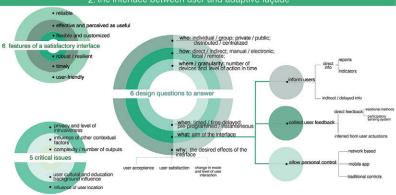


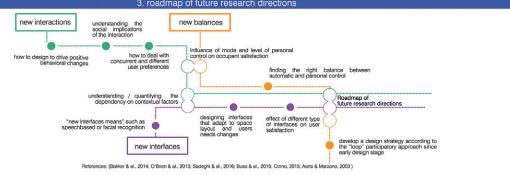
the control system reads users feedback and needs and governs the facade accordingly, the control strategies are adjusted by user actualizes and

- 2. the user personally controls or overrides the automatic sy
- 3. the intelligent control system gives feedback / information to users

References: (Cheng & al., 2016; Konis & Selkowitz, 2017; Norman, 2013; Cole & Brown, 2009; Karjalainen & Lappalainen, 2011)



References: (Day & Gundeson, 2015; Jazizadeh & al. 2013; Lam & al., 2014; Gunay & al., 2017; Konis & Selkowitz 2017; Sadeghi & al. 2016; Haldi & Robinson 2010; da Silva & al. 2006; Meerbeek & al. 2014; Meerbeek & al. 2016; Leaman & Bordass, 2000; Lee & al. 2012; Hellwig, 2015; Buso & al., 2015; O'Brien & Gunay, 2014; Cole & Brown, 2009; Norman, 1990; Dix, 1997.



## A roadmap for capturing useradaptive facade interaction

Response

Climate

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Adaptive façades are building envelopes that interact with users and vary their performance or properties (controlling thermal or solar energy, air flow and/or daylight) in response to changing external conditions and indoor needs. However, effective adaptive façade solutions that provide an optimal balance between user comfort, satisfaction and energy efficiency cannot be achieved without a comprehensive knowledge of the user-façade interaction. A systematic literature review was conducted to highlight the implications of occupants environmental control in interactive systems and provide up-to-date research suggestions to address the complexity of user – adaptive façade interaction.

The main objective of this poster is to facilitate discussion on two of the multidisciplinary features of a satisfactory user - adaptive facade interaction: (1) the interface between users and facades and (2) the acknowledgment of the interaction strategy as a "loop", in which users' feedback enhances automatic control strategies. Lastly, a map of research gaps and future research directions / objectives is presented.

key words: occupants satisfaction, user interaction, interface, adaptive facade, control strategy

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