DIGITAL: NEW DEAL

# PERSONAL DATA SHARING

## GOVERNANCE AS A GAME CHANGER

FROM MATTHIAS DE BIÈVRE AND OLIVIER DION

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## FOREWORD

Since digital technology ceased to be just one sector of the economy and became a force for trans-sectoral transformation, the sovereignty of States has been challenged by private companies providing intangible services, and the obsolescence of our law has become a little more apparent every day. Faced with this significant phenomenon, the Digital New Deal think tank is endeavouring, through its publications, to analyse these transformation mechanisms and to develop concrete regulatory approaches. We believe that regulation, beyond its binding nature, is a vector for innovation.

This latter conviction is also that of Sébastien Soriano, current president of Arcep, the French telecom regulator. In his note *Big Tech Regulation: Empower the Many by Regulating A Few*[1], which we published, he proposes four "*options that bring the power of the public into play, not to make decisions for Big Tech, but rather to empower the many innovators and the people*". The common thread running through these options, all of which are regulatory in nature, is that they aim to free use – Internet users, citizens, businesses – from the control of a minority – Big Tech. The last of these four proposals, on API regulation, highlights the principle of system interoperability: "*Interoperability could also give users real control over their data. In Europe, we have the General Data Protection Regulation (GDPR), which introduces the right for everyone to obtain a copy of their personal data from any digital company. In the future, combined with interoperability, this could allow you to transfer your data directly from one service to another or to operate different services using self-hosted data*".

The potential of the right to data portability provided for in the GDPR is not new; the *Fondation Internet Nouvelle Génération* (FING), for example, picked up on it by creating *MesInfos*[2], the French hub of *MyData*. Several projects led by FING have been created, such as *Dataccess*[3] and *Self Data Territorial*[4]. The work of Matthias De Bièvre and Olivier Dion, the authors of this publication, is a continuation of this.

Currently being set up in Brussels, *ANewGovernance* is an international NGO aiming at creating a new governance body for the personal data sharing infrastructure and that will take the form of a Public Private Partnership. Thus, Matthias De Bièvre, Olivier Dion and Eric Pol are seeking to establish best practices and standards governing the respect of everyone's rights over their data and its free circulation. The consortium's objective is to promote, at international level, a high level of protection, ethics and trust in personal data and its use. Its ambition is to enable the optimal, large-scale coordination of all players that handle data, whether public, private, academic or associative, in all countries and using a wide range of expertise. This note sets out guidelines for the creation of these standards.

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**Arno Pons**
General Delegate of The Digital New Deal Foundation

1 https://www.thedigitalnewdeal.org/big-tech-regulation-empowering-the-many-by-regulating-a-few/

2 http://mesinfos.fing.org/

3 http://mesinfos.fing.org/wp-content/uploads/2018/03/PrezDataccess_EN_V1.21.pdf

4 http://mesinfos.fing.org/wp-content/uploads/2019/10/LivrableSDT.pdf

# SUMMARY

## INTRODUCTION

The reflection process on the GDPR[5] was launched in 2012; on 15 May 2018, it entered into force in the Member States of the European Union in order to protect the data of its citizens in a borderless space, the Internet. New rights were created such as the rights to be forgotten, to rectification or to data portability; yet today they are still too little known and little used. According to Axelle Lemaire[6], this is where the problem lies: "*The current situation may seem schizophrenic: on the one hand, the European Union imposes the highest standard of personal data protection in the world, on the other hand, the European market is the last to benefit from it, since there are no tools to implement the GDPR. Real technical implementation work is necessary*". It is therefore essential to give citizens the means to take advantage of and exercise these new rights, first and foremost the right to data portability.

The right to data portability, as set out in Article 20 of the GDPR, allows any user to be able to receive his or her data collected by a data controller, in an open format, and have the right to re-use it, either for his or her own use or to transmit it to another data controller. In this sense, the right to data portability encourages the sharing and the circulation of data under the control of the individual.

On 19 February 2020, the European Commission unveiled its data[7] strategy, culminating in the creation of an infrastructure for the free flow of personal data under the control of individuals. To create it, the Commission envisages an investment of €1 billion over 7 years, including standards, new services, governance, and sectoral data spaces. With regard to the desired architecture, in addition to the prominence given to the right to data portability, the report highlights the possibility of recording and controlling our consent.

> *On 19 February 2020, the European Commission unveiled its data strategy, culminating in the creation of an infrastructure for the free flow of personal data under the control of individuals.*

In order for the benefits of this new infrastructure to live up to expectations, it must be consistent with the concomitant project of free circulation of industrial data and implement the principles of the GDPR. In addition, the creation of user standards is indispensable, as the technical standard creates the standard in the technology sector. They are currently being developed and should make it possible to secure the entire chain, create greater confidence and significantly reduce costs for all players. International and cross-sectoral coordination is needed to achieve harmonized governance of these standards; we call for Europe to take the initiative.

Organising an infrastructure for the free flow of personal data, under the control of the individual, would promote the development of a more innovative digital economy, including small and medium-sized enterprises (SMEs), mid-sized enterprises (MSEs), and larger companies. On the one hand, it would offer individuals new opportunities by making the services they use interoperable, and thus consolidating their freedom of choice and, on the other, act as a competitive tool for the market, establishing a more level playing field between Big Tech and the rest. Furthermore, being responsible for our own data, we will become aware of the use that is made of this data and the economic value it represents; this right is ultimately a means for the individual to escape his

[5] General Data Protection Regulation

[6] https://www.privacytech.fr/livre-blanc-privacytech.pdf

[7] https://ec.europa.eu/info/sites/info/files/communication-european-strategy-data-19feb2020_en.pdf

or her digital vassalage. Moreover, while the complexity of artificial intelligence feeds fears, and trust seems to be the necessary yardstick for its development, having reliable data, collected with informed consent, could help to develop the "*trustworthy*" artificial intelligence that Europe wants.

Nevertheless, the circulation of personal data – one of the main assets of companies – remains a complex subject. Many obstacles have been identified, including companies' strategic fear of opening their data to their competitors, a limited understanding of the associated benefits, a still unclear legal framework, outstanding design issues, the central issue of the value chain and business models for companies, the question of identity, and technical issues (authentication, data models, security and transfers).

aNewGovernance[8] (aNG) is an initiative of the MyData movement, directly mentioned in the European Commission's report. The aNG association is working to bring together international players (public, private, and academic) for a governance of standards for the circulation of personal data, so that this new European strategy benefits everyone. The architecture proposed by aNG is based on the MyData[9] principles, in which data operators allow individuals to control the circulation of their data by controlling their consents/permissions.

> *The aNG association is working to bring together international players (public, private, and academic) for a governance of standards for the circulation of personal data.*

aNG has already initiated its practical work in two key areas: mobility and continuing education. It brings together initiatives from these two fields throughout Europe and the world (France, Belgium, Finland, Sweden, Netherlands, Germany, Luxembourg, USA).

[8] https://www.anewgovernance.org/

[9] https://mydata.org/declaration/

# I
# REGULATE
# BY RELEASING DATA

### A. A data flow infrastructure

The European Union, subsequently followed by other countries (Canada, Australia, California, Japan, Brazil, Thailand), was one of the first to provide itself with a strong legal framework allowing implementation of the new infrastructure for the circulation of personal data that we are seeking.

The infrastructure that aNG has been working on for more than a year, and which is described by the Commission in its data strategy, will contribute to the creation of more personalized services, greater market competitiveness, better public services and general well-being. In this new economy, individuals control how their data is used and shared, while all businesses, regardless of size, have access to a variety of data sources, maximizing their ability to innovate. This data infrastructure enables a wider flow of data not only between individuals and their service providers, but also between the service providers themselves. The applications are numerous, can apply to all sectors and cover several at the same time: administration, education, employment, mobility, energy, finance, housing, commerce, etc.

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While the right to data portability under the GDPR is the first building block of this infrastructure, the European Commission's data strategy, presented this year, outlines a more complete architectural plan. However, there is still a range of issues that need to be addressed in order to embark on this ambitious plan.

Article 20 of the GDPR on the right to data portability lays the foundation for a new economy of data circulating under the control of individuals. Two types of portability exist:

- **Competition portability** where the individual transfers data from one service to a competitor's service (Deezer => Spotify)
- **Cooperation portability** where the individual transfers his or her data from one service to a third-party service for a different use (Deezer => Fnac Tickets).

Whether it is competition or cooperation portability, both can be associated with competition issues. Indeed, complementary portability will naturally break the lock-in[10] effect of large platforms by opening access to data to a much larger number of players, including SMEs.

Nevertheless, Article 20 of the GDPR, while specifying that the data must be delivered in a "structured" format that is commonly used and usable, does not require the generalisation of a particular data format. In this respect, the lack of an interoperable system facilitating the transfer of an individual's data from company A to company B will hamper the development of the free movement of personal data. This is because an individual who has received his or her data from Company A will only be able to transfer it to Company B if Company B is able to process it, i.e. if it uses the same data format as Company A. Or Company B will have to consent to an additional cost to transfer the data from one format to another.

It is therefore important to go further, inter alia by ensuring genuine interoperability, to make this economy a reality. Almost 2 years after the implementation of the GDPR, data portability is now far

[10] « Enfermement propriétaire » in French

from satisfactory; few people understand its usefulness and service providers are suspicious or do not grasp its potential. In particular, many obstacles have been identified:

- **Strategy**: Companies are afraid of opening their data up to competitors.
- **Return on investment**: There is a lack of understanding of the potential benefits of the approach.
- **Competencies**: European companies are lagging behind in the development of APIs.
- **Legal**: For companies, the legal responsibility to circulate data to third-party organizations is still unclear and carries too much risk.
- **User experience**: Big Tech has been offering data sharing via a simple user experience for several years; today, few companies are able to compete. A unified user experience would reassure and convince users.
- **Business model**: The creation and maintenance of APIs, often in real time, entails a cost that few companies are willing to bear if they do not understand the return on investment; clear data valuation models are also lacking.
- **Identity**: Today, several tools and institutions offer individuals the possibility to manage a digital identity, which is necessary for the controlled circulation of data. Big Tech SSOs (Single Sign On) are currently the most widely used digital identities, even without official recognition. State-run identities (France Connect) are far from offering the SSO possibilities of Big Tech.
- **Technical questions**: Authentication, data models, securing and scaling of data flows, consent management, etc.

The *aNewGovernance* initiative was created to enable sharing and experimentation on these issues; it is necessary to prove, through use cases and governance models, that this infrastructure for the free circulation of data has value. In this respect, aNG has managed to unite more than 100 organizations around the world to contribute to this infrastructure and is in direct contact with the European Commission; we need to seize the tremendous opportunities – political, economic, and social – that are offered by the free flow of personal data under the control of the individual.

### B. Data economy under the control of individuals

The increased personalization of services has emerged as a predominant trend in many sectors, both public and private, such as transport, education, health and trade in goods and services. This trend requires the processing of a large amount of personal data, which is either directly collected by the services themselves in a redundant and time-consuming manner or imported from other services via data transfers.

However, it must be noted that the interconnection of services is currently controlled by a limited number of players. While the sharing and networking of data could be a factor of prosperity, it is still mainly dispersed in the silos of organizations. This fragmentation is a brake on innovation: it is these data networks that create the innovation and markets of tomorrow.

Before the Internet age, people had to move in order to get a copy of a document, and if the document was modified, you had to move again. Internet has allowed the free-flow of documents; an author can publish a document, change it, and everyone has access to it from his home in a few clicks. Currently, it is the same situation as regards personal data. Everyone needs to manually create copies of their data to access various online services. However, what we propose would enable a person to give his personal data to an organization one time only, and give access to that data to other organizations in a few clicks.

This new system desired by the European Commission, which would allow any service, public or private, to have access to the data present in all the others, once an individual had given their authorization, would be a revolutionary advance for the information system of humanity. With a group of international partners, we propose to create a data web that will determine the evolution of our public services, AI and the response to climate change. By providing access to more data, this system would make it possible to impose humanist governance of the digital world and data use.

> *The interconnection of services is currently controlled by a limited number of players.*

The promises of this new data economy prefigure new uses in the sectors of mobility, employment, training, health, education, commerce, banking and insurance. The education and mobility sectors, for example, are formative experimental areas for considering the contributions of data portability and the free movement of personal data.

– Education/employment /continuing education/training and skills data:

- In the context of continuous education, job search, jobs under pressure and rapid changes in professions, data on skills becomes a strategic resource for all stakeholders in the employment market and for anyone who is pursuing professional development.
- This data is in silos in different organizations (universities, employers, training institutions, public players, platforms): stakeholders in employment or training do not have the most accurate and complete data to propose the right offers or aids.
- Employment or "matching"[11] platforms have only partial access to information.
- The networking of skills data between universities, employers, training institutions and public actors, with the authorization of the individual, makes it possible to meet these challenges. We estimate[12] that such a network would cut recruitment time by 30% compared to current practices.
- Moreover, the Covid-19 crisis means that many sectors at a standstill have transferred labour to priority sectors; many people are thus threatened with unemployment. Direct and verified access to skills data would accelerate this transfer of skills and save the economy valuable time.
- Through this system, people will find themselves at the centre of a network that fully understands their situation and is in a position to help them develop and attain their goals.
- aNG is leading different projects (in France, Finland, Sweden and Holland) within the 'Skills Alliance' to enable the creation of these skills networks. In France, we are currently working with the University Paris 1 Panthéon-Sorbonne, various edtech[13] companies, Pôle Emploi, ULCO Simplon[14], the Greater Calais agglomeration community and the company Visions[15] on the portability of education and employment data in order to build 'dynamic CVs' and enable the creation of such skills platforms.

– Mobility:

- Many European cities and regions, as well as companies, are currently developing mobility platform projects (MaaS or Mobility as a Service) interconnecting the entire chain

[11] « Mise en relation » in French

[12] Companies belonging to the educational digital sector

[13] Estimation led by Visions (visionspol.eu) via interviews conducted with public employment agencies, numerous employers, universities and training organizations

[14] Université du Littoral Côte d'Opale

[15] https://visionspol.eu/

of mobility players (cities, public and private transport operators, mobility start-ups, etc.), both locally and internationally[16].

- The purpose of these platforms is to facilitate citizens' travel in a multimodal environment – a train, an ATB or a bicycle can sometimes be used for the same journey – where data interconnection is becoming a major issue.
- Through these platforms, regions and businesses will also have the possibility to orient uses towards a more inclusive or greener mobility (e.g. loyalty programme for the use of "soft" mobility such as cycling). The anonymized statistics that the platforms will generate will also allow for a better understanding of usage and for adapting supply to demand in a much more targeted manner and in real time.
- In the context of the Covid-19 crisis, mobility platforms could facilitate the implementation of differentiated mobility; for example, in large cities this could make it possible to better manage the use of public transport in the lockdown phase.
- aNG is currently working with multiple European countries (France, Belgium, Netherlands, Luxembourg, Germany) on the definition of an infrastructure for the circulation of data on mobility. International cooperation is taking shape and is ultimately aimed at creating a European identity for mobility.

The main challenge is to equip all organizations with the same data capacity to prepare and build the next wave of digital services: services powered by a new infrastructure for the circulation of personal data, centred on the individual, with the ability to access data, regardless of the system in which it is hosted.

We believe that more accurate and wider access to *information* enables an organization to be more efficient. More broadly, we believe that data access modalities provide structure and are strategic for all organizations.

> *Data access modalities provide structure and are strategic for all organizations.*

These organizations, by networking what already exists, will have a major advantage in terms of access to information and will produce the best products and services because they have a detailed knowledge of the needs they have to meet. It is this infrastructure, its conditions and principles that we set out in this note in order to convince more and more organizations to join our *aNewGovernance* approach.

### C. An issue of sovereignty for Europe

For companies, the GDPR is primarily perceived as a binding legal text; the main objective is therefore to comply with it. However, if the individual becomes truly responsible for the collection of his or her personal data through consent, companies could have new, quality and various data.

Wanting to compete with Big Tech on their own turf by creating similar alternatives should not be an objective in itself. Cross-sectoral data networking is undeniably a way to compete with the large digital platforms, the very ones that have a huge amount of data in all sectors. For a long time, they have understood the value of circulating data; it is notably through their APIs[17] that they have access to the data of other players.

[16] https://oascities.org/list-of-cities/

[17] Programming interface

Without constructive action on the part of Europeans to respond to these challenges and produce the necessary infrastructure to do so, we run the risk of letting other powers define the rules for this circulation of data, at the risk of seeing organizations that are reluctant to participate in the European strategy lose their independence or even disappear.

It is undeniable that GAFAM and their Chinese counterparts BATX dominate the digital ecosystem; network effects work in their favour and prevent other players from developing the critical mass needed to compete. These tech giants are fully aware of the challenges of the circulation of personal data, particularly because they retain unilateral control of the access rules of their APIs (Facebook Connect, Google Connect, LinkedIn Connect, etc.). The mass of data accumulated by these players gives them a major competitive advantage, especially in future AI developments.

Big Tech was the first to get involved and interested in the potential of data portability via a vast network of access to personal data. In June 2018, Google, Facebook, Microsoft and Apple launched the Data Transfer Project (DTP) to define their own technology standard for cross-platform[18] data portability. The DTP aims to shape the way personal data flows between platforms and between all types of services, Big Tech or not. In 2019, Apple joined the project with a particular interest in health data.

> *By settling for the GDPR, without creating the norms and standards for its application, we will not take advantage of what data portability can offer us.*

The DTP, a standard controlled by Big Tech, cannot satisfy the Europeans, who have developed GDPR. Yet it could quickly become the *de facto* standard for the circulation of personal data as a whole if it becomes massively established – let's not forget that Big Tech has billions of users. Indeed, the DTP gives its own interpretation of GDPR and serves the economic interests of Big Tech as well as the preservation of their monopolies. It is not user centric as it is the platforms that define the sharing rules themselves. For example, citizens/users will not have an independent dashboard from their online services to manage their consents; data flow control will be done from Google or Facebook.

Recently, there have been increasing calls for tougher competition policies with respect to platforms. The aNG model proposes a bottom-up approach to tackle problems for which antitrust policies are sometimes seen as the only solutions. It opens up data silos and allows innovative companies (SMEs/start-ups) to enter markets where a "winner takes all" strategy was previously the only model in place. It makes it possible to better counter the power of network effects and ensures that companies compete on the basis of quality of service and levels of privacy and consumer confidence.

By settling for the GDPR, without creating the norms and standards for its application, we will not take advantage of what data portability can offer us. We must take the initiative and unite our economic, political and academic forces in defining and building a new infrastructure that liberates data and focuses on the individual. It is our means of accessing and using data that will sculpt artificial intelligence, our response to climate change and the modernization of our public services. We will succeed if, and only if, we participate in the implementation of this new infrastructure, with new governance.

[18] https://datatransferproject.dev/

### D. A human-centric model, more powerful than a platform-centric model

A human-centric model will be more powerful than a platform-centric model. Faced with the American proselytism embodied by the DTP model that Apple, Facebook, Google, Microsoft and Twitter have created, we must propose a different European model to organize the free circulation of personal data; it must be human-centered. If the DTP model is to be excluded or to be transformed, the platforms will nevertheless have to participate in another model. This should enable the entire community to agree on the rules of sharing, on the one hand, and a wider range of players to participate, on the other.

> *We must propose a different European model to organize the free circulation of personal data; it must be human-centered.*

One of aNG's ongoing projects aims to create an employment/education platform for the Opal Coast. It will enable the connection of data from local (cities, local educational establishments, local business groups, manufacturers, etc.), regional (Proch'Emploi), national (Pôle Emploi, universities) and international (LinkedIn, Indeed, LeBonCoin) stakeholders. The problem of employment is above all local and human – not technological. The infrastructure we have set up allows us to take into account data from the field and to provide the appropriate information to the local actor concerned. This will make it possible, for example, to suggest the best possible training for an unemployed person who wants to get a job that requires skills he or she does not possess. Currently, in the midst of the Covid-19 crisis, this model could prove useful if developed at the national level; aNG is working on it.

The current Big Tech model, created by the DTP, does not allow access to precision data. The infrastructure for the flow of personal data that we are calling for will better meet the needs of individuals, as it will be able to provide access to their data in different organizations for specific uses. Only the individual knows where all their information is and what they want to do with it. This proves that the need to go through the individual is not only an ethical imperative but also a technical and economic condition. The humanist model is the logical evolution of our information systems; we now need to define the means and rules.

# USE CASES MOBILITY AND MYDATA

— Paul Theyskens
Mobility Ecosystem Development at the Flanders Department of Mobility,
and Co-initiator MyData Brussels Hub

## Introduction

In a 7.5B inhabitants world, challenges are many concerning mobility. We all want a green, inclusive, and fair economic development, where people can move around freely, while more than half of the planet lives in overcrowded and polluted urban areas. In the Covid-19 context, in order to be more resilient, we need to reinvent mobility more than ever and people need new guidance. Mobility is by essence a domain where personal data is scattered across various types of actors from private sector to public services, from big corporates to small startups, from Big Tech global giants to local services. As information is the main trigger for people's decisions, allowing them to be in control of their data and circulate it among all their services in a more harmonized way, following the MyData model, will greatly help to address all those challenges. Here are a few top-notch ongoing projects trying to empower people with their mobility data.

## 1. Mobility Central project: a MaaS platform for people with reduced mobility[1]

The Flanders region is building Mobility Central and MaaS (Mobility as a Service) platforms. In this ecosystem, we are integrating personal data sharing services for people with reduced mobility, handicapped, blind and Special School transport for children with limitations. We have developed an OSLO mobility standard for all market players.

**Use cases:** This will improve inclusive mobility, allow the citizens to increase their ability to travel alone, have access to interactive help, save time during travel and automate the administrative process of third party payments lowering the cost.

## 2. Benelux MaaS Living Lab: a MaaS platform for sustainable transport[2]

In Euregion Aachen – Maastricht – Hasselt – Liège, we are setting up a MaaS DataSpace ecosystem platform with the 6 regions of Benelux, including Nord Rhein Westfalen in Germany. The Dutch Maas Pilot platform is the first MaaS platform that shares data between operators, authorities, and citizens in 7 MaaS pilot projects (we want to expand this to other MyData uses cases in the next year). The platform uses IDSA architecture and Gaia-x is under study as a shared architecture platform for the Mobility Data Space, in line with the new EU Data strategy.

**Use cases:** A traveller will be able to travel in Germany, Holland, Luxemburg, and Belgium using one app and switching between train, bus and shared vehicles with ease, realising Mobility roaming in Europe. Such a platform also offers incentives for users that switch to sustainable mobility when congestion or pollution requires a traffic management change for example, and overall, it encourages people to reduce their CO2 footprint and allows families to better manage their mobility budget. Moreover, in the context of the current crisis, a traveller is notified of Covid19 social distancing risk zone and can recalculate his route-planning accordingly. Concerning car drivers,

[1] https://www.vlaanderen.be/publicaties/uitwerking-mobiliteitscentrale-conceptnota

[2] https://www.interregemr.eu/projecten/emr-connect-econ https://dutchmobilityinnovations.com/spaces/1105/maas-programma/home

they receive live notifications for transport alternatives. Finally, travellers can participate in the platform as crowd contributors of data in sharing personal mobility history.

### 3. Mon Compte Mobilité[3]

This project is held by la Fabrique des Mobilités and supported by the French state and a consortium of partners. It works with French cities and develops tools for helping people gathering and sharing their mobility data while helping cities to implement use cases like subsidies for green mobility. Mon Compte Mobilité is an Open source project and we would like to reuse it in other EU countries

**Use cases:**
- User will get automated carsharing bonuses or mobility budget, and incentives because of bike data sharing with the city.
- Setting up a two-way interaction also increases the opportunity for citizens to get a cheaper personalised mobility offer, including car and public transport, shared vehicles offering.

### 4. Open and Agile Smart Cities[4] : Helsinki[4]

The City of Helsinki is the first city as a *MyData* operator, and other cities in Finland will introduce the people data-based approach. The city is developing the Helsinki profile which will allow citizens to spread and control their personal data among the 8000 city digital services making Helsinki one of the most functional cities in the world, including in the domain of mobility. Helsinki is also working on the question of roaming between cities which involves the crucial question of global standards for the circulation of personal data.

**Use cases:**
- A citizen data roaming, moving from Helsinki to Brussels and getting a student reduction on the Brussels PTO youth subscription
- A citizen moving from Turku to Helsinki, including a calculation of home-work routing and related mobility budget.

### Conclusion

MyData projects in Mobility are happening, but we will have to use these early projects to evangelize to all market players to move in that direction. Privacy and competition worries, closed culture and a focus on monomodal silo focus remains a challenge in the ecosystem of Mobility. The UK report[5] of 2017 calculated an opportunity of 15 Billion pounds per year to GDP if the business case of data sharing in Mobility is realised.

[3] http://lafabriquedesmobilites.fr/en/home/

[4] https://oasc.atlassian.net/wiki/spaces/OASCMIM/pages/30179329/MIM4+Personal+Data+Management

[5] https://s3-eu-west-1.amazonaws.com/media.ts.catapult/wp-content/uploads/2017/04/12092544/15460-TSC-Q1-Report-Document-Suite-single-pages.pdf

# II
# HOW TO CREATE THE STANDARDS FOR THIS NEW DATA MARKET

At a time when society in general, and the digital economy in particular, are going through a crisis of confidence, Europe, through its institutions, businesses and citizens, has a unique opportunity to define the framework and governance of this new infrastructure for the circulation of personal data.

### A. Standards governance and democratic model

Thanks to their penetration rate and the immense number of users captured, the world leaders in digital technology are big enough to be able to impose a *de facto* standard. A scenario in which these companies would find themselves alone at the helm of an infrastructure for the free circulation of personal data, with their own standards, would lead to our public services becoming dependent, undermining our ability to serve the general interest. The project carried out by Sidewalk Labs, a subsidiary of Alphabet (Google's parent company), with the City of Toronto illustrates this scenario. While Google's proposed innovations to make Quayside a truly smart city are appealing, there are concerns about the collection and use of the data; more broadly, issues of data governance are crystallizing tensions. In 2020, the project has been abandoned by Alphabet partly for these reasons[19].

In reality, it seems impossible for such infrastructures to be set up without multi-party governance, involving public, private, academic and associative players. Moreover, while trust is a key success factor for any digital system, Big Tech is suffering greatly. As an example, the LIBRA cryptography[20] project, which nonetheless brings together the ingredients of a system of trust, notably with the involvement of associations, large groups and institutions, is compromised by the simple fact that Facebook is the originator of the project.

> *Thanks to the GDPR, the European Union enjoys global influence in the exercise of citizens' rights in the digital space.*

The first observation, both in Europe and globally, is the lack of harmonization and the absence of coordination in order to develop common standards. However, we do not lack them; there are multiple initiatives aimed at facilitating these data transfers under the sole control of the individual, such as DSP2, Kantara, and MyData. However, these initiatives lack coordination, governance and critical mass; on their own, they do not have the power to impose themselves on all sectors.

Thanks to the GDPR, the European Union enjoys global influence in the exercise of citizens' rights in the digital space. This influence, recognized internationally, particularly by North Americans and Asians, should enable Europe to take the initiative and impose humanist governance on the free circulation of personal data. This governance will have to involve European and global institutions, universities, large private groups and smaller companies, as well as associations. The resulting infrastructure will have to meet the needs of citizens and the economy without being monopolized by a small number of players. Fundamentally, this governance and infrastructure will have to be centred on the individual and respect the basic principles of the French Republic.

19 https://www.theguardian.com/technology/2020/may/07/google-sidewalk-labs-toronto-smart-city-abandoned

20 https://www.ft.com/content/79376464-72b5-41fa-8f14-9f308acaf83b

### B. Separation of powers: a human-centric model

Until now, we have been able to liken the governance of our data to a monarchy. In the latter, the monarch or sovereign is the organization that alone decides how our data is collected, the purposes for which it is processed and how we can exercise our rights.

In order to guarantee the humanistic character of this new infrastructure, we propose a principle of governance that has been used for several centuries in our Western institutions: the principle of separation of powers. Each individual must have the opportunity to represent their wishes and interests independently with regard to the use of their data. Therefore, individuals cannot depend on a particular service for the management of their data; this would be tantamount to encouraging a platform-centric data economy.

Individuals must be able to manage their data independently of services. Each service will have the means to interact with the individual to ask for data and to propose uses, while the individual will be able to precisely define what he or she wants or does not want and the service will respect that. This is the condition to be met by the service in order to be able to access the vast network of data that the individual can make available.

> *The platform does not impose its Terms and Conditions of Use, it is the individual who stipulates their Terms and Conditions for the Reuse of their data.*

Combined with interoperability, the right to data portability enables a fundamental reversal of the relationship between major digital platforms and their users. The platform does not impose its Terms and Conditions of Use, it is the individual who stipulates their Terms and Conditions for the Reuse of their data.

This requires a clear separation between data processing and data control. In the long term, this would make it possible to upset the current one-way balance of power. On the one hand, the user, by regaining control over the use of his or her data, can decide which platform can access it, and on the other hand, companies competing with the platforms will be able to benefit from these individual choices and allow each service, individually, to access the data of all the others if it has the person's permission. Without this principle and vision, the platforms will continue to have control over our data and its use. We need to acknowledge and assume that we are going to empower every person to create the conditions for a prosperous and thriving economy.

This representation of the individual must be exercised at all levels, from the mobile application that processes the data to the general governance of the infrastructure. At each level, the question arises as to the best way to represent the individual; we are convinced that the individual is by default the most entitled to represent him or herself. It is a matter of giving the individual the means to do so. Tools are emerging to enable everyone to control the use of their data; we are actively working to demonstrate its value to the economy and to create balanced governance through the separation of powers between the departments that process the data and the individuals who control it.

### C. aNewGovernance: an agora for standards definition

aNewGovernance (aNG) is an initiative born in 2019 into the movement *MyData Global*[21], an NGO present in more than 40 countries around the world with the aim of giving people back control over their data. The main objective pursued by MyData is to prove the inherent value of a free data flow infrastructure; their work has notably enabled the creation of an international community on the subject.

Through aNG, that will become an international, independent and Brussels-based NGO in 2020, we wish to harmonize, support and legitimize the creation of standards (legal, technical, economic, design) for this new infrastructure for the free flow of personal data centred on the individual. aNG is an indispensable body in the creation and management of this infrastructure; all work is based on concrete cases of personal data flows that bring value to each stakeholder. Our work is therefore a continuation of the work done by MyData: its aim is more "practical" in that it seeks to convince and influence industrialists and political decision-makers of the usefulness of harmonizing the standards of this infrastructure.

Within aNG, where institutions, local authorities, companies of all sizes, researchers and laboratories and NGOs collaborate on sectoral and cross-sectoral projects, we aim to achieve standards in an open and democratic manner. A specific group of stakeholders should not solely define standards for their own use; the main objective of the aNG initiative is to provide open, plural and fair governance of personal data standards. We believe that such governance cannot take place without the direct involvement of public institutions; it is a hybrid approach, involving technical and political decisions.

> *Through aNG, we wish to harmonize, support and legitimize the creation of standards (legal, technical, economic, design) for this new infrastructure for the free flow of personal data centered on the individual.*

Governance and the interaction between the different players occur at several levels:

1. A council that unites representatives of **each of the stakeholders at international level** (universities, public players, private players, citizens, NGOs, institutions)
2. A council that unites the representatives of **each sector at international level** (education, mobility, retail, finance, etc.)
3. A council that unites representatives of **stakeholders, by sector, at international level** (universities, public players, private players, citizens, NGOs, institutions)
4. A council that unites representatives of **stakeholders, by sector, at national level** (universities, public players, private players, citizens, NGOs, institutions)
5. **Sectoral and cross-sectoral projects** that apply and experiment with standards and that raise limits and increase opportunities.

In the end, aNG follows a principle of *adaptive regulation*: field projects feed into decisions at the highest levels of governance. It is the experiments carried out in the public and private sectors that will make it possible to identify the most appropriate data circulation standards and norms.

[21] https://mydata.org/

Centred on people, the architecture of the aNewGovernance initiative is based on a series of fundamental principles:

- **Data regulations:** e.g., the GDPR and its international equivalents
- **Ethical charters:** digital human rights charters (work of the *Institute for Digital Fundamental Rights*[22] in progress)
- **Sectoral charters:** e.g. the Eurocities charter for digital city platforms and other sectoral charters (finance, mobility, health, etc.)
- **The principles of MyData architecture:** see below

The MyData[23] Declaration describes six principles for building a human-centric personal data architecture:

1. **Human-centric control of personal data:** This principle requires that any transaction of personal data always involves the data subject. It also requires that the actions required of the person, such as the granting of an authorization, be very easy to understand.
2. **The individual as the point of integration:** The individual has tools, *MyData Operators* that integrate the different data accesses and permissions for the individual. The operator represents the interests of the individual.
3. **Individual empowerment:** Today, individuals only grant permission to use their data to digital services that ask for it. In this respect, data operators allow for a determining shift: with them, the same individual controls and negotiates the conditions of access to his or her data through consents.
4. **Portability (access and reuse):** With data operators, individuals can go beyond simply controlling their data. They can define how it is used and decide which types of services can access them.
5. **Transparency and accountability:** Digital entities wishing to access this data must be able to explain their reason for doing so and meet its commitments. Data operators will play a crucial role as trusted third parties between individuals and these entities; without transparency, personal data-sharing practices can neither be monitored nor challenged.
6. I**nteroperability:** Interoperability requires that individuals can transfer their personal data from one organization to another, within the ecosystem of services, without the need to transform or change its format. Institutions, data operators, companies and associations need to work together to achieve this.
7. **To these principles, aNG adds the principle of separation of powers:** The role of data operator is to provide the means for individuals to enforce their permissions and consents. Therefore, they should not store the data nor provide additional services on the data.

We propose the creation of a public-private partnership (PPP) as the governing body for the flow of personal data. It will allow all the players in the ecosystem (large companies, non-profit organizations, academics, SMEs, start-ups, public institutions, etc.) to work together to define standards for the circulation of personal data. aNG applies a democratic decision-making process where each stakeholder has an equal vote, and accepts participants on the basis of their values, not their financial means.

Governance will follow a top-down[24] and bottom-up[25] approach:

- ***Top-down:*** Translate the GDPR into common technology standards shared across countries and industries, applicable to both large and small organizations.

[22] https://idfrights.org/

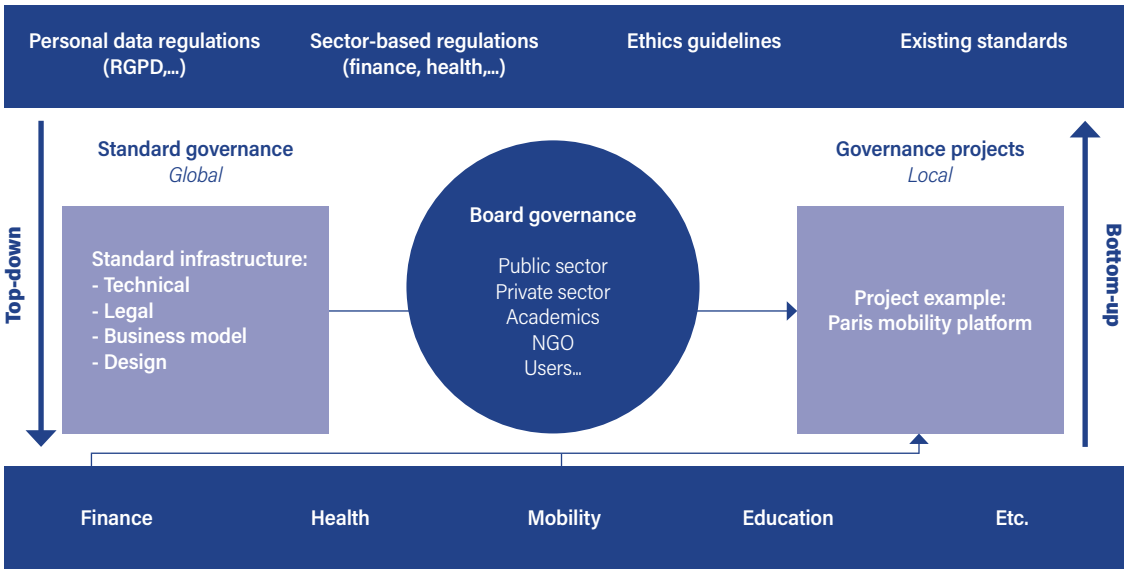
[23] https://mydata.org/declaration/

[24] Descendante en français

[25] Ascendante en français

– ***Bottom-up:*** Derive standards from practical experimental projects, finance experiments and enable stakeholders and users to provide feedback to regulators and legislators (adaptive regulation process).

## PERSONAL DATA SHARING GOVERNANCE




We are actively working on the structuring of our community and on specific projects in various fields.

**Bodies interested and involved with aNewGovernance:**

– **Institutions:** French Parliament, French CNIL, Finnish Parliament, Greek Government (open data), World Bank, DG Connect, DG Justice, French Ministry of Justice, WTO, etc.
– **Large companies and administrations:** Crédit Agricole, BPCE, Société Générale, HSBC, Mastercard, NTT Group, NEC, Amsterdam, Lyon, Nantes, Antwerp, Helsinki, Ghent, Calais, Orange, BT, Auchan, Metro, French administration (DINSIC), Pôle emploi, BBC, Cap Gemini, Atos, Mazars, Ctrl-Shift, Sneider, Siemens, etc.
– **Startups:** Portability tools, consent tools, cloud, search engines, mobility, health, finance, labour market, etc.
– **Universities:** Sorbonne, Polytechnique, Stanford, ITM, Ghent, VUB Brussels, University of Luxembourg – SnT Lab, University of Berlin – Weizenbaum Institute, University of Leuven
– **NGO:** Data for Good, Me2Be Alliance, FING, Privacy Tech, Stiftung Datenschutz, PersonalData.io, Kantara initiative, etc.

# MYDATA'S PERSPECTIVES ON PERSONAL DATA SHARING AND GOVERNANCE

— Teemu Ropponen
MyData Global General Manager

MyData Global is an award-winning international nonprofit, founded in 2018 and headquartered in Finland. Our purpose is to empower individuals by improving their right to self-determination regarding their personal data. We were mentioned in the EU Data strategy released in February 2020, as one of the promising initiatives that "*promise significant benefits to individuals*".

We have a human-centric and ethical approach to personal data, which aims at a far, sustainable, and prosperous digital society for all. In this society, people get value from their data and set the agenda on how their data is used. In this society, the ethical use of personal data is always the most attractive course of action for organizations.

**Three big shifts**. In order to make this big vision a reality, three major shifts need to take place. These shifts were first described in 2017, when our community co-created the MyData Declaration[1], underlining the need for human-centricity and agency of people in the data economy:

- **From Formal to Actionable Rights:** People should be able to effortlessly, seamlessly, and instantaneously exercise their digital rights when using digital services – meaning our formal rights become "one-click rights".

- **From Data Protection to Data Empowerment:** People should not be treated as merely "subjects who need to be protected", but rather autonomous human beings with the will, agency, opportunities, skills, and tools to make use of personal data – as they like.

- **From Closed to Open Ecosystems:** There should be a level playing field and fair competition among all sizes of companies, which will replace current virtual monopolies and produce real choices between good alternative products and services for people.

**MyData is a global initiative.** We have nearly 90 organization members and over 500 individual members from over 50 countries on six continents. We facilitate the 2000+ strong community working on the ethical use of personal data. Making our vision happen, and making it right takes place in over 30 hubs and thematic groups active around the world.

**The journey of interoperability is starting.** In practice, infrastructure, interoperability and governance are needed to make it happen. A *MyData Operator* is responsible for operating *infrastructure* and providing *tools* for the person in a human-centric system of personal data exchange. Operators enable people securely to access, manage, and use personal data about themselves as well as to control the flow of personal data within and between data sources and data using services.

One of the central ideas of the operator model is that there will be a number of actors providing personal data management services, and that those services should be *interoperable* and *substitutable* as well as technology agnostic as far as possible. Competing service providers should work together to create a global network for human-centric personal

[1] https://mydata.org/declaration/

data transfer in a similar way to how different banks form a network for payments or mobile operators for phone calls. We recognize that this kind of *interoperability is a journey* where every step has positive impacts for people and service providers. The *Understanding MyData operators* paper[2], supported by 48 "proto-operators" from 15 countries, is the first step on this journey and that many more organizations will join to shape the future work needed.

We participate with A New Governance to broaden the discussion about the need for coordination of all the stakeholders of the ecosystem. We believe it is crucial for all the players that we collaboratively define the best governance models for the personal data economy. Inclusivity, transparency and openness are key principles of the MyData community to ensure, protect and enshrine human-centric values. That is the way we approach *aNewGovernance*.

[2] https://mydata.org/wp-content/uploads/sites/5/2020/04/Understanding-Mydata-Operators-pages.pdf

# III
# RETHINKING THE ARCHITECTURE OF THE INTERNET

### A. A human-centric architecture model

Since its creation over 30 years ago, the Web has evolved from a one-way content delivery system, controlled mainly by organizations, to a more participatory model, directly involving individuals. The social media model, which solicits and relies on the contributions of its users, embodies this evolution. Massive data collection, at the heart of this contributory model, has contributed significantly to the rise of Big Tech, often criticized for its lack of transparency and its invasion of privacy.

For many years now, Big Tech has been organizing a large-scale circulation of personal data. Yet while their APIs allow them to interconnect with tens of millions of third-party services, the reverse is not true. These platform-centric sharing technologies are still poorly mastered by most of the other players in the ecosystem (traditional companies, SMEs, etc.) and the model of a few players largely dominates for the moment, forcing billions of users to manage their data using these same platforms.

> *Yet while Big Tech's APIs allow them to interconnect with tens of millions of third-party services, the reverse is not true.*

To reverse these trends, governments and organizations have, for some years, been moving towards a paradigm shift in which the individual regains control over his or her data. A new architecture for the circulation of personal data centred on humans, and no longer on major platforms, would make it possible to correct certain current abuses while offering all the players in the ecosystem the potential to exploit the data's full potential.

The infrastructure and governance we propose will complement that proposed by GaiaX for industrial data. GaiaX aims to ensure the sovereignty of organisations over their industrial data, aNG aims to ensure the sovereignty of individuals over their personal data.

### B. Tools for the individual: data operators

Personal data is created, copied, moved and used in ecosystems of **people, data-holding services, data re-using services** and actors in other roles. These ecosystems rely on infrastructures that function mainly in silos:

- **Individuals** manage the use of their personal data for their own purposes and maintain relationships with other persons, services or organisations.
- **Operators** represent individuals and enable them to manage their personal data and to control the flows between data source and data using services.
- **Data-holding services or data sources** control the personal data that actors with other roles may wish to access and use.
- **Data using services** access data from one or more data sources to provide a service with the users' permission via their operator.

Operators rely on the notion of consent, reinforced by the GDPR: it implies that a data transfer, in order to be considered valid, must determine a precise use (purpose), with a restricted, specified and proportional scope of data (minimization principle) and for a fixed duration. The consent must be revocable at any time by the user, without blocking access to its services. More generally, we

speak of "permissions" granted by individuals to their services to authorize data flows.

The current landscape of data operators (about 500 listed worldwide) is still heterogeneous; most are in a pilot phase or have restricted perimeters. Some large organizations create their own operators (e.g. Microsoft's Bali[26] project, Helsinki city profile[27], Personal Data Bank for European banks and Japanese[28] telco operators, Digiposte[29], etc.). Operators respond to one or more of the following issues:

- **Identity and authentication management**
- **Management of data permissions**
- **Transfer of personal data** between services via interfaces
- **Traceability of** permissions and exchanges
- **Exchange of values** and cash flows between services for data access
- **Data models** with semantics specific to each environment
- **Governance of** data flow ecosystems and legal aspects
- *Storage of personal data*
- *Additional data services*

According to the principle of separation of powers specific to the aNG initiative (see above), operators should not offer data storage or additional services for data. For aNG, this principle allows operators to better perform their function of representing the interests of the individual, limiting the individual's risks, and making the whole architecture truly decentralized.

> *According to the principle of separation of powers, operators should not offer data storage or additional services for data.*

One of the driving ideas behind MyData is that we need to achieve interoperability between all actors that provide a data operator service. Many competing operators are already working on common standards for interoperability in the same way that banks form a network for payments and mobile phone operators for telephone calls.

User experience

It is imperative that the flow of data is not to the detriment of the user experience. In practical terms, an individual wishing to transfer his or her data from service A to service B will have to:

- Be authenticated at A
- Give consent/permission for the transfer of data from A to B
- Be authenticated at B

A user experience scenario oscillating between ease of use and individual control over his or her data could be as follows:

1. Users click on a transfer button displayed on a data holding service where they are already authenticated.
2. They then give their permission/consent for the data transfer in a popup window provided by an operator.

[26] https://www.microsoft.com/en-us/research/project/bali/

[27] https://oascities.org/smart-city-day-mydata-2018/

[28] http://asianews.eu/content/japan-eyes-%E2%80%98information-banks%E2%80%99-securing-personal-data-73366

[29] https://www.laposte.fr/digiposte/tous-mes-documents-partout-et-tout-le-temps

3. They are redirected to the data reuse service and authenticated. Data can then be transferred directly between services.

4. The user then receives a summary of the consent in their mailbox, in which said user can, if they wish, open an account with an operator, where all the permissions associated with their e-mail address will be displayed.

5. The user then opens an account with an operator through which they can manage all permissions to share their personal data, centrally and independently of Big Tech. The operator only has access to permissions, never to the data.

This user experience centralizes control of data in the hands of the individual – there is no need to go back through the browsing history to check the data – while leaving the data itself decentralized. Interoperability between operators enables the individual, as well as interconnected services, to avoid dependence on a particular operator, to change operators at any time and to circulate data managed by different operators.

### C. An open and standardized infrastructure

Data operators are a means of access, for individuals and organizations alike, to a global network of personal data circulation, which is still poorly structured today. To be able to fully play their role as representatives of individuals and to ensure the interoperability of all network players, operators must be able to rely on an open and standardized personal data circulation infrastructure.

The standards

Standards will facilitate interoperability while lowering barriers to entry for all ecosystem stakeholders. These standards cover a wide range of areas of expertise and require unprecedented coordination of ecosystem stakeholders through the future governance body. Their success will largely depend on how easily they can be inserted into the ecosystem, taking into account the history of existing systems. The needs for standards already identified are as follows:

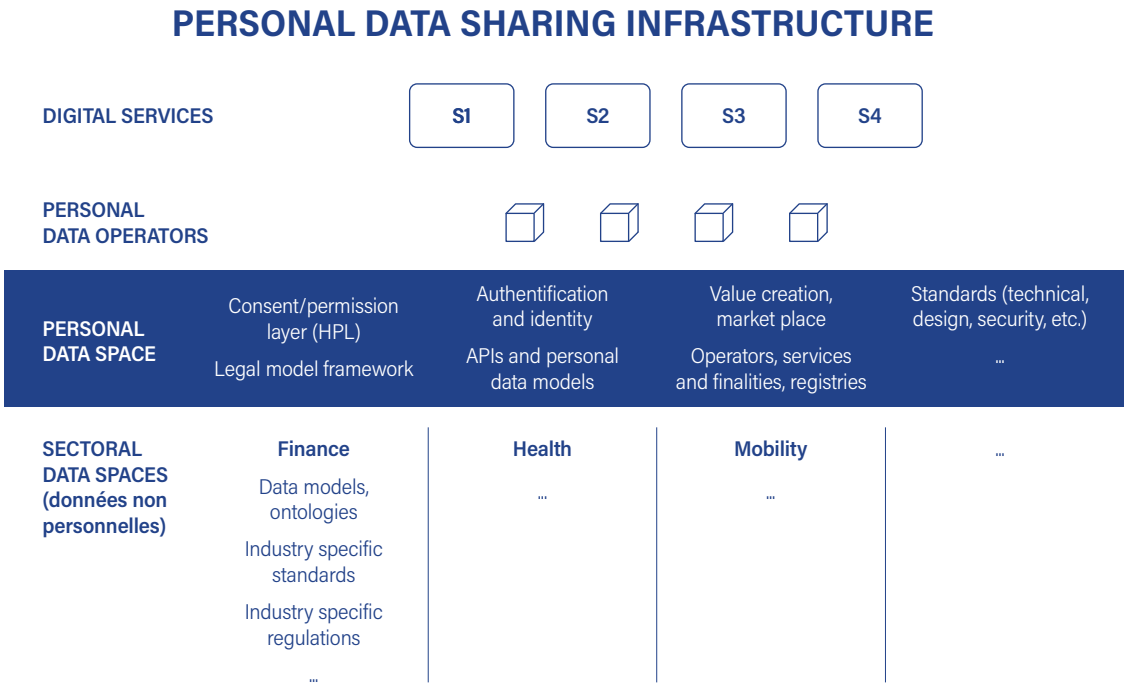
– **Permission model and design:** the way permissions are stored and presented to the user (approaches studied: Kantara consent receipt[30])
– **Permission management:** the protocol used to validate, check and execute a permission
– **Authentication and/or identity management:** identity management or the federation of a person's identities within different information systems in order to allow an individual to transfer his or her data from one system to another (approaches studied: OpenID[31], Oauth[32], UMA Kantara[33])
– **APIs and data models:** The way in which data circulates from one system to another as well as the semantic models (approaches studied: by sector, many standards already exist, such as TOMP, a Dutch standard for mobility data)
– **Value creation and circulation model:** The economic model of data circulation that will enable organizations to set up a sustainable business model.
– **Legal model:** it would be based on use-cases contracts that protect organizations sharing data. These contracts should include standard and open clauses in order to allow every actor of the ecosystem to offer data circulation without high legal costs (approach studied: CommonAccord.org).

30 https://kantarainitiative.org/file-downloads/consent-receipt-specification-v1-1-0/

31 https://openid.net/

32 https://oauth.net/2/

33 https://kantarainitiative.org/confluence/display/uma/Home




All the components of the infrastructure make up what we call the Personal Data Layer. Europe's Data Strategy proposes the creation of sectoral Data Spaces, or data sharing ecosystems (finance, mobility, health, etc.). A Personal Data Space would address specific personal data issues while facilitating cross-sectoral coordination between Data Spaces, with the individual as the integration point according to the MyData principles.

The Human Permission Layer (HPL)

The effective implementation of these standards by the operators, in respect of the principle of separation of powers, makes it possible to create a new layer of the Internet: the '*Human Permission Layer*' or HPL. The HPL layer is independent of the services that rely on it for data access; it allows the management of individuals' permissions on their data.

It is a distributed record of people's permissions to their data allowing:

- each individual to view and control the permissions he or she has granted
- each service to view and use the permissions granted to it

The HPL will contain the certified and authenticated permissions of individuals. Each service platform will be responsible for respecting these permissions both in accessing, using and making the data available. Data operators will ensure compliance with protocols and standards and assist in the auditing of services interacting with HPL.

The construction work for the HPL has already begun:

- aNG currently brings together cities and organizations that define their standards for the circulation of personal data in the fields of education and mobility in order to co-construct the HPL.
- aNG works with the group of MyData Operators that is co-constructing the HPL standards.

Infrastructure Commons

Beyond standards, the infrastructure for the circulation of personal data will have to rely on a set of common elements to express its full potential:

– The creation of a **distributed permissions register** will facilitate interoperability and traceability of exchanges (approach studied: blockchain technologies).
– **An open and cooperative legal model** will allow knowledge sharing (approach studied: *commonaccord.org* as a version control system for permissions contracts).
– **Open and mutualized transfer components** will reduce costs for all players and secure exchanges (approach studied: FIWARE framework[34]). Semantic data models and ontologies (data models) already exist in many fields, the players will have to coordinate to establish the pivotal data models in each sector by adopting a human-centric point of view in order to guarantee better coherence between different data models in the same or different sectors (approaches studied: TOMP Dutch model for mobility[35], etc.)
– **A marketplace to facilitate trade:** The circulation of personal data can create and structure a new market for data circulation, bringing ethics and transparency to a hitherto opaque economy. Because data holders have invested in data collection, a return on investment is required. We propose a model in which organizations can charge each other for direct access to data or decide to exchange non-monetary values, as is already the case with existing APIs such as Pôle Emploi. An open marketplace will facilitate financial flows and communication between players as well as market transparency. Each actor chooses the business model they want to apply to access their data. This marketplace will be regulated by governance on the model of financial centers (approach studied: DAWEX).
– **Operator and service registers:** A register will make it possible to identify all the services and players in the ecosystem in order to facilitate the transparency and traceability of exchanges.
– **Data repositories:** In all sectors, trade repositories will have to be set up (skills repositories for education, product repositories for commerce, repositories for mobility offers, etc.). Some existing repositories will have to be reused. This approach is perfectly in line with the European Commission's stated desire, in its data strategy, to create sectoral data spaces.
– **Certification standards:** Certification standards should enable third parties to evaluate operators and services participating in the ecosystem. These certifications could be presented to users to ensure greater confidence of all players in the circulation of data, following the model of rating agencies for financial flows.

[34] https://www.fiware.org/

[35] https://dutchmobilityinnovations.com/spaces/1105/maas-programma/articles/techniek/29506/maas-api-update-of-transport-operator-to-mobility-provider-api-v-1-1-released

# A DATA INFRASTRUCTURE FOR A MORE EFFICIENT JOB MARKET

— Mats Aström
Jobtech (Innovation department of the Swedish National Employment Agency), Technical Lead

## Introduction

*JobTech Development* is a unit within the Swedish Public Employment Service, in which we create a digital infrastructure for the Swedish labor market. We offer open APIs, datasets, and open source technology for those who, together with us, want to contribute to a well-functioning labor market. So far, all our projects are custom made projects. They serve one purpose connected through one user. To serve the labor market, we need to scale up, to create a standard. Multiple users, a general solution, is the key to make the infrastructure efficient.

## The current state of Labor Market in Sweden as we speak

Individual:
To apply for jobs, the jobseeker needs to fill in applications, personal information and send CV multiple times. They have poor control and structure over where they send their applications and personal information, it takes a lot of time to update new information and add new competencies and therefore the information tends to be poorly updated in all places.

Third party:
Third parties (for example job platforms such as *Visma* and *Recruito*) have drop offs from their websites because jobseekers need to fill out the same information over and over. They also meet jobseekers who only browse and not even start an application due to the same cause.

Employment agency (Swedish Public Employment Service):
The employment agency needs for the jobseeker to use their CV-service, as it is crucial that jobseekers apply for many jobs to get one. In order to be perceived as professional, the CV-data that comes from the employment agency needs to be updated and accurate. The employment agency also needs to help the jobseekers to get better control over their data/information to increase the matching and the efficiency of the labor market. The jobseeker needs to be able to easily apply for jobs, update ONE CV, re-use it and handle their CV-data.

## Problem statement & hypothesis

Today I lose a lot of time and opportunities by having to re-enter always the same information that is not kept up to date for employers. As an individual/a person, I want to be able to share/circulate my personal data between digital services (i.e. have control over my data), so that I get better professional opportunities thanks to an-up-to date CV. Building a service as part of an infrastructure that is available for (connected to) various services and giving individuals the opportunity to see and decide how to use their data might solve the problem. For the employment sector, this means connecting my data from my university, my training organizations, all my employers, my public services and several platforms to give or revoke access to my skills, jobs, curriculums; this will guarantee users have an always up-to-date and precise resume for employers to interact with.

## What we have already done

Opensource tools to:
- Enable jobseekers to share and re-use their CV stored inside the employment public service with third party systems.
- Share unemployment data with insurance companies (amongst others)
- Enable jobseekers to use the employment service CV in Europe through the platform EURES (European Job Portal)
- Consolidate all the gig-economy based profiles of a user, that are scattered across several platforms
- Create a distributed and decentralized CV-data storage

## Conclusion

In a time of automation of tasks, changing industries and economic crisis, people will have to quickly change jobs and their skillset. A precise and quick access to skills data will allow for better job and training recommendations and better targeted public action in function of economic demands. This access to personal data must be human-centric in order to preserve people's individual freedoms. Our several works and projects on the subject have taught us that particular projects from one single stakeholder do not scale, we need a wide initiative to create a new infrastructure and standard. It is why we support *aNewGovernance* and its Skills Alliance to unite organizations from all over the world to work and test this new human centric infrastructure. Multiple users, a general solution, is the key to make the infrastructure efficient.

## CONCLUSION

Europe has a historic opportunity to play a central role in the major technological developments of the 21st century. The entry into force of the GDPR in 2018 and the new EU Data Strategy – presented in February 2020 and placing at its heart the creation of an infrastructure for the free flow of personal data – could help to make Europe a leading technological continent.

The governance body and the technical infrastructure we propose to put in place, using a collaborative approach, make it possible to implement this vision. Without coordination and pooling of efforts, this new economy will not benefit all the players in the ecosystem. Without an architecture centred on the individual and their rights, we will remain captive to a model of personal data circulation centred on Big Tech platforms. While establishing respect for rights, and in particular privacy, as a *sine qua non*, the potential for creating a new type of service, closer to the individual and their objectives and needs, has never been more tangible.

We must now find the courage and initiative to think outside the box and build together this new infrastructure that will benefit everyone. The power of Big Tech, which dominates the digital space, can only be counterbalanced by a massive and coordinated involvement on the part of all economic actors. Without this union of different sectors and types of actors, we will not achieve the critical mass and value necessary for a change in practices. The biggest risk we run is that this opportunity will pass us by due to a lack of vision, investment and boldness.

An initiative involving players of all sizes and from all sectors, both public and private, will enable the creation of this new human-centred global information system. The first contributors to this major project will have a clear advantage over those who were not able to reach this turning point. The free circulation of personal data, under the strict control of individuals, will also promote the development of a more ethical artificial intelligence, by placing the individual at the heart of the information-gathering process. Finally, this new layer of the Internet will bring more knowledge to society as a whole and accelerate the digital transformation of businesses, while empowering individuals.

# DIGITAL NEW DEAL

## THE NEW DEAL THINK TANK

The aim of the Digital New Deal think tank is to shed as much light as possible on the developments at work within the phenomenon of "digitalisation" (in the widest sense of the word) and to develop concrete courses of action for French and European companies and decision-makers. With the expertise of the various contributors and their insertion in the public debate, the work of the think tank will be able to play a part in the development of a French and European understanding of digital regulation supporting the implementation of a balanced and sustainable framework.

### The Board of Directors

The members of the Digital New Deal Board of Directors are all founding members. They come from various backgrounds while having direct contact with the digital transformation of companies and organisations. Given their shared interest in digital issues, they decided to deepen their debate by creating a formal framework for production and publication within which they can dedicate their complementary experience to serve public and political debate. They're personally involved in the life of Digital New Deal.

An executive officer (Arno Pons) is responsible for strategic steering with the founding chairman (Olivier Sichel) and supervises a project manager (Louis Magnes), that coordinates all the think tank's activities.

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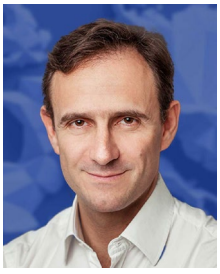
**Olivier Sichel**
President Digital New Deal
DGA Caisse des Dépôts



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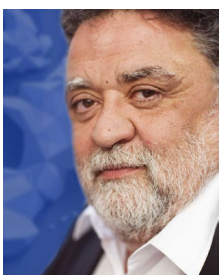

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