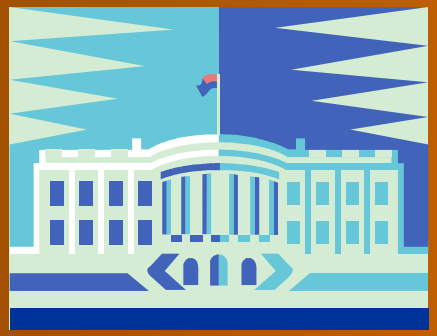
DIGITAL ID WORLD

INFORMATION INTEGRITY SOLUTIONS

Malcolm Crompton

Privacy by Design: The Key to Open Government



PbD

Sydney
29 March 2011

australia.gov.au
your connection with government

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In the New Digital Age:

You *cannot* have Government without eGovernment

You *cannot* have eGovernment without making it ‘safe to play’ for the citizen

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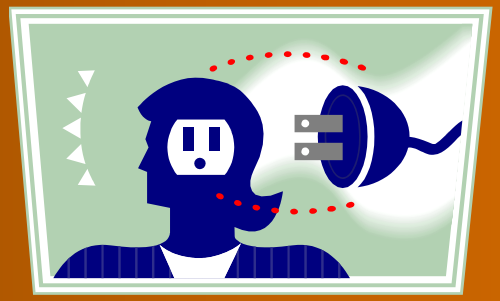
Connectedness

... is the defining characteristic of our time – eg, Government 2.0



"The collaborative web is changing forever the way we work and behave"

Safe to Play: A Trust Framework for the Connected Republic

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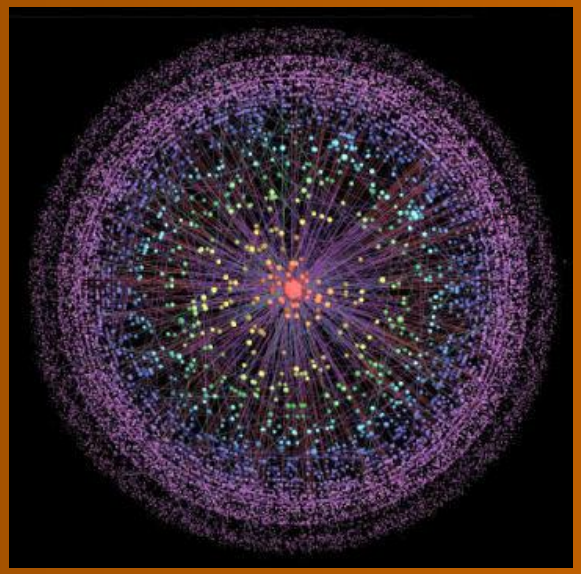
The Internet

Originally developed as a trusted environment

No protection or restrictions

But now...



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The problem

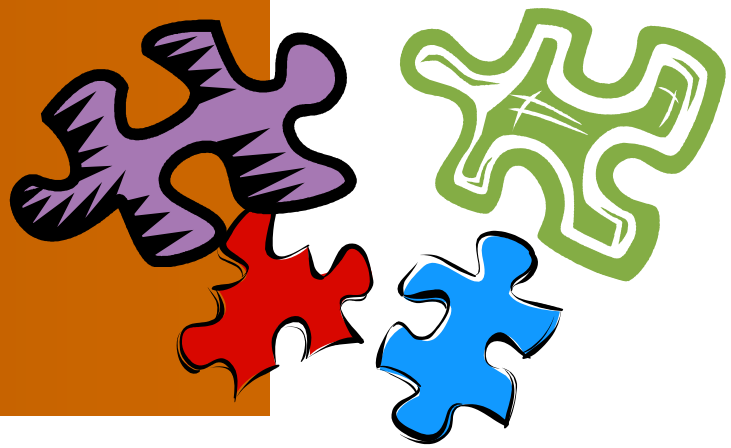
The Internet was built <u>without</u> a way to know who and what you are connecting to

A tired solution

Based on a patchwork of ***identity one-offs***

This typically involved:

- A registration process
- Issuing of credential
- Presentation of credential



The Identity Management Hydra

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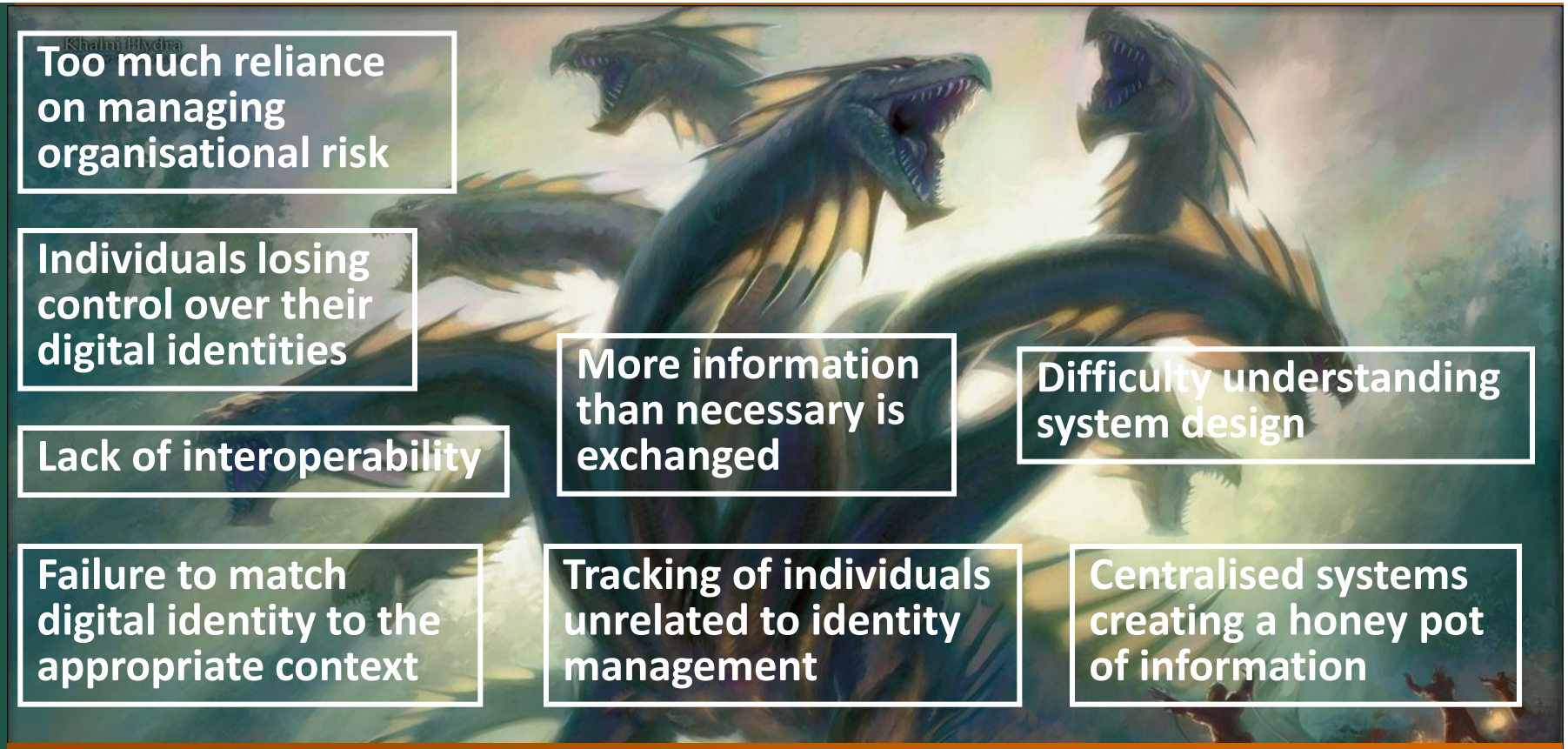
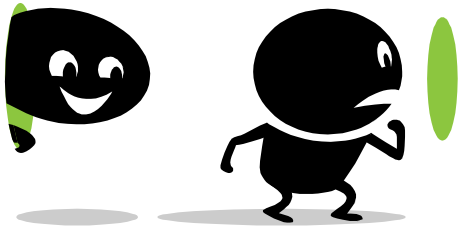


Key reason why it is not safe to play in the digital world:
Too much **power** in the hands of entities *other than* the individual



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Some key principles for Digital Identity

- User control over their digital entities – a 'user-centric' approach, instead of a 'digital god' approach
- Minimising the identifying or other information about a person to only what is needed
- Minimising the number of parties having access to identifiable information
- Establishing two way trust, not just an organisation's trust in the user

"Current Issues and Solutions in Identity Management"
M Crompton & R McKenzie
www.PrivcyConference2010.org
Jerusalem, Israel, 27 October 2010

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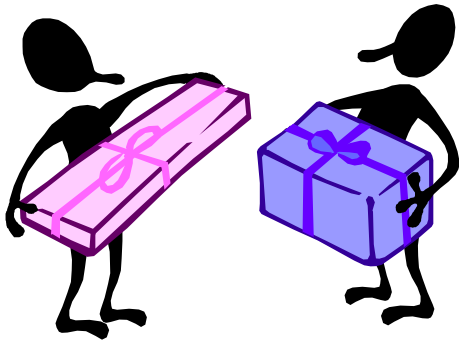
What we really want

- The goal is *not* to identify the person, but to ascertain that he or she is **reliable/can be trusted**
- We want to be in control
- Sometimes we want to know *who* is on the other end



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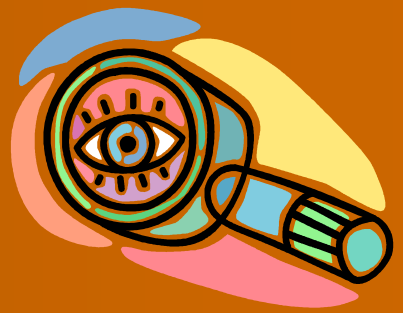
It is <u>not</u> about who you are ...



... it is about **managing risk**

... hence it is about he claims that you and the organisation need to verify

For example:

32nd International Conference of Data Protection and Privacy Commissioners
27-29 October 2010, Jerusalem, Israel
PRIVACY: GENERATIONS

PRIME
Privacy and Identity Management for Europe

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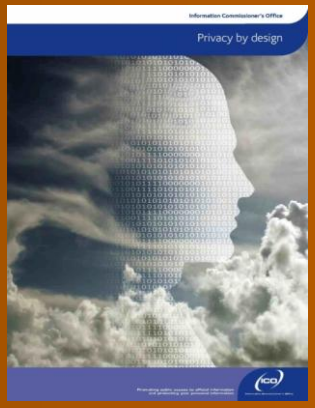
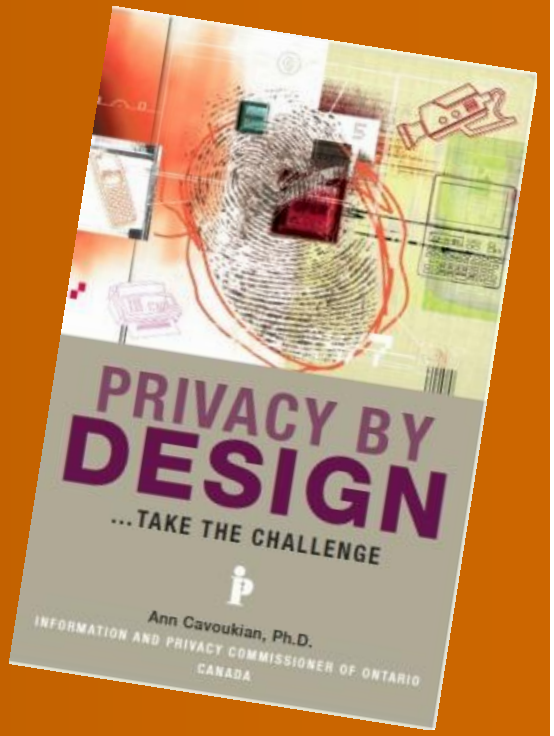
It's time





We now have a well-respected approach *and* the technologies to deliver it

Privacy by Design:
The 7 Foundational Principles

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1. *Proactive* not Reactive; *Preventative* not Remedial
2. Privacy as the *Default*
3. Privacy *Embedded* into Design
4. Full Functionality: Positive-Sum, not Zero-Sum
5. End-to-End Lifecycle Protection
6. Visibility and Transparency
7. Respect for User Privacy

www.privacybydesign.ca

Privacy by Design

The 7 Foundational Principles

Ann Cavoukian, Ph.D.
Information & Privacy Commissioner
Ontario, Canada

Privacy by Design is a concept that I developed back in the 90's, to address the ever-growing and systemic effects of Information and Communication Technologies, and of large-scale networked data systems.

Privacy by Design asserts that the future of privacy cannot be assured solely by compliance with regulatory frameworks; rather, privacy assurance must ideally become an organization's default mode of operation.

Initially, deploying Privacy-Enhancing Technologies (PETs) was seen as the solution. Today, we understand that a more substantial approach is required – extending the use of PETs to taking a positive-sum, not a zero-sum, approach.

Privacy by Design now extends to a "Trilogy" of encompassing applications: 1) IT systems; 2) accountable business practices; and 3) physical design and infrastructure.

Principles of *Privacy by Design* may be applied to all types of personal information, but should be applied with special vigour to sensitive data such as medical information and financial data. The strength of privacy protection requirements tend to be commensurate with the sensitivity of the data.

The objectives of *Privacy by Design* – ensuring privacy and personal control over one's information and, for organizations, gaining a sustainable competitive advantage – may be accomplished by practicing the following principles:

1. ***Proactive*** not Reactive; ***Preventative*** not Remedial

The *Privacy by Design* (PbD) approach is characterized by proactive rather than reactive measures. It anticipates and prevents privacy invasive events *before* they happen. PbD does not wait for privacy risks to materialize, nor does it offer remedies for resolving privacy infractions once they have occurred – it aims to *prevent* them from occurring. In short, *Privacy by Design* comes before-the-fact, not after.

Multiple credentials, multiple headaches

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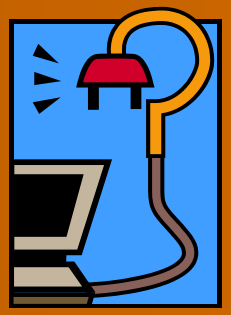
How do we eliminate the many credentials which individuals currently manage ?

Two main approaches, both with ‘digital god’ problems:

- Centralised identity management with one system and one credential
- Federated identity as usually conceived



kantara INITIATIVE™

Higgins
Open Source Identity Framework

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The solutions are real

azigo
Your data defines you. Own it.

OpenID

AVOCO secure

Here's the basics

The Information Card Ecosystem

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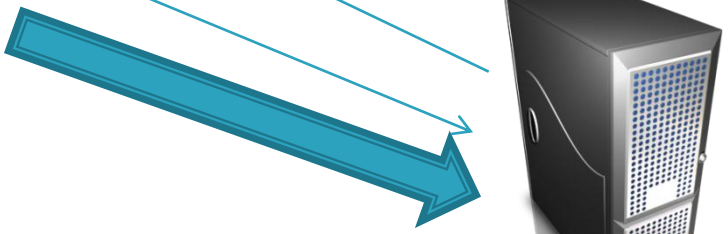
- Made up from various components:
  - Identity Issuer
  - End user selector – to choose card
  - Relying party – for example, online portal
  - Claim value providers
  - Authentication providers (optional)
    - Out of band information
    - Out of wallet knowledge
  - Minimal disclosure technology (optional)
    - For enhanced privacy

Person using the cards via the selector (online or on desktop)

Identity Provider



Website/service or application being accessed/used

AVOCO secure

Avoco CloudCard Selector

- Universal access to identities
  - From laptop, desktop, mobile device, iPad, etc.
- True zero footprint for end user
- No end user maintenance
- Strong security
  - RP specifies which selector is used
  - End user anti-phishing / out of band authentication
- Extended authentication support
- API to allow auto creation of accounts

AVOCO secure

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Making the right way, the easy way

- Privacy and security without <u>usability</u> will *not* work

- Too often, the right way has been the hard way (and the wrong way was too easy!)

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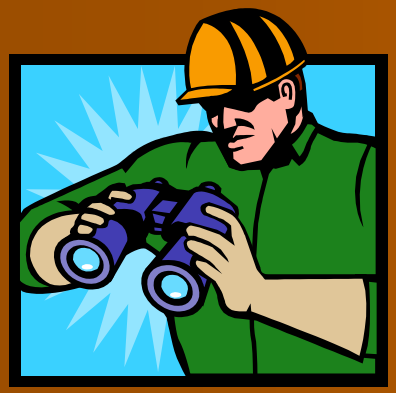
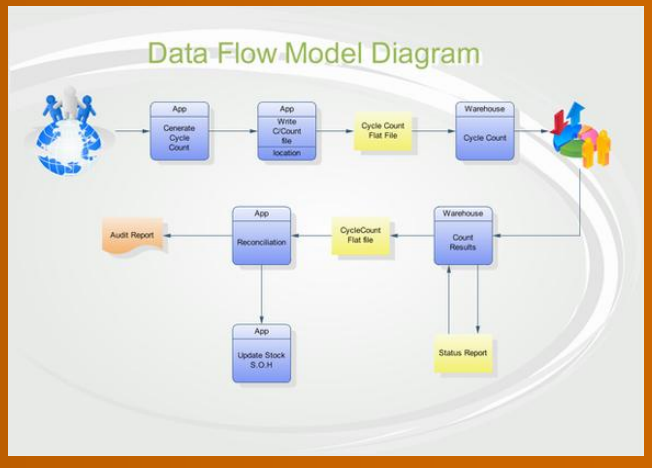
Privacy by Design isn't just tech

- Technology is one tool of Privacy by Design
  - another is **Privacy Impact Assessment**
- A PIA "tells the story of a project from a privacy perspective and helps to manage privacy impacts"

  Privacy Impact Assessment Guide, Office of the Privacy Commissioner





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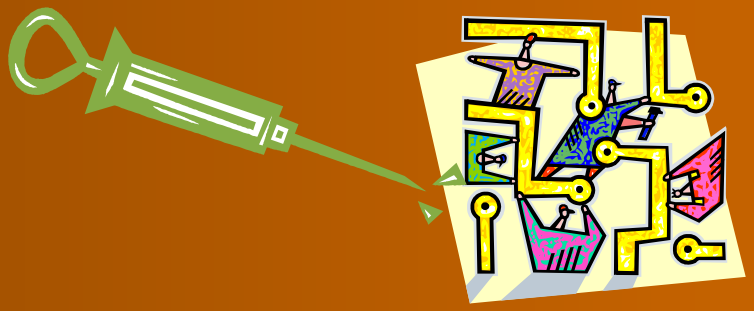
What is a PIA good for?

- Prevention is better than cure – identify and manage risks *before* they happen
- Consultation with stakeholders
- Assists in broader project management
- Transparency leads to public trust and acceptance



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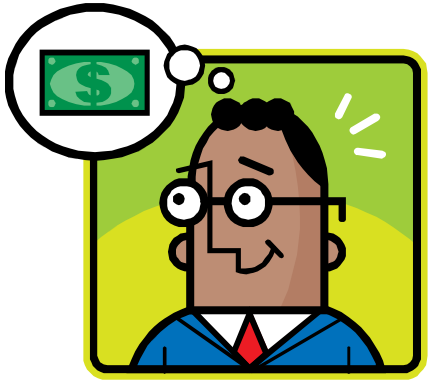
PIAs are becoming widely used

- Increasingly utilised in the UK, Canada, New Zealand and Australia
- IAPP pre-conference session on PIAs in Washington DC – of 77 attendees, 90% were from the private sector
- PIAs no longer a 'niche' concept, but good business sense



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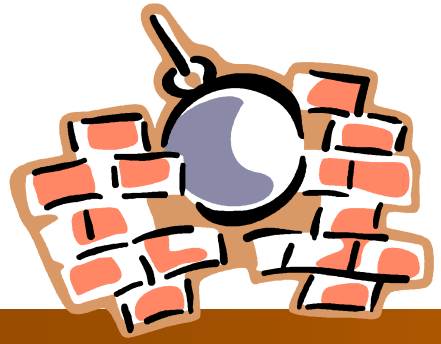
More PbD tools: law and policy

- New developments on the horizon:
  - a **single set** of Australian Privacy Principles
  - redrafting the Privacy Act
  - addressing the impact of new technologies
  - strengthening and clarifying the Privacy Commissioner's powers and functions



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Down with the digital gods !

- 'Single source truth' thinking doesn't work
- Build technologies and governance mechanisms based on grains of truth
- Build two-way trust – key to citizen engagement with government

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