Art Deco Human Computer Interaction

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Much innovation happens by chance. In preparing these conference proceedings I sought books on Art Deco. I was also preparing teaching material on interface design and was struck by the similarity of the two sources. To my eye at least, the tenets of Art Deco, especially its architecture, are remarkably similar to computer interface design. Is this too simplistic? Yes, but it leads to a fundamental gap in our teachings.

The term Art Deco refers rather broadly to the art and design of the 1920s and 30s, epitomised by the 1925 Paris Exposition des Arts Decoratifs et Industriels Modernes. Two words in the exposition's title – industrial and modern – define much of what the style is about, seeking to combine the ambitions of the earlier Arts and Crafts Movement with industrial technology. Klein *et al.* (1987) argues "the style is instantly recognisable because everything was designed to go together and make a complete ensemble". It is described as "streamlining with jazziness" (Klein p7), "designed to evoke feelings of delight" (Cerwinske and Kaminsky 1981 p12) and "bright, saved from garishness by supreme elegance" (Klein p8).

Interface design is part of Human Computer Interaction (HCI) that has a goal of "enhancing the interaction between humans and computer systems" (Preece *et al.* 1994 p43). HCI is seen as a multidisciplinary subject that transcends art and science (Dix *et al.* 1998 p3). Aesthetics are seen as relevant, Dix argues "ideally, as with any well-designed item, an interface should be aesthetically pleasing" (p134). Dix also places "aesthetic and minimalistic design" in a modification of Nielsen's usability heuristics (p414). Design, confusingly meaning both artistic and the design/development process, is listed as one of the contributing disciplines described by most standard HCI texts. However, these texts contain much detail on ergonomics and human behavioural psychology, but almost nothing on artistic design. This may be based on a belief that such skill cannot be taught (or written about): "imagination and skill may be qualities innate in a designer or developed through

experience" (Dix p5).

Visual design is only considered in relation to cognitive psychology, for example in the visual perception of colour (Preece p76). Nielsen (2000) considers formatting and arrangement in more detail but it is scattered throughout the book and the focus is on usability with little or no consideration of an integrated visual design theme. The closest we get is advice from Dix in "screwing up your eyes …taking your attention away from the content and looking instead at the broad structure" (p134).

The focus of HCI is, rightly, on usability. We have though, a cognisance of the importance of aesthetics, but it sits uncomfortably, "it probably won a prize" (Norman any page) and have failed to do it justice. It seems we are so worried about the science of arranging an interface to enable tasks (function) that the aesthetics (form) is barely considered.

The Art Deco genre is based upon the skilful blend of form and function. We should use its teaching to improve HCI. Klein *et al*. (1987 p6) argued that Art Deco "represents the geometric stylisation of naturalistic forms, with a degree of abstraction and streamlining thrown in as a naturalistic consequence of this geometric paring down to essentials". I believe quotes such as this give at least some direction as to what is missing from HCI. This association should not come as a surprise. Le Corbusier (1925 p5) description of decorative art: "denotes the totality of human-limb objects" could come from Shneiderman's (1998) description of the object action interface.

Interface design aesthetics could be approached from a range of stylistic genres, Art Deco may provide a model of a visual language that could be used when addressing the particular styles of some interaction designs. The argument here is not that we should abandon usability for Art Deco, rather stylistic aesthetics is largely overlooked in HCI, it should be considered and a genre based on form and function particularly of machines seems a good place to start.

References

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