

Citizen-centred data sharing: National Identifiers

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Citizen-centred data sharing: National Identifiers

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Welcome back to the citizen-centered data sharing blog!

One of the prime examples within the past few decades of citizen-centred data sharing has been the provision of people's data to own, share and store through electronic ID systems. This has been implemented in several European regions already and has been hugely successful. This was achieved by aligning all of a person's data to their national identification number or a national identifier.

What is a National Identifier?

National identity cards are issued to citizens by the governments of all European Union member states (except Denmark, Ireland, and the United Kingdom).

A national identification number is used by the governments of many countries for the purposes of work, taxation, government benefits, health care, and other governmentally-related functions. The number appears on identity documents.

For example, A national identity card is compulsory for all Estonian citizens, permanent residents and EU citizens temporarily residing in Estonia aged 15 or over. It is used to prove identity and also as a travel card.

In contrast, in the UK, a national insurance number is used to administer state benefits but is not considered proof of identity. As it is the only number that is unique to each individual, it does not change during the course of the person's lifetime and is issued to virtually every adult throughout the UK and is used by Her Majesty's Revenue and Customs (HMRC) to track individuals for income tax purposes. Also, all Scottish residents at their first contact with the NHS are issued with a CHI (Community Health Index) number with the number allocated upon entering a new-born's details on to the local health board's patient administration system). Therefore, the UK has means to be able to mandate the use of a national identifier such as the NI number or CHI number for identification purposes but has not chosen to do so as of yet.

How have Estonia used their National Identifier to link all their state services?

Estonia has a population of around 1.3 million people and almost all of them have a mandatory ID card which has a chip that carries embedded files, and using 2048-bit public key encryption, it can function as definitive proof of ID. This special card provides all Estonians access to every e-service, making tasks such as signing documents, banking or obtaining medical prescriptions so much easier.

Estonia has been named as the most advanced digital nation in the world and the X-Road is the backbone of e-Estonia. Invisible yet key, it allows the nation's various public and private sector e-Service databases to link up and function in harmony. Estonia realised that in order to create an ethos of citizen-centred data sharing, information systems had to function as an integrated whole to support citizens and organisations. To do that, different organisations and information systems had to be made interoperable so that data only needed to be requested from citizens once. The X-Road is Estonia's solution for maintaining a modern state and reportedly saves Estonians 800 years of working time every year! Now, 99% of all public sector services are online services, saving citizens and the government huge amounts of effort and time. In Estonia, patients own their health data and hospitals have made this available since 2008! A decade on and over 95% of the data generated within the healthcare domain has been digitized and blockchain technology has been used to ensure the integrity of the stored electronic medical records and system access logs. Every citizen in Estonia that visits their doctor has their own online e-Health record which contains their medical notes, test results, prescription histories, X-rays and a log-file of the access to the data.

Finland's eArchive and KanTa System

The health care system in Finland was in the past highly de-centralised with municipalities being responsible for providing local health care through legacy systems. Twenty-five years of developing localised solutions for providing electronic patient records (EPR) has resulted in serious problems with interoperability (similar to the fragmented system that Scotland currently has).

To solve this issue, a large-scale project for centralising the health care information systems was set up in 2002 by the Finnish government. The outcome of this initiative was a national electronic Archive, eArchive, completed in 2011. The system was made mandatory for the health care professionals to use and the purpose was to provide a unified platform for accessing patients' electronic records

regardless of location or time. The eArchive forms a part of the National Archive of Health Information, the KanTa-services. The other components of the KanTa system are an electronic prescription system, ePrescription, a large pharmaceutical database, an electronic archive of health records and information management system (eArchive), including a portal allowing the citizens to view as well as add to their own information (blood glucose, blood pressure or pulse readings) to their own records (eAccess). In order to access these services, citizens must present their eID card (initially introduced in 1999) to prove identity. The eArchive contains all coded information held in the local EHRs, including a log of all information and who has accessed these data. The eArchive and the KanTa-system are part of a larger e-Government system in Finland, where most governmental and administrative systems are run electronically. The KanTa pages are available to all adults (over 18) with a Finnish ID number.

The Kanta-services also launched MyKanta (Oma Kanta) services in 2015, which the citizens can use to transfer their personal data from national or other databases into their own account seamlessly. These data will also link to a pool of wellbeing data. The national patient data management service allows healthcare professionals to view the patient data, provided the owner of the data has consented to sharing these with healthcare professionals. The healthcare professionals can access these data using their healthcare professional cards. Every access is logged, and data transfer between systems is encrypted.

In 2017, it was announced that Estonia and Finland would be joining forces to create the first joint data exchange platform, making service mutually accessible for citizens of both countries.

In Summary:

- Estonia and Finland have linked all of their public services together through the use of a data exchange layer enabling citizens to access and engage with services using a digital signature
- This was possible because of the introduction of a national ID system almost 2 decades ago
- The innovative digital infrastructures place citizens at the centre of the data sharing agendas