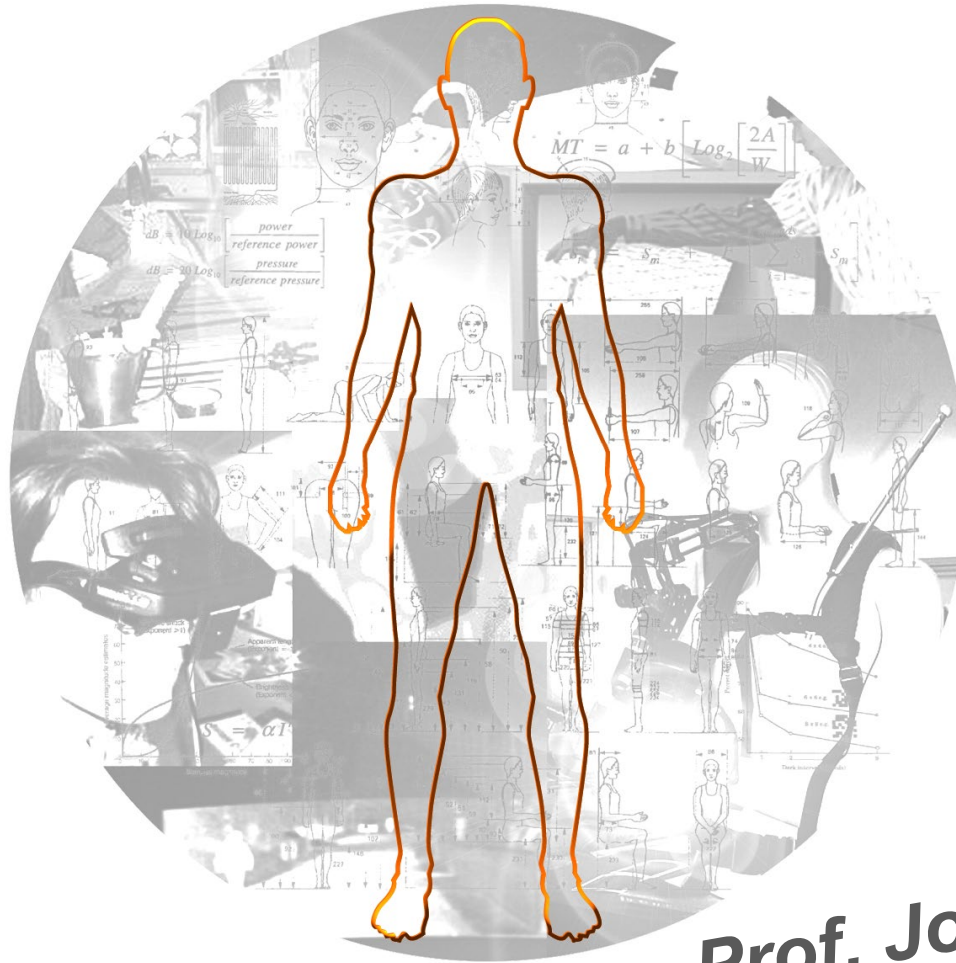


What is Human Centred Design ?



Prof. Joseph Giacomin

Why Human Centred Design ?

Why Human Centred Design ?

Eric Von Hippel of the MIT Business School has noted that “70% to 80% of new product development that fails does so not for lack of advanced technology, but because of a failure to understand users’ needs.”

Von Hippel, E. 2007, An emerging hotbed of user-centered innovation, Breakthrough ideas for 2007, Harvard Business Review, Article R0702A, February.

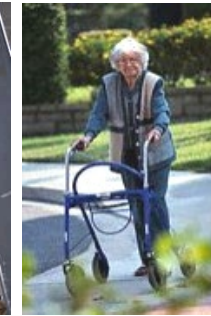
Why Human Centred Design ?

The importance of customer experience is clear from the economic performance of companies ranked using the Customer Experience Index.

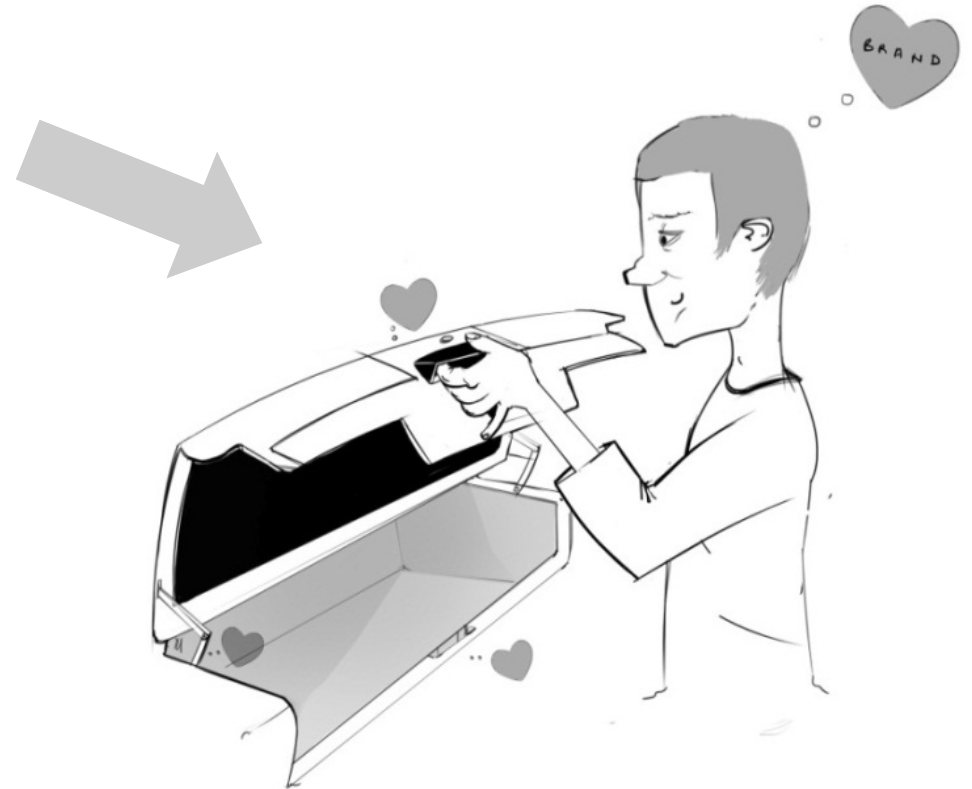
Companies achieving high levels of customer experience (e.g. those in the index's top quartile) enjoy revenue gains of up to €70 million while companies characterised by low levels of customer experience suffer losses of up to €110 million.

Temkin, B.D., Manning, H., Melnikova, O. and Geller, S. 2008, The Business Impact of Customer Experience, Forrester Research.

Business development is now strongly guided by the physical, perceptual, cognitive and emotional characteristics of people ...



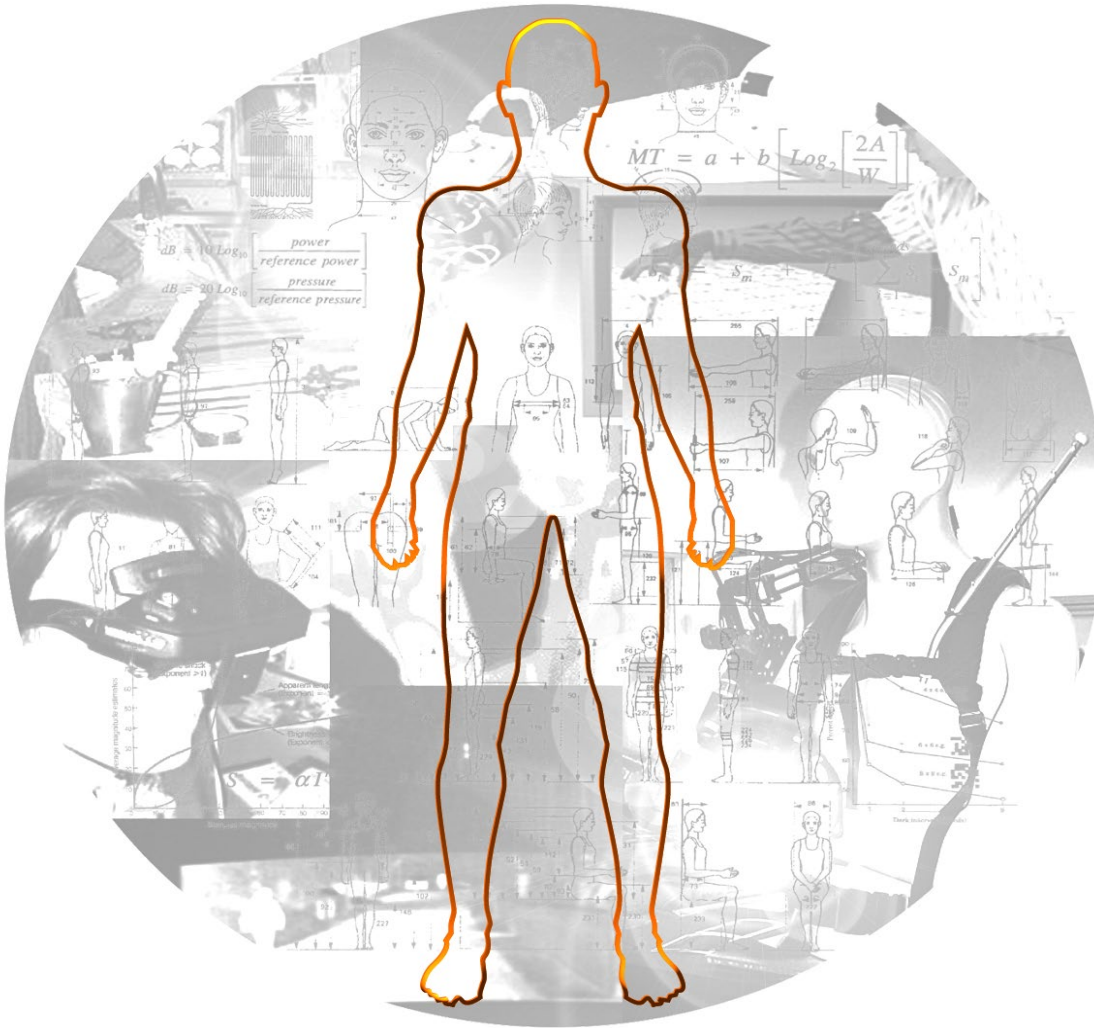
The general trend is a reduced emphasis on matters of “physics”, which are now minimum requirements, and a greater emphasis on matters of “metaphysics”.



What Is Human Centred Design ?

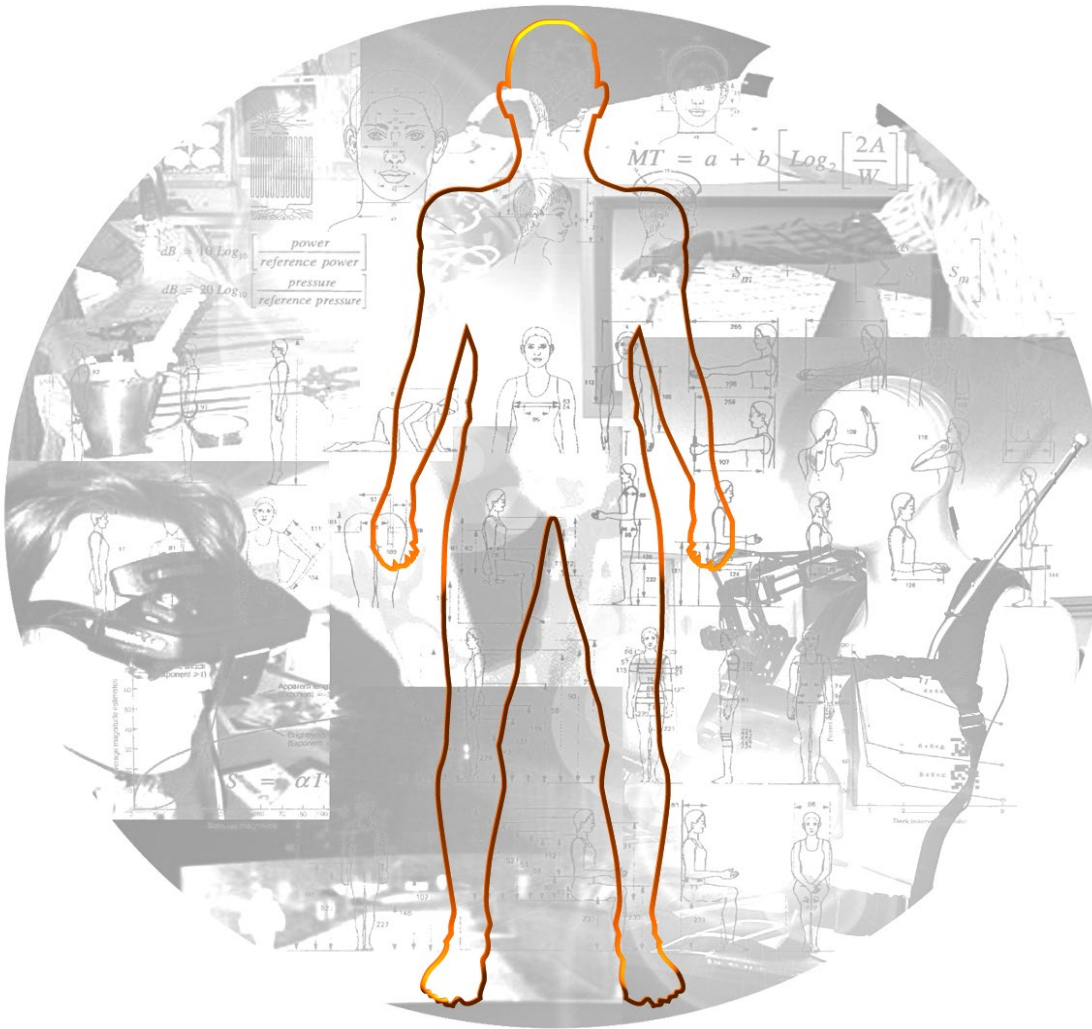
Human Centred Design

Human centred design is a form of structured empathy.



Human Centred Design

It leads to products, systems and services which are physically, perceptually, cognitively and emotionally intuitive.



Some Human Centred Design Tools

Facts Regarding Humans and Society

- Anthropometric data sets and models
- Biomechanical data sets and models
- Psychophysical data sets and models
- Cognitive data sets and models
- Emotional data sets and models
- Psychological data sets and models
- Sociological data sets and models
- Philosophical data sets and models

Capture of Meanings and Needs

Verbally based

- Word concept association
- Ethnographic interviews
- Questionnaires
- Day-in-the-life analysis
- Activity analysis
- Cognitive task analysis
- The five whys
- Conceptual landscape
- Think aloud analysis
- Metaphor elicitation
- Be your customer
- Customer journey
- Personas
- Scenarios
- Extreme Users

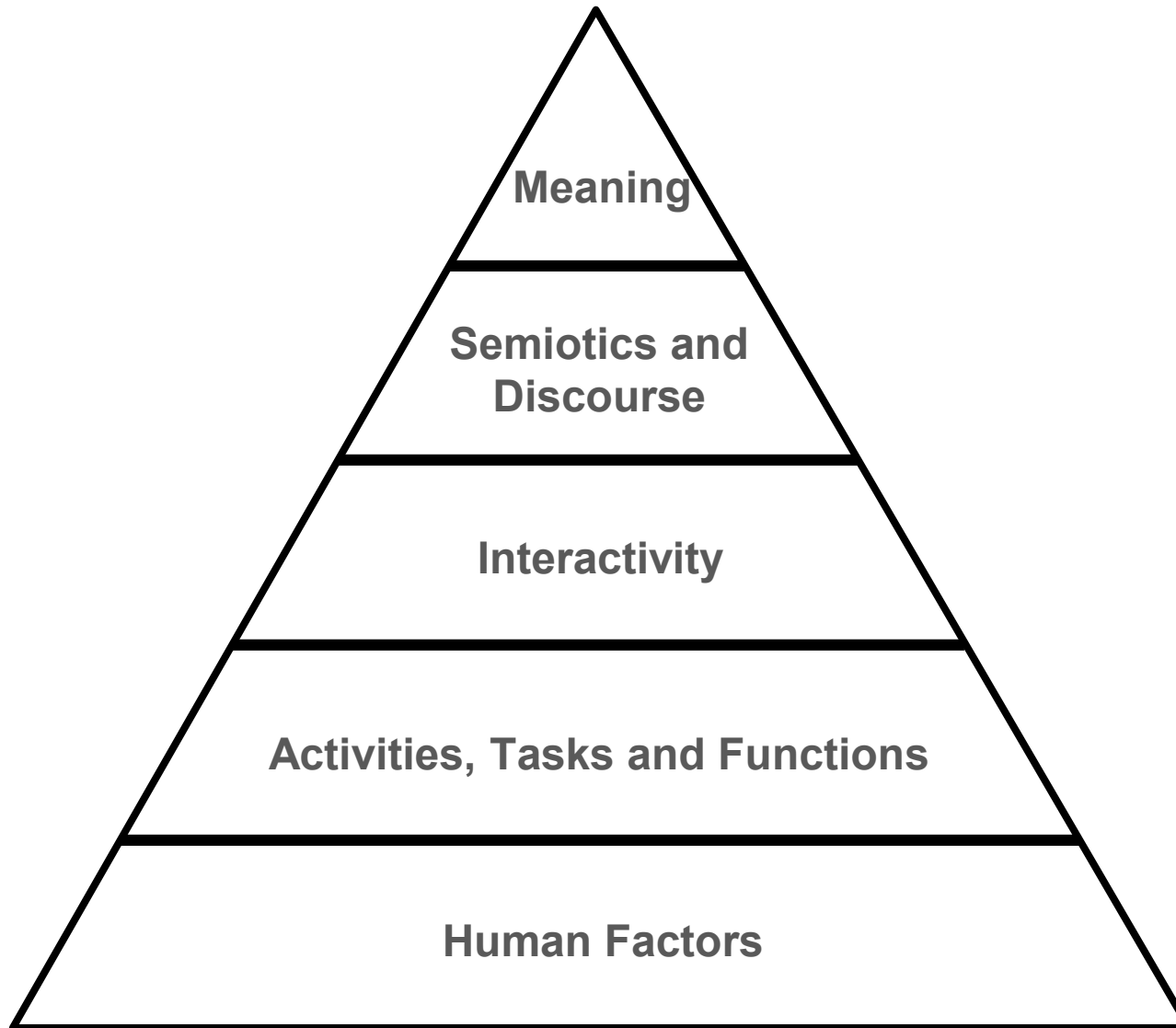
Non Verbally based

- Game playing
- Cultural Probes
- Visual journals
- Error analysis
- Fly-on-the-wall observation
- Customer Shadowing
- Body language analysis
- Facial coding analysis
- Physiological measures
- Electroencephalograms

Simulation of Possible Futures

- Role playing
- Focus groups
- Co-design
- Experience prototyping
- Para-functional prototypes
- Design fictions

The Human Centred Design Pyramid



Human Centred Design Process

customer testing

prototyping

technical specifications

metaphor co-design

meaning elicitation

time



What Is Meaning?



Meaning

- the significance, purpose or underlying truth of something (*the what*);
- the motive or intention of something (*the why*).

Function

- the way something works or operates;
- the natural purpose of something or the duty of a person.



Some things need doing,
with or without aesthetic
or semiotic content.

Function



Ritual

- a series of actions or a type of behaviour which is regularly and invariably followed by someone;
- a set of fixed actions and sometimes words performed consistently and regularly, especially as part of a ceremony or collectively.



Some actions are performed for their aesthetic and semiotic content. The motions and actions send messages.

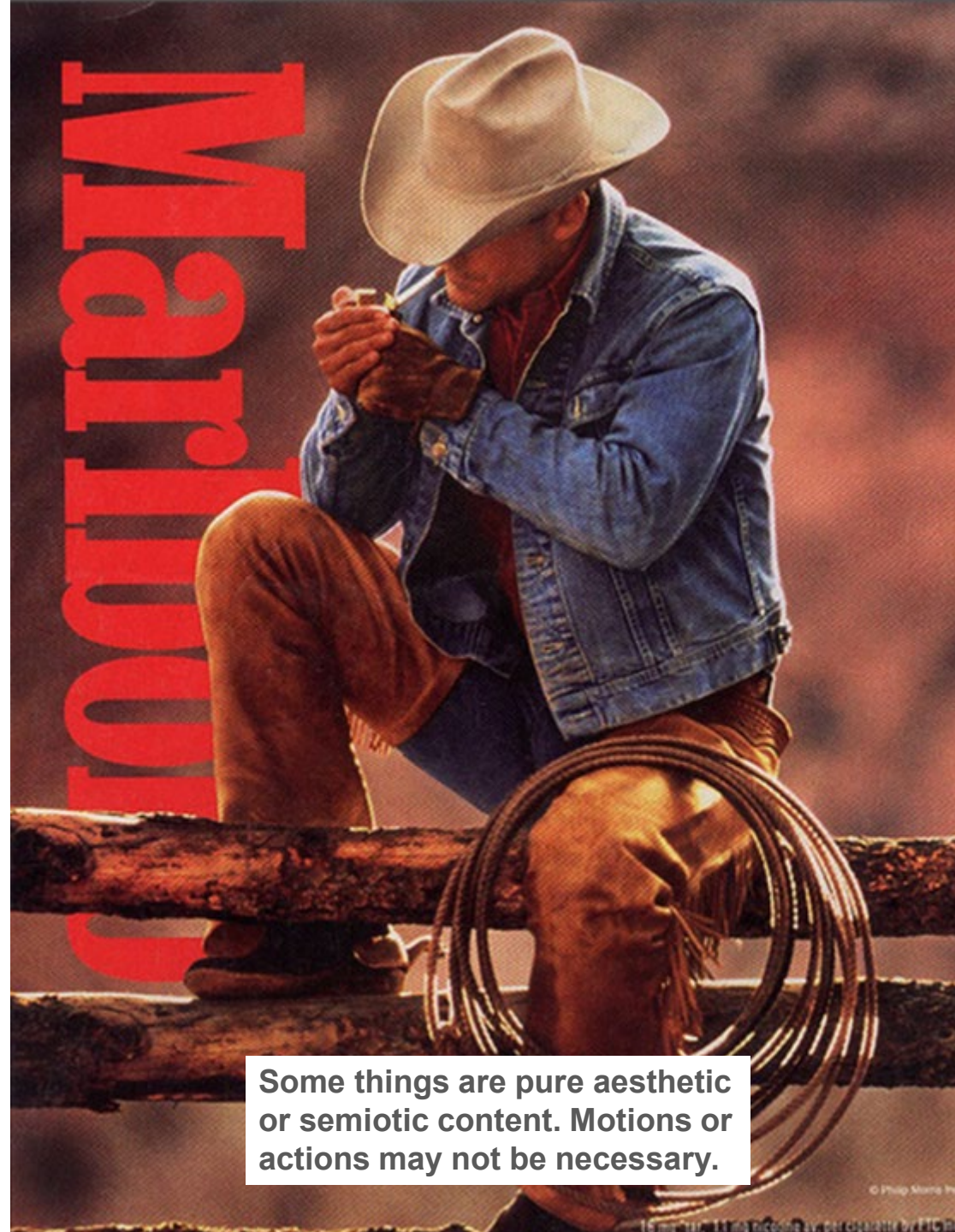


Ritual

Many products and services appear to be designed based on a ritual...

Myth

- a traditional story, especially one concerning the early history of a people or explaining a natural or social phenomenon;
- an idealised, exaggerated or fictitious conception of a thing or person.



Some things are pure aesthetic or semiotic content. Motions or actions may not be necessary.



Myth

Many products and services appear to be designed based on a myth...

What Are The Alternatives?



**Questions
To Answer**



Who ?



What ?



Where ?



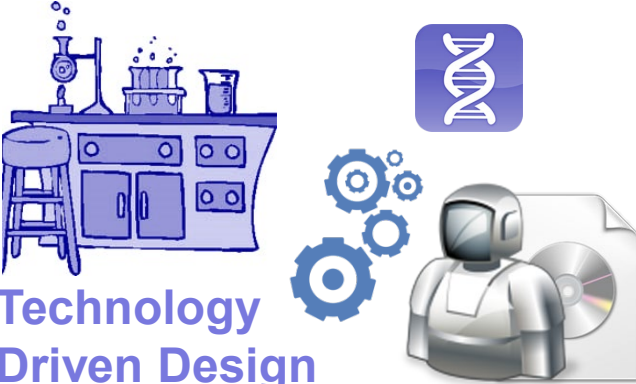
When ?



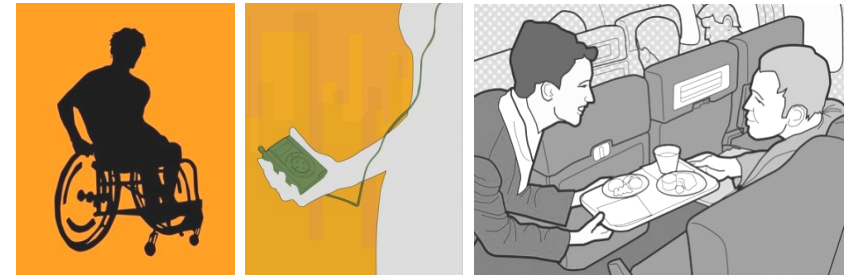
Why ?

Design Philosophy

Technology Driven Design

A collection of blue-toned icons representing technology and design. It includes a laboratory setup with a flask and beakers, a DNA double helix, a cluster of interlocking gears, a silver humanoid robot, and a CD-ROM disc.

Human Centred Design



Environmentally Sustainable Design



Examples

1994



1990



1985



ALESSI

1995

amazon.com

The Amazon logo, a curved orange arrow pointing from the letter 'a' to the letter 'z', is positioned below the text 'amazon.com'.

Friend

2001



Freedom From The Tyranny Of Things

Thank you.

