizen trust, including citizens through participatory designs, addressing the needs of society by considering the societal and ethical implications of technology, namely pushing for open data designs and deeply considering what technology is useful, and who is should be in control. On the other hand, the developments evolving especially in African countries pose serious concerns regarding the democratic development and countering the influence of the private sector determining the implementation of ICT technology as well as holding the unprecedented value of the gathered data.

Smart city designing taking place in the current power structures and frameworks that are increasingly distrusted and turned away from by citizens, does not propose the utmost sustainable, inclusive and democratic smart city design, or fosters knowledgeable, sovereign and democratic citizens strengthening this very design. The smart city initiatives that are proceeding on these increasingly distant levels of governments and intergovernmental institutions such as the UN, not only pose potential failing to address societal issues affectively, and inclusively, with regards to the latter, but are additionally making use of, and this is probably most important, ICT and technology IoT both shaping and being provided by a new frontier of power, Big Tech companies, and Big data, being subject to a neoliberal advanced capitalistic system that is embedded in a neocolonial oppressive and exploitative ideology for both environment and humanity (Zuboff, 2019; Welzer; 2016). Regardless of the smart city frameworks currently constructed on a comparatively distant level and their initiatives to protect democracy through participation and trust-building, a chance would be missed that locally empowers, drives, and

democratises innovation and production and thus increases the possibility of a societal transformation towards a more sustainable future, both environmentally and societally.

An argument provided by Shoshana Zuboff which she presented in her book The Age of Surveillance Capitalism, provides a critical take on the potential consequence for society if trust is increasingly lost. As presented in the literature review big data is currently utilized to analyze human behavior in order to predict it and most importantly provide certainty about it. This model is embedded in a profit-driven aggressive capitalistic market, followed up upon by some of the most powerful cooperations that have ever existed (Zuboff, 2019; Welzer, 2016). The relation to trust this potentially has, might only be apparent at second thought. Certainty can serve to replace trust. As identified, trust is a concept in which i.e citizens place differing levels of trust in their governments depending on the condition that certain attributes are met, such as accountability, competencies, ethical values, or transparency (Moyano et al., 2012). In turn, this enables open and transparent governance thus providing the trust of governments to initiate participatory processes (Schmidthuber et al., 2021; Yang, 2005). This trust of governments and institutions and people in power towards citizens would no longer be necessary as big data can understand, predict and provide certainty on citizens' attitudes and behavior (Zuboff, 2019). The scenario society would be finding itself in would not rest on trust, as it largely does today (Van de Walle et al., 2008), but on predicting and determining human behavior, or as Shoshana Zuboff would put it, shaping, pushing, and herding human behavior to the interests of parties in power (Zuboff, 2019). The importance of trust in citizens is equally important as citizen trust in governments, mutually strengthening one another and providing the fertile ground for participation and hence a healthy, representative, and strong democracy.

Finally, it has to be argued for a maximum participatory and trusted smart city design possibility society can produce. This requires a discourse of the current smart city developments and the proposed role of ICT and IoT technology still undermining the desired participation and trust vital for democracy. The more ICT and IoT technology is emphasised to play a role in smart city developments and the more un-participatory and distrusted this process will develop, the higher the potential and unknown consequences for society will be. The development of ICT and the IoT has developed at an unprecedented rate unknown to humanity, having impacted politics, society and the economy in often far-reaching ways. How this has been the case is out of the scope of this paper, here the point is more about the "shifting baselines" social-psychological phenomenon. Namely, while external circumstances are changing and influencing the way society lives, thinks and acts, people dont realize this change as the consciousness is constantly adapting to the changing circumstances (Welzer, 2016). The mentioned capacity gap between governments and the private sector in technological "know-how", portrays how ICT and IoT technological development dominated by a profit-driven market, has outrun our institutions and democratic system. With hindsight to technological and capitalistic development, Welzer (2016) provides an interesting question: What happens when society develops technologically but not societally, democratically or politically? Whatever the answer to this might be, what does it mean when the democratic development of society is overtaken by ICT and IoT technology determining people's lives? Is ICT and IoT to determine democratic development, as opposed to vice versa? Nevertheless, unprecedented development of ICT and IoT technology projected to continually substantially determine human life for a long long time (Zuboff, 2019; Welzer, 2016), urgently calls for a design that is of utmost trust and participatory in order to be

determined locally, by people in search of improving life. An approach taken from their perspective and their way of thinking and being in the world.

In order to take on the challenges society is facing, strengthening a decentralized smart city designing such as the Fab City movement is necessary in order to tackle the dangers of potentially decreasing trust and participation and its consequences for democracy. Citizens need to be included from the very beginning, in participation in the process of ICT development, which is determined by local stakeholders to tackle local challenges. This process ultimately increases citizens' trust as it provides a constantly close, accessible, and transparent framework, not only when developing a smart city framework but also in the future functioning of smart cities. This further created knowledgeable, sovereign citizens that are capable to determine the developments of ICT, which withholds the profound capabilities to influence their way of living unprecedented to humanity. A maximum in trust and participation is vital for the democratic development of smart cities as ICT development is continually developing, faster than democratic values and competencies such as trust and participation are currently developing.

"Those who control data, AI, and digital infrastructures will determine the nature of future institutions. To maintain European social models and defend values and rights, citizens must hold the reins of technology"

Francesca Bria

Former Chief Technology officer of Barcelona on smart cities

Limitations

The survey distributed to citizens was dominated by participants from Germany. Although it included numerous participants from all over the globe such as Russia, Netherlands, Greece, Brasil, Canada, Turkey, Czech Republic, Kenya, South Africa, Portugal, Belgium, England, Austria, Italy, Denmark, Sweden, Poland, and the USA, these were not evenly distributed. Thus, no differentiation was made, being outside the scope of this research paper. Additionally, it would have been interesting to view citizen results with regard to the different age groups. The latter was also unevenly distributed, most of the participants being under the age of 31. The lacking distinguishment between age and country, possibly income and other factors not taken into account, potentially undermines the generalizability presented. Additionally, survey participants most likely lacked an understanding of data and data gathering possibilities as well as not being able to comprehend an open-source system and its implications. The same can be said about the specialists that were interviewed. Seven not being a representative number for smart city developments across the globe, however, the three interview partners connected to the

UN as well as the research interview partners, provide credibility to the worldwide smart city developments.

Conclusion

To answer the research question a qualitative method was utilized, consulting both citizens in form of a qualitative survey as well as qualitative interviews with specialists from different fields in smart city design. Citizens were asked to state their confidence in smart city factors such as the government system, data gathering, their confidence in the use of data as well as well as their confidence in different scenarios. The seven experts were interviewed about the current developments in smart city designing and their take on participation.

The proposed research study aimed at answering the following research question:

"What are the political implications of citizen trust, trust-building, and participation towards the development of democratic smart city designs?"

It was found that citizens distrust their institutions and government system with regards to the misuse of power, perceiving a lack of representation and ascribing the political system to benefit and serve the economic interests. Skepticism towards data gathering was high, especially

towards governments and private companies. Citizens called for an open, transparent, and accessible system. The interviews found that smart city designing has shifted away from the original idea proposed by the private sector. However, it was found that smart city initiatives still largely rely on the input of the private sector both for the ICT technology and data gathering.

With hindsight to the political implications of participation and trust, this bares the severe consequence that smart city developments continue to be determined out of the reach of citizens, unable to truly determine the direction of how ICT is to determine their lives. Participatory and trust-building initiatives were found to exist only to the extent that trust and participation is gained for current smart city projects, yet fail to assure that future developments are continuously accessible transparent, and determined by the people, to not find society at distance to smart city functioning in the future, revoking mistrust and reduced participation. The Fab city approach was argued to withhold the most sustainable trust-enhancing and participatory smart city design that openly places the development of ICT in the hands of the people not only today but also in the future. Thus, securing the most powerful asset of the 21st century to remain in the hand of the people. Namely, data, which still lies in the hands of a few, posing a dangerous power imbalance for democracy.

This study focused on assessing the political implications of trust, trust-building and participation in current smart city designing. Future research must focus on assessing this broad topic in more detail and provide solutions and recommendations on how to develop smart city designing in a more participatory and trust-enhancing manner, in order to secure and enhance democracy.

References

Accenture. (2007). Building the trust: Leadership in customer service.

Adams, W. C. (2015). Conducting Semi-Structured Interviews. In K. E. Newcomer, H. P. Hatry, & J. S. Wholey (Eds.), *Handbook of Practical Program Evaluation* (pp. 492–505). John Wiley & Sons, Inc. https://doi.org/10.1002/9781119171386.ch19

Araya, D. (Ed.). (2015). *Smart Cities as Democratic Ecologies*. Palgrave Macmillan UK. https://doi.org/10.1057/9781137377203

Atkinson Foundation. (2021, February). *Building Smart Smart Cities* (No. 1). John Lorinc. https://theatkinson.ca/site/uploads/2021/03/AFPP_BuildingSmartSmartCities_FINAL.pdf

Baier, A. (1986). Trust and Antitrust. *Ethics*, *96*(2), 231–260. https://doi.org/10.1086/292745

Bhandari, P. (2020) Designing and Analyzing a Linkert Scale. Scribbr. Retrieved from: https://www.scribbr.com/methodology/likert-scale/

Brezzi, B., Gonzalez, S., Nguyen, D., & Prats, M. (2021). *An updated OECD framework on drivers of trust in public institutions to meet current and future challenges* (OECD Working Papers on Public Governance No. 48; OECD Working Papers on Public Governance, Vol. 48, p. 61). OECD. https://doi.org/10.1787/b6c5478c-en

Bua, A., & Bussu, S. (2021). Between governance‑driven democratisation and

democracy‑driven governance: Explaining changes in participatory governance in the case of Barcelona. *European Journal of Political Research*, *60*(3), 716–737. https://doi.org/10.1111/1475-6765.12421

Diez, L, T. (n.d.). Locally productive, globally connected self-sufficient cities. Fab City Whitepaper. Fab City foundation. Retrieved from: https://fab.city/assets/documents/FabCity_Whitepaper.pdf.

Domański, H., & Pokropek, A. (2021). The Relation between Interpersonal and Institutional Trust in European Countries: Which Came First? *Polish Sociological Review*, *1*, 87–102. https://doi.org/10.26412/psr213.05

Gupta, P., Chauhan, S., & Jaiswal, M. P. (2019). Classification of Smart City Research—A Descriptive Literature Review and Future Research Agenda. *Information Systems Frontiers*, *21*(3), 661–685. https://doi.org/10.1007/s10796-019-09911-3

Helbing, D., Fanitabasi, F., Giannotti, F., Hänggli, R., Hausladen, C. I., van den Hoven, J., Mahajan, S., Pedreschi, D., & Pournaras, E. (2021). Ethics of Smart Cities: Towards Value-Sensitive Design and Co-Evolving City Life. *Sustainability*, *13*(20), 11162. https://doi.org/10.3390/su132011162

Hetherington, M. J., & Husser, J. A. (2012). How Trust Matters: The Changing Political Relevance of Political Trust: HOW TRUST MATTERS. *American Journal of Political Science*, *56*(2), 312–325. https://doi.org/10.1111/j.1540-5907.2011.00548.x

Jones, T. (n.d.). *A conceptual framework and insights for improved governance programming*.

    12.

Keymolen, E., & Voorwinden, A. (2020). Can we negotiate? Trust and the rule of law in the

    smart city paradigm. *International Review of Law, Computers & Technology*, *34*(3),

    233–253. https://doi.org/10.1080/13600869.2019.1588844

Kikuchi, M. (2008). Assessing government efforts to (Re)build trust in government: Challenges

    and lessons learned from Japanese experiences. In *Research in Public Policy Analysis*

    and Management (Vol. 17, pp. 201–225). Emerald (MCB UP).

    https://doi.org/10.1016/S0732-1317(08)17011-7

Möllering, G. (2001). The Nature of Trust: From Georg Simmel to a Theory of Expectation,

    Interpretation and Suspension. *Sociology*, *35*(2), 403–420.

    https://doi.org/10.1177/S0038038501000190

Moyano, F., Fernandez-Gago, C., & Lopez, J. (2012). A Conceptual Framework for Trust

    Models. In S. Fischer-Hübner, S. Katsikas, & G. Quirchmayr (Eds.), *Trust, Privacy and*

    Security in Digital Business (Vol. 7449, pp. 93–104). Springer Berlin Heidelberg.

    https://doi.org/10.1007/978-3-642-32287-7_8

Muggah, R. M., & Walton, G. W. (2021, April 17). *"Smart" Cities are surveilled cities*. Foreign

Policy. Retrieved March 3, 2022, from

https://foreignpolicy.com/2021/04/17/smart-cities-surveillance-privacy-digital-threats-internet-of

-things-5g/

Nickel, P. J. (2013). Trust in Technological Systems. In M. J. de Vries, S. O. Hansson, & A. W. M. Meijers (Eds.), *Norms in Technology* (Vol. 9, pp. 223–237). Springer Netherlands. https://doi.org/10.1007/978-94-007-5243-6_14

OECD (2000). Building public trust: Ethic measures in OECD countries. OECD public management. PUMA policy brief No. 7 https://doi.org/10.1787/1c258f55-en

OECD. (2021). *Government at a Glance 2021*. OECD. https://doi.org/10.1787/1c258f55-en

Prats, M., & Meunier, A. (2021). *Political efficacy and participation: An empirical analysis in European countries* (OECD Working Papers on Public Governance No. 46; OECD Working Papers on Public Governance, Vol. 46). https://doi.org/10.1787/4548cad8-en

Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community.* Touchstone Books/Simon & Schuster. https://doi.org/10.1145/358916.361990

Reuter, T. K. (n.d.). *Smart City Visions and Human Rights: Do They Go Together?* 23.

Ritchi, H. R., & Roser, M. R. (2018, September). Urbanization. Our World in Data. Retrieved May 2, 2022, from https://ourworldindata.org/Urbanization#citation

Rodríguez Bolívar, M. P. (2016). Characterizing the Role of Governments in Smart Cities: A Literature Review. In J. R. Gil-Garcia, T. A. Pardo, & T. Nam (Eds.), *Smarter as the New*

Urban Agenda (Vol. 11, pp. 49–71). Springer International Publishing.

https://doi.org/10.1007/978-3-319-17620-8_3

Schmidthuber, L., Ingrams, A., & Hilgers, D. (2021). Government Openness and Public Trust: The Mediating Role of Democratic Capacity. *Public Administration Review*, *81*(1), 91–109. https://doi.org/10.1111/puar.13298

Sullivan, G. M., & Sargeant, J. (2011). Qualities of Qualitative Research: Part I. *Journal of Graduate Medical Education*, *3*(4), 449–452. https://doi.org/10.4300/jgme- d-11-00221.1

The Fab City Global Initiative. (n.d.). The Fab City Global Initiative. Retrieved May 3, 2022, from https://governance.reflowproject.eu/initiatives/fab-city-global-initiative

The United Nations (2007). United Nations 7th Global Forum. Department of Economic and social affairs. Retrieved from: https://publicadministration.un.org/en/7thglobalforum

Traldi, L. T. (2018b, August 13). *Francesca Bria, CTO of Barcelona Smart City*. Design@Large. Retrieved April 4, 2022, from

https://www.designatlarge.it/barcelona-smart-city-francesca-bria-participatory-democracy/?lang= en

Toriz Ramos, C. (2019). Democracy and governance in the smart city. In *Smart Cities: Issues and Challenges* (pp. 17–30). Elsevier.

https://doi.org/10.1016/B978-0-12-816639-0.00002-8

Van de Walle, S., Van Roosbroek, S., & Bouckaert, G. (2008). Trust in the public sector: Is there

   any evidence for a long-term decline? *International Review of Administrative Sciences*,

   74(1), 47–64. https://doi.org/10.1177/0020852307085733

van Zoonen, L. (2016). Privacy concerns in smart cities. *Government Information Quarterly*,

   33(3), 472–480. https://doi.org/10.1016/j.giq.2016.06.004

Yang, K. (2005). Public Administrators' Trust in Citizens: A Missing Link in Citizen

   Involvement Efforts. *Public Administration Review*, *65*(3), 273–285.

Welzer, H. W. (2016). Die Smarte Diktatur Der Angriff AufUnsere Freiheit (1st ed.). Harald
Welzer.

Zuboff, S. Z. (2019). The Age Of Surveillance Capitalism the fight for a human future at the new
frontier of power (The age of surveillance Capitalism ed.). Shoshana Zuboff.

Appendix 1

The interview transcripts can be found by clicking this link.

The transcripts are only visible for the researcher and Supervisors'

Acces can be requested via contacting the researcher: L.b.n.niemann@student.rug.nl

Appendix 2

Trust Citizen Survey

June 3rd, 2022, 10:30 am CEST

1 - Please indicate your home Country

Germany x 142

Netherlands x 16

Turkey x 1

Czech Republic x 1

USA x 3

Poland x 1

Sweden x 2

Canada x 2

United Kingdome x 5

Kenya x 2

Italy x 6

Belgium x 1

Austria x 1

Greece x 1

Brazil x 2

Portugal x 1

South Africa x 1

2 - Indicate your age between:

#	Answer	%	Count
1	18 - 30	87.05%	168
2	31 - 50	6.74%	13
3	51 +	6.22%	12
	Total	100%	193

3 - What is your level of confidence in the democratic functioning of the political system in your country?

#	Answer	%	Count
1	Quite Confident	46.03%	58
4	No confidence	3.17%	4
5	Very little confidence	15.87%	20

6	Fairly confident	19.84%	25
29	Very confident	15.08%	19
	Total	100%	126

4 - How much do you agree with the following statement: The political system in your country safeguards a free, open, and fair Democracy
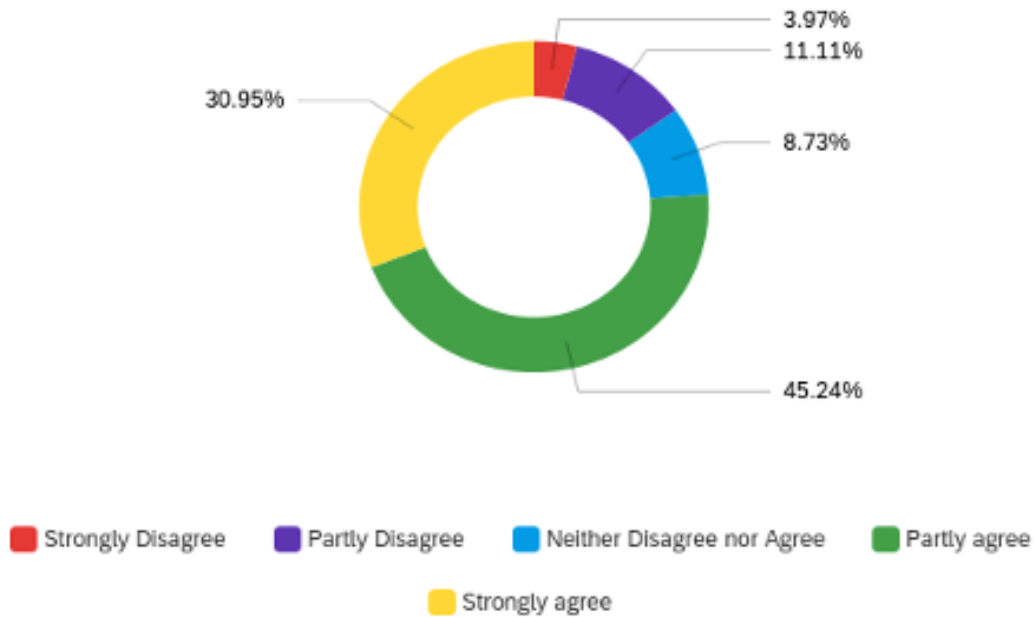
5 - How confident would you be when private tech companies collect and process data from public and personal devices?

#	Answer	%	Count

2	No confidence	42.22%	38
3	Little confidence	25.56%	23
5	Fairly confident	23.33%	21
6	Quite confident	7.78%	7
7	Very confident	1.11%	1
	Total	100%	90

6 - How confident would you be when your government collects and processes data from public and personal devices?

#	Answer	%	Count
1	No confidence	25.56%	23
2	Little confidence	38.89%	35
4	Fairly confident	23.33%	21
5	Quite confident	8.89%	8
6	Very confident	3.33%	3
	Total	100%	90

7 - How confident would you be when it is an open-source system (owned and accessible by everyone) that collects and processes data from public and personal devices?

#	Answer	%	Count
1	No confidence	28.89%	26
2	Little confidence	25.56%	23
4	Fairly confident	27.78%	25
5	Quite confident	11.11%	10
6	Very confident	6.67%	6
	Total	100%	90

8 - Imagine data is being gathered from general public sensors and personal devices across your city, what is your level of confidence towards living in such a city?

#	Answer	%	Count
1	No confidence	21.05%	20
3	Little confidence	41.05%	39
4	Fairly confident	20.00%	19
5	Quite confident	13.68%	13

6	Very confident	4.21%	4
	Total	100%	95

9 - Generally, how do you think the democratic functioning of the political system you live in will change

#	Answer	%	Count
1	Very positive change	1.22%	1
2	Positive change	17.07%	14
3	No change	20.73%	17
4	Negative change	43.90%	36
5	Very negative change	17.07%	14
	Total	100%	82

10 - In which scenario would you be most confident towards data being collected from public and personal devices?

#	Answer	%	Count
1	Government	31.11%	28

2	Private company	16.67%	15
3	open source (Owned and accessible by everyone)	52.22%	47
	Total	100%	90

11 - Why do you NOT trust the government and private companies to collect and process data from public and personal devices?

Why do you not trust the government to be in control of collecting and analysing data? Why do you not trust private companies to be in control of collecting and analysing data?

Why do you NOT trust the government and private companies to collect and process data from public and personal devices? Why do you not trust the government to be in control of collecting and analysing data? Why do you not trust private companies to be in control of collecting and analysing data?

you need to trust centralised organisations but its very intransparent what they do and what they do not do with your data

ich finde die sammlung Privater Daten an einem Punkt nie gut

both can be very biased and eventually corrupt. There have been many scandals.

because the government cannot always be checked and private companies will abuse the data for profit

Whether it is private companies or the government, they will become more powerful with this data. This power has the potential of being abused

Weitergabe/Speicherung an Polizei/Versicherungen/Banken. Nutzung für Werbung

Warum sollte ich einzelnen Regierungen, Unternehmen mehr vertrauen als der Gesamtheit? Je öffentlicher Dinge in einem humanen Rechtsstaat gehandhabt werden, desto weniger einseitig ist die Sicht.

Too many lies have been told in the past!

Too centralised.

The government and private companies are the same type of people only looking to exploit.

Targeted Advertisement. Data being used against me by law enforcement. Goverment knowing my every move and every possible future goverment having a profile of me.

Schwer zu beantworten. Ist ein komisches Gefühl wenn die Regierung und Fitmen die Macht über all deine Daten haben, du aber nicht über deren

Regierung: nicht in der Lage, diese Daten zuverlässig zu verwalten; Privatunternehmen: größere Gefahr von Missbrauch der Daten.

Privatisiert würde nicht gehen imo. Der staat sollte auch nicht die alleinige Kontrolle haben über die Daten. Reicht schon das facebook,insta,google etc. Soviele Daten sammeln.

Private companies have other interests, as well as the government

Private companies are not democratic and therefore I could strongly disagree with them. / too great role of money

Private Unternehmen könnte Profit wichtiger sein, bei Behörden kann es zu Missbrauch kommen

Politik und Wirtschaft drehen sich um Geld und Wachstum

Monetarisierung, Vorgang nicht transparent

Misuse

Manipulation, Missbrauch, Kontrolle

Man erfährt nichts über die Auswertung, dem Bias der Analyse, es macht den Bürger blind

Machterlangung

Little transparency, sell or transfer data to third parties

Kurz: zensur und priviligieren privater interssen

It is my data and i dont know what they will use it for. Plus i dont know what they collected.

It feels wrong for them to know that much about me. I feel like they could use it to my advantage. Or at least use it for their own bennefit.

Interessenskonflikte

In der Regierung kann ich mir vorstellen, dass dies sehr schnell untergehen würde zwischen vielen Projekten und sich so Sicherheitslücken auftun. In Privaten unternehmen hätte ich ein unsicheres Gefühl damit, ob die Daten für dritte Zwecke verwendet werden, wenn dies nicht gesichert und überprüft wird.

If they have my data they can control me

Ich vertraue keinerlei Institution oder Regierung wenn es um Private Daten geht

Ich denke, das die gesammelten Daten nicht nur zu ihrem Bestimmumhszweck benutzt werden würden.

I dont trust the government because they lack expertise, skills and quickness to respond to changes The bureaucratic effort's and legislation takes to long and remains to vague. I dont trust private comapnies as they are mostly economical driven and lack ethicsl standards. They earn profit without giving back to society.

I dont know what they would do with the data

I do not trust them because they have exclusively all the data in their files. No-one can check it apart from themselves.

I am powerless over there actions as soon as they have my info

Hier könnte wenig Transparenz sein, was mit den Daten passiert

Government not sufficiently accountable or representative. None of this for private companies.

General misuse of data and potential negative consequences of sharing/using the data

Fremdsteuerung ist mir suspekt

For the government i see the risk that under the rise of populism a government under the rule of a populist extreme party could misuse the data they have. And for private companies I fear that they gain too much power just as people like jeff bezos own twitter and thereby having a lot of power about people's personal data

Data could be sold, transferred, and more likely be used in service to the power of the government without the public noticing

Curruption, greed, abuse of information acquisition and divulsion, manipulation through Media

Both cases collecting centralized data profiles and people suddenly possessing/owning/selling such data.

Because I think both of the institutions would get to powerful and would abuse the power.

Aus der Erfahrung durch Manipulation

12 - Why do you NOT trust open-source systems and private companies to collect and process data from public and personal devices?

Why do you not trust the open-source system to be in control of collecting and analysing data?

Why do you not trust private companies to be in control of collecting and analysing data?

Why do you NOT trust open-source systems and private companies to collect and process data from public and personal devices Why do you not trust the open-source system to be in control of collecting and analysing data? Why do you not trust private companies to be in control of collecting and analysing data?

everyone or companies can just see where you are, what you're doing etc.

because they are not as close watched and bounded to limits as the government

Zu viele schlechte Nachrichten/Erfahrungen mit privat Unternehmen in den letzten Jahren

Werden nur zu eigenem Nutzen verwendet

Wenn alle Daten allen und jedem zugänglich sind, ist die Gefahr von Missbrauch groß

Weil Datenschutz bisher nicht Priorität hatte

Verkauf gegen Geld

Sie nutzen es nur für sich selbst. Es geht nur um Profit.

Private companies follow a specific goal: profit maximization. They do not have my interests with the data in mind.open-source system would be a bit more trust worthy, but still I do not want to share my data with anybody

Private companies are profit driven and so I assume any data collection they might have will be utilise to sell me a service or a product I might not actively seek and thus not necessarily need nor want; i'm not su per sure on how open-source system run; however, i fear there might be a constant violation of community/security guidelines, specially when anyone could access that data.

Private companies - companies interests and not interests of citizens. Open-source - the wrong people might find out personal stuff about you which can put one in danger ir various things

Private Unternehmen sind gewinnorientiert, Open-Source evtl nicht vollständiger Durchblick oder auslassen von Daten

Open-Source ist für mich mit einer viel zu geringen Kontrolle verbunden und ich kann nur erahnen wie viel vor allem auch kriminelles Geschen im Internet mit Daten passiert. Dementsprechend würde ich diesen Quellen kein Vertrauen aufbringen. Bei den privaten Unternehmen ist es für mich schwierig, da diese meiner Meinung nach einer zu geringen Kontrolle unterlegen sind. Ich kann mich nicht darauf verlassen, ob die Versprechen eines privaten Unternehmens auch wirklich eingehalten werden, weil letztendlich wollen sie ihren geschäftlichen Sinn und Zweck erfüllen und sind am Wohl des Konsumenten etc. oft sehr wenig interessiert

Open source seem dangerous to me and private companies will sell my data most definitely to other companies

Open source heißt: Auswertbar für die, die dazu in der Lage sind. Der persönliche Nutzen für den User/Bürger ist gering. Beispiel: jeder kann Auskünfte uber seine bei Firmen/öffentliche Stellen gespeicherte Daten anfordern. Tut aber kaum einer. Aber Firmen können mit den Daten handeln, sie auswerten etc. IdR ohne Widerspruchsrecht (oder sehr komplziert) des Nutzers/Bürgers. Daher lieber Sammeln in einem rechtsstaatlich kontrollierten politischen System

Nutzen es ausschließlich für ihrer eigenen Interessen

Möchte Privatsphäre wahren

Keine Angabe

I'm not sure: I just do not.

If it is open-source. It would be okay if it is totally untraceable to an individual. However I doubt that is possible. I do not trust private companies since they will do anything and everything to make money. Also selling my data to the highest bidder.

Ich kenne mich zuwenig mit OpenSource aus, um beurteilen zu können, ob und wie sicher/repräsentativ/ manipulationssicher diese Systeme sind. -private Unternehmen sind aufgrund finanzieller Interessen nicht vertrauenswürdig

I would not like everyone having access to my data

I do not trust any - but government is the best option. In general, it would not be known for what the data gets collected and analyzed, but also what happens to it after - does it get sold to other companies?

Humanity isn't able or trustful enough to get their hands on data from other people. They just gonna use it against you or other people. Private companies just gonna try to maximize their profits by using/ selling your data to some other companies.

Die Missbrauchsmöglichkeiten sind zu groß und zu verlockend (finanziell).

Because they may not have people's best interests in mind. Only their own interests

Anyone can look at your data; your data might get sold for unwanted reasons.

13 - Why do you NOT trust open-source systems and the government to collect and process data from public and personal devices?

Why do you NOT trust open-source systems and the government to collect and process data from public and personal devices Why do you not trust the government to be in control of collecting and analysing data? Why do you not trust Open-source system to be in control of collecting and analysing data?

Hackerangriff, Korruption

Because I'm afraid private information will be sold

Regierung ist zu unbeweglich, Lizenzprobleme bei Open-Source-Systemen, häufig nicht kompatibel

Because I would feel like my privacy would be hurt because the government or other people could track what I am doing which could maybe lead to consequences

Die Regierung hat bisher nicht mit ihrem IT auftreten gezeigt, das sie überhaupt fähig sind eine solche Datenmenge sicher zu Speicher. Die scheitern schon an einfachsten Dingen weil wir eine altmodische Bürokratie haben. Bei Open source Datenbanken können Sicherheitslücken zwar schnell gefunden werden weil jeder drauf zugreifen kann allerdings können diese auch genauso schnell ausgenutzt werden

Regierung: die Gewaltenteilung ist in Deutschland eines der Fundamente unserer Demokratie, daher sollte die Regierung nicht für die Datensammlung verantwortlich sein. Open-Source-Systeme: Wenn alle auf jegliche Daten zugreifen könnten, werden private, eventuell für das System unrelevante, Daten öffentlich und die Privatsphäre der Bevölkerung wird gefährdet

Ich vertraue ihnen. Aber es geht sie nichts an

The government would search for things I don't want them to search for. As same to all other people who would have access.

The government could use and twist information for campaigns I don't want to be a part of. Open-sources systems give everyone access to my private information which I don't want

Zu viele Köche verderben den Brei

I would trust some governments, with the present political climate and right wing / authoritarian parties gaining strength, a radical system change feels possible. I support open source projects in general, data gathering with public accounts wouldn't be one of them.

1. Government: they could use your data, your opinion etc. Against you, could follow every step you make, they would know everything about you, less safety. 2. Open source: more violence in social media, internet, even more manipulation by using your data

Sie können die Daten an jeden beliebigen weitergeben und es könnte gehackt werden.

I am worried that too much info will be accesible to the wrong people

14 - Why do you believe in the change you indicated?

Name reasons:

What is your feeling?

How do you think it will change?

What do you think will change?

Would anything make the change better/worse?

Kann ich nicht beantworten, da mir das Ziel der Datenerfassung nicht klar ist

---

freie Meinungsäußerung in Gefahr

Die Verwaltung/Exekutive könnte effektiver auf die Bedürfnisse der Bürger reagieren. Ggf. könnten Präferenzen der Bürger leichter ermittelt werden, fraglich ist, ob dann ein politisches Targeting einsetzen würde.

I do not believe this innovation will bring us to a good - that change implies total control and awareness of every action the citizen takes

---

Zu viel Staat ist demokratiefeindlich.

People will be more manipulative as the data of the voters are more researchable

---

less freedom more control of state

Schon heute herrscht in diesem Land eine Art Gesinnungsdiktatur. Nicht genehme Meinungen werden mit der Nazi- Keule oder anderen Schlagwörtern bedacht. Wenn alle Meinungen, alle Äußerungen allen und jedem zugänglich sind, wird sich diese Tendenz verstärken. „ Smart City" scheint mir nur im Bereich des Verkehrs von Vorteil.

Meine Veränderungen wären kaum relevant.

---

es mag sich in wirtschaftlicher und politischer Hinsicht einiges zum Positiven verändern, im privaten Bereich wird es eher schlechter

---

Einschränkung der persönlichen Freiheit

It is a freedom limitation, because you can be easier controled and manipulated

---

Change will be good anyway

Wenn richtig Geburt genutzt und geschützt können die Daten wichtige Forschungsergebnisse liefern, Lücken, Probleme und mögliche Lösungsansätze aufzeigen

Mißbrauch meiner Daten. Überwachungsstaat.

Sinkende Kriminalität

Es werde ja schon Daten gesammelt

Diese Frage wollte/konnte ich nicht beantworten!!! Auch das sollte erlaubt sein!!!

Keine Kontrolle über Datenweitergabe und verunsichert, ob auch wirklich nur Daten zu allgemeinen Interessen genutzt werden.

.

Warum müssen die denn überhaupt erfasst werden ich checks göaub ich noxht

Sorge vor Kontrollstaat

It all depends on the usage and availability of the data

Regierungskörper sind jetzt schon überfordert mit Digitalisierung, private Unternehmen würden Daten für evtl Werbezwecke nutzen

Ich denke durch Verarbeitung unserer privaten Daten durch die Regierung, könnte sich unsere Demokratie in einen kontrollstart

Grundrechte würden eingeschränkt werden

I think the people would feel less free to do whatever they want to do and get the feeling that the government tries to influence their private life

Ich habe dazu keine Prognose, aber vllt könnte es helfen Daten zu politischen Themen zu sammeln und noch mehr basisdemokratisch zu agieren

Erstmal denke ich, wird es zu Beginn keine großen Veränderungen geben. Das größte Potential sehe ich im Straßenverkehr. Verschaltete Organisationen, die es den Bewohnern leichter machen in ihrem Alltag von a nach n zu kommen. Das denke ich würde die aktuelle Situation verbessern.

/

Die Schwächeren würden noch mehr an den Rand der Gesellschaft gedrückt

Keine rechtsstaatliche Definition der erlaubten gesammelten Daten // Dominanz derer, die technisch in der Lage sind, Daten zu sammeln und auszuwerten // Trigger für private Geschäftsmodelle // keine/wenig Transparenz f.d. Bürger (vgl. Recht auf informationelle Selbstbestimmung) / mangelne Widerspruchsrechte, zB durch umgekehrte Beweislast (Bürger*in muss nachweisen, dass Daten gesammelt wurden)

Ich kann nicht einschätzen in welche Richtung es sich ändern würde.

/

Evtl. werden Entscheidungen durch die Daten getroffen, welche nicht die Gedanken des Volkes wieder spiegeln. Bewohner fühlen sich beobachtet und wollen nicht weniger ihre eigene Meinung preisgeben. Es kann aber auch durch eine offene Kommunikation zu einer besseren Demokratie kommen, da evtl. Themen aufgegriffen werden die ohne einer solchen Daten Erfassung nicht besprochen werden.

Es könnte auch positives nach sich ziehen. Ist die Frage welcher Zweck dahintersteht... Beispiel: frühe Erkennung von Terroristen, oder Kinderpornografie

Ich glaube dass vor allem die persönlichen Geräte das Problem sind. bei einem öffentlich fühlen wir uns anonymer und nicht andauernd unter Beobachtung oder Überwachung.

Überwachung

I think there is always a potential risk in surveillance, thus if there is change there would probably be negative change regarding democratic principles. Further moves into more and more data gathering seem to be enduring thus we are going down a special with it

Stark erinnert mich das Gedankenspiel an die Situation in Nordkorea, in der die Überwachung keinesfalls mit der Demokratie funktionieren würde. Zu schnell kann so etwas ausarten

Zu viel Kontrolle

Again within a system of profit this data will most likely not be used well or for "the people".

They would use it to get known what the people want and what they ideas are. If u have a mainpoint like making the world cleaner. U also maybe stop making Produkts the most people don't like cause they are not helping getting the world cleaner.

Government will become more authoritarian. Country less fair

I think the minds and concerns of all people or more people will be heard and taken care of. There will eventually be less suffering than before.

I don't our politicians are too scared and conservative for chance

Data can be used for totalitarian purposes. Misenterpretation of data, leading to severe damage to the individual. People tend to be anxious not to do anything wrong when they are being monitored (example: China).

Mehr Möglichkeiten

It is a very difficult question requiring a lot of think g. Various scenarios are possible and change can happen into both ways (even simultaneously I guess) I just think it would change in general I cannot rate this change

I think because our voting decisions can be influenced without our conscious awareness

I can't see how the change would occur

I am not sure if the change would be positive or negative. Yet maybe it would increase the transparency of certain social and political dynamics

to be honest i don't know, but since there are still not allowed to do much without real evidence

Trust Problems, but it would help with crime maybe

There will be no provacy left and everything is controlled.

Collection of data could help a lot with improving important systems, unfortunately it will mostly be used for the wrong reasons. Again, what kind of government collects the data. And also remember, governments change, data stays.

ich glaube es hat sowohl negative als auch positive veränderung.. Positiv könnte evtl. sein, dass die Meinung der breiten Masse besser erkannt werden kann, gleichzeitig wird man als Bürger gewissermaßen dazu gezwungen, seine meinung preis zu geben, was ich negativ finde

I think it might become less free; meaning manipulative.

It will only serve to reinforce the status quo. Unless maybe the data is gathered to actively change the system, but I don't see that happening

-

More surveillance, less freedom of speech, wouldn't feel safe anymore, if someone e.g. Is against the government they would know maybe it risks their safety, people get even more manipulated in the way the givernemet knows everything about them

Weiß nicht was es ändern sollte

sceptical but see the opportunity, depends on the changes implemented and protection established in law,

Like I said, NL takes a long time to actually use stuff

Establishing more control over others, which is the result of data gathering, indicates a lack of trust in the own citizens which is never a good sign of people in power.

Ich weiß es nicht

They will use that information and enroll you to political parties without consent

Opinions and relevant decisions could be severely influenced through psychological programming. Data could massively be used to anticipate behaviors and decision making

I think it will open up communication

I can only think about all the dystopia story's I read 😅

I think the freedom of the peoples gets more and more restricted.

more efficient ways of organising and connecting people

X

More room for populism

Es werden eh viele Daten gesammelt, aber wenn es offiziell ist und mehr gesammelt wird. Wird es sicher viel schlechte Stimmung in der Bevölkerung geben

Less diversity in our world. We are being influenced towards a common objective.

I mean they are doing that right now and if they going to collect even more private data it's going to be a problem.

Could provide useful trends and statistics to inform govt decisions

As long as it is not opensource, I feel like it would have a negative impact

I indicated the change not because i believe there will be no change. I think there will be a change for sure, I just cannot say if it will be good or bad

Well, the information taken from personal and public devices already violates democracy, that's invigilation, in today's world there is no such thing as democracy and freedom.

I cannot phatom the exact consequences but I believe quite some drama will entail. I can believe it is in our best interest for some things to be kept secret

15 - Have you ever heard of Smart Cities?

#	Answer	%	Count
1	Yes	43.64%	48
2	No	56.36%	62
	Total	100%	110

16 - In your own understanding, what are smart cities for you?

In your own understanding, what are smart cities for you?

Städte, die eine intelligente Infrastruktur haben, smart grid, Vernetzung der Mobilität etc

Überwachte Menschen, die in dieser Stadt leben

Stadt der Zukunft, Nachhaltigkeit

Städte die durch künstliche Intelligenz verbessert bzw. optimiert werden,

They involve technologies in improving the life of citizens

A city that uses a lot of technology to make life 'easier' and collect information.

Cities with technological infrastructures at the service of citizens

City made to comfort the running life of a business mam with a low pollution impact

Smart cities are newly planned cities which follow the development goals of co2 reduction.

a modern city dependent on integrated texhnology

sustainable modern cities, very much designed

It is a city where it is easier to live

Development plans that take into account health, education, safety, environmental challenges and equal access to resources

Durch technischen Fortschritt, Städte sozialer und ökologischer gestalten

Smart cities are cities that are more time/energy/financially efficient. With the use of Technology and innovations the city is interconnected to improve liveabiliy

Voll automatisiert, modern gestaltet, praktisch für jeden (Fußgänger, Autos, Bus & Bahn), genug Raum zum Leben+ genug Arbeitsraum. Ausgewogener CO2 Fußabdruck der ganzen Stadt also mind. 50/50 Verschmutzung/Grünflächen

Sustainable cities that have a lot of parks and prioritize the well being of their citizens

Städte in denen verschiedene Prozesse miteinander verschaltet sind, um den Bewohnern das Leben in der Stadt zu vereinfachen. Dabei können bestimmte Teile der Stadt überwacht werden, um so in anderen Bereichen (z.b. Straßenverkehr) darauf zu reagieren.

Ich halte das für einen Marketing-Begriff :-) Jeder verantwortungsbewusste und engagierte Dorf-Bürgermeister versucht, seine Gemeinde auf zack zu bringen - wirtschaftlich, sozial, nachhaltig und im besten Fall auch kulturell. Smart City übersetzt dieses Konzept in die Städteplanung des 21. Jh. Naja.

Weiterentwickelte Städte

Städte die in den Ämtern digitalisiert sind. Kameras in Straßen für bessere Verkehrsführung. Viele Dinge automatisiert z.B Bewässerung von Grünstreifen o.ä. Daten von Personen/Personenverkehr werden gesammelt

Smart Cities, sind Städte die besonders ökonomisch, ökologisch und die neuste Wissenschaft als Grundlage agieren. Sie nutzen Flächen effizient, um dem Menschen den best möglichen Lebensraum zu bieten und dabei klimaneutral agieren. Viele Komponente wie: Soziales, Klima, Demokratie, Gesellschaft und Technologien kommen zusammen! Es entsteht eine Art von Cluster

Eine selbtversorgende Stadt Energie und Lebensmittel

Smart cities are cities which use modern digital technologies to guide and manage certain processes such as waste management via ml

Smart cities integrate technology to create a more well functioning city with possible surveillance and watching.

It's a start to think about how we could live in the future cause right now we are going strait into a climate change crisis.

A network of intelligent IoT devices throughout the city making life convenient but also gathering large amounts of data.

Cities with lots of connected technology wich benefits the citizens in multiple various ways

Digitalisierung

Technology highly integrated into city infrastructure and functioning, data driven and data collecting, simply fing all kind of processes

i would think a city which is highly connected to ai

High automation and digitalisation of infrastructure etc

Städte, die darauf ausgelegt sind, technologischen Vortschritt zu nutzen, bzw. zu stärken um damit effizienter sowohl in Politik, wirtschaft, als auch im Sozialen Sektor zu sein

Cities where citizens have a wide open access to technologically advanced infrastructure; I believe it entails data collection from its citizens and a bi product

Cities with localized and sustainable (food) production, more green to counter urban heat island effect, etc

a smart city adapts to the needs (environmental and social) of their citizen by adopting technology

Based on technology, try to gather data and make the city's use of resources more efficient.

Cities that are monitored and connected through the internet or a network

Schnelleres einfacheres Leben

connected infrastructure etc

Cities that offer an environment in an intelligent, creative and perhaps digital way to reach ultimum quality of life for its inhabitants.

Making systematic patterns within a city more efficient and interconnected

Innovative, Open minded, future oriented to safe our planet by for example, banning cars in the city central.

smart cities are ways to reinnovate our style of living as a community. Stereotypically, smart cities that I have read about in news papers so far, for example, are very concentrated on involving the newest technology such as drones. Often they are also supposed to be more sustainable and "green" hence emitting less CO2, having smart waste seperation or recycling systems etc. However I feel that for a city to be smart it should not count on technology alone but a more holisitc and social approach to understanding human relationships in a community should be integrated into plans for smart cities.

Cities which use sustainable solutions and parts of infrastructure to make people benefit.

17 - When you think about data being collected from public and personal devices. What concerns do you have?

Under which circumstances would you have these concerns?

Under which circumstance would you not have these concerns?

Other concerns?

When you think about data being collected from public and personal devices. What concerns do you have? What data would you be willing to share? Under which circumstances would you have these concerns? Under which circumstance would you not have these concerns? Other concerns?

Dass mehr Daten als benötigt gesammelt werden

Wenn diese Daten nur ausgelesen werden dürften, wenn eine Straftat begangen worden ist und diese dadurch wahrscheinlich aufgeklärt werden könnte.

Daten werden offensichtlich weitergegeben. ERsichtlich in Werbeangeboten, googlge-Suche...

Eingriff in die Privatsphäre, Familie, private Chats

Ggf. dass meine Daten ausgenutzt werden, um mich zu überwachen oder an unbefugte Dritte gelangen, die diese ausnutzen.

Privatsphäre ist dann ja komplett ausgesetzt. Würde mich immer beobachtet fühlen

Gerät in falsch Hände

Too much risk of mistreating data - cookies are already too much, imagine what can happen if all your everyday data is in the hands of someone

People could possibly use the collected data against the citizens

Privacy

I think that in this day and age it is no longer possible to keep data private, uploading it to could etc. is not a problem for me, it becomes problematic with content that is shared on instagram, snapchat, facebook, etc. because they can follow you for a long time if you do not pay attention to what is posted.

Personal information use in the future

Durch benutzung von Mobilph8n3s, Tablets etc. werden eh schon genug Daten gesammelt. Da muss kein zusätzliches Datamining mehr stattfinden

I would prefer not to share any of my personal data.

not data all the time, only when for example emergency situation arises. not much that could make me have less concerns

s. Vorhergehende Antwort.

Alles okay, wenn der Datenschutz erhalten bleibt.

das ich aufgrund der Datenauswertung beobachtet und "eingeordnet" werde, totale Überwachung. Anonyme Auswertung der Daten

Kontrolle, Manipulation, Freiheitseinschränkungen....Überwachung, Diktatur

I am willing to share data for receiving services and support

Private not public interest

Mit welchem Zweck, Wer hat Zugriff und wie wird dies gesichert? Daten an Versicherung… Reglementiert durch Überwachungsdaten?

Mißbrauch meiner Daten.

Das diese Daten in dritte Hände geraten

Wir leben in einer digitalen Welt, es ist völlig normal. Wer das nicht will darf diese Geräte nicht benutzen. Man muss sich damit auseinander setzen das hinter einer Glasscheibe sitzt und alles durchleuchtet wird. Aber genau das dient ja eben auch der Sicherheit

,dass diese Daten für persönliche Vorteilsnahmen missbraucht werden.

Besonders die private Adresse und Bankdaten.

Ich hatte Bedenken zu 100% gläsern zu werden und kein digitaler Rückzugsraum mehr vorhanden ist.

Datenschutz,

Computer die mein Verhalten berechnen und lenken...

How anonymous is the data that is collected. How much can be traced back to me as an individual. How is the data stored and secured? Who has access to the data

Datenschutz

Vorausgesetzt diese Sensoren würden nur öffentliche Plätze, Straßen etc. aufzeichnen und das Privat leben nicht gefährden keine bedenken

Das zu viele eine zu große Menge an sehr vertraulichen und persönlichen Infos anderer bzw. fremder Menschen haben. Wie wird mit den Daten umgegangen und wozu werden diese benutzt ? Macht man sich ggf strafbar mit manches Infos bzw. Daten ?

That it could influence my behavior because I wouldn't want to do anything wrong. My concerns would be the strongest if the data would be collected by a political institution because they care if someone is breaking rules

Missbrauch der Daten, höhere Wahrscheinlichkeit der Kriminalität im Bezug auf Datenklau. Eindeutige Gesetze gegen diese Form von Kriminalität wäre wichtig, sowie die bessere Möglichkeit der Anzeige und rückverfolgbarkeit bei Missbrauch muss gegeben sein.

Ich hätte bedenken, dass persönliche Daten gesammelt werden könnten, die nicht für Dritte zugänglich sein sollten. Diese Bedenken hätte ich nicht, wenn dies durch entsprechende Gesetzte geschützt ist und überprüft wird.

Keine

Siehe voroge Antwort

- s. vorangegangene Frage. Algorithmen, die zig random Daten verknüpfen, sind kaum zu kontrollieren. Ich gebe aber zu: gespeicherte Daten sind bequem, Paypal geht schnell, Cookies abzulehnen kostet Klicks etc. Hier gilt es abzuwägen: Generell halte ich das Sammeln und Auswerten von Daten für eine Möglichkeit, Bürger zu Objekten staatlicher oder privater Interessen zu machen. Beispiel: Sinus-Milieus. Prima fur die Beschreibung von Zielgruppen und maßgeschneiderte Angebote, schlecht zB für Bank-Scores

Freiheitsverlust

/

Die meisten Städte haben nicht genug Geld um in ausreichende IT Sicherheit zu investieren. Sieht man schon am Windows XP Gebrauch, nach Ablauf des Supports von microsoft, in ämtern. Wenn die Stadt Stadt offener damit umgeht wie, wofür und wo die Daten gespeichert werden hätte ich deutlich mehr vertrauen.

/

Ich hab eigentlich immer Bedenken, da fûr mich das Internet teilweise eine rechtsfreier Raum ist und eine immens und unvorstellbar große Reichweite hat. Ich finde es sollte verpflichtend sein, so transparent wie möglich zu sein, wenn es um die Frage geht was passiert bei meinen Daten. Ich hab bis heute da kein besonders großes Vertrauen drin

Keinen Bock darauf

I would be sceptical when it comes to personal devices and oersona data as soon as personal data is not involved I would not be too concerned unless the outcomes are worse than what was ensured with the previous system or anyone is particularly disadvantaged/cannot access the services. I would also highly concerned if the data was sahred with other parties such a private companies or law enforcement

Einerseits könnte die Meinungsfreiheit in den Köpfen der Bevölkerung unterdrückt werden, andererseits könnten radikale, illegale Daten vor Aktionen erfasst werden

Strafverfolgung

Incorrect use of data, privacy concerns, and bias within data.

It is a fact and when you want so use social media u have to know about it.

See previous Question. No corporations should be involved in handling data. Of course no selling to third parties

i don't have any concerns

The missuse of the intel

One concern would be, that the data is being used for non beneficionary purposes for the citizens (for example healthcare). Another concern would be the loss of general privacy.

Überwachungsstaat

When it's being used for things like influencing political opinions - and if we think shit it - then that starts quite early and is already happening

I would be concerned about my personal information being shared without my consent. It violates my privacy and freedom and it makes me concerned that any personal information I want to keep private will be known by everyone!'

I want my privacy to be respected. I want to share only some data: I don't want them all to be collected by a sensor that works automatically

My main concern would be related to surveillance and subsequent covert manipulation of desires, opinion, needs, etc. The greatest risk would be the concentration of power on who owns this type of information. In a perfect world, such tool would be used to benefit the simple working man, and the power attached to it would not be abused or misused

intervention in my privacy

Privates sollte privat bleiben

The government will use it for their advantage only

Refer to my last answer.

Privatsphäre, Kontrolle, Überwachung

I don't enjoy the idea of collecting data about behaviour patterns (e.g. such as location and the times of the day that I visit a specific site; patterns of shopping behaviour as I feel i'm being tricked into purchasing certain products; any data specific to my social media consumption as I don't want "them" to associate any political profile with me; health data is also highly private and sensitive and so I would not want any of that data to be collected); I think in general, if I do give permission to collect any data, I want to be fully voluntary (meaning deciding not to share my data won't hinder me from actively participating in my society (such as being able to still walk on the streets without being tracked), making the default NOT to share as opposed to sharing, and finally not constantly notifying you, before you access a service, if you still want to keep NOT sharing your data

That it is used for profit/to surpress certain kinds of people. I will always have these concerns.

privacy concerns

If this data is available to everyone, or even just to the government, then political opponents or people who disagree with the desired opinion could be located. A complete surveillance of the state would be guaranteed, even more power to the state, the security of the individual would be endangered, under no circumstances I wouldn't have this concerns I would always have them when I'd know that my data is completely accessible to the government

Kommt drauf an welche Daten. Bewegungsdaten find ich schwierig. Browserverlauf bitte nicht xoxo

health insurance, voting, pricing and advertising, strategic hacking/ blackouts. I think my concerns would decrease if politics and the sustem would be as up to date as the technology used, further for instance, with restrinctions such as abortion rules getting stronger and crosscontinental conflicts we fo not seem prepared to protect. I would safer if our bureaucracy would be more up todate

Someone abusing there power. Someone who does not represent the community having this data and using it for what they think is right

Privacy issues, data being connected to me as a person, citizen controll. I'm not sure if there are circumstances where such measures are not concerning.

Das wäre höllisch

Data security issues

Observation of personal interests and decisions in oder to benefit economically or strategically in political sense

Corruption and lies

S. Answer before

My concern would be, to be a complete "glasperson". Meaning beeing constantly watched and therefore not feeling free anymore.

it would be concerning if the data is collected in a centralised way. it would be perfect if it would be collected in a decentralised way

Personal Data

Data privacy is a concerning issue

Idk

Behavioural Modification. Injection of values. Prediction of choices.

That the state is going to have full control and insights of what, when and how often we do things.

It's good. Only those who have something to hide should e worried. Privacy not secrecy. Though ofcourse it depends what the data is used for

Definitely privacy concerns. Anxiety of the feeling of being watched

Under the circumstances of increasing polarization i stand very critically towards gathering personal data from people. I fear that by disclosing information about yourself such as activist activities or political affiliation you make yourself vulnerable to the potential scenario of a populist leader that can make use of that data to identify people that are disagreeing to their worldviews

Companies will claim that they respect everyone's privacy, but that's bullshit. Not only they don't respect it, they also make people do things that they don't want to do, for instance by just clicking 'I agree to terms and conditions'.

What happens with the data, who has the data, how protected it the data?

18 - Why do you trust an open-source system the most?

Why do you trust an open-source system the most?

Sie bieten volle Transparanz und sicherung durch kollektive Kontrolle

in der Hoffnung, dass es freier von wirtschaftl. interessen ist

It's most transparent

Weil die Daten allen zur Verfügung stehen. Jeder kann recherchieren und sich eine Meinung bilden.

Durch die Öffentlichkeit vielleicht kontrollierbar?

Open source is open a transparent system

Hope in collectivistic approach

Nicht monetarisiert, nur wenn anonymisiert, Gleichberechtigung, Nutzung für Forschung

Da dort für alle transparent ist wie die Daten gespeichert werden

Hier wäre die Transparenz mehr gegeben

Jeder Mensch sollte die Rechte an seinen Daten behalten, Einsicht nehmen können und über deren Nutzung mitbestimmen.

Wenn jeder Zugang hat und es jeder sehen und verstehen kann, dann hoffe ich, daß man auch weniger negatives damit veranstalten würde.

Kann ich ehrlich gesagt auch nicht sagen

Gleichberechtigung

Tue ich nicht / gab keine andere Antwortmöglichkeit

Weil ich das Gefühl habe, am ehesten Einfluss auf meine Daten zu haben

Darin kann direkt gesehen werden, ob mit den Daten etwas anderes passiert, als ich mir wünsche. Auch wenn ich dem ganzen nur vertraue, wenn diese Firma, Arbeit,… regelmäßig überprüft werden würde.

Niemand ist bevorzugt

Jeder hat die gleiche Möglichkeit an gleiche Informationen zu kommen.

It ensures transparency and security through the nature

Equal access means less leverage over another but also means everyone can know everything which has its own problems.

No possible back-door in software. Everybody can check what happens to their data and if the promised anonymisation etc. occurs

With everyone being able to access the information there won't be a reason why anyone would like to "steal" the data for their own advantage

High transparency of data processing

Keine Einzelfperson profitiert davon

Information is power, maybe making it accessible to everyone would make it less dangerous.

I am able to look up what they have collected on me.

ich finde die sammlung Privater Daten an einem Punkt nie gut

Because it does have some accountability/transparency and it is not centred in the hands of a few

because it can be checked by anyone

Somit hätte keiner die chance aus eigeninteresse etwas zu ändern/Veruntreuen

I trust it the most, as everyone can develop it further, which increases the ability to do research and innovate for social progress. however I am also concerned about what negative side effects that can trigger and how we could be safe from attacks

Everyone is in the same boat

Because it is potentially more transparent and accessible to everyone and not controlled by a single entity or corporation/government with black box algorithms.

Because of transparency of data management

Everybody can see and search for the truth

Seems most democratic

Because there is no Institution behind it.

transparent, effective, fair, decentralised

No other interests

Jeder hat das gleiche recht wie ich es verstehe auf alles zuzugreifen.

It is decentralised and could be run on a blockchain. No centralised power

When the people have the power it would feel more democratic

Because having it open to anyone, power is distributed more evenly and it might then have an integrated control instance (the public) automatically

Open-source system I think is the best option because this way it is 'open', therefore there is no secret passage of information.

Seems the most transparent, even though it still scares me

19 - Why do you trust the government the most?

Why do you trust the government the most?

bc not random ppl can see it and they care more about ethics than ppl that just want profit

answer below

With a strong system, policy, law and everything around it, it could help to benefit citizens

Weil ich keine bessere Alternative kenne - Open Source kann ich nicht einschätzen

Weil es möglicherweise doch ein paar Politiker gibt, denen die Gefahren eines total „gläsernen" Bürgers bewusst werden.

Weil die Regierung dazu verpflichtet ist, die Rechte ihrer Bürger zu schützen.

Vermutlich am wenigsten Interesse einen "privaten Nutzen" zu erziehel

Unternehmen handeln um für sich selber Profit zu machen. Das tut die Regierung zwar auch aber das zufriedenstellen der Bevölkerung und die Umsetzung von Sicherheit spielen hier noch einen größere Rolle (größere Verantwortung) ich

The government does not have a profit based agenda most likely . They are likely to want to collect data to see trends and improve the population's functioning

The government can be checked and controlled by its citizens. And if they don't behave proper they will be corrected on the long run

Keinen Antrieb Daten an dritte weiterzugeben

I'm not sure either… I want to have faith in people who govern the country. I want to trust them and have faith they'd treat people's data to rule at their best.

It is a more or less arranged system which has obligations under the international law to protect the citizens. If human rights would get highly violated, the international and European arenas would be able to intervene into the situation

Ich habe sie gewählt. Die Vorschriften und Gesetze sind ein Garant.

I would say that the government, if the right people have, in the certain state of the government, the power they could do a lot of good stuff with some of our data.

I don't perceive my country as a technologically savvy, data driven place. I don't perceived my government as "evil" but rather disoriented (you might want to search Portugal, "geringonça"), and so I personally don't associate with them super suspicious agendas when it comes to the collection of personal data.

Hoffnung auf mehr vertrauliche Behandlung von Daten. Regierung sollte das Interesse aller als Ziel haben

Government would be very burocratic and slow, but my confidence would be highest that they follow the legal restrictions attached to data collecting

For example the DigiD is quite a secure system. It's more just a feeling.

Es ist zum Nutzen aller. Ich habe nichts zu verbergen

Eher geringes Übel

Das Gefühl, dass persönliche Daten dort am sichersten aufgehoben wären.

Da dieser weiteren Kontrollinstanzen unterliegt, aber auch hier gibt es für mich noch zu viele und große Lücken

Because I trust in our administration, it's trustworthiness and I believe they might also control the way it's used in a rightful manner

Because I think that the government will miss use my data the least

Ah, s. vorherige Frage. Der Staat sammelt Daten, aber in einem rechtlich definierten Rahmen, der gerichtlich überprüft werden kann. Zumindest ist das vorgesehen.

102 - Why do you trust private companies the most?

Why do you trust private companies the most?

unabhängiger

Weiß ich nicht aber es ist privater und ich glaube sie geben keine Daten raus

Weil unternehmen besser sind als der Staat

They would use it to get better Produkts or something like that. They would introduce the informations so they maybe do less stuff that isn't helpful.

Sie sind oft spezialisiert auf solche Dinge und stecken das nötige Geld in die Entwicklung von Datenbanken. Das Unternehmen darf aber nicht von einer Einzelperson geleitet werden.

Private companies may be able to keep my information safe and keep it private

Private companies are more secure and not so many people can access my information

Just a feeling

I don't have trust in this either, but government and open-source the least

I do not trust private companies per se, but generally, you are free to decide if you are giving your data to them. Buy local, dont have social media and look up things in the Brockhaus and you're in control of your data. When governments decide to collect data, it is often mandatory by law.

Flexibilität, Zusammenschluß größerer Projekte, es ist wohl die Zukunft

Don't have as much power as the governmet, are mostly smaller, not accessible to everyone, dieffernt interests then the givernemet

Because I would feel like they are collecting my data for a specific reason and don't care if I am doing anything wrong. They don't want to limit my privacy they just want to make money

Ausschlussverfahren, da es eine ausgewählte Gruppe ist, abseits der Regierung und trotzdem qualifiziert.

20 - Justify your answer. What makes you confident / unconfident When would you be confident?

Justify your answer. What makes you confident / unconfident When would you be confident?

Vertrauensbruch führt zu Protest

Wer hat Zugriff auf diese Daten? Wann werden sie von wem ausgewertet? Wie lange gespeichert? Ich wäre zuversichtlich, wenn es genaue Richtlinien gibt.

vertraue der Stadtverwaltung

Wieder geht es um wirschaftliche Interessen, auf KOsten von Individualität

Observation und Kontrolle der Bürger, Überwachungsstaat

In Deutschland die zaghafte Implementierung und starke Abwehrrechte gegenüber dem Staat, das Rechtssystem, die europäische Gesetzgebung.

Wer bekommt die Daten und wofür?

Könnten zu intime Sachen im falsch Hände geraten

Unconfident, because this system would be new and at that stage many mistakes and not much progress towards the purposes of such invention would be made. Many innovations get mistreated and used for wrongs, for example, the drone used for murder. I would want for the data gathering to first be functionary over test cities before trusting the government with handling actual data.

I'm not confident about the honesty of whoever would be elected to make decisions

The administration/ political system the country I live in

It invades peoples privacy

the ability to do almost anything without fear of political persecution

I think all the private data should be secured and no one should have access to it

Nö sense to risk personal data.

Being tracked where ever you go is not freedom, and freedom is what I would need in a city

I would be confident, when my data is private and no use for public sensors, tracking etc.

Die Würde des Menschen ist unantastbar.

In my opinion personal devices should not be used by a central political power to gather data as I as a citizen do not want to be transparent in everything I do. When, or how long I switch my lights or tv or computer on and what I do should not be analyses by the state as there might be future developments to make a democratic state not a state with freedom of opinions.

don't want to be tracked all the time

Das würde die totale Überwachung des Bürgers bedeuten- s. George Orwell „ 1984"

Der Staat wurde von mir gewählt und muss daher meine Interessen vertreten.

was wird mit den Daten gemacht??, zuversichtlich bei einem perfekten, nachvollziehbaren und gut zu verstehenden, sicheren Datensystem

Das kann missbraucht werden. Besser wäre Bürger an entscheidenden Veränderungen zu beteiligen

Third parties can use and know my personal data and habits

Data are already accessed for business why not to implement proper development plans

Wer hat Zugriff auf die Daten? Wie werden diese weiterverarbeitet ?

Datenschutz, Mißbrauch meiner Daten. Z.B. Weitergabe an kommerzielle Unternehmen

Keine Privatsphäre mehr

Daten werde ja jeden Tag gesammelt, dennoch fühle ich mich sicher. Da es mit bisher immer gut ging

Die vorrangige Frage ist zu klären - Wofür brauchen wir die Daten? Was bezwecken wir damit? Wenn wir es schaffen Menschenrechte zu stärken sollte jeder zu persönlicher Transparenz im Stande sein. Auch für ein ökologischeres Wirtschaften sollte dieser Preis gezahlt werden.

Manche Daten sollten ausschließlich vertraulich sein und nicht freigesprochener werden.

Ich glaube, das wir schon sehr gläsern im Bezug auf Daten leben. Aber den letzten Schritt zu gehen, das sie in diesem Umfang genutzt werden, würde mir Angst machen.

Je mehr daten an einem Ort gesammelt werden desto unsicherer scheint mir die wahrung des Datenschutzes.

Überwachung und damit verbundener Machtmissbrauch

I don't really know what confidence means in this question. Confidence of safety? Or if my data is used for good. Then no,

Datenschutz

Wenn Verbrechen aufgezeichnet werden, Bzw. das Risiko als Verbrecher ständig besteht, fällt die Kriminalitätsrate

Unsicher in der Hinsicht, dass die Frage offen bleibt, wie vertrauenswürdig mit den persönlichen Daten umgegangen wird.

I would feel like everything would be controlled and I would loose a part of my freedom. Also it differs from for example google collecting your data because I would feel like if I did something wrong it could have consequences for me.

Hörensagen aus Ländern/ Staaten in denen es das gibt, wie z.B. China. Ich würde mich zu sehr kontrolliert fühlen im ersten Schritt. ehrliche Transparenz der Datennutzung wäre gut.

Der Datenschutz in Deutschland ist sehr groß, somit bin ich zuversichtlich, dass die Daten nicht für andere ungewünschte Zwecke verwendet werden. Außerdem sehe ich auch Vorteile für die Bürger darin, wofür man bestimmte Dinge, wie Datensammlung, in Kauf nehmen muss.

Es ist heut zu Tage sowieso alles durch Handys usw online

Die Gefahr der totalen Überwachung behindert die freie Entfaltung der Persönlichkeitng

An unserer WG-Tür stand in den 80-er Jahren derSpruch: Unsere Daten müsst ihr raten. Mein Leitsatz ist nicht: ich habe nichts zu verbergen, sondern: es geht keinen was an. Maßgabe ist das GG-Recht auf informationelle Selbstbestimmung

Die Datenerfassung könnte einem Vertrauen schenken, da es z.B. keinen Betrug mehr geben würde. Andererseits könnte es einen bestimmt auch ein Gefühl von Überwachung geben und einen somit einengen.

/

Ich glaube nicht daß die Daten sicher sind . Man fühlt sich beobachtet selbst wenn es keine Kameras mit Gesichtserkennung o.ä. sind

Für die Sicherheit? Ich bezweifle, dass so mehr Sicherheit hergestellt wird. Die Regierung sollte die Bürger auf eine andere Art schützen. Datensammlung kann missbraucht werden und nicht einmal der jetzige Datenschutz ist gut. Ich möchte nicht überwacht werden.

Ich find solche Themen sehr schwierig zu beurteilen. Der Umgang mit unseren Daten und unserer Privatsphäre, ist aus meiner Sicht sehr intransparent und man hat wenig Kontrolle darüber wie viel und vor allem an Wen und mit welchen Zweck meine Daten verwendet werden. Ich weiß aber, dass gesammelte Daten essentiell sind in vielen Forschungsbereichen und auf unabdingbar für bestimmte Fortschritte. Deswegen bin ich da sehr im Zwiespalt und wünsche mir bei sowas vollste Transparenz!

Überwachung

I would be confident of a sufficient level of privacy is ensured next to the proper functioning of associated processes

In einem Land, welches die Nötigkeit hat persönliche Daten der Bürger zu erfassen, sehe ich wenig ursprüngliche Sicherheit und Freiheit

Gar nicht. Hat den Staat nicht zu interessieren

Smart cities would not work in a society based on profit because our data will then always be exposed to the highest bidder.

That what I saw was pretty cool to watch but I think when there are enough people it could be so much more.

Privacy concerns; No possibility to opt-out as one can with personal devices. Trust could be increased by making all software open source, voting on extent of "smart city". Having anonymous, open database with servers in the same country

The representation of the citizens is better that way

Our data is collected and saved anyway through various apps and devices

No data privacy

Viele neue Möglichkeiten

It can always be used in a way that can harm you are a greater good. Used by the powerful

It would make me feel watched and trapped. I wouldn't feel very free

I don't know how to justify my answer

This kind of data collection is a double edged sword. It could be a dangerous tool if its control would fall in the wrong hands. ould

too much control

Einer Wille, eigene Entscheidungen, gewisse Freiheit und vor allem Privatsphäre und auf diese vertrauen können

I dont want to be tracked

The more social and liberal the system/government, the more confident i would be to have data gathered to simplify and develop systems such as education and health i.e. / problem: governments change, data stays.

Ich gehe mal davon aus, dass die Frage auf persönliche DAten ausgelegt ist. In diesem Fall greift das natürlich massivst in die Persönlichkeitsrechte ein und wie das ausgeht, lässt sich ganz schön in China beobachten.

I'm not sure if my level of confidence is directly linked to my country; I distrust in general given the perceived lack of transparency on how that data would be processed, with what agendas in mind; I'm also someone who enjoys "natural" over technologically advanced good

We need large scale societal change. Smart cities I think will be inaccessible for the people most impacted by current crises

privacy concerns

No privacy anymore, General surveillance of the crowd, Freedom of thought and action would be restricted even more

Persönliche Geräte heißen nicht umsonst persönlich Geräte. Ich denke viele würden sich überwacht fühlen. Ps: viel Glück beim bachelor hoffentlich sehen wir uns mal wieder aufm Wasser ! Gruß der mit dem großen Ding TK

it makes me confident as we can reduce emissions and time efforts, less confident because safety / policies remain not to the standard of the innovation / use (e.g manipulation in information sharing)

Who is in power of my data? What do they need it for? I think they're going to use it for their own gain and NL has had plenty of privacy issues, so not into that

Obvious privacy issues are not very confidence inspiring

Wenn meine Stimme viel zählt

Data security issues

When Privacy is adequately honored

I do not trust the person behind it

Sensors can never make emphatic choices

I dont feel confident about it, because I dont think the people would feel free in a city where all the data is getting gathered.

smart cities have a lot of potential to improve peoples lifes

Überwachung

Privacy is quite invaded

Klingt nach Überwachungssystemen, Überwachungsstaat. Nichts gut

I would feel watched all the time, not free. I would not feel confident anywhere anytime.

It depends on what data they collect and how long they save it in their cloud.

There is a breach of privacy but only those who have something to hide need worry

It sounds like a city in which you are observed a lot (breach of privacy)

I do not like that at this stage of globalisation we are at, that everything is just about technology and data. If we want to be smart and sustain our planet, our society and the eco system, we cannot solve this by moving everything to a digital life. We should find back our connection to nature instead of distancing us even more from that. However, if data regards data such as, how much does the whole city emit per sector or how much do people take the bike etc etc, I find that very handy to develop policies. But I would not like of sharing personal data such as political affiliation, hobbies, or what I like to eat etc...

Unfortunately the improving technology invigilates our rights in every possible way. I wouldn't feel safe at all thinking that everything electronic in the city may have my data.

It feels invasive to have all my data available to others. It also depends on what is done with the data.

21 - How confident are you towards data collection and usage producing benefits for all of society?

How confident are you?

When would you be confident that it produces benefits for all of society?

Do you think it can be beneficial?

If yes in what way?

Es könnte aus meiner Sicht nur im Bezug auf Sicherheit einen Nutzen bringen (Vereitelung von Anschlägen), jedoch gibt es sinnvollere Maßnahmen die für ein sicheres Miteinander Sorgen

---

Vor Jahren wurden Betriebe schier verrückt an den neuen Datenschutzregelungen, jetzt haben diese sich selbst abgeschafft...

Wenn jeder Zugang zu den Daten hat, Die Presse, Vereine, Parteien, religiöse Vereinigungen usw.

I am not confident as data collected today is mostly used to manipulate people into buying specific goods or voting for specific parties

---

not at all; why would it benefit people? like maybe more personalized services but that's not a real improvement of life

---

S. Vorherige Antwort

Die Rückschlüsse aus den Daten sind für die Zukunft ausschlaggebend.

Datenerhebung muß in einer modernen Gesellschaft funktionieren, das ist sicher von Vorteil, die Nachteile haben wir z.B. bei der Pandemie gesehen (Datenchaos!). Es muß eine Datenerhebung sein, die für die Menschen einigermaßen nachvollziehbar ist und eine Sicherheit bietet.

Für die Städteplanung, für die Bildung , für Kunst und Kultur sollten Daten per freiheitlicher Befragung und per Auswertung von Statistiken erhoben werden

---

It could create a more equally society.

No sure

Nicht sicher, kommt auf den Viegang an

Besser Planung von Verkehrswegen, Sozialen Einrichtungen, Gesundheitsvorsorge

Kann ich nicht einschätzen

/

Datenerhebung ist bei der Entwicklung von "Künstlich-Intelligenten-Systemen" absolut notwendig. Die Systeme müssen rechtsstaatlich, transparent - wertebasiert angelegt werden.

Unsicher

.

Weiß ich nicht

Die Frage verstehe ich nicht

Not very beneficial. Will mostly be used for commercial ends

Wenig zuversichtlich

Nicht zuversichtlich wer Daten Preis geben will der tut das auch

Nur bezüglich der Vorbeugung möglicher Straftaten oder der Aufklärung von Straftaten, Suche nach Vermissten Leuten, Verbesserung des Lebensqualität in der Stadt evtentuell

I think it could be beneficial to prevent terrorism and maybe diagnosing illnesses

Kann ich nicht so einschätzen, aber positiv: Event mehr Transparenz in politische Meinungsbildung auf Basisdemokratischer Ebene

Ich würde erst davon überzeugt sein, dass es Vorteile gibt, wenn dies auch dargestellt wird, auf welche Weise welche Vorteile Zustandekommen. Grundsätzlich denke ich schon, dass es Vorteile für die Städte, bzw. Deren Bewohner haben könnte.

/

Ich bin überhaupt nicht zuversichtlich, da die Missbrauchsgefahr zu groß ist.

Das staatlich geregelte und rechtlich kontrollierte Sammeln von Daten hat natürlich Vorteile! Wir brauchen keine Zettelkästen für die Verwaltung mehr, wir können Arbeitsabläufe optimieren, wir können exaktere Prognosen stellen und entsprechend frühzeitig planen/eingreifen etc.

Wenn Daten erhoben werden, hoffe ich dass sie zum Nutzen der Allgemeinheit sind und nicht zur Ausübung der Macht von Firmen oder einzelnen Menschen. Dies könnte schnell zum Nachteil werden.

/

Ich bin unentschlossn. Es könnte z.B. Kriminalität eindämmen aber auch zu einem Unwohlsein gesamtgefühl der Bevölkerung führen. Wenn es keine zu persönlichen Daten sind kann ich mir gut vorstellen, dass es vorteilhaft ist solche Daten zusammen um die gesamte Infrastruktur der Stadt zu verbessern und somit eine lebenswertes Umgebung schafft.

Ja es könnte sehr viele Vorteile haben es muss nur sehr gut gemacht sein, nicht zu tief in die Privatsphäre eingreifen, nicht missbraucht werden

Unter den richtigen Bedingungen der Transparent und der lückenlosen Kontrolle, bin ich sehr zuversichtlich, dass das einen sehr großen Einfluss haben wird. Aber um das Vertrauen der Gesellschaft zu erlangen, sollte man auch vertrauenswürdig mit den Daten umgehen und ich glaube dass es zum jetzigen Zeitpunkt an diesem Punkt scheitert

Wenige

Yes it can be beneficial since we can allocate resources more efficiently

Viele würden im positiven Sinne mehr aufpassen welche Daten sie erstellen oder auch verbreiten, sie würden mehr reflektieren.

Gar nicht

I would like to see it happen but don't believe it ever will.

Collecting data is normal today so why don't use it useful.

It depends on the kind of data collected. Possible benefits are convenience for individuals and the efficiency of the city as a whole as well as reducing environmental impact. The latter two would however not need personal data but could rely on sensors collecting anonymous, objective data. This is the way

I'm confident in that collecting data will help all people and society to gain a better understanding of each other and helps analyzing what needs to be done to be able to create a better future.

Depends. Some companies that acquire data use it to optimise and change a lot of things for the better but on the other hand I doubt that It will benefit the society that much

Not very confident. One, but not a predominant benefit would be easier analysis of "problems" within the society

Yes

Data is a key to a lot of knowledge and positive change. That is a fact. But what we do with the data can lead to benefits for society or the opposite.

I'm not confident it would be beneficial because I think we can be manipulated without our awareness

I never really thought about it. I don't know.

Very uncertain, but it could be beneficial if freedom and transparency are maintained throughout this social shift. As our data is already collected by the people in power through smartphones and other devices, this process might be unstoppable anyways. The collection could be beneficial if made public. This could benefit freedom of information, which would lead to informed sociopolitical choices and increased agency of laymen.

maybe in terms of development

-

I am not confident towards it. Either way i think it will hapoen and it already does happen. Still i dont think its beneficial for all of society when it comes to private devices. You may want to give your data for studies or other things but it should always be your chpice to do so.

In an ideal world, with a "good" government which uses the data wisely, it can help to improve health, education, transport and more. As said, this unfortunately rarely happens, instead, data is collected to keep an eye on certain people, which in the next government could be considered enemies and be prosecuted for things which were within their good rights during a different system.

ich glaube das generelle datensammlung für eine Gesellschaft nicht zielführend ist. Man müsste das vielmehr über aufklärung und generelle Umfragen oder ähnliches Lösen

I'm rather skeptical and i cannot grasp what necessarily urgently needs to be automised to make my life quality better. I would be confident would there, as i mentioned, a transparent and representative system, that is accessible to all. I do think there is room for beneficial advancements, i just cannot fully grasp which ones and, from other countries in the world, the news aren't always that favourable.

It could be. It all depends on who is collecting it, in what way, for what purpose, and with what accountability

not confident at all

I would never be confident that it only produces benefits, I can't find any reason for benefits

-

most confident if open source, depending which data and for what it is collected.

Not cofident

There are certainly benefits but they won't outweigh ones right for privacy. Also we should move on from simple utilitarian considerations.

Ich finde das sehr schlimm

In my country, we are yet to get to a point where collection of data would be beneficial

Yes, if transferred, stored, filtered and managed, transparently it could help bring peoples opinions needs wants and ideas to the table

I am not sure

Maybe it could show some problems which are being ignored at the moment, for example not fair chances in school for all children…

It could be probably beneficial health care and trafficking.

sooner or later we will have decentralised, open-source technology that has all of the upsides and none of the downsides in comparison to tech companies / governments

X

I don't understand what that would look like

Aktuelle Datenerhebung für Werbung ETc ist eher nervig

Not

If the government uses the right data and form it into something where everyone can profit of it would benefit the society a lot. Private companies instead would use our data for their own business, for example specified ads for people etc. and that wouldn't benefit the society.

Less confident if it is private companies more confident if it's the government

I'm confident it will be beneficial as it is proven that the use of data could positively influence the creation of solutions to societal problems

depending on what data is collecting it can be very useful for research purposes

No confidence.

In a utopuan situation, it would probably benefit all of society, but im not that optimistic about the world we live in now. now, knowledge is power.

22 - Please tap the following field for your consent to your answer's being recorded anonymously

23 - How much do you agree with the following statement: The political system you live in functions to represent, safeguard, and benefit the citizens.

#	Answer	%	Count
1	Strongly Disagree	4.76%	6
2	Partly Disagree	11.90%	15

3		Neither Disagree nor Agree	7.94%	10
4		Partly agree	50.79%	64
5		Strongly agree	24.60%	31
		Total	100%	126

24 - What are the reasons why are not confident in the full functioning of democracy in your country?

How does it not benefit the citizens?

How does it not represent the citizens?

What makes it unfair?

What makes it un-free?

Zu wenig Solidarität
Es regieren rein wirtschaftliche Interessen
Korruption
.
Lobbyismus, kaum Kontrolle als Bürger außer wählen zu gehen - wahlversprechen werden nicht eingehalten
Korruption
Nothing
I don't know - I agree it is a democracy and cannot pinpoint where it is not

There are some (important) positions that cannot be elected and are only chosen by people in power.

the system does not value merit but relationships

Sozial problems

Different educational, cultural and financial backrounds cause differences in the opportunities of the citizen.

It is still a capitalist system which only benefits the rich upper class. Working class is still treated rather bad

I think that the media landscape in Germany pushes dangerous and populist agendas.

that many goals of a party are not implemented

Because especially in Germany it happens so often that ministers Pay millions of euros for useless stuff just to support their own interest. Every position of the government should be a highly responsible and supportive character. And who you could be

Stupid unconcious people vote for stupid politicians..

Representation of the people is not rightly executed

Diesel Preis steigt.

I think, the one that more poor, have more struggles and difficulties to benefit from the laws and functions , they are for the people. And still the richer ones have easier access to education, healthcare, social status/ Better jobs

Law proposal are denied upfront by the only personal interest of small group of parliamentarians

I feel very confident in the fully functioning democracy I live in but if I didn't it would be because I wouldn't feel represented or I wouldn't be able to think or speak freely

.

not caring enough about region outside the center

Die politischen Entscheidungen werden entsprechend der grünen Ideologie getroffen, ohne Rücksicht auf das wirtschaftlich Vernünftige oder Machbare. Der deutsche Wohlstand basiert auf der leistungsfähigen Industrie, auf nichts Anderem. Diese Industrie (zum Beispiel die Autoindustrie) wird aber verteufelt, weil wir ja angeblich die Welt retten . Selbst mittelständischen Unternehmen wird wegen derder

parteipolitische Machtquerelen, Eingriffe ins Grundgesetz s. Pandemie, teilweise Presseunfreiheit

Wirtschafliche Interessen stehen an erster Stelle

Lack of confidence due to poor quality of most of political representatives

Falsche Investitionen, zu wenig Beachtung für Gesundheit und Klimaschutz, teils einseitige Berichterstattung, wenig direkte Mitbestimmung

Zuviel Einflußnahme der Industrie/Konzerne/LobbyverterterInnen

Gleichberechtigung muss ausgebaut werden, die Kluft zwischen arm und reich wird immer größer

Medien des öffentlichen rechts verlieren zu oft die Neutralität aus dem Blick. Es scheint mir, dass diese eher Meinungsmache betreiben, denn Sachverhalte neutral darzustellen versuchen. Dem Bürger/ Volk wird zu wenig Entscheidungskompetenz zugetraut. Direkte Demokratie sollte ernst genommen werden. Lobbyismus sollte als Gegner von Demokratie verstanden werden.

Ich habe vertrauen in die Demokratie des Landes allerdings nicht in die Menschen die sie ausführen sowohl als auch nicht in die Menschen die diese Demokratie. Ich bin nicht gegen eine Demokratie aber die meisten Leute scheinen mir zu Egoistisch, Gierig, Engstirnig und Gleichgültig, etc..

Großkonzerne beeinflussen durch Lobbyarbeit die Regierung - die Interessen des Volkes stehen hinten an.

Lobbyismus, unsichere Systeme, schlechte oder unvollständige Aufklärung

The economy strongly influences the decisions of the politicians. A lit of the politicians are corrupt and it's getting tolerated… Also all the fake news on the internet about politics are influencing the people strongly and a lot of people blindly trust these false informations

Demonstranten, die bei nicht genehmigten Demonstrationen den Verkehr behindern, werden nicht wegen Nötigung verurteilt.

- das politische SYSTEM ist geeignet, alle o.g. benefits für die Bürger*innen zu gewährleisten. Die operative UMSETZUNG ist fehleranfällig, teils durch die Verteilung der vorhandenen Mittel, teils durch die Untauglichkeit einzelner Konzepte// Beispiel : das Schulsystem postuliert Chancengleichheit, die Mittel, zT auch die Konzepte, sind nicht ausreichend. Oder: das Steuersystem ist besser als in vielen anderen Ländern, enthält aber Schlupflöcher. Das Gesundheitssystem ist reformbedürftig, ebenso das Rentensystem

oft kein Einhalten von Wahlversprechen; Korruption

Rechtspopulistische Parteien haben immer noch die Möglichkeit mitzuwirken und zu bestimmen.

Wenig Wahl Beteiligung, da wenig politische Interesse geweckt wird bzw. Man vieler Parteien nur in wenigen Punkten zustimmt. Kaum Bürger Umfragen für wichtige Themen

Sehr ungünstiges Kästchen für eine so große Frage. Aber ein paar Punkte dazu: Wir haben oke Demokratie, aber sie könnte verbessert werden, denn nicht jeder hat die gleichen Möglichkeiten und einige Personen/Unternehmen haben zu viel Macht. Sie vertritt die Bürger in dem Sinne nicht, da es viele Menschen in Deutschland gibt, die nicht wählen können, weil sie keine Deutsche Staatsbürgerschaft haben. Keine Partei im Bundestag vertritt wirklich meine Positionen. Natürlich kann sie mich nicht vollständig repräsentiert aber sie repräsentiert mich zu wenig. Das liegt wohl auch daran, dass die Grünen/SPD/CDU zu einer großen (schwammigen) Mitte geworden sind. Deutschland ist ungerecht, denn es gibt noch Armut und die Absicherungen schaffen kein sicheren Lebensstandard.

The rich hold the money and power, It is a representative relic not a true democracy, there is corruption on both sides, the right continues to make minorities less protected

They say to much and do too little for talking that much about the future. They are thinking about how to solve problems with the facts they have but at the end it is about the money in the economy.

1) and 2): Lobbying of large corporations; 4) Surveillance

- little voices are overheard and not cared for

I feel like it concentrates too much On the old and conservative people instead of the young and creative

.

Ich mag politik nicht

Manipulation, matter is made to complex for citizens, rethoric, twisting and bending truth, it is more interesting what is not talked about than what they walk about - and when and how

Sometimes parties talk about what they will do in power but once they are in power they change their direction or don't stick to the changes they want to make

Rotten people

Democracy is jeopardized by the lack of independence of media outlets and journalism, very high incidence of nipotism over competence and meritocracy, corruption in executive legislative powers and politics, both of which often cooperate with organized crime in order to gain more power. This not only reflects on the government quality and representativeness but also touches topics as environment, citizens' food, resources and health.

a lot of bureaucracy - even tho i do think it's a lot better than having to little - and leftover racism sadly,

Egal was der Bürger tut, wie er sich entscheidet, das System bleibt das System

Lobbyism

The benefits are distributed unequally/ It represents not all citizens/ inequality regarding the chance of good education / high fees for universities, racial bias, funding of wrong sectors, prioritisation of a certain class, sex, religion, skin colour or Sexuality

"Das Gefühl nicht gehört zu werden", Poliker die aufgrund eines "Gefallen" im Amt sind, lari fari einstellung der PArtein, Sofortige Abstempelung sobald man anderer Meinung ist. L

(disclaimer: i am not super up to date with my country's political situation); perceived political corruption where politicians are not held accountable despite legal evidence; still a very male dominated political representation

I do not think the current model of representative democracy is equipped with todays global (and domestic) issues. Distance between politics and the citizen is too big. Too little accountability for politicians. Neoliberalism is intertwined with politics, putting interests of corporations and 'the economy' above general welfare. Current systems keep colonial power imbalances in check. etc.

populism

The system is guided by capitalism, mainly representing market interests and not those of the people,

In Deutschland haben wir eine funktionierende Demokratie. Trotzdem fällt es mir jedes Jahr schwerer mein Kreuz zu machen. Sehe Probleme aber eher außerhalb der Frage ob die Demokratie bei uns funktioniert.

- discrimination is not researched e.g in the police - climate change is still is prioritized after economic growth in policy making - its less about filling positions with expertise but with loyalty to parties

They take a long time to take action about serious matters and are always a bit too late. They act like they've got their shit together but it would be better to admit they also don't always know everything. The voting age may have to be changed or tjhere should be a limit due to a large part of the population being old and voting for the younger people their future.

Corruption and economic interest being placed above people's interest

Nichts jeder wird gleich behandelt (Frauen, Männer)

Votes are bought during elections. Laws passed are mostly to safeguard the interests of the politicians

Tax system, and decision making power unbalanced

Leistungsdruck

It does not represent all the people in the same way - some have better chances than other ones; money plays a great role - not the most important parts of society become the most attention

It benefits the uperclass more then the lowerclass

-

- politics are often inaccessible for people who come from the "lower class".

Sometimes I feel like there's no full representation, eg relating to diversity. Also some times politics is more concerned with politics than actual societal issues.

Nix

- Linus wird für seine Taten nicht zur Rechenschaft gezogen. Climate Change is not being implemented enough, not good for the citizens but only short term objectives. Digital hierarchies are rising. Data for behavioural modification is not being controlled.

There some things in our system that I can't put my trust into, mainly because there were some scandals like violence in the police in connection to some political stuff. So I can't put 100% of my trust in the system.

There is large inequality due to financial division. Those with generational wealth have access to so much more than those in low income brackets. This includes those in government who tend to be from primate schools and wealthy backgrounds

Not all citizens have equal input and sometimes decisions are made in a hast due to a crisis situation. During these crisis situations the decisions made feel/are less democratic

there is quite a big lobbying culture and the gap between rich and poor is widening more and more every year. I think Germany's democracy is not social enought and benefits too much big companies and rich people.

I do fully believe in the democracy of my country

What are the reasons why are not confident in the full functioning of democracy in your country? How does it not benefit the citizens? How does it not represent the citizens? What makes it unfair? What makes it un-free? Ect.

Zu wenig Solidarität

Es regieren rein wirtschaftliche Interessen

Korruption

.

Lobbyismus, kaum Kontrolle als Bürger außer wählen zu gehen - wahlversprechen werden nicht eingehalten

Korruption

Nothing

I don't know - I agree it is a democracy and cannot pinpoint where it is not

There are some (important) positions that cannot be elected and are only chosen by people in power.

the system does not value merit but relationships

Sozial problems

Different educational, cultural and financial backrounds cause differences in the opportunities of the citizen.

It is still a capitalist system which only benefits the rich upper class. Working class is still treated rather bad

I think that the media landscape in Germany pushes dangerous and populist agendas.

that many goals of a party are not implemented

Because especially in Germany it happens so often that ministers Pay millions of euros for useless stuff just to support their own interest. Every position of the government should be a highly responsible and supportive character. And who you could be

Stupid unconcious people vote for stupid politicians..

Representation of the people is not rightly executed

Diesel Preis steigt.

I think, the one that more poor, have more struggles and difficulties to benefit from the laws and functions , they are for the people. And still the richer ones have easier access to education, healthcare, social status/ Better jobs

Law proposal are denied upfront by the only personal interest of small group of parliamentarians

I feel very confident in the fully functioning democracy I live in but if I didn't it would be because I wouldn't feel represented or I wouldn't be able to think or speak freely

.

not caring enough about region outside the center

Die politischen Entscheidungen werden entsprechend der grünen Ideologie getroffen, ohne Rücksicht auf das wirtschaftlich Vernünftige oder Machbare. Der deutsche Wohlstand basiert auf der leistungsfähigen Industrie, auf nichts Anderem. Diese Industrie (zum Beispiel die Autoindustrie) wird aber verteufelt, weil wir ja angeblich die Welt retten . Selbst mittelständischen Unternehmen wird wegen derder

parteipolitische Machtquerelen, Eingriffe ins Grundgesetz s. Pandemie, teilweise Presseunfreiheit

Wirtschafliche Interessen stehen an erster Stelle

Lack of confidence due to poor quality of most of political representatives

Falsche Investitionen, zu wenig Beachtung für Gesundheit und Klimaschutz, teils einseitige Berichterstattung, wenig direkte Mitbestimmung

Zuviel Einflußnahme der Industrie/Konzerne/LobbyverterterInnen

Gleichberechtigung muss ausgebaut werden, die Kluft zwischen arm und reich wird immer größer

Medien des öffentlichen rechts verlieren zu oft die Neutralität aus dem Blick. Es scheint mir, dass diese eher Meinungsmache betreiben, denn Sachverhalte neutral darzustellen versuchen. Dem Bürger/ Volk wird zu wenig Entscheidungskompetenz zugetraut. Direkte Demokratie sollte ernst genommen werden. Lobbyismus sollte als Gegner von Demokratie verstanden werden.

Ich habe vertrauen in die Demokratie des Landes allerdings nicht in die Menschen die sie ausführen sowohl als auch nicht in die Menschen die diese Demokratie. Ich bin nicht gegen eine Demokratie aber die meisten Leute scheinen mir zu Egoistisch, Gierig, Engstirnig und Gleichgültig, etc..

Großkonzerne beeinflussen durch Lobbyarbeit die Regierung - die Interessen des Volkes stehen hinten an.

Lobbyismus, unsichere Systeme, schlechte oder unvollständige Aufklärung

The economy strongly influences the decisions of the politicians. A lit of the politicians are corrupt and it's getting tolerated… Also all the fake news on the internet about politics are influencing the people strongly and a lot of people blindly trust these false informations

Demonstranten, die bei nicht genehmigten Demonstrationen den Verkehr behindern, werden nicht wegen Nötigung verurteilt.

- das politische SYSTEM ist geeignet, alle o.g. benefits für die Bürger*innen zu gewährleisten. Die operative UMSETZUNG ist fehleranfällig, teils durch die Verteilung der vorhandenen Mittel, teils durch die Untauglichkeit einzelner Konzepte// Beispiel : das Schulsystem postuliert Chancengleichheit, die Mittel, zT auch die Konzepte, sind nicht ausreichend. Oder: das Steuersystem ist besser als in vielen anderen Ländern, enthält aber Schlupflöcher. Das Gesundheitssystem ist reformbedürftig, ebenso das Rentensystem

oft kein Einhalten von Wahlversprechen; Korruption

Rechtspopulistische Parteien haben immer noch die Möglichkeit mitzuwirken und zu bestimmen.

Wenig Wahl Beteiligung, da wenig politische Interesse geweckt wird bzw. Man vieler Parteien nur in wenigen Punkten zustimmt. Kaum Bürger Umfragen für wichtige Themen

Sehr ungünstiges Kästchen für eine so große Frage. Aber ein paar Punkte dazu: Wir haben oke Demokratie, aber sie könnte verbessert werden, denn nicht jeder hat die gleichen Möglichkeiten und einige Personen/Unternehmen haben zu viel Macht. Sie vertritt die Bürger in dem Sinne nicht, da es viele Menschen in Deutschland gibt, die nicht wählen können, weil sie keine Deutsche Staatsbürgerschaft haben. Keine Partei im Bundestag vertritt wirklich meine Positionen. Natürlich kann sie mich nicht vollständig repräsentiert aber sie repräsentiert mich zu wenig. Das liegt wohl auch daran, dass die Grünen/SPD/CDU zu einer großen (schwammigen) Mitte geworden sind. Deutschland ist ungerecht, denn es gibt noch Armut und die Absicherungen schaffen kein sicheren Lebensstandard.

The rich hold the money and power, It is a representative relic not a true democracy, there is corruption on both sides, the right continues to make minorities less protected

They say to much and do too little for talking that much about the future. They are thinking about how to solve problems with the facts they have but at the end it is about the money in the economy.

1) and 2): Lobbying of large corporations; 4) Surveillance

- little voices are overheard and not cared for

I feel like it concentrates too much On the old and conservative people instead of the young and creative

.

Ich mag politik nicht

Manipulation, matter is made to complex for citizens, rethoric, twisting and bending truth, it is more interesting what is not talked about than what they walk about - and when and how

Sometimes parties talk about what they will do in power but once they are in power they change their direction or don't stick to the changes they want to make

Rotten people

Democracy is jeopardized by the lack of independence of media outlets and journalism, very high incidence of nipotism over competence and meritocracy, corruption in executive legislative powers and politics, both of which often cooperate with organized crime in order to gain more power. This not only reflects on the government quality and representativeness but also touches topics as environment, citizens' food, resources and health.

a lot of bureaucracy - even tho i do think it's a lot better than having to little - and leftover racism sadly,

Egal was der Bürger tut, wie er sich entscheidet, das System bleibt das System

Lobbyism

The benefits are distributed unequally/ It represents not all citizens/ inequality regarding the chance of good education / high fees for universities, racial bias, funding of wrong sectors, prioritisation of a certain class, sex, religion, skin colour or Sexuality

"Das Gefühl nicht gehört zu werden", Poliker die aufgrund eines "Gefallen" im Amt sind, lari fari einstellung der PArtein, Sofortige Abstempelung sobald man anderer Meinung ist. L

(disclaimer: i am not super up to date with my country's political situation); perceived political corruption where politicians are not held accountable despite legal evidence; still a very male dominated political representation

I do not think the current model of representative democracy is equipped with todays global (and domestic) issues. Distance between politics and the citizen is too big. Too little accountability for politicians. Neoliberalism is intertwined with politics, putting interests of corporations and 'the economy' above general welfare. Current systems keep colonial power imbalances in check. etc.

populism

The system is guided by capitalism, mainly representing market interests and not those of the people,

In Deutschland haben wir eine funktionierende Demokratie. Trotzdem fällt es mir jedes Jahr schwerer mein Kreuz zu machen. Sehe Probleme aber eher außerhalb der Frage ob die Demokratie bei uns funktioniert.

- discrimination is not researched e.g in the police - climate change is still is prioritized after economic growth in policy making - its less about filling positions with expertise but with loyalty to parties

They take a long time to take action about serious matters and are always a bit too late. They act like they've got their shit together but it would be better to admit they also don't always know everything. The voting age may have to be changed or tjhere should be a limit due to a large part of the population being old and voting for the younger people their future.

Corruption and economic interest being placed above people's interest

Nichts jeder wird gleich behandelt (Frauen, Männer)

Votes are bought during elections. Laws passed are mostly to safeguard the interests of the politicians

Tax system, and decision making power unbalanced

Leistungsdruck

It does not represent all the people in the same way - some have better chances than other ones; money plays a great role - not the most important parts of society become the most attention

It benefits the uperclass more then the lowerclass

-

- politics are often inaccessible for people who come from the "lower class".

Sometimes I feel like there's no full representation, eg relating to diversity. Also some times politics is more concerned with politics than actual societal issues.

Nix

- Linus wird für seine Taten nicht zur Rechenschaft gezogen. Climate Change is not being implemented enough, not good for the citizens but only short term objectives. Digital hierarchies are rising. Data for behavioural modification is not being controlled.

There some things in our system that I can't put my trust into, mainly because there were some scandals like violence in the police in connection to some political stuff. So I can't put 100% of my trust in the system.

There is large inequality due to financial division. Those with generational wealth have access to so much more than those in low income brackets. This includes those in government who tend to be from primate schools and wealthy backgrounds

Not all citizens have equal input and sometimes decisions are made in a hast due to a crisis situation. During these crisis situations the decisions made feel/are less democratic

there is quite a big lobbying culture and the gap between rich and poor is widening more and more every year. I think Germany's democracy is not social enought and benefits too much big companies and rich people.

I don't understand the question

I do fully believe in the democracy of my country

25 - What kind of data would you be willing to share?

Under which circumstances?

What kind of data would you be willing to share? Under which circumstances?

Frage unklar? Wem? In welchem Kontext?

keine, ich möchte eine Privatsphäre als Ausdruck der Menschenwürde

nicht private/irrelevante Daten wie z.B Schulaufzeochnunge

Standortdaten zur Verbesserung und Optimierung von Verkehr und öffentlichem Nahverkehr, zur Bekämpfung von Pandemien

Demographische Daten,

Nothing

location/camera footage in emergency situations

Keine

Name, Telefonnummer und Adresse

Ich kann mir nicht vorstellen, private Daten öffentlich zu machen

Keine

I don't know

Interest, needs, priorities, general data

Wenn anonymisiert, Beruf, Gesundheit,Alter, Wohnort…,

Nutzung von Verkehrsmitteln

Alle die Daten die man sowieso schon gezwungen ist Tag täglich im Internet zu teilen um sich für jegliche Sachen anzumelden

Zuerst ist die Frage zu beantworten - Zu welchem Zweck dienen meine Daten.

z.B. Daten über mein Verhalten im Verkehr (Öffis, Auto…) zur Optimierung und Entwicklung von Verkehr möglicherweise

Geodaten

Am liebsten nir die maximal notwendige was auch immer das heißt

Wenn ich mein Gegenüber kenne und weiß was es mit meinen Daten vorhat und ich ihm vertrauen kann, dann würde ich Daten teilen.

Just general data, as long as it is anonymized

Alle Daten die ich selber wissentlich hochlade

Nutzungsprofile von Apps

Standort, weg und Routendaten. Verkehrsdaten. Daten über mein alter, Geschlecht, Herkunft etc.

Einkäufe, manchmal Standort (zum Beispiel wenn es hilft den öffentlichen Verkehr zielführender auszubauen)

Im Kriegsfall zur Landesverteidigung

alles mit Internetnutzung

Über mich selbst

Alter und Körperliche Daten(Größe Gewicht etc) für ein Abbild der Bevölkerung o.ä.. wenn bewungungs Daten dann nur komplett anonym z.B das erkannt wird, das ich über die Straße Laufe allerdings ohne jegliche personenbezogenen Daten übers aussehen, Name o.ä.

Für Studien und zum abchecken ob ich illegale Inhalte teile/besitze

Daten von Umfragen, die anonymisiert wurden, Ich würde auch Daten des Online Kaufverhalten teilen, aber nur wenn es anonym bleibt, da man in einem erschreckenden Maße sieht wie sehr sich die einem vorgeschlagene Werbung an vorherigen Einkäufen orientiert

Wenige bis keine

Non-personal (completely anonymozed data according the GDPR)

Adresse zum shoppen