



COMP210: Interfaces & Interaction

1: Human-Centred Design

Learning outcomes:

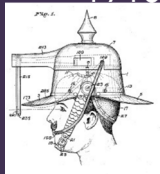
- ▶ **explain** the importance of placing the user at the centre of the design process
- ▶ **briefly** describe and compare different user-centred design techniques
- ▶ **demonstrate** a knowledge o the principles of user-centred design.

A Word of Warning

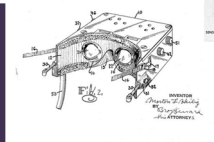
AR/VR are both emerging technologies and thus they borrow language from other similar disciplines such as game development, film studies and 3D design. This appropriation of lexicons can be confusing and there will be some overlap in relation to key terms and definitions.

History of AR/VR

1916



1960



1960



1988



Figure: Left to Right - Pratt's head-mounted targeting interface, Heilig's Stereoscope TV Apparatus & Sensorama, NASA's VIEW System

Forms of Reality

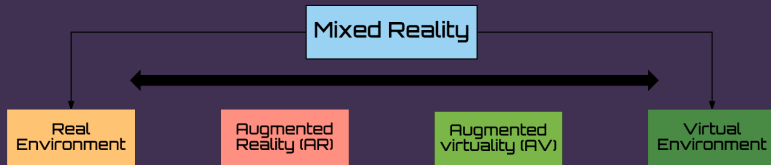


Figure: The Virtuality Continuum - Milgram & Kishino

Human-Centred Design (HCD)

Sophisticated / eloquent technical solutions are less important than great user experiences.

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- ▶ Change is inevitable.
- ▶ Failures are an inevitable outcome of creativity and innovation.

Iteration

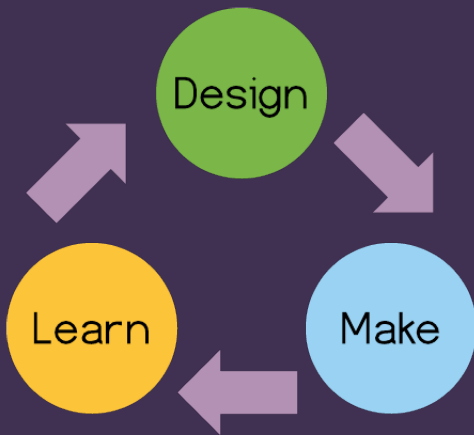


Figure: The Iteration Cycle

Design Define Stage

This stage attempts to answer the question, 'what do we want to make?' and includes everything from the high-level vision to listing requirements. All parts of the define stage should be described from the users point of view and easily understood by all.

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- ▶ Vision
- ▶ Objectives
- ▶ Key Players
- ▶ Time & Costs
- ▶ Risks
- ▶ Assumptions
- ▶ Constraints
- ▶ Personas
- ▶ User Stories
- ▶ Story Boards

ASK QUESTIONS

- ▶ Feedback is crucial at the define stage.
- ▶ Ask lots of questions.
- ▶ Do not trust assumptions.
- ▶ Common misconception.

Analysis Paralysis

Make Stage

This stage answers the question, 'how do we make it?'
and then proceeds to make it

- ▶ **Design Stage** - this stage attempts to answer the question, ?what do we make?? and includes everything from the high-level vision to listing requirements.
- ▶ **Make Stage** - This stage answers the question, ?how do we make it?? and then proceeds to make it.
- ▶ **Learn Stage** - This stage answers the question, ?what works and what does not work?? the answers are fed back into the define stage to refine what is to be made.