Using Information Technology to Transform Unstructured, Creative Work:

An Industry Perspective

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Design is Inherently Fun

It is:
- Creative
- Challenging
- Fast-Paced
- Dynamic
- Collaborative
- Consuming
- Chaotic

It has:
- Rhythm
- Tempo
- Crescendos
- Purpose

It often requires:
- A leap of faith

Star-Birth Clouds

It Becomes Not-Fun When

- There are interruptions to the natural rhythms and flow
- It gets mired in the details
- It loses focus
- Too much attention to process is required
- Critical knowledge is unattainable
- Team doubts its ability

Clouds Over the Eastern Martian Horizon

Systems to Support Knowledge Work

- **Eliminate work vs. Creating more work**
- **Provide something the team otherwise wouldn't have**
  - **Knowledge**
  - **Capability**
- **Don't impose an alien discipline**
- **Maintain the fun**

First: Do no harm

Artist's rendering of NASA's Mars 2003 Rover

Two Examples

- **Technical Questions Database**
  - **"partner system"**
  - **Situated interaction**

- **Design Knowledge Capture**
  - **"servant system"**
  - **Fly-on-the-Wall operation**

Knowledge System Requirements

Earth - full disk view of Africa

Robustly Invisible   **Humbly Omniscient**

The Danger Zone

Desired Research Results

- How to inspire self-discipline

Venus - 3D Perspective View of Idem-Kuya

Desired Research Results (cont'd.)

- How to leverage natural structure of corporate intranet to create fast/efficient search-browse-find capability

- Establishing and managing layered access to information

- Methods for capturing and leveraging contradictory information

Still from Odyssey Clip 3

Desired Research Results (cont'd)

- How to identify information that is truly relevant and timely and of interest

- Greater understanding of privacy vs. accessibility for mining issue

- Legal and ethical implications of "sh/could have known" knowledge

Twin peaks in 360-degree panorama

Most images may be accessed via:
http://photojournal.jpl.nasa.gov/

The New Solar System