DATA BROKERAGE TAX

A feasibility report on applying a sales tax to online transations of personal data

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This paper was written by Gemma Galdon Clavell and the team at Eticas. It is part of a collaboration under Ashoka's Tech & Humanity initiative, a global network of leading social entrepreneurs committed to ensuring tech works for the good of people and planet. This community is concerned about the societal and environmental harms of the data economy and is building innovative frameworks and tools to mitigate these harms.

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Introduction

Uncovering the hidden world of personal data

Personal data is the real engine of a bigger machine, the personal data ecosystem. The personal data ecosystem refers to the complex network of entities that collect, process, and use individuals' personal data. It also includes the collection of personal data that is generated by an individual through their online and offline activities. This data can include information such as browsing history, location data, purchasing behavior, and social media interactions. For quite a number of reasons, the personal data ecosystem is quite complex by its own nature and not immediately understood as it is invisible to the naked eye. Data brokers are one of the main parts of this complex machinery and they play a significant role in the personal data ecosystem, as they facilitate the flow of personal data between various parties. Data brokerage is the business of collecting and selling personal data to interested parties, such as marketers or advertisers. Data brokers often acquire this data from a variety of sources, including social media companies, retail websites, and mobile app developers. However, data brokers often operate in the shadows and the vast majority of data owners remain unaware about what is happening in the digital world with their personal data. This has raised concerns about the privacy and security of individuals' personal data, as well as the potential for abuse and misuse of this information.

Taxation could be a viable option to bring out this hidden market in the sunlight and make it more transparent. One way that personal data and data brokerage can be taxed is by implementing a tax on the sale of personal data. This could incentivize companies to be more transparent about how they collect and use personal data. In the United States, Oregon and Washington have already introduced bills to impose taxes on the sale of personal data by data brokers modeled on a flat tax on the total amount of revenues. International institutions, such as the The Organization for Economic Cooperation and Development (OECD) and the EU, have not stood idly by and have proposed various legislative packages to be adopted in the near future by all member countries. In 2018, the EU launched a proposal for an interim tax at a 3% rate to be applied to the sales of personal data by big firms. This has prompted several EU countries to adopt national digital services taxes (DSTs) with Belgium and Spain clearly including the sale of personal data as taxable activities. Domestic DST regimes, however, suffered a setback following the US reaction claiming that such taxation was discriminatory against major US big firms. In 2021, the OECD adopted a Two-Pillar Solution clarifying in the Pillar One that pending a shared agreement all national DST systems had to be withdrawn. In this study, we will explore the personal data ecosystem, the role of brokers and discuss the implications of a taxation scheme on the sales of personal data.

Who is handling our data?

Mapping data environment and key players

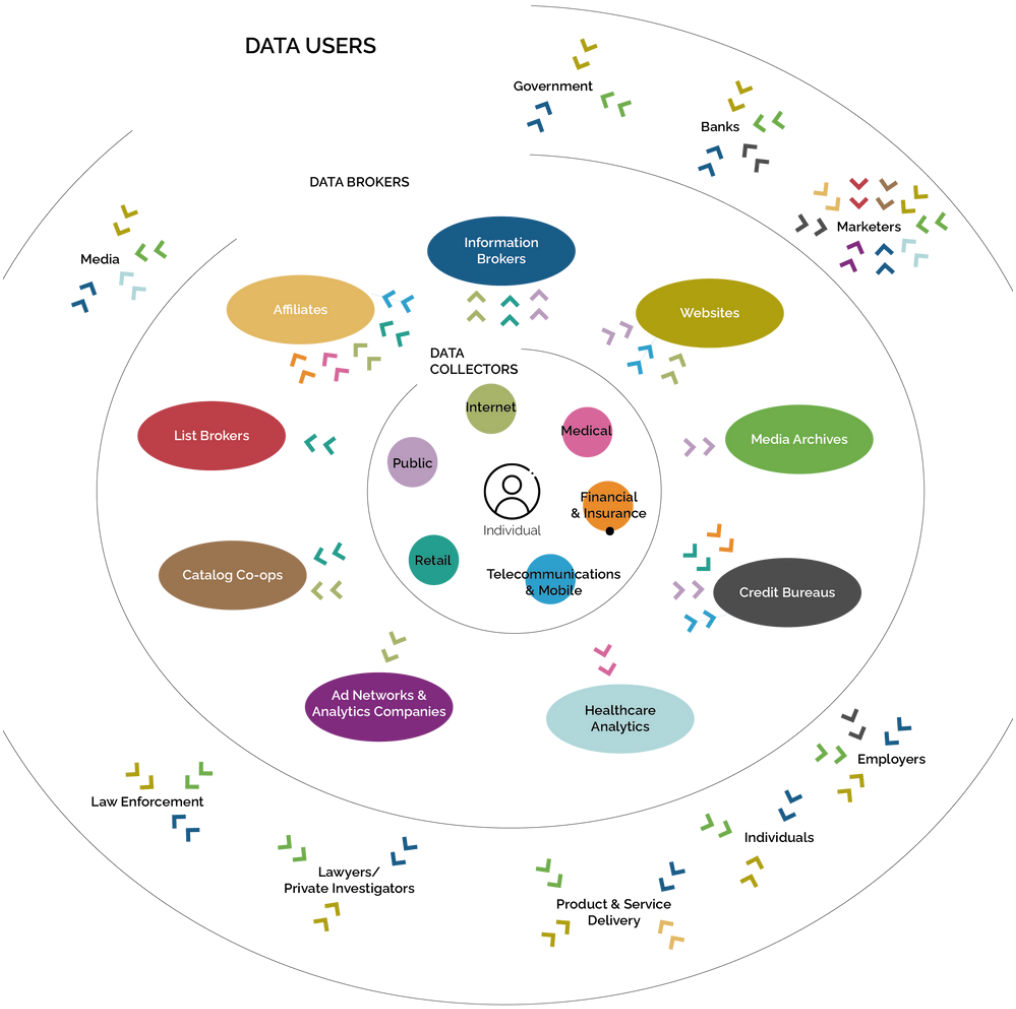
The personal data ecosystem

Personal data is continually requested, exchanged, monetized in today's online transactions and, in most of the cases, without our knowledge, our personal data is often in the hands of several key players of the virtual world who are part of what is called the data ecosystem. Ecosystem as a term, in general, refers to a functioning whole in a given area (Poikola et al., 2010). Data ecosystem, in fact, refers to that complex maze of interactions between different actors and key players who see personal data as a valuable good. A data ecosystem, indeed, relies on raw data that is seen by various actors as a commodity (Oliveira and Lóscio, 2018), which as such is capable of generating utility and values. At the same time, the very definition of a data ecosystem turns out to be contested and rich in different nuances and contents. For Pollock (2011), data ecosystems, as opposed to the "one way street" basic model for data processing, are characterized by the presence of feedback loops and data cycles that give to individual data an additional value when compared to its original one. Poikola et al. (2010) see data ecosystems as a multi-level and multidimensional entity where the raw data material is the main target of cooperation between different actors.

The centrality of the element of cooperation is also stressed by Adner and Kapoor (2009), who see data ecosystem as an exchange network characterized by simultaneous cooperation and competition, and Koontz and Bodine (2008) highlighting the importance of stakeholder and interagency cooperation. Another approach put forward by Ubaldi (2013) divides ecosystems into three different categories, ecosystem of data producers, ecosystem of infomediaries and ecosystem of users where interaction, communication and cooperation among those three circles is necessary for the proper functioning of the whole data ecosystem. It follows that the more ecosystems exist, the more cooperation is needed. However, these and similar approaches (Evans, 2003; Hadzic and Sidhu, 2008; Zubcoff et al., 2016), end up focusing on managerial, participatory policy and structural aspects of the entire ecosystem rather than on data as such. A data ecosystem is first of all such due to the presence of the main subject, namely the data, collaboration, interaction between subjects is an incidental, not foundational element of it.

This means that a data ecosystem is a complex circular system where the set of personal data is the central element and the prerequisite of the whole data ecosystem circle. All the key players of such a global ecosystem collaborate, relate to each other, and have extensive or less commercial relationships on the assumption of the existence of data in both real life and online. It is the data that takes center stage, not the power relationships and relationships between the different actors. And, from that basic assumption, at least a few decisive considerations arise. First, all participants in the data ecosystem are created, are growing and developing in conjunction with the expansion of data, the more data (big data) is available the more actors appear in the ecosystem. Data ecosystem's actors, at the same time, derive their legitimacy from the presence of the data online, this means that if the data suddenly disappeared then all the actors would no longer make sense to be out there. Last but not least, it is the intrinsic value of the data that drives the entire data ecosystem and that pushes actors to cooperate and deal on a daily basis.

Back in 2010, the U.S. Federal Trade Commission (FTC), an independent federal agency protecting competition and protecting consumers in the United States, released the staff report "Protecting Consumer Privacy in an Era of Rapid Change" which still remains very topical to date for both clarity and the overall understanding of the concrete functioning of the data ecosystem.



Graphic 1: Personal Data Ecosystem. Source: Federal Trade Commission (2010)

As can be seen in Table 1, the individual's personal data is at the heart of the system and the only one source generating the entire functioning of the data ecosystem's mechanism. This further confirms our hypothesis that it is the intrinsic value of shared personal data that legitimizes and sets the market operators in motion. It is then clear that a vast array of personal information that people (data owners) choose not to disclose with anyone are actually shared with complete strangers that operate in the often shadowy ad tech and data broker ecosystem where companies have a profit motive to share data at an unprecedented scale and granularity (Cohen, 2022). Individuals' personal data, thus, are being shared, willingly or not, with some key players (i.e., data collectors) which includes retail companies, public institutions, telecoms and mobile operators, and shared for medical purposes or on the Internet at large. At that point, individuals' personal data is bought to be collected by other parties (data brokers) in order to be then sold to a wide array of final subjects (data users). The entire data ecosystem is thus composed of that intertwining of relationships that involve the owners of personal data and the data users at the two extremes and in the middle other intermediate subjects, collectors and brokers, who base their business on data exchange and on the assumption that data has an intrinsic value. After all, data being at the center stage of the ecosystem makes sense of the whole, not only to the main key players but also for the legitimacy and resilience of the entire process. Collaboration between players is only a mere consequence.

Data, from owners to users

The centrality of data within the whole data ecosystem is also partially explained by the path that personal data travels which, starting from the initial subjects and to which the data mainly refer, end up with final consumers who, paradoxically, could also be other individuals. Data owners, however, in most of the cases are people, individuals of flesh and bone. It should also be noted that for the purposes of this document data owners are not the entities owning a legal ownership of a certain dataset that might be collected or disseminated by another party (OECD, 2002) or a given government institution in charge of collecting, processing and storing of individuals personal data (Bandi et al., 2020:94) or a large organization owning large datasets (Curry, 2021:9). In fact, the ownership of a specific dataset can be well subsequently acquired by subjects unrelated to the original data owner, but this is not sufficient to qualify these subjects as data owners for our purposes. Data owners are those individuals to whom the data refers from the origin and who own the original authorship. In a way, data owners overlap with the concept of data subjects rights that the General Data Protection Regulation (GDPR) 2016/679 [1] whose protection is guaranteed with reference to the common natural person (Sharma, 2020:53). The release of personal data from individuals who are the data owners is the fuse that ignites the data ecosystem's machine.

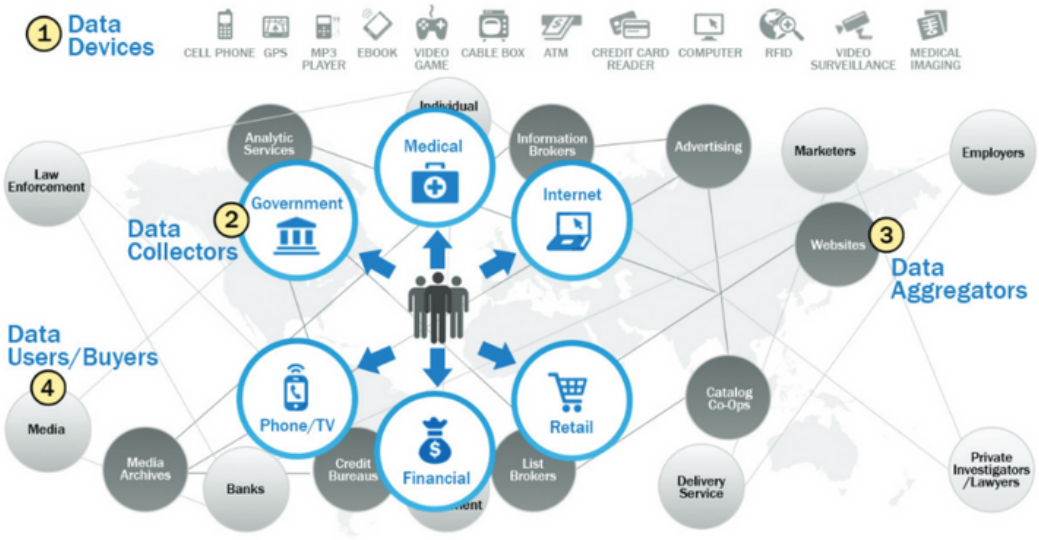
Data can be handed over by data owners in a variety of ways, thus triggering the set in motion of a data ecosystem. For example, the owners of personal data can voluntarily transfer them when they carry out various online operations that explicitly require data for their functioning. The subscription to a social network, the purchase and sale of tickets online, the subscription of an insurance policy online, are just some of the services that usually require voluntary data release. Other ways of handing over data are involuntary and materialize regardless of the will of the individual data owners like in the cases of observation and inference (OECD, 2015:40). Whatever the case may be, a huge amount of personal data exhaust their trajectory within each data ecosystem ending up in the hands of final subjects, data users, interested in obtaining ownership for various reasons. In other words, data users are the final customers of the data and they can be individuals or other organizations (Andress and Leary, 2017). Data users buy data, especially big data, because owning the data can give them a massive competitive advantage in the market that translates into significant economic return. Data users, for instance, can include law enforcement agencies (LEA) that can and does purchase location data (Morrison, 2021), banks that can collect data to analyze clients' incomes and expenditures (Ostapchenya, 2020), private investigators and lawyers buying cell phone records in seek of evidence against cheating spouse in divorce cases (Matwyshyn, 2009:59) and many others.

[1] REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), available at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679&from=EN

The path of data, in the simplest case scenario, sees individual data owners handing over a piece of information to data users. Needless to say, the whole data ecosystem also calls for a wide range of intermediaries and other entities that are placed right in between data owners and users. Anyhow, comparing owners and users of data helps to better explain how the data is worth for the different parts on the opposite fences of the ecosystem.

Aggregators and collectors of data

In the midst of data owners and data users, data is intercepted by different intermediates of the complex chain of the data ecosystem. One of the first key players that come into possession of other people's data is undoubtedly those that are defined as aggregators or collectors of data. The first question that arises is who they both are, what they do and how we can distinguish, if it makes sense, one from the other. The (big) data ecosystem as shown in Graphic 2 takes into account the presence of both aggregators and collectors.



Graphic 2: Emerging Big Data Ecosystem. Source: Dietrich et al., Data Science and Big Data Analytics: Discovering, Analyzing, Visualizing and Presenting Data (2015)

Who collects data from several online sources, providing some value-added processing and repackaging the result in a usable form is data aggregator (Loshin, 2013). In the simplest term, data aggregators are those players who aggregate data. Big data, obviously, is their main playing field. They amass a huge amount of online and offline information about people, including their habits, travel patterns, government databases (FTC, 2014) retail stores, websites and other data from the internet (Dietrich et al., 2015:17). By accumulating a large amount of data at once, data aggregators use the techniques of standardization and uniformity (Brose, 2014 :255) as means for economic profit.

Collectors, on the other hand, simply collect and do not aggregate data. This means that collectors do not give data an additional value like aggregators do. Collectors are mere entities that collect data from the device and users (Dietrich et al., 2015:17), not more. In our case, retail stores, websites, including big names like Google or Facebook (D-CENT, 2015) are merely data collectors that data aggregators use to cherry-pick data and then aggregate it. So, yes, it makes perfect sense to distinguish the two categories of data aggregators and data collectors as each of them correspond to a different degree of involvement in the data ecosystem and different ways of viewing data values.

Data brokers

a) Brokering data, who are the brokers?

Data is at the heart of data ecosystems and data brokers are the main actors within it for one simple reason: they maximize the usefulness and value of each single piece of data. But one question still remains open, who the data brokers really are and what they do in practice. Although the definition of a data broker seems contested as there would appear to be no authoritative definition on either side of the Atlantic (Open Society, 2016) and also the Organisation for Economic Co-operation and Development (OECD) has also warned that it does not exist. a standardized classification definition of data brokers (OECD, 2013), defining or identifying data brokers is less difficult than one might expect. One way to look at brokers is to see them as a particular type of data aggregator. Data brokers are players who simply aggregate data from a diversity of sources (Schintler and McNeely, 2022:268) and whose true meaning ends up matching with other labels like data aggregators, consolidators or resellers (Kitchin, 2021:153). In this understanding, the two terms, data brokers and data aggregators, are essentially the same and overlap with each other. However, this approach is misleading and a harbinger of many confusions of meaning. While it is true that data brokers are in the vast majority of cases acting also as data aggregators, yet the reverse is not always true. Data aggregators, in fact, could be limited to collecting data and waiting for other subjects to step in, namely data brokers, to ask for them in exchange for money. This helps to further explain why data brokers and data aggregators are not two overlapping terms. From this follows an intermediate premise, namely:

Data brokers are some key players who may or may not aggregate data.

In any event, and in contrast to what has been stated by the data brokers report of Open Society (2016:3), an authoritative definition [2] of the term data brokers seems to exist both in Europe and in the United States.

[2] To qualify as authoritative, a definition must come from a prominent institutional source.

In Europe, the Article 29 Working Party (Art. 29 WP), the EU advisory body established by the Data Protection Directive which has been replaced by the European Data Protection Board (EDPB) as of 25 May 2018, made it clear that a data broker, by collecting data from different sources, sells information to companies wishing to improve the destination of their goods and services [3]. On a similar fashion, the European Data Protection Supervisor (EDPS) in the first instance, in 2014, stated that data brokers collect personal information about consumers and sell that information to other organizations (EDPS, 2014) for then confirming, in 2021, that data brokers sell consumer profiles to financial companies without permission or knowledge of the underlying data (EDPS, 2021). In the U.S., the Federal Trade Commission (FTC) also highlighted, in 2014, that data brokers are companies that collect consumers' personal information and resell or share that information with others (FTC, 2014) as data broker operations are the ones that aim to sell sensitive personal information of hundreds of thousands of consumers (FTC, 2014a). More recently, the FTC has also filed a lawsuit against a data broker, Kochava Inc., accused of selling hundreds of millions of mobile devices geolocation data that can involve the disclosure of sensitive data connected to several public and private locations (FTC, 2022). It follows that data brokers can be defined in a more comprehensive manner in this term:

Data brokers are some key players who may or may not aggregate data and whose main purpose is to sell data collected from other sources to data users and without the data owners being aware of this transaction.

Data brokers are, thus, not merely aggregators or collectors of data as they go further by selling those data being earlier aggregated or collected, in most cases, by other actors. In addition, data brokers play the role of key players within the data ecosystem for a variety of reasons. First, they act as intermediaries, more or less hidden, between the two parties positioned at opposite ends of the ecosystem, data owners and data users. Second, data brokers satisfy the data hunger of data users that close the data ecosystem loop. Then, data brokers maximize the utility of data that aggregators and collectors have previously grouped together. Finally, and paradoxically, the presence of data brokers (who act immediately as a medium, satisfying the needs of others and maximizing the value of the data) increases data entry into the ecosystem. The more data is placed, the more data brokers are needed and, vice versa, the more data brokers are present in the ecosystem, the more data is indirectly absorbed into the data ecosystem.

The actual identification of data brokerage could be complicated as many of them remain unclear and fuzzy. Being in the shadows, data brokers lack accountability. That being said, the Vermont legislature has passed a law [4] requiring data brokers to be registered in a list

[3] ARTICLE 29 DATA PROTECTION WORKING PARTY, Guidelines on Automated individual decision-making and Profiling for the purposes of Regulation 2016/679, Adopted on 3 October 2017 As last Revised and Adopted on 6 February 2018. 17/ENWP251rev.01. Available at: https://ec.europa.eu/newsroom/article29/items/612053/en

[4] Vt. H.764 (Act 171), https://legislature.vermont.gov/bill/status/2018/H.764

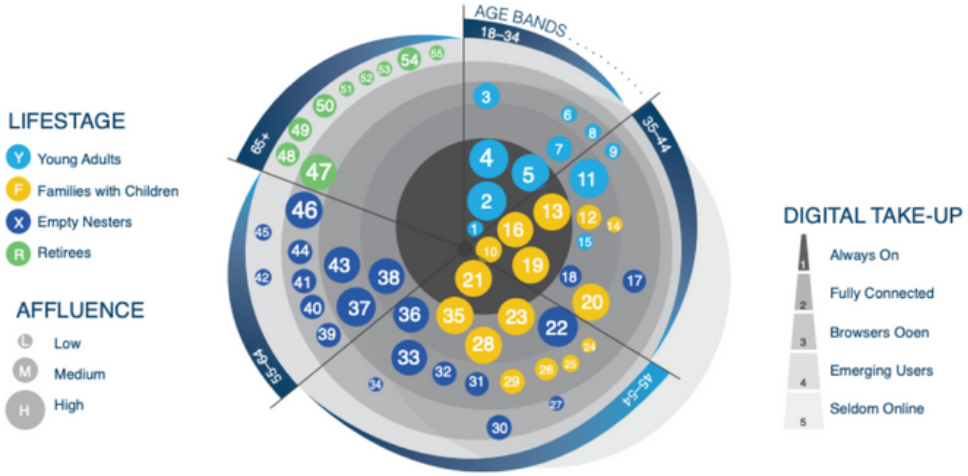
as of February 2019 (Melendez, 2019; Melendez & Pasternack, 2019). At that moment, the list is collecting names of about 121 data brokers operating in the United States, further confirming that the U.S. market is the main and fastest growing market globally. Indeed, although there are numerous data brokers active also in Europe, the European data broker landscape is not comparable to the U.S. market in terms of market size (Open Society, 2016:13). Some of the biggest names in the data brokerage industry like Acxiom, LexisNexis, Nielsen, Equifax, CoreLogic, Verisk, Oracle and Epsilon all have headquarters in the United States (Sherman, 2021). Acxiom, which is the largest data broker in both size and revenue by far, advertises the selling of entire U.S. households clusters based on behaviors and attitudes through its Personicx [5] LexisNexis in February 2021 signed a multi-million dollar agreement (Biddle, 2021) to sell personal data to the US Immigration and Customs Enforcement (ICE) and so forth. It is quite clear that data brokers are out there to sell data and make huge deals.

b) Brokers, which data are they brokering?

Being data characterized by a high intrinsic value as they reveal different characteristics of the individual, the data brokers are dealing with all of them. As far as data can generate some economic value, the data brokers will shape their business around it. Names, e-mail addresses, locations, criminal records, property ownership, browsing activities, insurance information and credits or debits reports are just a few examples of data that can end up in the hands of data brokers. Acxiom InfoBase [6] collects consumer names, addresses, and telephone numbers covering around 260 million individuals living in the U.S. and data of approximately 186 million households. Acxiom is also behind Personicx, which classifies the UK general consumer market into specific clusters using several data representing demographic, geographic, lifestyle and behavioral information. Each cluster is identified by a five-digit code that combines life stage, wealth, digital activity and age.

Another of the socioeconomic impacts on the territory where DCs are implemented is the lack of supplies, and specifically energy resources, that it can cause to the local population. For example, in the Netherlands, which is in a drought context, it discovered that Microsoft's DC was spending five times more water than it had promised and jeopardizing the water supply for the consumption of the local population.

[5] See: https://www.personicx.co.uk/
[6] See: https://www.acxiom.com/wp-content/uploads/2022/02/fs-acxiom-infobase_AC-0268-22.pdf



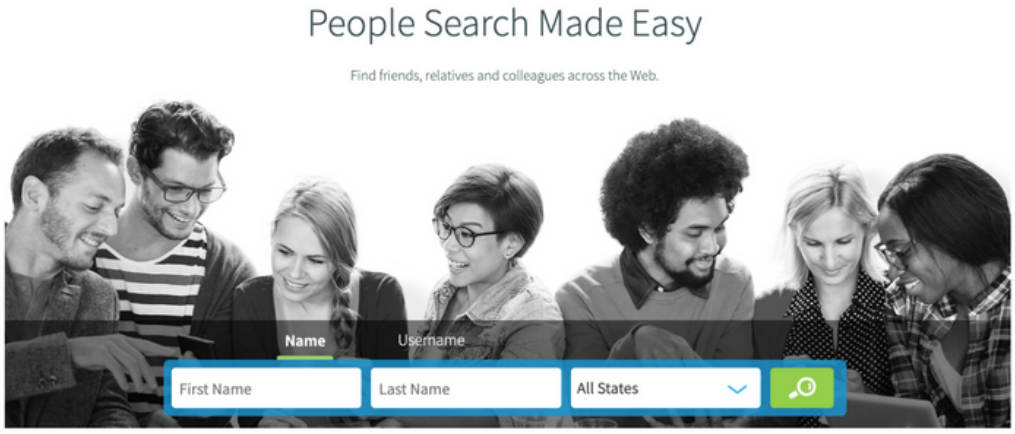
Graphic 3: The Personicx Eye. Source: Acxiom. Personicx, Overview

The Personicx Eye shows 55 different circles, which correspond to different clusters, that are classified according to age, lifestage, affluence and digital take-up. Clusters can be sold separately in packages depending on what the data users are aiming for. Lifestage clusters (Young Adults, Families with Children, Empty Nesters and Retirees) are in turn divided into several subclusters. Born Digital is a subcluster of Young Adults that group low income young singles, many of whom still live with their parents and are students, unemployed, or in first jobs. Cultural Connoisseurs is within the Empty Nesters' cluster and it includes married and tech-savvy professionals who use all channels to meet their needs and who prefer online shopping and commerce. Green Fingered Grandparents is a subcluster of the Retirees which include older retired homeowners who have enough money to live off and a little to spare, owning a variety of financial products, a store card, and a credit card which they always pay off in full [7]. PRIZM developed by the data broker Claritas and P$YCLE by Dataman Group are other two similar products (Dixon, 2013).

Equifax, another big name in the US data broker industry, collects debt loads, banking data and balances, credit card and mortgage payments and uses all that data together to capture a person's creditworthiness (Besteman and Gusterson, 2019:18). Pretty much the same thing is done by the data brokers 'rivals Experian and TransUnion that both provide data on individual's risk analysis and credit products and other economic and financial factors that measure the creditworthiness of certain categories of people. The data broker CoreLogic sells several data packages on real estate, mortgage and insurance information. Similarly, Verisk is offering data connected to insurance risks. Epsilon, other data broker players, proposes different kinds of data linked to the improvement of sales and marketing strategies. Experian [8], well-known Irish American data broker company based in Dublin, collects and sells thousands of customers data, including demographic and automotive data, business and financial data and also political profiling of individuals that predict votes for parties and even social attitudes and opinions.

[7] See, https://www.personicx.co.uk/docs/Personicx_Pen_Portraits_Full.pdf
[8] See, https://www.experian.com/marketing-services/targeting/data-driven-marketing/consumer-view-data

Clearview, one of the data brokers registered in the Vermont's list, stores and sells data on facial recognition and Tapad, which business is tailoring and targeting of advertisements for mobile devices and personal computer (Verbeke et al., 2021:350), collects data from cookies, cell phones IDs, Wi-Fi connections, website registration, browsing history and other inputs (McDaniel and Gates, 2020:172). AtData (formerly TowerData) offers data like demographics, interests and other purchase preferences linked to hundreds of thousands of email addresses that are stored in their online software. PeekYou uses data from social media and other online sources to find all the information available on the internet concerning individuals.



Graphic 4: PeekYou Search Bar. Source: peekyou.com

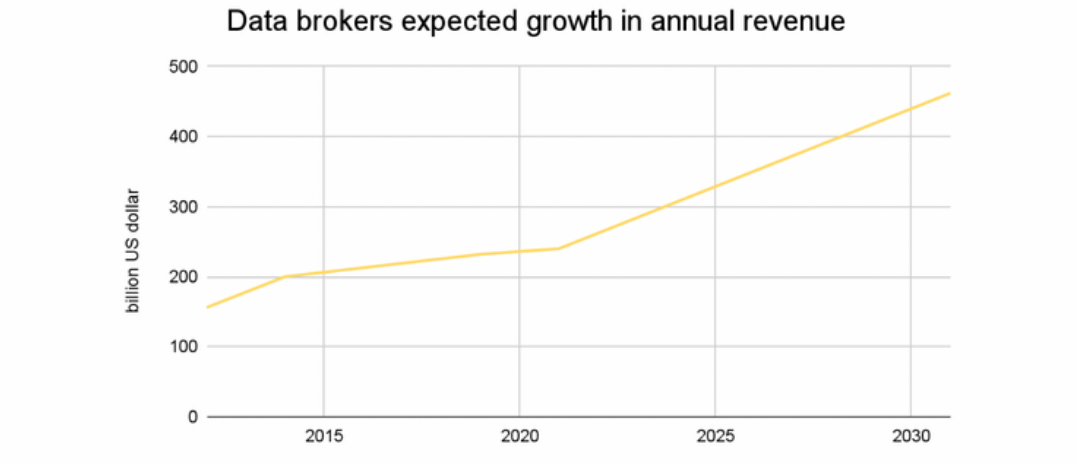
This means that data brokers are able to manage a huge amount of data, of a very different nature and purpose, to the exclusion of almost none or almost any type of information concerning individuals. And, of course, this means that the figure of the data broker is viewed with suspicion and fear by many, thus resulting in the establishment of numerous critical reports, legal proceedings and class actions at a global level. For instance, in November 2018, Privacy International, the UK charity based in London that works at the intersection of modern technologies and rights, filed a complaint against seven data brokers (Acxiom, Oracle, Criteo, Quantcast, Tapad, Equifax and Experian) and asked those companies to stop exploiting personal data by also clarifying that individuals have the right to request the deletion of data (Take Control of Your Data Campaign) [9]. More recently, the data broker giant Oracle was also hit with a class action lawsuit [10], after Oracle chairman and CTO Larry Ellison revealed the company was collecting data from 5 billion people in its ID Graph (Humphries, 2022). The class action lawsuit claims that by acting as a global data broker, Oracle has created a network to track in real time and indefinitely record hundreds of millions of individuals' personal information. It also claims that the seller sells such personal data to third parties directly and through its ID Graph product and other services based on personal data (Chervek, 2022). Last in order, the U.S. Federal Trade Commission (FTC) sued in August 2022 Kochava, a location data broker, for selling geolocation data from hundreds of millions of mobile devices that can be used to trace the movements of individuals to and from sensitive locations (FTC, 2022).

[9] See: https://privacyinternational.org/campaigns/take-control-your-data
[10] See: https://www.iccl.ie/wp-content/uploads/2022/08/File-Stamped-2022-08-19-Oracle-Complaint.pdf

c) Data broker industry constantly growing

Data brokers not only conclude countless personal data transactions almost per minute, but they grow in terms of new market slices at an astonishing rate. For that reason, the fast growth of the data broker industry/market is another crucial element that needs to be considered to understand the overall impact that data brokers have on a global scale and on the life of individuals. Exchange and sale of data have become an indispensable resource for the development of the increasingly digitized business models of our today's data-driven economy. The explosive growth of data in our economies in recent years has led to a corresponding increase in the indices of wealth and economy on a global scale, although the problem of the distribution of wealth still remains current (Ekbia et al., 2016). Data is now all over, collected on our smartphones, computers, televisions, vehicles and even where we wash our clothes. Brokers are data professionals, they buy, hold, intercept and sell data. This is called business. The data ecosystem is their field of action and a whole market that revolves around data as a valuable asset. What is more, in the data ecosystem, using Russell Walker's words (2016), big data means big profit.

Not surprisingly, the data broker market is constantly expanding and in full growth. This is mainly because any type of data about human behavior can be turned into a profitable source of income in this industry. Indeed, and arguably enough, data can also disclose a number of ethically questionable information like rape victims, alcoholics individuals and erectile dysfunction and AIDS/HIV sufferers (Dwoskin, 2013; Hill, 2013). In 2012 alone, the brokerage market reached US$ 156 billion in net revenues (Harcourt, 2016:198), in 2014 the same broker industry has likely peaked at US$ 200 billion in annual revenues (Harcourt, 2016:90) for then reaching US$ 232.634 billion of revenues in 2019 (Blueweave, 2021). The overall growth of the data brokers' market does not seem to know any declines as in 2021 it was valued at US$ 240.3 billion, it is estimated to grow at a CAGR of 6.8% from 2022 to 2031 and is expected to reach US$ 462.4 billion by the end of 2031. (TMR, 2022). The data broker market is, therefore, constantly accelerating and the projections most likely will see the brokerage industry more than triple in value in the coming years compared to the first projections revealed in 2012.



Graphic 5: Title: Data brokers' industry annual growth. Source: own production

Data brokering is a volume business and the more data records a data broker has, the better they can create profiles and predictions about human behavior, and the more value they can get from the data they hold, because the collection of personal data is a valuable activity and the multi-billion dollar industry of data brokers benefits from it. (Scotorenko, 2017). In addition, this valuable activity is increasingly accessible, thanks to the growing creation of connected environments with IoT technology, which enables the interconnection of devices, generating massive behavioral data derived from the connection between people, machines, objects and devices. This growing ease of synthesizing and integrating thousands of pieces of data from IoT records, plus the ability to apply artificial intelligence and advanced analytics to process it, are encouraging several players to invest in data monetization. Therefore, and as the market projections already clearly reveal, the data brokerage industry will continue growing at an impressive rate that remains difficult to predict with certainty today. Data accountability, however, does not seem to be sufficient yet and a major problem to be solved in the near future.

By saying that data brokers are not accountable enough, it simply means that the data brokers' companies are not paying for what they trade, namely the data.

Sales taxation

From tangible to intangible goods

Taxing sales

Historically, sales taxes have been conceived, modeled, and applied only to the range of so-called tangible goods and products. Tangible is anything that can be touched, seen, weighed, measured, felt, or perceptible by the human senses. Sales taxes were also, in principle, defined as "any tax which includes within its scope all business sales of tangible personal property at either the retailing, wholesaling, or manufacturing stage, with the exceptions noted in the taxing law" (Haig et al.,, 1934) whereas the tangible adjective referring to the good played a key role in understanding the bulk of the sales tax.

Starting with slave sales at auction in the Roman Empire (Bartlett, 1994; Günther, 2014; Meyers, 2021) and Ancient Greece, going through the taxation on the sale of cooking oil in ancient Egypt (Dillon and Garland, 2010) and ending with the modern forms of taxation on sales in the post-war period in Europe (Hines Jr., 2007; Hardach, 2015; Starr, 2019; Pomp, 2022) and the United States (Brownlee, 2004; Morgan and Prased, 2009; Glass, 2012) where the taxation was affecting products transferred in the exercise of entrepreneurial activity, sales taxes were all applied to tangible assets. It is therefore clear that intangible assets were not at all considered by the first forms of taxation on sales for the simple fact that they did not yet manifest themselves in the civilizations of the time. Thimmesch also emphasized that among the intangible assets:

"Sales of data and digital products have historically not been in the tax base because state sales taxes were adopted in the 1930s and thus applied primarily to the sale of tangible personal property and to some services." (2016:171)

It goes without saying that with the rise of technological information and the digital world, everything has changed and the old tangible transactions are slowly being replaced by intangible ones. As opposed to tangible, intangible goods are those entities that are not susceptible to being physically touched and that escape the human senses. Customer lists, patents, goodwill, intellectual property, trademarks, electronic and cryptocurrency transactions, among all processes, are all intangible assets. Personal data, clearly, cannot be touched. It could therefore be argued that there is nothing more intangible than the sale of personal data. Personal data are intangible and their sale, which takes place in the virtual market through online transactions, represents a purely intangible means of passage from the "hands" of the seller to "those" of the buyer. The sale of personal data, thus, might be seen as an intangible transaction of an intangible good. But what does it mean that an asset is intangible? As for the Organisation for Economic Co-operation and Development (OECD), intangible assets also known as knowledge assets or intellectual capital are assets that do not have a physical or financial embodiment (OECD, 2014) and that can be classified into three different types. A first group is that of computerized information (such as software and databases), the second is innovative property (such as scientific and non-scientific research and development, copyright, design, trademarks) and a final one refers to the economic competencies (including brand equity, specific human capital, networks that bring people and institutions together, organizational know-how that increases business efficiency, aspects of advertising and marketing) [11].

Following the emergence of both digital technologies and online commerce, the old tax disciplines have been put to the test and still struggle to provide an effective response today (Eisenstein and Carey, 2014). In particular, the debate on how and to what extent taxing the sale of intangible assets has largely focused on two main themes, transactions that take place through e-commerce channels and the sale of computer software. On the one hand, it is the same nature of e-commerce that makes taxation difficult. E-commerce is intangible and multi-jurisdictional at once, posing great challenges to tax authorities as it is difficult to track in cyberspace (Doernberg, 2001:388). In other words, online e-commerce transactions exacerbate the problems globalization poses for tax collection as it comprises a complex intersection of developments in information technology and multinational taxation issues (Basu, 2016:90). Taxing e-commerce sales, therefore, implies a certain degree of international cooperation in tax regulations and advanced techniques for identifying real and concrete transactions occurring in the online world. In any case, the application of sales tax to e-commerce transactions is a necessary choice to be made and a measure of social equity as argued by Fox and Murray (1997) who have made clear how neutrality and horizontal equity would justify the taxation of online sales.

[11] See: OECD, A new OECD project New sources of growth: intangible assets, available at https://www.oecd.org/sti/inno/46349020.pdf

According to the principles, states should seek to tax electronic commerce and telecommunications services as functionally equivalent to tangible goods and services by taxing them in the same fashion (Fox and Murray, 1997:581).

The sale of computer software, IT products and services, on the other hand, was the other main topic that has sparked a heated debate on whether to introduce a sales tax for intangible goods. In that case, however, as we shall see, lawmakers have found a different way out to justify the taxation of sales. It all started with the vexed question of whether or not computer software should be considered intangible assets. This debate, for some reason, has been very topical in the United States. In 1969 [12], the Internal Revenue Service, which is responsible for enforcing U.S. federal tax laws, was one of the first authoritative bodies to declare computer software as intangible goods, soon after a growing number of court decisions confirmed this line of argument. The first of them was the leading case District of Columbia v. Universal Computer Associates [13] where the court held that the sales of computer software between Universal and IBM had to be seen as an intangible good and therefore not subject to taxation. The Court, in reaching the conclusion, relied on the argument of "software as knowledge" as the crucial element of the transaction was the value of the information the buyer bought rather than the material element (Cowdrey, 1983:187). Along the same lines, few years later, Commerce Union Bank v. Tidwell [14] was the first case to consider computer software under the sales tax lens. The sole issue involved was whether the computer software constituted tangible personal property, which would render the purchases taxable under the Tennessee sales and use tax law (Schrotenboer, 1985:109). In concluding that computer software was not tangible personal property, the court held that: "What is created and sold here is information, and the magnetic tapes which contain this information are only a method of transmitting these intellectual creations from the originator to the user. It is merely incidental that these intangibles are transmitted by way of a tangible reel of tape."

Following the District of Columbia and Commerce Union Bank rulings, the vast majority of court's judgments ended up confirming the intangibility of IT softwares. Nonetheless, the trend has recently appeared to be undergoing a change of direction. Last May 2019, the Supreme Court of Alabama [15], registering a U-turn from its long-standing interpretation on computer software, ruled that the transactions involving the sale of custom computer software and related equipment were subject to the state's sales tax. The case involved a refund request from an Alabama hospital, addressed to the Alabama Department of Revenue, following the purchase of a computer software and related equipment from a software vendor to help manage various aspects of the hospital between 2012 and 2014 [16].

[12] See: https://www.taxnotes.com/tax-notes-state/electronic-commerce-taxation/transaction-taxes-information-technologies-threat/2014/12/22/b81d
[13] See. https://law.justia.com/cases/federal/appellate-courts/F2/465/615/290340/
[14] See: https://www.leagle.com/decision/1976943538sw2d4051937
[15] See: https://acis.alabama.gov/displaydocs.cfm?no=946019&event=5HI0LDAEX
[16] See: https://taxnews.ey.com/news/2019-1004-alabama-high-court-finds-all-software-is-tangible-personal-property-subject-to-sales-tax-nontaxable-services-should-be-separately-stated-invoiced

The court, in rejecting the hospital's request, found the computer software to be tangible personal property for Alabama sales tax purposes, regardless of whether it was canned or custom while the related services (like the software installment or other ancillary tasks) if separately stated and invoiced were not taxable. The Alabama ruling reveals a simple strategy for taxing assets historically classified as intangible: consider them tangible. In figuring out whether or not to apply a sales tax on a particular good, product or service, the preliminary problem still seems to be the solving of the tangible/intangible riddle. A way out could be to interpret intangibles as hidden tangibles, like in the case of Alabama, but this exposes to many risks and uncertainties that are difficult to resolve.

In almost all contemporary states, the intangible assets, goods and services continue to be excluded or exempted from the application of sales tax. At the same time, all sales of tangible personal property are subject to tax unless a specific exemption applies, which means that the parties must determine whether an exemption covers the sale of goods when a tangible personal property is part of the transaction (Noonan and Endres, 2011). This further confirms all the mentioned complicacies and how subtle the distinction between tangible and intangible assets can be in certain transactions that combine with each other. It would be enough to mention the case of the Internet of Things where an ever increasing number of technological products unite more and more the physical and virtual world in a single object (Sales Tax Institute, 2020) thus confounding the tangible and intangible dimensions of the transaction. Most of the European countries have not yet adequately taken intangible assets into account for taxation, albeit with some exceptions (such as Germany which issued a ministerial circular [17] clarifying that transfers of intangible assets, such as goodwill or customer lists, should be treated as a service for German VAT purposes). In the United States, the situation is not very different considering that the vast majority of states qualify transfers of intangible assets as irrelevant for sales tax purposes. West Virginia, for example, lists intangible property (like the sale of copyrights, royalties, notes, bonds, etc.) under the "per se" exemption rule which are those exemptions that do not require a separate exemption document as proof of the exempt status [18].

Taxing data brokers and digital taxation

With the advent of massive digitization that has led to the spread of an ever-increasing number of online activities that have supplanted those that previously occurred in the material world, people and institutions have become aware of the inadequacy of the old tax legislation regimes. While on the one hand the taxation of sales still seems rigidly anchored

[17] See: https://www.mondaq.com/germany/sales-taxes-vat-gst/142200/transfer-of-intangible-assets-qualifies-as-service-for-vat-purposes
[18] See: West Virginia State Tax, Sales and use tax exemption. https://tax.wv.gov/Documents/TSD/tsd300.pdf

to material, physical and material transfers, on the other hand the transfer of intangibility or by intangible means requires a decisive change of direction that many jurisdictions are starting to understand and implement. This is happening in both Europe and the US. Most likely, one of the reasons that push for this change of perspective is the acknowledgment that through intangible transactions, replacing the tangible ones, commercial operators or other subjects in the supply chain aim to completely evade the sales tax regimes. In other words, the two principles of neutrality and horizontal equity (Fox and Murray, 1997) seem to justify the change at the theoretical and social justice level. Among all the digital activities covered by both EU and OECD's digital tax proposal, which we will discuss shortly, the sale of personal data in the digital space seems to play a key role in raising awareness that this tax is now more necessary than ever. To sell personal data, on the one hand, corresponds to selling something that belongs to us as like material objects, and on the other, the sale of personal data is a transaction that potentially involves the data of each of us and is therefore something that has to do with the totality of human beings and, in this sense, it needs a global response.

a) Oregon and Washington in the US

Starting with the United States, there are at least two legislative proposals that deserve to be highlighted: that of Oregon and of Washington. The legislators of both US states, as though enticed by data brokers' business model, have introduced bills to levy taxes on the sale of consumers' personal information (Smith, 2021). Last January 11, 2021, the Oregon Legislature proposed a bill, the House Bill 2392 [19], for taxing all the businesses involved in the selling of personal information at retail within the state. The tax will apply to personal information accumulated from the Internet related to all individuals using Internet Protocol addresses which are located in the state. Section 1 of the Bill clarifies the meaning of personal information, which encompasses the elements that identify, relate, describe or may be associated with an individual, and which individual elements constitute that individual. Personal information can be inferred by the following elements:

"name, physical address or other location information, telephone number, electronic mail address, internet protocol address, signature, physical characteristics or description, biometric data, driver license number, state identification card number, passport number, social security number or other government-issued identification number, bank account number, debit card number, credit card number or other financial information, insurance information, medical information, employment information, educational background information, browser habits, consumer preferences, and other data that can be attributed to the individual and used for marketing or determining access and costs related to insurance, credit or health care."

[19] See: https://olis.oregonlegislature.gov/liz/2021R1/Downloads/MeasureDocument/HB2392

Oregon's Bill proposes a tax of 5% on gross receipts generated from data broker sales, who, according to Section 3 of the Bill, should keep records, receipts, invoices and other pertinent papers related to the sale of personal data. Washington too adopted a similar bill, the House Bill 1303 [20], which following a first reading on January 19, 2021, was approved last January 10, 2022. The Bill, which regulates the taxation of the sale of Washingtonian's personal information and related data, adopts a 1.8% tax on data broker's gross income. Under Section 1, the Bill clarifies the underlying purpose of the intervention, that is the adaptation of the taxation in force to the new forms of commerce that have emerged with the new technologies that have made collection, analysis and export easier and faster. of large amounts of personal data from emerging business models such as data brokers. As opposed to Oregon's bill, the Washington proposal does not indicate elements linked to personal data, preferring to give a very broad definition of the latter which is according to Section 2 (c) any information linked or reasonably linked to an identified or identifiable natural person. However, a novelty of the bill is the clarification of some exceptions that do not fall into the category of personal data, including deidentified data, and personal data being sold for public interest, public safety or positive health outcomes.

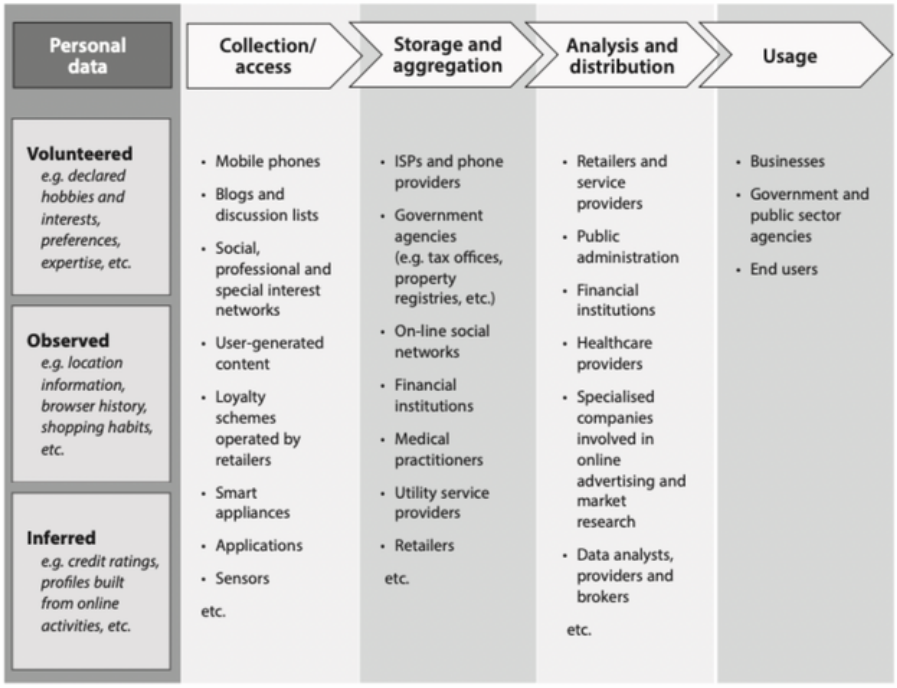
b) OECD and the EU

Digital taxation is the other major topic introduced mainly internationally and in particular within the OECD and the European Union. In 2013, OECD and G20 countries [21], adopted a joint 15-point Action Plan aimed at addressing the area of base erosion and profit shifting (BEPS). BEPS refers to several tax planning strategies used by multinational enterprises that exploit gaps and mismatches in tax rules to avoid paying tax [22]. Within these 15 BEPS actions, Action 1 - Tax Challenges Arising from Digitization is of crucial importance as it has been the top priority of the OECD/G20 inclusive framework since the start of the BEPS project. OECD's BEPS Action 1 is based on the need to give a rapid response to a series of elusive phenomena that digitalisation has brought to light, including the scale without mass, the reliance on intangible assets, and the centrality of data. Intangibility is a central theme within the BEPS Action 1 as "the emergence of new and often intangible value drivers have revolutionized entire sectors creating new business models while continuously eroding the need for physical proximity to target markets" [23]. In the October 2015 final report, OECD also mentioned the importance of personal data and how those can be exploited in the digital market. Personal data, indeed, can be used to generate productivity and quality gain at scale, through controlled experimentation and data are gathered in multiple ways. Personal data, as shown in Graphic 6, can be provided in many ways, voluntarily by users (for example, when registering for an online service); observed (for example, by recording Internet browsing activities, location data, etc.), or inferred (for example, based on analysis of online activities) (OECD, 2015).

[20] See: https://lawfilesext.leg.wa.gov/biennium/2021-22/Pdf/Bills/House%20Bills/1303.pdf?q=20221009094851
[21] The members of the G20 are: Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Türkiye, the United Kingdom, the United States, and the European Union.
[22] OECD, What is BEPS?. https://www.oecd.org/tax/beps/about/
[23] OECD, Action 1 Tax Challenges Arising from Digitalisation. https://www.oecd.org/tax/beps/beps-actions/action1/

This corresponds to the representation of a life cycle of personal data, where different actors (e.g., data brokers) are involved in different phases. As the digital economy is characterized by an unparalleled reliance on intangibles, personal data which are intangible goods par excellence poses a great and apparently unbearable challenge for the international community and the international taxation as they are difficult to trace, potentially capable of creating jurisdictional conflicts as the online transactions of data transcend national borders and are difficult to measure in terms of money.

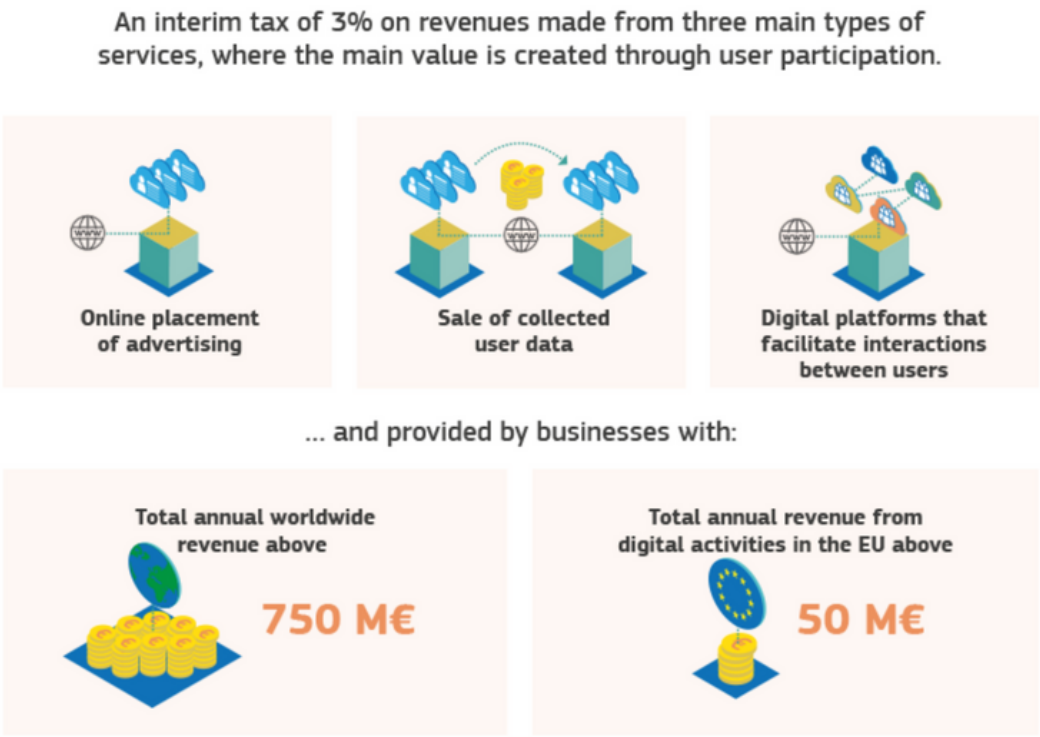
On 8 October 2021, the OECD also launched the Two-Pillar Solutions, which have been adopted by over 135 countries and jurisdictions, with the aim of reforming international tax rules and ensuring that multinational companies pay a fair share of taxes wherever they operate [24]. Under Pillar One, re-allocation of taxing rights, the OECD aims to set new rules in the allocation of taxing rights of business profits at an international level and provides for the standstill and removal of unilateral measures, such as Digital Services Taxes (DST) adopted at national level. Reasons for the DST removal are to be identified in the inefficiency of unilateral measures that may also lead to disputes between different countries, double taxation and trade retaliation. Unilateral DST will be, thus, replaced by an agreed method at international level, with a more efficient and coordinated approach, that will target services and revenues of the major digital companies under Pillar One [25]. Pillar Two, Anti Global Base Erosion or GloBE Rules, is designed instead to ensure that large multinational enterprises (MNEs) will pay a minimum level of tax on the income arising in each jurisdiction where they operate [26], introducing a global minimum corporate tax rate set at 15% for all the MNEs exceeding €750 million of revenue and it is estimated to generate around USD 150 billion in additional global tax revenues annually [27].



Graphic 6: Personal Data - Source: OECD, based on World Economic Forum (2011), Personal Data: The Emergence of a New Asset Class

[24] See: OECD, Statement on a Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy. 8 October 2021. https://www.oecd.org/tax/beps/statement-on-a-two-pillar-solution-to-address-the-tax-challenges-arising-from-the-digitalisation-of-the-economy-october-2021.pdf
[25] See: OECD, Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy Frequently asked questions, July 2022. https://www.oecd.org/tax/beps/faqs-two-pillar-solution-to-address-the-tax-challenges-arising-from-the-digitalisation-of-the-economy-july-2022.pdf
[26] See; OECD, The Pillar Two Rules in a Nutshell. https://www.oecd.org/tax/beps/pillar-two-model-rules-in-a-nutshell.pdf
[27] See: OECD releases Pillar Two model rules for domestic implementation of 15% global minimum tax. https://www.oecd.org/newsroom/oecd-releases-pillar-two-model-rules-for-domestic-implementation-of-15-percent-global-minimum-tax.htm

The EU is the other key player internationally for digital taxation. A first proposal was launched in March 2018 by the European Commission on the application of a renewed corporate taxation scheme with the aim of ensuring fair and effective taxation, driven by the many challenges that the digital transformation poses [28]. A second proposal on the application of an interim solution based on the creation of a Digital Services Tax (DST) on certain revenues from a list of digital activities was also revealed on the same day by the Commission [29]. The latter, in particular, triggered by the fact that digital businesses are left out from the existing laws insofar as they rely on hard-to-value intangible assets, and where user generated contents and data collection have become core activities for their revenues, aims to introduce an interim tax. This tax, as illustrated by the following graph, will apply to revenues created from all digital activities where users play a major role in value creation and which are the hardest to capture with current tax rules as the online placement of advertising (1), the sales of collected data (2) and the revenues generated by digital intermediary activities (3).



Graphic 7: Proposal 2, an interim tax - Source: European Commission, Fair Taxation of the Digital Economy

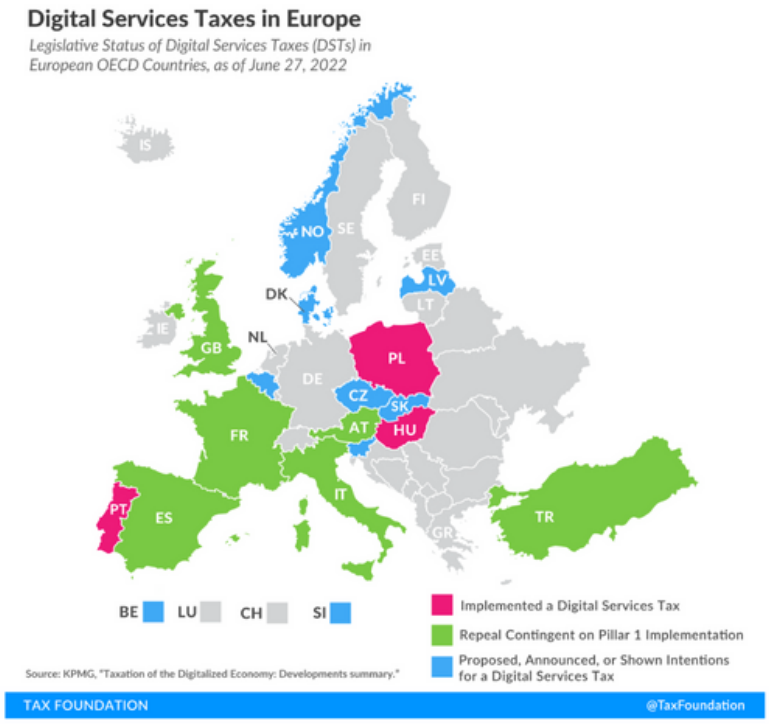
The interim tax, which expressly includes the taxation for the sales of personal data, will be, on the one hand, levied by the Member States of residence of the users, and, on the other, will affect only the biggest firms, the ones with more than €750 million of revenues worldwide and €50 million of revenues in the EU. The European Commission estimates that the interim tax, if applied at a rate of 3%, will be able to generate about €5 billion in revenue per year for each EU Member States.

[28] European Commission. Proposal for a COUNCIL DIRECTIVE laying down rules relating to the corporate taxation of a significant digital presence {SWD(2018) 81 final} - {SWD(2018) 82 final}. Brussels, 21.3.2018 COM(2018) 147 final 2018/0072 (CNS). https://taxation-customs.ec.europa.eu/system/files/2018-03/proposal_significant_digital_presence_21032018_en.pdf

[29] European Commission. Proposal for a COUNCIL DIRECTIVE on the common system of a digital services tax on revenues resulting from the provision of certain digital services {SWD(2018) 81} - {SWD(2018) 82}. Brussels, 21.3.2018 COM(2018) 148 final 2018/0073 (CNS). https://taxation-customs.ec.europa.eu/system/files/2018-03/proposal_common_system_digital_services_tax_21032018_en.pdf

c) Digital services taxes at EU national level

Following the EU proposals of 2018, several digital service taxes (DST) were implemented at national level by a number of EU Member States. Digital services taxes are taxes that are levied on certain digital services, such as online advertising and the sale of digital products. These taxes are designed to target companies that provide digital services, and they are typically based on the revenues generated by those companies. Digital services taxes have become increasingly common in recent years, especially at EU level, as many governments seek to find new ways to generate revenue and level the playing field between digital and traditional businesses. Some countries have implemented their own digital services taxes, while others are considering doing so. There are also ongoing discussions at the international level about how to approach digital taxation. As of June 2022, three EU countries, (Hungary, Poland and Portugal) have fully implemented a digital service tax, six countries (Spain, Great Britain, France, Italy, Austria and Turkey) have repealed their digital service taxes waiting for implementation of OECD's Pillar One, and seven EU countries (Belgium, Slovenia, Slovakia, Czech Republic Norway, Latvia and Denmark) are still in the process of adopting a tax on digital services.



Graphic 8: Digital Services Taxes in Europe - Source: Asen & Bunn (2022)

France was the first country in Europe to enact a digital services tax in July 2019. The French digital service tax applies a 3% taxation rate, in line with the EU interim tax proposal, to the revenues generated from two categories of taxable services, the online intermediation services and the targeted advertising services. According to the DST guidelines released by the French Tax Authorities (FTA) on 23 March 2020 [30], digital intermediation means the

[30] See: https://bofip.impots.gouv.fr/bofip/12204-PGP.html/identifiant=BOI-TCA-TSN-10-10-20200323

provision, through electronic communications, of a digital interface that allows users to get in touch with other users and interact with each other, while targeted advertising services are those which allow an advertiser to place targeted advertising messages on a digital interface based on data collected from users. The DS tax only applies to companies that meet a double income threshold, €750 million of revenues worldwide (such as the one established by the EU proposal) and €25 million of revenues generated in the country. Since 2019, the DST has brought €375 million to the French Treasury in 2020, €358 million in 2021 and it is expected to peak around €518 million in 2022 (Dorin, 2021). Sales of personal data was not explicitly and/or directly covered by the French DST. On the one hand, digital interface providers that sell goods or services that they own to a user are excluded from the scope (Willemyns, 2021:82) as DST only applies to a service between the users [31] and, on the other hand, the sale of users' data is relevant if and only if it is connected to online advertising. Following the adoption of French DST, the US Office of the Trade Representative (USTR) reacted by opening a Section 301 investigation (USTR, 2019) alleging that French DST discriminated against major US big firms, such as Google, Facebook, Apple and Amazon, also suspending the 25% duties on imports of French goods (Shalal, 2021). This tense political climate, and the resulting threats among states of retaliatory tariffs, has been largely appeased by the OECD which, as mentioned earlier, adopted the Two-Pillar Solutions in October 2021. The agreement at OECD level, in fact, pushed several European states to reach a compromise with the United States for the withdrawal of unilateral digital sales taxes. On October 21, 2021, the U.S., the UK, Austria, France, Italy and Spain issued a joint statement [32] declaring the withdrawal of any unilateral measures imposed on digital businesses until OECD Pillar One (the Unilateral Measures Compromise) is fully implemented [33].

Prior to this international deadlock, among all the EU countries, only Belgium and Spain had clearly included the sale of user data as a taxable activity within their respective national DSTs [34].The two countries, however, reached a different degree of agreement since the former, Belgium, has never officially adopted the tax and, the latter, Spain had a national DST in place before withdrawing from it following the achievement of the 21 October compromise. In Belgium, the first draft creating the DST was rejected in March 2019, it was then reintroduced after the 2019 elections and definitely put on hold by the new government in October 2020 [35]. Belgian DST aimed to tax revenue generated from online activities at a rate of 3% and, similarly to France, only exceeding a double threshold of €750 million worldwide and €25 million at country level. Among all the digital services, the Belgian DST

[31] Non-covered services include cases like Amazon selling shoes to user from its own inventory (not "between the users") or Louis Vuitton selling purse to user through its website (not "between the users") as for Office of the United States Trade Representative (2019), Report on France's Digital Services Tax Prepared in the Investigation under Section 301 of the Trade Act of 1974.

[32] Joint Statement from the United States, Austria, France, Italy, Spain, and the United Kingdom, Regarding a Compromise on a Transitional Approach to Existing Unilateral Measures During the Interim Period Before Pillar 1 is in Effect. https://home.treasury.gov/news/press-releases/jy0419

[33] Also Turkey, in November 2021, agreed with the United States on a compromise on a transitional approach to existing unilateral measures during the interim period before OECD Pillar One would be in effect. https://home.treasury.gov/news/press-releases/jy0500

[34] Also Slovakia in January 2019 opened a consultation on a proposal to introduce a digital services tax on revenue of non-residents which included the sale of user data as taxable activity. However, there were no further steps and none of the political parties have put forward digital tax as their priority agenda. https://tax.kpmg.us/content/dam/tax/en/pdfs/2022/digitalized-economy-taxation-developments-summary.pdf

[35] See. Clifford Chance, New Belgian Digital Services Tax Discussed in Commission. https://www.cliffordchance.com/content/dam/cliffordchance/briefings/2020/06/new-belgian-digital-services-tax-discussed-in-commission.pdf

expreselly included the taxation of selling users' data (Gaier, 2020). Similarly, Spain in January 2021, introduced a 3% tax on digital services levied on all digital businesses of over €750 million worldwide and €3 million generated in the country. The Spanish DST, like in the case of Belgium, was to be applied to the sale of user-data (Enache, 2021).

Conclusions

The brokerage industry, a major player in the personal data ecosystem, is booming and, as mentioned, is projected to reach US$462.4 billion by the end of 2031. Data brokers are often large digital services firms operating in a still unregulated market where the trading of personal data fails to be fully intercepted by public powers. This is due to the presence of several outstanding challenges. First, personal data are hard-to-value intangible assets and it is not easy to attribute a clear economic value to data. The same goes for sales and transactions involving personal data in the digital world. Second, the sale of personal data is an intangible transaction which, taking place in the digital world, can easily escape the external controls of State authorities. To put it briefly, the sale of personal data is an intangible transaction of an intangible asset. Modern societies, initially, struggled to move from the taxation of tangible to intangible assets, the process took some time and can be said to be still ongoing. Covering two intangible elements at the same time makes things much more complicated and obviously not of immediate response. One way to tax data brokers, in the absence of a clear method that can estimate the economic value of individual data transactions, is to flat-rate their annual revenues.

This taxation regime, which aims to hit certain digital services based on a flat taxation on the amount of revenue, has to date been implemented only at a national level. Following the EU twin proposals of 2018, several EU countries have started to enact digital services taxes (DSTs) and, among the many, only Belgium and Spain had clearly included the sale of user data as a taxable activity within their respective national DSTs. Both regimes were applying a 3% tax on digital services levied on all digital businesses exceeding a double turnover threshold calculated locally and globally. More recently, two US states, Oregon and Washington, have also passed legislation on taxing the sale of consumers' personal information by major data broker firms. The former proposed a 5% tax on gross receipts, while the latter a 1.8% tax on gross income. This one-sided approach has led to a number of new challenges and misunderstandings on a global scale. First of all, different taxation applied by different national jurisdictions, could lead to a state of uncertainty and the risk of double taxation for digital businesses. Different tax regimes could also encourage tax planning cases where large businesses can exploit legal loopholes or carefully select the jurisdiction with lower tax rates. As a last point, unilateral taxation could be a huge source of political tension between states and cause an increase in threat and retaliatory tariffs as in the case of Section 301 investigation launched by the USTR following the adoption of the French DST. Unilateral taxation is, thus, not a solution or a viable solution due to the high risks involved.

Conclusions

An **internationally agreed measure** on taxation is likely the **most effective solution** for taxing the sale of personal data by brokers. **OECD's Pillar One** offers a promising solution for addressing the issue of unilateral digital sales taxes as it relies on the consensus of 135 countries and might open the floor to a more balanced and effective way to address the taxation of the sale of personal data by brokers, and provides hope for a more equitable solution to this complex issue. Reaching a globally shared compromise on the taxation of the sale of personal data by brokers is a challenging task that will require time and effort.

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About the author

Eticas is a non-profit organization with a mission to protect people and the environment in technology processes, while also ensuring that all people have the right to benefit from technological advances without fear of discrimination or unfair treatment. We work to translate the principles that guide our societies (fairness, transparency, or non-discrimination) into technical specifications, and to strike a balance between evolving social values, technical possibilities and legal frameworks.

Research Director: Dr. Gemma Galdon Clavell, Founder and CEO of Eticas
Research Lead: Matteo Mastracci, Ethics and Technology Researcher at Eticas
Other Contributors:

- Emilia Paesano, Project Manager at Eticas
- Patricia Vázquez, Head of Marketing and Communications at Eticas

Contact: info@eticas.tech

Learn more about Eticas' work at: https://eticas.tech/