

Microsoft

Health Privacy Futures 2008

The Status and Challenges of Health Privacy

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The Light at the End of the Tunnel?

Enterprise 2.0

The Social Web

Cloud Computing

Semantic Web

Model Driven Architecture

eHealth

Consumer-driven health

Control

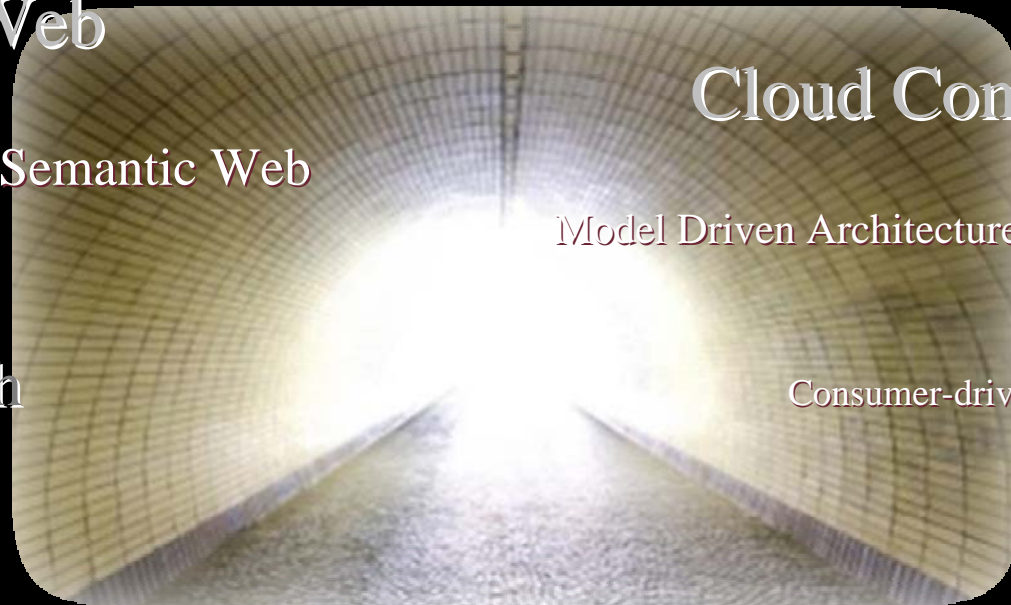
Trust

Privacy

Boundaries

Identity

Accountability





Video

Australian Kids & The Social Web

Web 2.0 creating Medicine 2.0

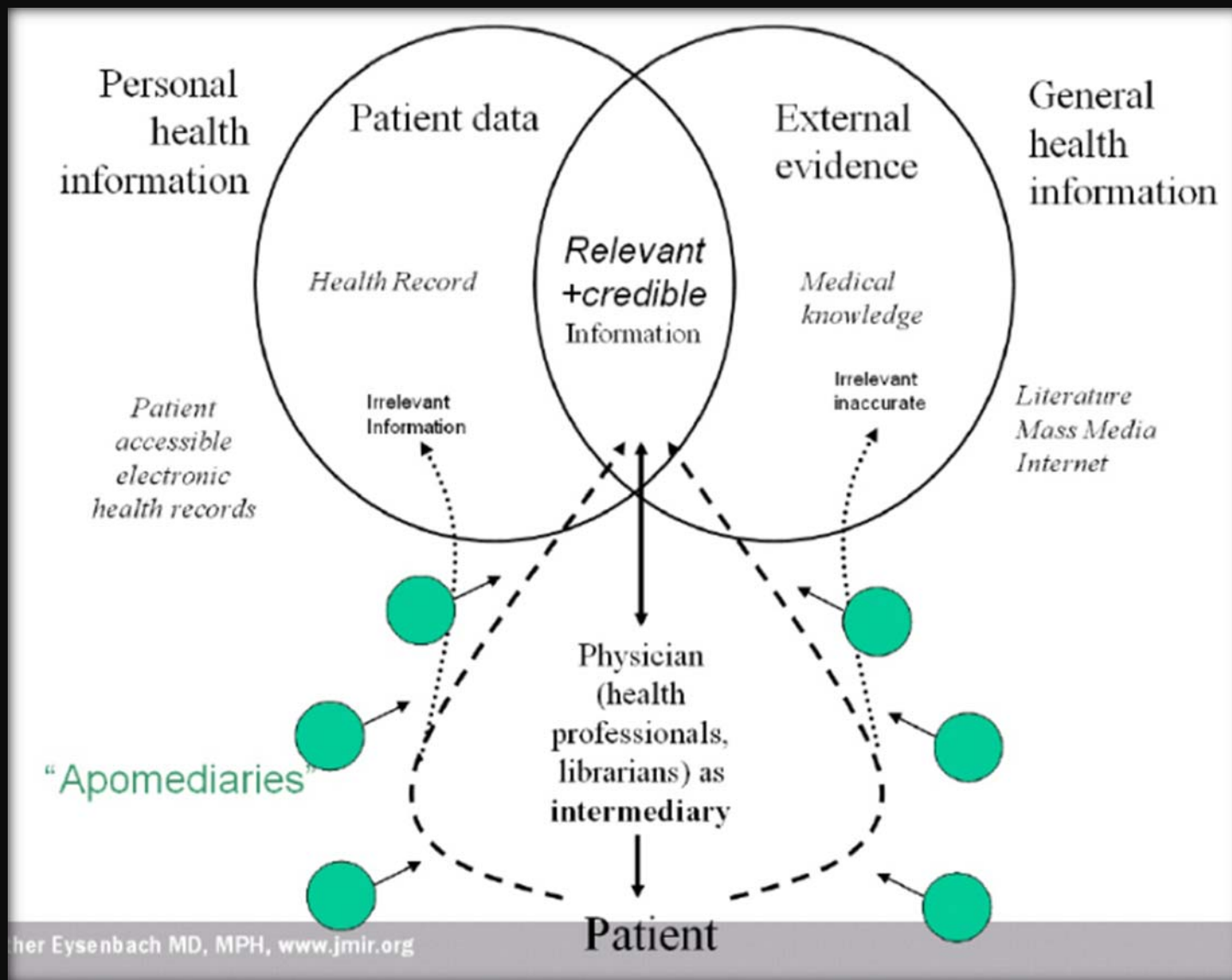
Central Themes:

- Social Networking
- Participation
- Collaboration
- Openness
- Apomediation

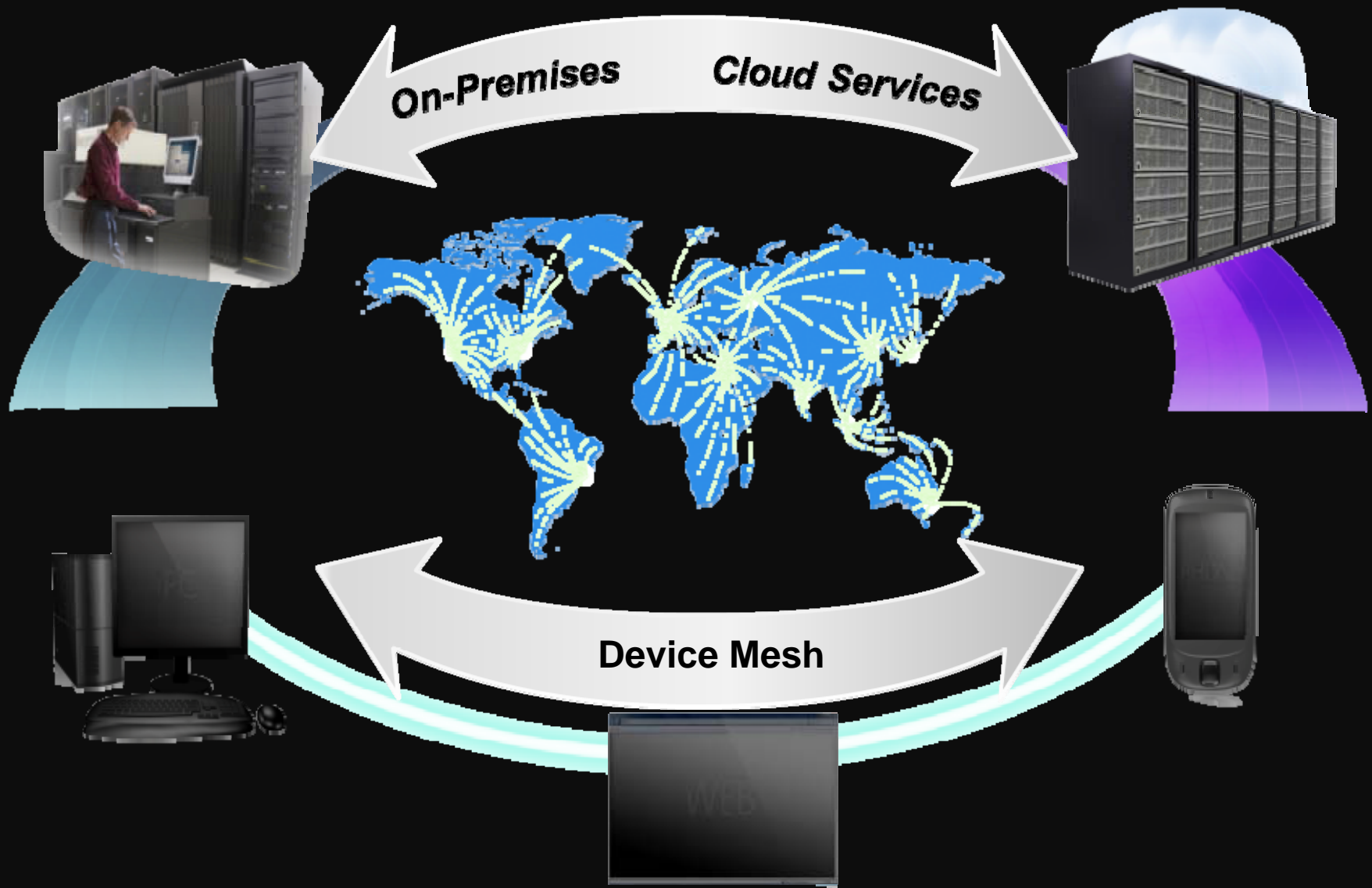


*Eysenbach G. (ed.): Medicine 2.0 Proceedings.
Toronto, ON, Canada, Sept 4-5, 2008
<http://www.medicine20congress.com>*

The Meaning of Apomediation



The Emergence of Cloud Computing



What does this mean for privacy and eHealth?

Four key questions:

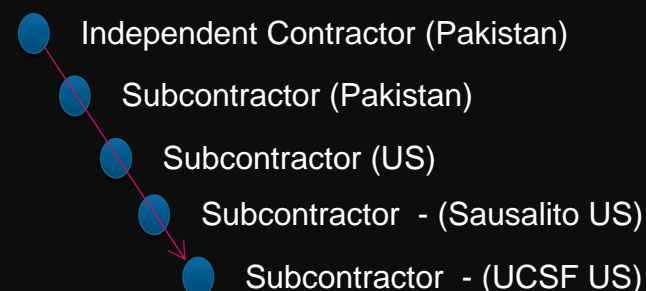
- **Shifting Boundaries:** How will increased outsourcing, offshoring and cloud computing impact on accountability & control of personal information?
- **Working Culture:** How will a workforce that embraces collaboration, sharing and empowerment manage individual responsibilities to protect privacy?
- **Relationships:** How does the social web affect the traditional top-down relationships between providers and patients?
- **Digital Footprints:** Will the nature of Web 2.0 devices and interactions lead to an abundance of unnecessarily collected data that could be collected, aggregated and profiled?

Shifting Boundaries

- **Outsourcing & offshoring are already commonplace:**

- Estimated 10% of US medical transcription performed offshore

“Your patient records are out in the open... so you better ... pay my dues”. [Patient records attached]



- **US GAO Study into offshoring and outsourcing practices of Medicare and Medicaid (2006):**

- Only 1% of prime suppliers were offshore, but 10% of prime suppliers subsequently subcontracted offshore
- 40% of agencies had recent privacy breach

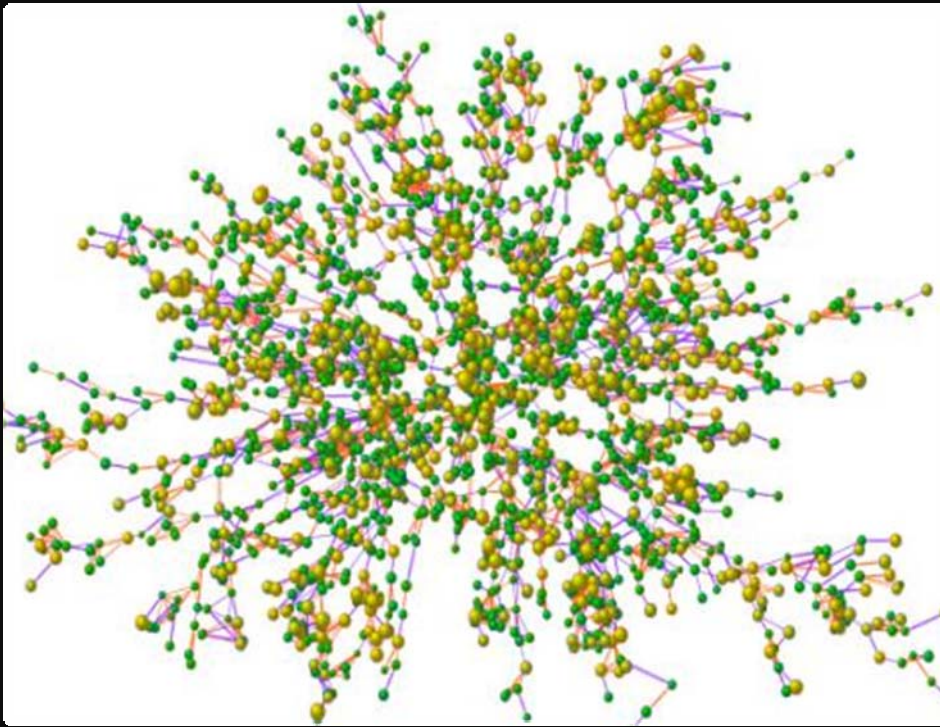
- **In a Web 2.0 and cloud computing context, data is 'everywhere and nowhere'**

Working Culture

- Working practices and operating cultures are evolving:
 - Greater empowerment, collaboration and sharing
 - Reduced decision making hierarchies
- Most privacy intrusions (estimated by Gartner at 70%) come from within the organisation
 - Centrelink Australia Investigation (2006) found 790 cases of "inappropriate access" to welfare recipients personal records
 - 19 staff were sacked, 92 resigned, 346 disciplined
 - In 2006-2007, a further 367 privacy breaches were reported
- The empowerment and privacy of the employee is being challenged against the privacy needs of the consumer

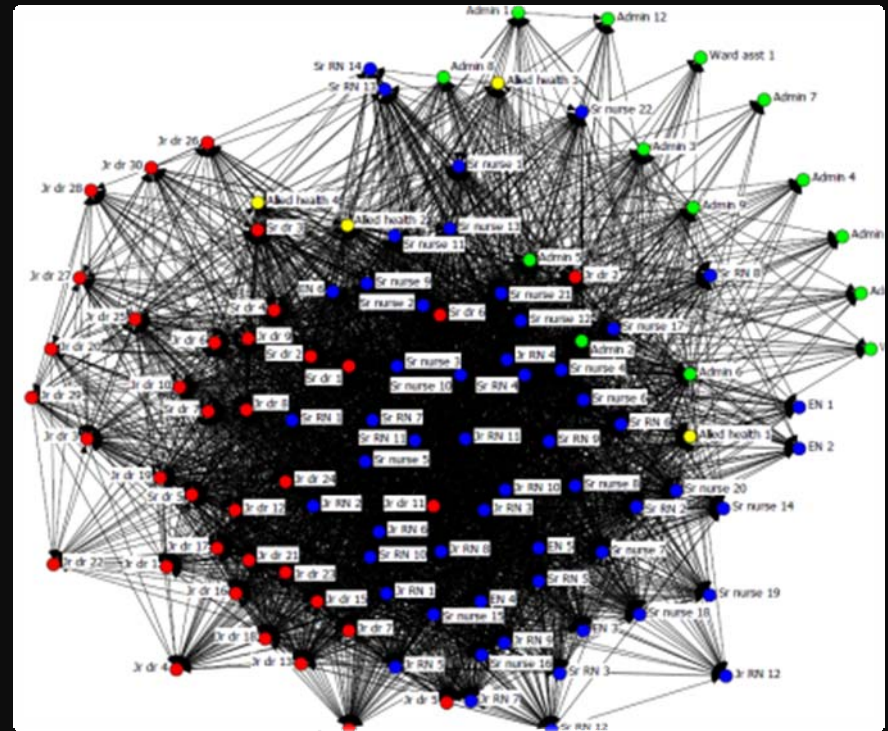
Relationships

- Trusted relationships are central to eHealth
- Web 2.0 technologies fundamentally leverage social connections



Is Obesity Contagious?

A social network map of 2,200 people, the largest group of connected individuals in the Framingham Heart Study, in the year 2000.
James Fowler, New England Journal of Medicine

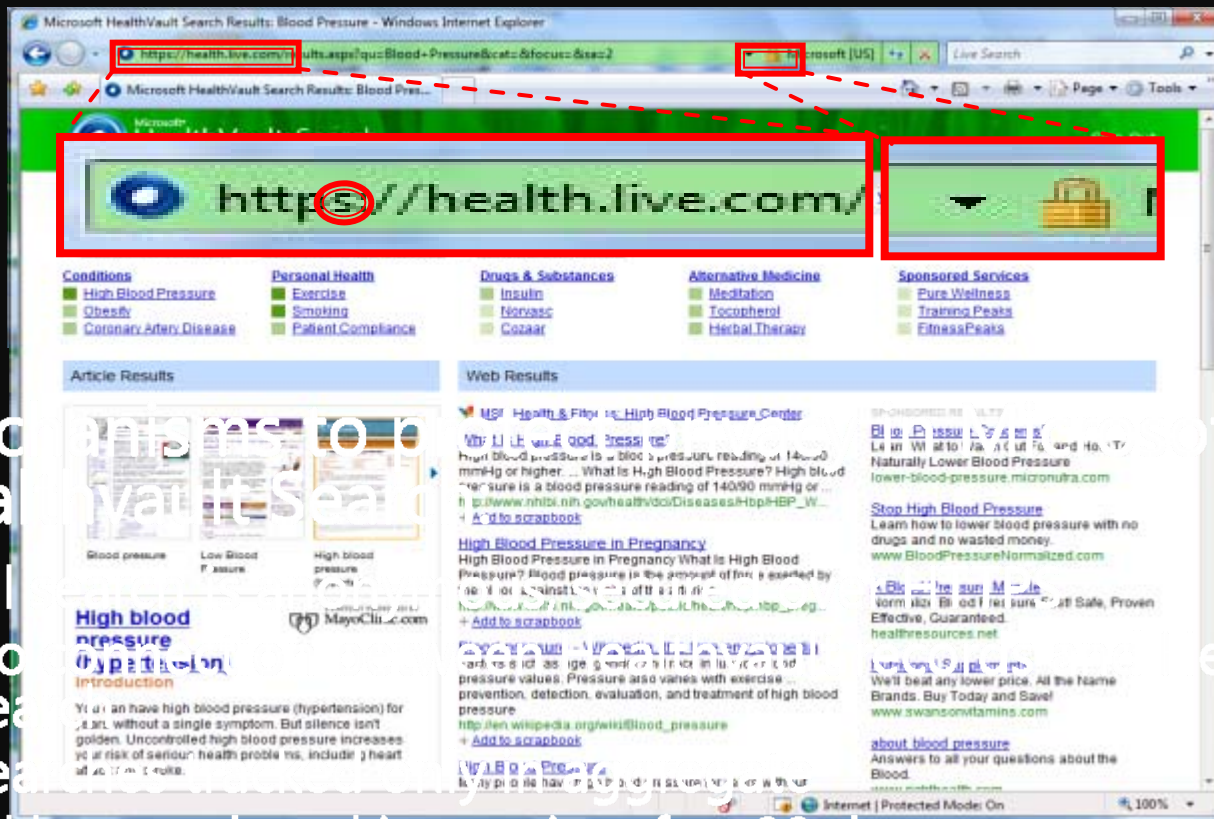


Social Networks of Staff in an Emergency Department

Study of the changes in the social network of an ED as a result of an IT based medication management system.
Nerida Cresswick and Johanna Westbrook, U Syd

Digital Footprints

- We leave 'digital footprints' everywhere
 - Web searches, cookies, mobile phone usage, wireless networks, RFID tags, digital certificates, credit cards, emails
 - Vastly improved capability to track and profile these footprints



- Medical
- Health

- All
- No
- Search
- Search
- All logs and cookies expire after 90 days

ft

healthvault

Conclusion

- **Two major technological shifts:**
 - Web 2.0 / Enterprise 2.0
 - Cloud Computing
 - Although 'over-hyped' at present, these shifts will present long term challenges and opportunities in eHealth
- **Managing the privacy impact requires:**
 - Global coordination of privacy policies to handle data and processing that is 'everywhere and nowhere'
 - Understanding of the complex nature of relationships and boundaries in the social web
 - Broader awareness of PII to include digital footprints
 - Local understanding and championing of privacy tradeoffs in the design of eHealth
 - Changing the conversation from privacy to trust

Thank You

