

Digital Identity

Social and Economic Realities

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**THE WORLD NEEDS
A BOOK ON DIGITAL
IDENTITY!**

Unmasking Identity Management Architecture (IMA)

Digital Identity



O'REILLY®

Phillip J. Windley

THE WORLD NEEDS
A BOOK ON DIGITAL
IDENTITY!





October, 2005



May and
Dec, 2006



May 14-16, 2007
Mountain View, CA

WINDLEY'S

TECHNOMETRIA

ORGANIZATIONS GET THE IT THEY DESERVE



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September 09, 2005

Identity 2.0: The Movie

If you missed Dick Hardt's presentation on Identity 2.0 at OSCON this year, he's turned it into [a movie](#). This is well worth viewing if you've got any interest in identity.

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XQuery Apache Module

From Freshmeat:

Native XmlDB Query Daemon is a client-server version of the Sleepycat native XML database deployed as an Apache module. The client is a pure Java API, supporting XQuery, XPath, and an Xml:DB API layer. It comes with a graphical admin console. Server binaries are provided for Linux x86 and x86-AMD64; for other platforms, compile from source.

*From [freshmeat.net](#): [Project details for Native XmlDB Query Daemon](#)
Referenced Fri Sep 09 2005 09:54:31 GMT-0600 (MDT)*

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September 08, 2005

IIW2005: Hotels and Wiki

Digital Identity



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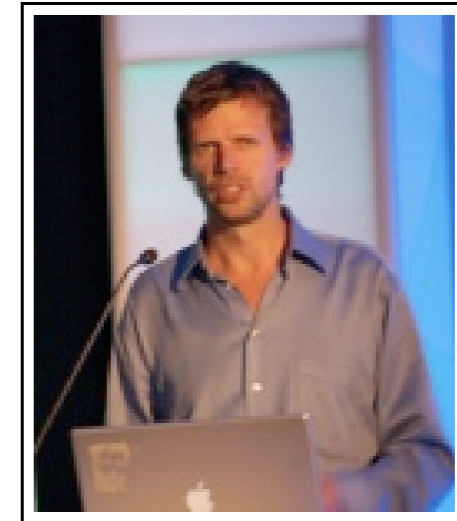
September 19 - September 19

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September 11, 2006

Vitamins, Pain-killers, and Viagra

Dick Hardt intro'd a panel on identity at big sites (meaning eBay, Yahoo!, Google, MSN, and so on). He used a great analogy of vitamins, pain-killers, and Viagra. We've been selling ID Management as vitamins. Everyone knows that they're good for you, but there's no urgency. With pain-killers, there's urgency. Viagra, on the other hand lets people do things they couldn't do before. User-centric identity is a pain-killer for users, but only a vitamin for big sites.



Dick Hardt
(click to enlarge)

How do you turn user centric identity into Viagra? He uses eBay as an example. By using a user-centric, federated identity system, they could allow other sites to use their reputation system and charge for the privilege. That's a good example of enabling behavior from shared identity.

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the identity of entries
enables conversation

Does Identity Matter?



Inside. Lots and lots of...**HARDWARE!**

Does Identity Matter?



YAHOO!

PR 無料でアドレス取得、メール送受

✉ 新着メッセージ1件

📅 02/19(木) 16:00 定例会

🌞 ☀ 東京-東京

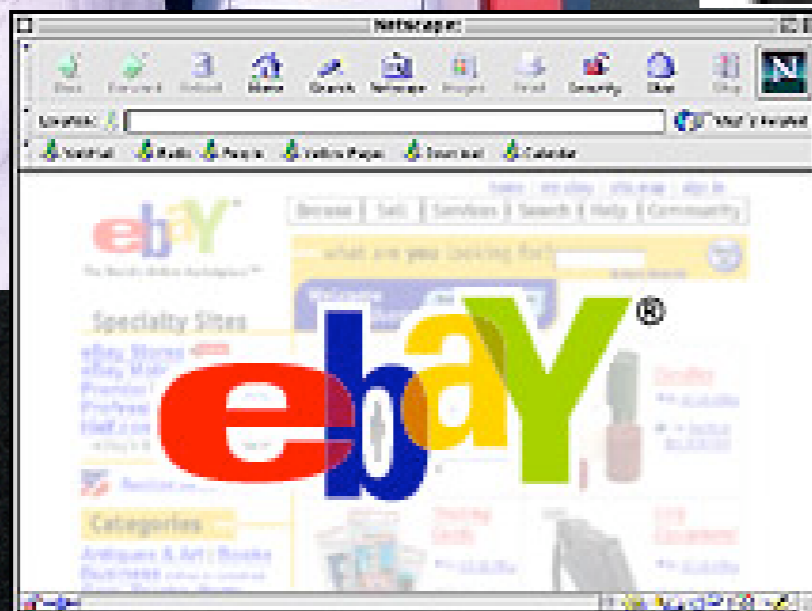
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📧 [02/19 10:52] 女子テニスの心





identity is the foundation for
commerce

What Happened to the Walls?



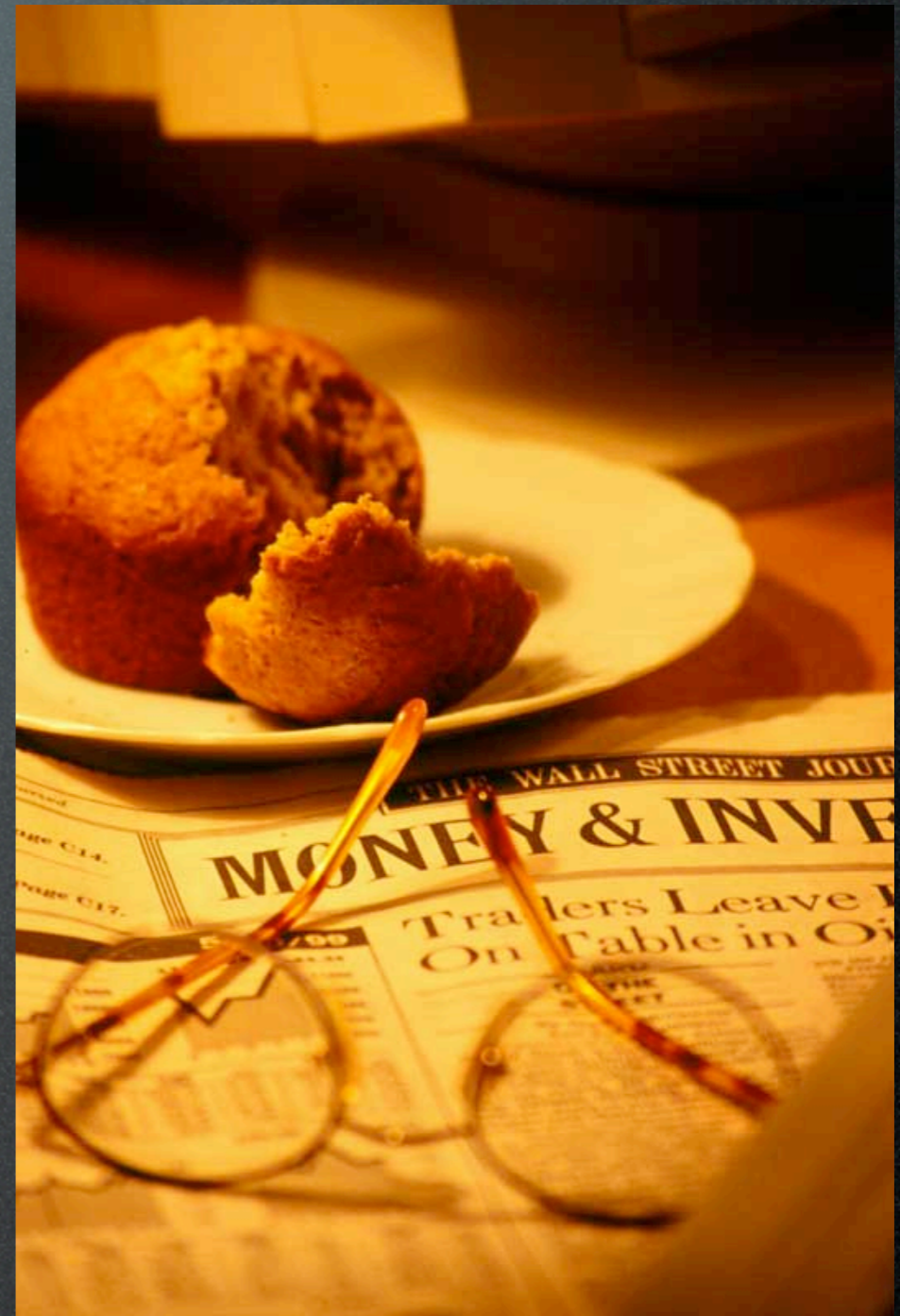
What Happened to the Walls?



Business Context of Identity



VS



identifiers

what's in a name?



Samantha

Matsuhiko

Fred

Alice

George

Greta

Steve

Cindy

Kristen

Lynne

Betty

Monty

Phil

Tonya

Rumplestiltskin

3 Phillip Windleys

HowManyOfMe.com



There are:
3
people with my name
in the U.S.A.

[How many have your name?](#)

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HowManyOfMe.com



There are:
3
people with my name
in the U.S.A.

How many have your name?

50,000 John Smiths

phil@windley.org

windley.com

<http://www.windley.com/essays>

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One of these things is not like the others!



**METROPOLITAN
PORT AUTHORITY**

**Allen Bishop
Inspector**

I.D. 0006-398-99



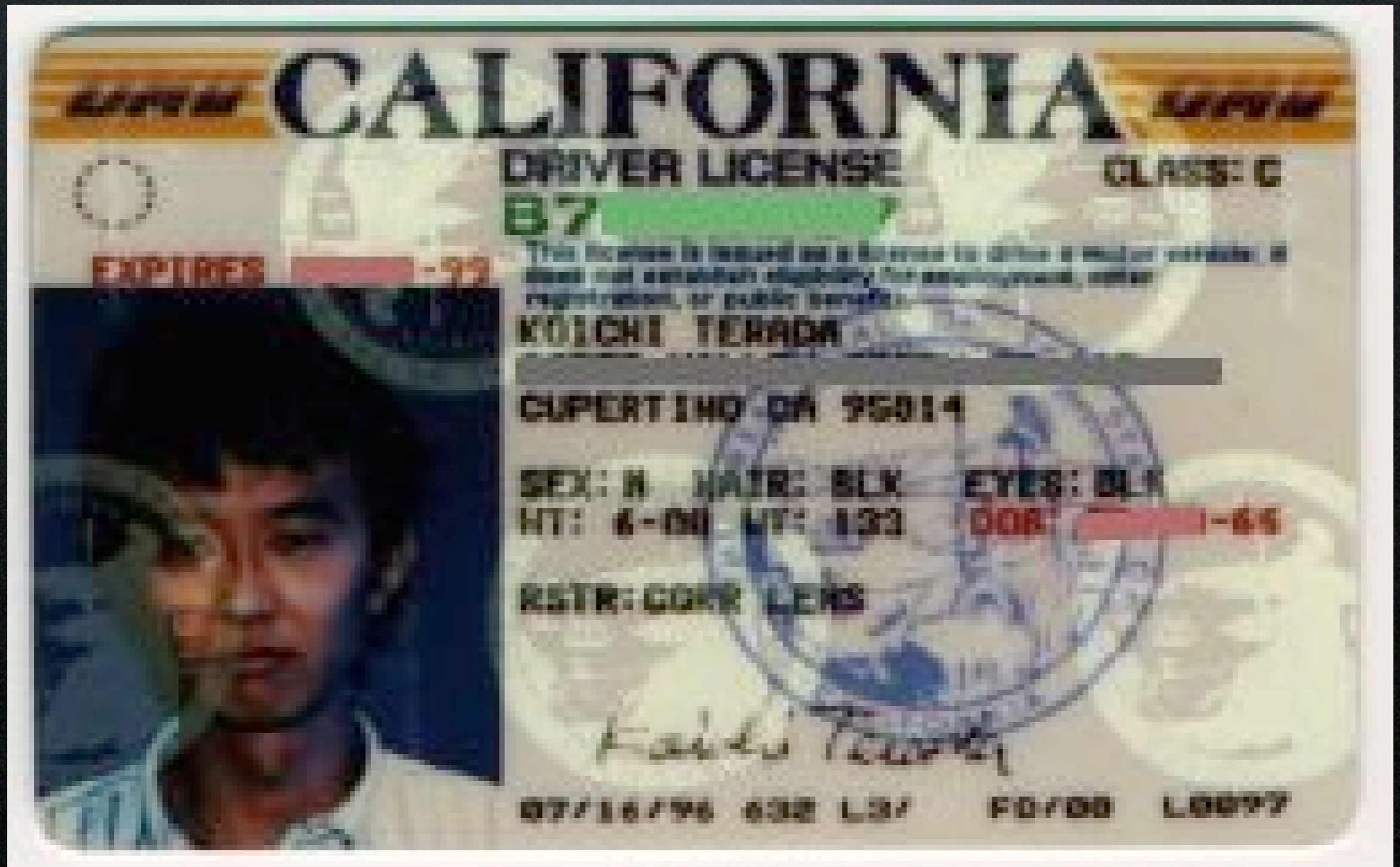
PASSPORT



United States



Credentials & Identity



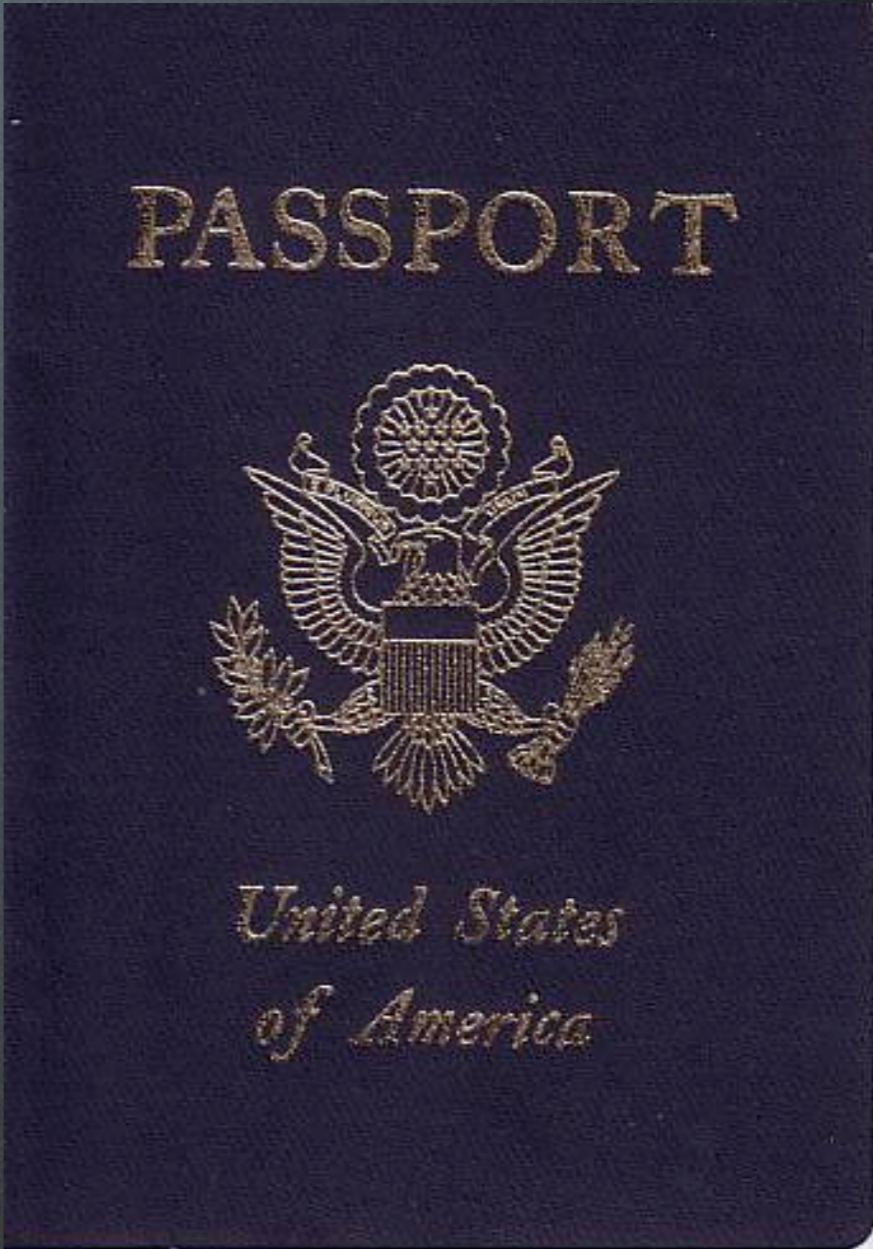
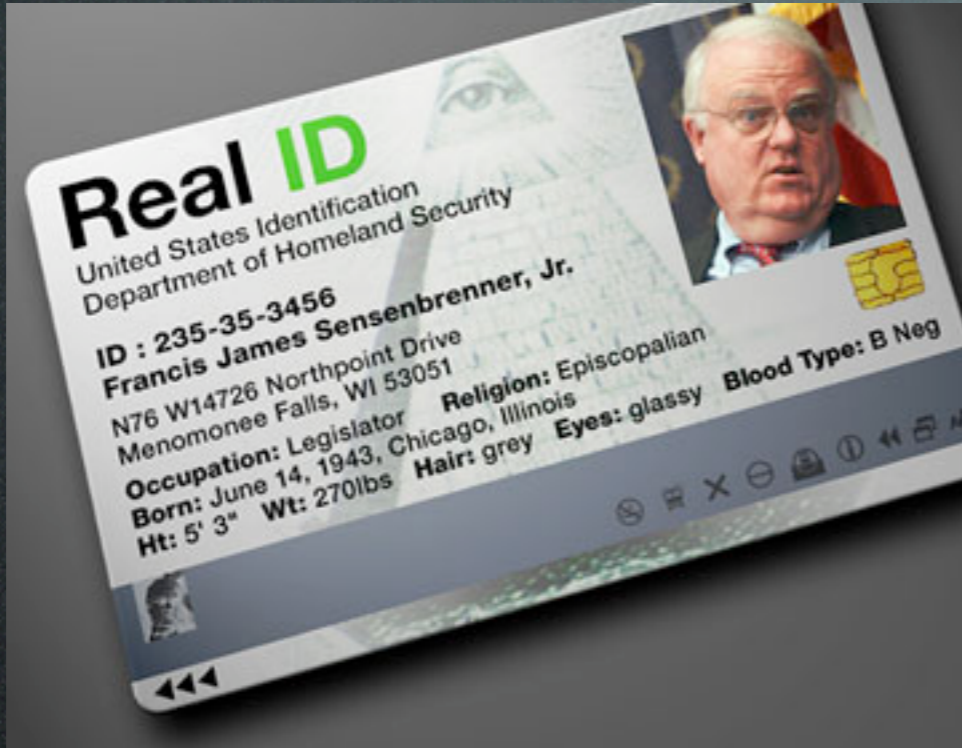
Buying Beer













privacy

privacy



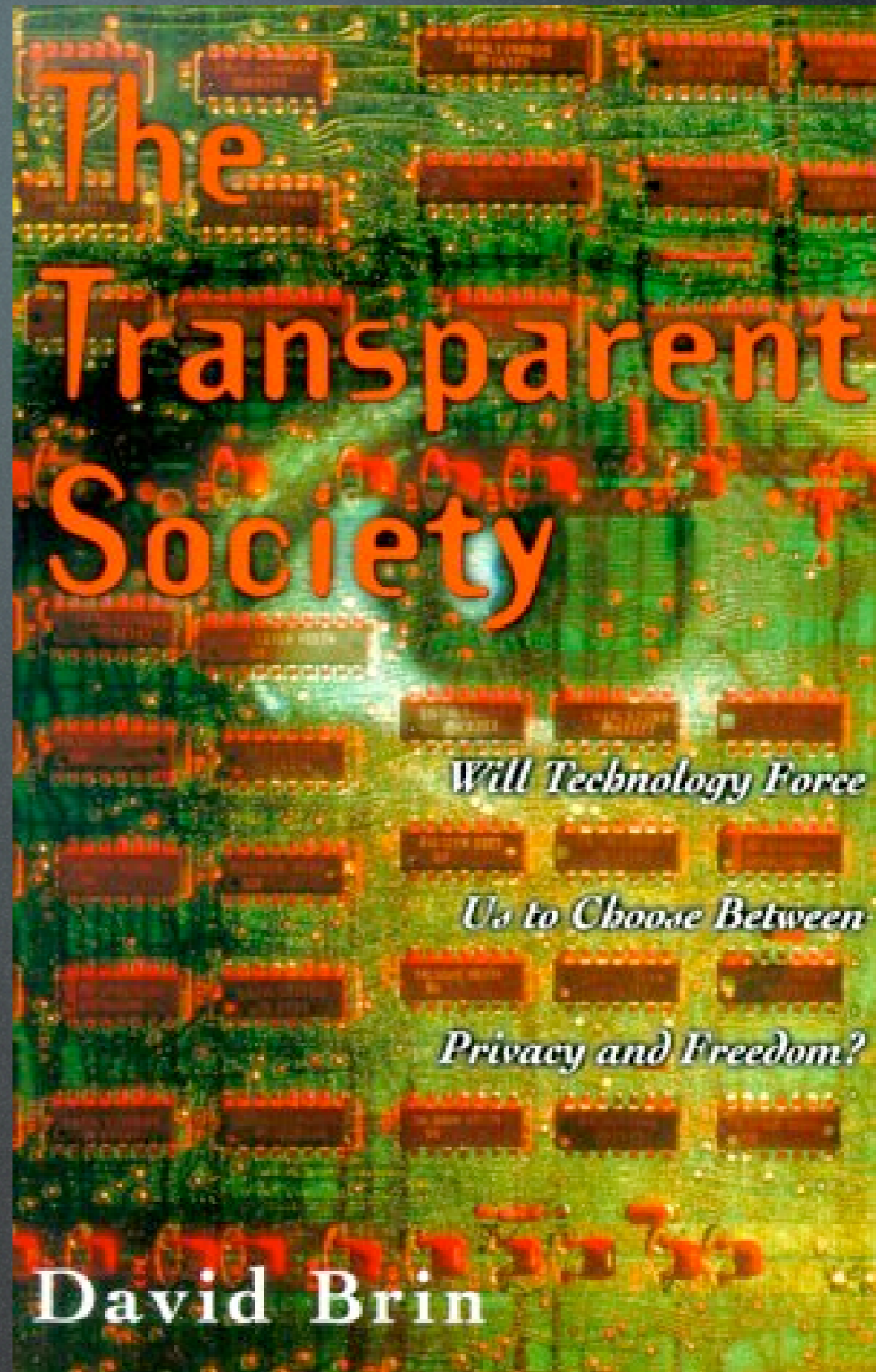
privacy



**YOU HAVE NO
PRIVACY ANYWAY.
GET OVER IT!**



Scott McNealy,
CEO Sun



Accountability: Pick Two

1. Tools that help me see what others are up to.

2. Tools that prevent others from seeing what I am up to.

3. Tools that help others see what I am up to.

4. Tools that prevent me from seeing what others are up to.

Accountability vs. Enforcement



“Accountability is a
log processing
problem”

-Dan Geer

- Access control scales geometrically (its a multi-dimensional table)
- Accountability scales linearly
- Access control systems are incredibly vulnerable to DDoS attacks

anonymity enables
social good



anonyms and pseudonyms

A bright yellow starburst graphic with multiple points, containing the text 'CHEAP!!!'.

CHEAP!!!

pseudonyms

A bright red starburst graphic with multiple points, containing the text 'Today Only!!'.

Today
Only!!

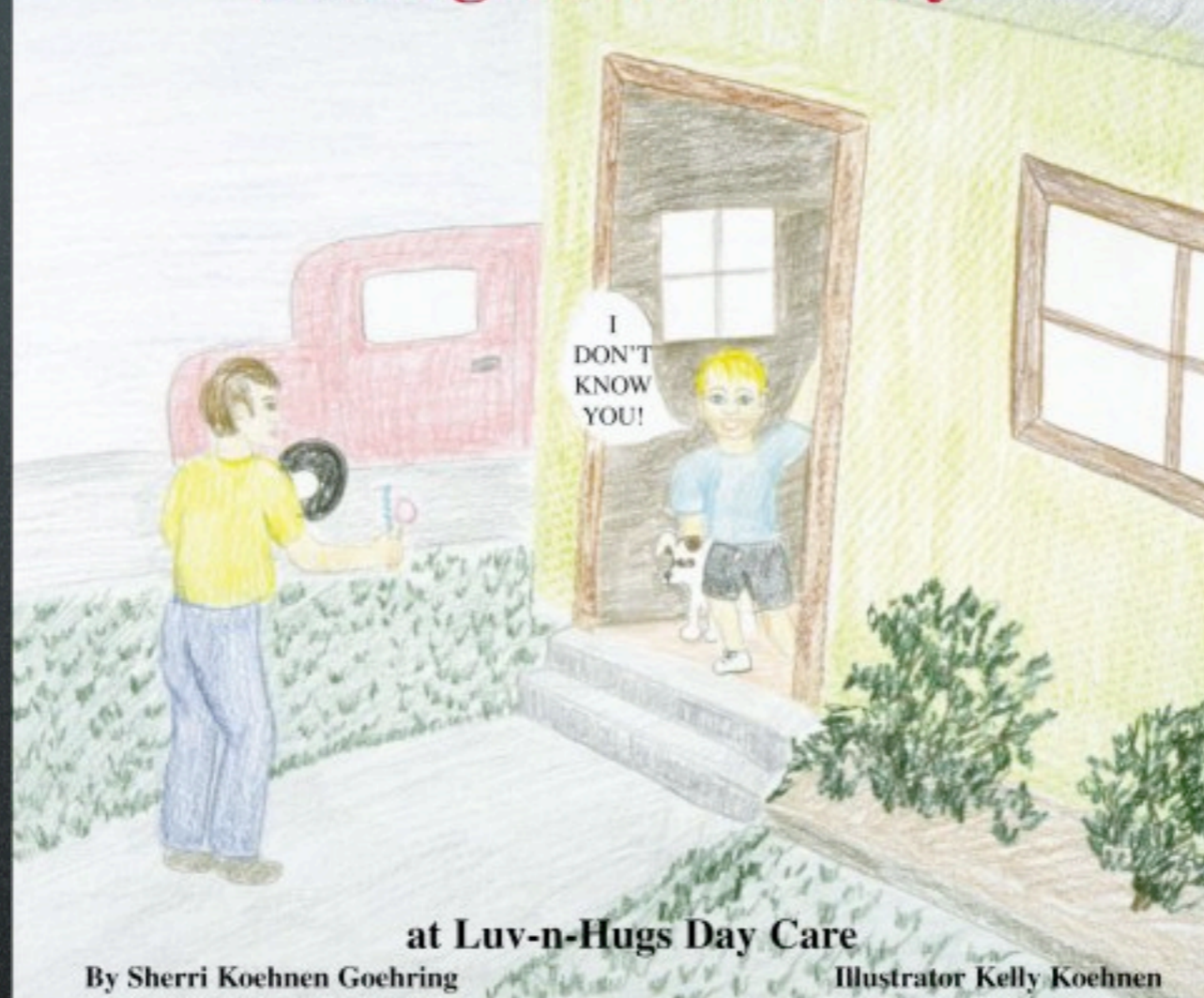


positive reputations are
valuable

negative reputations don't stick...



The Children Learn About Strangers and Safety



Distrust Strangers

Strategies:

- Distrust strangers
 - No strategy does better
- Make name changes more costly
- Commit to name permanence
 - Anonymous

user-centric identity

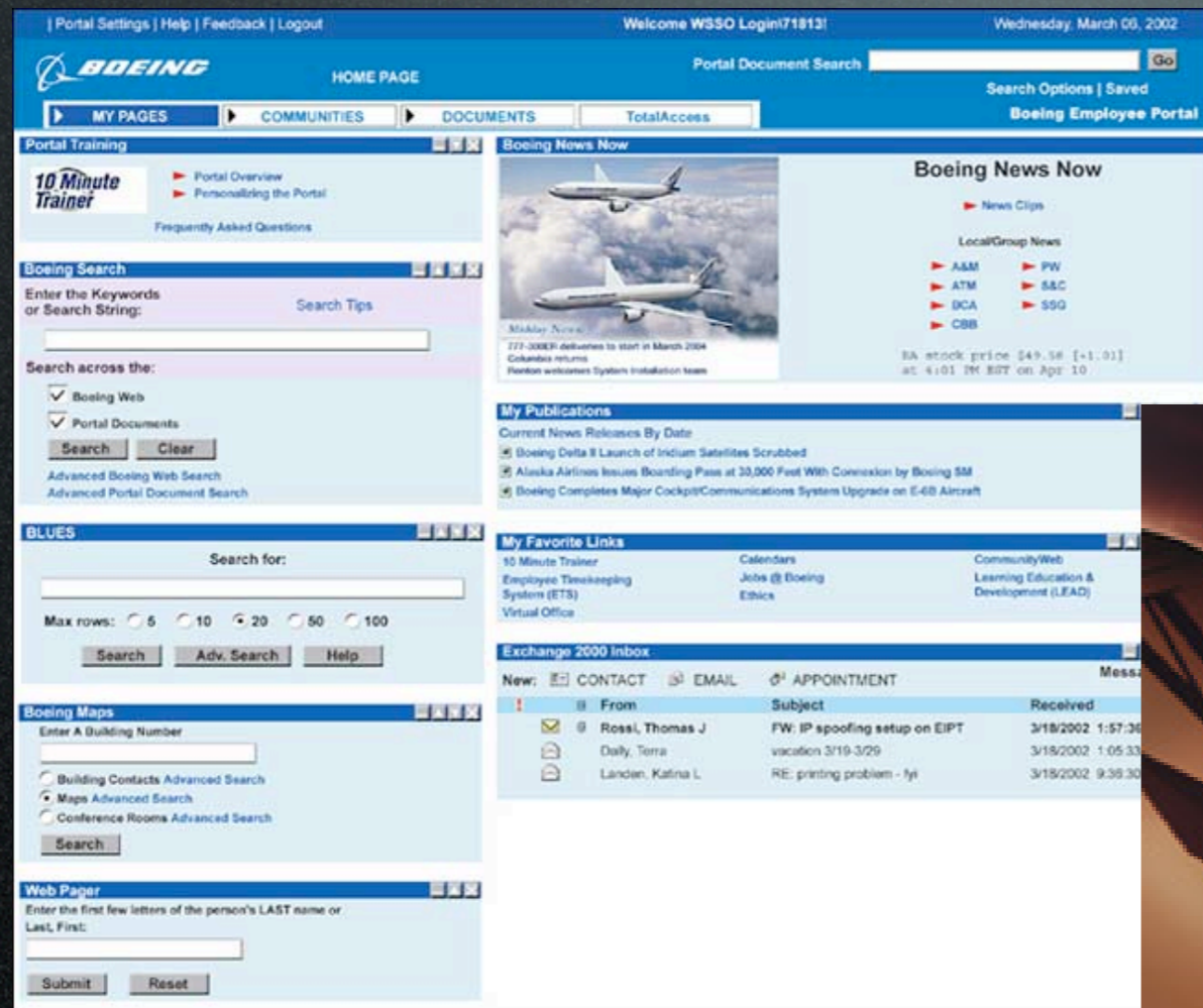
Cameron's Laws of Identity

1. User consent and control
2. Minimal disclosure
3. Justifiable parties
4. Directed identity
5. Pluralism
6. Human integration
7. Consistent experience across contexts



Federation Problems

Linking 401K site
to employee
portals

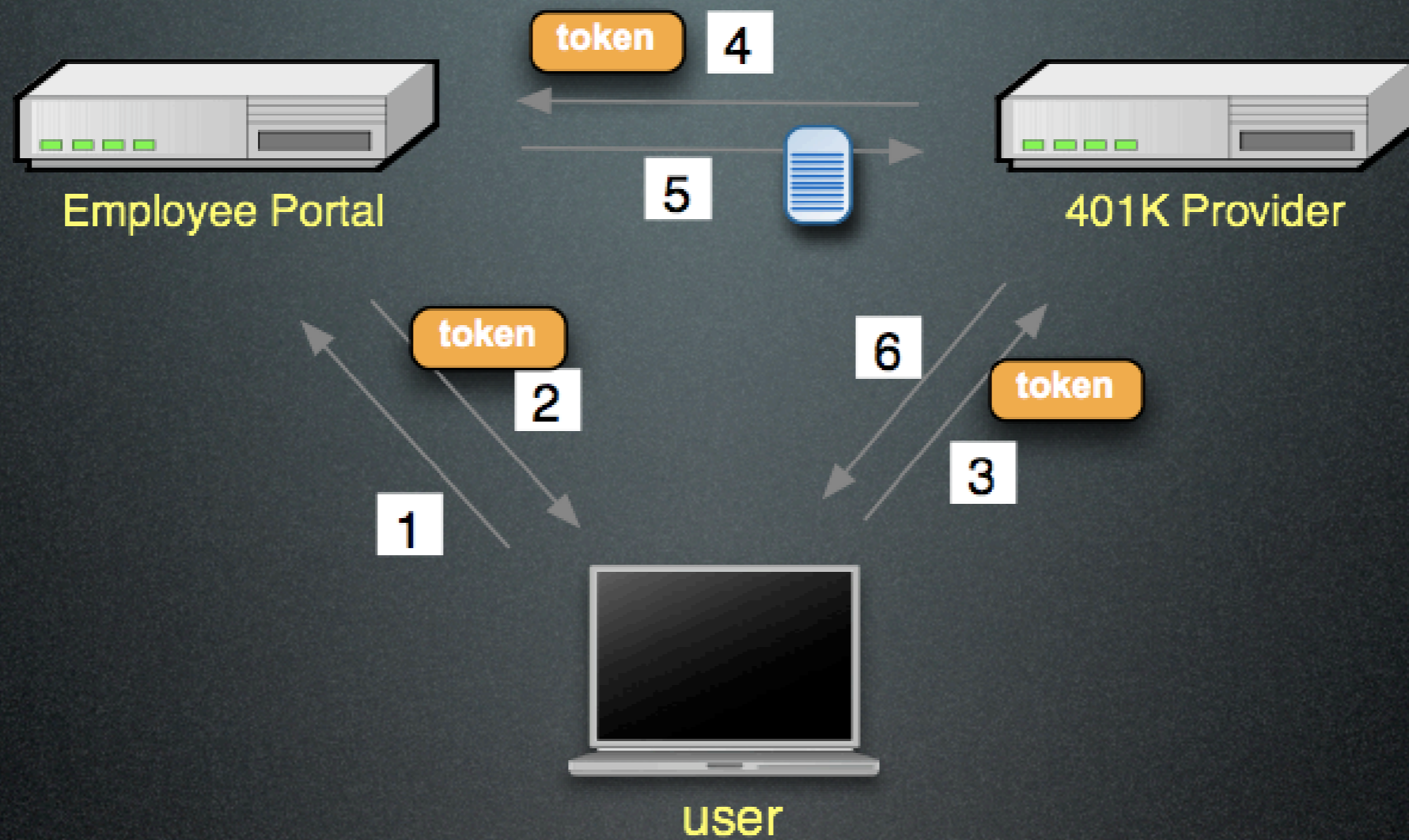


Roles

1. Identity Provider
2. Relying party

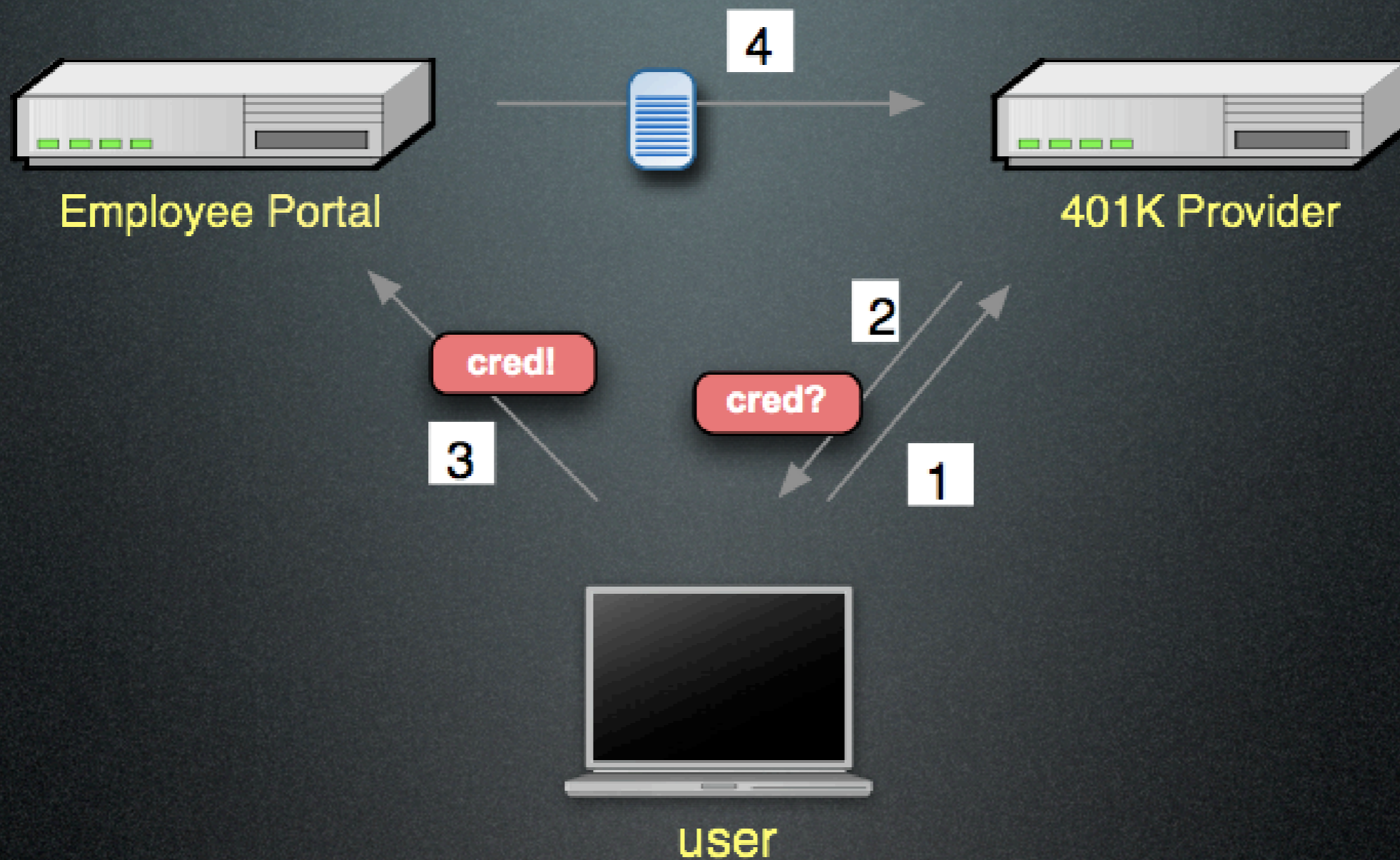
Roles

1. Identity Provider
2. Relying party
3. User



scenario one

- ID issuer and relying party have prior arrangement
- User is only involved peripherally and because of policy



scenario two

- ID issuer and relying party need no prior agreement
- User involved structurally

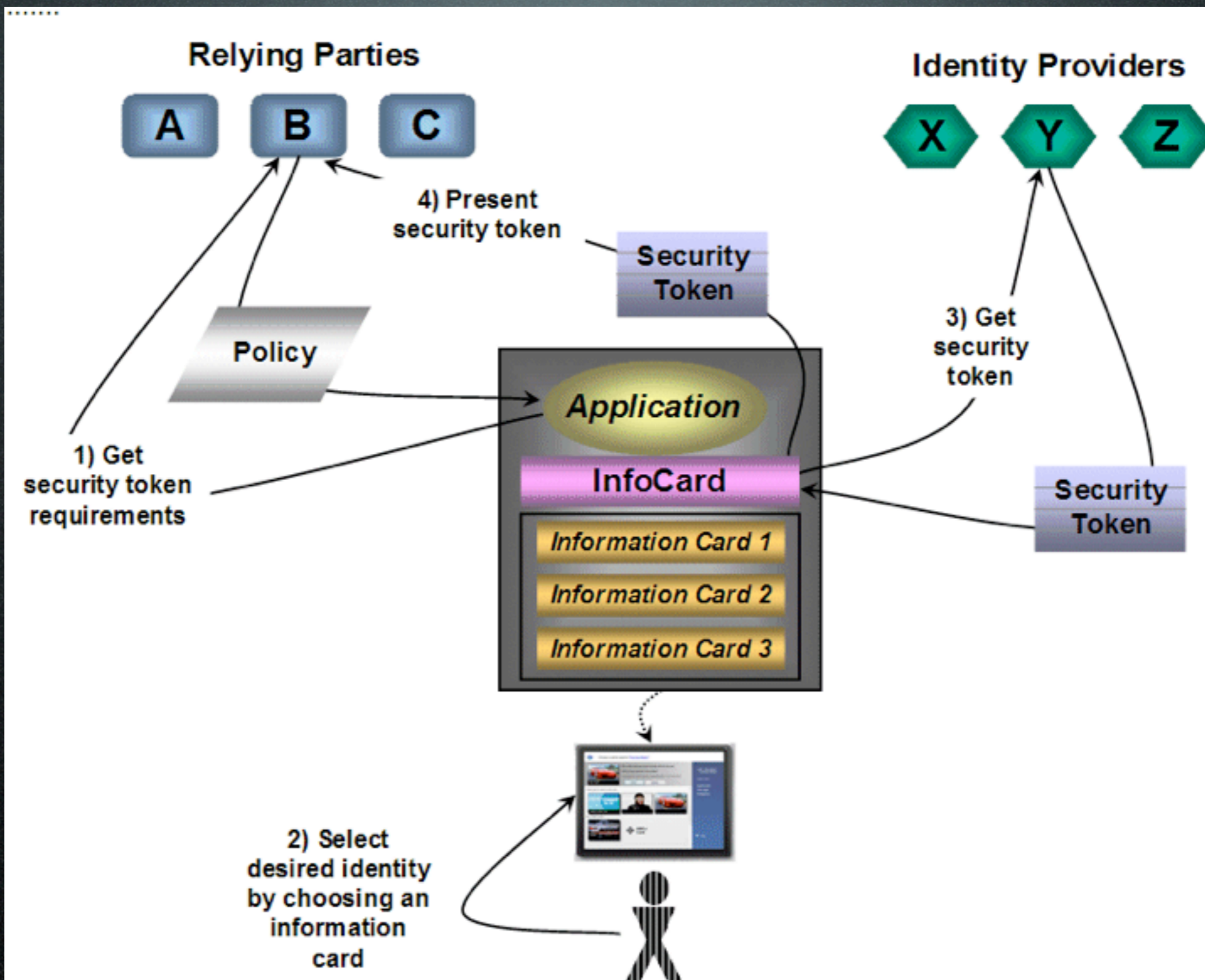
Internet Identity Technologies

Name	Type	Comments
XRI, i-names	address	URI-like, complete
OpenID	address	URL
LID	address	URL, attributes
CardSpace	token	ubiquity, complete
SXIP	token	complete solution
Higgins	token	interop framework
Liberty	token	enterprise

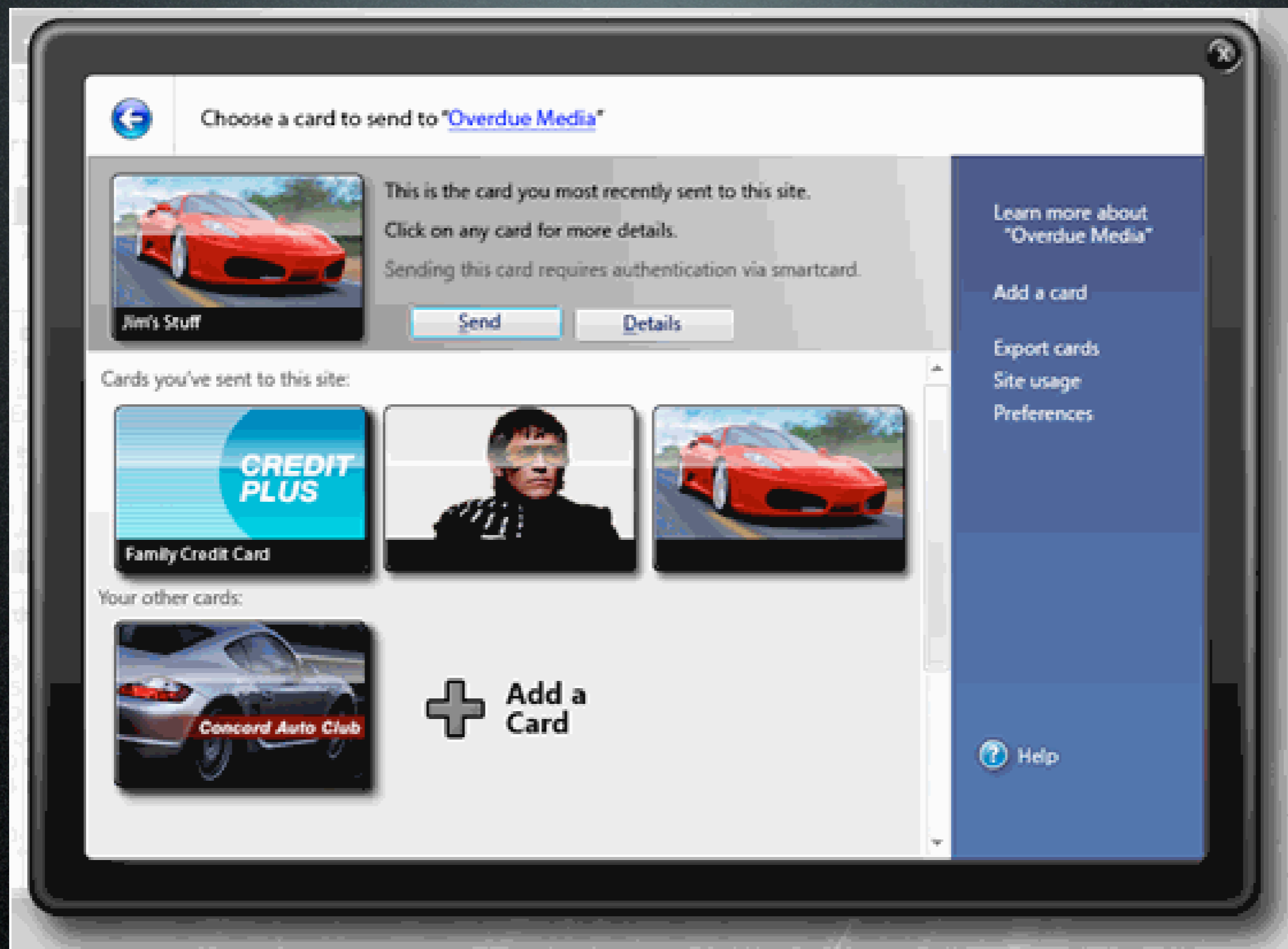
OSIS Announcement



June 20, 2006, Berkman Identity Mashup

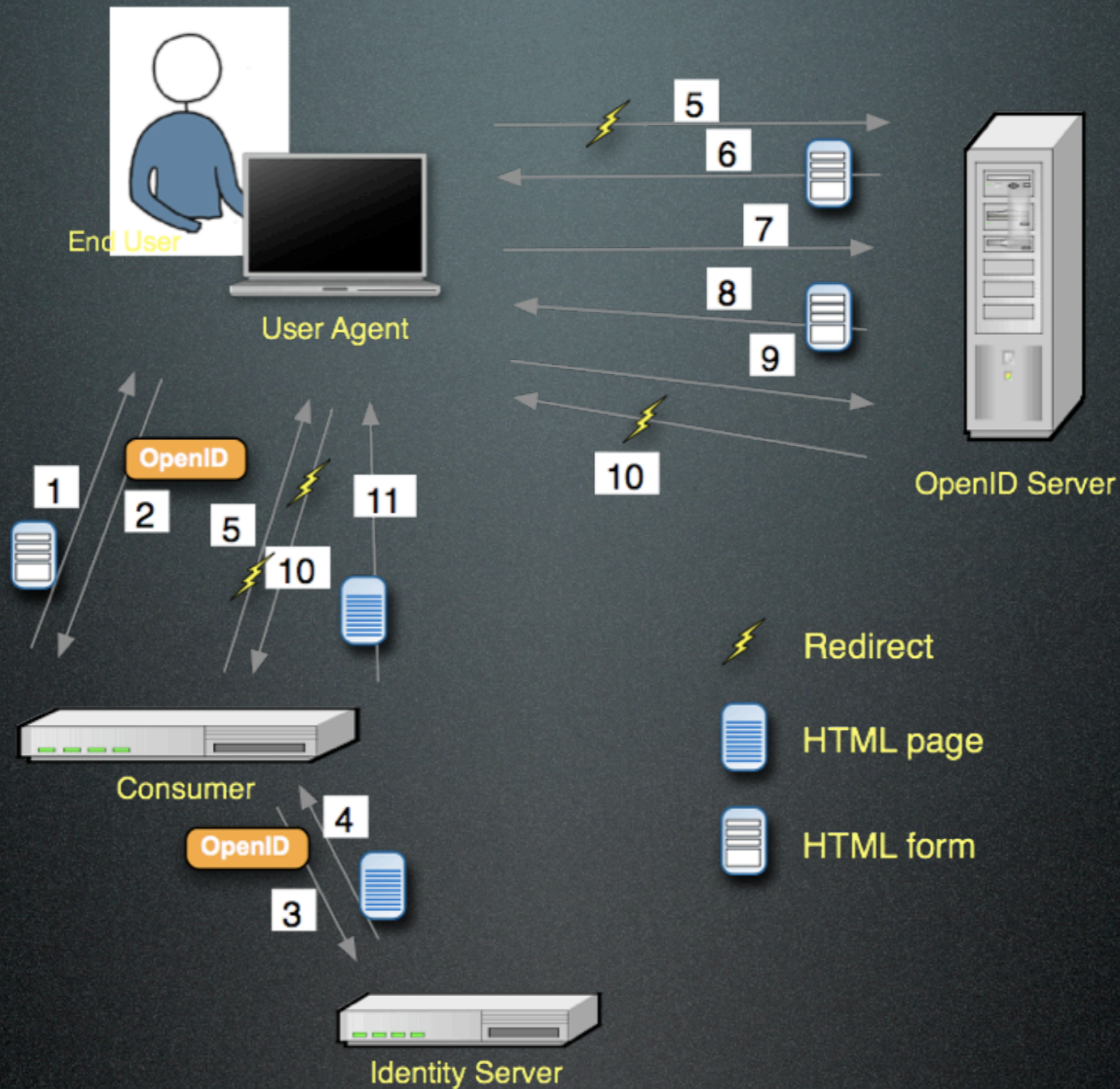


InfoCard Interactions



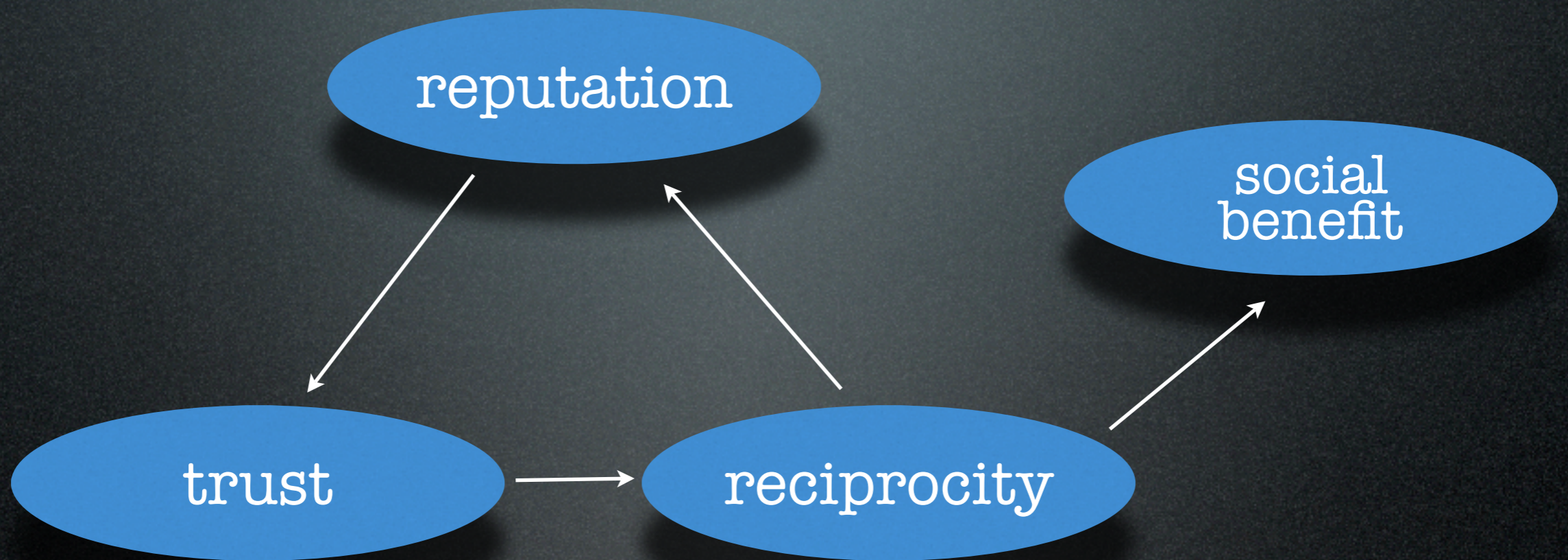
CardSpace Identity Selector





OpenID interactions

reputation





your story about me

Principles of Reputation

- Trust based on reputation
- Exists in the context of community
- Reputation *based* on identity
- Reputation is a currency

Reputation Components

Reputation Components

1. Verified claims (identifiers)

Reputation Components

1. Verified claims (identifiers)
2. Transaction data

Reputation Components

1. Verified claims (identifiers)
2. Transaction data
3. Opinions, ratings, and endorsements



reputation vs. privacy

CS601

- Reputation theme
- Reviewed dozens of papers
- Class project
 - Agile methodology
 - 3 two-week iterations
 - 9 students

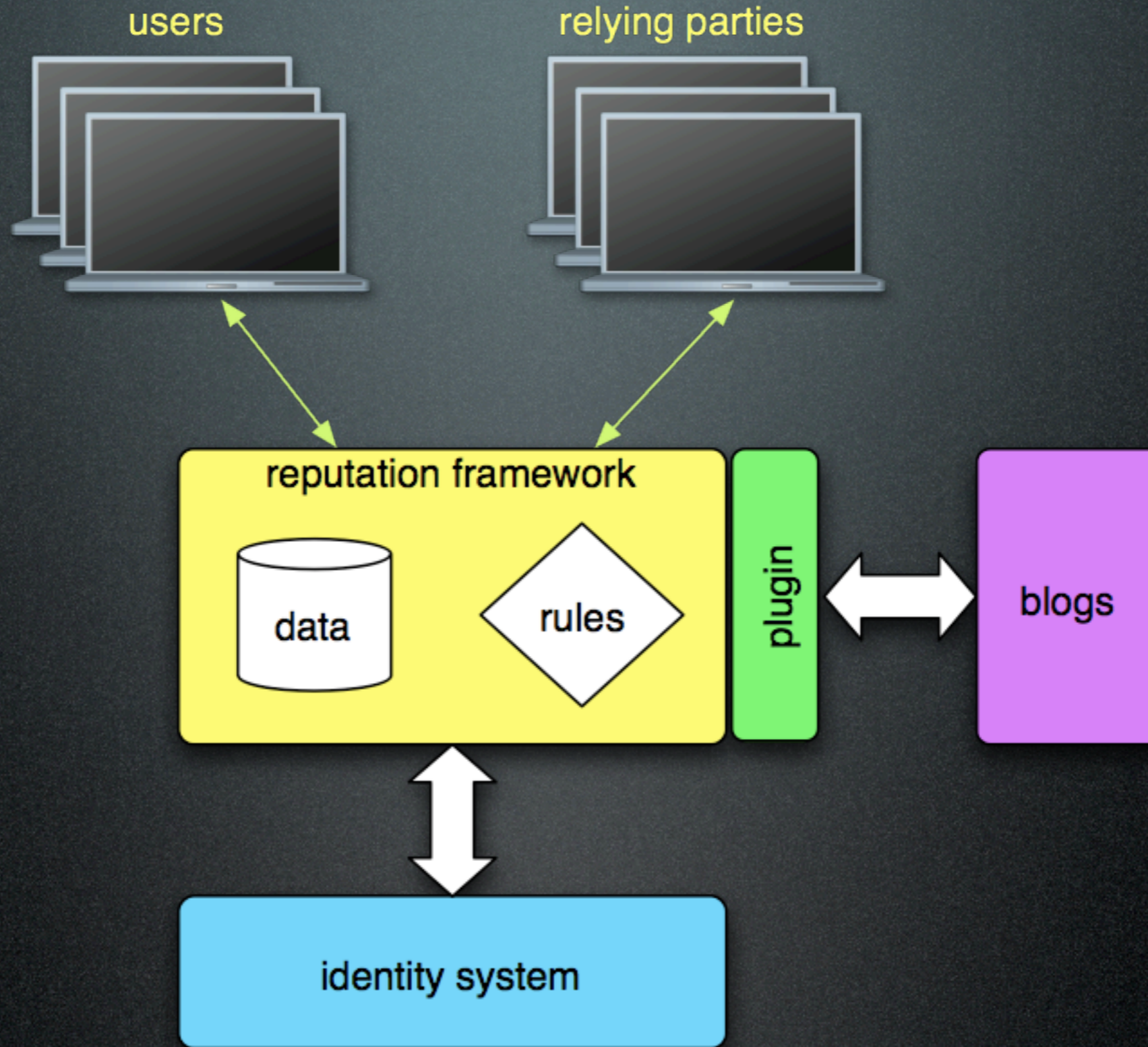
Design Philosophy

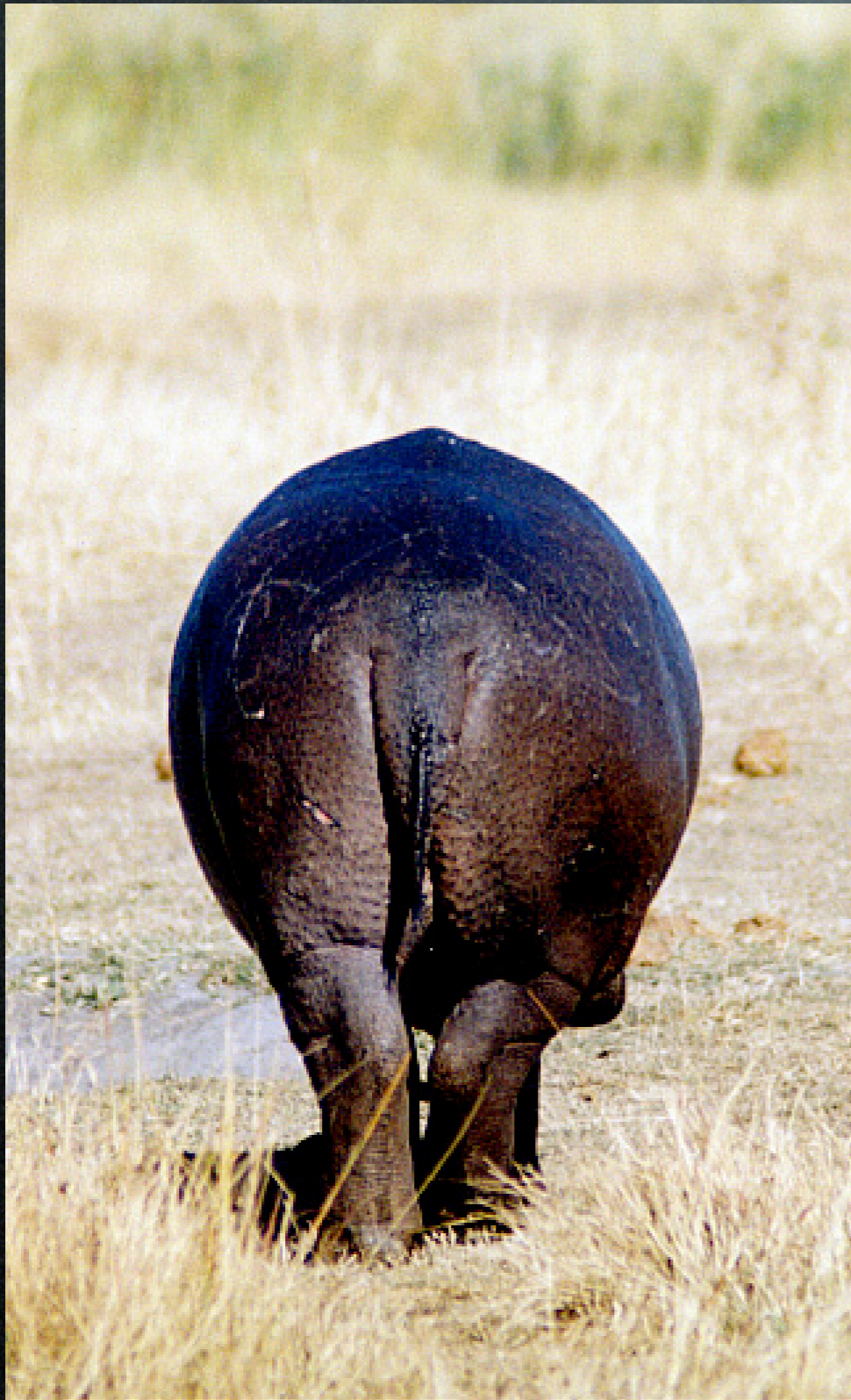
- Reputation is a calculated score
- Factors
 - verified facts and credentials
 - transactions
 - ratings & endorsements
- Transparency
- Transactions jointly owned and immutable

Architecture

- ID system neutral
- Data model for users and credentials
- Rules engine
- Plug-in architecture
 - adds data model
 - adds rule operations

you've got to start
somewhere





the end

Contact Information

Contact me

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- www.windley.com

Buy the book!!!

Questions?

