

User Experience

Lecture 7

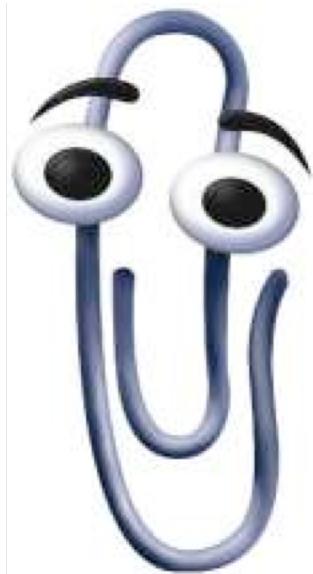
UXD: User Centered Design

Adam Girard

The shifts

- From computers as technical tools to everyday items
- The popularity of the desktop
 - User shift
- From the functional to the wider experience

Clippy



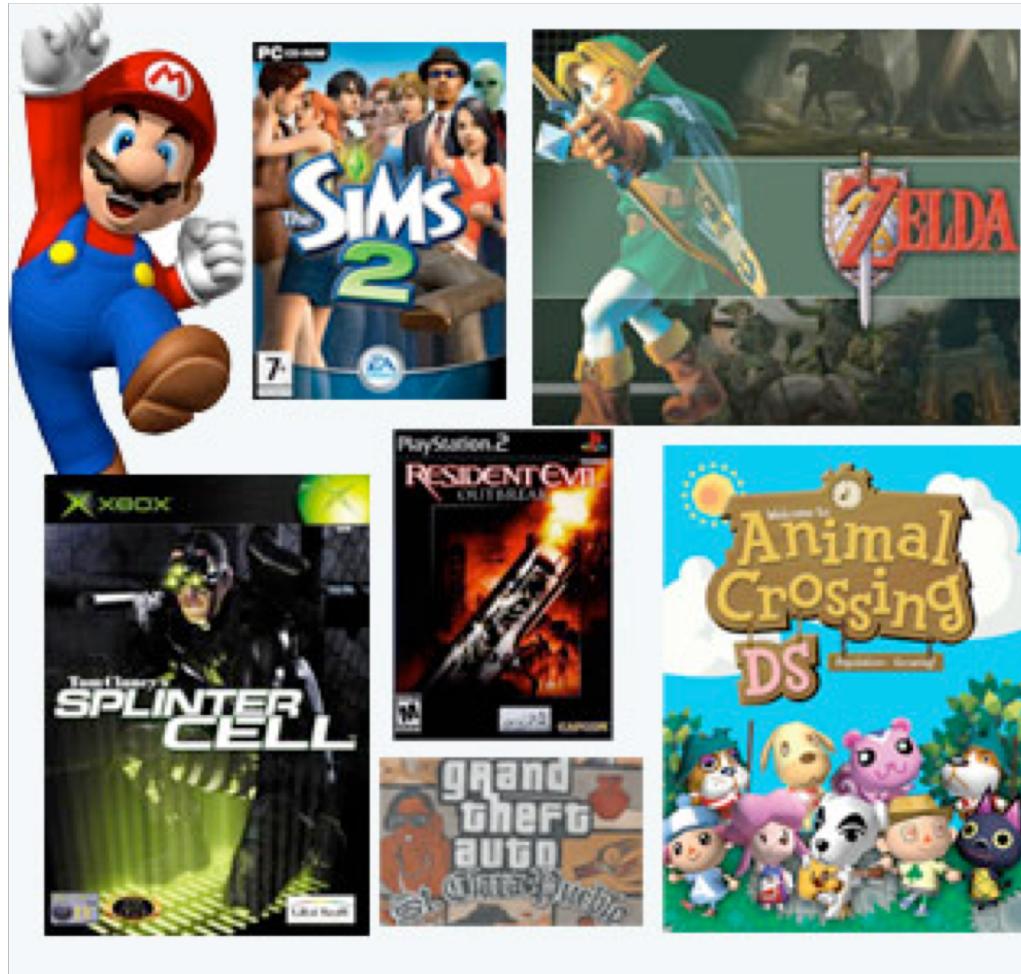
<http://msdn.microsoft.com/en-us/magazine/hh335072.aspx>

Core concepts

- Usability forms central core of HCI
 - Efficiency (time to complete the task)
 - Effectiveness (how well it is done)
 - Satisfaction (attitudes)
- UX Fills in some of the gaps by addressing new types of questions



An interaction without ease of use at its core



Within these...

The interface

- Effective, efficient, satisfying

The wider experience

- Can be challenging, demanding, engaging
- The tipping point

The interaction of these

- Interface as a barrier to the wider experience

Technology, Experience

Experience with
technologies themselves

AND

Broader experiences
facilitated by
technologies



What makes people do this?



Or this?

Elusive UX Definition

Keep in mind that.....

UX is a young field in HCI

It is growing fast

Usability & UX

- Usability view
 - Interaction where problems aren't encountered
- UX view
 - More complex than that.....
 - Holistic view of interaction experience
 - Focuses on experiential qualities
 - Emotion significant factor

An exercise

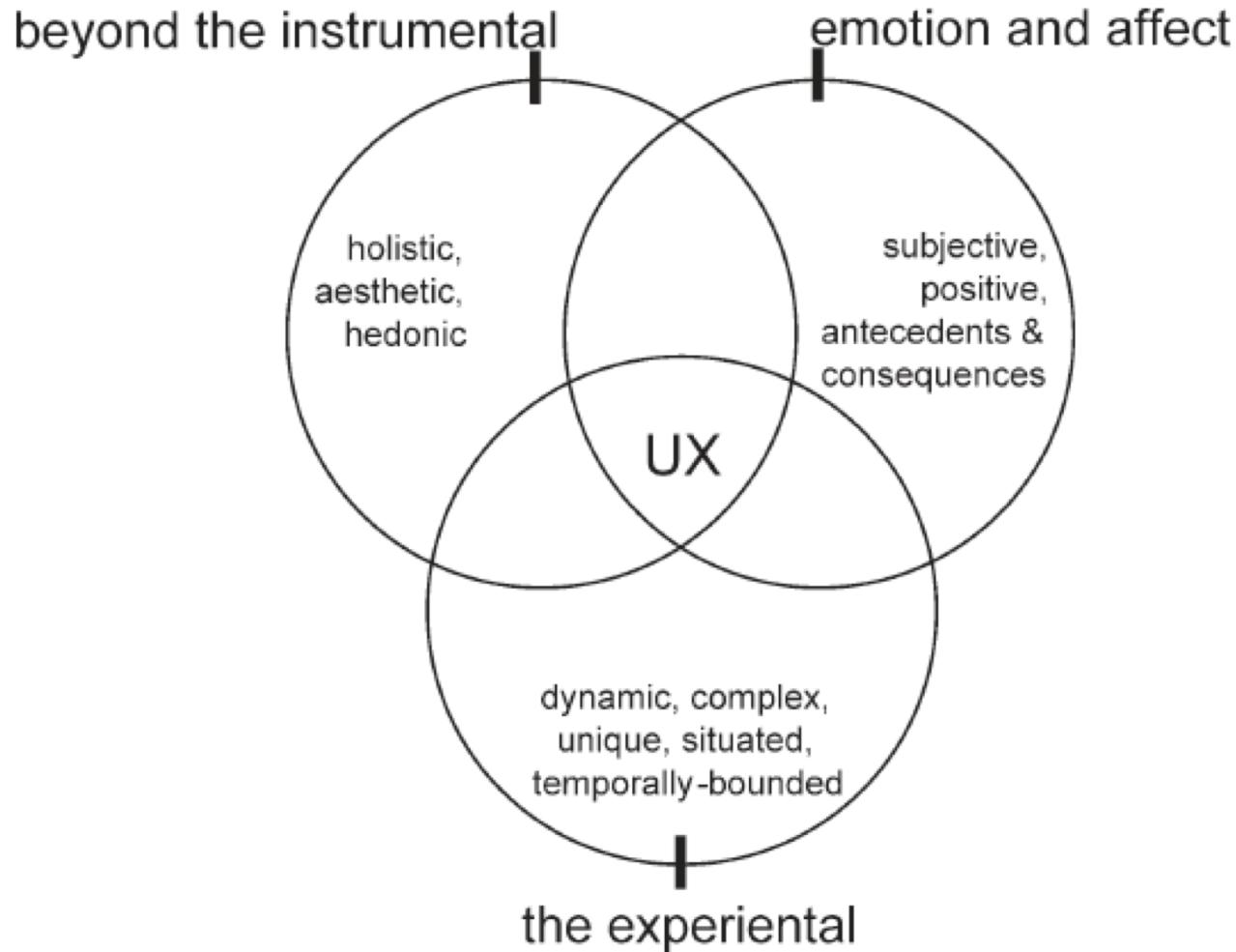
Pick a piece of technology

Describe your emotions towards it

What are the factors that led to those emotions?

How did they evolve over time?

User Experience (Hassenzahl & Tractinsky, 2006)



UX's Focus

On Positives of interaction

- Aesthetics, beauty, joy of use

Situational & Dynamic

- Context is important
- More than just task based value of tech

Open situations rather than spec tasks

UX of what?

Table 1. Products studied in UX research

Products used	e.g.	Total		Leisure		Work		Mixed	
		N	%	N	%	N	%	N	%
Art	[15]	14	21	14	100				
Mobile app/phone	[42]	14	21	5	36	4	29	5	36
Audio, video, TV	[55]	10	15	10	100				
Website	[86]	8	12			7	88	1	13
Imagined product	[31]	6	9	4	67			2	33
Interactive game	[56]	4	6	4	100				
No specific product	[67]	4	6	1	25			3	75
Other products		6	9	4	67	1	17	1	17

Notes. N = 66 studies; deviations from 100% due to rounding

What's studied?

UX dimension **

Generic UX

Affect, emotion ***

Enjoyment, fun

Aesthetics, appeal

Hedonic quality

Engagement, flow

Motivation

Enchantment

Frustration

Other constructs

Notes. N = 66 studies

How is it studied?

Collection method

Questionnaires

Interviews (semi-structured)

User observation (live)

Videorecordings

Focus groups

Interviews (open)

Diaries

Probes

Collage or drawings

Photographs

Body movements

Psychophysiological measures

Other methods

Is it studied over time?

before	during	after	imagined	N	%
	x	x		19	29
		x		14	21
x	x	x		11	17
	x			8	12
x		x		2	3
			x	12	18
N	13	38	46	12	
%*	20	58	70	18	

Bargas-Avila & Hornbæk (2011)

Issues in the field

Reliable methods hard to come by

- Most qualitative open to coder interpretation

Relationship between variables unknown

- Correlational & causal

Issues in the field

Measurement

- Home brewed, unvalidated measures
- Questions are seldom provided in papers

Methodology

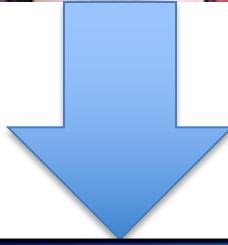
- Need for new methods?
- No comparison between new & old

Focus on novelty rather than all aspects of computer use



Where will the study of UX lead?

Emotionally adaptive interfaces?



User Experience Engineering?

UX or UXD?

User Experience as design
discipline...

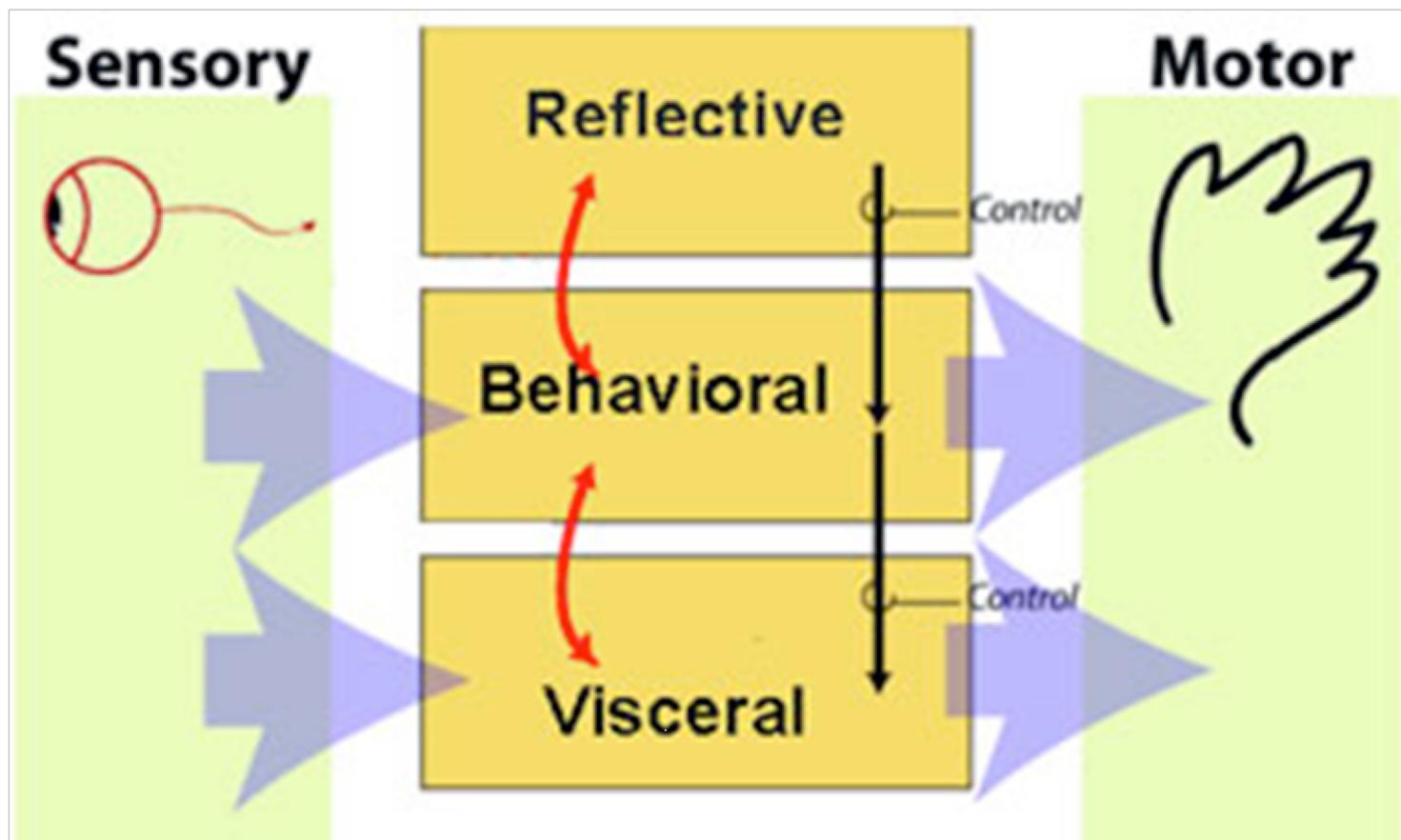
Design & UX

Are UX & usability interchangeable?

Some see it as holistic experience

Some focus specifically on interactions or interfaces

Norman (2004)



Norman (2004)

Visceral level

- makes quick quality judgements
- Triggers emotional responses (physiological & behavioural)

Behavioural level

- Well trained behaviours (talking, typing)

Reflective level

- Entails conscious thought when we step back from routines & immediate

Norman (2004)

Importance of user task

Importance of emotional context

Jordan's Pleasure Model

Physio Pleasure

sensory experiences (touch, taste etc)
e.g. Pleasure of holding phone

Socio-Pleasure

being in company of others
e.g. showing photos to friends

Jordan's Pleasure model

Psycho-pleasure

emotional & cognitive reaction

e.g. satisfaction of using site = usable
& pleasurable to use

Ideo-Pleasure

Aesthetics & cultural values

e.g. knowing your car is saving energy

McCarthy & Wright Technology as Experience

Sensual thread

Sensory engagement with situation

Emotional thread

emotions intertwined with situations

Compositional thread

way user makes sense of experience

Spatio-Temporal thread

space & time and effect on experience



Is Beautiful Usable? Toward Understanding Relation Between Usability, Aesthetics, and Affect in HCI

Tuch, Roth, Hornbaek, Opwis &
Bargas-Avila (2012)

Research Aims

Looking at relation between
usability & aesthetics

The “halo effect”

Research Design

N=80

Experimental Research

4 shopping tasks

Manipulated usability and aesthetics of
online shop

Measures taken over time

Research Design

Usability

- Manipulated by changing info architecture
- Otherwise shops identical

Beauty

- Look of site changed without changing usability of site

Research Design

Time 1:

- Shown screenshot of site

Time 2:

- Task executed on site, then evaluation

Time 3:

- Asked to evaluate overall experience

Research Design- Dependent Variables

Perceived usability

- Many measures used (SUS, ASQ)

Perceived Aesthetics

- Many measures used (Beauty, AttracDiff)

Measures varied depending on stage

Classical & expressive aesthetics measured throughout

Results

Interface aesthetics did not affect perceived usability

Usability affected aesthetic judgements

This was mediated by user's affective experience

- More frustrated by low usability, which was related to lower aesthetics ratings

Over to you....

As a group, let's critique this research

Critique

Scope of the work

Usability task focus

UX- Ideas for further study

- Social Psychology
 - Group processes on wider system experience
- Individual Differences
 - Personality
- Behavioural
 - How UX impacts tech use