

Proof Positive

New directions for ID Authentication
FTC Workshop April 23-24 2007

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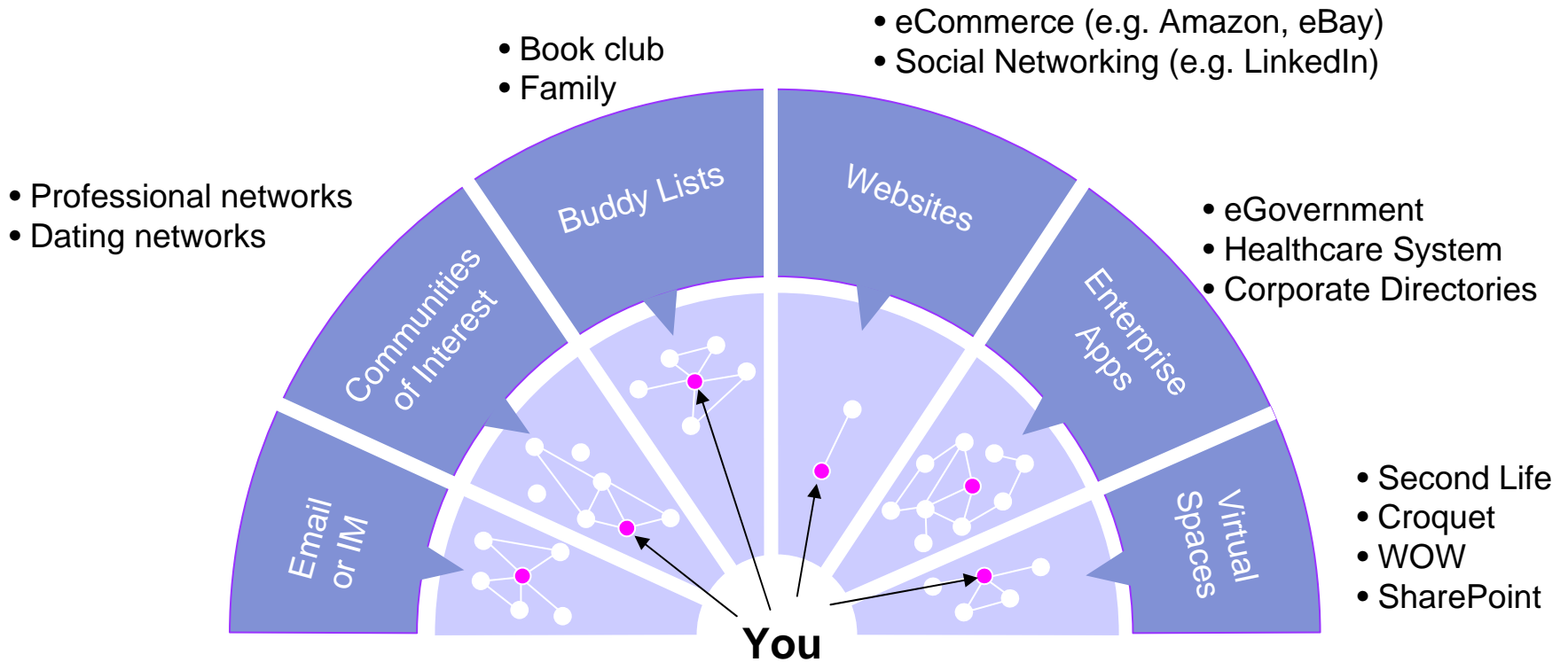




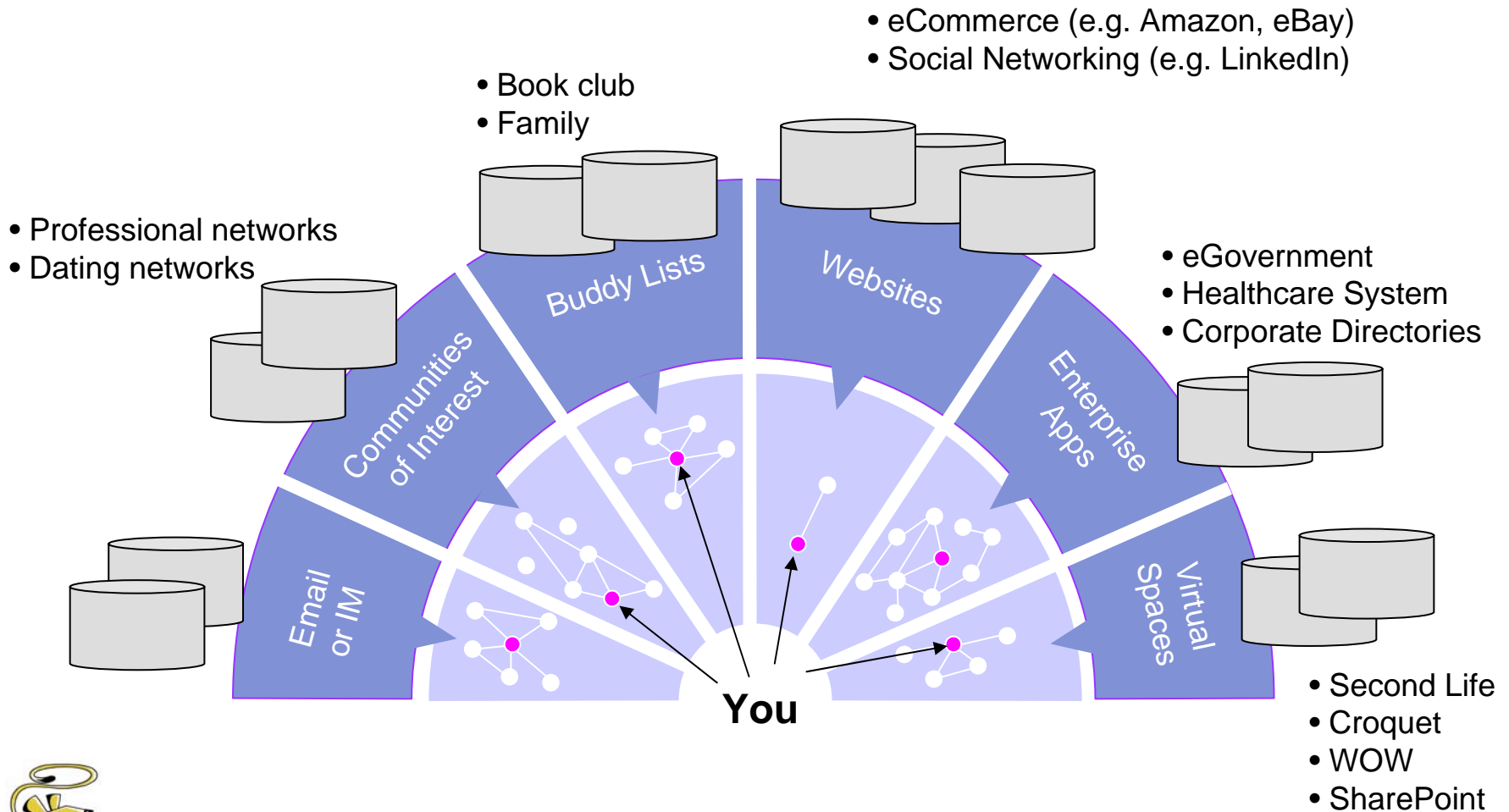
Higgins

- 1: a species of Tasmanian long-tailed mouse
- 2: the name of an open source collaboration of IBM, Novell, Oracle, Parity...

Multiple digital identities...



...each in its own context/silo



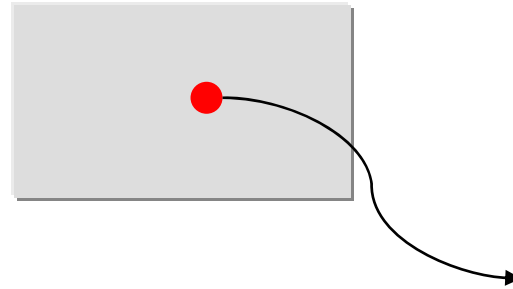
Interoperability requires a new
abstraction

Identity is about the linkages between multiple contexts

Interoperability is created when you can create links between aspects of a digital identity in different contexts. Bridging contexts.



Contexts and Digital Subjects

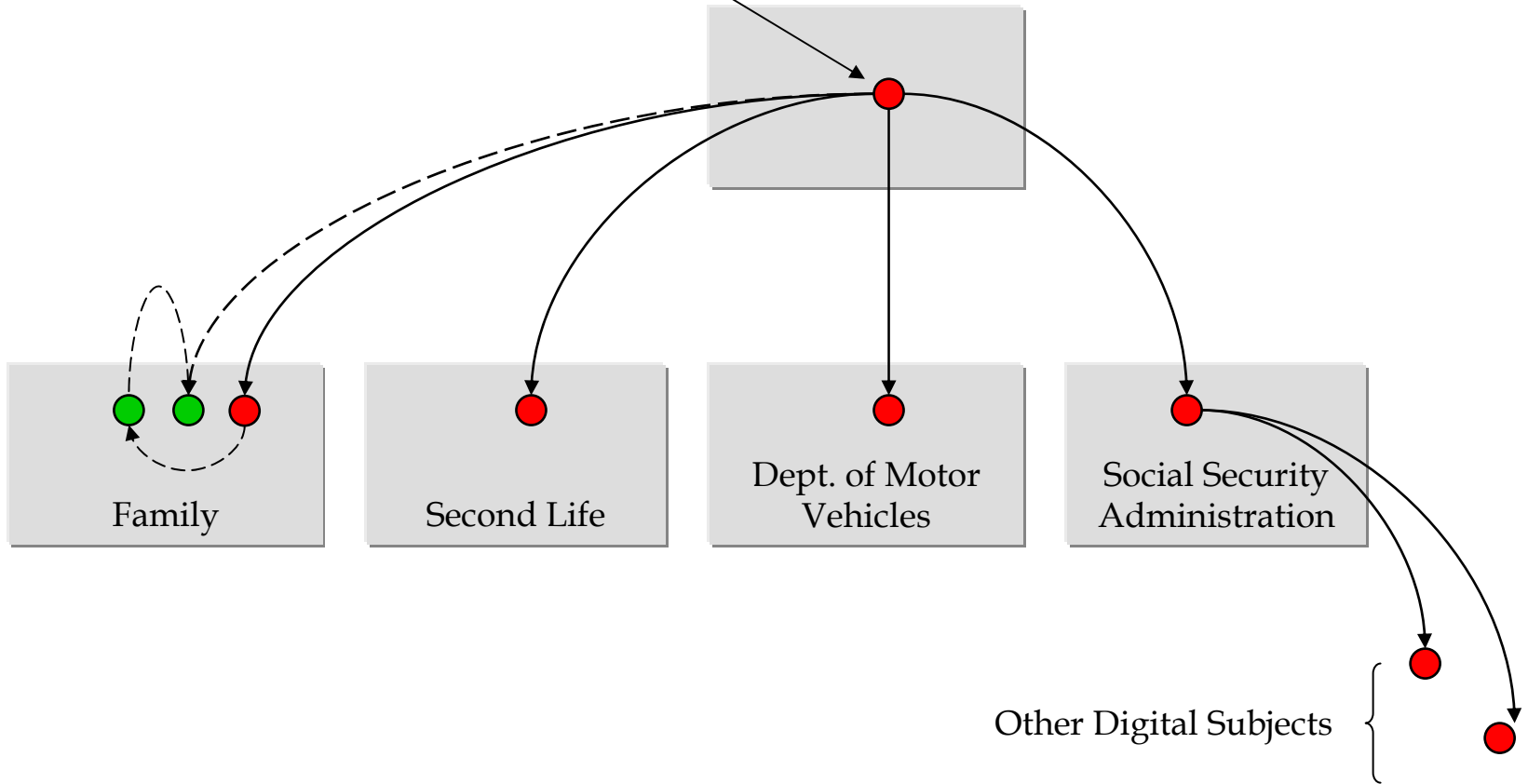


Digital Subjects are sets of attributes *and relationships*.

- Context determines appropriateness
- Privacy policy must be defined in context



This is “you.” (Nothing but a set of links!)

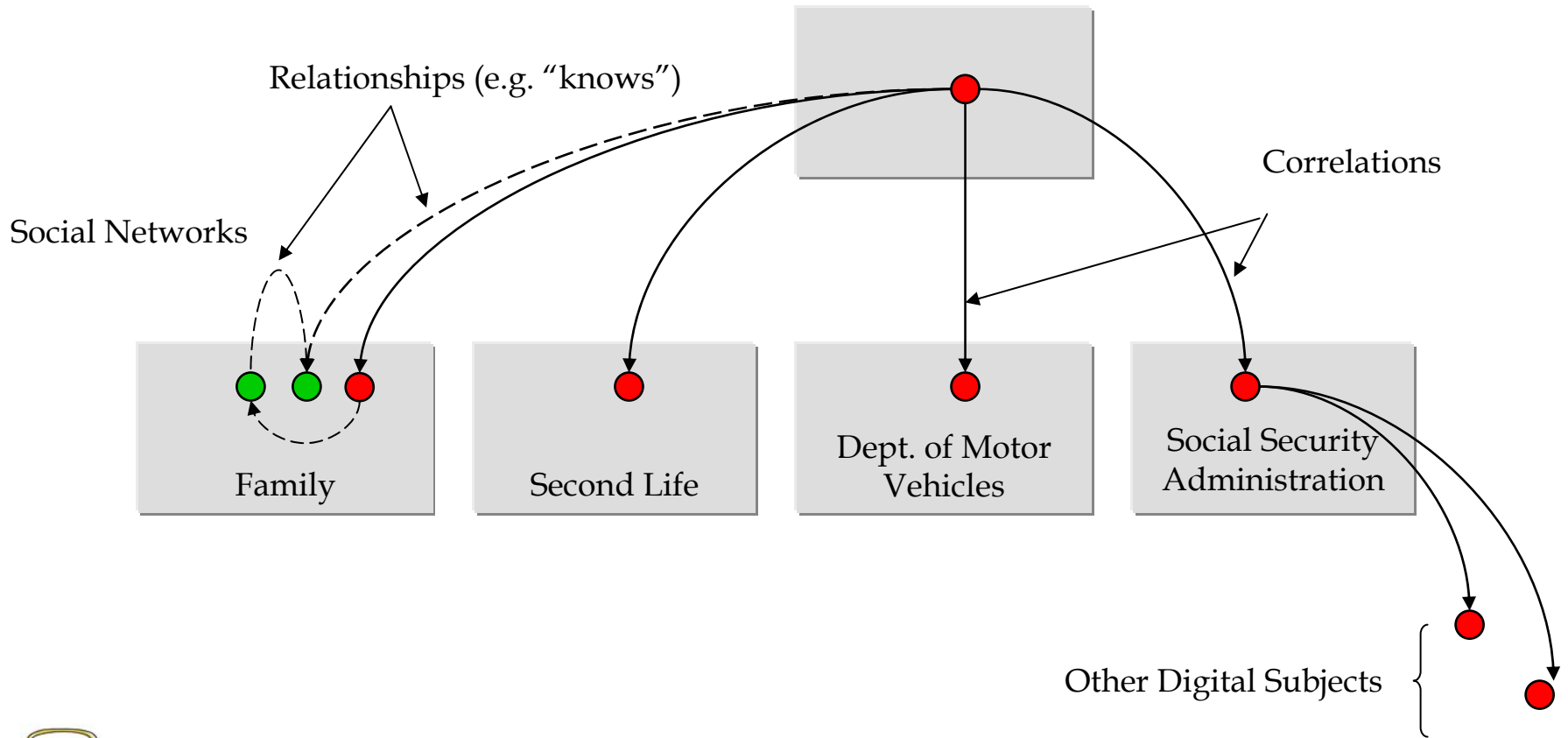


Links are where the action is

- Single sign on (authentication)
 - Cross contextual claim presentation
- Federation
 - Cross contextual facet linking
- User-centricity
 - The user is the bridge
- Social Networks



Contexts and Links



Digital Subjects are exposed as i-cards



Managed (What the RMV says about you)



i-cards



Managed



Personal (What you say about you)



i-cards



Managed



Personal (self-issued)



Relationship

(What you and Best Buy say about you right now)





Home & Personal



- Child: *Sarah: born Jan 12 2001, Kindergarten, Heath School, friends: Lesley, Jacob, Tamara, Jesse*
- House: *123 Main street, Buena Vista, Colorado; Purchased 3/2005; GMAC Mortgage(owe:\$245,256)*
- Suppliers: *Jeremy's lawn service(303) 231-8899; Always Oil Delivery; Jim's Lawn Care;*
- Credit Card: *Capital One Visa: 4239-4876-3425-2980*
- Banking: *BofA: 9111-099-234-990 (\$1,222.98)*



Work

- Employer: *REI, 23 Chestnut Street, Buena Vista, CO 32040*
- Phone: *(303) 236-9981; Fax: (303) 236-9980*
- Employee: *#290-21; hired 5/4/2003; Salary: \$56,500; 2 weeks vacation; Blue Cross family medical; KeyCard: 23-09-23; permissions: level4; password: ******
- Email: *jjones@rei.com*
- *Top 100 Sales Club 2005; Manager: Fred Ferndale*



Alumnae

- University of Colorado
- Housing: *Harkness House*
- Graduated: *1995; BA Communication*
- Employer: *REI*
- Affiliations: *Varsity Softball 2003, 2004*



Healthcare

- HMO: *Blue Cross Blue Shield: Group Id #3236758-3*
- Primary: *Dr. James Levine*
- Physical: *O-neg, 149lb*
- Fitness: *Power Yoga, walk 5 miles/week*





Social

- Blog: <http://www.blogger.com/on-a-clear-day>
- Personal: *single, white, female, age 34; 148lb; 5'10"*
- Looking for: *friendship with opposite sex*
- Friends: *Rebecca, Samantha, Tamara, James...*

Travel

- Frequent Flier Programs
 - United.com - *united.com, user id #00593045, password ****, window seat, 303-256-9976, emergency contact, Visa #4703-002-098-3988..., street, city, state, zip*
 - American - *aa.com, user id #2038-334-430, password *****, window seat, no meal preference, 303-256-9976,...*
- Car Rental Programs
 - *Avis: MyAvis profile: Country: USA, Avis Wizard Number: 234-523-783, personal itineraries, reservations, rental receipts, ...*

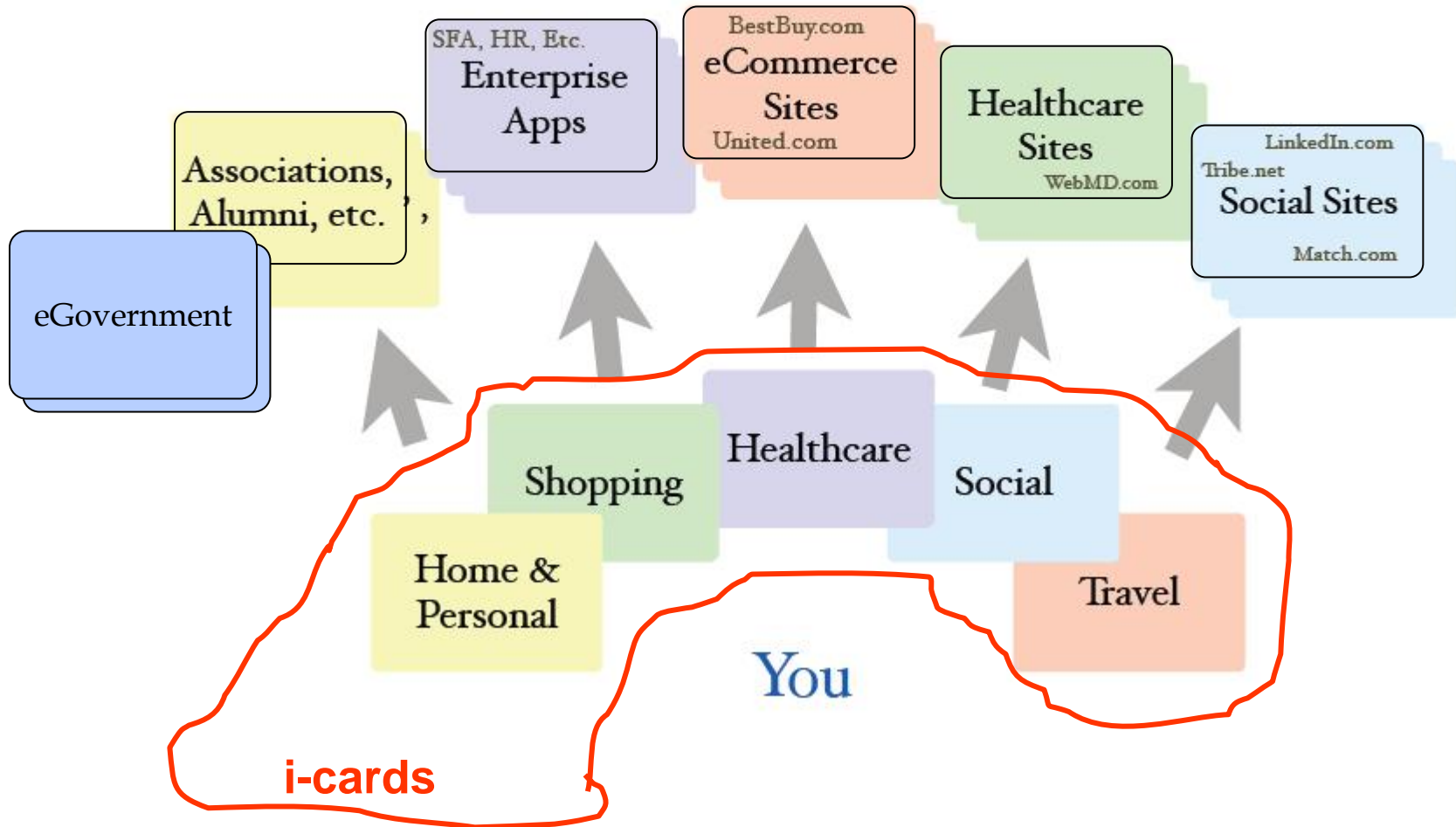


eGovernment

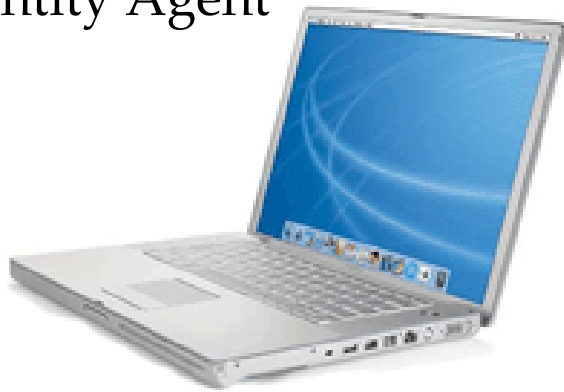
- RMV: Drivers license
 - *Id:* G304-98-4656
 - *DOB:* 8/28/70
 - *Address:* 123 Main St. Buena Vista, Colorado
 - Etc.
- SSA
 - *SSN:* 304-98-4656
 - *Address:* 123 Main St. Buena Vista, Colorado
 - Etc.
- IRS
 - *Years filed:* 2006, 2005, 2004, 2003, ...
 - *Status:* Single, 1 dependent
 - *Address:* 123 Main St. Buena Vista, Colorado
 - *Last audited:* <never>
 - Etc.



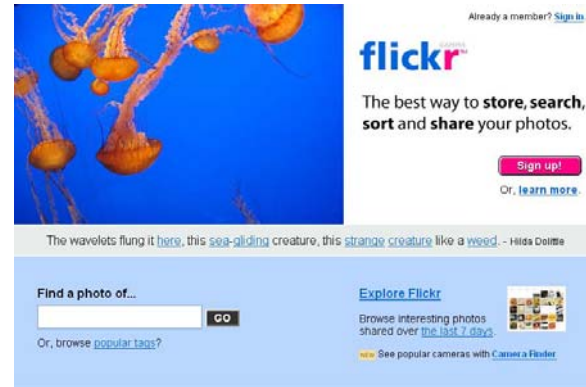
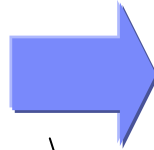
Multiple Identities with One Point of Control



“Identity Agent”



Browser + Extension



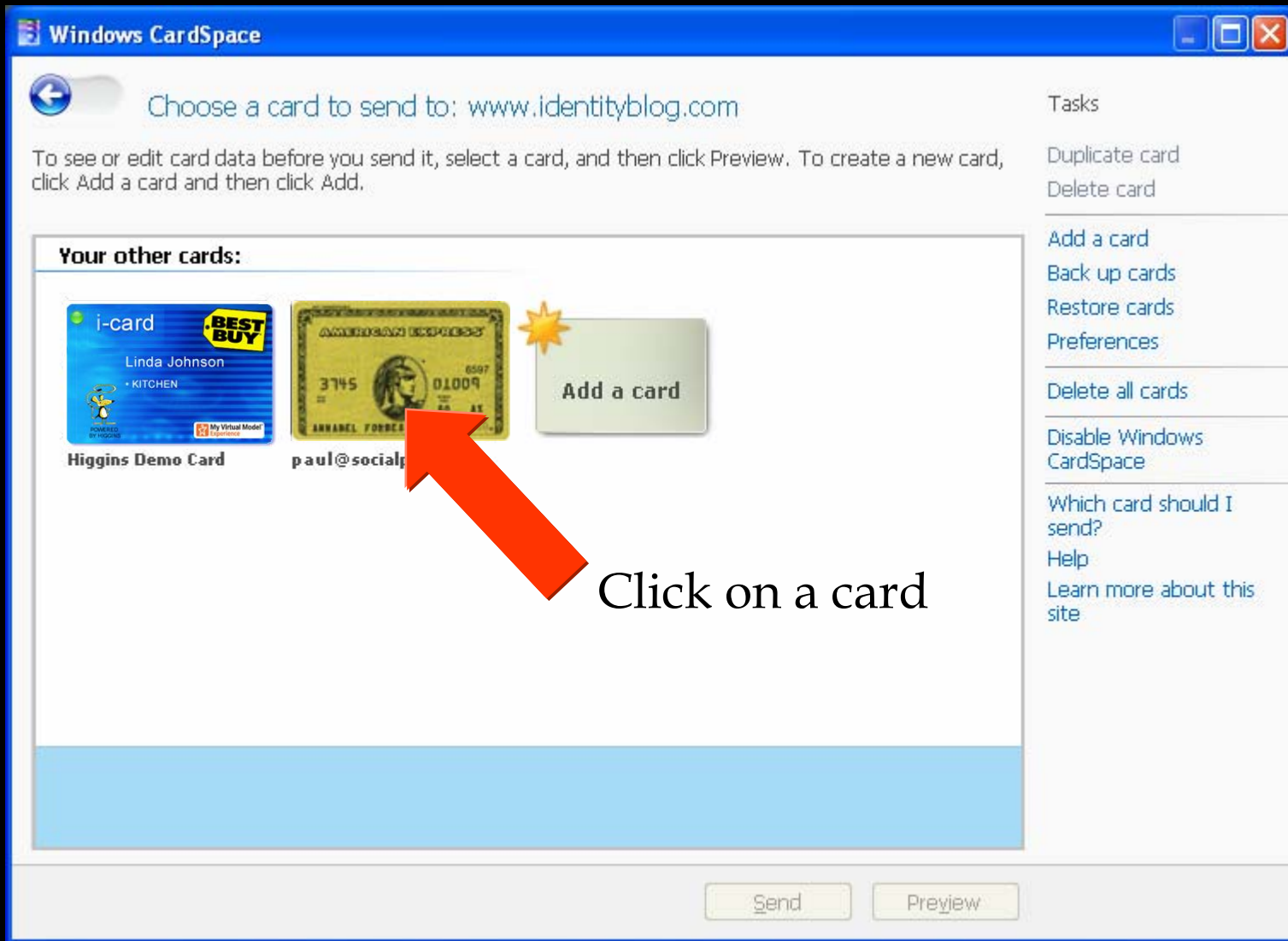
Higgins Service



Protection and Projection of Identity Attributes

- Authentication
- Personalization
- Blinded data
- 3D avatars?

I-Card Selector User Interface



...you're signed in.

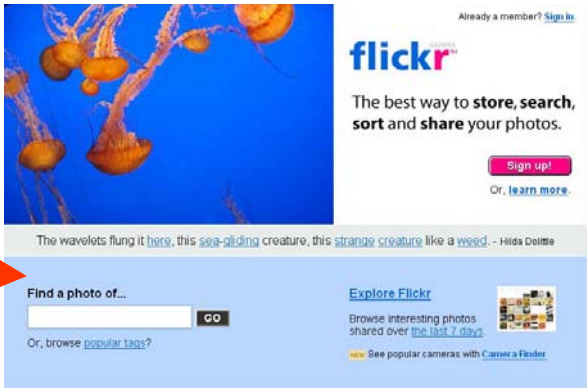
(No password required)



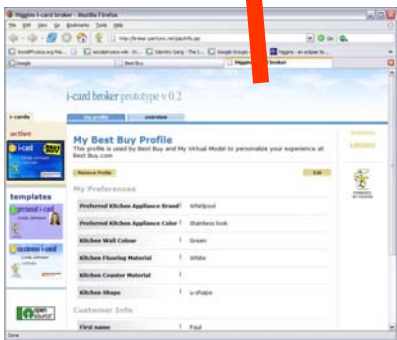
i-cards



4



3



1

2



REI Employee



Amex



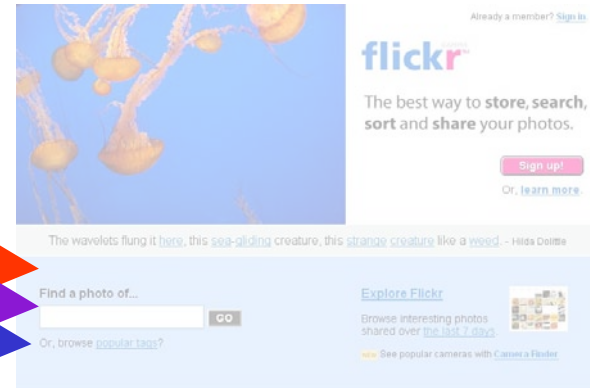
Second Life



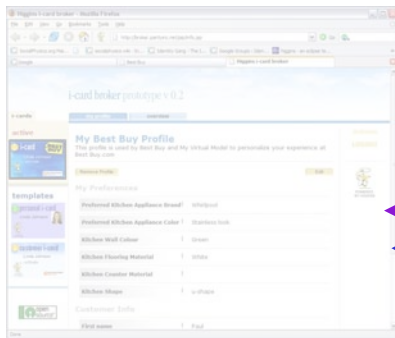
Higgins Service

Identity Providers

Kerberos
X509
SAML



LDAP
Liberty
OpenID
CardSpace™
JNDI



Higgins
Service



REI Employee



Amex

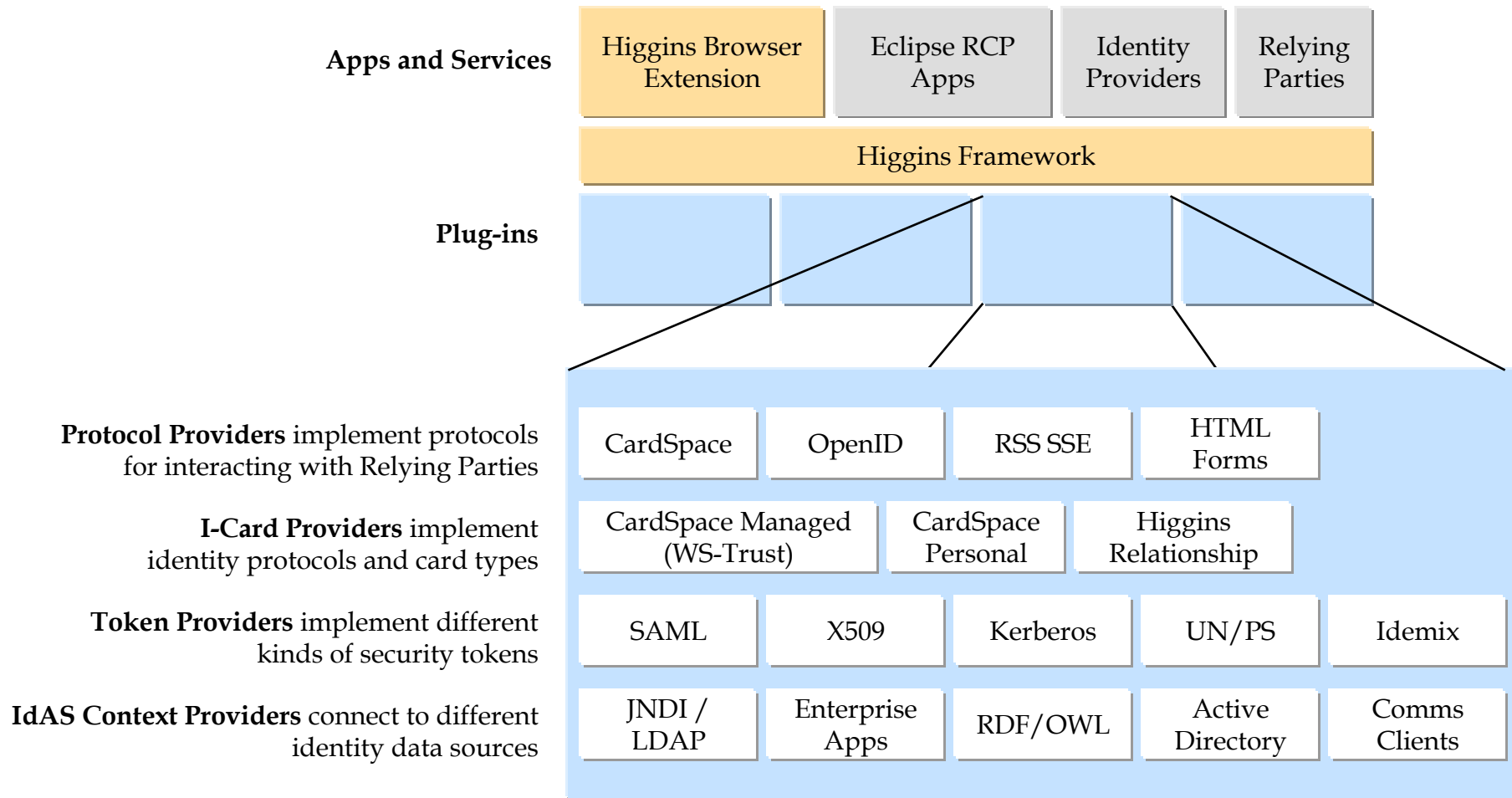


Second Life

Identity Providers



An Interoperability Framework



Higgins delivers

A consistent user experience based on i-cards

- Any identity protocol
- Any token data type
- Any kind of identity data
- Any identity data source
- Any platform



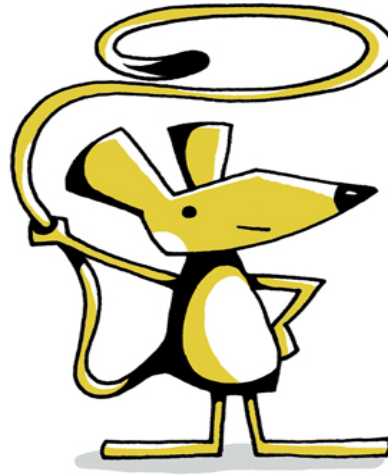
higgins is glue

higgins

1: a species of Tasmanian long-tailed mouse

2: the name of an open source project

3: a kind of glue



<http://eclipse.org/higgins>

Paul Trevithick, Higgins Architect

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