IA 2.0

An Open Conversation about Context, Mobility and Semantics

Duane Degler
Design for Context
www.DesignForContext.com
An Exploration... A Discussion...

- Setting the scene

- Part 1
  - Structured & dynamic data
  - Large, heterogeneous data

- Part 2
  - Mobile
  - Social
Why?

Setting the Scene
Web 1.0  (publish, relate)  

Web 1.5  (find, use, act)  

Web 2.0  (user-generate)  

Web 2.5  (share real-time)  

IA 1.0  

UX  

IA 2.0 ?  

Now what?
### The Context Web

#### Experience
- Relevant
- Integrated
- Illuminating
- Personal
- Social
- Mobile
- Location-aware
- Situated
- Temporal
- Multi-modal

#### Data experience
- Shareable structures
- Open Linked Data
- Models that represent data domains
- Increasing number of tools for data display, translation and manipulation

#### Design experience
- Flexible and fluid interactions
- Platform independence and integration
- Knowledge of users and their patterns of use
- Methods focused on context and relevance-awareness
**Flexibility as a Goal**

- The ability to easily manipulate an interface to respond to a user’s situation and support user and organizational/societal goals

- Interaction is:
  - Seamless – User goals and tasks are facilitated more easily, no matter what technologies and applications involved
  - Frictionless – Data is free to move between applications and uses as needed

- The underlying model(s) that drive interaction are easily extended and changed – to remain relevant to users
Seeking the seamless and frictionless experience

Podcasts 2011 (TBD)

IA Summit 2010
Podcasts from the IA Summit 2010 in Phoenix, AZ
Part 1
- Structured & dynamic data
- Large, heterogeneous data

Part 2
- Mobile
- Social

I talk (briefly) → You talk (longer)
Relevance

Structured & Dynamic Data
Everything’s a topic now

Our goal is to make this Community Page the best collection of shared knowledge on this topic. If you have a passion for And, sign up and we’ll let you know when we’re ready for your help. You can also get us started by suggesting a relevant Wikipedia article or the Official Site.
...more structured data in results

Java SE Desktop Articles
Java SE provides everything you need to make your Swing apps swing, ... Understanding the Caret and Highlighter Interfaces in Swing's Text Package ...
java.sun.com › Java Technology › Java SE - Cached - Similar

Swing (Java) - Wikipedia, the free encyclopedia
Swing is the primary Java GUI widget toolkit. It is part of Sun Microsystems' Java Foundation Classes (JFC) — an API for providing a graphical user ...
en.wikipedia.org/wiki/Swing_(Java) - Cached - Similar

Show more results from en.wikipedia.org

Videos for swing
Savage - Swing
3 min - Feb 3, 2006
Uploaded by breathewithme
youtube.com

Trace Adkins - Swing
4 min - Jun 14, 2007
Uploaded by CapitolNashville
youtube.com

News for swing
Bautista emulating Aaron with strong swing
23 hours ago
He's laying off some tough sliders down and away, which a lot of guys who are trying to hit everything will swing at those pitches. ...
MLB.com - 856 related articles

Books for swing
Swing: A Mystery - Rupert Holmes - 2006 - 364 pages
Accompanying the novel is a CD of original songs and music that feature prominently in ...

Swing - Scott Yanow - 2000 - 514 pages
Covering the gamut from Duke Ellington to Big Bad Voodoo Daddy, this complete guide ...

Swing: a beginner's guide - Herbert Schildt - 2006 - 590 pages
In this fast-paced guide, master programmer and bestselling author Herbert Schildt ...
books.google.com

© D. Degler, Design for Context. 4.2.2011
...structured refinement
Local news from different newspapers, but the same story – they all come from the same wire story. User expectation is local relevance …not satisfied.
Abrogating editorial responsibility? To whom? The machine? The crowd?

I know what I want

Static experience

I know my direct window on the web

Dynamic experience

Varying potential quality of sources
“Now everything can link to everything...”

Increasing structured data needs to be handled with care... or it can overwhelm and distract from user goals.

www.nytimes.com
(double click words on page)

industry is no exception to a broad away at the market shares of Europe with higher labor costs.
“Unsupported architecture...”

“It’s too academic...”

“The quality will be crap...”

There’s a lot of concern and nay-saying… but the Semantic Web has a strong role.

Does the Semantic Web play a role?

“The crowd can curate...”

“The algorithms can curate...”

“It’s too hard...”

“Those eggheads must be smoking something...”
Semantic Web / Linked Data

Powerful advantages for design from one simple capability...

Naming the lines

(verbs for the Web)
Relationships help support *Understanding*

You can interpret a lot without even knowing the objects… and this provides huge leverage for designers!
Relevance requires context recognition

Specific awareness of content and ability to articulate problem

Awareness of problem but little ability to articulate

No awareness of need for information

Required

Available

Prohibited

Not available

Nature of content related to task

“Just tell me what I absolutely must know”

“I know what I’m looking for–get me to it!”

“I don’t know what I need to know”

“I didn’t know I needed that”

Identify via direct user feedback

Identify via analyzing content and term use

Identify via task performance assessment

User’s awareness of need


These white areas are the places where we can focus—they’re often under-supported.
Scalability

Large, Heterogeneous Data Sets/Sites
Scalability

Even diligent curators are struggling to keep up with organizing their content.

Keeping it simple, but a little more organized... and using open linked data.

© D. Degler, Design for Context. 4.2.2011
Commitment to Linked Data

LinkedData.org
As of September 2010

© D. Degler, Design for Context. 4.2.2011
Facets... even more multi-dimensional

Structure for following additional data relationships

Flexibly add new facets and relationships

Exploratory – narrowing and expanding
Semantics-driven facet browsing

- Flexible – add new data types and relationships any time
- Expose relationships for greater user control
Participant discussion: curation

- Should we curate structure – the terminology and relationships – as well as content?
  - How do we curate it, particularly when it is more dynamic?
  - Is that part of the IA’s role?
    - It is an interesting question how far the IA goes in processes for curating all the elements that surround context and content – establishing processes, reviews, guidelines – but the larger task is daunting, even though agreed to be important!

- If we need to curate and standardize to achieve structured information… do we need to train our users (content creators and, in some cases, end users) to do this?
  - Is it possible? Is it appropriate?
  - Where global content creation or social content is the norm, there is no way that “training” can be a goal
  - One lesson we’ve learned from Web 2.0 is that it is possible to get users to apply basic data that can be used to support categorization and improving structure, but that it requires good interaction design and has to be:
    - Simple
    - Resilient
    - Suitable for purpose... perfection isn’t the goal for loose curating
Participant discussion: controlled vocabulary

- Is there really a “black & white division” between structured and unstructured information? Or is there room for both in the context web going forward?
  - We only began the potential discussion about inter-mingled roles of both structured and unstructured content, and how they can act together to serve user needs.

- Is a controlled vocabulary…
  - Necessary? – in some situations where the richness of relationships and importance of accuracy/maintainability matter, people said yes…
  - Desirable when/where possible? – certainly, but would need to be explored more deeply on a case-by-case basis to understand the issues
  - Impossible? – some felt that circumstances could sometimes make the use of a controlled vocabulary impossible; but then how does content gain additional useful structure and co-exist with other dynamic content?

- Further discussion and exploration of controlled vocabulary creation, use, and maintenance is necessary
  - Useful to understand the role of automated methods for applying structure (auto extraction and machine-aided categorization, for example), although it was said that these techniques can be fragile
Participant discussion: mental models

How are these techniques related to understanding **Mental Models**?

- A few people saw a close connection between the methods needed to understand user context and content/data relationships, and the methods applied to understand user mental models
  - I feel there is a very close connection, because the goal is *relevance to users*; creating structured data relationships that reflect their perception of relevance means we need to understand/articulate their mental models and contexts
- Close tie-in as well with the work being done at the BBC using Domain Models; see Mike Atherton’s Beyond the Polar Bear ([http://www.slideshare.net/redux/beyond-the-polar-bear](http://www.slideshare.net/redux/beyond-the-polar-bear))
Location, Location, Location

Mobile Interaction
Bring awareness of your location to others

Maintain awareness of objects

Facilitate exploration of spaces

You are here

Location-aware... context

Bring place to usefulness of information

Bring information to experience of place
Design...

...Context...

...to achieve Flow

Images: www.apple.com/ipad/
Maybe it’s a dashboard, too?

Burning Question: Why Isn't My House Out-Thinking My Dog Yet?

By Bryan Gendron  March 22, 2010 | 12:00 pm | Wired April 2010

http://www.wired.com/magazine/2010/03/ts_burningquestion_housesmart/

Interesting use of Android platform, potentially allows mobile management of in-place physical devices
Participant discussion: location awareness & relevance

- What question is the user asking? Is it location-related?
  - What answers can be delivered that understand the user’s situation and goals in that location?
  - What happens as the location moves?
    - Does that signal a change in context?
    - Does that signal a change in the relevance of questions being asked?

- How does a user easily express that location matters in their current interaction context? Should it be assumed?

- Explore the idea of an “Interaction Ecology”...
  - Following your location path/trail
  - Also following device-to-device movement – carrying the useful context of previous actions, but not ignoring the change in context based on device change
Participant discussion: mobile and multi-platform

- Important to consider synching the user’s experience across multiple devices and contexts
  - Different devices have different capabilities, and the user’s goals are likely to be different in particular situations/contexts
    - However, the overall experience with *information* should not be disorienting to users as they move between platforms (seamless experience)
  - Mental models, again, play a role
  - Trend, seeing the use of multiple devices at the same time
    - E.g. TV prompting the use of mobile device as an extension of what is available in a show, in real time

- Some people are designing for “mobile first” as it makes the most demands on simplicity of interaction (“least able device”)
  - However, some described the risk of *never getting to the richer experience*
  - Valuable rich taxonomies or inter-related navigation models might also be avoided, because they are much harder to execute on small devices

- Be careful not to frustrate the user, either through platform specificity that does not carry over where needed, or lack of appropriate platform support where it would aid understanding
It’s not what you know, it’s…

Social Environments & Data
My diffuse self on the disconnected Web...

Photos with me in them

Photos I've taken

My brief musings

My comments on others’ work

My recorded thoughts (in public)

My written thoughts

My profiles (recorded patterns)

My profiles (professional)

My profiles (personal)

My profiles (personal)

Mentions of me by others

My profiles (recorded patterns)

My digital “footprints”

My photos with others’ in them

All the stuff I don’t know about

My “status” musings

My presentations

My recorded thoughts (in private)
Multi-dimensional relationship management needs good UX, IA, and structured linked data...
"What’s happening?"

Are algorithms moderating your relationships?

Copying a post from a friend’s page: Facebook has changed its News Feed so that by default you can only see updates from people you have recently interacted with! To change this, click "most recent" then use the little arrow down and go to "edit options" and check the box to receive updates from ALL friends. Most importantly, repost this! Remember only a few of your friends will actually see it.

Something Else FB didn’t tell us...

by on Wednesday, 09 February 2011 at 13:15

PLEASE READ - THIS IS VERY IMPORTANT TO EVERYONE WHO USES FACEBOOK FOR BUSINESS OR PERSONAL REASONS.

HERE'S THE FIX: Scroll down to the bottom of the newsfeed on the homepage and click on "Edit Options", click on "Show Posts From" and change the setting to "All Of Your Friends and Pages". Note: This is the fix for personal pages but I am unsure of whether or not the business pages are set up the same way.

I don't understand, FB. Why a "links" tab, to segregate the links my friends' post? Especially since some of the orgs I've friended are specifically to see their upcoming events? Why is FB continually full of "unimprovements"?

Cracking the Facebook Code

by Thomas E. Weber

“Who’s in control?”

The New FB Privacy setting called "Instant Personalization" went into effect and is enabled. It shares your data with non-FB sites. Go to Account>Privacy Settings>Apps & Websites>Instant Personalization>edit settings & uncheck "Enable". BTW If your friends don't do this, they will be sharing info about you as well. Copy and repost.

I'm seriously thinking of quitting FB--anyone have any good options?

01 February at 10:10 · Like · Comment

The New York Times

Business Day

Facebook Privacy: A Bewildering Tangle of Options


The Wall Street Journal

Tech

WHAT THEY KNOW | JULY 30, 2010

Sites Feed Personal Details To New Tracking Industry

WHAT THEY KNOW | JULY 30, 2010

The Web's New Gold Mine: Your Secrets

A Journal investigation finds that one of the fastest-growing businesses on the Internet is the business of spying on consumers. First in a series.

http://online.wsj.com/article/SB10001424052748703940904575395073512989404.html
http://online.wsj.com/article/SB10001424052748703977004575393173432219064.html

The New York Times

Media & Advertising

Stage Set for Showdown on Online Privacy

By EDWARD KYATT and TANZINA VEGA
Published: November 5, 2010

Let’s explore… How does a design respect its users?

- **Humility**
  - Know thy limitations
  - Ask

- **Provenance & transparency**
  - Trust as a user interaction challenge
  - Tracing data history... more possible than ever... and more important than ever

- **Conscious sharing**
  - Building on the strength of Web 2.0
  - Stronger relationships... between each other... between our data "selves"

- **Privacy**
  - Who's in charge?
  - Informed consent: How to we know what we've given permission for?
    - In future, we're not just giving permission for data... we could be empowering agents with responsibility for *action* on our behalf

How do we think about, model, and research social experience? You might want to take a look at Dana Chisnell's IA Summit 2011 talk: [Rethinking User Research for Social Design](http://www.slideshare.net/danachisnell/rethinking-user-research-for-social-design)
What are the implications of “ownership”?

- Content ownership and control:
  - Social sites that declare “ownership” of user content
  - Reuse of content
- Data (particularly personal data) ownership and control:
  - Informed consent, and providing some understanding to users of how their data may be used in an increasingly networked world
  - Controlling – or expressing preferences – to your “friends” so their posting of images, comments, data are informed by your expectations when it involves you
- Carrying policy expressions:
  - Data use and re-use is hard to monitor
  - Is there a way to express personal and organizational policies in ways that it can be carried with data, or referenced as part of the process of using data?
  - W3C had been exploring this as part of their Policy-Aware Web?

Data out of context – how and when should it be used?

- Scientific data is sometimes published with the written articles about the research, but the release of such research assets may cause problems for researchers
- The assumptions and limitations of data are currently difficult – or impossible – to provide alongside the data itself, so secondary uses are compromised
IA 2.0

An Open Conversation about Context, Mobility and Semantics

Duane Degler
Design for Context

www.DesignForContext.com