

Trust Framework Initiative

Customer controlled, trusted sharing of
personal data



Overview document

CATAPULT

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Motivation

Today the citizen-consumer is reluctant to share their personal data and for good reason. In the past too many organizations have abused their trust. Even if this were not the case, today's processes to share personal data have to overcome so much friction, technical, legal and commercial, that the flow would be a trickle.

The opportunity cost of this lack of trust and friction is vast, both for the citizen-consumer and for the organizations that serve them. Customers want more relevant and timely services. Organizations want to avoid wasted effort by understanding their clients and being responsive to their needs. The flow of information is the nervous system of every organization and in turn of the whole economy. Estimates* put the potential value at stake in the UK at c.£50Bn in 2020. In addition to the financial, there are social benefits: illness avoided, educations achieved, creative and intellectual flux realised.

Building trust, removing the friction, has by necessity to be a communal activity. The organizations between which the data is passed need to agree to common standards, if the citizen-consumer is to have any confidence in the end-2-end flow. The individual, the public sector and the private sector all need to inter-work. The citizen-consumer has neither the time nor inclination to understand separate, institution-based systems. Unlocking the value of personal data, in a user centric way, on an impactful scale, requires a cross-sector solution.



Building trust

Combining data from different sources may generate deep and sometimes surprising insights into an individual, often including what is likely to influence them. If we are to preserve our concept of freedom, a case must be made for citizen-consumers being the ethical integration point for their own data. At a purely practical level, any system that promotes the flow of personal data will need to cede control and transparency to the citizen-consumer, to gain their trust and engagement. Failure to do so may see a progressive, politically driven "lock down" of personal data, as the abuses go unchecked.

A great deal of work has gone into these underpinning ethical principles, led in the UK by the Cabinet Office and Information Economy Council, building on the work of the Human Right Legislation in the 1950's. These principles may be summarized as:

IEC Ethical data sharing principles

Access:	Citizens own their shared data & can copy or withdraw it at will
Control:	Consent must be given for any type of data use
Minimization:	Only the data needed for the specific processing operation should be used
Transparency:	The consumer must know about use of their data
Correctness:	The data source must be correct and easy to update
Simplicity:	Services designed to be comprehensible to all citizens
Compliance:	Citizens wish to be assured that services meet the foregoing principles.

By embedding these principles at the heart of a new system of personal data sharing, we can seek to build customer trust on a solid, common foundation. The same clear promise, from a large number of diverse organizations has a reach and impact, that fragmented messages, no matter how worthy lack. By the promise offering customer control and transparency and by being verified on behalf of the customer, it creates trust.

Removing friction

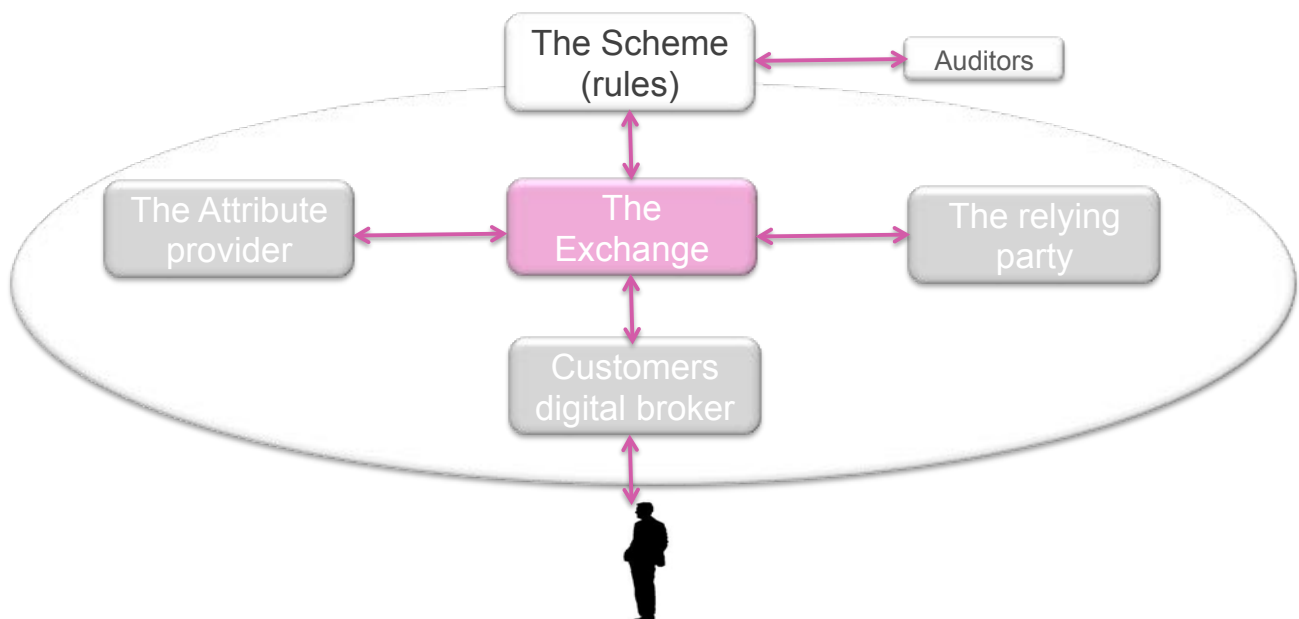
Even when B2C and B2B trust is established and the benefits of sharing personal data are clear to all parties, a number of factors currently conspire to make the exchange hard to efficiently accomplish. To illustrate this we will describe a specific use case. Imagine a gym has been contracted by a local health authority to tackle obesity related health issues. The gym decides to send vouchers to those most at risk. To quantify the risk they need to ask individuals to release to them data from a range of sources, e.g Jawbone, Tesco's and health data, in order to establish entitlement. To enable this customer permissioned transfer of data between a large number of independent actors, they need to solve three layers of problem:

1. **Technical:** How to define and physically transfer the data
2. **Legal:** How to establish the users identity and assert permission within each silo'd system
3. **Commercial:** How to agree the price of access/transfer

Unfortunately today's solutions to these problems, lack the ability or rather consistency, needed to scale to encompass a system comprising many parties. Variations of ID and technical protocols, complexity of terms and conditions and bespoke commercial deals, all combine to make the establishment of a data exchange agreement, time consuming and expensive. It is this friction that prevents us unlocking the economic and social value of personal data, every bit as much as the lack of trust. Fortunately, the route to solving these issues offers us the opportunity to re-engineer trust back into the system.

Trust Frameworks

Trust Frameworks are the "rules of the digital road", enabling a scalable ecosystem. We can see how they work by defining a number of roles **1) The attribute provider**: the organization who creates the data, such as a bank **2) The relying party**: the organization who uses the data to create value, such as the gym in the example above **3) The Customers Digital Broker**; who offers services and propositions to the customer to enable them to manage and control their data flows **4) The exchange**: is a logical hub which enables the data flows and may consist of several inter-working companies **5) The Scheme**: an organization who writes and agrees the "rules of the digital road" with participating users. The Scheme also appoints auditors to ensure the rules are followed. **6) The citizen-consumer**: Who chooses their "digital Broker" and uses those services to control their data flows. These relationships are illustrated below:



The scalability and trust worthiness of this eco-system is achieved, through the content of The Scheme Rules.

The scope of the Scheme Rules must encompass the three layers: technical, legal and commercial at which scalability is required. It is also into these scheme rules that we may embed the 7 IEC ethical principles which warrant the citizen-consumers trust in the system. The tasks undertaken by each layer include:

- **Technical layer:** Data model, authentication, security and transfer
- **Legal:** Ethics, ID assurance, permission ontology, dispute resolution
- **Commercial:** Asset and price discovery, trading and audit

Almost none of these tasks are new. To form an ethical Trust framework doesn't require much basic innovation, but rather the innovation lies in the way existing elements and technologies are combined.



The Digital Catapult Trust Framework initiative

The Digital Catapult is proposing a new initiative to create a consumer centric Trust Framework. We believe that a base trust framework spanning the public and private sectors will optimise the potential value creation and is a necessity given the interweaving of public and private supply chains / delivery vehicles. Consequently we wish to engage consumer representatives, the private sector and the public sector, in equal measure in

the process.

We would like to invite interested parties to join the "Trust Framework Initiative" as members. Membership fees are £5000 for corporates and £500 for SMEs. Members have the right to join the commercial, legal and technical working group which will define the trust framework.

In parallel to this two additional activities will be initiated:

- 1) Work with the British Standards institute to define a series of consumer facing "data labels" to enable an organisation to easily communicate to their customers what will be done with their data.

- 2) Undertake a number of pilot projects to demonstrate the potential benefits of the scheme and give members the opportunity to more closely work together.

The Catapult support the Scheme Drafting Group with:

- secretariate services,
- in-house expertise
- co-ordinating support from both SME's and Universities

During this process consideration will be given by the members of the Initiative to establishing an operating organisation, to launch the Scheme. It is envisaged that this will be a neutral, not-for-profit member based organisation, that is trusted to enable an eco-system that benefits all participants. In turn, this will open new possibilities for innovation, not just in the digital economy, but also in the wider economy and society at large.

