economics

customers

identity

you & me; everyone

interaction
experience design

nick ragouzis | identityeconomics | june 2006

These are main emphasis areas …

============

Preso designed more/less for interaction design and experience design audience

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version 1.3 July 2006

… inside a broader framework (which still isn't the extent of the domain)
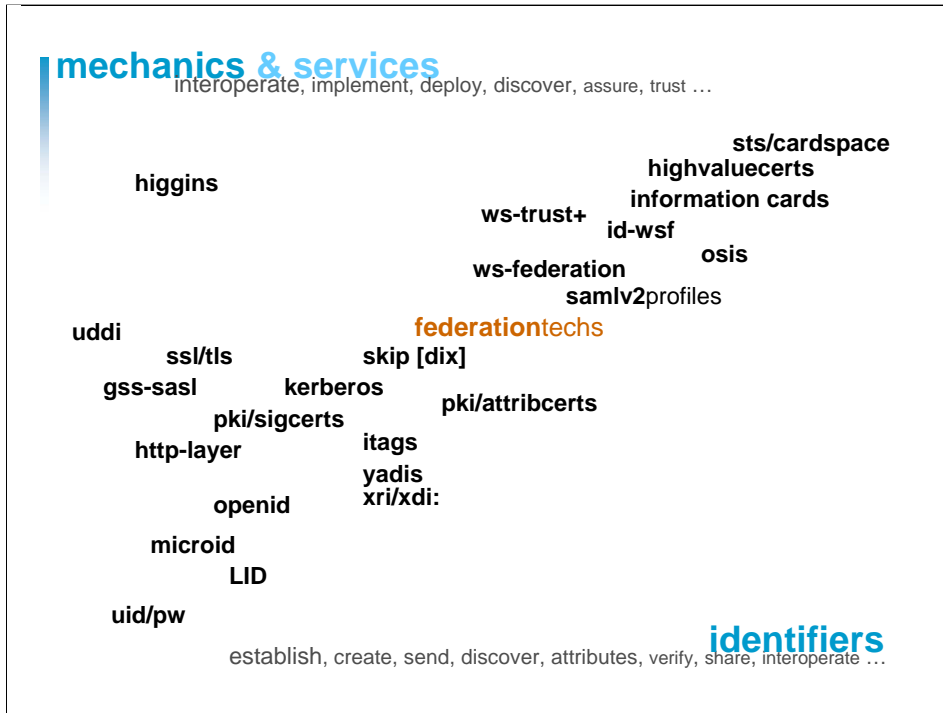
identity
… in the digital age

where we went wrong:

userid**:**
password**:**

1st: failed the trust test
2nd: failed the security test
failed for users (individually and collectively), failed for enterprises, commerce and business overall

mechanics & services
interoperate, implement, deploy, discover, assure, trust …

sts/cardspace
highvaluecerts
information cards
ws-trust+
id-wsf
osis
ws-federation
samlv2profiles

federationtechs

uddi
ssl/tls   **skip [dix]**
gss-sasl   **kerberos**
pki/attribcerts
pki/sigcerts
http-layer   **itags**
yadis
xri/xdi:
openid
microid
LID
uid/pw

identifiers
establish, create, send, discover, attributes, verify, share, interoperate …

get this out of the way, not the focus of this talk:

Introduce as critical frontier: FEDERATION TECHNOLOGIES: purposes, power – leadin to bandwagon techs

LID: uri coin-based
microid: tuple-hash: sha1_hex(sha1_hex("token") + sha1_hex("http://publisher"))
openid: home server, useragent, optional MHAC hashing, optional ssl

concerns & assurance
prove, vet, assure, secure, practices, …

missile fire control

financial transactions

societal security

corporate operations

medical services

controlled programs & services [dmv to drm]

self-image

tagging
blog comments

purpose & trust
establish, create, send, discover, attributes, verify, share, interoperate …

controlled programs: dmv, city services, drm

what about me?
… self-image identity

just who are *you* to say that, that way?

me, on me ————————————— **them**, on you

what you [choose] claim [and how] matters less than you think …

this is me
… my favorite color:

can you prove it?

registered hummer rch2 owner

dmv colorado or california

registered deutsche post

advert in yellow pages

yellow press credentials

show yellow labs

flickr yellow cluster

grow sunflowers, daisies, dafs

purchase amber, yellow diamonds

order hamachi, papaya, banana, lemons

rubber yellow raincoat, duckie

EVEN for things only you can claim …

… just 'cause you say it's so doesn't mean everyone else (or *anyone* else) believes you

This is simplest, dumb, silly example … as we move up the 'meaning' ladder the issues get more complex

But basics remain:

•user's rights to claim, system attempts to rely on authorities to convert to assertions, and the ability to trade on that information

•requirements for privacy, security, control, portability, application of agency, and so on … (a different presentation)

remember design goals?
… ragouzis 1999

for identity?

sustainably deliver verifiable
customer perceived value

should be, but not so much

create customers more efficiently
than closest important rivals

yep, but hard awakening

gain and sustain a relative advantage
through sustained above-average
performance

philosophy, don't break pick

General design goals: directly applicable to experience design, sub-applicable to interaction design (and others)

These are, actually, the sources for ROI (not just cost shifting or offsets)

creating customers efficiently?
… extreme navel gazing in identity roi

operational efficiencies in provisioning

productivities in service consolidation

helpdesk offsets

compliance management

platform interoperation

export of risks

reductions in identifiers

on a false foundation: a tacit agreement with a party
having the power to escalate or change requirements
and alter the agreement

the point: these are not the sources of ROI (see prior slide), and even these are suspect contributors for roi

1. These are not business differentiators (must be in parity, tho)

2. These are not sources of customer-perceived value (unless customer primarily derives value thru #1.)

3. AND MORE IMPORTANTLY: Who is that counter-party? Your customer – in identity they can **unilaterally** change the requirements, the meanings of the identity components you hold/leverage (for those of you thinking 'identities' like gov't-issued identifiers, or biometrics, try shifting your focus from the token or identifier to the meanings of the token, created/sustained/utilized/associated, OR NOT, with each such token/identifier)

4. The 'suspect for sources of roi' bit refers to the tendency to shift or mis-label these frames. Helpdesk offsets, for e.g.: tend to shift the costs to customers (negative value), and to the tools and their maintenance that enable that offset. Operational efficiencies in provisioning, for e.g.: tend to be remediation efforts (got it wrong earlier), or a way to sustain over-reach (such as erroneously believing one organization must control all identifiers, e.g.)

changing face of personalization
… foreshadowing user-driven disruption

major overhaul to tech, marketing, ERP, mngt
demands for investments; exposure to risks
personalization as product innovation

game worlds

auctions recommenders **shopping bots**

folksonomies

allow customers to arbitrarily create prods/svcs
continually alter offerings
mass customizations; serious disruption

personal greetings and targeted presentations
information: collecting enough, using intelligently

Read from bottom up:

1. with "personal greetings… collecting… [magic, supra-] intelligent" use finally fading from any serious dialog.

2. with "customers … arbitrarily create…" simply indicating a bit of reality that's been going on for a while, with (above that) a few examples not often noticed as such (and potent for identity-driven disruption).

3. with "**personalization as product innovation**" demarking the shift from the type of "internal control" associated with "intelligent data mining" of #1, to something customers essentially control. And for which the enterprise must make yet-another major shift to handle

My composite quote from *McKinsey, Accenture, Gartner:* Personalization is now product innovation, sharing all demands for investment and exposures to risks

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Slide from IIW2005 preso:

Foreshadowing for Identity

Users wield *significantly* **more control** than we've accounted

Rather than preservation of status quo, we're facing a *substantial* **systemic upheaval**

Identity Internet as disruptive tech
… firms only short-term lease this resource

to firms: external interlinking, 3rd-party complementary bandwagon services

strategic sense and nonsense: TV-Anytime vs. ATSC

for customers: through necessary agency delegation

location: current, destinations past and future, …

friends: proximate and remote, virtual, real, …

transactions: histories, freshness, vendors, psychographics, …

variation and conflicts: explicitness, details, rights, …

Phrase "Identity Internet" has a specific meaning, concerning how identity is integrated into internet, and carried/utilized throughout. Similar to Mobile Internet, e.g. [IIW2005 preso contains discussion of the stack, evolution into IPv6, and comparisons to cotton-ware "identity Meta system" concept]

….

So,

- Do markets using digital identity exhibit these effects?
- Do users have this kind of influence?
- If so, lends credibility to "Identity Internet",
  and importance of certain kind of identity tech.

= = = =

TV-Anytime vs. ATSC:
1. Concerns EPG (Electronic Pgm Guide) and locus of control on content
2. Highlight TV-Anytime adopters enable users, and role of identity services (discussion integration with OMA/mobile identity infra)
3. Contrast/Discussion on ATSC's design emphasis, REJECTING USER IDENTITY SERVICES, in favor of broadcaster control

   ASTC executed classic layer-and-compose

   Reinventing systems not Identity-extensible
   And not conducive to bandwagon effects

   Almost seems an attempt to build system that's difficult for broad interlinking, or 3rd-party complementary bandwagon services.
   Even having full awareness of TV-Anytime (AdvEPG)

(For pdf version: notes continue on duplicate of this slide …)

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For PDF version, continuation of slide notes…:

Examples: 3rd-party complementary bandwagon services: Political parties, Player Piano (or course in digital/mobile age: SMS)

Internet Identity, Complementary bandwagon services:
        Highly contextual; others short live
        Velocity/Freshness is one of most important attributes

Attributes available only through third parties
        Many previously 'irrelevant' or unavailable (no agency)

Firm can only lease this
        And secure a license (user's partnership!)
        Aggressively, in real time, lease 'their' info to others

(For PDF version, notes continue on following duplicate of this slide …)

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For PDF version, continuation of slide notes…:

Quick tutorial on bandwagon economics:
From IIW2005 Preso (there accompanied by a series of network diagrams showing this evolution):
First: **Basic Bandwagon** (externality/demand-side scaling): The more others enjoy something I've enjoyed, the more I'll enjoy it myself

-- Direct externality

- 2nd: Two aspects: More others enjoying. Simple linking.
- 3rd: Broader linking: Broader linking, internal to same ecosystem
- 4th: Standard bandwagon under way -- independent linking amplifies effect

-- Indirect externality

- Last depicted: **Interlinking across communities** (that's the ref to interlinking); plus: independent **third party complementary bandwagon** services. These 3rd party services are: **Complementary** in some way to 'host' firm, **independent** of that firm, and **bandwagon-like** in own right.

Might be easy to seem to start, but without mechanics at work easy to get stuck without momentum to create healthy marketplace
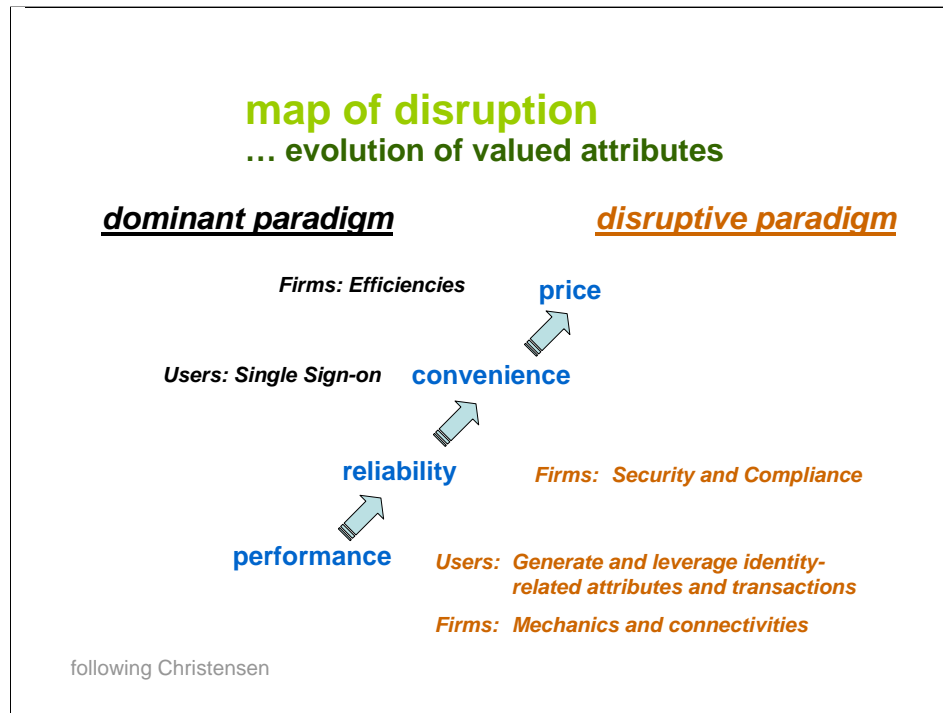
Demand-side scaling, (Over-)Simplified as Network Effect; doesn't scale like Metcalf, at n^2 – scales more like 2n.

Compare to more familiar **Supply-side scaling** of returns: the more an actor consumes, the faster the returns accrue.

In terms of value: late comers value less (have higher reservation threshold – early prod doesn't offer sufficient price-perf on valued factors)

Can't allow value to drop so that some/major portions of network stop participating, or new joiners don't participate/roll the wagon/ as earlier joiners value

If so, see defections

map of disruption
… evolution of valued attributes

dominant paradigm   *disruptive paradigm*

Firms: Efficiencies   **price**

Users: Single Sign-on   **convenience**

reliability   *Firms: Security and Compliance*

performance

*Users: Generate and leverage identity-
related attributes and transactions*

Firms: Mechanics and connectivities

following Christensen

How would identity fit as disruptive tech?

Evolution of Valued Attributes for Disruptive technologies, framework following Christensen

Also, in the dominant paradigm: it's been an era of pretty stable identity:

•Returns are 'direct' (as opposed to 'derivative', like we'll see is coming in a couple slides ahead in the Identity Internet version)

For example: Efficiencies in provisioning – localized scaling problem (independent of market, or competitor mostly)

       --The scale is limited by the organization (that is: **to size of firm, not to size of potential market**)

       --And has limited re-application (limited recombined or repurposed as orgztnl capability)

Current deployment issues are operational efficiency questions
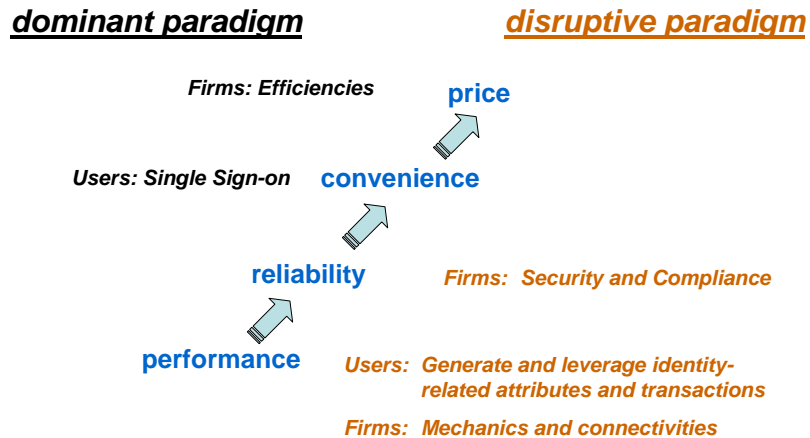
       --All moves expected to be met by competitors, even automated: Not a differentiator in longer term

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Notes converted from slides in IIW2005 talk:

(For PDF format. notes are continued in the following duplicate of this slide …)

map of disruption
… evolution of valued attributes

dominant paradigm   **disruptive paradigm**

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performance

Users: Generate and leverage identity-related attributes and transactions

Firms: Mechanics and connectivities

following Christensen

Notes continued … (for PDF form of preso)

Disruptive Technology Basics

•Power to separate firm from customers

•Initially a supply not in firm's business model

•Similar, but the disruptive tech:
>•Doesn't act like other inputs
>•Likely from a different supplier
>•Primary attributes aren't match to firm business model

•A few firms make these attributes central
>•Suddenly the basis of competition
>•Firm's belated adoption: customers already lost to rivals

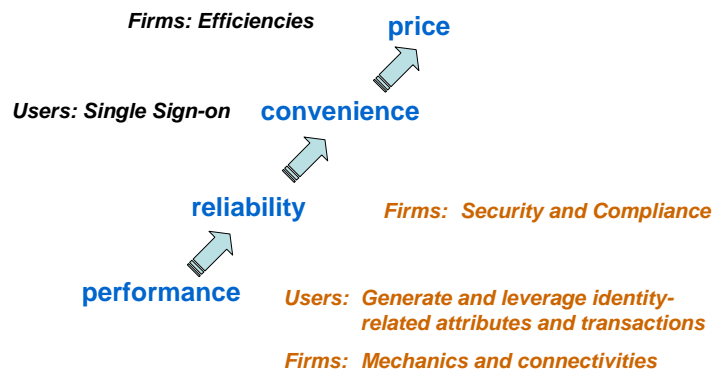•Looking back: Looks obvious!

Pre-Disruptive [mode] Identity

•Firms aligned on basic, intrinsic, personally identifying attributes: Biometrics, life events

•Enhanced with global, local, contextual attribs:
>•Issued credentials, relevant affiliations, mutual t-actions

•Believe them useful to 'hold'
>•Contributing to a firm's valuation
>•We manage them to produce returns
>>•Efficiencies and productivity
>>•Further processing, mining: generate attributes useful

•Customer gets indirect returns, future transactions

map of disruption
… evolution of valued attributes

dominant paradigm *disruptive paradigm*

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Users: Single Sign-on **convenience**

reliability *Firms: Security and Compliance*

performance *Users: Generate and leverage identity-related attributes and transactions*

Firms: Mechanics and connectivities

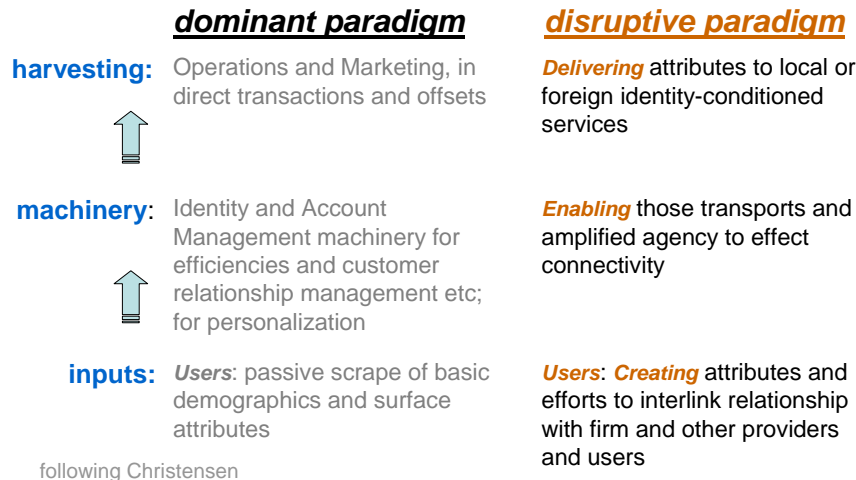following Christensen

Notes continued:

Expensive, AND risky

•Risky in dependence on further transactions

•For customers: relatively low costs, but nearly infinitesimal return:

   •Once they've provided the information with one firm, and created a history engagements and transactions

   •There's no way to leverage, consolidate, export, generalize, bring agency to bear, enable others to offer value in exchange

   •Indirect returns through further transactions with firm

Identity Internet as Disruption

•Among firms:

   •External interlinking, 3rd-party complementary BW Svcs

•For customers:

   •Significant resources for leveraging identity

   •Identity now includes:

      •Current location; destinations past and future

      •Proximate and remote friends and associates

      •Transaction history, broad range of vendors, psychographics (drivers, desires, doubts)

      •Variation and conflicts: explicitness, details, rights

•For firms: Now returns on Identity are largely derivative, through partners, third-parties; temporary and driven by users

   •Shift from operational to **increasingly more strategic use of Identity**

the Identity Internet's
… disruptive value network

	dominant paradigm	**disruptive paradigm**
harvesting:	Operations and Marketing, in direct transactions and offsets	**Delivering** attributes to local or foreign identity-conditioned services
machinery:	Identity and Account Management machinery for efficiencies and customer relationship management etc; for personalization	**Enabling** those transports and amplified agency to effect connectivity
inputs:	*Users*: passive scrape of basic demographics and surface attributes	*Users*: **Creating** attributes and efforts to interlink relationship with firm and other providers and users

following Christensen

How would identity fit as disruptive tech? Also from value network view: sources, transforming, realizing the value

Evolution of Value Network for Disruptive technologies, following Christensen
Look at:
•Inputs
•Principal machine for generating value
•Vehicle for harvesting that value

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Slide text from IIW2005 preso:

New Partners, New Terms (and conditions)
•Less like money; more like time

•Identity: Hold & Mine → Short time to leverage
        •Highly contextual; others short lived
        •Velocity/Freshness is one of most important attributes
•Attributes available only through third parties
        •Many previously 'irrelevant' or unavailable (no agency)
•Firm can only lease this
        •And secure a license (user's partnership!)
        •Aggressively, in real time, lease 'their' info to others

thank you

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