Ethical Industrialisation of Personal Data

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Thesis 1:
After 25 years of Internet, ... we now have a clear DUOPOLY!
...which is not (yet) recognised by the FANG!

https://www.ft.com/content/3d5425ac-5dbf-11e7-b553-e2df1b0c3220
Thesis 2:

GDPR is part of the Digital Transformation which is leading to the Ethical Industrialisation of Personal Information.
• Rethink the Relationship between Org. & Ind.
• (Data) Ownership replaced by A-U-D Rights
• Capacity2Interact is the enterprise new secret.
• Privacy needed for Transactions and Analytics.
• Cross-domain Smart Data + Consent
The Duopoly analysed (=GDPR)

**Individual**
- Empowered
- Control over personal data
- User consent
- Access Right
- Transparency
- Minimal Disclosure
- Purpose binding
- Right to Delete / Use

**Organisation**
- need NEW Insights!
- *Insights* instead of *Data (ownership)*
- Legal Compliance
- Access Right (rather than ownership)
- No secrecy, ...openness
- Process-limited
- Purpose binding
- Focus on *Insight* rather than *Data*
...part of Digital Transformation

**Organisations:**
- User (Experience) -driven
- Cooperate in complex (API) decentralised services.
- Need transactions AND *a democratisation of* *(REALTIME)* ANALYTICS

**Individuals:**
- GDPR-proof control (1) of their personal data, (2) of intent casting, ...etc.
- Give me more contextual policy choices, including (1) analytics, (2) portability, ...etc.

**Ecosystem Architecture:**
- *Decentralised* GDPR-proof Ecosystem Integration (technology)
- *end2end Trust Assurance* based upon a *techno-legal-contractual* framework
- Microservices and Integration = *Micro-Integration*
- Massive, distributed OLTP and OLAP compatible, XACML3.0-enabled PDS database
Ecosystem Integration

Smart Edges - Dumb Pipes
API complexity with SMART EDGES (notably in 5G)

9 network calls collapsed into 1. WAN network latency cost paid only once.

Client logic pushed to server. 20+ redundant calls removed.
**ENTERPRISE**

**DIGITAL TRANSFORMATION CONNECTOR**

- **Complex API ENTERPRISE Connector**
  - multi-source ingest of PD
  - External API discovery
  - Build Complex API's
  - Including API-privacy

- **GDPR-Proof ECOSYSTEM Connector**
  - e2eTA Header processing:
    - Pairwise Pseudo-ID
    - PEP / Sticky Policies
    - Crypto / Validate Signatures
    - Authenticate Peer system entity

**DMZ**

- **Full Audit Record Repository**
- **Persistent, Pairwise Pseudonyms Repository**
- **ID-mapper**

**ECOSYSTEM**

- **Message Header**
- **Payload Data**
- **IMMUTABLE CLOUD DATABASE**

**Firewall**

**Audit summary**

**Internal Firewall**

**Perimeter Firewall**

**Proof in Court Request**

**Audit Bus**
end2end Trust Assurance Architecture

ECOSYSTEM CONNECTOR:
Access Control, Authorization & Audit
- Single-Sign-On
- WS Provider
- WS Client

Ecosystem Connector

USER IS KING or QUEEN

FEDERATED IDENTITY BUS
WAYF - IDP Discovery (Proxy IdP)

Identity Proofing + PP Authentication

Delegation Service

Service Discovery
- Service Descript

ID-mapping

Privacy Hub

DLT blockchain

Intrusion Detection

Trust Scoring & Reputational Identity

“SEPARATION OF CONCERN” TRUSTED ECOSYSTEM GOVERNANCE & INTEROPERABLE TECHNOLOGY