

OECD Expert Workshop

**ENHANCED ACCESS TO DATA: RECONCILING
RISKS AND BENEFITS OF DATA RE-USE**

2-3 October 2017

Danish Business Authority, Langelinie Allé 17, 2100 Copenhagen Ø, Denmark

Programme

Background

As reported by the OECD, and by a growing body of scholarly literature, it is now commonly agreed that the use of data can generate social and economic value. Firm-level studies suggest, for instance, that using data and analytics raises labour productivity¹ faster than in non-users firms by approximately 5-10% (OECD, 2015). In manufacturing, for example, data obtained through sensors are used to monitor and analyse the efficiency of machines to optimise their operations and to provide aftersales services, including preventative maintenance (OECD, 2017). The data are sometimes also used to work with suppliers, and are, in some cases, even commercialised in the form of new services (for example, to optimise production control). In agriculture, geocoded maps of fields and real-time monitoring of every agricultural activity, from seeding to harvesting, are used to raise agricultural productivity. The same sensor data can then be reused and linked with historical and real-time data on weather patterns, soil conditions, fertiliser usage and crop features, to optimise and predict agricultural production. Traditional cultivation methods can be improved and the know-how of skilled farmers formalised and made widely available.

The use of data can also help address social and global challenges, including climate change and natural disasters, health and ageing populations, water, food, and energy security, and mass urbanisation. The economic and social benefits of data are particularly noticeable in data-rich sectors such as science, health care, transportation and public administration (OECD, 2015). Big data and analytics are increasingly being used to enhance public service delivery and to facilitate identification of emerging governmental and societal needs. In science, a highly data intensive area, new instruments and methods of data-intensive exploration are enabling the development of scientific experiments and analysis as well as computer-based algorithmic simulations, even in traditionally less data-intensive fields. The collection and strategic use of information can improve forecasting and help to improve the reliability of transport infrastructure and increase its efficiency and utilisation. Modern health systems produce large amounts of electronic data, which are now also generated outside health care as most aspects of human activity and interaction become digitalised through mobile technologies. The information potentially residing in these data can be very useful to promote health, and to improve health care delivery and the overall efficiency of the health sector— a particularly information- and knowledge-intensive sector.

Enhancing access to data is seen as an effective means through which the social and economic value of data can be maximised as it contributes to the free flow of data across nations, sectors, and organisations by leveraging the nature of data as non-rivalrous, general-purpose productive capital. Evidence shows that closed access comes with social and economic opportunity costs, including within organisations and across borders (OECD, 2015). There are, however, legitimate reasons for keeping data “closed” including in particular to protect confidential information (i.e. personal data and trade secrets). Enhancing access to data may also come with significant challenges. As the provision of high-quality data can require significant up-front and follow-up investments,

¹ Labour productivity is defined as GDP per hour worked. Together with use of labour resources, it is one of the main factors determining living standards. Productivity is a measure of the efficiency with which available resources are used in production.

incentives to share data may be low. Furthermore, despite its economic and social benefits, enhancing access to data can entail social and economic risks as confidential information such as personal data and trade secrets may unintentionally be revealed. Identifying which data to share, defining the scope of the community and the right governance mechanisms for access (or restrictions) can be challenging, in particular for individuals and small and medium sized enterprises (SMEs).

Data openness is not a binary concept. There are many different degrees of openness on a continuum ranging from closed or limited access (only by the data controller) to open access to the public (see Figure below), which allow more differentiated approaches to data sharing and reuse. However, there is no one-size-fits-all optimal and approach and level of “openness”; instead the optimal level depends on the domain, the legal and the cultural environment in question. This calls for all relevant stakeholders to assess the possible trade-offs in data utilization (how to reconcile risks and benefits) when addressing the tension between risks and benefits of openness and “closeness”.

The degrees of data openness



Contributing and kick-starting the first phase of the OECD project on *Enhanced Access to Data: Reconciling Risks and Benefits of Data Reuse*, this expert workshop will address knowledge gaps in the aforementioned challenges, help move the policy agenda further and contribute to identifying best practices. It will in particular examine how enhanced access to data can maximise social and economic benefits, while addressing legitimate concerns of individuals and organisations (including governments). In the workshop, four approaches for enhancing access to data will be discussed in dedicated sessions: (i) open data, (ii) community based data sharing agreements, (iii) data markets, and (iv) data portability. The general questions to be addressed by the expert workshop are:

- What are the conditions under which specific approaches are more appropriate?
- What promising and sustainable business models are emerging?
- What are common, domain and approach-specific, governance challenges and solutions?
- What possible or further role could governments and private sector play, respectively?
- Where is further international cooperation needed and what role should the OECD play?

Workshop sessions

The workshop will be based on four substantive sessions, each discussing a set of (four to five) case studies addressing specific approaches for enhancing access to data. Each case study will focus on a set of specific questions as highlighted below. Presenters will include representatives from the private and public sectors including policy makers, as well as from civil society including academia.

Opening session

The opening session will set the scene of the workshop with one key note highlighting the potential benefits of enhanced access to data and the main questions to be addressed by the expert workshop.

Session 1 – Open data - what is the economic and social rationale?

Open access to data (open data) is the most prominent approach used to promote enhanced access to data in particular in the public sector. In the public sector, open government data are promoted by initiatives such as data.gov (United States), data.gov.uk (United Kingdom), data.gov.fr (France), or data.gov.jp (Japan). For the scientific community, as another example, the term “open data” refers to open access to scientific data. It is thus associated with the larger concept of open science, which includes open access to both scientific data and scientific publications. Increasingly, open data are also used in the private sector, to support and encourage value-creating activities by customers. An example is Thomson Reuters, which has transformed an internal data management solution into a collaborative information platform based on open data “to improve client relationships, the quality of their data and uptake of their existing products” (ODI, 2016).

While the open data movement has been driven by deliberate political strategies and transparency agendas in the past, open data today is increasingly recognised as a driver for economic growth and even as an economic and social necessity in some cases (e.g. smart cities). Studies on the economic benefits of open data suggest that open data can contribute to 0.5% to up 4% of GDP. However, major challenges remain that are limiting the provision of data through open access. For instance, the full social and economic benefits of open data may rarely be perceived by those controlling the data, given the latter’s limitations in assessing the spill-over benefits (positive externalities) of the re-use of their data.² Furthermore, there is the expectation that open data must be provided free of charge. This raises however issues about how open data is produced and processed and how repositories should be financed, given that these data sets require significant up-front and follow-up investments in order to remain valuable. This session therefore discusses the following questions:

- Where does open access to data make a difference? What are the conditions under which open access to data becomes an economic and social necessity? Where are potential unforeseen benefits? And what are the conditions under which data cannot be opened?
- What are the benefits and costs of open access to data? How can they be better assessed, in particular in light of existing potential (positive) externalities?
- What promising business models are emerging? What makes them sustainable?

Session 2 – Leveraging data sharing communities for cross-sectoral reuse of data

There are cases, where data is considered confidential and cannot be shared (as open data) with the public because of economic (e.g. trade secrets), privacy, or organisational and national security reasons. In these cases, however, there can still be a strong rationale for

² As Rufus Pollock stated at the OECD Technology Foresight Forum in October 2012:² “The best thing to do with your data will be thought of by someone else”.

sharing data between members of a community. It is, for example, common to find community-based data sharing agreements in areas such as science and research and as part of business arrangements about shared resources such as joint-ventures. These arrangements are crucial for maximising the value of data by keeping the range of opportunities as wide as possible, while limiting the risks of violating the interests of data subjects and data controllers. One big advantage is the facilitation of joint production or co-operation with suppliers, customers (consumers) or even competitors. An example is the joint venture between DuPont, Pioneer and John Deere to launch a joint agricultural data tool in 2014. “It links Pioneer’s Field360 services, a suite of precision agronomy software, with John Deere Wireless Data Transfer architecture, JDLink and MyJohnDeere” (Banham, 2014).

However, even with controlled access by community members, community-based data sharing agreements can entail a number of risks. Identifying which data to share and defining the scope of the community and the right form of access (or restrictions) can be challenging. Organisations need to ensure that data made available do not reveal confidential information, including personal data. Otherwise they may violate privacy rights and disclose trade secrets, in addition to directly harming their business interests. Requiring community members for instance to agree on abstaining from re-identifying individuals such as required by some initiatives may not be sufficient in some cases. This calls for an appropriate assessment of privacy, digital security and other risks relevant to the community members and other stakeholders, when identifying data sets to be released in such arrangements without imposing unnecessary burdens on all stakeholders. This session thus discusses the following questions:

- What data sharing communities are emerging today? And what is the rationale for their creation?
- How are the rules to access governed? To what extent is access granted on equal or non-discriminatory terms?
- How do these communities protect the interest of third parties including data users and donors? How are the interests and risks balanced between the different stakeholders involved?

Session 3 – Towards efficient, global and trustworthy data markets

Recent years have seen the emergence of “data markets” – online services that host data from various publishers and offer the (possibly enhanced) data to interested parties. These data marketplaces enable a new economic model for data use and sharing, which enhances the overall value of the data provided. Some data marketplaces allow their customers to explore data and to mix them together with their own or other available data sets to create new value.

Despite the growth of data intermediaries, there is however no established data marketplace where organisations can sell or exchange data directly with each other. Some platforms provide some of these functionalities, but they are tailored to specific, tightly integrated value chains that are heavily dependent on each other, and furthermore, they fail to scale. Microsoft’s DataMarket and Data Services solutions, for instance, were integrated in Microsoft’s cloud computing platform (Microsoft Azure). The uptake of both services has been, however, not as expected, forcing Microsoft to discontinue both services as of March 2017. This raises the following questions:

- What are current barriers preventing the upscale of efficient global and trustworthy data markets?
- What are promising sustainable business models for data market providers?
- How can platforms ensure people understand and feel in control of how their data is being used?
- What are potential trust issues to be addressed?

Session 4 – The potentials and limitations of data portability

Government initiatives are increasingly promoting *data portability* as a means for empowering individuals to play a more active role in the reuse of their data, including personal data, across digital services in machine-readable structured format. In 2011, a government-backed initiative called “midata” was launched in the United Kingdom to help individuals access their transaction and consumption data in the energy, finance, telecommunications and retail sectors. With Article 20 on the “*right of data portability*” of the EU (2016) General Data Protection Regulation (GDPR)³, data portability has been put more prominently as a right of the individual to receive the personal data, which he or she has provided to a data controller. It has thus been suggested that data portability may foster interoperability of data-intensive products and as a result reduce switching costs to such an extent that businesses can no longer fully exploit the “*stickiness*” of their products to reinforce their market positions (*lock-in effects*). Data portability would thus enable data users (incl. consumers but also businesses) to easily change to new and potentially better data-intensive goods and services and possibly foster competition and innovation.

Data portability however may not come without costs, in particular to those that need, want, or must implement portability in their (existing) data-driven services. These include costs both for developing and maintaining the mechanisms for enhanced data access, and for complying with relevant regulations. Some have therefore argued that data portability requirements may actually have perverse anti-competitive effects as it may put start-ups and SMEs under the obligation of investing in data portability, and, as a result, may reduce incentives to invest in data and data-driven innovation. This raises a number of questions:

- What are the benefits and main challenges of data portability?
- What are the costs for implementing and maintaining data portability and who should bear them?
- How can consumers be further empowered to take advantage of data portability?

Closing session

The closing session will highlight the key insights from the four substantive sessions (1-4) and possible priorities for further work. Key insights will be integrated in the final version of the background report to the expert workshop.

³ Article 20 of the EU’s (2016) General Data Protection Regulation on the right of data portability states: “The data subject shall have the right to receive the personal data concerning him or her, which he or she has provided to a controller, in a structured, commonly used and machine-readable format and have the right to transmit those data to another controller without hindrance (...)”.

Agenda

Monday 2 October 2017

08:30 -09:00 *Registration of participants and coffee*

09:00-09:45 Opening Session

Welcome remarks by:

- Mr. Søren Gaard, Deputy Permanent Secretary, Ministry of Industry, Business and Financial Affairs
- Mr. Douglas Frantz, Deputy Secretary General, OECD

Chair

Remarks by the Chair and introduction of key note speaker

- Ms. Katarina de Brisis, Deputy Director General, Norwegian Ministry of Local Government and Modernisation, Chair of the OECD Working Party on Digital Security and Privacy

Key Note Speaker

- Mr. Niall Brennan, President and Executive Director, Health Care Cost Institute

09:45-12:15

Session 1: Open data - what is the economic and social rationale?**Questions**

- Where does open data make a difference? What are the conditions under which open data becomes an economic and social necessity? Where are potential unforeseen benefits? And what are the conditions under which data cannot be opened?
- What are the benefits and costs of open access to data? How can they be better assessed, in particular in light of existing potential (positive) externalities?
- How can existing initiatives be improved? What promising sustainability models are emerging? What cost recovery and revenue models are more pertinent in the public and private sector?

Moderator

Mr. Douglas Frantz, Deputy Secretary General, OECD

Key Note Speaker

- Ms. Tanja Cvijanovic, First Assistant Secretary, Policy Innovation and Projects, Department of Prime Minister and Cabinet, Australia

Panelists

- Mr. Øyvind Grinde, Head of section, Information Security and Data Sharing, Agency for Public Management and eGovernment (Difi)
- Mr. Rikesh Shah, Lead Digital Partnerships Manager, Transport for London

10:45-11:00

Coffee Break

- Ms. Catriona MacCallum, Director of Open Science, Hindawi; Member of the Boards OASPA & OpenAire
- Mr. Bob Bailey, Chief Information Architect, Corporate Technology, Thomson Reuters
- Ms. Jeni Tennison, CEO, The Open Data institute (ODI)

Followed by discussion [30 min]

12:15-13:15

Lunch break

13:15-15:30**Session 2: Leveraging data sharing communities for cross-sectoral reuse of data****Questions**

- What data sharing communities are emerging today? And what is the rationale for their creation and for data sharing arrangement including “data donation” and “data philanthropy”?
- How are the rules to access governed, particularly when depending on cross-sectoral arrangements? To what extent is access granted on equal or non-discriminatory terms?
- How do these communities protect the interest of third parties including data users and donors (including e.g. consumers)? How are the interests and risks balanced between the different stakeholders involved?

Moderator

Ms. Elettra Ronchi, Senior Policy Analyst, OECD Directorate for Science, Technology and Innovation; Digital Economy Policy

Key Note Speaker

- Mr. Brett Frischmann, The Charles Widger Endowed University Professor in Law, Business and Economics, Villanova University

Panelists

- Ms. Effy Vayena, The Swiss personalized health network (SPHN)
- Mr. Erik Wetter, Professor, Stockholm School of Economics; Chairman, Flowminder.org
- Ms. JoAnn Stonier, Global Privacy & Data Protection Officer, Mastercard
- Mr. Jakob Rehof, Director, Fraunhofer Institute for Software and Systems Engineering ISST
- Mr. Jean-Marc Lazard, Founder & CEO, OpenDataSoft

Followed by discussion [30 min]

15:30-15:45**Coffee break**

15:45-18:00	Session 3: Towards efficient, global and trustworthy data markets
Questions	<ul style="list-style-type: none"> • How can data markets help determine the economic value of data? How is data priced? • What are current barriers preventing the upscale of efficient global and trustworthy data market platforms? What are promising sustainable business models? • What are the limitations of data markets? What are potential trust issues to be addressed? • How can transparency be enhanced? How can platforms ensure users understand and feel in control of how their data is being used?
Moderator	Mr. Christian Reimsbach-Kounatze, Information Economist / Policy Analyst, OECD Directorate for Science, Technology and Innovation; Digital Economy Policy
Key Note Speaker	• Mr. Paul Hofheinz, President and Co-Founder, The Lisbon Council
Panelists	<ul style="list-style-type: none"> • Mr. Naoto Ikegai, Interfaculty Initiative in Information Studies, University of Tokyo • Ms. Federica Rosetta, Director Global Strategic Networks, Europe, Elsevier • Mr. Fabrice Tocco, Co-founder, Dawex • Mr. Stephen Deadman, Global Deputy Chief Privacy Officer, Facebook • Mr. Malte Beyer-Katzenberger, Policy Officer, Unit G3 - Data Value Chain, DG CONNECT, European Commission
	Followed by discussion [30 min]
18:00-	Social event
18:00-19:00	<i>Copenhagen Canal Tour</i>
19:00-	<p><i>Buffet dinner with</i></p> <p><i>Welcome remarks by:</i></p> <ul style="list-style-type: none"> • Mr. Torsten A. Andersen, Deputy Director General, Danish Business Authority <p><i>Brief presentation on the Nordic SmartGovernment initiative by:</i></p> <ul style="list-style-type: none"> • Mr. Carsten Ingerslev, Head of Digital Innovation, Danish Business Authority

Tuesday 3 October 2017

8:30 -9:00

Coffee

09:00-11:45

Session 4: The potentials and limitations of data portability

Questions

- What are the benefits and main challenges of data portability?
- What are the costs for implementing and maintaining data portability and who should bear them?
- How can consumers be further empowered to take advantage of data portability?

Moderator

Mr. Jan Krewer, Deputy General Secretary, French Digital Council

Key Note Speaker

- Mr. Marc MacCarthy, Communication, Culture and Technology Program, Georgetown University

Panelists

- Ms. Ruth Boardman, Partner, International Privacy and Data Protection Group
- Mr. Lenard Koschwitz, Director European Affairs, Allied for Startups
- Ms. Randi Flesland, Managing Director, Norwegian Consumer Council
- Mr. John Foster, Director 4th Platform (Data Strategy), Telefonica
- Mr. Babak Jahromi, IT Standards Architect, Microsoft
- Mr. Robin Wilton, Technical Outreach for Identity and Privacy, Internet Society

10:45-11:00

Coffee Break

Followed by Discussion [30 min]

11:30-13:00	Closing Session highlighting the key insights from the four substantive sessions and possible priorities for further work.
Questions	<ul style="list-style-type: none"> • How can policy makers address how to promote data sharing and re-use across society and across countries and at the same time ensure the protection of individuals and organisations' rights and interests? • What are high-priority issues that policy makers need to address first? • What possible roles could governments and private sector play, respectively? • Where is international cooperation needed and what role should the OECD play?
Moderator	Ms. Anne Carblanc, Senior Policy Analyst, Head of Division, OECD Directorate for Science, Technology and Innovation; Digital Economy Policy Division
Highlights of ongoing OECD work	<ul style="list-style-type: none"> • Mr. Christian Reimsbach-Kounatze, Information Economist / Policy Analyst, OECD Directorate for Science, Technology and Innovation; Digital Economy Policy • Ms. Barbara Ubaldi, Senior Policy Analyst, OECD Directorate for Public Governance and Territorial Development; Digital Government Project • Mr. Alan Paic, Senior Policy Analyst, OECD Directorate for Science, Technology and Innovation; Science and Technology Policy
Panelists	<p>Final remarks by country representatives and OECD Secretariat [50 min]:</p> <ul style="list-style-type: none"> • Mr. Torsten A. Andersen, Deputy Director General, Danish Business Authority • Ms. Anne Kauhanen-Simanainen, Ministerial Advisor, Ministry of Finance, Finland • Ms. Manuela Siano, Service for EU and International Matters, Italian Data Protection Authority • Mr. Daisuke Nagasaki, International Affairs Office, Commerce and Information Policy Bureau, Ministry of Economy, Trade and Industry, Japan • Ms. Jenni Nordborg, Head of Health, Swedish Governmental Agency for Innovation Systems • Ms. Katarina de Brisis, Deputy Director General, Ministry of Local Government and Modernisation, Norway • Ms. Elettra Ronchi, Senior Policy Analyst, OECD Directorate for Science, Technology and Innovation; Digital Economy Policy <p>Followed by discussion [20 min]</p>
Closing Remarks	<ul style="list-style-type: none"> • Ms. Katarina de Brisis, Deputy Director General, Ministry of Local Government and Modernisation, Norway
13:00	Close of meeting