meSch Material Encounters with digital Cultural Heritage

SKETCHING IN HARDWARE

Sketching in hardware is commonly used to test ideas quickly as it allows non-technical users to experience what can be created with technology within a limited amount of time. Sketching in hardware activities are usually facilitated by a designer and/or a technical expert.

PROTOTYPING

Estimated Timescale: 4 Hours

Materials: Hardware Modules*, Laptops, Physical Artefacts, Pens & Paper
* There is a variety of hardware module kits that can be used, e.g. .NET Gadgeteer, Littlebits, Arduino.

Who should be involved?
Different partners of mixed skillsets (cultural heritage professionals, designers, technologists etc.)

Why should you use this method?
If you want to experience what interactive exhibits could be created by non-technical users with existing off the shelf hardware prototyping and DIY technology within a very limited amount of time.

STEP 1
• Have one of the hardware experts present a demonstration of the hardware modules to the entire group.

STEP 2
• Form teams with mixed skillsets. You will need at least three team members per group. Each team member will need paper and pens, hardware modules and a laptop.
• Have the facilitator deliver a clear outline of the brief. Ask that each group collectively devise an interactive experience for a museum.

STEP 3
• Each group works collaboratively - discussing concepts, sketching on paper.
• With the aid of the hardware experts, the groups work towards transforming their paper sketches into hardware sketches.

STEP 4
• All of the groups come back together and each of the groups present the functioning prototypes to the other groups.
• Allow others to contribute constructive feedback and to ask questions.

WHAT NEXT?
• Allow the possibility of a second round of adaptation so that groups can iterate on their ideas.
• The basis functioning prototypes could be altered so as to test multiple possible applications with the same technology.

Tips for successfully carrying out this method
• Having groups of mixed skillsets is key for this type of co-design exercise.
• Listen carefully to the needs and ideas of the cultural heritage professionals and be cautious not to allow the technology to dominate the development of the prototypes.
• Be adaptable - working with technology can sometimes mean having technical glitches, be open to low-tech alternatives.