



Aesthetic and Symbolic Qualities as Antecedents of Overall Judgements of Interactive Products

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Empirical studies of the user experience
(Hassenzahl & Tractinsky, 2006)

Next to usability and functionality focus on ...

- ... user needs that go beyond the instrumental,
- ... emotional user reactions and
- ... its experiential character (situadeness, temporality)!

Non-instrumental qualities



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Non-instrumental concepts in HCI

- ...
- ludic products (Gaver & Martin, 2000)
- pleasurable products (Jordan, 2000)
- hedonic quality (Hassenzahl, 2001)
- visual aesthetics (Lavie & Tractinsky, 2004)
- ...



... in product design

Differentiation of

- Aesthetic and
- Symbolic Aspects

(Rafaeli & Vilnai-Yavetz, 2004; Creusen & Schoormans, 2005; Crilly et al., 2004).

Non-instrumental qualities ...



... and overall judgements.

- v. d. Heijden (2003).
 - Intention to use → instrumental quality & visual attractiveness (aesthetic)

- Hassenzahl (2004).
 - Goodness → instrumental quality & identification (symbolic)
 - Beauty → identification (symbolic)



Questions

- Which dimensions of non-instrumental qualities are important for interactive product experiences? Symbolic and/or aesthetic qualities?
- What is their influence on overall judgements, like goodness and beauty of interactive products?

Method

- Studying *non-instrumental qualities* ...
- ... in the domain of consumer electronics (mobile digital audio players).





Method

- 30 participants
- Questionnaires to survey quality perceptions and overall judgements:
 - Aesthetic qualities: classical & expressive visual aesthetics (Lavie & Tractinsky, 2004), haptic quality (Jordan, 2000)
 - Symbolic qualities: identification & stimulation (Hassenzahl, 2004)
 - Instrumental qualities: perceived usefulness & ease of use (Davis, 1989)
 - Judgements: goodness & beauty (single-item scale)

Results

- Significant differences on all quality dimensions.



		Player				
		A	B	C	D	
Usefulness		2.7	3.1	3.9	3.6	$p < 0.001$
Ease of use		1.7	2.0	3.3	2.9	$p < 0.001$
Symbolic quality	Identification	2.8	3.6	3.3	3.0	$p < 0.01$
	Stimulation	2.8	3.9	3.5	2.8	$p < 0.001$
Aesthetic quality	Visual: classic	2.6	3.7	3.7	3.0	$p < 0.01$
	Visual: expressive	2.3	3.5	3.0	2.3	$p < 0.001$
	Haptic	3.3	4.1	3.6	2.7	$p < 0.001$
Goodness		2.6	3.1	3.7	3.0	$p < 0.01$
Beauty		2.8	4.3	3.9	2.6	$p < 0.001$

Results

- Instrumental, symbolic and aesthetic aspects influence goodness.
- Aesthetics and symbolic quality perceptions are relevant for beauty.

		Overall judgements	
		Goodness	Beauty
Usefulness		0.20 *	
Ease of use		0.33 **	
Symbolic quality	Identification Stimulation	0.24 **	0.18 *
Aesthetic quality	Visual: classic		0.29 **
	Visual: expressive	0.20 *	
	Haptic	0.21 **	0.26 **
R ²		0.67	0.45

Conclusion & open issues



- Aesthetic and symbolic aspects are relevant non-instrumental qualities!
- Are the considered concepts/sub-dimensions of non-instrumental quality sufficient?
- What about instrumental and non-instrumental qualities' impact on emotional user reactions?

Conclusion & open issues



Instrumental
qualities

Non-
instrumental
qualities

Emotional
experience

Thank you

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