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CULTURAL INFLUENCES ON PERSONAL DATA DISCLOSURE DECISIONS

Brazilian Perspectives

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Abstract

This paper gives an overview of survey findings from Brazil on central parameters that can influence people's willingness to share (WTS) personal data. It provides insights into Brazilian mentalities with regard to data disclosure on a macro level and thus into the cultural preconditions of information governance. This 'country report' is one of several that have been compiled in the interdisciplinary project *Vectors of data disclosure – A comparative study of the use of personal data from a legal, cultural studies, and information systems perspective*¹, funded by the Bavarian Research Institute for Digital Transformation².

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Keywords

Brazil, Culture, Data Disclosure, Digitalization, Information Governance, Privacy, Willingness to Share (WTS) Data.

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² <https://www.bidt.digital/> (last access: 11/24/2021).

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I. Introduction

This paper focuses on cultural influences on people's willingness to share (WTS) personal data as expressed in surveys that reflect prevailing views, assumptions, attitudes, evaluations, and reported behaviors of Brazilian citizens in relation to data disclosure. As a first step in our research project, we concentrate on surveys to get a general picture of a culture's mentality with regard to data disclosure based on as broad a data base as possible. This provides us with insights into the cultural preconditions of information governance in Brazil. Our approach can be characterized as a macro level analysis (cf. Wawra 2022). We have composed similar 'reports' for other countries in our project³, since we are planning a cultural comparative study as a next research step. This has also led to the decision to rely primarily on extensive global surveys in our reports to facilitate the following country comparisons. Secondly, we have integrated surveys that cover at least some of our study countries. Wawra (2022) is an introduction to our project from a cultural perspective, which provides background information on the research context and details the cultural research design. The paper also introduces the parameters along which the cultural reports are structured. The following parameters have been identified as central to capture the narrower cultural context of data disclosure decisions on a macro level (cf. Wawra 2022): Digital Competitiveness (section III.), General Value of Informational Privacy (IV.), Degree of Privacy of Data (V.), Benefits Associated with Data Disclosure (VI.), Privacy Concerns and Risks (VII.), Data Protection Literacy (VIII.), Attitudes Towards Data Receiver (IX.), and Communication on Data Use (X.) (see Figure 1). Data Protection Laws is another parameter that is analyzed in separate legal country reports. Depending on the specific situational context, the parameters can vary within their influence on people's willingness to share (WTS) personal data. Overall, the structure of the country reports that have been compiled in our project is the same. The descriptions of the individual parameters have been adopted from Wawra (2022) and are rendered in italics.

³ The first report that has been developed in our project focuses on the US context (cf. Kessel 2022).

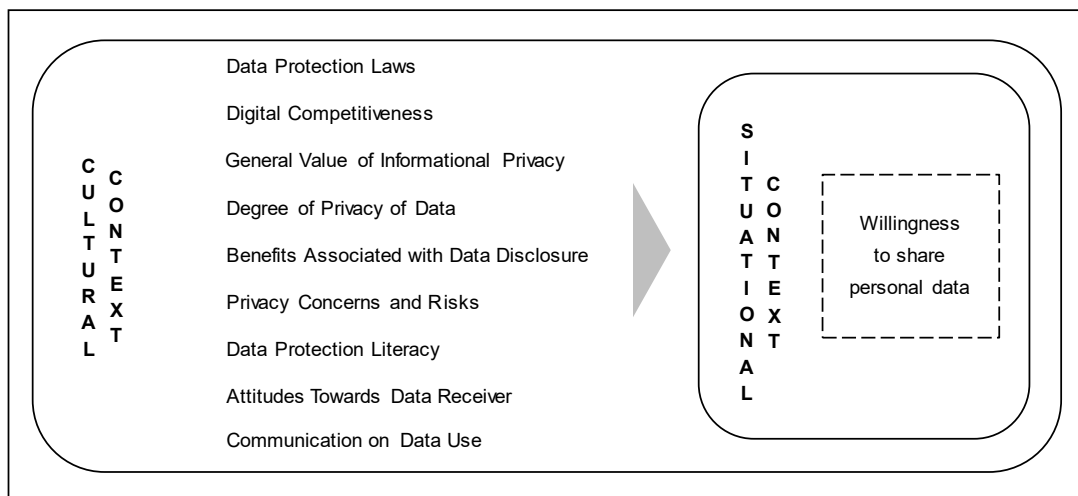


Fig. 1. Central parameters of data disclosure (from Wawra 2022).

II. Selected Survey Data

This report summarizes relevant findings primarily from large recent cross-national surveys on informational privacy, data control, data protection, and data disclosure in Brazil. The sample size was usually 1000 or more, twice there were about 200 respondents. Appendix 1 provides an overview and details of the surveys included, such as sample size and demographic information on respondents.

III. Digital Competitiveness

[The parameter Digital Competitiveness] is understood in the sense of the “IMD World Digital Competitiveness Ranking” (WDCR), a well-established and widely accepted regularly published ranking, as the “capacity of economies to use digital technologies to transform themselves” (IMD 2021, p. 3). The WDCR “analyzes and ranks the extent to which countries adopt and explore digital technologies leading to transformation in government practices, business models and society in general” (IMD 2021, p. 32).⁴ Specifically, the WDCR aggregates scores to compare 64 countries in terms of 52 criteria relating to “knowledge”, “technology”, and “future readiness” (IMD 2021, p. 3, 32, 33). Knowledge describes the “[k]now-how necessary to discover, understand and build new technologies” (IMD 2021, p. 33) and is further divided into the subfactors of talent, training and education, as well as scientific concentration relating to, e.g., expenditure on research & development, and high-tech patent grants. The factor technology comprises the “[o]verall context that enables the development of digital technologies” (IMD 2021, p. 33), including the subfactors “regulatory framework”, “capital”, and “technological framework”. Future readiness explains the “[l]evel of country preparedness to exploit digital transformation” (IMD 2021, p. 33) and measures adaptive attitudes, business agility, and IT integration to rank the level of how countries are prepared for exploiting digital transformation (cf. IMD 2021, p. 33).⁵

⁴ Wawra (2022, IV. 2.).

⁵ The paragraph from “Specifically [...]” to “transformation [...]” has been added in all country reports and has been adopted literally from the first country report (Kessel 2022).

For its overall performance, Brazil is ranked 51st out of 64 countries in 2021 for digital competitiveness. It receives the 51st rank for its advances in **knowledge**, rank 55 in the category **technology**, and 45 in **future readiness** for digitalization. When looking at the five-year development, Brazil's rankings have been rather stable: Its overall and knowledge rankings have somewhat improved (from 55th in 2017 to 51st in 2021), the technology ranking has remained the same (55th in both years), and its ranking for future readiness has deteriorated slightly (from 44th in 2017 to 45th in 2021) (cf. IMD 2021, p. 58).

Subfactor rankings with regard to **knowledge** position Brazil last in the subcategory **talent** and 60th for personnel's digital and technological skills, which is one of the items of this category. Brazil is 58th in the subcategory **training and education** and 21st in **scientific concentration**⁶ (cf. IMD 2021, p. 59).

In the field of **technology**, Brazil ranks 51st in the subcategory of **regulatory framework** and 58th for starting a business as well as 54th for development & application of technology, two of the items in this subcategory. For the subfactor **capital**, Brazil occupies 59th place and the same rank for the funding for technological development. It ranks 51st for the subfactor **technological framework**⁷, and here 58th for communications technology (cf. IMD 2021, p. 59).

In terms of **future readiness**, Brazil ranks 40th for the subfactor **adaptive attitudes**, 42nd for **business agility** and 49th for **IT integration**. In the subcategory of adaptive attitudes, it ranks 18th for e-participation⁸ and 35th for smartphone possession. In the subcategory of business agility, it occupies 56th place with regard to the use of big data and analytics. In the final subcategory of IT integration, its ranks are 47th for e-government⁹ and 58th for cyber security (cf. IMD 2021, p. 59).

IV. General Value of Informational Privacy

Informational privacy is understood "as the claim of an individual to determine what information about himself or herself should be known to others" (Westin 2003, p. 431) and as the demand to be protected from unwanted access to personal data (Rössler 2001, p. 25). [This] parameter [...] indicates how important or unimportant [respondents from Brazil consider this demand].¹⁰

The following surveyed questions allow for conclusions in this respect. The World Values Survey (cf. EVS/WVS 2021a, b) has asked about Brazilians' assessment of the collection of personal data for surveillance by their government. A majority of Brazilian respondents approve of governmental video surveillance in public: 54.7% agree that their government should have this right (cf. EVS/WVS 2021c, p. 427) (Fig. 2).

⁶ The subcategory "scientific concentration" comprises the items "Total expenditure on R&D (% (Percentage of GDP)) (R&D=Research and Development)", "Total R&D personnel per capita (Full-time work equivalent (FTE) per 1000 people)", "Female researchers (% of total (headcount FT&PT))", "R&D productivity by publication (No. of scientific articles over R&D expenditure (as % GDP))", "Scientific and technical employment (% of total employment)", "High-tech patent grants (% of all patents granted by applicant's origin (average 2014-2016))", and "Robots in Education and R&D (number of robots)" (IMD 2021, p. 180).

⁷ The subcategory "technological framework" includes the items "Communications technology" (IMD 2021, p. 105), "Mobile broadband subscribers (4G & 5G market, % of mobile market)", "Wireless broadband (Penetration rate (per 100 people))", "Internet users (Number of internet users per 1000 people)", "Internet bandwidth speed (Average speed)" and "High-tech exports (% (Percentage of manufactured exports))" (IMD 2021, p. 181-182).

⁸ "Use of online services that facilitate public's interaction with government" (IMD 2021, p. 182).

⁹ "Provision of online government services to promote access and inclusion of citizens" (IMD 2021, p. 183).

¹⁰ Wawra (2022, IV. 2.).

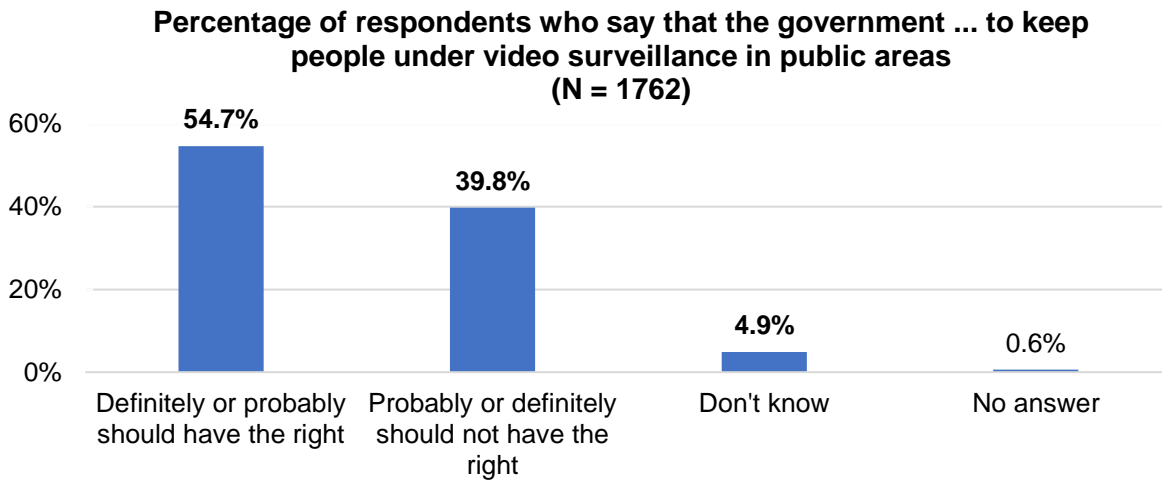


Fig. 2. Respondents' attitudes towards video surveillance by their government (cf. EVS/WVS 2021c, p. 427).

In contrast, only a minority (22.8%) of Brazilian respondents agree that their government should be allowed to monitor emails and other information that is exchanged online (cf. EVS/WVS 2021c, p. 429) (Fig. 3).

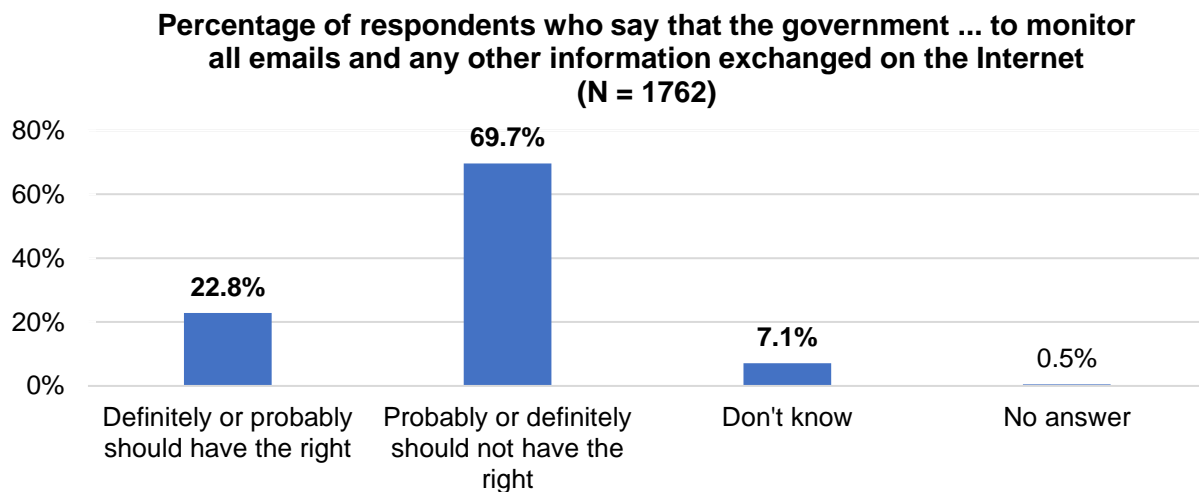


Fig. 3. Respondents' attitudes towards email and Internet monitoring by their government (cf. EVS/WVS 2021c, p. 429).

Brazilian respondents are equally opposed to data tracking by their government without their consent: 71.2% indicate that their government should probably or definitely not have the right to collect information about anyone living in the country without their knowledge (cf. EVS/WVS 2021c, p. 431) (Fig. 4).

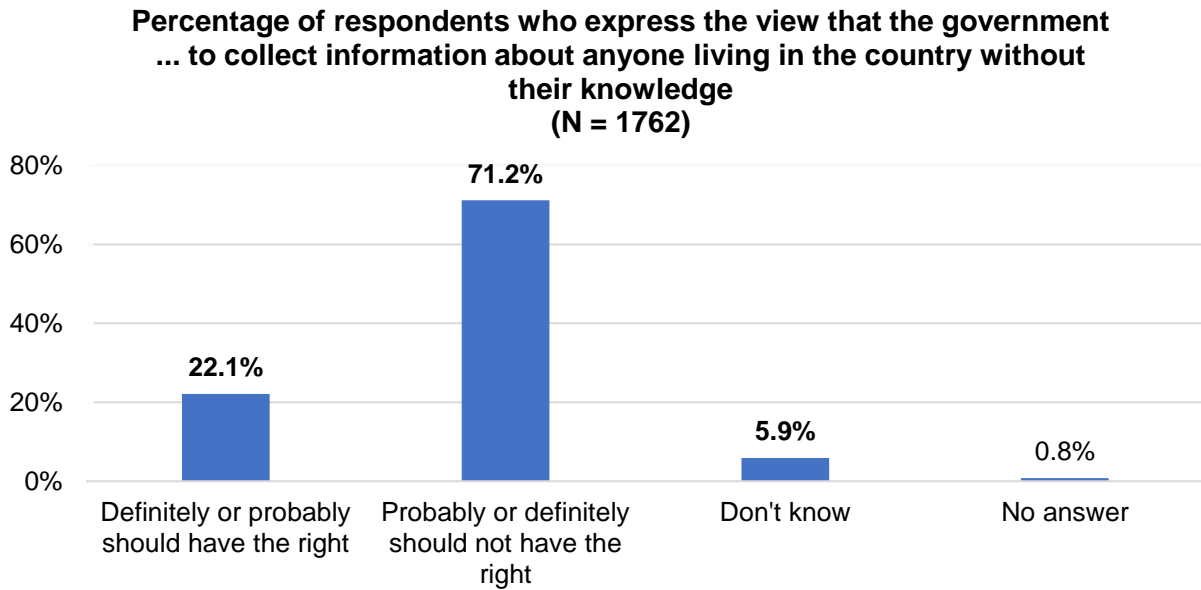


Fig. 4. Respondents' views on data tracking by the government without consent (cf. EVS/WVS 2021c, p. 431).

Regarding surveillance at work, the vast majority of Brazilian respondents, 87%, would not object to their employer monitoring part of their work when they work at home. 52% would not mind if their computer access time was tracked through log-in and log-out times while working from home (cf. Unisys 2021a, b, c).

Scrutinizing concerns about the use of collected personal data by companies, 60% of Brazilian respondents somewhat or strongly agree that consumers should be able to refuse this. Furthermore, 59% believe that consumers should be paid or rewarded if they allow companies to use their data. Only a minority of 31% of Brazilian respondents do not mind if companies use collected data (cf. Ipsos 2019, p. 12) (Fig. 5).

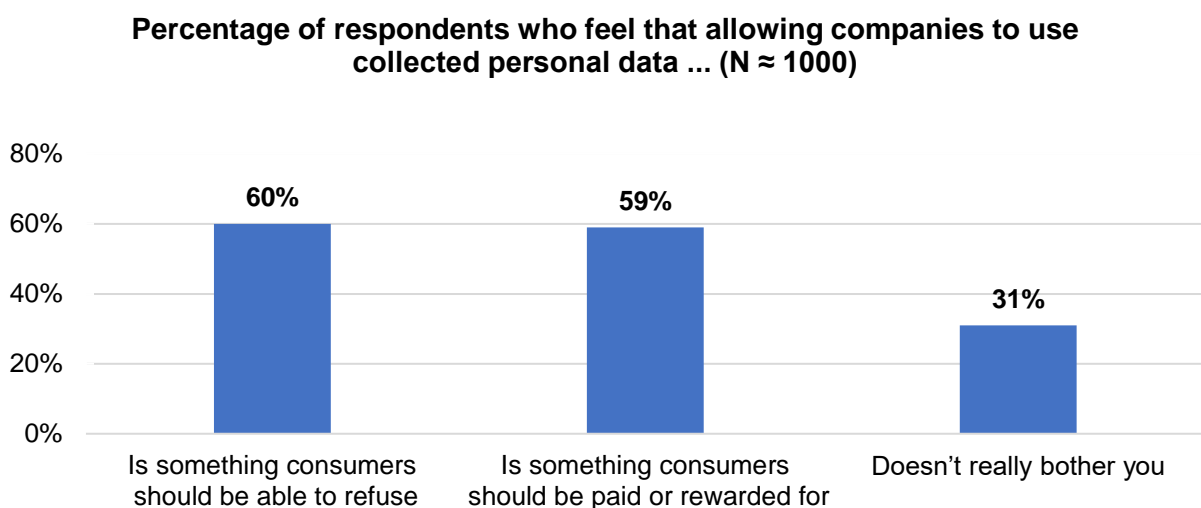


Fig. 5. Attitudes towards being able to refuse the use of collected data by companies or being paid/rewarded (cf. Ipsos 2019, p. 12).

V. Degree of Privacy of Data

[This] parameter [...] surveys how private or sensitive [...] certain kinds of personal data [are for Brazilian respondents].¹¹

An indication of what types of personal data are considered particularly private in Brazil is provided by the Brazilian General Data Protection Law No. 13,709/18 (Lei Geral de Proteção de Dados or LGPD). Personal data are “any information related to an identified or identifiable natural person” (DLA Piper 2021). Anonymized data are only categorized as personal “when the process of anonymization has been reversed or if it can be reversed applying reasonable efforts” (DLA Piper 2021). Sensitive personal data are “any personal data related to the racial or ethnic origin of an individual, religious belief, public [political] opinion, membership in a union or religion, philosophical, or political organization, data related to the health, sex life, genetics or biometrics, when linked to an individual” (Filho 2020; cf. also DLA Piper 2021).

In a study by Markos, Milne, and Peltier (2017) Brazilian respondents were asked to indicate how sensitive they thought specific personal data – that go beyond the ones listed in the LGPD and, e.g., include financial data – were, when they were asked to share them with a friend, some company “you know nothing about” or “a company you have had a positive experience with” (Markos et al. 2017). 1 would mean that the data are not sensitive, 10 that they are very sensitive. The results across different kinds of data receivers show that for Brazilian respondents, the sensitivity ratings for the following kinds of data are, in declining order: security & access codes and passwords (9.07), credit score (7.2), DNA profile (5.99), income level (5.73), documentation of grievances (5.27), medical history (5.19), social network profile (4.77), signed petitions (4.08), sexual preference (3.37), religion (3.24), and political affiliation (3.03) (Markos et al. 2017).

VI. Benefits Associated with Data Disclosure

[This] parameter [...] renders the positive effects [Brazilian respondents] expect from the disclosure of their personal data.¹²

More than half of Brazilian respondents (52%) believe that sharing personal data with companies makes it easier for them to offer customers better information, products, and services for their individual needs. The same percentage of participants in the survey (52%) think that it makes it easier for them as consumers to find relevant information, products, and services. 47% indicate that the disclosure of personal data to companies can help them (as consumers) save time, and 38% agree that it can help them save money (cf. Ipsos 2019, p. 12) (Fig. 6).

¹¹ Wawra (2022, IV. 2).

¹² Wawra (2022, IV. 2).

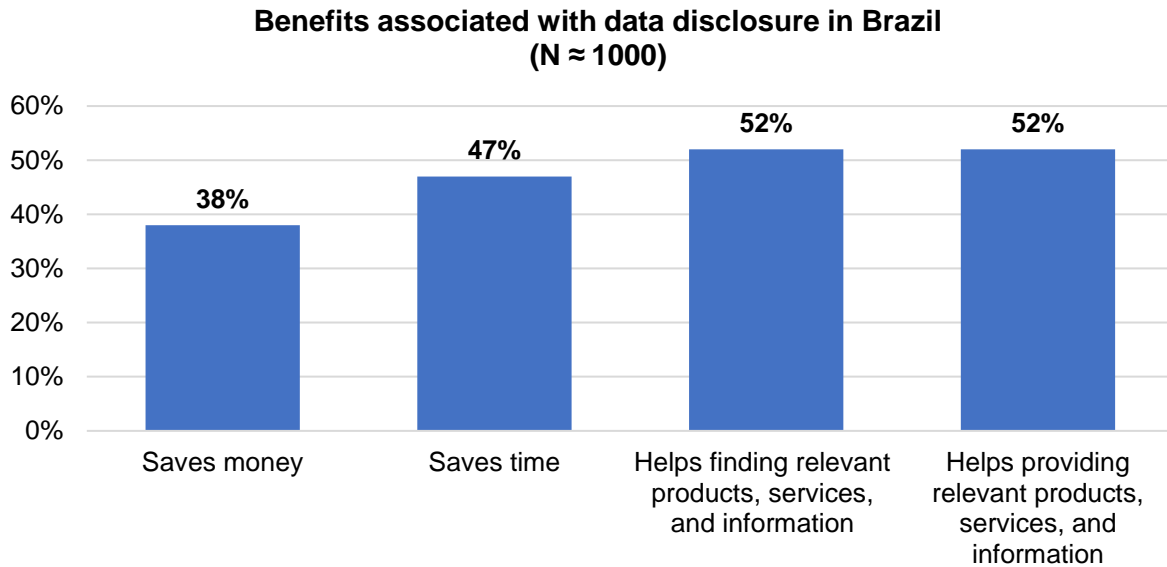


Fig. 6. Benefits associated with data disclosure in Brazil (cf. Ipsos 2019, p. 12).

Asked directly whether they would be “willing to share [...] personal data (health, financial, driving records, energy use, etc.) in exchange for benefits or rewards like lower costs or personalized service” (GfK 2017), on a seven-point Likert scale (1 meaning they don’t agree at all, 7 they agree completely), only 26% of Brazilian respondents indicate 6- or 7-point agreement (cf. GfK 2017, p. 61).

VII. Privacy Concerns and Risks

[This] parameter [...] comprises the negative effects [Brazilian respondents] associate with data disclosure. These include their general concerns about the security of their personal data, and their control over them.¹³

1. Concerns and Risks related to Data Security

People are less willing to disclose data to companies when data breaches occur. A majority of 59% of Brazilian respondents feel more comfortable disclosing their data to companies that have “never been subject to any breach, leak, or fraudulent usage of data” (Ipsos 2019, p. 14).

Moreover, 75% of Brazilian respondents want their “online data & personal information” to be “stored on a secure server”, preferably “in their own economy” (as indicated by 71%) (CIGI-Ipsos 2019b, pp. 13, 15). 54% want their data to be stored abroad and 49% do not care if their data leave Brazil (cf. CIGI-Ipsos 2019b, pp. 17, 19) (Fig. 7).

¹³ Wawra (2022, IV. 2.).

Percentage of users that strongly or somewhat agree with the following statements on data security (N ≈ 1000)

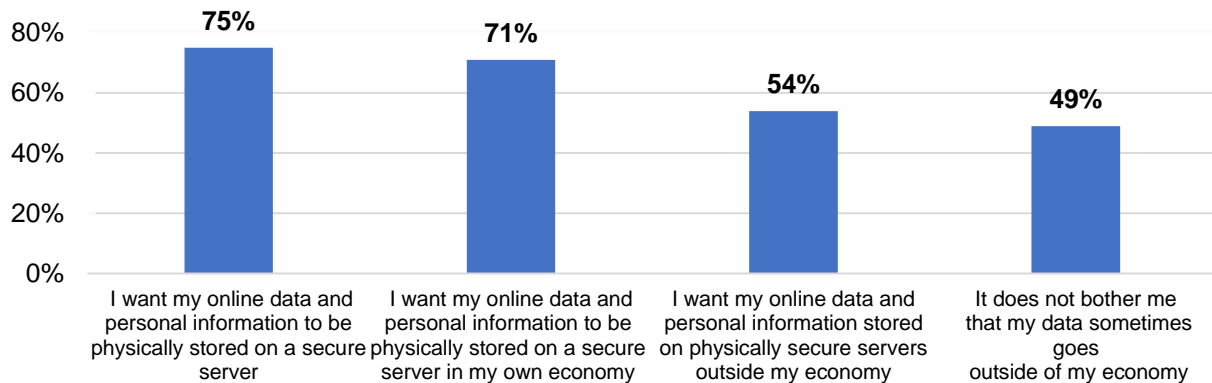


Fig. 7. Percentage of users that strongly or somewhat agree with the respective statements on data security (cf. CIGI-Ipsos 2019b, pp. 13, 15, 17, 19; CIGI-Ipsos 2019c, p. 283).

2. Concerns and Risks related to Data Control

Almost half of the respondents from Brazil report that they use the Internet more selectively (48%) and that they disclose less personal data online (46%) because they do not trust the Internet. About one third says they put more effort into securing their devices (34%). A minority mentions self-censoring what they say online (20%) and making fewer online purchases (15%) as a consequence of their distrust of the Internet (cf. CIGI-Ipsos 2019c, p. 24) (Fig. 8).

Behavioral consequences of distrust of the Internet (N ≈ 233)

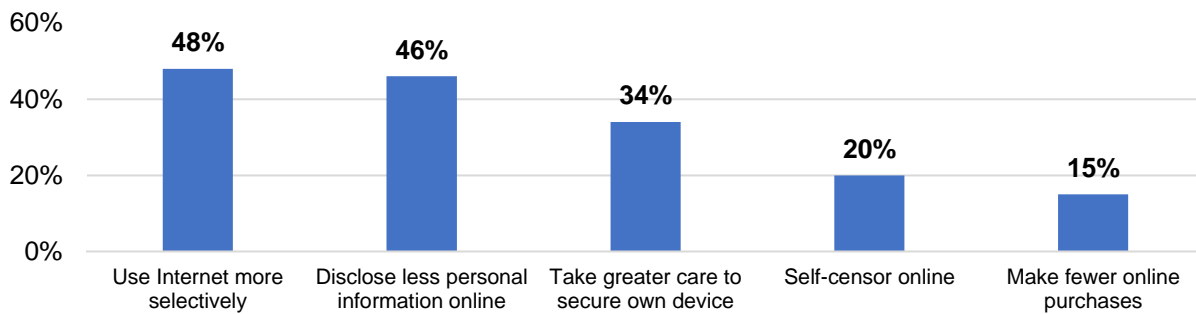


Fig. 8. Behavioral consequences of distrust of the Internet (cf. CIGI-Ipsos 2019c, p. 24).

VIII. Data Protection Literacy

[Data Protection Literacy] captures [Brazilians'] awareness and knowledge of data protection, privacy rules and policies as well as the skills they report to have, and the measures they take to protect their personal data.¹⁴

Only a minority of Brazilian respondents (34%) are very or somewhat aware of the data protection and privacy rules of their country, while a solid majority (67%) is not very or not at all aware of them (cf. CIGI-Ipsos 2019b, p. 8, 2019c, p. 281) (Fig. 9).

¹⁴ Wawra (2022, IV. 2.).

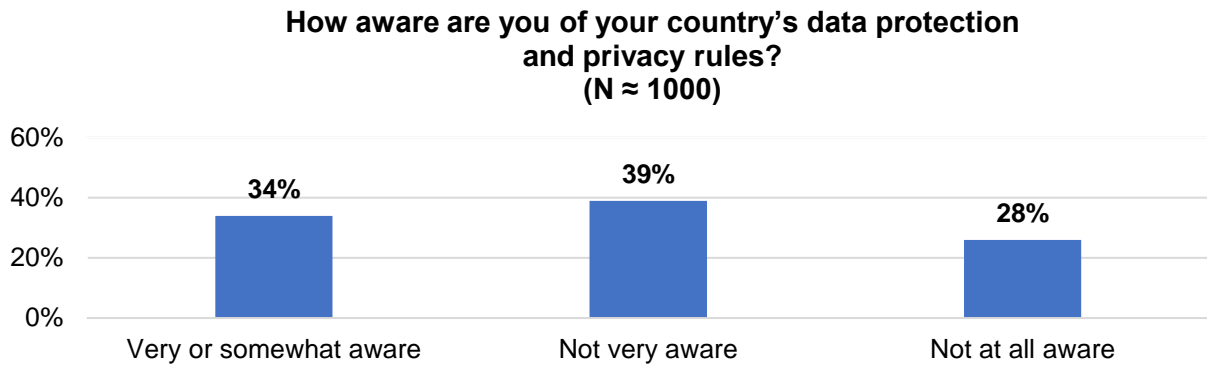


Fig. 9. Awareness of data protection and privacy rules in Brazil (cf. CIGI-Ipsos 2019c, p. 281).

In another study, the percentage of Brazilian respondents who say they are aware of privacy laws is comparably low, with only slightly more than a third of them (37%) reporting this (cf. Cisco 2021, p. 11). A majority (63%) of respondents from Brazil, who said they knew the law, attribute a positive effect to Brazil's Lei Geral de Proteção de Dados Pessoais (37% are neutral and none expect a negative effect) (cf. Cisco 2021, p.10).

Nevertheless, a solid majority of 78% of Brazilian respondents feel that they do enough to protect their own data (33% strongly and 45% somewhat agree) (cf. CIGI-Ipsos 2019b, p. 29, 2019c, p. 283).

IX. Attitudes Towards Data Receiver

[This] parameter [...] refers to [Brazilians'] attitudes towards institutions to which they disclose their data. These comprise above all their trust in national and foreign governments and (different kinds of) companies pertaining to the protection and correct use of their data.¹⁵

Trust towards others is rather low among Brazilian respondents. A large majority (91.6%) feels that most people cannot be trusted (cf. EVS/WVS 2021a, p. 7) (Fig. 10).

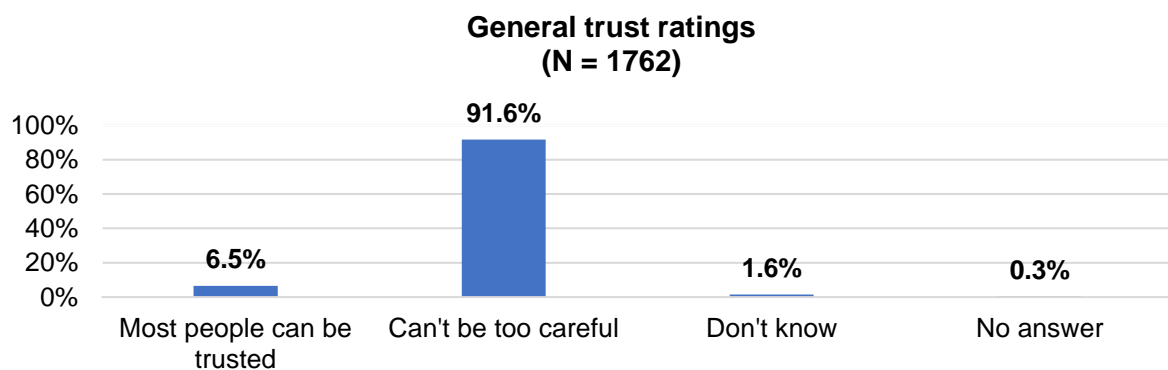


Fig. 10. Trust towards others in Brazil (cf. EVS/WVS 2021c, p. 174).

This general distrust towards others could influence Brazilians' data disclosure decisions. The following chapters provide more detailed insights into respondents' attitudes towards governments and companies.

¹⁵ Wawra (2022, IV. 2.).

1. Attitudes Towards Governments

Brazilians' attitudes towards their government and other political institutions reflect the prevailing general distrust towards others. Solid majorities of respondents report that they do not really trust their government (75.1%), political parties (84.6%), and parliament (81.4%) (cf. EVS/WVS 2021c, pp. 266, 273, 275) (Fig. 11).

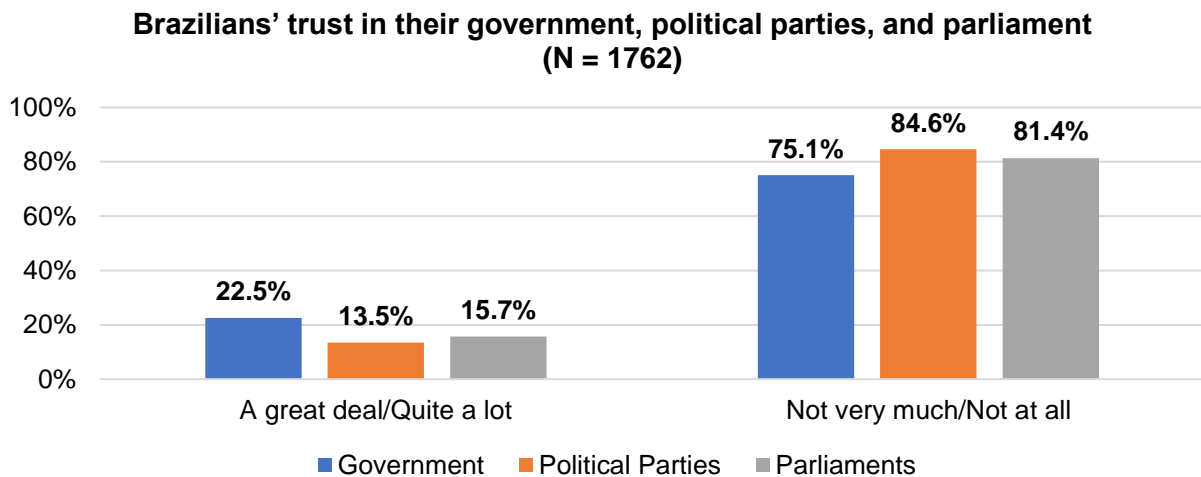


Fig. 11. Brazilians' trust in their government, political parties, and parliament (cf. EVS/WVS 2021c, pp. 266, 273, 275).

However, half of the respondents from Brazil (50%) agree (somewhat or strongly) that their government's efforts to protect their data are sufficient (cf. CIGI-Ipsos 2019c, p. 283). Brazilians' confidence that their government uses their personal data correctly is not very strong. Only 41% trust their domestic government in this respect and even less, 28%, have confidence in foreign governments (cf. Ipsos 2019, p. 20) (Fig. 12).

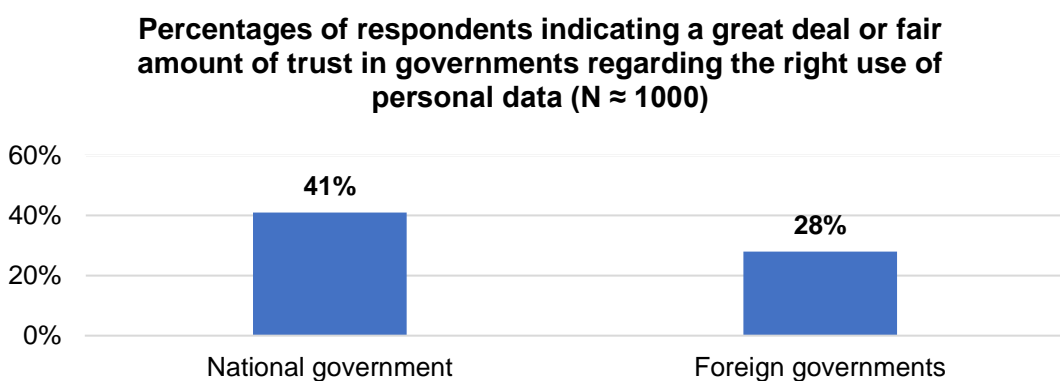


Fig. 12. Percentages of respondents indicating a great deal or fair amount of trust in governments regarding the right use of personal data (cf. Ipsos 2019, p. 20).

Besides, more than two thirds of Brazilian respondents (69%) report that their national government contributes to their distrust of the Internet, and 63% indicate this with regard to foreign governments (cf. CIGI-Ipsos 2019a, p. 117, 119, 2019c, p. 20) (Fig. 13).

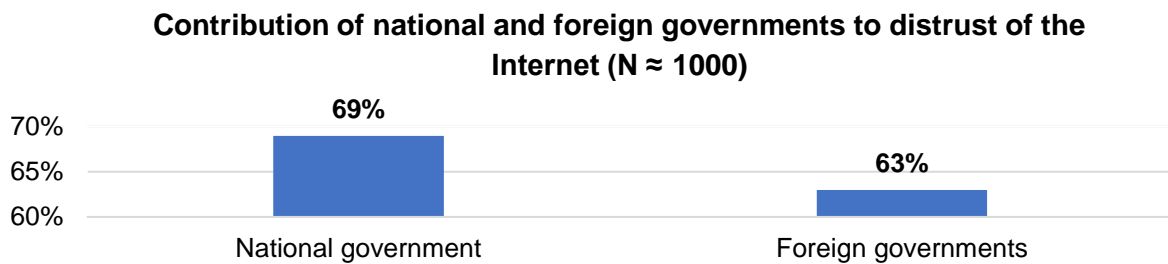


Fig. 13. Contribution of national and foreign governments to distrust of the Internet (cf. CIGI-Ipsos 2019a, pp. 117, 119, 2019c, p. 20).

2. Attitudes Towards Companies

Brazilians trust companies more than their government with their data: 66% of respondents think that companies do enough to protect their data but only 50% say so with respect to their government (cf. CIGI-Ipsos 2019c, p. 283) (Fig. 14).

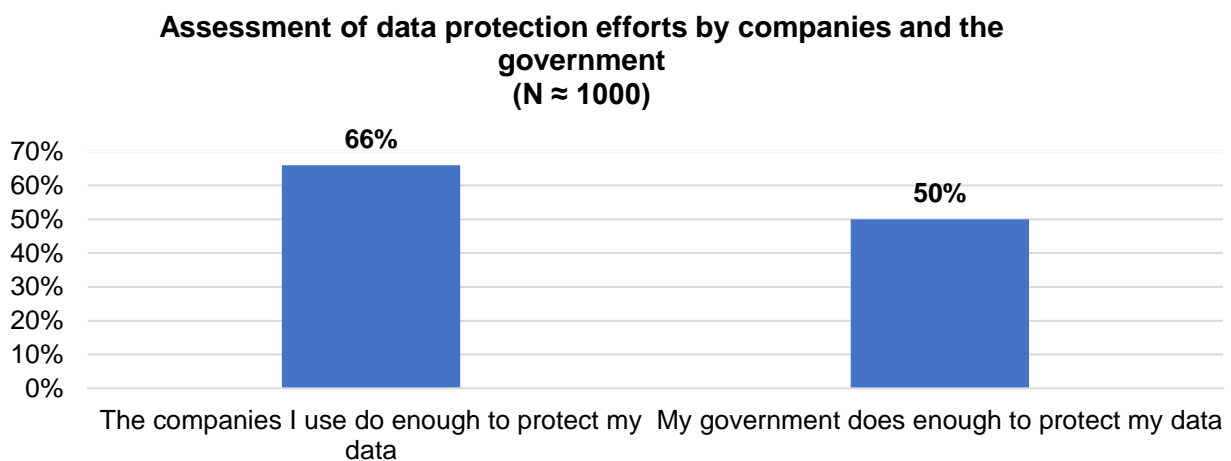


Fig. 14. Percentage of respondents that strongly or somewhat agree that companies' and their government's efforts suffice to protect their data (cf. CIGI-Ipsos 2019c, p. 283).

Brazilians' confidence in companies to use their data correctly varies when looking at different industries: A majority (52%) only has confidence in health service providers, all other sectors are trusted by less than 50% of respondents to handle their data properly: financial services companies (44%), search and social media sites (41%), retailers (39%), shipping and delivery companies (38%), telecommunications companies (36%), and media companies (33%) (cf. Ipsos 2019, p. 20) (Fig. 15).

**Brazilians' trust in companies regarding the right use of their data
(N ≈ 1000)**

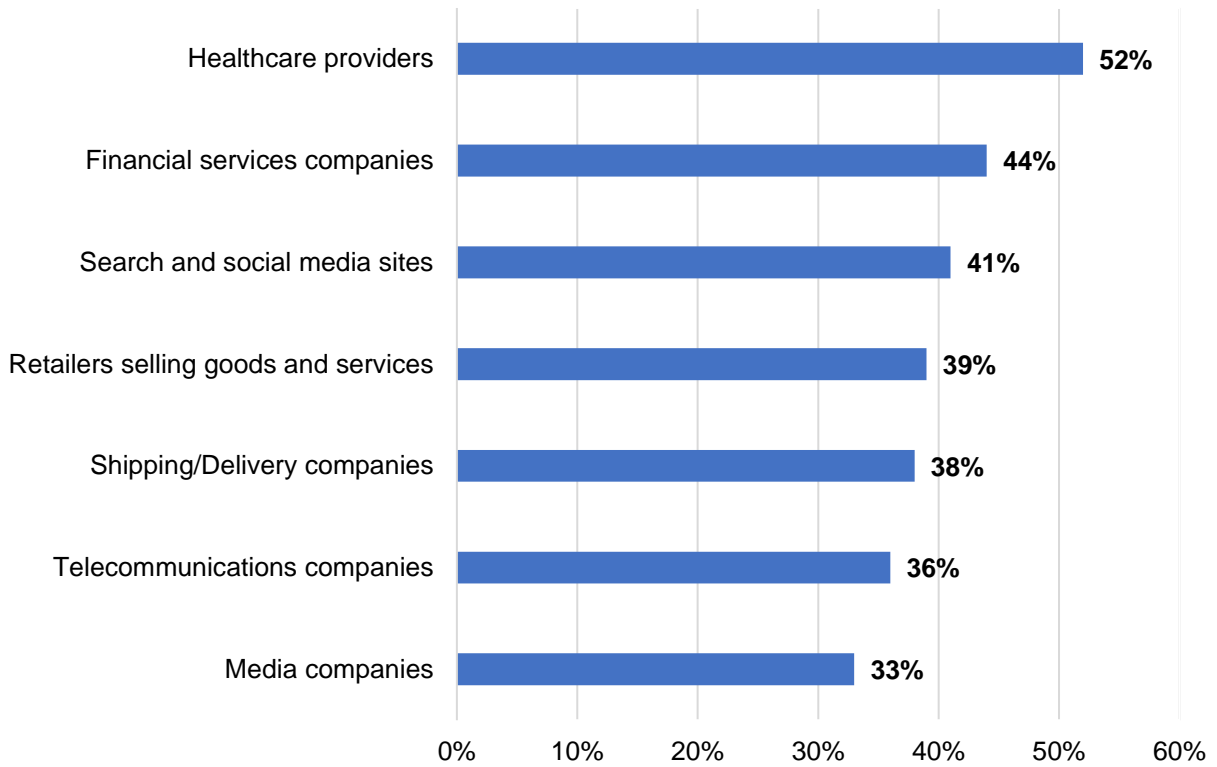


Fig. 15. Brazilians' trust in companies regarding the right use of their data (cf. Ipsos 2019, p. 20).

Additionally, the following institutions are reported to contribute to distrust of the Internet by respondents from Brazil: Internet service providers (75%), social media companies (68%), e-commerce platforms, online and mobile banking platforms (both 67%), and search engines (65%) (cf. CIGI-Ipsos 2019c, p. 20) (Fig. 16).

Percentages of respondents feeling that ... contribute to their distrust of the Internet (N ≈ 1000)

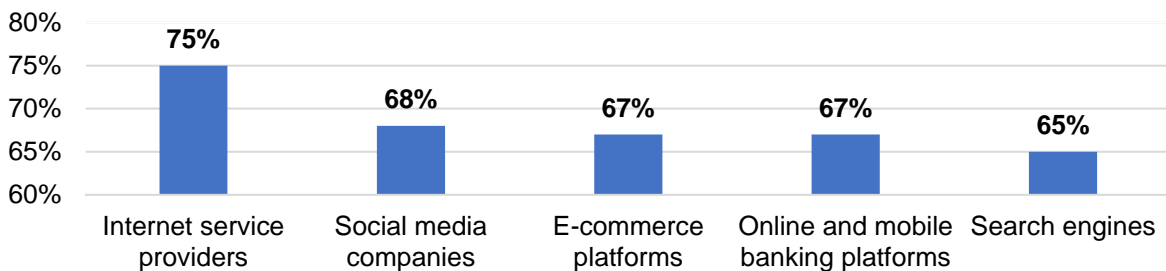


Fig. 16. Percentages of Brazilian respondents feeling that the mentioned institutions contribute to their distrust of the Internet (cf. CIGI-Ipsos 2019c, p. 20).

X. Communication on Data Use

[This] parameter [...] relates to the importance [Brazilian respondents] attribute to communication on how their personal data are used.¹⁶

59% of Brazilian respondents would rather give their personal data to companies that communicate transparently what the data will be used for. 61% would feel better about disclosing their data to a company that committed explicitly to not passing them on to others (cf. Ipsos 2019, p. 14) (Fig. 17).

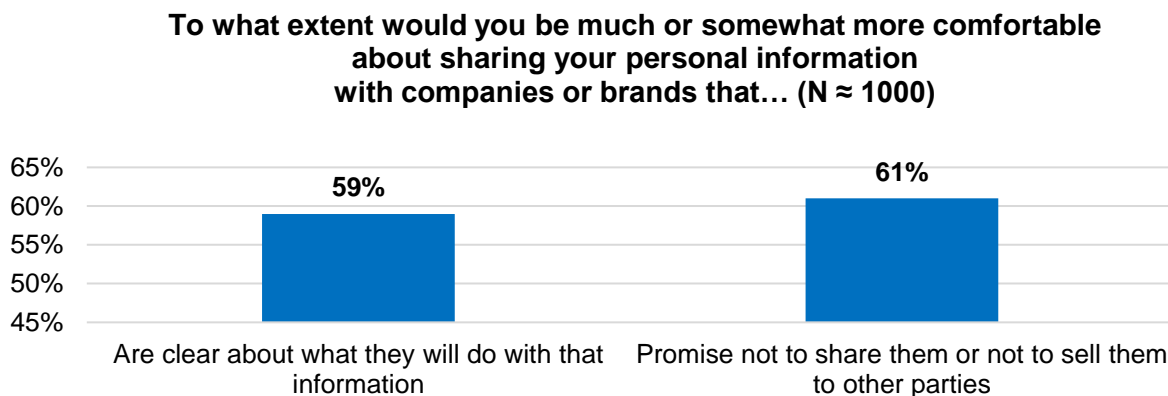


Fig. 17. Communication on data use (cf. Ipsos 2019, p. 14).

Half of the respondents from Brazil (50%) report they would be most willing to share their data with companies or government institutions that clearly communicate potential risks (cf. Ipsos 2019, p. 17).

XI. Key Findings

This section summarizes and interprets the main findings of the studies presented above to allow for a quick grasp of the major outcomes of the analysis and to facilitate cross-cultural comparison. Furthermore, research gaps are identified. As far as possible, the general direction of the influence of the various factors cited below on the WTS personal data is indicated, i.e. positive (increasing) or negative (reducing) (cf. also Wawra 2022, II. 9. and IV. 2.). It should be noted that we focus on each parameter's influence on the WTS data from a macro perspective. Their individual intensity, reaching from a potentially significant to no influence at all, depends on the interplay with other cultural-contextual as well as socio-demographic (e.g. age, education, gender, income) and personality parameters in concrete situational contexts (cf. Wawra 2022, II. 9., III., IV. 3.). This has to be researched with a micro level approach. Socio-demographic factors and personality traits in particular are still under-researched in relation to Brazilians' WTS data (cf. Wawra 2022, IV. 3.).

1. Digital Competitiveness

In the *IMD World Digital Competitiveness Ranking* (IMD 2021), Brazil is ranked 51st out of 64 countries for its overall performance with regard to digital competitiveness. This places it in the last quarter of the countries assessed. Brazil is last as regards talent (rank 64) in the category of knowledge, and one of the worst positioned countries for training and education (rank 58) in the same category, as well as for all subfactors (included here) in the category technology (overall rank 55). The picture is a bit brighter for future readiness for digitalization (rank 45): However, still about two thirds of

¹⁶ Wawra (2022, IV. 2.).

the 64 countries that were included in the study are ranked better than Brazil. The only subfactor where Brazil is among the best third of all countries – in the subcategories included here – is scientific concentration in the category knowledge, where it ranks 21st. The effect (of the individual components) of this parameter on people’s WTS personal data has yet to be studied in detail (cf. Wawra 2022, IV. 2.).

2. General Value of Informational Privacy

It depends on the situational context and on the data receiver whether Brazilian respondents consider governmental surveillance acceptable or not. A majority of Brazilians (54.7%) accept governmental surveillance in public areas. However, only a minority approves of governmental email and Internet monitoring (22.8%) as well as secret data collection by the government in general (22.1%). Thus, informational privacy is assigned a significantly lower value in the context of state surveillance in the public sphere than in online environments, where it is highly valued by the vast majority of Brazilian respondents. In addition, informational privacy is held in high regard by a clear majority when it comes to surreptitious state intervention.

The acceptance of employer monitoring when working at home is very high among Brazilian respondents: 87% would not mind if part of their work was monitored, and further 52% would not object if their computer access time was tracked. Regarding the use of collected personal data by companies, a majority of Brazilians believe that consumers should have the right to refuse this (60%). Almost as many respondents (59%) believe that consumers should be compensated for the use of their data. Merely a third of Brazilian respondents (31%) do not mind companies using collected personal data. In the context of employer monitoring of work from home, informational privacy is not a high priority for most of the Brazilian respondents. However, a clear majority value their informational privacy as consumers. In addition, a majority of Brazilian respondents believe that concessions to their informational privacy in this regard are worth compensation.

3. Degree of Privacy of Data

According to the Brazilian General Data Protection (LGPD), sensitive personal data are data related to

- racial or ethnic origin
- religious belief
- political opinion
- membership in a union or a religious, philosophical or political organization
- health and sex life
- genetic and biometric data

when they can be linked to an individual. The sensitivity ratings of Brazilian respondents for specific data – that go beyond the categories of sensitive personal data listed in the LGPD and prominently include financial data – show that the following are above a medium privacy threshold (1 indicates that the respective kind of data are not considered to be sensitive, 10 that they are very sensitive): security & access codes and passwords (9.07), credit score (7.2), DNA profile (5.99), income level (5.73), documentation of grievances (5.27), and medical history (5.19). The following data are below or well below a medium privacy threshold: social network profile (4.77), signed petitions (4.08), sexual preference (3.37), religion (3.24), and political affiliation (3.03). This

demonstrates that not all personal data defined as sensitive by Brazilian law are also considered highly sensitive by Brazilian respondents. The two categories identified as the most sensitive – security & access codes and passwords, as well as credit score – do not fall under the legal definition of sensitive data.

4. Benefits Associated with Data Disclosure

As benefits of disclosing personal data, Brazilian respondents mention that it helps

- companies to better tailor information, products, and services to their needs (52%)
- them as consumers to find relevant information, products, and services (52%)
- them as consumers save time (47%) and money (38%). Thus, a majority does not consider these as benefits of data disclosure.

This can help explain why, when asked directly about their willingness to disclose, less than a third of Brazilian respondents (29%) say they would be very willing to share personal data (six- or seven-point agreement on a seven-point Likert scale) if they benefit or are rewarded in some way (lower costs and personalized service were given as examples but no differentiation was made). Besides, health and financial data as well as driving records and information on energy use were mentioned as examples of personal data in the survey. However, the survey did not differentiate between these different types of data either. As health data are sensitive personal data according to Brazilian law, and as these and financial data have been categorized by a majority as sensitive or being above a medium privacy threshold (see Degree of Privacy of Data above), this could also explain why a majority of Brazilian respondents indicate that they would not be very willing to share their data, even if they could expect a benefit: For Ackermann et al. (2021) conclude that the higher the perceived sensitivity of data, the less other variables (such as benefits of disclosure) affect people's WTS data:

“In other words, consumers will be very unlikely to share private data that they perceive as very sensitive, irrespective of what type of compensation they are offered in return or the degree of anonymity that is granted to them” (Ackermann et al. 2021).

If, however, data are

“not perceived as very sensitive, other factors, such as what compensation is offered and whether the data allow for personal identification [...], will likely have a considerable impact on individual decisions to share these data” (Ackermann et al. 2021).

Further studies that distinguish between more and less sensitive types of data are needed to determine whether this also applies to Brazilian data disclosure culture. Moreover, they should systematically differentiate between different kinds of benefits as there might be cultural differences with regard to which value is attributed to specific benefits, and this could influence people's WTS data accordingly. Research so far has for example differentiated between three categories of benefits: (1) “financial rewards”, (2) “personalization benefits”, and (3) “social adjustment benefits” (Buchwald et al. 2017). The latter have been defined as “the establishment of social identity by integrating into desired social groups” (Lu et al. 2004, p. 572), which allows individuals to “fulfil their need for affiliation” (Buchwald et al. 2017).

5. Privacy Concerns and Risks

a. Data Security

Data Security is important to Brazilians: A majority of respondents (59%) would be more comfortable giving personal information to a company that has never experienced a breach, leak, or fraudulent usage of data. Moreover, 75% of Brazilian respondents want their data to be stored on a secure server, preferably in their own economy (71%). Still a majority (54%) wants their data to be stored abroad, and almost half of the respondents from Brazil (49%) do not mind if their data leave the country. Consequently, an impeccable track record of data security and data storage, preferably in their own country, should have a positive impact on the willingness of most Brazilians to share personal data.

b. Data Control

Because of their concerns about control over their data, almost half of the respondents from Brazil say they use the Internet more selectively (48%) or disclose less personal information online (46%). About a third indicates that they put more effort into securing their devices (34%), 20% report to self-censor what they say online, and 15% to make fewer purchases online.

This can be interpreted as a manifestation of the privacy paradox (cf. Norberg et al. 2007, Barth, de Jong 2017, Wawra 2022, p. 2), as a majority of Brazilian respondents are not more cautious in their data disclosure behavior despite existing privacy concerns.

Nevertheless, according to previous research (cf. e.g. Hoffmann et al. 1999, Roeber et al. 2015, and Ackermann et al. 2021), people's feeling that they are in control of their personal data can be improved by providing a delete option for data and/or by guaranteeing anonymity. Ackermann et al. (2021) even identified the granting of anonymity as "the most effective single factor for evoking WTS". However, this does not seem to apply to very sensitive data (cf. Ackermann et al. 2021, see above). Surveys and more empirical studies on this aspect of data disclosure are needed, particularly also with Brazilian respondents.

6. Data Protection Literacy

No more than approximately a third of the respondents from Brazil (34% to 37%, depending on the survey) are aware of the data protection and privacy rules that apply in their country. Of those who know the law, a majority (63%) attributes a positive effect to Brazil's Lei Geral de Proteção de Dados Pessoais (LGPD).

At the same time, more than two thirds (78%) report that their efforts to protect their own data are sufficient.

Further studies should systematically differentiate between different aspects of data protection literacy, for one, between declarative and procedural knowledge, in order to (better) determine the effect (of the individual components) on people's WTS personal data (cf. Baruh et al. 2017, Wawra 2022, II. 2.).

7. Attitudes Towards Data Receiver

a. Attitudes Towards Governments

In general, Brazilians' trust in others is very low with only 6.5% saying that most people can be trusted and 91.6% expressing caution in this respect. Brazilians' trust in political institutions is also rather low: 75.1% report that they do not trust their government very much or not at all, 84.6% say this for political parties, and 81.4% for parliament. Half of the respondents (50%), however,

agree that their government's efforts to protect their data are sufficient. Only a minority (41%) has confidence in their government that they use personal data correctly, and 28% trust foreign governments in this respect. In addition, a majority indicates that their national government (69%) and foreign governments (63%) add to their lack of confidence in the Internet. All in all, it is therefore to be expected that the basic WTS data with their own and foreign governments is not great among a majority of Brazilians.

b. Attitudes Towards Companies

A majority of Brazilians (66%) consider the data protection measures of the companies they have done business with to be sufficient. Brazilians' trust in companies with regard to the proper use of their data varies, depending on the respective industry. Predominantly less than half of the respondents express their trust in them regarding the correct handling of personal data: Trust rates are highest for healthcare providers (52%), followed by financial services companies (44%), search and social media sites (41%), retailers (39%), shipping/delivery companies (38%), telecommunications companies (36%), and media companies (33%), i.e. distrust prevails with regard to most industries when it comes to the correct use of personal data. Moreover, the following institutions contribute to Brazilian respondents' distrust of the Internet (besides governments, see above): Internet service providers (75%), social media companies (68%), e-commerce platforms, online & mobile banking platforms (both 67%), and search engines (65%). It can be deduced from this that for the majority of Brazilians, the WTS data is highest towards healthcare providers.

8. Communication on Data Use

A majority of Brazilian respondents would be more willing to disclose personal data if companies communicated the use of the data transparently (59%) and promised that they would not pass on the data (61%). Half of the respondents (50%) indicate that it would also help if potential risks were communicated clearly. So, if companies convey these contents, this should potentially have a positive impact on the WTS data of a majority of Brazilians.

XII. Conclusion and Outlook

This study captures the narrower cultural context of data disclosure in Brazil (cf. Wawra 2022, II. 8., III.). It provides an overview of Brazilian respondents' perceptions of informational privacy, data protection, and data control issues pertaining to personal data disclosure from a macro perspective. It reflects the cultural preconditions of information governance in Brazil by shedding light on the prevailing attitudes, assumptions, views, and reported behaviors of respondents from Brazil that can influence their WTS personal data.

First of all, this study has shown where Brazil stands in global comparison with regard to the country's digitalization. In addition, it has mainly provided statistical insights into

- the value Brazilians place on their informational privacy in different contexts
- what types of data are defined as sensitive personal data according to Brazilian law and which data are considered more or less private or sensitive by Brazilian respondents
- whether a better adaptation of information, products, and services to consumers' needs, the facilitation of finding these, as well as a potential saving of time and money, are considered to be benefits by a majority of respondents and whether expected benefits and rewards would be an incentive for a majority to disclose personal data
- the value Brazilians place on data security

- reported behavior that follows from perceived privacy concerns and risks
- Brazilians' awareness and evaluation of data protection and privacy rules and the assessment of their own data protection efforts
- Brazilians' general trust levels and their trust in domestic and foreign governments and different types of companies, as well as their trust in these institutions with regard to their personal data
- whether certain communicative content would make consumers feel more at ease when they are asked to share personal data.

The less basic WTS data the surveys indicate, the more effort organizations requesting personal data potentially have to put into convincing people to disclose their data anyway. This can be addressed through communication and business or political strategies aimed primarily at increasing people's trust in the data recipient and reducing privacy concerns. It should also be noted that previous research on data disclosure suggests that the degree of privacy or sensitivity of the data, the granting or denial of anonymity, and whether or not data are requested in line with an organization's mission and responsibilities are the factors that have the greatest influence on people's data disclosure decisions (see above; cf. Ackermann et al. 2021).

This study was able to reveal general tendencies of Brazilian respondents' views on issues closely related to data disclosure decisions. It was also able to show the general direction of influence of most of the cited parameters on people's WTS data. In actual data disclosure scenarios, the different variables can have a greater or lesser (to no) impact on people's final decision to share personal data. It must also be considered that, depending on the situation, in which personal data are requested, the disclosure decision is not always made through conscious deliberation, and actual behavior may differ from reported behavior (cf. e.g. Kim et al. 2015, Ackermann et al. 2021, Wawra 2022, II. 9.). The complex interplay of the many variables that can influence the WTS data – including not only cultural-contextual, but also socio-demographic factors and personality traits – has to be approached on a micro level and therefore needs to be further explored in concrete situational contexts.

XIII. References

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Appendix 1. List of included surveys and survey details¹⁷

Study	Overview	Sample size	Demographics
CIGI-Ipsos Global Survey on Internet Security and Trust Part I/II (CIGI-Ipsos 2019a)	“The CIGI-Ipsos Global Survey [...] [is] the world’s largest and most comprehensive survey of internet security and trust, involving more than 25,000 internet users in over two dozen countries across North America, Latin America, Europe, the Middle East, Africa and the Asia-Pacific region.” (CIGI-Ipsos 2019a) The survey examines privacy concerns and their consequences around the world.	N ≈ ¹⁸ 1000	Age of respondents: 16 - 64 Online population
CIGI-Ipsos Global Survey Internet Security & Trust Part 6: Cross-Border Data Flows (CIGI-Ipsos 2019b, c)	The survey explores people’s awareness of data protection and privacy rules, their attitudes towards cross-border data flows, secure data storage, as well as the governmental and corporate ability to protect data.	N ≈ ¹⁹ 1000 for some questions N = 233 where indicated	Age of respondents: 16 - 64 Online population
Cisco (2021). Consumer Privacy Survey. Building Consumer Confidence Through Transparency and Control	“Participants were asked about their attitudes and activities regarding companies’ use of their personal data, [...] awareness and reaction to privacy legislation, and attitudes regarding artificial intelligence (AI) and automated decision making” (p. 3).	N = 2600 in 12 countries	Age of respondents: 18+ No information on number of respondents from Brazil.
European Values Study and World Values Survey (EVS/WVS 2021a, b, c)	The cooperation between the European and the World Values Survey investigates values that are most important to people from different national backgrounds, including values that	N = 1762	Age of respondents: 18+ “random probability representative samples of the adult

¹⁷ Basic information on the CIGI-Ipsos (2019b, c) and EVS/WVS studies in the table and all the information in the footnotes was copied from Kessel (2022) and supplemented, mainly with specific information on respondents from Brazil.

¹⁸ Indicates an approximate amount of survey respondents. The respondents were “weighted to match the population in each economy surveyed. The precision of Ipsos online polls is calculated using a credibility interval. In this case, a poll of 1,000 is accurate to +/- 3.5 %age points” CIGI-Ipsos (2019a, p. 4).

¹⁹ Indicates an approximate amount of survey respondents. The respondents were “weighted to match the population in each economy surveyed. The precision of Ipsos online polls is calculated using a credibility interval. In this case, a poll of 1,000 is accurate to +/- 3.5 %age points” (CIGI-Ipsos 2019b, p. 4).

Study	Overview	Sample size	Demographics
	relate to attitudes towards data disclosure.		population” (EVS/WVS 2021).
GfK (2017). Willingness to Share Personal Data in Exchange for Benefits or Rewards	An online survey conducted in 17 countries about people's willingness to disclose personal data if they benefit or are rewarded in some way.	N = 1500	“The data have been weighted to reflect the demographic composition of the online population age 15+” (GfK 2017, p. 4).
Ipsos Survey, Global Citizens and Data Privacy Study, Ipsos & World Economic Forum (Ipsos 2019)	The survey “track[s] and decode[s] public understanding and acceptance of new [digital] technologies across the globe” (Ipsos 2019, p. 2).	N \approx ²⁰ 1000	Age of respondents: 16 - 64 Brazil has a “lower level[] of internet connectivity and [the data output] reflect[s] online populations that tend to be more urban and have higher education/income than the general population” (Ipsos 2019, p. 21).
Markos, Ereni et al. (2017). Information Sensitivity and Willingness to Provide Continua: A Comparative Privacy Study of the United States and Brazil	Comparative cultural study of the perceived sensitivity of data and consumers’ willingness to share personal data.	N = 401	50% younger age group: 18 - 34 50% older age group: 44 - 60 48.8% women college-educated respondents 40.4% married respondents 40.3% respondents who spend more than nine hours a week online, excluding email 49.0%.

²⁰ Indicates an approximate amount of survey respondents. “The precision of Ipsos online polls is calculated using a credibility interval with a poll of 1,000 accurate to +/- 3.5 %age points and of 500 accurate to +/- 5.0 %age points” (Ipsos 2019, p. 21).

Study	Overview	Sample size	Demographics
Unisys (2021a). Índice de Segurança da Unisys™ No Brasil (Unisys™ Safety Index for Brazil)	Global survey of safety con- cerns of consumers and in the workplace, especially also in dig- ital contexts.	N = 1000	nationally repre- sentative sample ²¹

²¹ “The margin of error at a country level is +/- 3.1% at a 95% confidence level” (Unisys 2021c, p. 28).