DATA TRANSFER INITIATIVE

Data Portability as a Right

What is the right to data portability? Where is it asserted, why is it needed, and what does it entail? This short piece aims to capture at a high level its nature and evolution.

Data Transfer Initiative

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Individual users have been able to upload data to, and retrieve data from, remote computer systems since before the Internet.[1] As communications systems and operations became more complex, user interactions with data transfers became abstract, and heavily mediated by actions and policies of the server operator. Throughout this evolution, the principle that a user putting data into a system should be able to get that data back out has persisted, and evolved into what is today referred to as data portability.

The modern notion of data portability as a user right, in that terminology, is likely best attributed to European legislation.[2] **Directive 95/46/EC** (1995) offers a definition of **personal data** and mentions a **right to access**. Its successor in 2015, part of the well known Global Data Protection Regulation (GDPR), articulates a **right to data portability** as going beyond mere access, and with the ability and permission to use the data for subsequent purposes at the user's direction.

The notion of data portability has developed and become less straightforward to implement over time due to technology and business shifts, such as:

- **Increasing complexity**: As similar or substitutable technologies compete over quality and features, schemas articulating the data to be transferred become richer.
- **Increasing size**: User data could, once upon a time, be easily downloaded to portable media such as disk drives; now scale limitations and a shift away from physical media make that infeasible or impossible.
- **Cloud platforms (SaaS):** Many online apps have no offline equivalents any more; social media is native to the cloud and never had an offline version. Even applications that used to use local device software, like photo editing, are now typically offered as online-first services. This shift limits the amount of directly accessible data and necessary data transfers between remote server and local device.
- **Web APIs**: The ubiquity and ease of use of Application Programming Interfaces or APIs, particularly on the Web, in many contexts obviate the need to define a standard protocol. Reliance on API keys and interfaces to access user data results in business partner use being more tractable than individual user access.

[1] Notably, File Transfer Protocol (FTP) has "PUT" and "GET" commands to store and retrieve data.
[2] Even earlier, efforts to make interoperable protocols for personal data (such as email standards in 1988) saw access protocols as a way for users to avoid being locked into a single server with their data, although data portability as a concept was not mentioned.

Despite these complexities, data portability persists as a component of privacy and data protection law in the European Union and other jurisdictions, including laws adopted by individual states of the United States. Canada's Digital Charter mentions portability, the UK ICO does too, and Korea's MyData project has it in scope. Increasingly, portability is embedded into economic legal frameworks as well, such as the EU's Digital Markets Act.

Data portability viewed through a competition policy lens shows an even broader ecosystem impact and societal justification for requiring data portability. The ecosystem argument is that even if a right to data portability is viewed as less important to the user than their rights to data privacy, and even if the right of data portability is a costly right to satisfy, an industry cannot have fair competition and innovation in products if users cannot easily move their data to a new and better product.

Data portability as a right has evolved alongside its implementation in practice and law to convey, today, the ability of users in practice to transfer personal data to another service, even when that data is big, complicated or structured, freely hosted, or has privacy risks associated. In many contexts, the modern right to data portability can no longer be satisfied solely by allowing a user to download data, because without the help of specialized software, a user may be unable to meaningfully use that data with another service.

Many open questions remain, including questions of appropriate scope and use. Solutions will vary with different content and risk contexts. Much work remains to reduce barriers to users and implementers and to make data portability more practically accessible and successful.

If you would like to dive deeper on policy, we recommend the first paper in our Data Portability Compendium, by Cobun Zweifel-Keegan, as well as our own one-pager on Public Policy Principles.

If you would like to know more about how to practically move your data or what services do and don't port data to and from each other, please visit the Portability Map project.

To know more about technical considerations for data portability, perhaps as an implementer or software design practitioner, start with our threat model. DTI personnel contribute to interoperability specifications in both the IETF and W3C.