# Background Information on Legal Identity, Data, Consent and Federation

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**Date:** January 17, 2020

The Business of Identity Management

## Target Audience

This paper is aimed for the following:
- Jurisdiction leaders
- Industry leaders
- Legal experts
- Fraud experts
- Privacy experts
- Funders with an interest in a positive future

# Background Information on Legal Identity, Data, Consent and Federation

Here's some background information, which I think governments and industry folks might be interested in.  It covers building on top of the new age human legal identity proposed in the legal human and bot identity proposal papers.  I wanted to give decision makers some ideas of how it can be used to rethink identity, data and consent.

In China today, as you likely know, they are rapidly deploying cameras and behavioral/biometric identification systems, with which to enforce their social policies.  In the west, the level of surveillance is coming from the private sector.  In the 26 papers I wrote about this last year, I describe the incoming technological tsunami, rapidly creating what I call a "non-private world".

In some of my papers, I have Jane Doe walking down a street or into a park with her children.  In the not so distant future, people coming towards her will be wearing AI/AR contact lenses/glasses, with wearable smart clothing, all able to not only detect her, but identify her, predict her behavior and compare this to all the other times they've seen her.  Businesses will have many, many miniature cameras et al to do the same as she walks by their stores.

My premise is that to enable Jane Doe to live privately, in a non-private world, first requires a new legal identity toolkit. That's the purpose of the two proposals Michael Kleeman, UCSD, and myself wrote.  Jane Doe needs to be able to have the choice to act anonymously or, at her discretion, release portions of her legal identity.  She also needs the ability to show she's a human.  So, the starting point in any rethink of identity, data and consent in this new age, must start with the foundational legal identity.

The next component is creation of what I call a "personal IAM (identity and access management system)".  As the worlds between online and offline blur, Jane Doe needs to have a toolkit able to broadcast out her choice on revealing or, not revealing, her legal identity.  This type of technology doesn't exist yet.  Yet, in my gut, I feel it will soon appear as market forces realize the citizen needs to be in control of their physical and legal identity.   I discuss this starting on page 23 in "Legal Privacy Framework for the Tsunami Age."

This then can broadcast out, not only her legal identity, but also her data consent. I see Jane as having different zones of consent she can choose.  An example, is the best way to illustrate this.

Jane Doe is walking down a street toward some stores with people coming towards her.  She's preconfigured her personal IAM to broadcast out she wants to be anonymous.  Thus, the people walking towards her won't be legally allowed to identify her.

However, she's also preconfigured her personal IAM to display to fashion retailers an anonymous identity, BUT also to allow release of her physical measurements, colours and fashion types she likes. As she walks by the fashion stores, they take this information and send her customized ads displaying the types of fashions she likes, within a certain pre-described dollar range, etc.

Jane has also preconfigured her personal IAM to send her legal identity to her favorite restaurant. As she walks by it, it's legally allowed to recognize her, pulls up her past visits, determines what she likes, and then displays a customized ad for her featuring her favorite dishes.

On the street, walking towards Jane are different types of bots. Some look just like the Starship delivery type bots. They are not able to recognize Jane, due to laws and also due to Jane Doe sending out anonymous identity signals. There are also humanoid bots. Over time, these become very hard to discern if they're human or bots. Jane Doe can see, via her personal IAM system who's a human and who's a bot walking towards her.

Finally, Jane Doe wants to buy some age-related goods or services, e.g. cigarettes, alcohol or enter a virtual sex environment. She displays her anonymous legal identification, proving she's above age of consent.

Now, to make all of the above magic work requires not only a legal physical/digital identity plus personal IAM, BUT also agreed upon zones of consent. **This is the main point of this background material. I have felt, for the past year, while contemplating and writing papers, that the main drivers for zones of consent wouldn't come from citizens at first. It will likely come from businesses, who want to have a level legal playing field to easily serve their customers. Thus, I believe that businesses will drive creating personal IAM devices, as well as helping create and support jurisdiction zones of consent.**

Since electrons instantly whiz around the planet, it's in businesses interest to have common zones of consent amongst the many different jurisdictions they operate across, both physically and digitally. Thus, in areas where there are free trade zones, e.g. EU, NAFTA, Africa, Trans-pacific, etc. it will increasingly become in their interest to see the development of all of the above. It allows people and bots, to operate within and across their jurisdictions seamlessly.

I'll end this background email talking about identity federation and how it applies to identity, data, consent and legal laws…

At Boeing, not quite 20 years ago, I worked on one of the worlds' first large scale identity federation deployments. At the time, if you were an airline mechanic for an airline using Boeing planes, you'd walk into the hanger, log on to your airline's systems and then click on the Boeing link. You'd be required to enter your username, password, etc. Of course, you'd likely forget them.

The Boeing identity architect, Mike Beach, walked me into two rooms with about 100 people each answering phones 24x7. They were mostly helping you, the mechanic, reset your passwords.  His intention was to use identity federation to cut costs.

So, we deployed SAML (secure assertion markup language).  It took nearly a year for the lawyers to agree on terms.  When it rolled out, you the mechanic would log on to your airline systems.  When you clicked on the Boeing link, a secure assertion would be sent from the airline to Boeing, identifying you.  Boeing would trust this.  They'd then take the identity information sent in the assertion and then customize the display, based on your authorization.  No need for you to sign in.  Now, what does this have to do with Jane Doe walking down a street?

Today, if you use Google, Facebook or whatever, and then use the same login to log on to another website, this is modern identity federation in action.  It uses a protocol Open ID Connect.  Google, Facebook et al are the identity providers, attesting it's you.  Now let's apply this to Jane on the street.

Jane Doe is in full legal control of her identity.  Thus, she's her own identity provider.  She's going to choose, via her personal IAM, who to federate with.  Each time she agrees, it's a legal contract of sorts.  Her consent must be obtained between Jane and say the restaurant.

Jane won't want to have to deal with all the approvals, contract maintenance, etc.  Thus, I also see, in the not so distant future, that much of this will become either automated or, handled by third parties, on her behalf.

All of the above, also applies to kids.  As the technology is deployed and used by people, kids will also use and wear the technology.  I wrote about schools etc. where kids are walking around predicting other behaviors, etc.  Schools will also use AI/AR/VR environments.  Thus, it becomes an increasingly complex world.
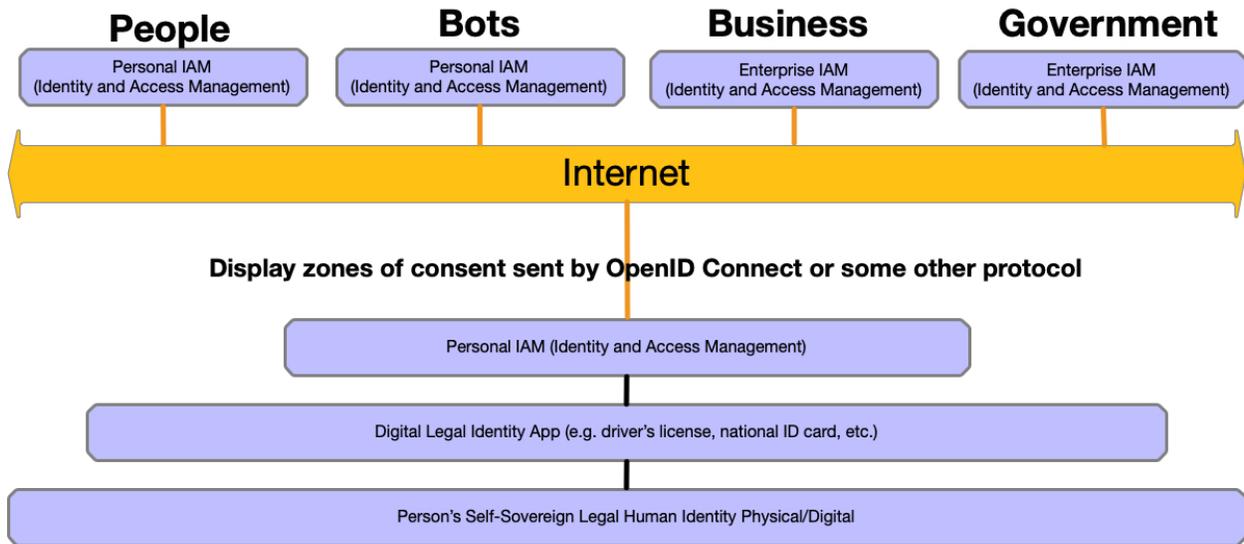
That's why, in the incremental identity proposal paper, we have a section devoted to rethinking legal identity.  Especially for kids and others who can't legally manage their affairs, it becomes very important.

Identity federation is first and foremost a legal agreement between two or more parties.  Obtaining and managing all the consents given will become a user and business barrier to leveraging the technologies.  People like Jane need to have the option in determining who she shares her identity and data to.  The enterprises she deals with may be located on any part of our planet.  Thus, enforcing all of the above becomes highly complex.

I wanted to draw attention to all the above because it can help decision makers understand how a rethought human legal identity is the foundational piece for then rethinking data and consent.

I've tried to depict this in this image:

**Self-Sovereign Legal Identity, Personal IAM and Zones of Consent**



**People**

Personal IAM
(Identity and Access Management)

**Bots**

Personal IAM
(Identity and Access Management)

**Business**

Enterprise IAM
(Identity and Access Management)

**Government**

Enterprise IAM
(Identity and Access Management)

**Internet**

Display zones of consent sent by OpenID Connect or some other protocol

Personal IAM (Identity and Access Management)

Digital Legal Identity App (e.g. driver's license, national ID card, etc.)

Person's Self-Sovereign Legal Human Identity Physical/Digital

**Notes:**
1. The person is in control of their legal physical and digital identity, i.e. legal self-sovereign identity
2. The person is able to determine, on a preconfigured basis or, in real time, what they want to display their identity as:
   a. This could range from anonymous to here's my legal identity, etc.
3. The person is able to determine, on a preconfigured basis or, in real time, what they want to display their data as:
   a. This could range from no data sent or received through to here's my data
4. This ability to preconfigure, approve, manage identity/data federation contracts is done via the person's personal IAM (identity and access management system)
   a. In the future, this may or may not be managed by third parties on behalf of the person
5. Any person, bot, business or enterprise the citizen comes into contact with MUST, by law, adhere to the citizen's identity and data consent
6. Thus, it's in their interests to agree on common zones of consent for identity and data

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## About the Author

### Guy Huntington

Guy Huntington is a veteran identity architect, program and project manager who's lead as well as rescued many large identity projects with many of them involving identity federation. His past clients include Boeing, Capital One, Kaiser Permanente, WestJet, Government of Alberta's Digital Citizen Identity and Authentication Program and Alberta Blue Cross. As one of his past clients said "He is a great find, because he is able to do high quality strategic work, but is also well-versed in project management and technical details, so he can traverse easily from wide to deep. With Guy, you get skills that would typically be encompassed in a small team of people."

Guy consults globally on the incoming technological tsunami wave of change. His main interest is in legally rethinking civil registration systems around the planet for legal human and bot identities. He's written 26 papers on this.

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## Note to Reader:

I have been writing about rethinking civil registration systems since 2006
- "The Challenges with Identity Verification"

Over the last year and a bit, I have written 32 papers, including two proposals, on the impacts from the technological tsunami. Here's a listing of them, by subject area, with links to each one:

- Thought Papers
  - Artificial Intelligence & Legal Identification – A Thought Paper
    - Artificial Intelligence & Legal Identification
  - Human Migration, Physical and Digital Legal Identity – A Thought Paper
    - Human Migration, Physical and Digital Legal Identity
  - Digital Twins/Virtual Selves, Identity, Security and Death – A Thought Paper
    - Digital Twins/Virtual Selves, Identity, Security and Death
- Proposals and Discussion Paper:
  - Bot Legal Identity Proposal
    - Proposals for Identification of Bots (Physical and Virtual Robots)
  - Human Legal Identity Proposal
    - Proposals Paper – Incremental Approach to Implementing New Age Legal Identity
  - Background Information on Legal Identity, Data, Consent and Federation
    - Background Information on Legal Identity, Data, Consent and Federation
- Example story of an identity's lifecycle
  - The Identity Lifecycle of Jane Doe
- Technological Tsunami Wave of Change
  - Harnessing the Technological Tsunami Wave of Change
- Legal Privacy Framework for the Tsunami Age
  - Legal Privacy Framework for the Tsunami Age
- One-page summary
  - One Pager - The Age of AI, AR, VR, Robotics and Human Cloning
- Technological Tsunami and IAM
  - Technological Tsunami & Future of IAM

- New age identity, data, and consent
  - [Privacy Gone – AI, AR, VR, Robotics and Personal Data](#)
  - [I Know Who You Are & What You're Feeling - Achieving Privacy in a Non-Private World](#)
  - [Consent Principles in the New Age – Including Sex](#)
  - [Policy Principles for AI, AR, VR, Robotics and Cloning – A Thought Paper](#)
  - [Legal Person: Humans, Clones, Virtual and Physical AI Robotics – New Identity Principles](#)
- Kids and Parents Privacy
  - [Young Children Data Privacy Challenges in the Tsunami Age](#)
  - [Kids Privacy in Non-Private World - Why Even Super Hero's Won't Work](#)
  - [Children & Parent Privacy in the Tsunami Age](#)
- Robotics, Clones, and Identity
  - [Legally Identifying Robots?](#)
  - [Rapidly Scaling Robot Identification?](#)
  - [Virtual Sex, Identity, Data & Consent](#)
  - [I'm Not a Robot](#)
- New age civil registration legal identity framework
  - "[Why the New Age Requires Rethinking Civil Registration Systems](#)"
  - "[What New Age Civil Registration Won't Do](#)."
- New Age Assurance
  - "[New Age Assurance – Rethinking Identity, Data, Consent & Credential](#)"
- Deploying AI, AR, VR, robotics, identity, data and consent in challenging locations
  - "[Where Shit Happens](#)"
- Protecting the civil registration/vital stats infrastructure
  - "[When Our Legal Identity System Goes, "Poof!](#)"
- New age architecture principles summary
  - "[New Age Architecture Principles Summary](#)"
- Leveraging Blockchain and Sovrin
  - "[A Modern Identity Solution: New Age Vital Stats/Civil Registries, Self-Sovereign Identity, Blockchain, Kantara User-Managed Access & EMP Resistant Data Centres](#)"
- Creating Estonia Version 2.0
  - "[Creating Estonia Version 2.0 – Adjusting for Changes From 1999 to 2018](#)"
- New age civil registration/vital stats design, implementation & Maintenance Vision
  - "[Guy's New Age Civil Registration/Vital Stats Design, Implementation & Maintenance Vision](#)"

All papers are available off my website at [https://www.hvl.net/papers.htm.](https://www.hvl.net/papers.htm)