Thinking with your Eyes

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Thinking with your Eyes

Overview

- INFORMATION Architecture - Review L2
- From Information to Knowledge
- Principles
- Perception and your Minds Eye
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- INFORMATION Architecture - Review L2
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From Card Boxes to Database
From Database to Hypertext
From Hypertext to Web 2.0
From Web 2.0 to Web 3.0
Information R/Evolution

1.0 one-way & broad
- E-Mail
- Static Websites
- Discussion Forums
- Instant Messaging
- Chat Rooms

1.x dynamic & interactive
- Dynamic Websites
- Portals
- Communities
- Agents
- Video Conferencing
- Web Services
- Collaborative Filtering
- VOIP

2.0 simple & social
- Blogs
- Wikis
- RSS
- Mashups
- Pod- & Webcasts
- Social Networks
- Social Bookmarking
- Folksonomies
A Case for Research: The PhaseX experiments

PhaseX is the major experiment at the Chair for CAAD from 1996-1998

http://www.space.arch.ethz.ch/
Summary

The trend in social media is the continuous shift to upload and share rich multi-media content and there is a big movement towards participation.

This represents a real shift in media consumption and production from passivity (TV) to personal control (YOUTUBE).
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From Information to Knowledge

Situation - Information Overload

more and more information needs to be communicated faster and faster to more and more stakeholders
From Information to Knowledge

Visualization Fields - Static

- Graphic Design
- Art
- Advertising
- Graphic Design
- Visual Communication
- Information Design
- Film
Visualization Fields - Interactive

- Interaction/Game Design
- Geographic Information System (GIS)
- Medical Visualization
- Scientific Visualization
- Computer Graphics
- Information Visualization
- Human Computer Interaction
- Virtual Reality
- Augmented Reality
- Knowledge Visualization
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Discussion

Why is this relevant to you?
The architect’s key resource in the future is the comprehensive knowledge about different visualization methods and the understanding of relations, patterns, and principles.

It is the capacity to create high level design by the combination of Architecture and Information.
From Information to Knowledge

Why is this relevant to you?

Visualization Methods

- Envisioning (Mental Images, Stories)
- Sketching (Sketch)
- Expressing, Narrating (Images)
- Diagramming (Diagramms, Charts)
- Mapping (Maps)
- Materializing (Objects, Models)
- Exploring (Interactive Visualizations)
From Information to Knowledge

Data - Information - Knowledge - Wisdom

connectedness

wisdom
understanding principles

knowledge
understanding patterns

information
understanding relations

data → understanding
Data - Information - Knowledge - Wisdom

Data

Represents a fact or a statement of an event without relation to other things

Example: 42
Example: It rains
From Information to Knowledge

Data - Information - Knowledge - Wisdom

Information

Embodies the understanding of a relationship of some sort, possibly cause and effect

Example: The temperature dropped 15 degrees and then it started raining.
Knowledge

Represents a pattern that connects and generally provides a high level of predictability as to what is described or what will happen next.

Ex: If the humidity is very high and the temperature drops substantially the atmosphere is often unlikely to be able to hold the moisture so it rains.
Wisdom

Embodies more of an understanding of fundamental principles embodied within the knowledge that are essentially the basis for the knowledge being what it is. Wisdom is essentially systemic.

Example: It rains because it rains. And this encompasses an understanding of all the interactions that happen between raining, evaporation, air currents, temperature gradients, changes, and raining.
Situation - Information Overload

Did you know...?
Situation - Information Overload

Students forget 90% of what they learn in class within 30 days.
From Information to Knowledge

**Situation - Information Overload**

Students forget 90% of what they learn in class within 30 days.

The majority of this forgetting occurs within the first few hours after class.
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Principles

Flow of Information

Did you know...?
People will remember 10% of information presented orally tested 72 hours after exposure...
Principles

Flow of Information

People will remember 10% of information presented orally tested 72 hours after exposure...

...add an image and it goes up to 65%!
Principles

Flow of Information

VISION outperforms all other senses

Example:
Information flows between people through organizations and networks in much the same way that water flows through a metropolis.
Regardless of where you are in the metropolis, you should be able to trust that water supply is consistent, meets a certain level of quality, and if you open the faucet it will flow.
This is one analogy with information. You need to be able to access and trust the information you need.
We can capture information, which makes it easier to control: both the access to and the quality of the information.
This is actually a dangerous environment, not only for a goldfish!
Principles

Flow of Information

Now to the point...
Making information flow between people is fundamental for collaboration and knowledge exchange to happen.
Principles

Flow of Information

But remember that information is a dynamic resource.

- It is constantly changing...
Principles

Flow of Information

...and every brain is wired differently!
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- The Review - the Outlook
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How many „F“s can you find in this text?
FINISHED FILES ARE THE RESULT OF YEARS OF SCIENTIFIC STUDY COMBINED WITH THE EXPERIENCE OF YEARS
FINISHED FILES ARE
THE RESULT OF YEARS
OF SCIENTIFIC STUDY
COMBINED WITH THE
EXPERIENCE OF YEARS

Solution: 6
Experiment 2

Monitor the white team of players by counting the number of passes they made.
Experiment 2

Monitor the white team of players by counting the number of passes they made.

Solution: 16

Did you see anything out of the ordinary? - Watch the video again!
Perception - Your Minds Eye

Experiment 3

Are you left or right eye dominant?
Do you see the dancer turning clockwise or anti-clockwise?
Perception - Your Minds Eye

Experiment 3
Perception - Your Minds Eye

Experiment 3

Left Eye dominant
uses logic
detail oriented
facts rule
words and language
present and past
math and science
can comprehend
knowing
acknowledges
order/pattern perception
knows object name
reality based
forms strategies
practical
safe

Anti-Clockwise
If you see the 'Spinning Lady' anti-clockwise, then you use more of the left side of the brain.
Most of us would see the dancer turning anti-clockwise
Perception - Your Minds Eye

Experiment 3

Clockwise

If you see the 'Spinning Lady' clockwise, then you use more of the right side of the brain.

Right Eye dominant

uses feeling
"big picture" oriented
imagination rules
symbols and images
present and future
philosophy & religion
can "get it" (i.e. meaning)
believes
appreciates
spatial perception
knows object function
fantasy based
presents possibilities
impetuous
risk taking
Conclusion

Have you figured out the essence of this lecture?
Perception - Your Minds Eye

Conclusion

Have you figured out the essence of this lecture?

We do not see the world as IT IS, we see the world as WE ARE!
Podcast Information Architecture

http://www.ia.arch.ethz.ch/teaching/teaching-08/
Sources

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