A Privacy and Technology Outlook
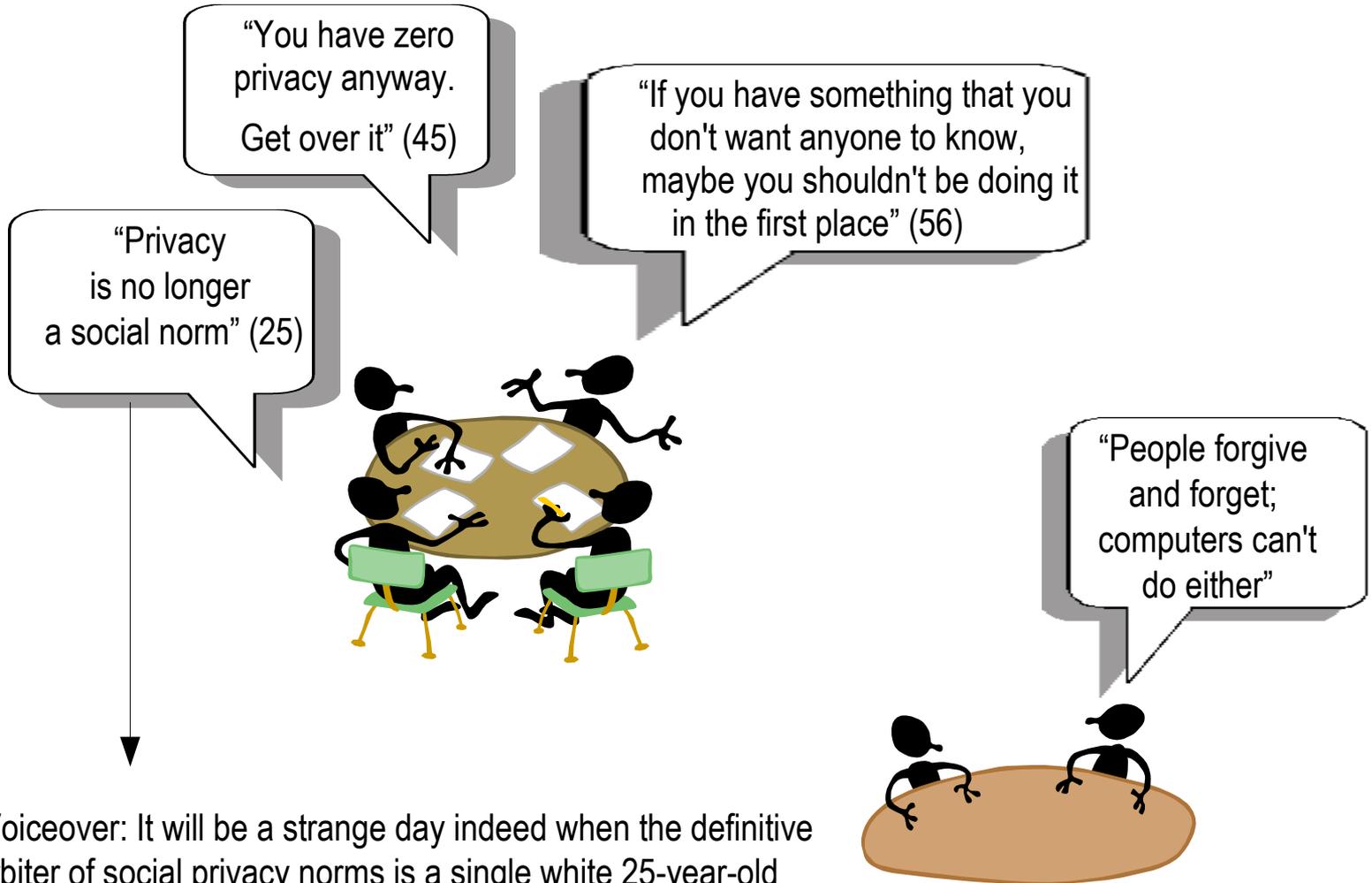
Robin Wilton

Director, Future Identity Ltd
Director of Privacy and Public Policy, Kantara Initiative

Do any of these strike a chord?

"Ladders, Onions, and Surfing Naked…"
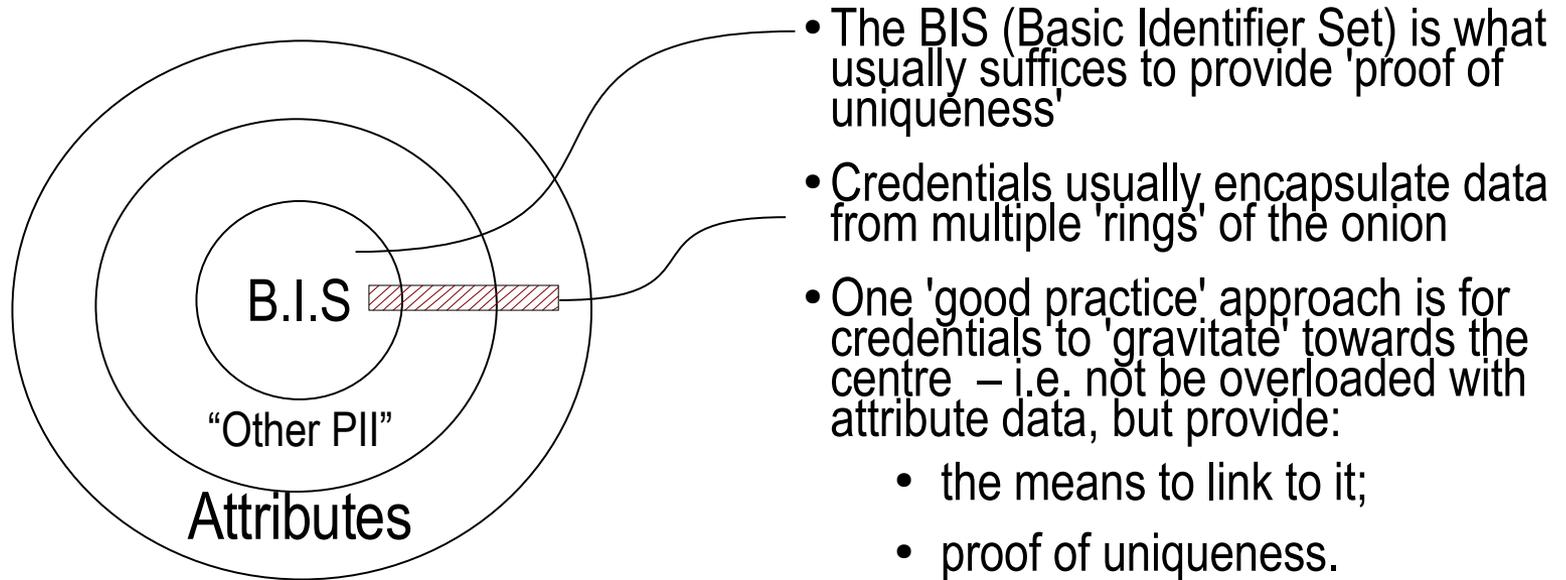
Topics for this session:

- How are identity and privacy related?
- What is privacy anyway, and why is it important?
- Is privacy just a matter of protecting PII?
- What future challenges does online privacy present?

This presentation draws on the input of many people, including:

- The Liberty Alliance Privacy Summit participants
- Bob Blakley and Ian Glazer of Burton Group
- Dr Mireille Hildebrandt, Vrije Universiteit Brussel

My sincere thanks to all of them

Future identity

How are identity and privacy related?
(The 'Onion' Model)

- The BIS (Basic Identifier Set) is what usually suffices to provide 'proof of uniqueness'

- Credentials usually encapsulate data from multiple 'rings' of the onion

- One 'good practice' approach is for credentials to 'gravitate' towards the centre – i.e. not be overloaded with attribute data, but provide:
    - the means to link to it;
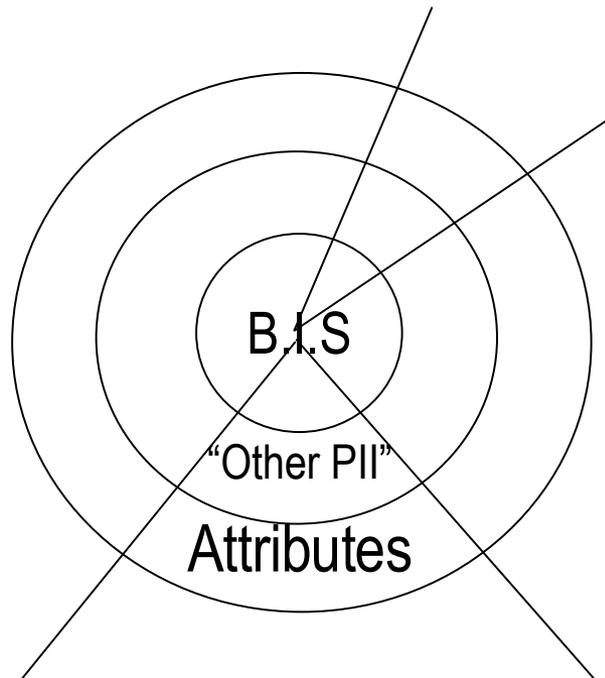   - proof of uniqueness.

B.I.S

"Other PII"

Attributes

Credentials are not privacy-neutral

- e.g. Using a driver's license to prove your age reveals more than your age;

- By their nature, credentials tend to make transactions 'linkable';

- Privacy-enhancing systems will (must) be better at attribute-level disclosures, or better still, "Yes/No" answers to attribute-level questions.

(cf. Dave Birch's paper on the "Psychic ID" metaphor)

http://www.springerlink.com/content/hk1p8r133867x402/fulltext.pdf

Slicing the Onion

B.I.S

"Other PII"

Attributes

- A 'segment' of the onion may correspond to sector-specific data (healthcare, tax, employment...).

- Some sectors are 'informal' – such as the separation between your Flickr and MySpace accounts.

- Others, you might prefer to keep strictly separate – such as online banking.

- One way to look at privacy is as the preservation of "contextual integrity" between sectoral data sets *(Helen Nissenbaum, via Piotr Cofta of BT)*

We become uneasy if our personal data shows up 'out of context'...

Future identity

What risks does this model suggest?

B.I.S

"Other PII"

Attributes
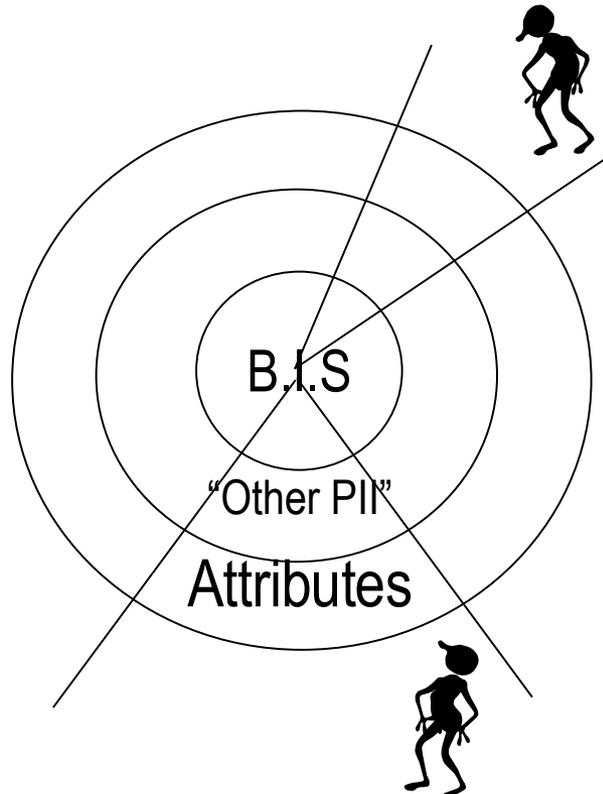
- Privacy is not a 'state': it's a relationship, often involving multiple parties. And like any relationship:

- Privacy brings interests and motivations into conflict:

- What we tell different people often depends on context;

- There are rules – mostly implicit:

- When third parties exchange data about you, is that co-operation or collusion?

- Like any relationship, without maintenance and management it may go awry.

Intuitively we know all these things, because humans are social animals...

and yet ...

Future identity

Beyond the Onion: the DAO of privacy...

D.A.O.

D.A.P.L.Y.

D.A.Y.
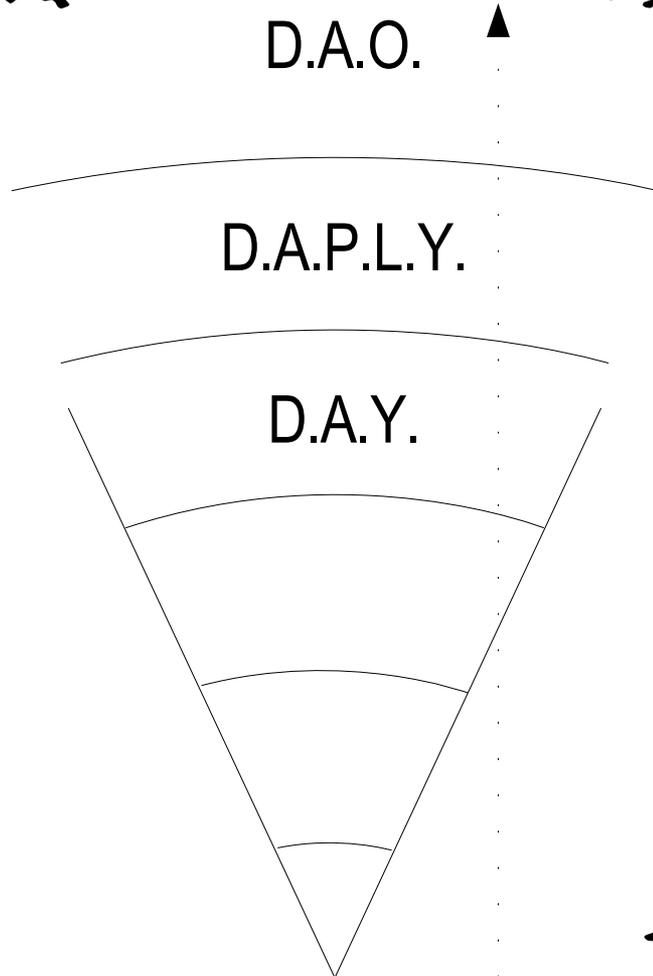
Increasingly, third parties interact with you based on data at the edge of the Onion and beyond...

- Data About You: with enough of your attributes, and/or linkability, you can be identified even if you're not asked for credentials;

- Data About People Like You: if you can be categorised, third parties will apply inferences from other 'group' characteristics;

- Data About Others: mass data mining makes third party intervention viable without you disclosing any PII.

"You don't have to be in the statistics to be affected by the statistics"
(Jason Pridmore)

Future identity

Flawed Perceptions

- The online world neither works nor behaves like the real world; *despite occasional appearances to the contrary...*

- The online world often presents us with metaphors, but not ones which would help us overcome these differences.

- We therefore frequently – and willingly - base our behaviour on a flawed perception of risks and the reality which gives rise to them.

In other words, we could be surfing naked and not even know it.   Brrr.

Future identity

Getting the Privacy 'Big Picture'

- "Privacy management" implies being aware of relationships and contexts, and acting accordingly;

- It means taking diverse, legitimate stakeholder perspectives into account;

- It needs a new set of metaphors, which help build a privacy-enhancing culture: 'protocol rules' are not the same as 'social rules';

- It will involve privacy-enhancing technologies, but those are doomed without a privacy-enhancing ecosystem of governance, adoption and behaviours which, largely, remain to be developed;

- So: what are some of the challenges, if online privacy is to have a future?

Privacy is not about secrecy: it's about disclosure...
but disclosure with consent and control
appropriate to the context.

Future identity

Challenges

- Managing meta-data:
  - Implied by most governance regimes - strongly indicated for good practice;
  - Sticky policy: preserving privacy preferences "beyond first disclosure"
  - Managing revocation as well as disclosure.

- Finding workable metaphors for online privacy concepts:
  - Personas, contextual integrity;
  - Informed consent in social networks.

- Managing attribute-level assertions:
  - If credentials are "minimalist", attribute management becomes critical;
  - "Yes/No" answers need to be built in from early on;
  - How to address the "DAO" problem:
  - "You don't have to be in the statistics to be affected by the statistics" (Pridmore).

Practical next steps

- Talk to the stakeholders, and reflect their perspectives and their needs in the 'ecosystem':
    - There are tried and tested models for productive multi-stakeholder conversations.

- Several relevant projects taking principles to practicalities:
    - PrimeLife (EU): whole-life privacy/identity management;
    - VOME and EnCoRe (UK): privacy perception, consent, revocation;
    - The Kantara Initiative (w/w) has work-groups on:
        - User-managed access to personal data
        - Information-sharing and user preferences
        - Privacy and public policy
        - Identity assurance
    ... and would welcome your projects and participation

    http://kantarainitiative.org

Fi

Thank you...

... any questions?

Robin Wilton
Director, Future Identity Ltd
Director of Privacy and Public Policy, Kantara Initiative

mail@futureidentity.eu
+44 (0)705 005 2931

http://futureidentity.eu
http://futureidentity.blogspot.com

kantara INITIATIVE™

Future identity