

Digital Identity Sessions

July 24, 2017

Live Slides:

https://docs.google.com/presentation/d/e/2PACX-1vQDeqHLoppnt7O0DXXosrJPX13NEosGoC6uyG-LfOKvwhxJzx3sMa4N-Wb4X_pem4nMEB9_9stKskWh/pub?start=false&loop=false&delayms=3000

Agenda

8:30 - 9:00 COFFEE and MINGLE

9:00 - 9:30 Welcomes and Overview and KICK-OFF

9:30 - 10:00 MIT Digital Identity Technology Research & Vision

10:00 - 10:30 Session Previews/Q&A

10:30 - 12:00 Digital Identity Small Group Working Sessions

12:00 - 2:00 Report-Outs and Discussions and LUNCH

1:00 - 2:00 Roundtable Discussions:

2:00 - 3:30 Digital Identity Working Sessions

3:30 - 5:00 Report-Outs and Discussion and WRAPUP

5:00 - 5:30 COFFEE & MINGLE

Agenda Details: <https://github.com/mitmedialab/DigitalIdentitySessions/wiki/Scratch-Pad-for-Program-and-Agenda>

Key Links

- Conference Agenda and Session Descriptions [Google Slides](#)

https://docs.google.com/presentation/d/e/2PACX-1vQDeqHLoppnt7O0DXXosrJPX13NEosGoC6uyG-LfOKvwhxJzx3sMa4N-Wb4X_pem4nMEB9_9stKskWh/pub?start=false&loop=false&delayms=3000

- Live Stream: https://www.youtube.com/watch?v=tVQ7Egg13_s
- Interact via Twitter: [#MITID17](#)

General Notes

For general notes of sessions before the Black Mirror screening and discussion, see Speaker Notes section below (on this slide).

Photos of the meeting notes from the morning and early afternoon sessions (on large sticky paper and on the white boards) will also be added to these slides over the next few days.

See the subsequent slides for notes of group brainstorm on potential use cases, prototypes or other ideas to address the Digital Identity business, legal & technical needs discussed throughout the day.

Paper Notes

7 Year Vision

- Biometric Car Key
- Personal Control of Personal ID data
- ~~Travel Industry~~ Seamless Journey end-to-end
- Successful Transformation to population Digital ID

**Blockchain*

**no airport hassle*

→ Enrollment

- ↳ Centralized or
- ↳ distributed

→ Identify

- ↳ 1 to many
- ↳ "whole database"

→ Authenticate

- ↳ 1 to 1

- Board a Flight
- Vote
- Convenience/Login

Identification vs Authentication

- ↳ 1 to 1 match
- ↳ 1 to many match

Notes for Brainstorm Session 3:45pm

Could there be a magna carta / constitutional type system of checks and balances?

Could a direct democracy network be an option to allow more choice of systems including a strong hierarchical leader?

What if there were a network that enabled groups to adopt rules reflecting their priorities in a more adaptive manner?

The protocols are relevant - there may be different protocols at different layers of the stack of a network and even that apply to different components or networks within the network but there needs to be some common protocol aspect.

Notes for Brainstorm Session - 2

What if there were a “proof of luck” protocol (not proof of work, proof of control, etc) See: <https://arxiv.org/abs/1703.05435> and <https://github.com/luckychain/lucky>

Key question: imagine all the scenarios and situations that respect individual “ownership/control” of identity at a deep layer that is fundamental to identity:



Also look at more superficial layer like: credit history, legal records access, FIPA, Fair Credit Reporting Act, HIPAA, FERPA, Telecom, etc, etc)

Also - look at what is “security” and how does it relate to basic rights to be secure in our person and papers. Right to consent to be governed.

Brainstorm - slide 3

A system that enables individual to securely “Opt-Out” like the do-not-call-list.

Today credentials are managed at national or sub-national levels - can we have a concept of an individual identity credential that is trans-national?

How about an application that is a key-service (providing easy way to generate a key pair and attach other core identifiers like hashed biometrics so you can prove it is yours?

Define what the blockchain protocol and global identifier system is and governance of the system is - how it works.

Brainstorm - con't

Legal Entity Identifier (LEI) system is a registry service governed internationally but operated sub-nationally. Check this out as a model to follow or to not follow

AirBnB model uses verified digital identity accounts (social and other) and digital reputation as a key vector of trust. AirBnB commissioned a stanford study that showed people are less likely to trust somebody less like them and the bias can be overcome by providing other sources of trust data. (FIND THIS STUDY)(Also - check out the example of AirBnB fining a customer for descrimiation. The one word “Asian” answer is bad.

Brainstorm - con't

Important to create a work that provides a clear definition of what digital identity is and is understandable for a large population who really don't know about or understand fundamentals at this point and yet are active users who are involved with many systems.....

Define the governance and protocol for a platform that is like a wiki so everybody in the world can get in there and contribute what they think the governance should be. What if the whole Earth had a way to speak its mind and give input to how the tech should work and governance should be? (Right now, there are parts of the world that are getting further removed from input and connection and this regression is the wrong direction - we should be more inclusive).

Brainstorm con't

Consider there are existing groups like health or support groups where peers hold you accountable. What if there were an identity-system enabling an application for workout individually or team and a smart contract that had you pay more the less you use it and pay less the more you use it? A refinement could be to use the peer incentives in the energy use study. AND/OR like the HSA incentives connected to bio-markers (cholesterol, weight, etc) then the employer will pay a LOT more for their co-pay. This could be tied in to a blockchain. Also - look at Foodstamps giving \$40/month incentive for going to farm stands example! Or we could take this further to give incentives to care about the control/sovereignty of personal data? Could they do good information hygiene practices or do informed consent based sharing to get rewards? Some red-flags to avoid with regard to monetization of data are to be considered.

Brainstorming con't

One way we could get started is create a small (initially invite-based) community in boston based on opt-in. A token/crypto-currency based system could support and reflect contributions to a community. This can incentivize more and more people to join to get an ecosystem started for data. There is a similar Massachusetts Legal Hackers project idea (for Sept, after the blockchain digital signature mock trial) to enable local communities of commerce and incentive based rules tested against transactions conducted on the system (so they are adaptive) and customized for each local community to a large extent. In theory this could enable valuation of token representing very specific goods and services in a way that is exchangeable. What about enabling community services and volunteer work? What if there were a blockchain enabling local communities to define/promelgate their own “bill of rights” applicable to their domain in the network. Need digital identity to participate in this or any community - so answering this is among first questions. There is a need for care giving (old, young, etc). (Note: let us not get TOO caught up on idea of basing this on a currency. Could be more of a transaction log of other types of things than currency. Event log, sys log, etc.

Brainstorm cont

When a child is born identity - including digital identity - is created. What if there was a life-cycle approach to entering key events like birth, graduation, military service, marriage, etc existed? (Note: this is similar to Joost Bonsen's)

Followup on “Narrative Medicine” (informed consent)

The screen shot below was kindly provided as followup for anybody interested to learn more.

