Architecture is politics: The power and the perils of systems design

Andreas Orphanides
NCSU Libraries
Three lessons / uncomfortable truths
Lesson 1
Lesson 1

System design influences user behavior.
Yeah, and?
Yeah, and?

A door that never opens is called a wall.
Persuasive design
"disciplinary architecture"
"dark patterns"
Use the AVG Toolbar to improve my Internet protection

END USER SOFTWARE LICENSE AGREEMENT

- I accept the terms of the AVG End User License Agreement & Privacy Policy
- I accept AVG Secure Search as my default search provider. Learn more
- I accept AVG Secure Search as my homepage and new tab page. Learn more

Applies to the host browser.
## Outbound Flight

**Manchester - San Francisco International (CA)**

Sunday 19 Apr 2015

These are the lowest single adult prices including taxes, fees and carrier charges.

### Travel Classes

<table>
<thead>
<tr>
<th>Departs</th>
<th>Arrives</th>
<th>Flight Operator</th>
<th>Economy</th>
<th>Premium Economy</th>
<th>Business Class</th>
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</thead>
</table>

### Outbound Connecting Flight Options

1. **1 Connection**
   - **Departure:** 07:05, 19 Apr, MAN
   - **Arrival:** 14:35, 19 Apr, SFO
   - **Price:** £1113
   - **Lowest Price:** £1799
   - **Total Journey Time:** 15 hours 30 minutes

2. **1 Connection**
   - **Departure:** 07:05, 19 Apr, MAN
   - **Arrival:** 16:55, 19 Apr, SFO
   - **Price:** £1113
   - **Lowest Price:** £1799
   - **Total Journey Time:** 17 hours 50 minutes

3. **1 Connection**
   - **Departure:** 09:30, 19 Apr, MAN
   - **Arrival:** 17:22, 19 Apr, SFO
   - **Price:** £1109
   - **Lowest Price:** Not available
   - **Highest Price:** £3109

Use Avios to save up to £100 in Economy
Offers may vary by travel class
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<th>Arrival</th>
<th>British Airways</th>
<th>Price</th>
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<td>LHR-SFO</td>
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<td>MAN-LHR</td>
<td>LHR-SFO</td>
<td>£1113</td>
<td>£1799</td>
<td>£4319</td>
<td></td>
</tr>
</tbody>
</table>

Total journey time: 15 hours 30 minutes and 17 hours 50 minutes,
"Lowest": £1799
£1113  "Lowest": £1799
We can use our powers for good.
Can you set things up so one action can’t be performed until another is completed?

Most modern cash machines don’t dispense cash until you remove your card, making it less likely you’ll leave it behind.
Uncomfortable truth 1

System design influences user behavior.

(whether you want it to or not)
Products

Natural Baby Care
Feel good about every ingredient you touch.

What's inside?
Explore the role of natural ingredients in our products.

Our standard
From ingredients to packaging, our Stewardship Model guides every decision we make.

Community
Meet our 2015 50 States For Good Program recipients.
Thank you for the many inspiring entries this year! See which organizations received a shared sum of more than $1,000,000 and who nominated them.

Helping Kids
Download our coloring book and we'll donate toothpaste.
Start now »

Giving back
10% of our profits are donated to human and environmental goodness.
Explore all products »
American Historic Flags
Welcome to RefWorks.

Let’s get started with some basics.

First name: [Input Field]

Last name: [Input Field]

North Carolina State University

Department: [Dropdown]

Role: [Dropdown]

Next
Ethical principles for persuasive design

- Implement constraints and affordances to the user's benefit.
- Design affordances the user will recognize.
- Disguise constraints with care.
Lesson 2
Lesson 2

System design reflects the designer's values and the cultural context.
Architecture is politics:
Your design choices reflect your values.
Upper West Side condo has separate entrances for rich and poor

By KATE BRIQUELET
Last Updated: 12:20 PM, August 18, 2013
Posted: 1:27 AM, August 18, 2013
Your design choices reflect your values.
THE STORY BEHIND THE WORLD'S MOST ICONIC CATS

Learn more about tigers and WWF's work to protect them.

First-ever twins born to habituated gorilla family in the Central African Republic

After the hottest year on record, we...
THE STORY BEHIND THE WORLD'S MOST ICONIC CATS
Learn more about tigers and WWF's work to protect them

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First name

Last name

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Department

Role

Next
Welcome to RefWorks.

Let's get started with some basics.

First name

Last name

Please enter your first and last name

North Carolina State University

Department

Role

Please select your role from the list

Next
Politics is architecture:
Context exerts influence on design.
"The Scunthorpe Problem"

Login error
The user name "ScunthorpeM181" has been blacklisted from creation.

Create account
Already have an account? Log in.

Registering a free account takes only a few seconds and has many benefits.

Simply choose a username (not the same as your e-mail address) and a unique password and click "create account".

- For your own security, please choose a password that would be difficult to guess. (Help)
- All usernames will begin with a capitalized letter, regardless of what you type.
- All underscores will be converted to spaces, regardless of what you type.
- For technical reasons, the #, / and \ symbols cannot be used in a username.
- You do not have to provide an e-mail address, but if you forget your password, you will not be able to regain access to your account without one.

(Your e-mail address is never given to anyone, with one exception: if you e-mail another user, your e-mail address is provided to the recipient to enable him or her to reply.)
Uncomfortable truth 2

System design reflects the designer's values and the cultural context.

(whether you want it to or not)
Ethical principles for political design

- Seek out and recognize your biases.
- Diversify your design practices.
- Understand your culture and its mores.
Lesson 3
to review...
Uncomfortable truth 1

System design influences user behavior.

(whether you want it to or not)
Uncomfortable truth 2

System design reflects the designer's values and the cultural context.

(whether you want it to or not)
Lesson 3

The system's interests will come into conflict with the user's interests.
80/20 rule
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<th>Advertising content</th>
<th>Megabytes to load</th>
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</table>

Boston.com’s mobile website ads averaged 30 seconds to load on a typical 4G connection, mostly because of large video ads. That’s the equivalent of 32 cents of cell data in ads every time the home page is loaded.

The New York Post, one of the slowest websites, contains many large photos, but fewer ads, so an ad blocker had less of an effect.

Sites in this range are quicker, but ad blockers still take out more than five seconds of loading time over a typical cell connection.
Who's Traveling?

Important: Traveler names must match your government-issued photo ID exactly.

Name:* 
First* رمزي
Middle محمد وليد
Last* ناصر

! Please enter a first and last name using letters only.

Country Code* 
Phone Number:* United States of America (1)

Preferred Phone Number*

TSA Secure Flight Info
What's this?
7% of Americans Rely Heavily on a Smartphone for Online Access

The “Smartphone-Dependent” Population: 7% of Americans Rely Heavily on a Smartphone for Online Access

% of U.S. adults who have a smartphone, but lack other broadband internet service at home, and/or have limited options for going online other than their cell phone

ALL ADULTS

- 64% own a smartphone
- 15% have limited options for online access other than cell phone
- 10% have no broadband service at home other than smartphone data plan
- 7% overlap have limited options for online access and no broadband service at home
Uncomfortable truth 3

The system's interests will come into conflict with the user's interests.

(whether you want them to or not)
Ethical principles for compassionate design

- Recognize and acknowledge your compromises.
- Know your users.
- Design with empathy.
Thanks!

Andreas Orphanides
NCSU Libraries
akorphan@ncsu.edu
Sources

Lesson 1 images
- Angry wall: Nils Norman via Slate
- Anti-homeless spikes: GetWestLondon
- AVG: Dark Patterns
- BA: Dark Patterns
- "Interlock": Dan Lockton
- Shark teeth road: hawaiihighways.com
- Summon spinner: Serials Solutions
- NCSU Libraries: North Carolina State University
- Flat website: Tom's of Maine (h/t Hoa Loranger)
- Flag for sale: Best Made Co.
- Refworks: ProQuest

Lesson 2 images
- Overpass: NYSDOT
- Rich door, poor door: New York Post
- Marriage certificate: KSL Broadcasting
- Lame wheelchair ramp: Southeastern Ornamental Iron
- Cool wheelchair ramp: Think Inclusive
- WWF website: World Wildlife Fund

Lesson 3 images
- Advertising chart: New York Times
- "Who's traveling?": Greg Tarnoff
- Mobile internet chart: Pew Research
- Chucklings and mother: author

References and inspiration
- Dark Patterns
- John Gall, The systems bible
- Mitch Kapor, Architecture is politics (and politics is architecture)
- Dan Lockton, Design with intent toolkit
- Hoa Loranger, Beyond blue links: making clickable elements recognizable
- Greg Tarnoff, Designing with empathy
- Langdon Winner, Do artifacts have politics?