Ethics of User Interface Design

ID 405: Human-Computer Interaction
High-level ethical and moral issues surrounding the design of human-computer interactions that are increasingly autonomous and algorithmic, that diminish user’s sense of moral agency or may even mitigate moral responsibility for computer mediated actions.

Low-level interface design patterns used in websites and web-based applications to deceive users into actions that are generally not in their interest.
Creating moral buffers in weapon control interface design
By Cummings, M.L.; MIT in *Technology and Society Magazine*, IEEE
(Volume:23, Issue:3) Fall 2004

• The Author takes a look at military and medical settings and describes the moral implications that decisions in those areas of interface design inevitably have.

• The basic argument she makes is, that a user interface can create a “gap” between a person’s actions and their consequences which results in psychological/emotional/physical distancing from those consequences and therefore in a diminished sense of accountability and responsibility: the moral buffer.
The Moral Buffer

Stanley Milgram’s Obedience Experiments, 1961
The Moral Buffer
The Moral Buffer
The Moral Buffer

Fig. 1. Resistance to killing as a function of distance [4].
The Moral Buffer
The Moral Buffer
The moral buffer

Autonomous weapon systems and killer robots
The moral buffer

Medical decision support systems
Medical decision support systems

Data available to University of Minnesota researchers via the Clinical Data Data Repository
The moral buffer

Data-driven algo-cracy

Government & public policy – UK, Singapore

Terrorism & national security

Transportation

Insurance

Education

.....
What causes the moral buffer?

<table>
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<tr>
<th>Lack of empathic clues</th>
<th>Psychological distance</th>
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<tbody>
<tr>
<td>When people are remotely painful stimuli, they are only aware in a conceptual sense of the suffering from their actions.</td>
<td>Psychological distances are created by race, religion, nationality, ideology, technical superiority etc.</td>
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<th>Out of sight, out of mind</th>
<th>Users tendency to anthropomorphise computers</th>
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<tr>
<td>Distance/obedience creates the narrowing of the cognitive field of the subjects.</td>
<td>People have a tendency to assign human attributes and moral responsibility to computers, without consciously recognizing it.</td>
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<th>Physical distance</th>
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<td>Physical separation between an action and the resultant consequences, increases the ability of humans to inflict greater suffering through remote conditions.</td>
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</table>
The Moral Buffer

1. Can interface design also have the contrary effect, creating a deeper sense of moral involvement by the user?

2. Are there other moral pitfalls in a User Interface Designers work – even when not concerned with life-critical systems?
The Moral Buffer
The Moral Buffer

STAR WARS
KNIGHTS OF THE OLD REPUBLIC
The Moral Buffer

In KOTOR you typically have with you one to three computer-controlled characters, who comment on your actions. Doing something morally questionable would result in "Why did you do that?", "Was that really necessary? He needed his money more than we do." or something to that effect, and usually you had to answer something.

In GTA, your victims typically die with a faint moan, and praise is the only thing you'll hear.
Not deceive
Not mislead/misguide/misdirect
Not manipulate
Not disguise
Not hide or obscure
Not misrepresent
Not confuse/confound
Not exploit errors
Not deceive
Not mislead/misguide/misdirect
Not manipulate
Not disguise
Not hide or obscure
Not misrepresent
Not confuse/confound
Not exploit errors
1. Dark Patterns
2. Malicious Interface Design
3. Evil by Design
Dark Patterns

To spread awareness about Dark Patterns, to name & shame sites that use them.

14 Patterns

Curated by Harry Brignull
Bait & Switch

Invite user to do one thing, switch to something else (that is undesirable)
Disguised Ads
Misleading ads to get people to click, but act as a navigation device
Forced Continuity
Aka *Credit card rollover*, automatically billing customers
Forced Disclosure
Extensive personal information, forced to disclosed in return of low-cost action
Friend Spam
Quick signups using existing credentials, and spamming contacts posing as you
Hidden Costs
Costs revealed only once you reach the last stage of checkout process
Misdirection
Focus on one thing to distract attention from another
Privacy Zuckery
Deliberate use of confusing jargons & UI components to let users share more
Roach Motel
Easy to get in, hard to get out
Road Block

Prevent task completion by making them do another task
Sneak into Bucket
Sneak items based on obscure options in previous steps
Price Comparison Prevention
Avoiding ease of comparison and forcing user to memorize costs
Faraway Bill
Moving away from physical bills (push) to online equivalent (pull)
**Trick questions**
Quick glance vs detailed reading to figure out the reverse meaning
Malicious Interface Design: Exploiting the User

*Taxonomy of malicious UI design techniques.*

11 techniques

Paper by Gregory Conti, Edward Sobiesk
Coercion

Threatening or forcing user to do mandatory (unnecessary) actions
Confusion
Ask questions or tasks that the user doesn’t understand
Distraction
Distraction by exploiting perception & pre-attentive processing
Exploiting Errors
Using user’s errors in your advantage (like mistyping urls)
**Forced Work**

Delay the actual task, or make the task complex
**Interruption**

Interrupt the user’s task flow
Manipulating Navigation
Using IA & navigational mechanisms to prevent user to easily reach a section
Obfuscation

Hiding or complicating certain elements of the page
Restricting functionality
Limiting or omitting controls
**Trick**

Misleading and deception, including lies & spoofs as baits
Shock
Disturbing & controversial content
Evil by Design

Persuasive/Manipulative design patterns.
57 patterns (based on 7 sins)
Website (& also a book) by Chris Nodder
Pride
Sloth
Gluttony
Anger
Envy
Lust
Greed
Pride: Positive messages, desirability, commitment...
Sloth
Gluttony
Anger
Envy
Lust
Greed
Pride
Sloth: Least resistance, defaults, obfuscate...
Gluttony
Anger
Envy
Lust
Greed
Design Patterns: Evil by Design

Pride
Sloth
Gluttony: Reward, foot in door, door in face, impatience-compliance...
Anger
Envy
Lust
Greed
Pride
Sloth
Gluttony
**Anger:** Scare, slippery slope, anonymity...
Envy
Lust
Greed
Pride
Sloth
Gluttony
Anger
**Envy:** Manufacture desirability, status, ownership before purchase...
Lust
Greed
Pride
Sloth
Gluttony
Anger
Envy
Lust: Flatter, push polls (message/question), give to get...
Greed
Pride
Sloth
Gluttony
Anger
Envy
Lust
Greed: Gamify it, don’t finish, win!, illusive superiority...