

REGIONAL PREFERENCE OR CHAUVINISM IN DATA?
EXPERIMENTAL STUDY OF THE IMPACT OF TERRITORIALIZATION ARGUMENT ON
CONSENT TO SHARE AND REUSE DATA

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Abstract:

Smart city projects imply citizens' acceptance to share their data for the common sake, such projects being dedicated to the common interest of the city's inhabitants. This study investigates the effect of territorialization of data storage and reuse on the acceptability of projects and on concrete consent intentions and actual behaviors to share their data. The study takes the form of an online questionnaire survey with 132 participants in 5 experimental conditions: control condition, regional storage, national storage; regional reuse and national reuse. The conclusions of the statistical tests show a positive effect of territorialization on declared and actual consent, without favoring the closest territory. But territorialization has no effect on the acceptability of the project, suggesting that if the participants adhere to the project, it is independent of a regional or national preference. Far from expressing "data chauvinism", support for data sharing projects is due to general altruistic values and principles (i.e., participating in the general interest). This conclusion of no data chauvinism is confirmed by a positive trend between acceptability to regionally anchored projects and scores on self-interest items. Distinct from a chauvinistic behavior, it would rather be an opportunistic behavior since the resident sees, in the localized collective interest project, a form of advertisement and a guarantee to obtain a personal interest in the end.

Keywords: smart city, data sharing; consent; common good; acceptability; territorial preference

PRÉFÉRENCE RÉGIONALE OU CHAUVINISME DANS LES DONNÉES ?

ETUDE EXPÉRIMENTALE DE L'IMPACT DE L'ARGUMENT DE LA TERRITORIALISATION SUR LE CONSENTEMENT AU PARTAGE ET À LA RÉUTILISATION DES DONNÉES

Résumé

Les projets de *smart cities* impliquent l'acceptation par les citoyens au partage de leurs données, ces projets ayant pour objectif le bien commun des citoyens. La présente étude interroge l'effet de la territorialisation du stockage et de la réutilisation des données sur l'acceptabilité du projet visant à servir l'intérêt commun des habitants de la ville et sur les intentions et le comportement de consentement aux intentions de partage de leurs données. L'étude prend la forme d'une enquête par questionnaire en ligne auprès de 132 participants répartis dans 5 conditions expérimentales : la condition témoin, le stockage régional, le stockage national ; la réutilisation régionale et la réutilisation nationale. Les conclusions des tests statistiques montrent un effet positif de la territorialisation sur le consentement déclaré et le consentement effectif, sans pour autant privilégier le territoire le plus proche. En revanche, la territorialisation n'a pas d'effet sur l'acceptabilité du projet, laissant à penser que si les participants adhèrent au projet, c'est indépendamment d'une préférence régionale ou nationale. Loin d'exprimer des comportements de type "chauvinisme de la data", l'adhésion aux projets de partage de data seraient plus liée à des valeurs et principes altruistes généraux (i.e. participer à l'intérêt général). Cette conclusion d'absence de chauvinisme de la data est confirmée par une tendance entre acceptabilité du projet ancré régionalement et intérêt personnel. Distinct d'un comportement chauvin, il s'agirait plutôt d'un comportement opportuniste puisque le résident voit, dans le projet d'intérêt collectif localisé, une forme d'annonce et de garantie d'en obtenir *in fine* un intérêt personnel.

Mots clés : smart city, partage de donnée ; consentement ; bien commun ; acceptabilité ; préférence territoriale

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Introduction

Despite many challenges, the economic potentials are undeniable when it comes to territory projects and other smart cities built around the exploitation of data produced by inhabitants (Chignard and Benyayer, 2015). Today, these projects are facilitated by the increased potential of analysis, via AI and Deep Learning, and by the systematization of digital data collection.

In the continuity of Open Data policies and European principles of free circulation applied to data, these projects update discourses, such as those of the European Commission, promoting the transfer of individual data processing rights as long as the project aims at the general interest, the collective well-being, the common good and the efficiency of public services (see Box 1). The idea is that, at the level of their territory, whether local, regional, national or European, inhabitants agree to give up and share data concerning them in order to develop knowledge that is useful for the well-being of their territory through the general interest and local economic development. In this perspective, for a citizen, sharing data is a gift-for-gift approach with a pro-social and citizen dimension. Moreover, these discourses and this vision use a vocabulary that deliberately valorizes giving behaviors by proposing the terminology of "data altruism" (Fuster, 2021).

In reality, it is not uncommon for territorial data-sharing platforms to be designed in such a way as to not include any steps or functionalities related to obtaining consent from the territory's residents. This situation can be explained by technical choices that, on the one hand, favor the sharing of already anonymized and aggregated databases, and on the other hand, are based on agreements made directly with the actors who, through their activity, collect or generate data from individuals who are users of their services (i.e., the "data holders") and who have, themselves, obtained consent from their clients and users (Petr and Ertus, 2021).

However, given the empowerment of users of digital services and tools (Rual and Petr, 2020) and the current and future increase in regulatory changes to protect privacy in the face of innovation (Gola, 2023 and Rossi 2023), it is becoming increasingly essential, if not mandatory, for project developers to provide for obtaining consent from the residents and users of their platforms.

Thus, in situations of collective interest projects based on data, the existing literature suggests the importance of the variable of social acceptability to data sharing and on obtaining its expression through consent (Caron, 2021; Ertus and Petr, 2022). Considering the specific case of the inhabitants and residents of a metropolis, researchers note that one of the arguments raised by future contributors and potential users of this type of data platform project is that if there are guarantees of data territorialization, in terms of storage and in terms of data reuse, then they would be more inclined to adhere to the project (Petr and Ertus, 2020).

Therefore, the purpose of this article is to question this territorial preference effect that is declared by the inhabitants of a metropolis involved in a data sharing platform project (use data : mobility ...). More specifically, our questions are the following: 1) **Is the declared preference for a territorial anchorage of the project statistically confirmed with a concrete increasing effect on the acceptability of the project and the declared and effective consent according to the geographical perimeter closer to the place of life:** i.e. is there a greater acceptability of the project and a better score of consent to the sharing of data according to the fact that the description of the project goes from an absence of information on the territorialization to the mention to a national anchorage and then a local anchorage of the storage and the reuse of data? And, 2) **is the territorial preference accompanied by a variation on the benefits obtained or is it disconnected from any rational justification, which would then**

suggest a form of "data chauvinism" in the sense that the users of the territory would express an exclusive preference independently of any reasoned explanatory cause?

After a review of the literature that exposes, on the one hand, the notion of social acceptability and the conclusions and proposals for measurement resulting from the work on the acceptability of the use of a new technology, and on the other hand, the variables for obtaining support for personal data sharing projects for the benefit of the general interest, we describe the conceptual model that we have arrived at and that integrates the dimension of the territorialization of the data sharing project. The methodology of the experimental study is then described. This is followed by a presentation of the results and their discussion. The conclusion addresses the managerial implications and deals with the limits and perspectives of the research.

Box 1 - European texts in favor of the transfer of individual data

- Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information.
- Regulation (EU) 2018/1807 of the European Parliament and of the Council of 14 November 2018 establishing a framework for the free flow of non-personal data in the European Union.
- Proposal for a Regulation of the European Parliament and of the Council on European data governance (Data Governance Act) presented by the European Commission in November 2020 (COM (2020) 767 final).

Literature review and conceptual model

The crucial question of the social acceptability of collective interest projects

There is abundant literature on the social acceptability of territorial projects. Beyond the debates on the conceptualization of this notion (Baba and Raufflet, 2018), which some prefer to name as a social license to operate (Demuijnck and FASTERLI, 2016; Thomson and BOUTILIER, 2011), all authors agree on the importance of obtaining a good social acceptability of projects in order to guarantee their success.

Often, this research concerns the acceptability of local natural resource exploitation projects (Mann et al., 2020; Nadai and Labussiere, 2010; Oiry, 2015; Shindler, Brunson and Stankey, 2002; Zhang and Moffat, 2015). Based on this initial literature, it appears that the social acceptability of a territory project is determined by 5 types of variables which are: 1) the perceived individual benefits of the project (Kodapanakkal et al., 2020); 2) the collective benefits for the local community which must both be compensated for the losses caused by the implementation of this project, but also have an equitable distribution of its benefits with the company (Billing et al., 2021); 3) the effectiveness or efficiency of the project; 4) sovereignty over the technologies used (Mann et al., 2020), and 5) perceived risks, both to the environment and to local communities, whether or not they are NIMBY (Not in My BackYard) reactions as noted by Nadai and Labussiere (2010) and Oiry (2015).

More recently, research related to the acceptability of collective interest projects based on digital technology and on the use of technological objects integrating automated and autonomous data processing has completed this knowledge of the levers of acceptability of a territory project. Among these works, we note projects on the topic of data for the benefit of the collective (Caron, 2021; Ertus and Petr, 2022; Goncalves, de Pechpeyrou, and Bénavent, 2014; Kodapanakkal, Brandt, and Kogler, 2020) and works on the acceptability of everyday digital objects such as modern cars or humanoid robots (Golbabaei et al, 2020; Lallement, Machat, & Euzéby, 2016; O'Garra, Mourato, & Pearson, 2005; Salvini, Laschi, & Dario, 2010).

Determinants of acceptability and its predictive value for behavior

Acceptability can be defined as the tendency to be more or less favorable to the use of a technology, before its diffusion (Schade & Schlag, 2003; Schuitema, Steg, & Forward, 2010). In order to take acceptability into account, researchers have primarily developed tools focused on the acceptability of technology use. These tools are widely used in the scientific community as soon as they are adapted to the researchers' fields of study. In this case, we recall the dimensions of these measurement tools before highlighting the specific elements of acceptability of the digital system offering data sharing services.

UTAUT (Unified Theory of Acceptance and Use of Technology; Venkatesh et al., 2008) is a widely used model of information technology acceptability. This model consists of several dimensions derived from previously established models of acceptability. Intention to use (or behavioral intention) can be defined as the subjective probability of performing a given behavior (Ajzen & Fishbein, 1975). Intention to use a technology is correlated with the actual future use of that technology (e.g., Venkatesh et al., 2003; see also Ajzen, 1991). In other words, asking participants whether they intend to use a given technology in the future is an effective approach to predicting their usage behavior. The central objective of the UTAUT is to model the psychological dimensions that determine the intention to use. In the first version of the model, these determinants are the following:

- Performance expectation, which refers to the degree to which an individual perceives that the characteristics of the system match his or her needs and expectations, in other words, that using the system will help him or her achieve a goal.
- Effort expectation, which refers to the degree of ease associated with using the system.
- Social influence, which refers to the degree to which the individual believes that people important to him or her believe that he or she should use the system, and that using it would make him or her look good.
- The facilitating conditions, that define the degree to which the individual believes that he/she has the necessary material and/or human resources (organization, support) to help him/her in the use of the system.

Acceptability variables for data-driven projects

Being able to predict the acceptability of users is particularly useful in the development phase in order to build products that are appropriate to users' expectations. The degree of acceptability of a technology depends on how well that product meets the needs of individuals but may also depend on other variables such as social influence (Venkatesh, Morris, Davis, & Davis, 2003). Nielsen's model (1993) differentiates between practical acceptability and social acceptability, which concerns the mental representations of individuals with regard to the devices put in place. Indeed, the acceptability of an individual will begin as soon as he or she hears about the new technology.

According to Caron's (2021) study looking at attitudes towards data sharing the main levers and/or barriers seem to be mainly related to: 1) trust in the authorities responsible for data management, 2) socio-demographic profile, 3) citizens' understanding of what the data are and what can be done with them, 4) the modalities of sharing including who will have access to them and for what purposes, 5) understanding of the potential collective and individual benefits derived from data sharing, and finally 6) security and privacy.

- confidence can be defined as a positive belief in the trustworthiness of a person, object or procedure (Fogg & Tseng, 1999). When a user does not confidence an automatic system, they may stop using it and perform the task on their own (Lee & Moray, 1992). Platt et al (2018) identified three main reasons why trust is a substantial factor in health data sharing. First, confidence improves relationships and information transfer across networks. Second, confidence between the patient and stakeholder institutions is paramount because of the significant inequality in access to and management of information. Third, a high degree of

confidence allows for better management and minimization of negative consequences related to privacy and confidentiality.

- Socio-demographic profile may affect their propensity to want to share their data: indeed, the degree of technological skill has an impact on willingness to share (Moon, 2017), although the latter is no guarantee of willingness to accept data sharing (Kim et al, 2017).
- The level of access and control of the individual also has an impact on their willingness to share or not share their personal data, in the domain in health data, explicitly requested consent or permission is associated with an increased willingness to share (Moon, 2017). Caron (2021) highlights transparency of datasets as a factor influencing social acceptability.
- Potential individual benefits also influence data sharing, indeed self-interest is one of the main drivers of data sharing consent (Kodapanakkal et al, 2020).
- Fear of privacy, another fundamental dimension in data sharing (Ghafur et al, 2020), refers to concerns about personal information and its use. It can be a psychological barrier when personal data are collected by the system (preferences, location, reuses).

The declared effect of a preference for data projects with a territorial anchor

Although the subject of territorialization regarding data sharing has not yet been studied much, some studies seem to point to a potential effect of this variable on the acceptability of data sharing. A literature review on the acceptance of territorialized commons projects shows, for example, that the proximity of governing communities and institutions has a positive impact on trust in the projects of these institutions (Beuret, 2016) and on the adherence of the local communities involved (Raufflet, 2014). The underlying principle is to provide a contextualized vision of the imagined technological solution: a territorialized rather than generic technology (Nadaï and Labussière, 2010).

Moreover, in the case of a French metropolis involved in smart cities projects, it appears that citizens' intentions to share data would be greater if the structure in charge of the governance of the data management and sharing system committed to territorializing storage (Petr and Ertus, 2022). In summary, it appears from these authors that: citizens explain that they expect commitments in terms of technical control of data from local authorities that initiate smart city projects. And as the local authority has a geographically defined perimeter of action, citizens believe that, ideally, the data collected by the authority should not be shared with or exported to actors located outside this local territory. In this case, they wonder about the conditions of storage of their data, in particular the place of storage, and ideally they call for a territorialization of the storage of their data. In particular, they would like to know that the physical storage spaces (data centers) are located in the same extended perimeter of the metropolitan area. Considering that communities take responsibility for the localization of their data, it should be possible to envisage that the data collected remains in the proximity of the individual actor. It appears that citizens consider physical proximity as one of the forms of expression of the commitments of relational proximity between the citizens that they are and their territorial authorities.

Does this call to strengthen the link to the territory in the sharing and reuse of data, with, on the one hand, the demand for endogenous data storage and, on the other hand, the implementation of protectionist measures in the reuse of data (as a priority or only on the territory where they are collected), express a form of chauvinism in the data in the sense that the project would only be acceptable if it offered this geographical preference? Is it rather the expression of the need for proximity between the project and its beneficiaries in order to give consent to the sharing of personal data?

Conceptual framework and hypothesis

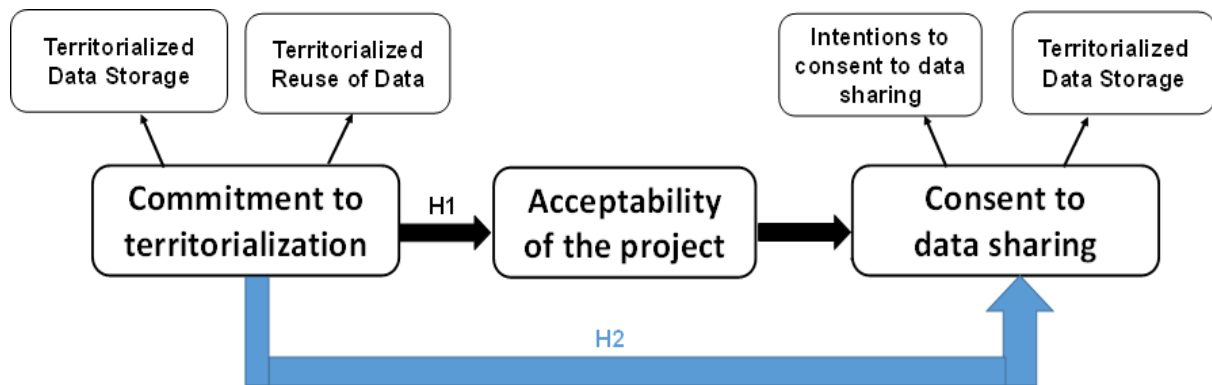


Figure 1: Conceptual model of the impact of territorialization on project acceptability and willingness to share

Figure 1 of the conceptual model allows us to schematize the hypotheses we make in terms of relationships. We distinguish two forms of effects of the commitment to territorialization (left part of the diagram) when it is expressed through the choice to store the data on the territory and the choice to proceed to processing and reuse in priority for the benefit of the territory.

The first effect imagined is that of an impact on the acceptability of the project (H1). This effect on the acceptability of the project then leads to a consent to share the data. The second effect imagined is that of the direct impact of the territorialization commitment on consent to data sharing (H2).

Methodology

The project based on data sharing

The RUDI project (Rennes Urban Data Interface) is part of the issues of management, sharing and exploitation of public (open data) and private data. Financed by European funds within the framework of the Urban Innovative Actions (UIA) program and piloted by Rennes Métropole. It brings together a consortium of partners belonging to both public service structures, whether or not they are in public ownership, such as the metropole itself, transport, waste management and energy service providers, and local, regional and national socio-economic partners as well as research laboratories.

The project consists of developing a web portal to access data from the Rennes metropolitan area in order to promote the use of this data by all project partners (local authorities, public sector actors, private sector actors, pilot project leaders) but also by all Rennes citizens. More precisely, the project is based on the creation of a meta-catalog of data and proposes functionalities dedicated to individuals, to reinforce their knowledge and control over the use of their personal data, and to project leaders, to facilitate the management of data rights and the implementation of innovative economic models.

The researchers in management and social sciences involved in the project are participating in the "citizenship" component of the project with the objective of analyzing the perceptions and expectations as well as the acceptability of the future interface (concept version and versions under test) by the citizens of the Metropolis. The aim is to understand the point of view of the inhabitants on the project's intentions (data sharing to serve the community), on the functionalities and use cases they consider as priorities (mobility, education, ecology, etc.), and to take a user-centered look at the solution. As such, the researchers are looking at the question of the dimensions that can influence the acceptability of consent to data sharing. The study presented here corresponds to a fundamental research conducted by the team of researchers in management and social sciences. It is not a real-world test of any dimension or functionality of the project actually conducted by the entire consortium.

Participants and experimental design

At the end of the study, 132 participants, residents of the Rennes metropolitan, were mobilized for the experimentation (81 females, 50 males and one non-binary, aged 18-76, $M=41.49$, $SD=12.32$). They were recruited from the base of volunteer testers of the Platform of Expertise for Intelligent Mobility (PEMI) and were, in exchange, awarded a PEMI point, corresponding to a voucher worth 5 euros. The 132 individuals were divided into 5 conditions: the control condition ($n=31$), regional storage ($n=27$), national storage ($n=24$); regional reuse ($n=24$) and national reuse ($n=26$). In the field of psychology, a sample of 20-30 participants per condition is commonly admitted to guarantee the validity of the results.

Procedure and material

The experimentation was carried out online, asynchronously, using the survey software Limesurvey. It takes the form of a presentation of the project followed by a questionnaire of acceptability and consent to data sharing. Five versions of the Limesurvey questionnaire were created. Participants were asked to answer one of these five versions. The questionnaire link was sent out randomly, while ensuring a balanced distribution in terms of age and gender per condition. The participants were instructed to read the project and then answer questions to assess their opinion of the project. The first part of the Limesurvey survey aimed at presenting the project (objectives and functionalities) (part A) in an identical way in the 5 conditions, except for model N°9, related to the presentation of the data stored and used within the framework of the project, which varied according to the condition (see Figure 1):

- in the "regional data storage" condition: presence of a pop-up window highlighting the local storage of the data (presence of the Breton flag + explanatory text indicating that the data will be stored on the Breton territory)
- in the "national data storage" condition: presence of a pop-up window highlighting the national storage of the data (presence of the french map + explanatory text indicating that the data will be stored in France)
- in the "regional data reuse" condition: presence of a pop-up window highlighting the local reuse of the data (presence of a map of Rennes, city in Bretagne + explanatory text indicating that the data are used for the realization of regional projects, in this case, a project for the improvement of the means of transport on the Rennes territory).
- in the "national data reuse" condition: presence of a pop-up window highlighting the national reuse of the data (a map of the distribution of stations in France + explanatory text indicating that the data are used for the realization of national projects).
- in the control condition: no pop-up window.

After this presentation, the participants had to answer an item allowing them to measure their degree of consent to data sharing in view of the elements presented. This first step allowed us to obtain a basic value of the degree of consent to data sharing, before the presentation of the models (a priori consent).

Next, participants were asked to indicate the types of data they would be willing to share as part of the project. To do so, they were asked to check the box(es) designating the data they were willing to share from a list of 11 data types (e.g., income data, mobility data) (thematic consent). This item aimed to measure declared consent to share data.

Finally, participants were asked to actually share their data. Specifically, they were told that the project leaders were looking for citizens willing to share their data for reuse by governments and businesses, and that if they agreed, we can pass on information about their consent to share data. To do this, participants were asked to check the box(es) designating the data they agreed to share from the list of 11 types of data previously presented. This item measured effective consent to share data. Note that for more credibility, it was specified that their personal information (identity, place of residence...) necessary to create a profile on RUDI will be asked at the end of the questionnaire. On the next page, participants were told that their data would not be transmitted and that their personal data would not be requested, and that this item was only intended to measure their degree of acceptability to data sharing.

At the end of the presentation of the project (presentation + mock-ups), the participants were asked to answer a questionnaire aimed at measuring the acceptability of the solution and of data sharing and to collect sociodemographic information (part B).



Figure 2: For example, mock-ups N°9 presented in 3 of the 5 experimental conditions (from left to right: "regional data reuse" condition, "national data storage" condition, control condition).

Methods of analysis

Homogeneity of variances was calculated from Levene tests and distribution was calculated with Kolmogorov-Smirnov tests. Analyses were performed with ANOVAs (between-subjects) or Student's test.

Results

The link between territorialization and project acceptability

Statistical analyses were performed to compare the scores obtained for each dimension of the acceptability model according to the condition. The means and standard deviations are shown in Figure 3.

The Levene tests allowed to perform parametric tests for all the dimensions. The ANOVAs conducted revealed no significant difference between conditions for the acceptability dimensions : behavioral intentions ($F(4, 132) = 0.187, p = 0.945$), effort expectancy ($F(4, 132) = 0.22, p = 0.927$), performance expectancy ($F(4, 132) = 0.40, p = 0.81$), social influence ($F(4, 132) = 0.47, p = 0.76$), facilitating conditions ($F(4, 132) = 0.41, p = 0.805$), trust ($F(4, 132) = 0.36, p = 0.83$), altruism ($F(4, 132) = 0.09, p = 0.99$), privacy concern ($F(4, 132) = 0.40, p = 0.81$) and personal interest ($F(4, 132) = 1.4, p = 0.27$). Thus, in synthesis, **there is no effect of territoriality on social acceptability to the data sharing project**. In other words, territorialization has no effect on the acceptability of the project, suggesting that if participants adhere to the project, it is independent of regional or national preferences.

Even if the results seem to show no effect of territorialization on acceptability, complementary analyses (pairwise comparisons) on acceptability dimensions reveal a specific pattern for **the personal interest dimension**. Levene's test allow to conduct parametric test (student's) : although not significant ($t = -1.707, p = 0.094$), results reveal a tendency for individuals of the national storage condition ($M = 11.92$; $SD = 3.88$) to show a higher score of personal interest than the subjects of the control condition ($M = 10.19$; $SD = 3.58$), suggesting a **tendency in favor of a relationship between territorialization and personal**

interest. Furthermore, results show significant differences between **control condition** and **national reuse condition** for personal interest ($t=-2.285$ $p = 0.026$) : people of the national reuse condition show a higher score of personal interest ($M=12,38$; $SD=3,63$) than the subjects of the control condition ($M=10,19$; $SD=3,58$). This means that, as regards personal interest, there are significant differences between the control condition and the national storage and national reuse conditions. According to Kodapanakkal et al, (2020), along with data privacy, self-interest is one of the main drivers for data sharing. Thus, there is a **validated relationship between the proposal of a project committing to national reuse of acquired knowledge (i.e., territorialized reuse) and the fact that the individual anticipates self-beneficial effects from his or her data sharing approach.**

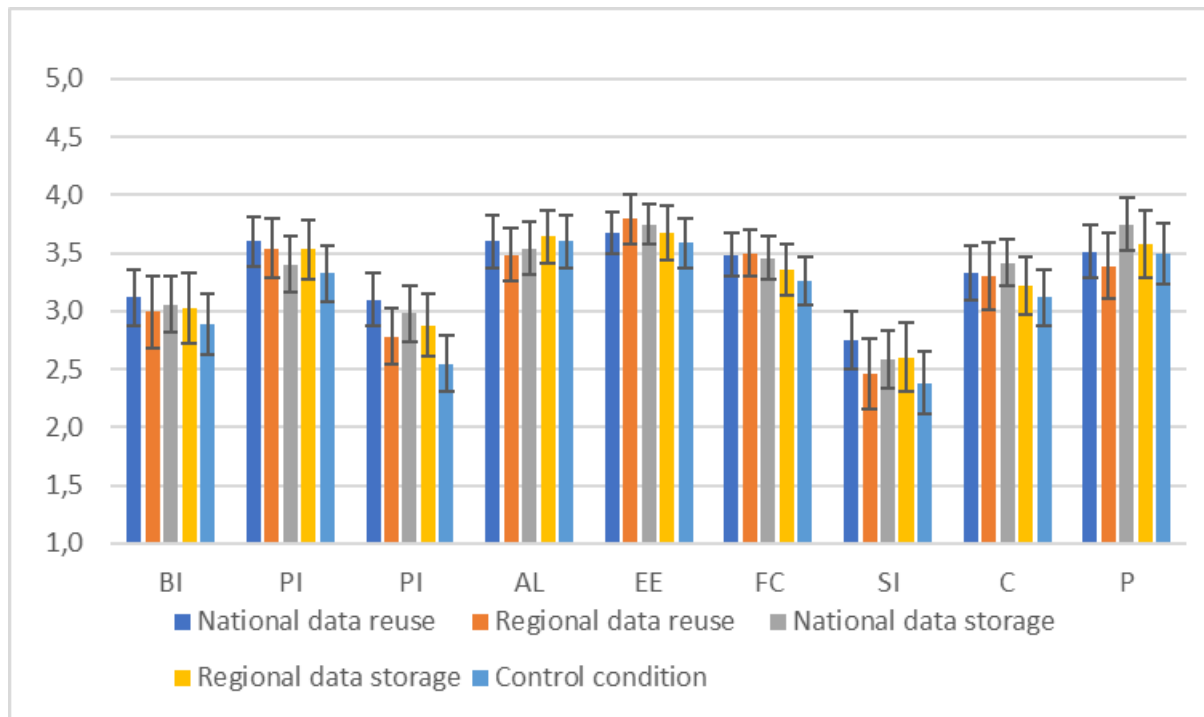


Figure n°3. Means and standard deviations for the dimensions of acceptability (Note : BI : Behavioral intention, PE : performance expectancy, PI : personal interest expectation, AL : altruism or common good expectation, EE : effort expectancy, FC : facilitating conditions, SI : social influence, T : Trust, P : Privacy concern)

The link between territorialization and consent

Figure 4 presents the difference in consent to data sharing before the presentation of the models, i.e. the a priori consent of the participants in view of the general characteristics and ambitions of the project, and the declared and effective consent (rate of consent based on the 11 thematic consent responses for declared and effective consent). Thus, on average, 50% of the participants consented to share their data before the presentation of the mock-ups. After familiarization with the project interface as well as explanation of the project as a whole, declared consent to data sharing (consent intentions) and effective consent (consent behavior) ranged from 54.5% to 59.6% for declared consent, and between 55.6% and 58.6% for effective consent for each condition, respectively.

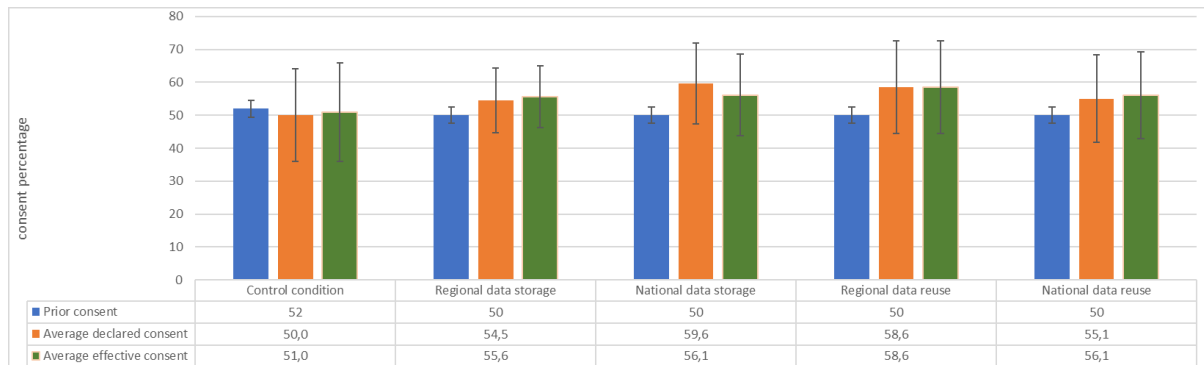


Figure n°4. Rate of a priori consent, declared consent and effective consent.

The detailed reading of the results in Figure 4 makes it possible to clarify this effect of territorialization on intentions and consent behavior. Thus, the preference for projects announcing a geographical anchorage is broken down as follows: the results show the existence of trend effects of territorialization on intentions and consent behavior. If there is a territorialization of the project based on data, consent is higher whether we are talking about behavioral intentions or effective behavior. The observations are as follows:

- The effective consent rates are higher for territorialized reuse conditions with a preference for regional territorialization (58.6%) over national territorialization (56.1%) over territorialized storage conditions.
- The mention of territorialized storage on the regional territory obtains a lower score of intention to consent than storage announced on the national territory (54.5% against 59.6%) even though this type of very localized storage condition obtains a better consent than national storage (55.6% of effective consent in the region against 56.1% in the country). This result questions the representations associated with a regional storage approach and suggests a possible lack of confidence in the technical capacity of the regional project leaders compared to a national project.

Discussion

Based on our results, it appears that individuals do not express a geographic preference when it comes to supporting a data-driven project. On the contrary, as support for data sharing projects would be more related to general altruistic values and principles (i.e., participating in the general interest) as Gendron (2014) points out, the mention of a geographic preference in the project appears to have no effect on the attitude towards this project as we have noted via the measures of the social acceptability of the project. **If there is a tendency to territorial preference in view of personal interest, this is distinct from a behavior of data chauvinism.** It would be rather an **opportunistic behavior** since the resident sees, in the project of localized collective interest, a form of announcement and guarantee **to obtain in fine a personal interest.**

If our results do not allow us to validate the hypothesis of an effect of territorial/local preference on the acceptability of data sharing, this proposition cannot be completely excluded. Indeed, the absence of results may be partly related to the size of the sample. While in the field of psychology, a sample size of 30 participants is generally accepted and ensures the statistical validity of the results, it may be thought that, given the trend effect observed on self-interest, a larger sample size would have been preferable. Although it would have been ideal to have a larger sample and/or to present the variations linked to territorialization in a more marked and salient way, this study was able to show that the

territorial anchoring of the project refers to the stronger anticipation of a personal benefit and consequently to its acceptability. Thus, if individuals are guaranteed a reuse of the knowledge acquired through the data project on their national territory, then they are more likely to find the project acceptable. Given the driving effect of this self-interest dimension as a powerful driver as the data privacy dimension (Kodapanakkal et al, 2020), data-driven project owners have a strong incentive to emphasize these choices to end beneficiaries in order to foster the future success of their projects under construction.

The relative absence of a link between territorialization commitments and project acceptability is not surprising insofar as there is regularly a **disconnect between the acceptability of a project, which is an attitude, or even a posture, towards a project (which is sometimes an idea and an intention), and the actual behaviors towards the project.** Thus, certain land development projects that had received strong acceptability on a global level sometimes had to face strong contestation from local residents, users, or public opinion (Gendron, 2014; Kodapanakkal et al., 2020; Nadai and Labussiere, 2010; Oiry, 2015). This possible paradox, which suggests a reversal of the situation between acceptability in principle and subsequent behavior when projects are actually implemented, invites caution regarding the predictive value of measuring the social acceptability of a project.

Far from questioning the deterministic nature of the link between social acceptability and actual behavior that researchers on the social acceptability of technologies have regularly identified, our results suggest that, **for data-based projects that involve obtaining consent to share this data, it may be more effective to focus on the levers of consent than on the levers of social acceptability of the project.**

Finally, we noted that the mention of the **territorial reference and the proximity of this territorial reference (regional versus national) favours varying intentions and effective behaviours in the consents** even though this does not impact the degree of acceptability of the project. The variability observed highlights two points of vigilance for data-based project leaders.

On the one hand, **the argument of a commitment to territorialized storage is less effective than the commitment to territorialize processing.** This is to say that while there is an assurance of better control of data protection hoped for through local storage (Petr and Ertus, 2022), it is less implied than the argument of localized reuse.

On the other hand, in the context of projects led by local authorities, through the example of a less good intention to agree to share one's data if the data are stored on the regional territory, **it appears that the inhabitants question the capacity of the project leader to take in hand the technical aspects of the management of the project based on the data.** This concern is understandable since computer skills are not initially part of their prerogatives and areas of expertise. The IT skill is a skill acquired for the good management of life in the city, but it is not a mission in the same way as civil status, urban planning, schools, culture, social life, etc.

It is therefore important to reassure, and even demonstrate, the inhabitants of the territory that the local authorities do indeed have the personnel and tools to ensure the technical competence of data management.

Conclusion and Research Perspectives

The objective of this study was to assess the effect of local/territorial preference on acceptability to data sharing. To our knowledge, no study has been conducted on this issue to date.

Based on an experimental study with 132 individuals, our study showed that there is an effect of announcing a territorial anchorage on obtaining consent to share data in the framework of a data-based project from the inhabitants concerned. On the other hand, the announcement of a territorial anchorage (regional or national) has no effect on the acceptability of the project, whether the project commits itself to the place of storage of the data (i.e., territorialized storage), or whether the project commits itself to the spaces and inhabitants who will benefit first from the knowledge acquired thanks to the processing of these data (i.e., territorialized reuse).

In terms of research perspectives, this result may suggest two interpretations that deserve further study in order to determine which one is more adequate to understand this difference in the effect of territorial preference on attitudes towards data-sharing projects and on consent behaviors towards these projects.

The first interpretation consists in considering that, in view of the context of digital use, the individual would find himself functioning on the register of Stimulus-Response when faced with proposals of choices to be made on digital interfaces and that the classical psychological processes of elaboration would be evaded or sufficiently diminished to no longer have observable effects on the final choices. Behaviorist approaches based on the presentation of consent interfaces could then be sufficient to favorably influence the initial behaviors of the individuals concerned by the data projects. The challenge for the initiators of these projects would then be to be able to maintain this consent and not be judged as deficient to the point of leading to requests for modification and withdrawal of these initially obtained consents.

The second interpretation consists of considering the absence of variations in the leverage of geographical, regional or national preference on the acceptability of the data project with regard to the values of general interest advocated by this type of project. Indeed, in line with the discourse on the altruism of data and with local or European public policies that value the principle of free circulation of data for the benefit of the common good, these projects are perceived as being fundamentally "good projects". Individuals then find themselves unanimously wishing to contribute to this type of project in view of the positive effects expected for the collective, because it is indeed the values of the project that are the priority (Gendron, 2014). If altruism is the structuring framework of this type of project, it seems difficult that an individual who adheres to it can at the same time consciously elaborate a preference for his or her geographical area of reference, even if the perimeter is wider than the region and concerns the nation, this preference being described as the choice to keep the data voluntarily on the territory and the choice to make the citizens of this territory benefit first. If the affirmative action approach does indeed increase the effective adhesion to the project (i.e. the intentions and behaviors of consent to data sharing), it is however not acceptable from the point of view of principles (i.e. the attitude towards the sharing project via its social acceptability). In summary, the inhabitants of smart cities would not show data chauvinism since, in principle, they are ready to share their data regardless of the storage locations and final beneficiaries, but they express a preference for an identified and clear territorial anchorage, undoubtedly because of the guarantees and traceability that this anchorage announces. And they express a geographical preference that means a use that concerns their own community.

In synthesis, could we say that for the success of altruistic data-driven projects, it is important to avoid chauvinism, but that it is essential to both show a desire to control the ownership of the data, and to promote ethnocentrism and support for local communities? And in order to go even further, it will be interesting to study the relationships between the different variables of acceptability of data-driven projects that the literature has identified and the preference for geographical anchoring in order to be able to explain what regional or national preference means in the context of personal data exploitation. Does it mean trust in the project owner? Is it a guarantee of a higher level of access and control by the inhabitant? Is it a promise of more certain individual benefits? Is it a technical modality that reduces fears about privacy?

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