

Social Shaping of Technology

Slide 1

Agenda

- Seating
- Quiz
- Announcement
- Follow-Up to Last Week's Panel
- Social Analysis
- Skills Workshop: How to Write a Paper
- Panel

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Slide 2

Announcement

- Office Hours
 - Tuesdays at 3pm online
 - Thursdays at 5pm in BA4237

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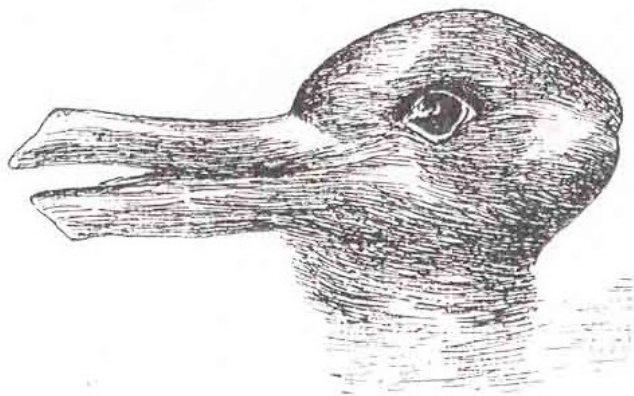
Panel Follow-Up

- Limited time for audience participation
 - You will get your chance
 - Use Twitter
- One of the roles on panel will be a “social media editor”

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Slide 4

Social Analysis



Social (and other) Analysis

- More often than not, truth lies somewhere in between

Lenses for Social Analysis

- Social Shaping
 - Context and Assumptions
 - Power
 - Privilege
 - Autonomy
 - Democratization
 - Circulation
- Design
 - Embodied/Exogenous/Interactional
 - Ethics

Social Shaping

- Technology and society are mutually constitutive
- Technical-Technical Relations
 - Science
 - Existing technological eco-system
- Human-Technical Relations
 - Economics
 - State
 - Sociology of Knowledge
 - Gender
 - Race
- Human-Human Relations
 - Communication

Human Values with Ethical Import

- Human Welfare
- Ownership and Property
- Privacy
- Freedom from Bias
- Universal Usability
- Trust
- Autonomy
- Informed Consent
- Accountability
- Identity
- Calmness
- Environmental Sustainability

How Values are Implicated

- What practices are inscribed into the technology?
 - Embodied Position
- What societal forces affect how the technology will be used?
 - Exogenous Position
- What am I trying to accomplish when I use the technology?
 - Interactional Position

Example: Razors



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Why gender?

- Because it's a good probe or test case
 - Same with sexual identity, race, class, etc.

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Social Analysis

- Identify Stakeholders
- Social Shaping
- Ethics in Design
- Impacts

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Stakeholders

- Designer
- Client
- Society
- Others...

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Social Shaping

- Technological-Technological Relations
- Human-Technological Relations
- Human-Human Relations

- Identify assumptions
 - Implicit -> explicit
 - Degree of importance/relevance



Ethics in Design

- What human values with ethical import are built in and how?

Impacts

- Intended - What does it do for the client when it operates correctly?
- Side effects - What else does it do?
- Externalities - Side effect to someone other than the intended client.

Example: PowerPoint

- Stakeholders
 - Software designers
 - Presenters
 - Audience members
 - Students
 - Architects
 - Interior designers
 - Projector and screen manufacturers
 - Bulb manufacturers
 - Building maintenance staff

Example: PowerPoint

- Stakeholder - Architect
 - Background
 - Technically competent
 - Absent and uninterested in topic
 - Goals and Motivation
 - Make nice buildings
 - Nice = usable? aesthetically pleasing?
 - Preferences
 - Stability in technology
 - Durable configurations

Example: PowerPoint

- Social Shaping

Example: PowerPoint

- Ethics in Design

Example: PowerPoint

- Impacts: Intended
 - More visually appealing presentations
 - Reduced environmental footprint
 - Reinforces performer-audience distinction

Example: PowerPoint

- Side Effects
 - Increases preparation time
 - New skill required
 - Designers selling PowerPoint themes
 - Reduces autonomy of audience

Example: PowerPoint

- Externalities
 - Sales of slides and acetate overheads have disappeared
 - SlideShare web site

Group Exercise

- Form groups of 3 or 4
- Pick a number from 1-10
 - I'll give you a technology (on the next slide) and you perform a social analysis of it
- Discuss in your group for about 10 minutes
- Share

Computing Technologies

1. Camera
2. Blog software
3. SMS messaging
4. Supersmart phones
5. Word processing software
6. Twitter
7. MOOCs
8. Facebook
9. Face recognition software
10. Location-aware applications

How to Write a Paper (for this class)

Adapted from Jed Brubaker

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- Why is it important to be able to write?

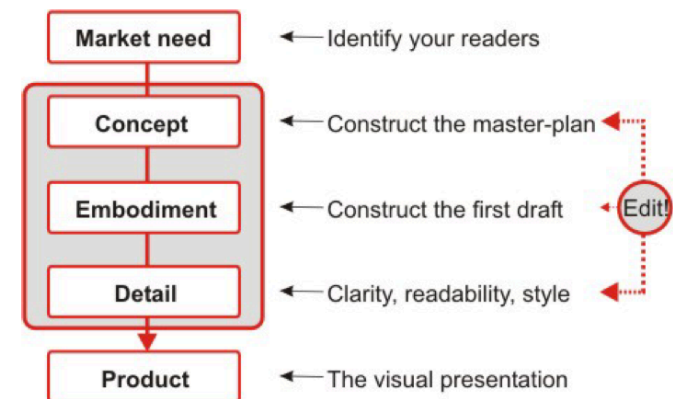
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The Structured Essay

- Thesis
- Background
- Support
- References

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From <http://www-mech.eng.cam.ac.uk/mmd/ashby-paper-V6.pdf>

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Core Ingredient: Thesis

- The take-home message
- Common Mistake
 - Try to say too much

Core Ingredient: Background

- Contextual information
- Common Mistakes
 - Begin with context that is too large
 - Overly broad generalizations

Core Ingredient: Support

- Citation/Quotation
- Reference other work
- Give credit where credit is due
- Common Mistakes
 - Rely too much on own opinion

Core Ingredient: Explanation

- How does the citation support your thesis, in the context of the background info?
- Common Mistake
 - Not making the connections explicit. Relies on reader to infer what you were thinking.

Example: The Five Paragraph Essay

- Statement of problem/question. Point one. Point two. Point three. Thesis statement.
- Reiterate point one. Point one background. Point one support. Point one explanation.
- Reiterate point two. Point two background. Point two support. Point two explanation.
- Reiterate point three. Point three background. Point three support. Point three explanation.
- Reiterate thesis. How points one, two and three confirm thesis. Why thesis is relevant to a broader context.
- References

2000 Words = 20 Paragraphs

- How are you going to use them?
 - Not including references

Defend Against Counter-Arguments

- Consider the most likely opposing points and refute them.

Citations and References

- The value of citations?
- Consistent formatting
- Preferred style: ACM
 - http://www.library.dal.ca/subjects/csci_ref.htm

Technicalities

- Fonts and Margins – see the syllabus
- Short, Declarative Sentences
 - Not too flowery.
 - Be careful with adverbs (“ly” words such as “slightly”, “partially”, “particularly”)
- “This”
 - Don’t use it without a noun following it.
- Avoid passive voice
 - Unless you intentionally want to obscure the subject.

Elements to Avoid

- Unnecessary hedges- “weasel words”
- Personal attacks
- Padding
- Virtuosity (simpler is often better)

Tricks of the Trade

- Outline
 - Most important points first
- Emphasize thesis throughout
- Read through it once you’re done

Know Your Audience

- Make it easy for us to read your paper and understand its key points.

Panel: Make or Be Made

Panel

- In the current culture, if you are not a maker then you are being made as a consumer of culture?
 - Are you a maker?
 - If you are, what do you make and why?
 - If you are not, what would you like to make? What has kept you from making?
 - Do you think this claim is true?
- Take a minute to think in silence.
- Discuss with your neighbours.