"Quickly Rethinking CRVS Systems – Executive Summary"

Note: This summary is a follow on from the two-page executive summary of LSSI (https://hvl.net/pdf/LSSIExecSummaryMar92021GH.pdf) and the paper, "Secure, Network Based, Legal Self-Sovereign Identity (LSSI) (https://hvl.net/pdf/SecureNetworkBasedLSSIPaperDec62020.pdf). It dives into the "CRVS weeds".

Antiquated CRVS Systems Planet Wide

Our existing CRVS systems around the planet are antiquated:

- They don't have any data standards
- Exist as silos within each jurisdiction (often at province/state within a country)
- Use paper which is easily frauded
- Don't have any common protocol to query other CRVS systems to confirm an identity
- Don't use biometrics to tie the person holding the CRVS paper to the actual CRVS entry
- Not prepared for the arrival of smart digital versions of us requiring legal identities which are tied to the physical legal identity
- Totally not prepared for the arrival of AI systems and bots, requiring legal identities
- Many places around the planet have poor CRVS practices resulting in weak identification of many people, e.g. there's 1 billion people who don't have a legal identity
- Ironically, CRVS documents are one of the "foundational documents" most identity assurance systems around the planet rely upon – upon which are based digital identities
- Many CRVS jurisdictions still use paper records, or have their data on old mainframes, etc.
- Not prepared for the arrival of human clones and legal identification of them
- **IT REQUIRES A GLOBAL RETHINK BOTH PHYSICALLY AND DIGITALLY**

One of the First Places to Start - Standards

The planet needs to quickly come together and create the following standards for CRVS systems:

- Data standards
  - Such that all jurisdictions can convert their existing internal systems to and be able to export the data out to global standards
- Common query protocol
  - Gives other CRVS systems performing a CRVS event on a person, to have the ability, with the person's consent, to query all other CRVS systems around the planet to confirm an identity

- Ability to use forensic fingerprints and iris
  - Starting at birth, infant fingerprints will be captured using technology pioneered by In 2016 Dr. Anil Jain from Michigan State University http://biometrics.cse.msu.edu/Publications/Fingerprint/Jainetal_Child FingerprintRecognition_TechRep_MSU-CSE-16-5 and KidPrint out of UCSD http://kidprint.ucsd.edu/
  - Capture iris at a later date when the infant is able to keep its eyes open
- Ability for the CRVS to issue Toda files to a person, containing their forensic biometrics as well as export them to a global local notary system
- Ability for the CRVS Toda file to indicate, anonymously, it's a human and if they're above or below age of consent
- Determine if it's possible to use Open CRVS - https://www.opencrvs.org/

Rapid Rate of Change

I've written this curve, https://hvl.net/pdf/PatScannellHockeyStickShapedCurve.pdf, scares the shit out of me as an old very experienced identity architect, program and project manager. It means, EACH HOUR, new attack vectors are being created against the governance, business processes, technological infrastructure and people interfaces. Our old systems of defence now no longer work. CRVS systems will become a prime target of attack in the new world we're entering.

Global, Independent, Non-Profit

Page six of the paper referenced in the note, shows a global, non-profit, whose job it is to do continual threat analysis, issue threat warnings, and have all jurisdictions respond accordingly. It's bringing industry best practices to the world of legal identity.

Automate CRVS Data Conversion

I have in my head a vision of leveraging AI machine learning together with physical/virtual bots to rapidly convert old paper based CRVS to digital, as well as rapidly convert old mainframe type data. My goal is within 3 years to have all jurisdictions converted.

Shit Happens – We Need to Create a System Able to Cope With it

More than two years ago, in this paper, https://hvl.net/pdf/Where%20Shit%20Happens%20March%202019.pdf, on pages 23-34, I document the challenges in deploying this around the planet. Thus, any design MUST consider the realities, and design for it.

What I'm Looking For…

Jurisdictions and funders to work with me to create rapid POC's (proof of concept) to build the underlying infrastructure for a Toda LSSI. Learn what works, and most importantly, learn what doesn't work, and then retest. Then do small, tightly controlled pilots and rapidly scale.