IIW Special Topic Workshop
The Business of SSI
August 4, 2021

The Business of Self Sovereign Identity (SSI)
Book of Proceedings

August 4, 2021
Online, Near You ~ via QiqoChat

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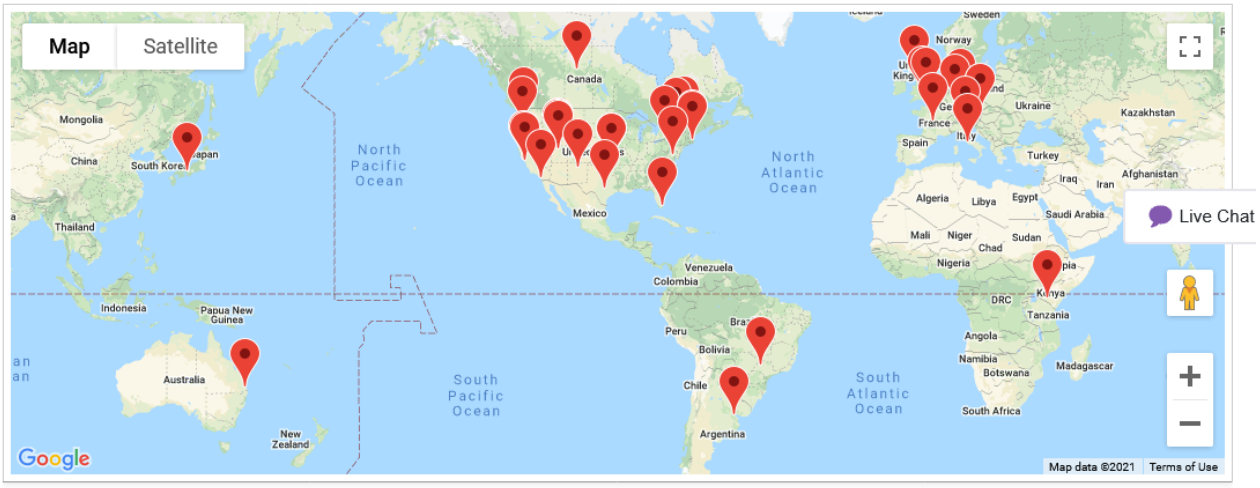
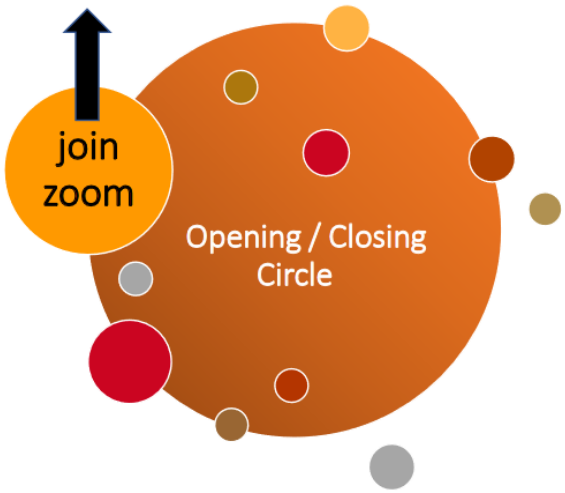


Map of Attendees

IIWXXXIII Online / October 12 - 14, 2021
REGISTER HERE

www.internetidentityworkshop.com

Contents



IIW Special Topic Workshop
The Business of SSI
August 4, 2021

Welcome | Agenda Wall | Open Space | Participants

Welcome! Click the Join Video button at the top left to launch Zoom.

Agenda Wall_ Biz of SSI

File Edit View Insert Format Data Tools Add-ons Help Last edit was made 8 minutes ...

C17 Open Source/Bus model - what works, what's new

		IIW Special Topic Business of SSI	**#IIW @IDWorkshop**	**Links to SESSION NOTES FORMS**
	Sessions 1hr Each	**Agenda Wall / Sessions 1 - 3**		
Breakout Space		**Session Title**	**Convener Name(s)**	**for this Session**
A	Breakout A	Valuing Verifiable Credentials	Michael Shea	https://docs.g
B	Breakout B	Cardano blockchain + SSI	Ed Eykholt	https://docs.google.com/docu
C	Breakout C	Open Source/Bus model - what works, what's	Neil Thomson	https://docs.google.com/docu
D	Breakout D	Cancelled - How to do Authn and Authz with SSI	Kent Bull	https://docs.google.com/docu
E	Breakout E	Data value cycles or Global value of identity markets	Nicky Hickman	https://docs.google.com/docu
3	**Session 3**	**Start Time:** 11:00am PDT * 2:00pm EST * 7:00pm BST * 8:00pm CE		**Link to Notes Pa**
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B	Breakout B	Let's move some cheese: Helping leaders change their current business models	Kimberly Wilson Linson/ Fraser Edwards	https://docs.google.com/docu
C	Breakout C			https://docs.google.com/docu
D	Breakout D	SSI & PD&I Market Assessment (Orgs, Resources, Movers & Shakers): How do we make PIMS & SSI relevant and real for "real" people	Michael Becker	https://docs.google.com/docu
E	Breakout E	SSI Adoption - what's working & what's not? Lessons from 50 SSI leaders + early production deployments	Riley Hughes	https://docs.google.com/docu

About IIW

The Internet Identity Workshop (IIW) was founded in the fall of 2005 by Phil Windley, Doc Searls and Kaliya Young. It has been a leading space of innovation and collaboration amongst the diverse community working on user-centric identity.

It has been one of the most effective venues for promoting and developing Web-site independent identity systems like OpenID, OAuth, and Information Cards. Past IIW events have proven to be an effective tool for building community in the Internet identity space as well as to get actual work accomplished.

The event has a unique format – the agenda is created live each day of the event. This allows for the discussion of key issues, projects and a lot of interactive opportunities with key industry leaders that are in step with this fast-paced arena.

Watch this short documentary film: ***"Not Just Who They Say We Are: Claiming our Identity on the Internet"*** http://bit.ly/IIWMovie to learn about the work that has happened over the first 12 years at IIW.

The event is now in its 17th year and is Co-produced by Phil Windley, Heidi Nobantu Saul and Kaliya Young. IIWXXXIII (#33) will be October 12, 13,14, 2021, registration will open in mid-June.

Upcoming IIW Events

IIWXXXIII #33
October 12 – 14, 2021

REGISTER HERE

https://internetidentityworkshop.com/

IIW Special Topic Event – The Business of SSI

This IIW Special Topic event is for CEOs, Founders, Business Development leads, anyone who cares about the Business of SSI. It provides the space for you to discuss, share and collaborate together.

The Internet Identity Workshop has been bringing together innovators in the field of Identity focused around the individual since 2005. While open standards are essential to open digital identity systems, as important to getting adoption are viable business models and products that solve real world pain points for customers. This half day event is an opportunity for those focused the Business of SSI to dive deeply into this side of things.

About this event:

IIW Events are participatory workshops where the agenda is co-created by participants the day of the event. We are experimenting with hosting half day Special Topic IIW events that are complementary to our main three-day event that happens twice a year (since 2005!) using a similar format.

The workshop will run just like our usual IIW Open Space Workshops - with an Opening and Agenda Creation, 3 sessions and a Closing Circle, for a total of 5 hours. We will also have session notes and be compiling a Book of Proceedings.

Time: Anchored in US Time Zone with afternoon/evening option for Europe

- Pacific Time: 8am - 12pm
- Mountain Time: 9am - 2pm
- Eastern Time: 11am - 4pm
- Europe Time: 4pm - 9pm London / 5pm - 10pm Berlin

See the growing list of topics proposed by those already registered here: https://iiw.idcommons.net/Business_of_SSI_Proposed_Topics

IIW 32 Opening Exercise in Small Groups

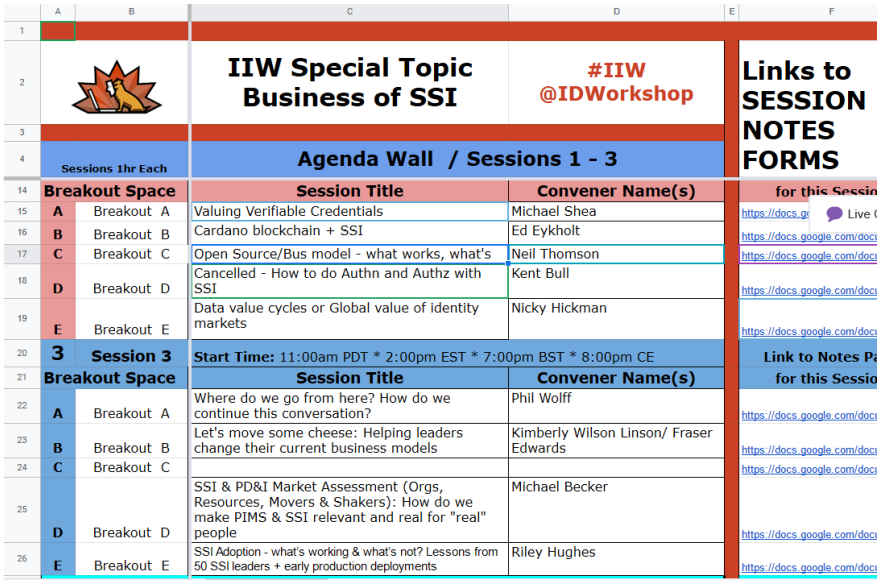
Each IIW begins with a round table exercise designed to both start the current identity conversations and connect new with long time attendees. At the Special Topic – User Experience of SSI Workshop the prompt questions were focused on the following questions. When groups returned to the main room, they were asked to share what was discussed in the Zoom Chat.

> Name
> Where on Earth are you
> What is your connection to SSI company/projects?
> What is the biggest business challenge that your company faces?

When groups returned to the main room, they were asked to share what was discussed about the Biggest Challenge in the Zoom chat:

- Sustainable – who's gonna pay for it?
- How can banks pay for this?
- Lots of DID's not sure if we need blockchain for anything
- I Want to understand the chicken egg problem.
- Seeking to understand a sustainable and repeatable business model
- Need to create a Total Available Market (TAM) model for SSI.
- How to monetize SSI solutions?
- Articulating the value to customers (Universities)
- Review monetization concepts in chapter 4 of the SSI book.
- How to contribute to standards w open source model and get funding/customer.
- Business challenge: making SSI commercially viable/ somewhat tied to Docs idea of necessity
- Andrea Reginato https://www.dede.is , experiences travel industry and data ownership
- Doc here. Have been with IIW since it began as a podcast on the last day of 2004. Husband of Joyce who is the source of much wisdom for which her husband gets the credit. I'm very enthusiastic about SSI, ever since Devon Loffreto coined the term more than a decade ago. I also try to nudge conversation back toward what he was about in the first place, which is putting the individual in full control of identity information they disclose to whom and how, which is what self-sovereignty means. I believe SSI needs inventions that mother necessity in the hands of individuals (not mere "users," a term that suggests subordination): meaning that they want and depend on those inventions as much as they do their wallets and phones. If it's an app, it should be among those on the face, and used easily and often. If SSI ends up being, like pretty much every other initiative to come out of IIW, yet another way for enterprises to increment forward business as usual, it will fail.

Session Topics / Agenda Creation



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C	Breakout C			
D	Breakout D	SSI & PD&I Market Assessment (Orgs, Resources, Movers & Shakers): How do we make PIMS & SSI relevant and real for "real" people	Michael Becker	
E	Breakout E	SSI Adoption - what's working & what's not? Lessons from 50 SSI leaders + early production deployments	Riley Hughes	

12 Sessions were called and 10 convened by 48 attendees

Notes were submitted for 8 sessions

Session 1

1B/ Bitcoin wallets are self-sovereign. What's the SSI equivalent?

1C/ Verifiable Credentials and Data Markets: how do we enable a new data economy?

1D/ Using the NHS RFP, VC Stack, and VC Lifecycle to find SSI opportunities

Session 2

2A/ Valuing Verifiable Credentials

2B/ Cardano blockchain + SSI

2C/ Open Source/Bus model - what works, what's new

2D/ Data value cycles or Global value of identity markets

Session 3

3A/ Where do we go from here? How do we continue this conversation?

3B/ Let's move some cheese: Helping leaders change their current business models

3E/ SSI Adoption - what's working & what's not? Lessons from 50 SSI leaders + early production deployments

Notes Wednesday August 4 / Sessions 1 - 3

Session 1

Bitcoin wallets are self-sovereign. What's the SSI equivalent?

Session 1B
Session Convener: Adrian Gropper
Session Notes Taker: Nicholas Racz

Please list the key points of your conversation and/or what you would like to share with your colleagues.

- Tokens are the business model for public blockchain ventures
- Bitcoin wallets are B2C not B2B
- Triple entry accounting as anchor concept
- KERI and Authentic Data Economy
- SSI community puts governance and traditional business models ahead of self-sovereignty
- Professional societies are not anarchy
- Identity is a human right
- Is KYC security theater that causes millions to starve because cross-border remittances cost too much
- Are certified wallets just a biometric ankle bracelet?
- What is the best way to implement resistance against malicious actors
- What's the right balance for trust vs. privacy -> Zener Principle / Authentic Data Economy "You anchor zero knowledge proofs in something that's costly. (In this case a court order/smart contract) You must stake a monetary value that provides collateral against fraud.
- What's the role of the wallet in enforcement?
- You notarize things such that you can provide auditability of court orders.
- How do we add notarization (TEA) to SSI wallets?
- Notaries are a form of TEA (Triple Entry Accounting)
- Title Companies as third-party with a stake
- Staking on blockchains - Ethereum reputation staking - cousin to identity
- Reputation as the link between SSI and tokens (linked to the concept of Level of Assurance)
- Wallets and Capabilities
- Cruise Ship Use Case - does not need a "wallet" https://docs.google.com/document/d/1Mt1m-fVaSxY6QC3mgHcrNoNH-EnOTRepcwYd9hyjmxM/edit
- Linkage of possession with control in a wallet is bad for SSI
- Wallet pays issuer per use - token - residuals in the arts (ASCAP)
- The notion of control, and therefore ownership, enforced by the wallet analogy, is deeply broken

Verifiable Credentials and Data Markets: how do we enable a new data economy?

Session 1C
Session Convener: Andrea Reginato
Session Notes Taker: Fraser Edwards

Please list the key points of your conversation and/or what you would like to share with your colleagues.

- Trying to enable individuals to have VCs which are connected to impact individuals are generating, e.g. environment, social, inside a territory
- How through technology can we make individual's owner of data but also that this data is qualified, i.e. assured / trusted
- How can we allow this data to be part of a marketplace without having to move the data from the wallet
- Kent:
    - Working on political data where DIDcomm replaces lists of political contacts which are typically sold
- Need for identity taxonomy so that everyone is speaking the same language
- David Huseby points out that "Linked Data" requires naming them, meaning the creation of correlating links (not safe). There must be alternatives to enable true anonymous sharing.
- Instead of proving data I prove the knowledge of it
- You can't have stable identifiers between presentations (even between different providers)
- Key part is creating abstraction for personal data and combining with intent casting, i.e.:
    - I have a salary of $XXk< $YYk and ZZ credit limit and I want to buy a given car
- Andrea's example:
    - Ability to compute results on a device and retrieving results
- Talked about Synthetic Data, Differential Privacy and Federated Learning as a way we can create "anonymous" aggregated data.
- Clare worked at Sedicii:
    - Were using ZKP and couldn't prove anonymity
    - Highlighted differences between anonymity and pseudonymity and different bars for those
- Figure out the legal framework where you operate (regulators)
- It really depends on the context
- Surveillance Economy (to predict what we'll do) shared by Clare Nelson
    - They will know what you do and you'll not recognised the world is built for me (serendipity is in reality creepiness, and we'll not recognise it)
    - Construction of false reality
- If we eliminate correlation we can start limit the survillance

- For Andrea's solution:
    - Core barriers are cultural
    - Territories have been abandoned, those who stayed are not revitalising the towns / villages

- Needs to attract new people to visit
- Could create a core group to revitalise those villages and towns
- Focus is on enabling entrepeneurship and for local people to fulfil missing points

Reading list:

- Surveillance Economy, Shushona Zuboff

Using the NHS RFP, VC Stack, and VC Lifecycle to find SSI opportunities

Session 1E
Session Convener: Timothy Ruff
Session Notes Taker: Anonymous Nyan Cat

Please list the key points of your conversation and/or what you would like to share with your colleagues.

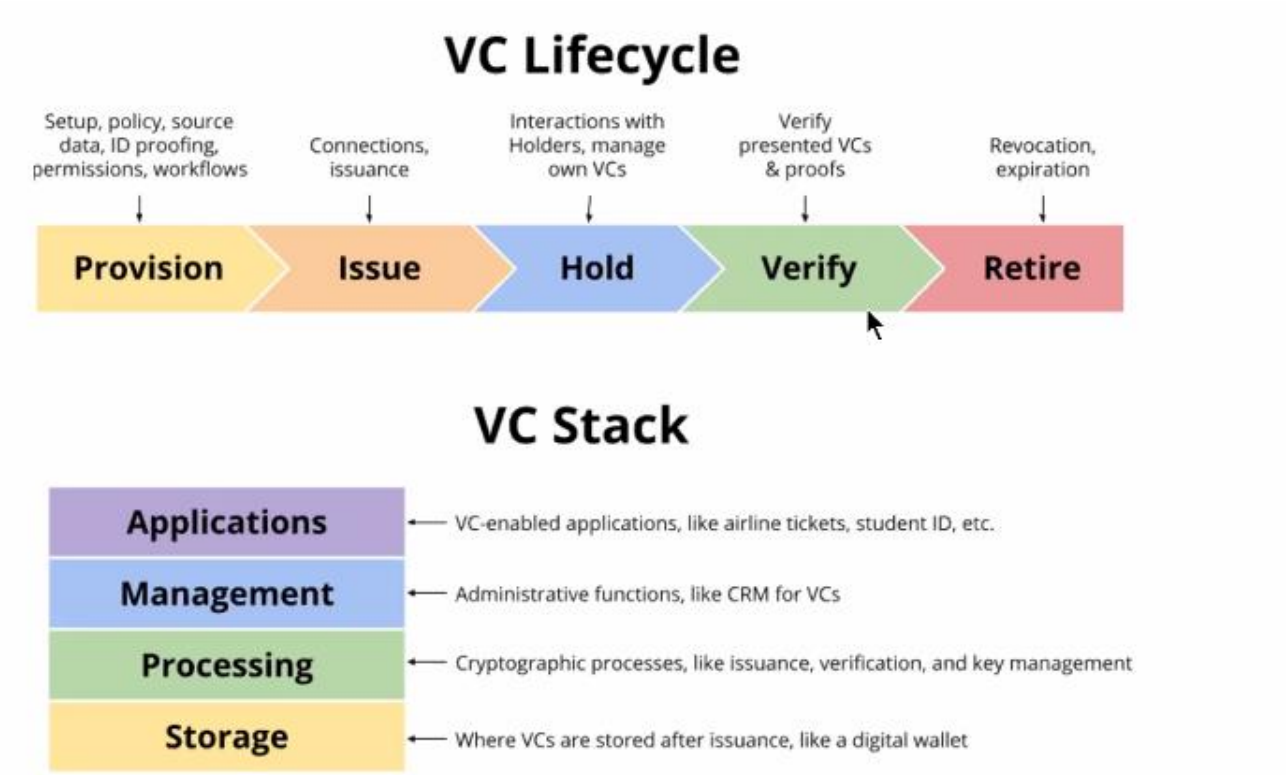
Some requirements from the NHS in an RFP (one of the largest procurements by one of the world's largest employers, explaining what they'll pay for).

Analyze by mapping posted requirements to the VC lifecycle and VC stack, expanding to cover specific requests.

https://docs.google.com/spreadsheets/d/1UY90l87Q8obcadOMF64GL-GENeZS6myHrYOIb8OV4UE/edit?usp=sharing

Traditional RFPs (and industry in general) are lacking understanding of VC capabilities and nuances for traditional data systems, workflows and governance in place today (data classification, data store integration).

Need a consistent message to convey in responses that refer to VC Model (ToIP?) to allow a level of understanding that transformation to a decentralised identity architecture is not to be underestimated.



Combining the dimensions:

Enterprise VC Framework

	Provision	Issue	Hold	Verify	Retire
Applications					
Management			(Requirements)		
Processing					
Storage					

Future work:

- Over time we'll learn to detail the parts of this model that are missing or that need clarification.
-

Session 2

Valuing Verifiable Credentials

Session 2A
Session Convener: Michael Shea
Session Notes Taker:

Please list the key points of your conversation and/or what you would like to share with your colleagues.

- How do you pay the issuers?
- How do we sell or position this in the market?
-

Cardano Blockchain and SSI

Session 2B
Session Convener: Ed Eykholt
Session Notes Taker: Ed Eykholt

Please list the key points of your conversation and/or what you would like to share with your colleagues.

Cardano is an up-and-coming public blockchain, similar to Ethereum with smart contracts (soon). Ethereum has uPort for identity and other projects such as SpruceId. Atala Prism is the primary Cardano identity project.

Cardano has the ability to attach metadata to transactions that would allow a relationship to DID(s).

Cardano has projects in Africa, including registration of Ethiopia students, plus Tanzania.

TZ includes a token model related to SSI and mobile operators.

Innovation fund called Catalyst

One of the participants offered skepticism about Cardano's progress thus far. Lot of hype but not as much delivery yet (relative to the hype).

Will Cardano projects ignore some of the protocols being developed out of DIF and W3C?

Some participants were surprised that more of Cardano + identity project work is not as much open source projects as expected.

Why shouldn't Cardano folks follow IETF wrt to API/protocol standards?

Financial projects in Australia (EFTPOS ConnectID) - Hedara (HBAR) - similar approach in addressing early markets to gain coverage/market share.

The success of identity solutions on Cardano is going to be largely dependent on how reputation and trust will work.

How can a Cardano participant stake on their own reputation, essentially to solve the trust issue and to help fund the ecosystem?

Why isn't Cardano participating in these open source and standards communities (W3C, ToIP, DIF, …)? We wish they were.

Open Source/Business Models - what works, what's new

Session 2C
Session Convener: Neil Thomson
Session Notes Taker: Neil Thomson

NOTE : RAW NOTES are included below the summary

Please list the key points of your conversation and/or what you would like to share with your colleagues.

Different Software Business Models and Their Issues

The consensus from the Session

> There is no replacement for being able to move fast and capture a market where a known problem/"job" is being solved before anyone else can, using factors other than access to source code as a barrier to entry. Any successful business model needs (at least some) some paying customers.
>
> "free" Open Source currently has the best track record for successful projects/companies, funding and recurring revenue are the most difficult.
>
> Business Source Licensing model is getting a lot of attention (as it provides a more attractive startup and early-stage funding recurring revenue model). In practice, it has its own drawbacks and some adopters have moved to "free" models over time.

Proprietary - patents and a "closed source" solution have historically been the most attractive to investors and the simplest way to stay ahead of competitors. Customers and developers are increasingly reluctant to use proprietary solutions, due to vendor lock-in, potential support issues, plus restrictions on the ability to customize, extend and re-licensing.

Open Source - with several business models, it is increasingly becoming the licensing model of choice for all sizes of organizations and developers. However, it is less clear how to both fund development and realize revenue. While there is an increasing number of successful "**Free**" Open Source projects and products, they have all had their own unique business (and funding) model, particularly from startup to viable business. Some examples:

- GPL - free to use, but any changes or extensions must also be Open Sourced
- MIT - free to use, but do not have to publish changes or extensions

The **Business Source License** model - as popularized by MariaDB - offers a "delayed free model" where the project is Open Source from the start, but requires a paid license for the current/latest version, with each version becoming fully "free" after X years.

Dual Licensing - this is an earlier license model used by the founder of MariaDB during his earlier founding work at MySQL, which is discussed in the TED talk (see resources, below).

- Free license - GPL (w restriction to open source all changes and extensions)
- Paid, closed license - free to keep all changes and extensions proprietary

General Open Source Issues and Solutions

Open Source (Patterns)

Successful Open Source projects have an **Anchor** organization, which typically starts the project and is the long-term contributor.

Successful projects tend to have a **Patron** - an investor or separate (sometimes non-profit) organization that is willing to provide funding and wait for recurring revenue.

Business Models depend on the class of software - funding a full product (e.g., one with a user interface) typically does not fit with Open Source. Other viable classes of software that have a better track record include

- **Platform** - base designed explicitly for others to contribute to which solves multiple issues
- **Infrastructure** - components designed to be combined with others as a base for a product or service
- **Cloud services** (at a scale more than a component)

Examples of recent successful projects are "free" Open Source (MIT, GPL etc.) backed by strong companies - who provide a full feature cloud solution (Mongo, DataBricks, Elastic), some with consulting strategy, but this is part of the "complete solution", including support.

General Issues

Fostering Trust is crucial - Open Source principles must be fully complied with, whatever your model. It is too easy to lose development and customer trust, and once lost is very difficult to regain.

Open Source is becoming the defacto preferred model:

- **Medium to large organizations** (public and private) increasingly want Open Source - to some extent for perceived lower costs, but primarily to avoid vendor lock-in. However, many still prefer to work with a single support and maintenance organization to avoid blame-storming and finger-pointing when things don't work.

- **Developers** favour Open Source for similar reasons, particularly vs proprietary solutions, where you have the additional burden of convincing Management to purchase or subscribe.

License violations - difficulty to enforce - Enforcing licensing requires the financial backing for the legal muscle to enforce it.

Large tech vendors preempting the market - There have been several examples of large tech organizations who "participate" in Open Source but provide only a minimal contribution, then create a distribution, (e.g., as a completely supported product), which may be free or paid, under their brand and marketing and siphon off all the potential revenue

Funding/Revenue generation. For many investors, Open Source is free (or mostly free), which means a limited revenue generation model and is subject to a much lower valuation (2x revenue) vs proprietary (10x revenue)

Incentives for contributors - The Anchor typically contributes 80%, with the remaining contributions from a variety of individuals and organizations. Example:

- Hyperledger & Sovrin. Evernym was the major contributor - at times 100%. At best other contributors were 20%

Aside from an organization that has a path to success as a co-contributor, there currently are few incentives - other than personal reputation - for organizations or individuals. Several people advocated for a **license revenue contributor sharing model** - where individuals are compensated on the basis of size, quality and relevance of their contribution. This also has a flavour in the BSL model for organizations. Offering a "Feature Bounty" incentive has been used successfully (Raven Coin)

Careful of the incentives you use - potential users/customers are just as prone to anyone else of responding to them with human-behavior as described in "Game Theory". Example:

> Charge a licensing fee for a component or feature and then discontinue the fee at some point. Users/Customers may then be inclined - on any future component/feature that you initial charge for - to just wait until you discontinue the fee.

Beware Open Source projects with potentially high costs - to gain trust in the market space, you may need to get a security or other quality review - which is NOT free - which can be a blocker during early and continuing development if the funding is not anticipated at the starm

BSL Tactics

Several people mentioned different license fee model variations:

- **Free for non-commercial use** - free to non-profits or for non-production or up to a pilot/proof of concept sized deployment
- **User/usage base** - example is Trinsic, which provides an Open Source SSI development platform. They charge their customers (SSI solution developers) on the basis of a usage basis for *their* customers. Trinsic -> Dev A (free) -> Dev A customer - per user fee (to Trinsic)

Attract and pay contributors (organizations and individuals) during the "closed" phase (most recent version development), to encourage them to participate in future "next-gen" development and benefit from having a lead in understanding the code once it changes to "free" Open Source.

BSL Specific Issues

BSL when there are "free" Open Source alternatives - you are using the BSL model and charging for your product for the first 3 years. A competitor decides the market is big enough and uses a "free" Open Source model and steals your market as they do not have restrictions

BSL would not have saved the other 98% that didn't find a real demand for the product

Resources

MariaDB Open Source model https://mariadb.com/bsl11/

Ted Talk by Michael Widenius (2017) - MariaDB - Business Source License
Doing business with Open Source (overview plus MariaDB model)
https://www.youtube.com/watch?v=krcKkiKBKms

Some cautionary tales here...
The OSS Startup podcast (series)
https://podcasts.google.com/feed/aHR0cHM6Ly9hbmNob3IuZm0vcy8zZWFiNzk0Yy9wb2RjYXN0L3Jzcw==

OSS Startup Twitter feed: https://twitter.com/ossstartup

Raw Notes

Canada Borders Services - VCs - agency to talk to on GHP

Model of "contributor only open source" for 2 years (or more), so 2 year

Only went opensource if there is a massive benefit (marketing positioning) to revenue for reputation.

Fraser Hard to maintain opens source w/o an anchor company.

Time - has same problem with hyperledger and sovereign - evernym was major contributor (at times 100% - at best other contributors were 20%

Patents on proprietary system (old school) - government more and more only will deal with open source - leary of lockin.

Have we passed a line where large customers won't buy if open source.

Combination open-source/escrow model

Government still looks to single supplier to support the open-source (still want a Red Hat) - single point of blame

Is there a fix for large tech grabbing open source and then selling it to enterprise customers.

New license model (public use -> changes to paid license on purpose/use)

Business Source License - after 4 years is GPL 2 - free until passes threshold
Sounds like Trinic's customer's customer usage model

If you are contributing back, then you get access to to the latest.

GPL says anything you add (extend) also has to become open source

Maintenance of Open Source is the main issue (many of whom are not being paid).

Again - need an anchor to maintain and evolve open source “nobody does the dishes”

https://mariadb.com/bsl11/

- Provides a clear monetization model

Open source is being enclosed by proprietary SW that is built on it - all $$ goes to Company w Proprietary

No penalty (currently being enforced

Just found that link. It’s a Ted Talk by Michael Widenius:
https://www.youtube.com/watch?v=krcKkiKBKms

The problem with enforcing licences - having the $$$ to pursue enforcement (litigation)

Developers against GPL - want free access - don’t want restrictions (BPL)

Need Anchor/Patron (renaissance arts funding model)

Business model - provides the legal basis for license enforcement

BSL Business Source License

Revenue sharing model - Having a revenue distribution model for contributors based on the number (size and quality) of commits. This will be gated on whether the area is core and highly used - value of code.

- Johannes Ebert

Public recognition/reputation on OS contributions may be seen as a form of payment.

People who wants payment or just

Feature “bounty” amount that people will pay for open source contributing - similar to bug-bounty

Raven Coin is using this model - is going slow - original financial backers - bailed. Flipped to pure community developed. An issue is when you need a security review (by paid experts) for sensitive features - can be a blocker.

MIT/GPL and other models

Where is the “moat”

What is the timeline for business source to open (based on revenue generation)

Riley - doesn’t see BSL as the solution that solves everything

All of the successful projects are MIT, etc. (free to use) backed by very strong companies - who run it in the cloud (Mongo, DataBricks, Elastic) - some consulting strategy, but mostly cloud. But offering a full feature solution.

Build a solution that people love (solves a real problem, does a “real job” for users) and succeed.

But are they the few survivors?

BSL would not have saved the other 98% that didn’t find a real demand for the product

BSL - full service product, open source can’t use. BSL will impose restrictions, where someone else will release open source to compete.

No replacement for being able to move fast and capture a market before anyone else can compete (open or business source license

BSL, plus free for use until production deployment.

WebSphere users (paid) -> Node.js (OS) - everyone moved that way.

Depends on target market.

Paying for licenses is not a barrier in many organizations

How do you sell investors with an Open Source model as they are all looking for monetization?

“OSS Startups” podcast - interviews someone who changed licenses (to OS)

Fostering trust w contributors is critical

Game theory comes into play for contributors and customers - be VERY careful with incentives

Alternative - proprietary until financial success - what is the balance

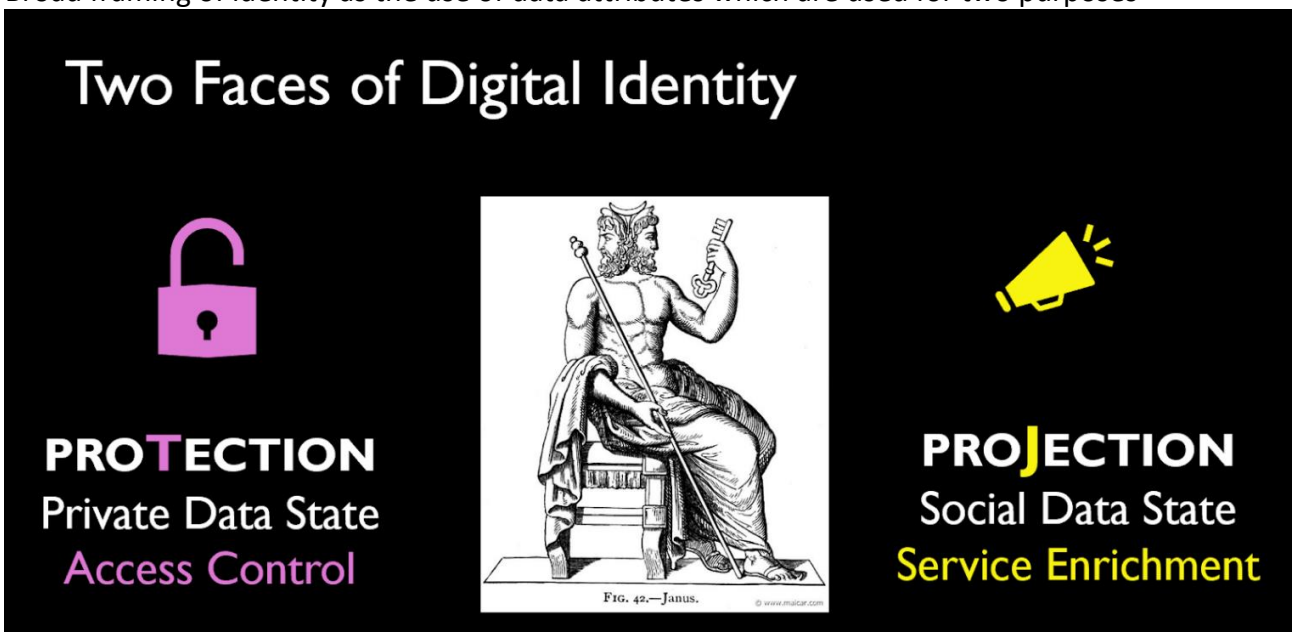
Data value cycles or Global value of identity markets

Session 2E
Session Convener: Nicky Hickman
Session Notes Taker: Nicky Hickman

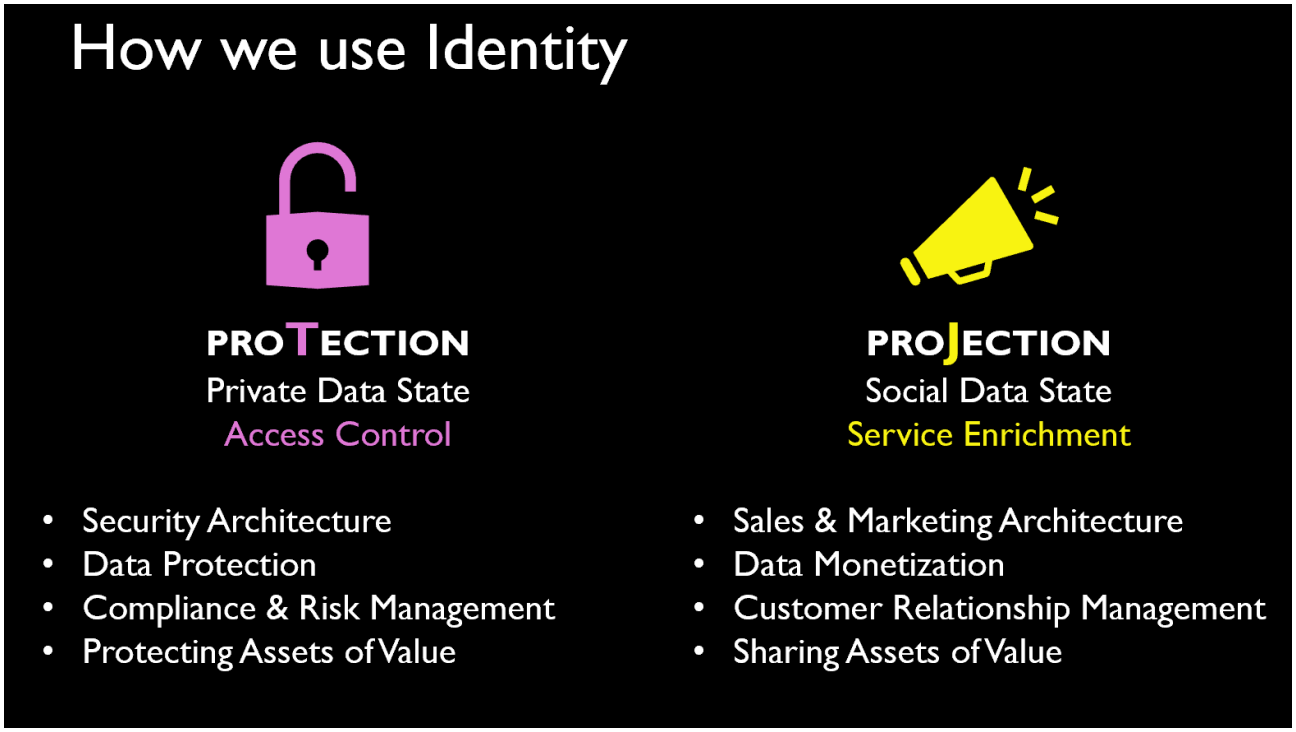
Please list the key points of your conversation and/or what you would like to share with your colleagues.

Value of Identity Markets.

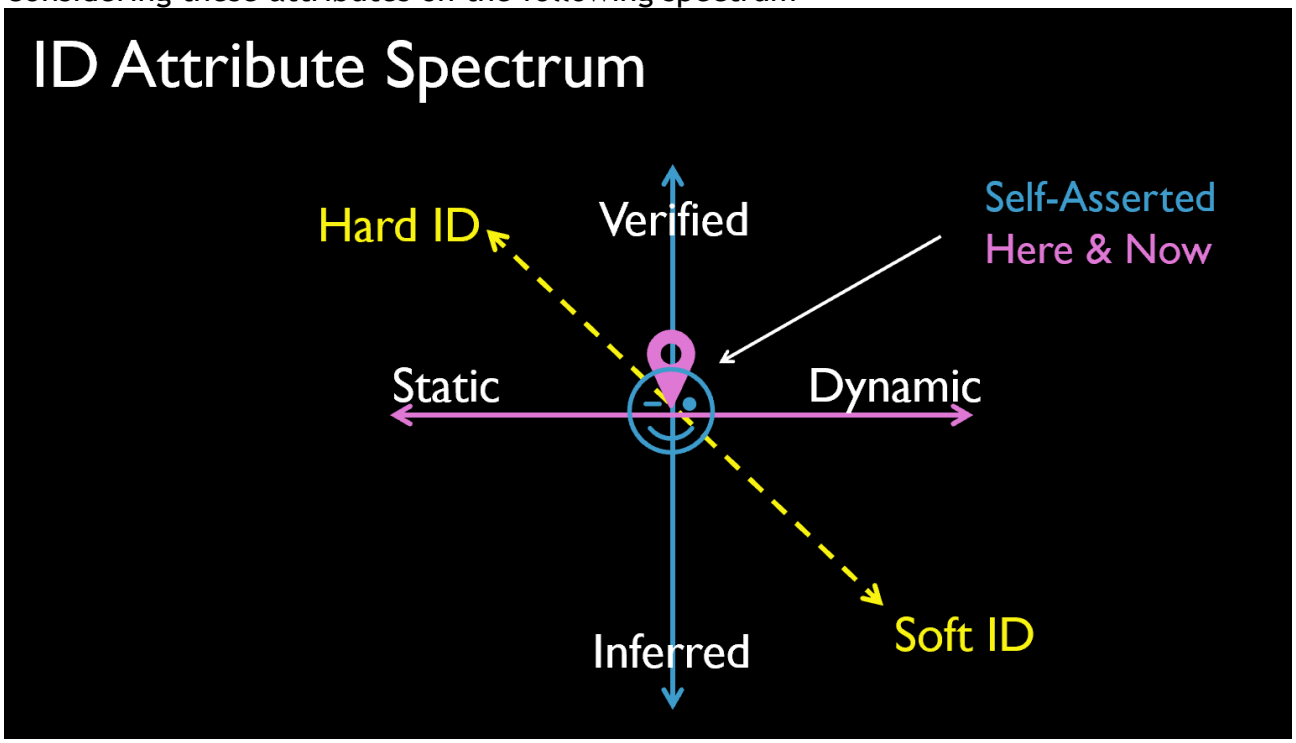
Broad framing of identity as the use of data attributes which are used for two purposes



Translates into this for enterprises



Considering these attributes on the following spectrum



Discussion: Michael B commented that Hard Identity could be characterised as 'deterministic identity' vs Soft ID as 'probabilistic identity'.

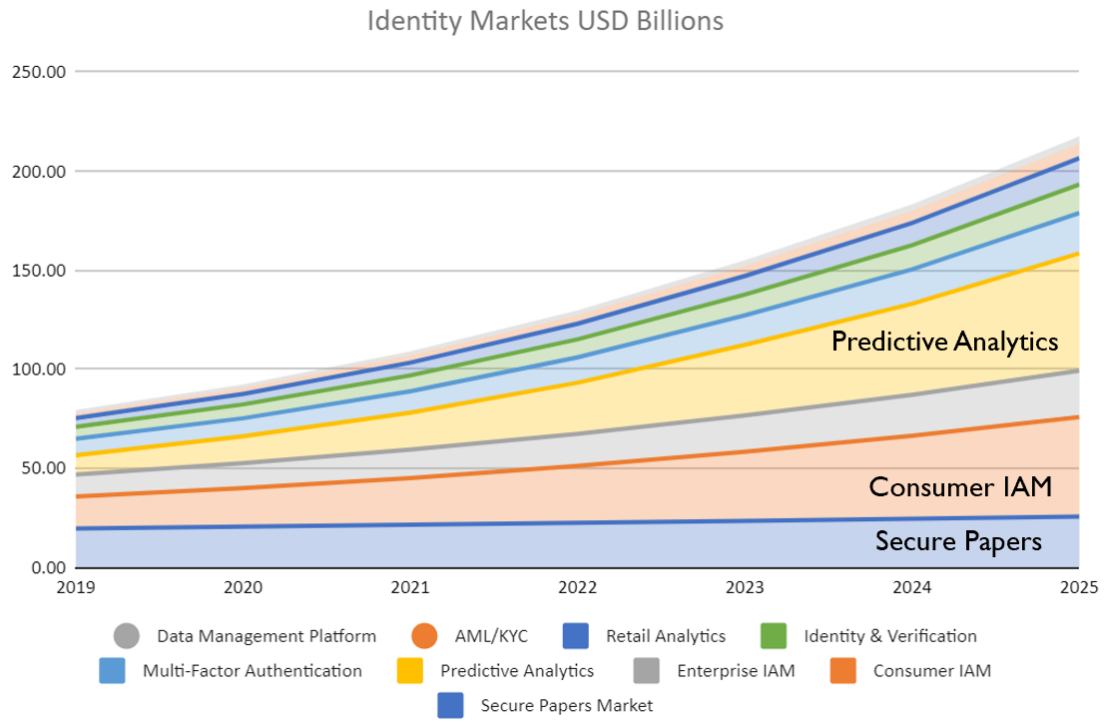
Nicky - yes other uses are functional vs ephemeral or foundational vs emergent. You can see the type of 'ID' in terms of the types of markets and players. Your National ID card is full of static highly verified data - a hard ID, versus session cookies in your browser are full of dynamic, inferred attributes that have not even been self asserted, stuff even you don't know about yourself and which is frequently wrong! This is a market opportunity for SSI as SSI is the self assertion which sets those attributes on the path to verification.

Timothy Ruff & Lucy Wang both commented that using the term identity at all in this context was unhelpful, the real value was in "authentic data". A Covid Credential for example has little to do with identity, identity simply enables the link with a particular individual.
Nicky commented that this was true but the credential itself is simply a *validation* that a test has been carried out on a person called Timothy, the identity piece is in the verification that the person presenting the credential is the same Timothy who had the test.

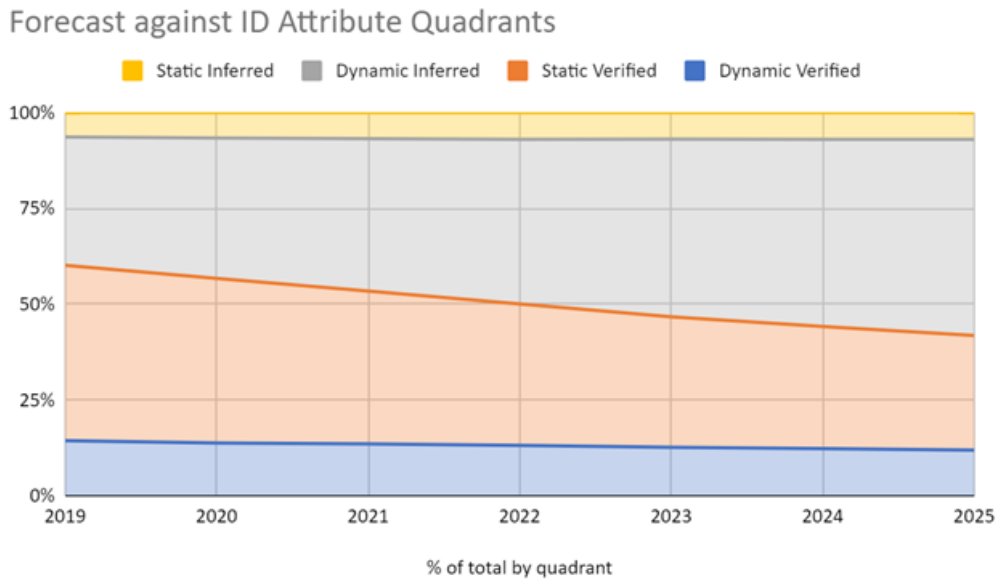
Essentially 'though, this is very true - *'no-one buys identity'* any more than they buy a mobile base station when they buy a mobile phone. It is purely an enabler of other business cases arising from the transactions it is used in.

Taking this frame of reference we can map identity markets and find some surprising things. The following analysis is based on a pre-covid market analysis 3 sources of data per sector averaging out CAGR and
value. https://docs.google.com/spreadsheets/d/1BqCdnJZReeW3xvtiTJWlwMTuC93SJE5P65pd4KEDgGQ/edit#gid=1040410099

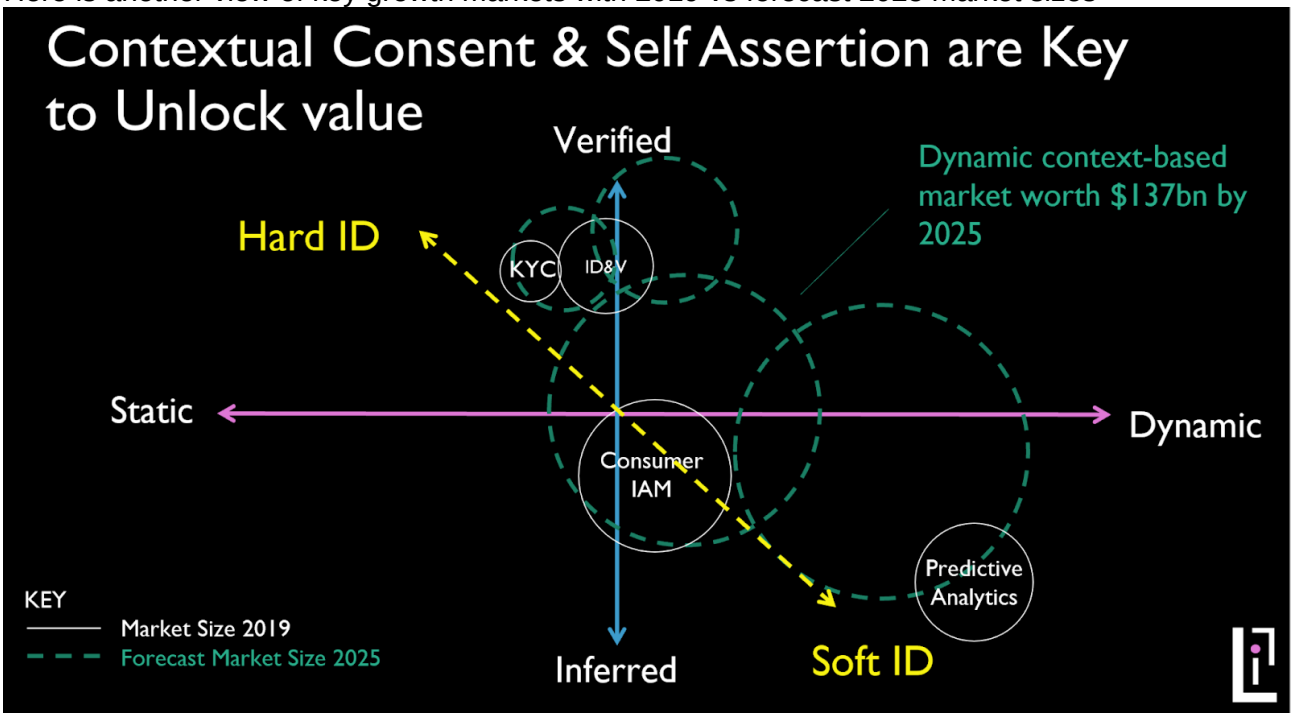
In this sheet you can see Hard Identity markets like Secure Papers and Soft Identity markets like predictive analytics.



The normal working assumption for most is that it is dynamic, verified data that is of most value in the market, enabling as it does AML/KYC use cases or high levels of identity assurance. However the following view shows how the dynamic inferred market represents a much bigger opportunity (think AI/ML and automation). Even static inferred markets are of greater value than dynamic verified, based on the blurred lines between physical and logical worlds (think AR/VR, IoT and physical access control).



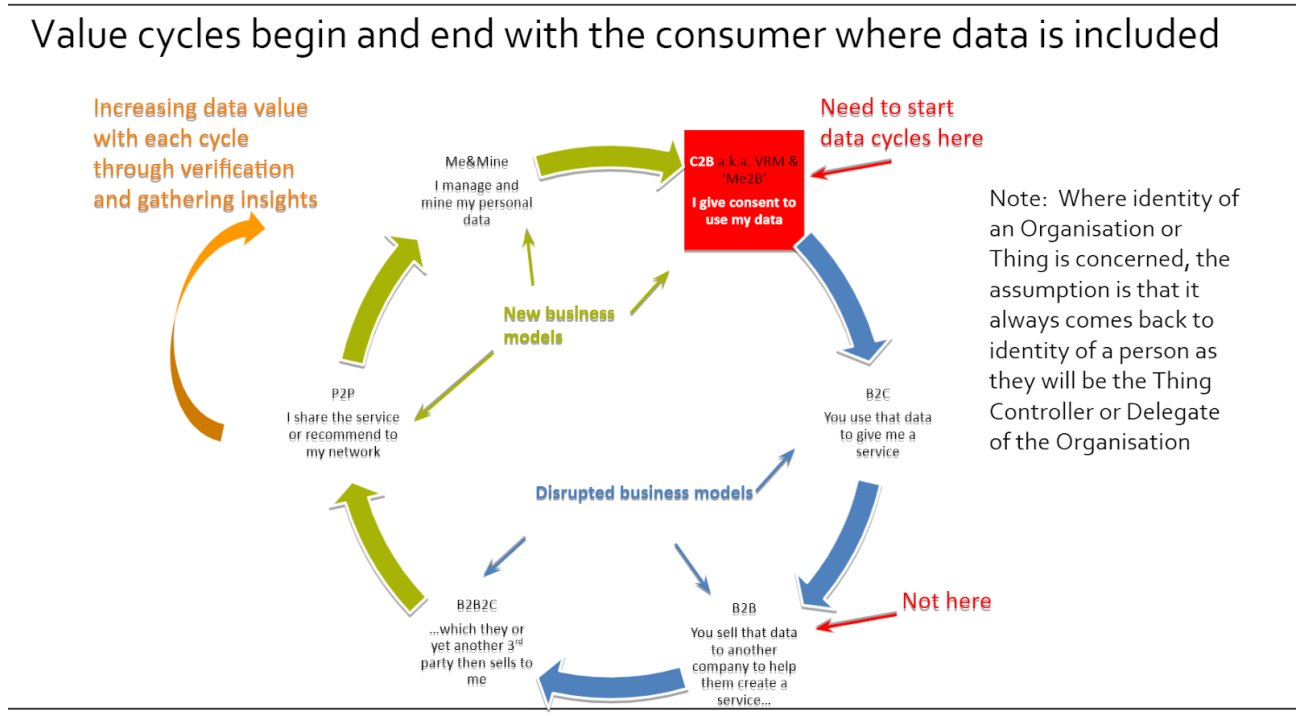
Here is another view of key growth markets with 2019 vs forecast 2025 market sizes



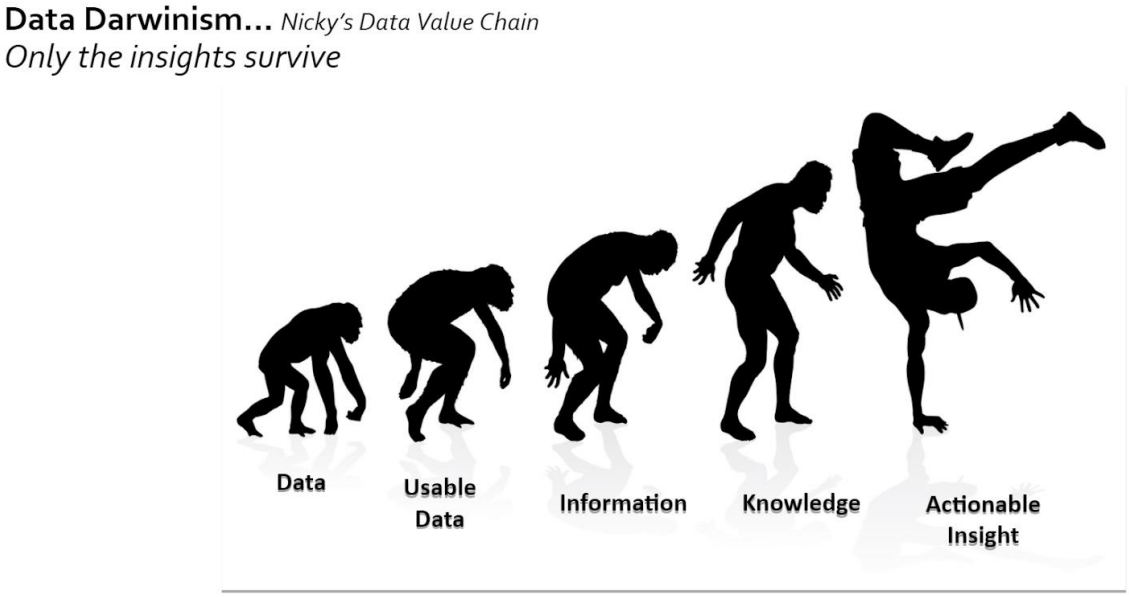
We then moved on to discuss Data Value Cycles, and we shared the following presentation which had been pulled together for the Business of SSI Task Force at Sovrin Foundation in February

2020. https://docs.google.com/presentation/d/1QIL9P7036E4VmsK6Uq--UQ4niTlijsnTWrMrxsYcno8/edit#slide=id.p1

In data markets, value chains are not linear, but are self-reinforcing data value cycles which include different types of business model. SSI inserts the individual into these cycles which instead of starting with a B2C transaction, start with a C2B consent to access data.



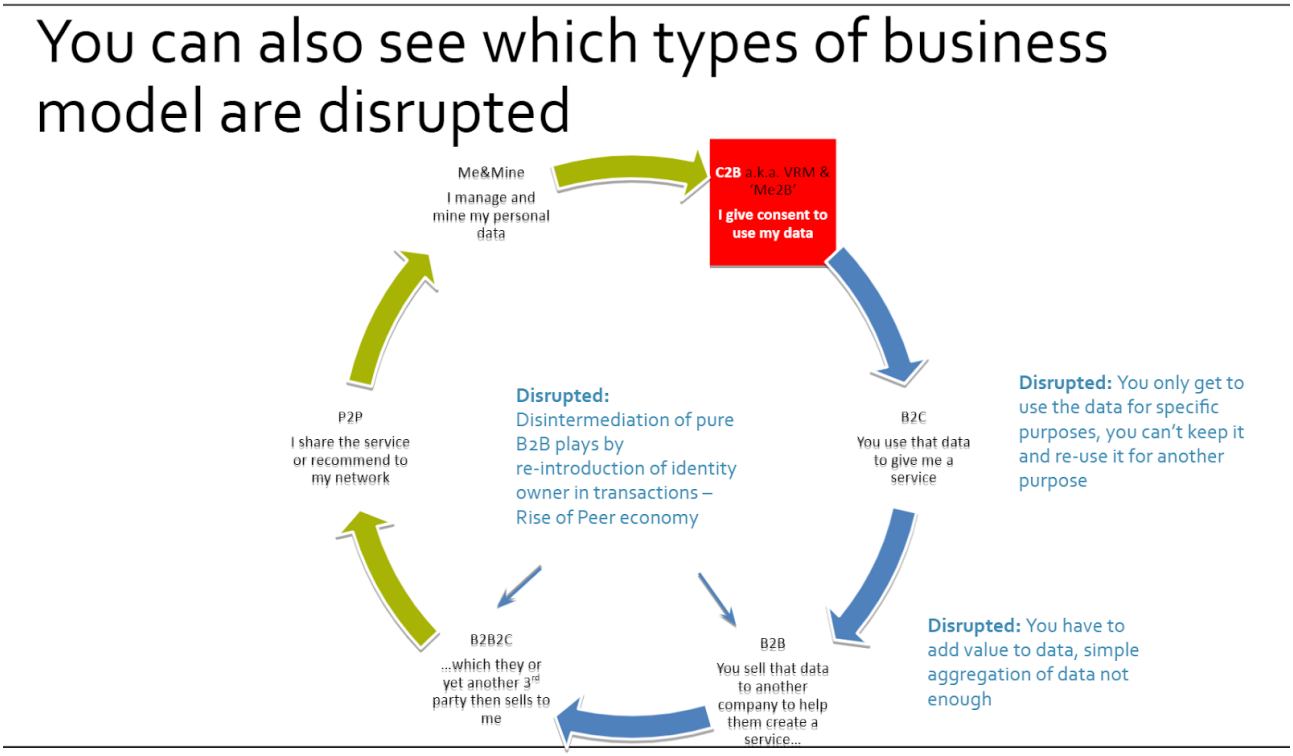
The data only has value as part of the interactions or transactions, otherwise data is simply a cost and a risk



We briefly reviewed new business opportunities

Barriers to sector growth:

- Attention load on consumers
- Privacy & Security 'grudge payments'
- Inability to monetise (lack of fungibility in value exchange) personal data as easily as skills or time
- Failure to link data life-cycle with value-chains or customer life-cycle



And where new business models and opportunities could emerge, e.g. in the peer economy.

Michael B commented that the key opportunity for SSI community is to bring the worlds of CRM and Security focused identity together

Timothy Ruff disagreed, focusing on VC's rather than SSI as the route to adoption and removing identity from the equation.

Session 3

Where do we go from here?

Session 3A
Session Convener: Phil Wolff
Session Notes Taker:

Please list the key points of your conversation and/or what you would like to share with your colleagues.

No Notes Submitted

Let's move some cheese: Helping leaders change their current business models?

Session 3B
Session Convener: Kimberly Wilson Linson/ Fraser Edwards
Session Notes Taker: Fraser Edwards + Anonymous Nyan cat

Please list the key points of your conversation and/or what you would like to share with your colleagues.

Raw notes from Neil Thomson

David Huseby - What is getting in the way of adoption is centralization

Give the issuers of a report as authentic document - (Issuer)

Use existing KYC to issue VCs - extending their services to DDE

No authenticated document is valid without a non-revocation proof - that is what you are paying for.

Transitioning to non-revocation proof of data/content vs. HTTPS certificates (channel)

Late binding trust - applies for Vaccine certificates - requires Verifiers to see value in this approach

Use of onetime URL for delivery of signed document - double assurance of one time valid

Need to get the "toe in the door" - provide new solutions that solve a key point problem, but can integrate with existing customer infrastructure (vs providing a full solution out of the box) and incrementally move them to a fully new solution

Putting significant numbers of people out of work is not a goal.

Pitch - we can automate your data privacy regulatory requirements. Data privacy as a new costs that the winners will minimize the cost. As this is new job (and the organizations will otherwise). Also applies to Governance - this is a new requirement that will cost $$$ to hire/develop the skills to implement - win/win is automated from ground zero.

Where is the route of trust going to come from (for SSI). But that is not the only technology being developed here

Data Privacy, data interchange, governance logging/detection.

How to do this without having a customer fully re-write their applications?

Has to be a go-forward (vs. retrofit) proposition - solving tomorrows problems vs. re-solving legacy problems

Nothing new - need to find an advocate

Key - everyone is afraid of the lawyers (for legislated regulation)

Governance/Consent is a very key technology - consent/receipts - providing defence against legal risk.

The Lawyers are going to be the real drivers behind accepting privacy tech.

Fear (risk management, legal liability, regulatory compliance) vs. Ambition (ease of M&A, cost reduction, speedier operation, FOMO).

Finclusive

KYC provider that uses authentic data

Currently paper/physical still rules.

Problem - how do you rewrite all the related legislation to swap from physical to electronic identity and credentials

Digital signatures are legal in all 50 states (admissible in court) - not the same as Docusign lite (paste image in document) is not real "crypto" signing - that is a much more expensive Docusign product

Authentic document - NFT without the bitcoin/crypto currency attachment. Becomes controllable and traceability. Pitch - risk mitigation, certainty of ownership, traceabilty, ...

Driving adoption (summary) - solve new/emerging (e.g. regulation) problems, keep the lawyers happy

Digital provenance - is key to NFT type control - same for legitimizing data - where did it come from.

SSI Adoption - what's working & what's not? Lessons from 50 SSI leaders + early production deployments

Session 3E
Session Convener: Riley Hughes
Session Notes Taker:
List of Session Attendees:

Please list the key points of your conversation and/or what you would like to share with your colleagues.

No Notes Submitted

https://trinsic.id/4-keys-to-ssi-adoption/

Closing Circle - Impromptu Session on Naming

Timothy_Ruff: Love the phrase "authentic data" -- if I'm not mistaken, credit goes to Dave Huseby for popularizing it

Michael Shea: Correct Timothy, thank you for assigning the attribution

Leah Houston: yes

Fraser Edwards: Seconded

windley: “Authentic Data” is a result. “Verifiable Credential” is a mechanism

Riley Hughes: I like the name, but i don’t think it replaces verifiable credential. VC is a standard with a spec to point at. Authentic data is a concept, like self-sovereign identity. So I think AD replaces SSI, not verifiable credentials.

David Huseby: https://dwhuseby.medium.com/the-authentic-data-economy-9802da67e1fa

Riley Hughes: Yep, +1 Phil

Timothy_Ruff: @riley ACDCs - Authentic Chained Data Containers

Riley Hughes: Our space has had naming challenges for years: https://link.medium.com/rnxKQyOgsib

Doc Searls: Here is the ProjectVRM list archive: https://cyber.harvard.edu/lists/arc/projectvrm Dave Huseby's recent postings there are useful.

Timothy_Ruff: +1 Dave. Identity is just one kind of data that can be made authentic by SSI tech.

David Huseby: By the authentic data tech ;)

Neil Thomson: Authentic Data is crypto validated and provenance data. VCs is a specific use of AD

Timothy_Ruff: Maybe VCs become ADCs - Authentic Data Containers

David Huseby: @Neil I agree with that statement.

Neil Thomson: You ship VCs in a ADC

David Huseby: I just don’t like “credential” or “identity” because it projects an incorrect impression to uninformed people being introduced to this.

windley: My experience after 20 years in this industry and 16 years of IIW is that naming discussions are largely a waste of time. My cynical view...

Timothy_Ruff: Sounds like we're having a regular IIW session in the closing circle... :)

Andrea Reginato: Why authentic and not trusted? Is there a clear difference?

Fraser Edwards: Maybe trusted is subjective whereas authentic is objective

Timothy_Ruff: +1 Fraser

Nicky Hickman : trusted is too contested - trustworthy. see this from Turing Institute https://www.turing.ac.uk/sites/default/files/2021-05/technical_briefing-facets_of_trustworthiness_in_digital_identity_systems.pdf

Cristy Stone: Thank you all! I have to run but this has been a great session. Take care!

Maria Teresa Aarao: Thank you all. Great sessions. I´ve learned a lot. Take care.

Leah Houston: +1

As a result of attending The Business of SSI

***** Please complete the sentence: As a result of attending the Business of SSI …. *******

- I see new opportunities and better understand winning business models
- As a startup co-founder i feel there are diverse solutions requiring time to understand in order to find the best fitting solution (or just one between the different, without warring too much). Thanks!
- As a result of attending Business of SSI I feel up to date with the cutting edge of authentic data and tapped into a wonderful community of passionate experts.

Stay Connected with the IIW Community Over Time - Blog Posts from Community Members

New Community Resource
Each week Kaliya, Identity Woman and Informiner publish a round of the week's news from the industry. It is called **Identosphere - Sovereign Identity Updates (weekly newsletter)**
You can find it here: https://newsletter.identosphere.net/

As a follow up to the session 'Let's Bring Blogging Back' an IIW Blog aggregator has been created here: https://identosphere.net
If you want your blog to be included please email Kaliya: kaliya@identitywoman.net

A BlogPod was created at IIW - Link to IIW Slack –
https://iiw.slack.com/archives/C013KKU7ZA4
If you have trouble getting in, email Kaliya@identitywoman.net with BlogPod in the Subject.

Planet Identity Revived ~ @identitywoman & @#InfoMiner cleared out & updated Planet Identity (see links below) you can support the work here:
https://www.patreon.com/user?u=35769676

IIW Community Personal Blog's shared via: https://identosphere.net/blogcatcher/
IIW Community dot.org's in the IIW Space: https://identosphere.net/blogcatcher/orgsfeed/

Hope See you October 12, 13 and 14, 2021

for

IIWXXXIII Online

The 33nd Internet Identity Workshop

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