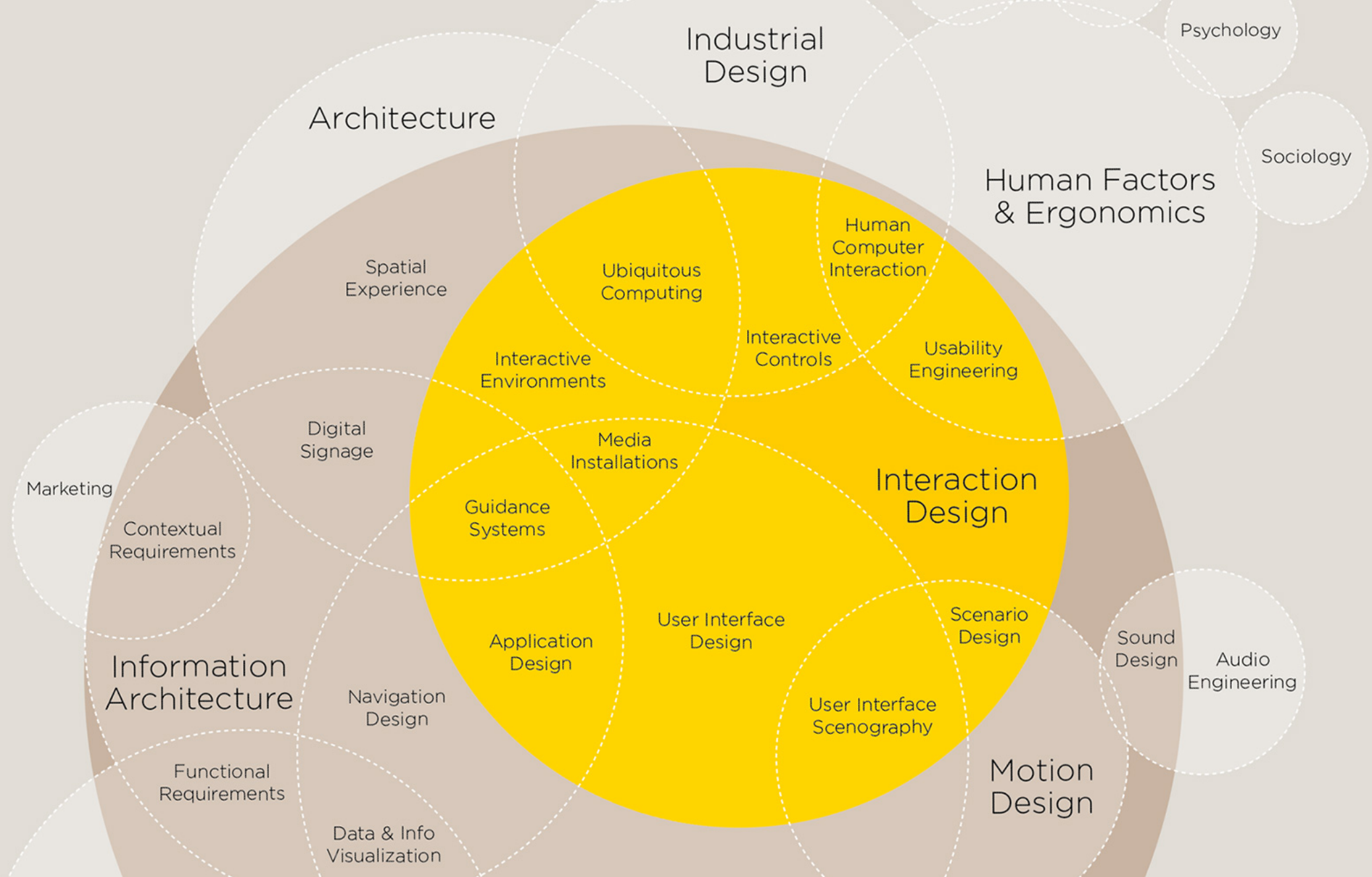


Classification and framing: Design strategies for controlling affordances

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1 The origin of the concept of affordance

IT ALL STARTED WHEN GIBSON DEVELOPED AN INTERACTIONIST VIEW OF PERCEPTION AND ACTION THAT FOCUSED ON INFORMATION THAT IS AVAILABLE IN THE ENVIRONMENT



James Jerome Gibson

Source: <http://library24.library.cornell.edu:8280/luna/servlet/detail/CORNELL~10~1~66927~111944:Prof--James-J--Gibson->

‘(Affordances are) the actionable properties between the world and an actor.’

GIBSON, J. J. (1977)

2 The current scenario around the concept of affordance

PROBLEMS, PROBLEMS, AND MORE PROBLEMS



From a design perspective, all definitions of affordance – Gibson's and Norman's included as well – provided are contradictory

PROBLEM #1

Difficulty to conduct empirical research to test systematic observations across contexts, e.g., industrial design and interaction design

PROBLEM #2

Lack of prediction of the affordance a user is likely to perceive

PROBLEM #3

3 The use and misuse of the concept of affordance

DEMYSTIFYING THE CONCEPT OF AFFORDANCE

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Affordance as a binary concept is too radical and disconnected from reality

REFERENCE: GIBSON, J. J. (1977, 1979)



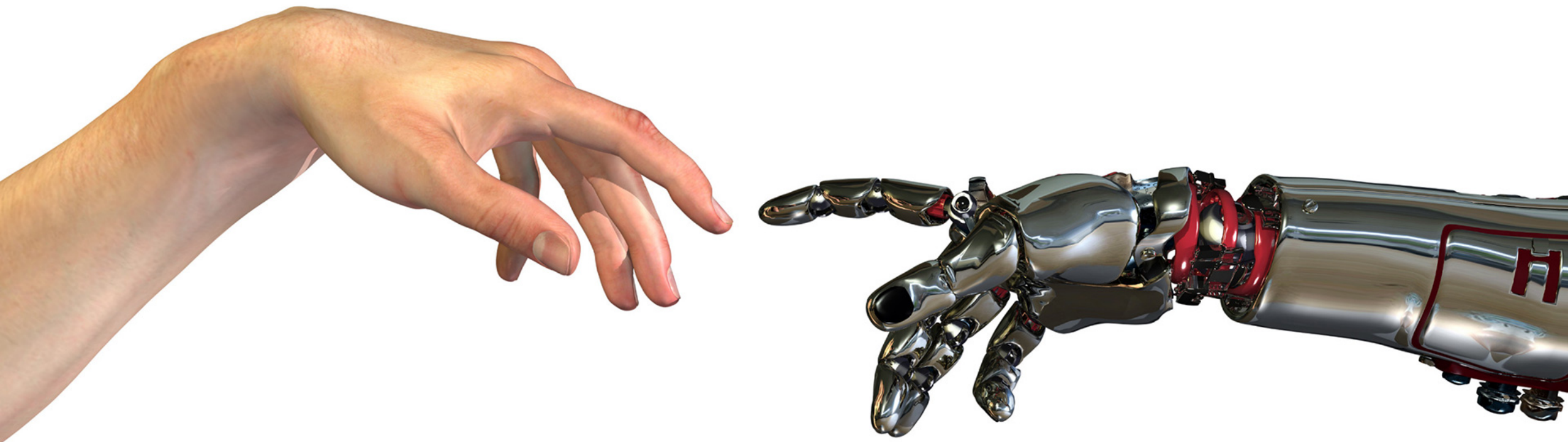
The claim that affordances exist independent of the user's ability to perceive them is fruitless

REFERENCE: GIBSON, J. J. (1977, 1979)



The idea of affordances between artefacts completely disregards perception

REFERENCE: MAIER, J. R. A. & FADEL, G. M. (2001)



Taxonomies do not describe underlying organising principles

REFERENCES: GAVER, W. W. (1991), HARTSON, H. R. (2003)

Start

Ben
Martens 

Sanjay Jacob
RE: Let's go see a movie this weekend?
Sounds like a good plan to me. I don't ...

Mail 8

Cricket team practice
The Field
4:30 PM - 7:00 PM

 8
Friday



Internet Explorer



Store

Unmanned commercial rocket w
the International Space Station



 Roxanne Kenison also
commented on Lesley
Allan's post.

 4



Photos



Maps



SkyDrive

 68°
Sydney, Australia
Sunny 51° / 65°

Weather



Desktop



Messaging

 **Now playing**
Extreme paragliding on the
south coast of Australia





Music



Xbox LIVE Games



Camera

4 The importance of the concept of affordance to us, interaction designers

AFFORDANCE IS THE LINK BETWEEN USERS AND ARTEFACTS
THROUGH PERCEPTION

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‘Designers of the world: Forget affordances. Provide signifiers.’

NORMAN, D. A. (2008)

We cannot abandon the term
because we do not know what it is,
and choosing a new word will not
save us from the current struggle

WE ALL FEEL THAT THE CONCEPT OF AFFORDANCE MAY BE USEFUL
BUT WE STILL DO NOT KNOW HOW, AND WE SHOULD NOT GIVE UP

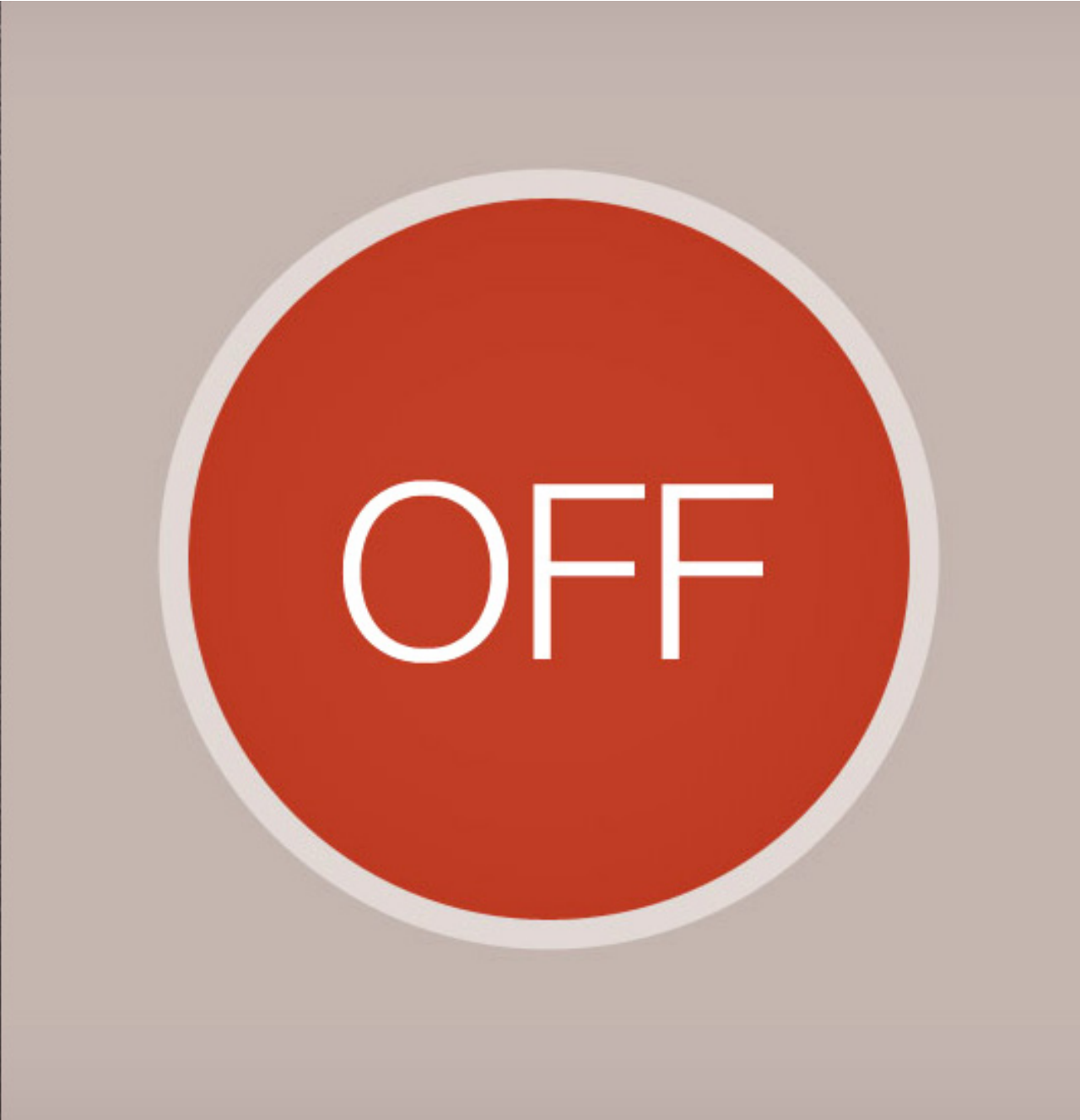


Cockpit of an Airbus A380

Source: <http://www.flickr.com/photos/83823904@N00/64156219/>

Affordances versus signifiers

A SIGNIFIER IS NOT AN AFFORDANCE, AND VICE VERSA





5 The meaning of the concept of affordance

A CLEARER DEFINITION OF AFFORDANCE IS NEEDED

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The concept of affordance should be described from a more pragmatic viewpoint

STEP #1: AN INITIAL DEFINITION OF THE CONCEPT OF AFFORDANCE

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Affordance refers to cues of the potential acts upon an artefact by a user in a given environment

STEP #1: AN INITIAL DEFINITION OF THE CONCEPT OF AFFORDANCE

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The underlying key elements of the concept of affordance should not be overlooked

STEP #2: THE COMMON FOUNDATIONAL ELEMENTS



- User
- Artefact
- User's intended function
- Perception
- Environment

STEP #2: THE COMMON FOUNDATIONAL ELEMENTS

A clear distinction between the concept of affordance and other concepts has to be established

STEP #3: A COMPARISON BETWEEN AFFORDANCE AND OTHER CONCEPTS

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Affordances are not actions per se, nor functions, nor signifiers, nor properties of a given artefact

STEP #3: A COMPARISON BETWEEN AFFORDANCE AND OTHER CONCEPTS

Affordance is about what you can do with an artefact

STEP #3: A COMPARISON BETWEEN AFFORDANCE AND OTHER CONCEPTS

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Improving the definition of the concept of affordance

OUTCOME: A PRECISE DEFINITION OF THE CONCEPT OF AFFORDANCE IS CREATED

Affordance is the manner by which the purpose (function) of an artefact is enacted by the user in a given environment

OUTCOME: A PRECISE DEFINITION OF THE CONCEPT OF AFFORDANCE IS CREATED

6 What can we do with this, so-called, clearer meaning?

ANY CONCEPT IS POINTLESS IF WE CANNOT USE IT FOR OUR BENEFIT, AND AFFORDANCE IS NOT AN EXCEPTION

We just need to ask the right question, which is 'what are the affordances that are more likely to be perceived in a certain situation?'

THE RELATION BETWEEN CONTEXT AND END-USER INTENT, AND THE ARTEFACT'S INTRINSIC PROPERTIES AND (AGAIN) END-USER INTENT



Paper Towel Dispensers

The Design Stance is a theory that might help us understand this predictive process

DESIGNING FOR THE END-USER'S RECOGNITION OF AFFORDANCES
AS INTENDED BY THE DESIGNER, I.E., PERCEIVED INTENDED
AFFORDANCES



Affordances

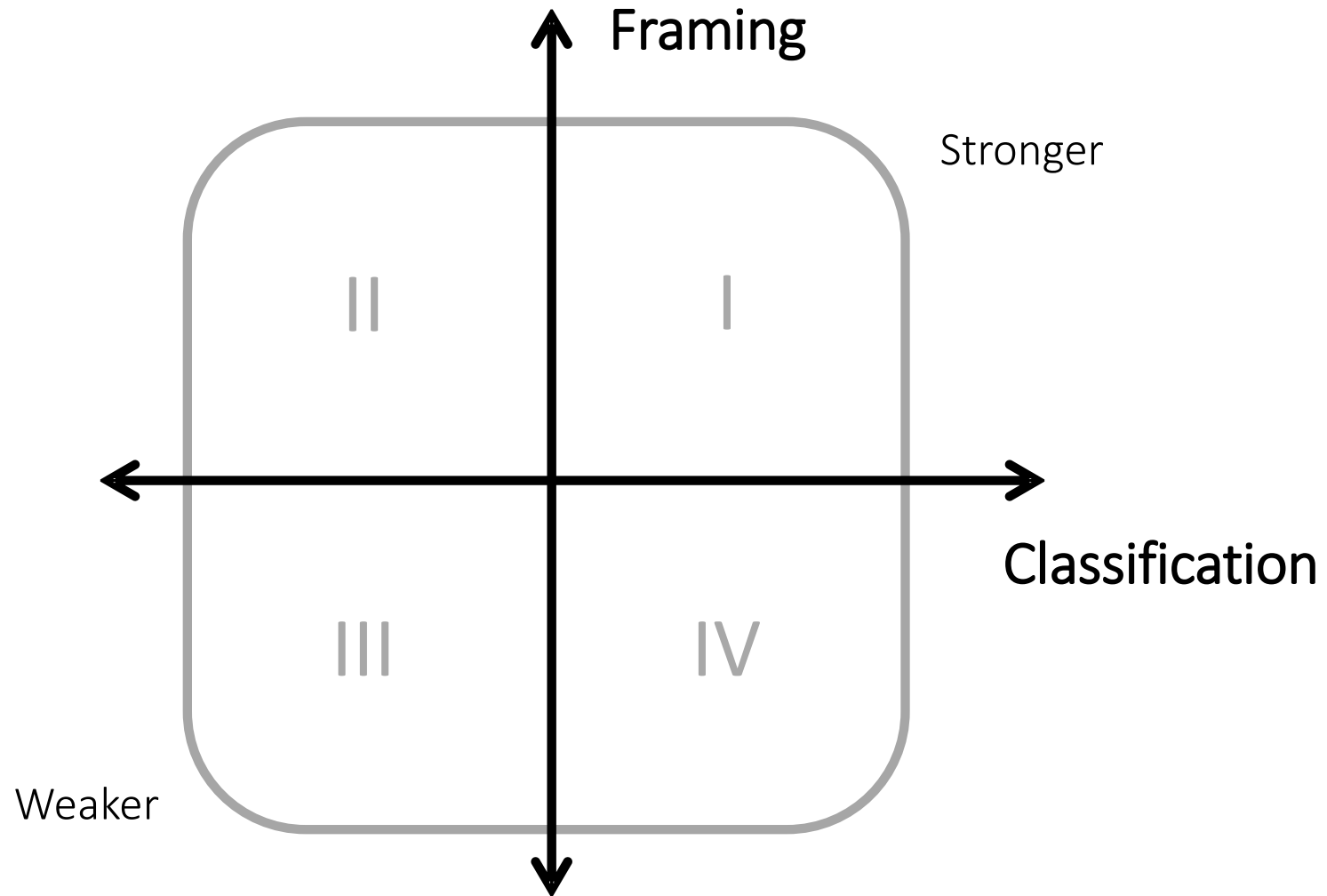
Perceived
intended
affordances

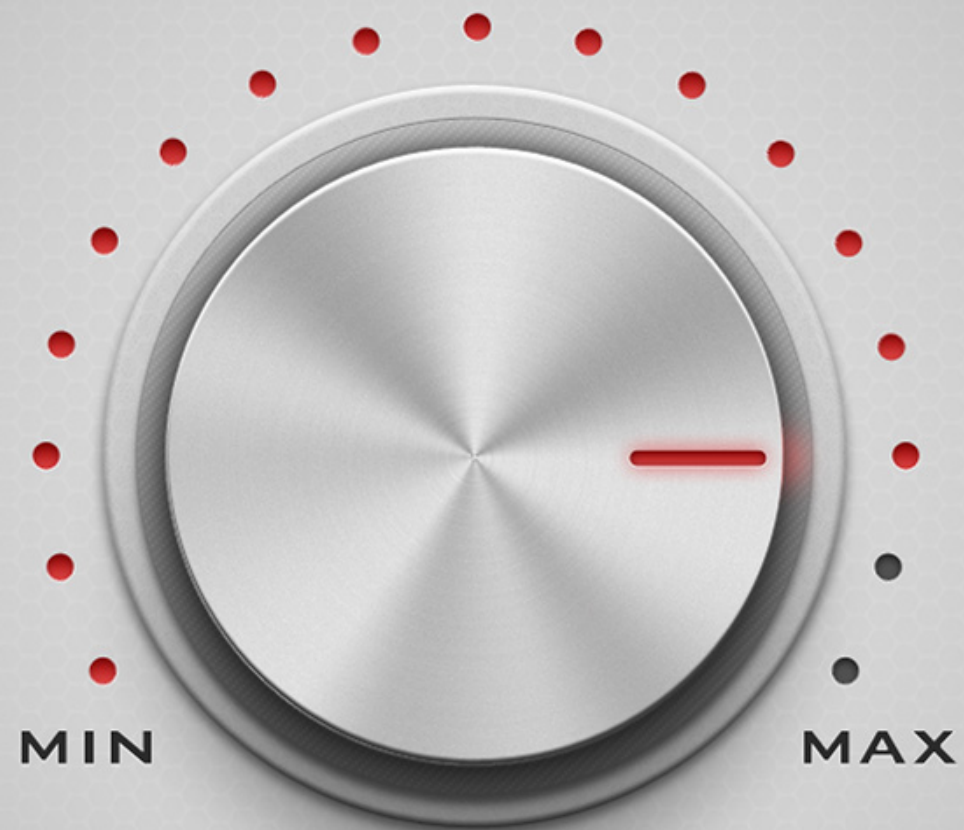
When designing, we may create artefacts that have affordances that allow the user to create their own intended purposes (functions), i.e., empowerment

RIGID USES (STRONGER FRAMING AND/OR CLASSIFICATION) VERSUS
MORE FLEXIBLE USES (WEAKER FRAMING AND/OR CLASSIFICATION)









Testable hypotheses

1. Classification and framing are independent dimensions influencing the perception of an artefact's affordance by a human agent
2. The strength of classification and framing are positively related to the accuracy of the affordance perceived by a human agent
3. The strength of classification and framing are negatively related to the variety of uses to which a human agent associates to an artefact



Toilet Control Panel

Source: <http://www.eyeforsiva.com/2014/05/12/a-story-we-can-all-get-behind>

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