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Eliciting desired experiences

Design affordances to communicate users' latent aspirations of the built environment

Damian Rogers, damianrogers@swin.edu.au
Swinburne Design Factory Melbourne, Swinburne University of Technology, Victoria, Australia

Linus Tan, linustan@swin.edu.au
School of Design and Architecture, Swinburne University of Technology, Victoria, Australia

Anita Kocsis, akocsis@swin.edu.au
Swinburne Design Factory Melbourne, Swinburne University of Technology, Victoria, Australia

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Abstract
Affordances are cues to the actual and possible actions in the environment influenced by our experiences (Gibson, 1979, 2014). Harry Heft explains affordances as 'perceptible properties of the environment that have functional significance for an individual' (Heft, 2010, p.18). The significant elements of the environment framed by the context of a person's experiences give insights into how the environment is perceived (Heft, 2010). Heft describes the concept of affordances as meanings that exist from a relationship perspective between the perceiver and the features of the environment (Heft, 2010) and 'meaningful things can take hold of us' (Heft, 2010, p.25).

Design affordances' primary idea is to frame how organisms (people and mammals) interact with their environment. For Gibson (2014), a cave is first understood to afford shelter and then as stone

(Nagy, Neff, 2015). Stone is a significant element because it affords shelter as a cave. Affordance theory offers designers an understanding of how users experience the environment based on the features in the environment that are meaningful (Heft et al., 2010). Understanding user's desires can act as a tool to reveal user's latent wants and needs beyond the expectations and assumptions of a designer.

The research investigates how manipulating the elements of an existing environment can offer other affordances framed by the user's imagined affordances of the manipulated environment. We argue that manipulating the significant elements of an environment can elicit design affordances that convey people's ideas, emotive responses, and perceived reactions to place, whether real or imagined and can create opportunities beyond the designer's intentions. Perceived affordances are vital ingredients in developing design strategies (Kannengiesser & Gero, 2012).

This research adopts a multi-case study approach. The two case studies selected are 1) an experience engagement framework to understand visitor/participant engagement in the cultural sector and 2) a design intervention that manipulates the image of the water as a significant element of the environment in a post-industrial environment by creating waves. In these two cases, the focus of analysis is on how the design mediums elicit discussions from those not involved in the design process. Specifically, communicating experiences through information design of exhibitions compared to the manipulation of an environment in a post-industrial landscape. The comparison the two cases reveal unexpected affordances as data valuable.

From the case studies, the use of mediums such as prototypes and video manipulation, are catalysts for communicating tacit experiences. Additionally, different design mediums can elicit different formats of tacit experiences. Through the case studies, we report on how visualising prototypes initiates conversations of past and current exhibition experiences, and how video manipulations of existing environments can stir up surprise and reframe perceptions and experience of a post-industrial waterway.

The data for this research was collected by 1) an online digital survey that applied the visual method of representational photography and videos to manipulate the image of a post-industrial urban waterway and 2) a series of interface design prototypes that through iteration communicated both designer and visitor's exhibition experiences. The analysis and findings can be used to guide and validate designers' proposals for the built environment. These future insights communicate beyond the current mainstream designers' intentions driven by the affordances imagined by the end users. development frameworks This approach disrupts the typical reach of existing community consultation and planning which is typically lead by the designing affordance without input from the end users to reveal other affordance not perceived by designers.

Design affordances are a contribution to the design research field as different mediums can express users' tacit and projected values of their future environment. By relying on design affordance to extract users' latent wants and needs, their articulated experiences can serve as evidence to question existing processes and improve traditional design formats. From the early

findings of this research, we highlight the need for further investigation in design affordances as potential data sources of desired experiences for designing the built environments. Keywords desired experience, design affordances, built environment, design aspirations.

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