Design for Context
Making software applications and web sites easy to use

Show, Tell, Explore…

Semantic Web Interface Design

Duane Degler & Jasmin Phua

Design for Context

www.DesignForContext.com
www.DesignForSemanticWeb.com

Submitted URLs from participants: www.designforsemanticweb.com/shareurl

Examples we've collected previously: www.designforcontext.com/examples

Today

➢ Goals

➢ Perspectives

- On the Semantic Web

- On Design

➢ We explore examples together

- Ask questions

- Propose interesting sites/applications

- Share what you're working on

- We discuss the design implications and techniques

We talk
(briefly)

We all talk
(longer)

Contributing to the exploration

➢ Provide examples: www.DesignForSemanticWeb.com/shareurl

➢ Discussion
  • Be involved
  • Be positive

Perspective

on

Semantic Technologies and Design

Context matters

Contextual mistakes / anomalies destroy trust

The Context Web

➤ **User 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

Technology is not a barrier

Can our interactions be...

➢ **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
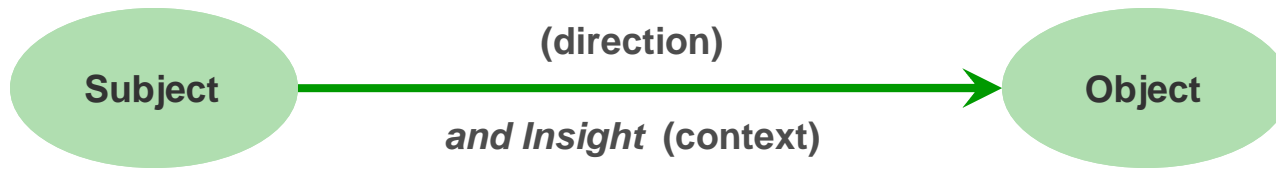
But we need to design in...

➢ The ability to easily manipulate an interface to respond to a user's situation and support user, organizational, and societal goals

➢ The ability to extend and change underlying model(s) that drive interaction, to remain relevant to users
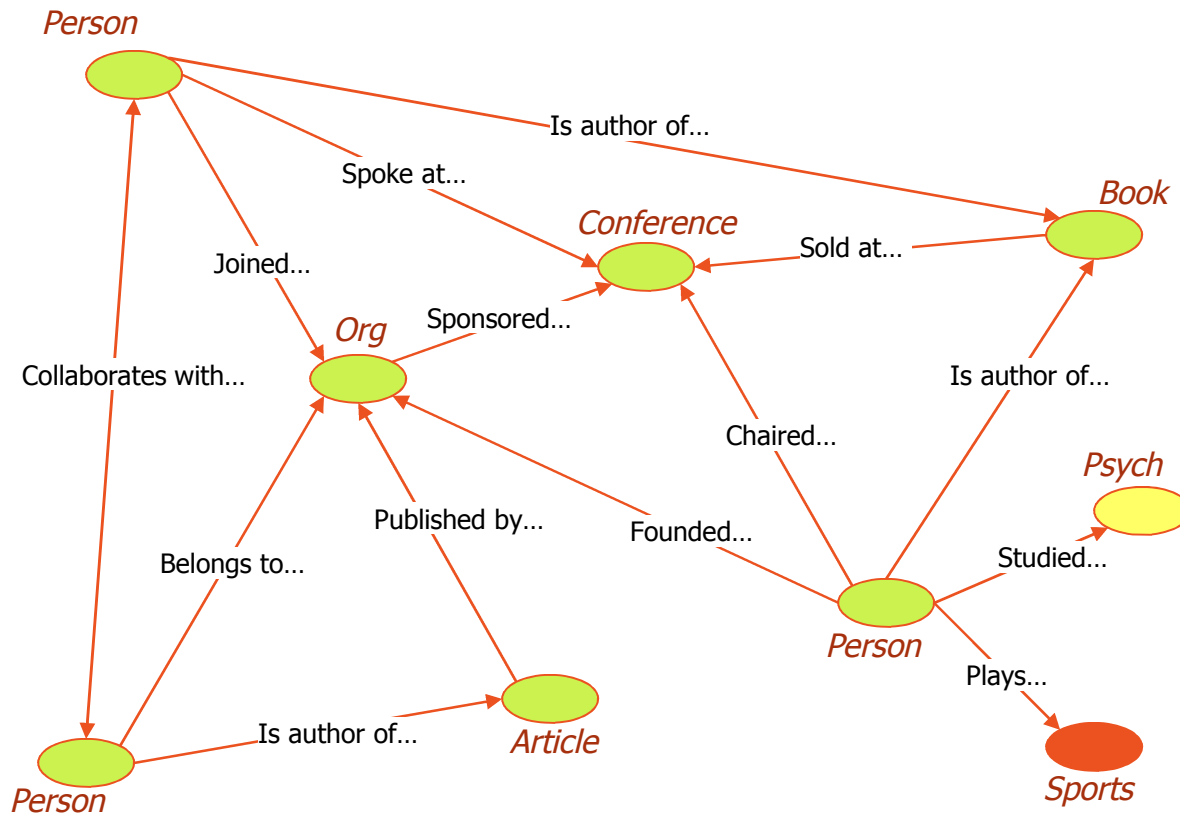
Semantic Web / Linked Data

Powerful advantages for design
from one simple capability…

```
                        (direction)
  ( Subject ) ─────────────────────────────▶ ( Object )
                   and Insight  (context)
```
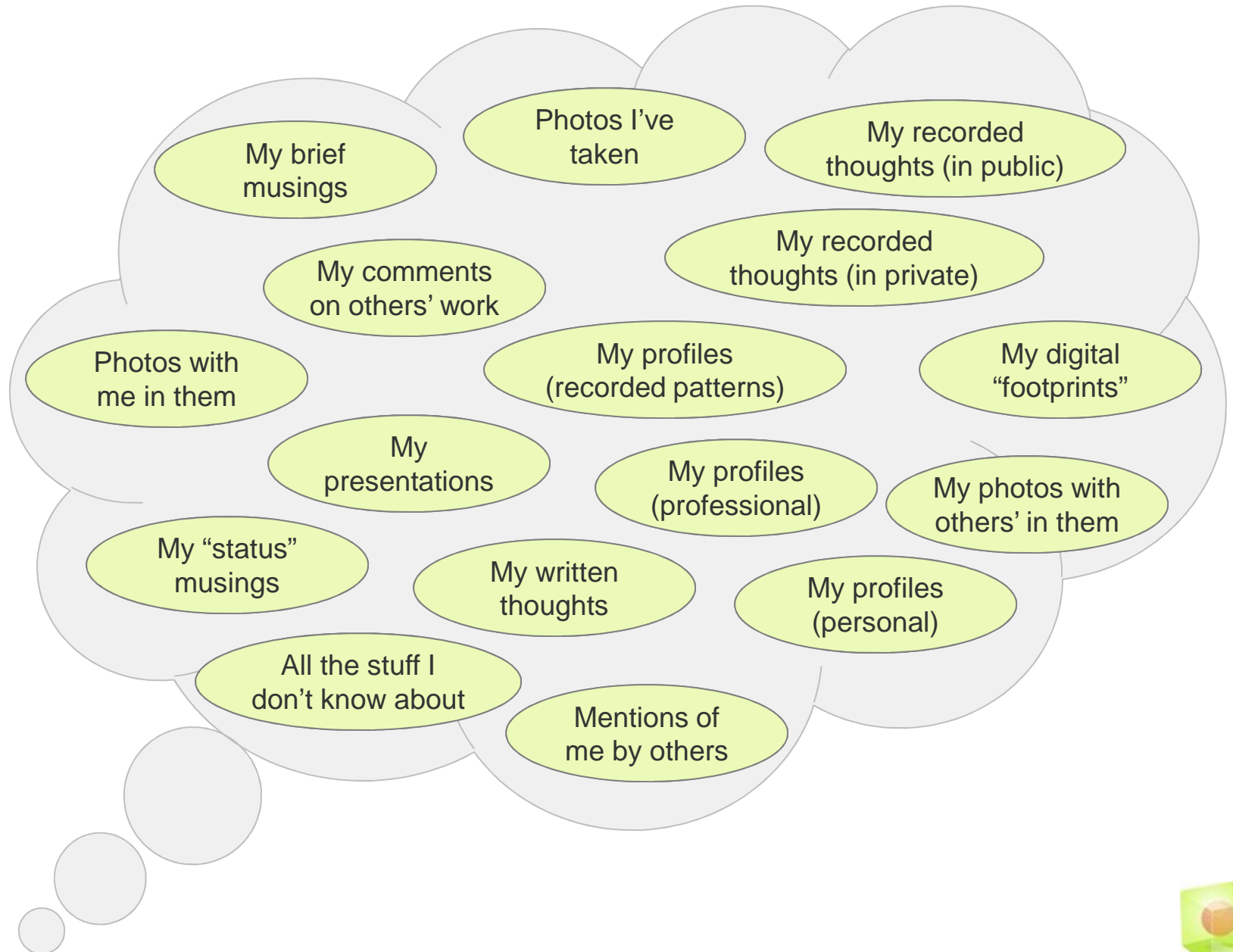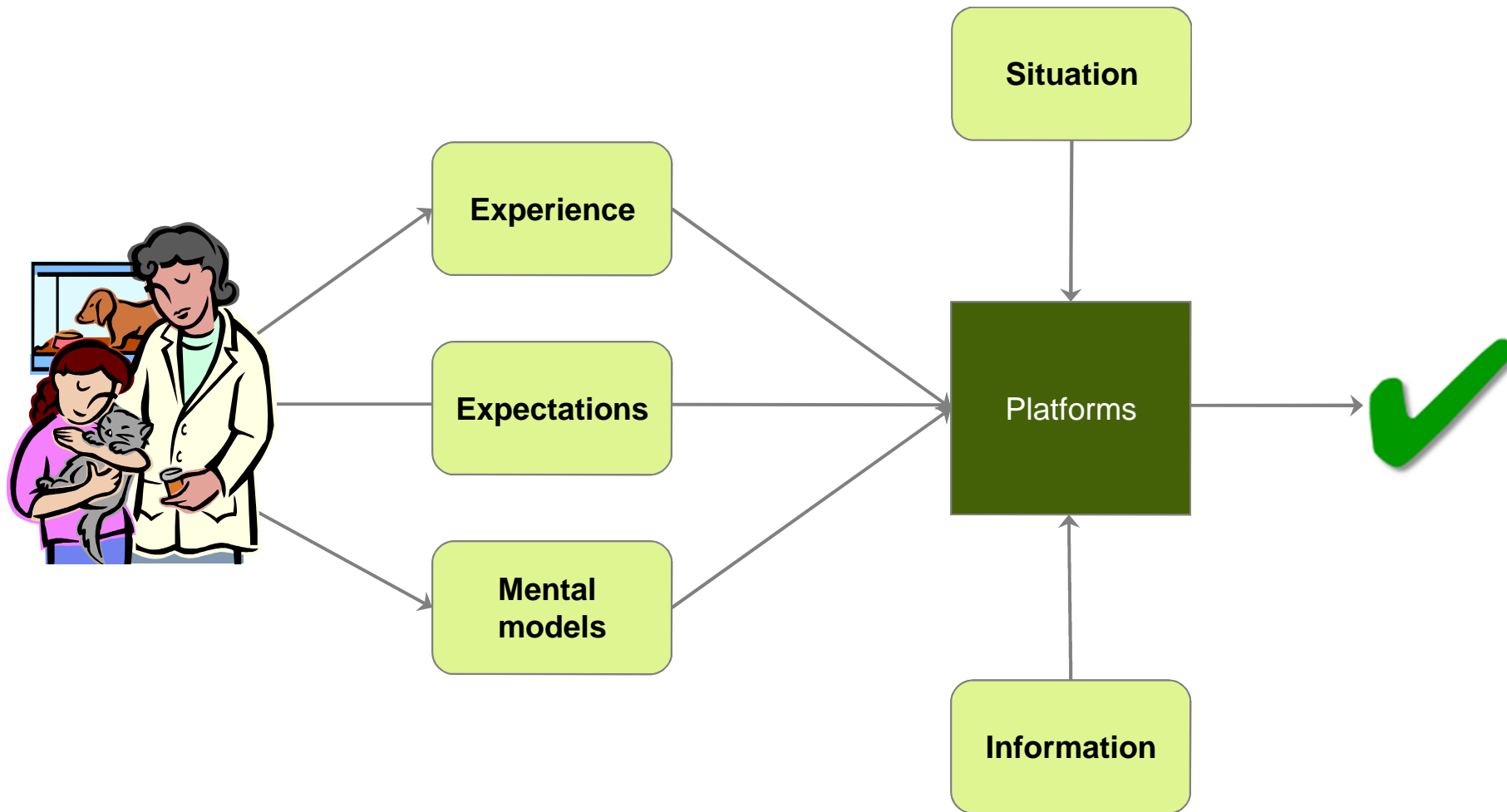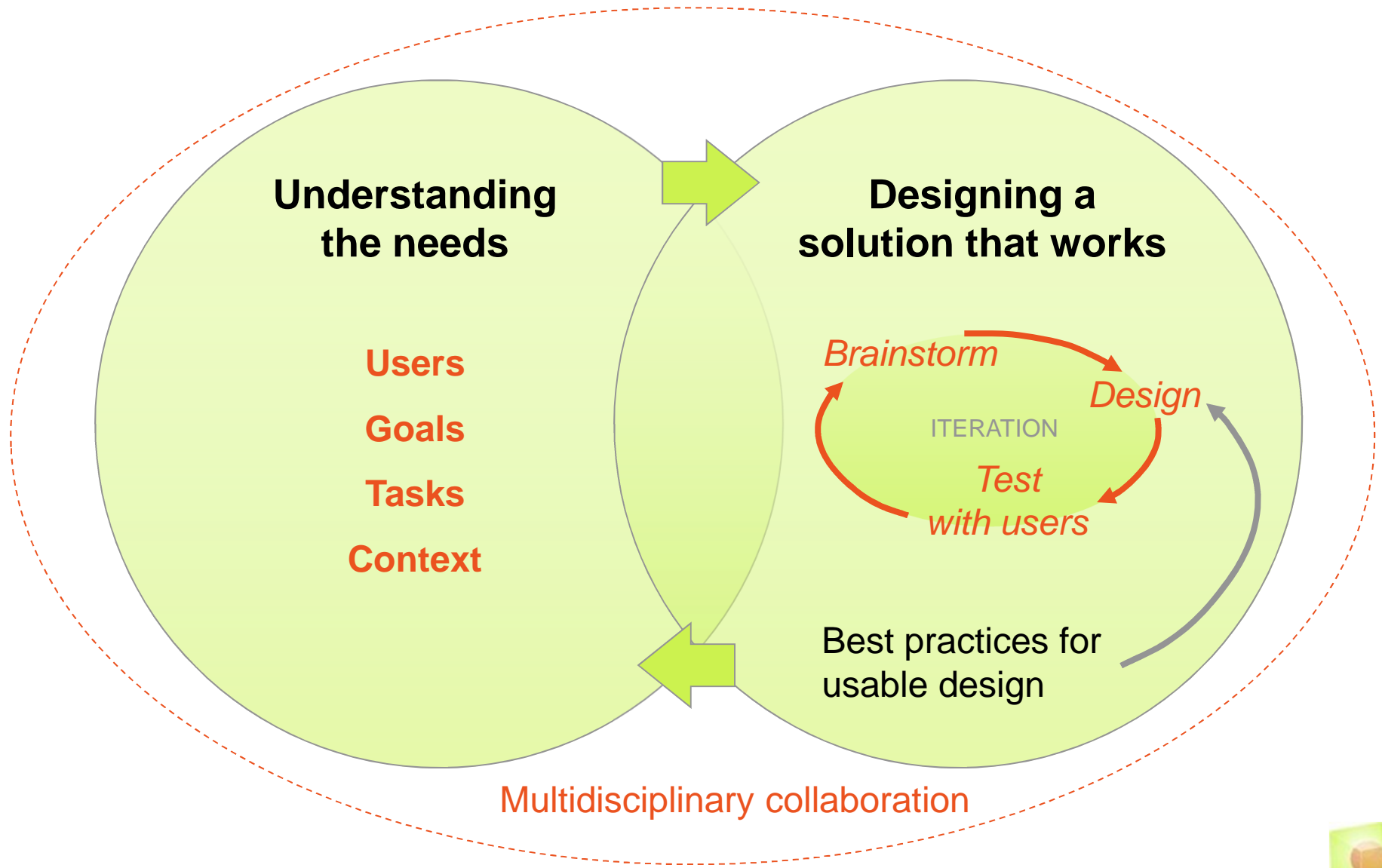
Naming the lines

My diffuse self on the disconnected Web...

User goals… outside the system, but facilitated by the system

The "Magic" Behind Usable Design

Understanding the needs

Users

Goals

Tasks

Context

Designing a solution that works

Brainstorm

Design

ITERATION

Test with users

Best practices for usable design

Multidisciplinary collaboration

Show, Tell, Explore

Topic Areas

Share an example:

www.designforsemanticweb.com/shareurl

Interaction Categories

- ➢ Information landscapes

- ➢ Seeking

- ➢ Visualization

- ➢ Creating and sharing information

- ➢ Vocabulary and relationship management

- ➢ Personal and social issues

Information Landscapes

➢ Challenges

- Where am I?
  - Wayfinding & signposting
- Whoa!
  - Exposing rich content relationships
- Huh?
  - Resolving ambiguity

➢ Opportunities

- Relevance
- Control over quantity
- Personal pathways

Seeking

- ➢ Challenges
  - I'm looking for…
    - Structure matching mental model of domain(s)
  - Was this what I said?
    - Interpretation
  - Is this everything?
    - Confidence in underlying algorithms
  - Huh?
    - Resolving ambiguity

- ➢ Opportunities
  - Goal-relevance
  - Recognition enhancing recall
  - Iteration (berry picking)

Visualization

- ➢ Challenges
  - What is this telling me?
    - Patterns and interpretations
  - Whoa!
    - Crossing from quality to quantity
  - Wait! Stop!
    - Representation form and consistency

- ➢ Opportunities
  - Surfacing insights – seeing relationships in new ways
  - User control of complex analysis
  - Mingling visual and textual in seamless ways

Creating and sharing information

➢ Challenges

- Why bother?

  - How many i's to dot and t's to cross

- If the machine says so…

  - Quality of automated assistance

➢ Opportunities

- Streamlining processes

- More structure > less effort

- Consistency and quality

Vocabulary and relationship management

- ➢ Challenges
  - Was your degree in linguistics or philosophy?
    - Suitability to purpose
  - How much?
    - Quantity
  - But I meant…
    - Respecting and resolving ambiguity

- ➢ Opportunities
  - Longevity without rigidity
  - A forgiving nature
  - Cultural relevance > flexibility of interpretation
  - Fail–safes

Personal and social issues

- ➢ Challenges
  - Is what I'm seeing trustworthy?
    - Transparency
    - Provenance
  - What is this application doing with my stuff?
    - Clarity
    - Respect
    - Informed consent
  - Does it understand what I mean?
    - Humility
    - Permissions
  - Who sees what I'm sharing?
    - Privacy
    - Rules of engagement / behavior

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