Implementing an ICE

A methodology for the design, development and installation of Interactive Collaborative Environments in real world industrial settings.

Dr Oli Mival & Professor David Benyon

Edinburgh Napier University
Centre for Interaction Design
www.futureinteractions.net
1. Identify and understand the purpose
2. Examine the current practice
3. Determine the location of deployment
4. Identify and specify the restraints
5. Determine appropriate technologies
6. Model and map the space...every last bit.
**DESIGN OVERVIEW**

** author: Dr Oli Mival

**Whiteboard**
- Shown in overview are LED backlit coloured high end boards. This is an alternative to using whiteboard paint in the space and would allow the ability to easily wipe the board, as well as allowing the use of whiteboard paint for added magnetic functionality.

**Web Videocall**
- Logitech WebCam
  - Logitech Webcam C920 (£120 incl. VAT)
  - 720p video
  - NB should be combined with ceiling based room mics for best performance.

**Wall Screen**
- Philips 8007/20/8406 (80"
  - £3000 (ex VAT)
  - 4 point multi-touch
  - 1920 x 1080

**NB**
- Backlit by blue LED. Bespoke surround with USB plate to allow connection of flash drives etc.

**Architectural Overview**

**GotoMeeting**
- Allows up to 16 HD video streams plus up to 24 separate party connections across a multitude of devices (Windows, Mac OS, Linux, iOS and Android). In addition anyone can simply call in from a phone although they would not be able to participate in screen sharing (NB use of a smartphone allows an audio presence plus the ability to see the shared screen).

**Multi-touch Capabilities**
- The multi-touch capabilities of the screens allow direct interaction with the screen's content. In addition high quality wireless combined keyboard-mouse (eg Logitech K400, £30) should be available for each side of the room.

**iPad**
- The iPad can control PC via VNC client (eg LogMeIn) or through virtual mouse and keyboard (eg Air Mouse Pro). The iPad (and any other iOS device or Mac running AirParrot on the network) can be directly mirrored via the Apple TV input.

**Cable Management**
- The wall screens need to be wall mounted. They should have a simple mounted surround to ensure the mounts and cabling are hidden from view. Cable run to the PC cabinet beside window should utilise existing underfloor panels. A USB panel should be present on the surround to enable easy connection of a flash drive.

**Lighting and Furniture**
- AngelPoise Floor Lamp £2000
- B&O Tactile Floor Lamp £850
- Design Classic Sofa
  - eg Replica Florence Knoll £680

**PC Infrastructure, Telecom and Cable Management**
- PC should be housed either behind screen (if screen) or in alternative storage cabinet (dual screen). NB will require a VGA and USB cable run to 2nd screen to enable mirroring and interaction. Wireless keyboard in acrylic plinth beneath each screen Logitech K400. Cable run to table can use existing infrastructure. NB NO CABLES SHOULD BE VISIBLE
- Bespoke table with integrated power, ethernet and VGA connections. Wireless VGA dongles (mounted on instruction plinths to prevent accidental removal).

**Signage and Instructions**
- Focus on Simplicity
- The room should use make use of large format, simple and beautiful physical signage to help facilitate the room functionality.

**Source 1**
- Room PC

**Source 2**
- Laptop

**Source 3**
- Apple TV

**Source 4**
- Wireless VGA

**GOOgle Meeting**

**WAN**

**LAN**

**USB**

**WIFI**

**Network**

**Simplistic**

** signage**

** leftover**
TAP HERE TO SHOW THE TOUCH KEYBOARD.
TAP AGAIN TO BRING OUT AND USE.

ZONE 1

DOUBLE TAP HERE TO OPEN THE HELP GUIDE.
INSTRUCTIONS ON HOW TO...
Host or join a GoToMeeting
Host or join a teleconference
Connect your laptop to a screen
Control the lighting and audio

Internet Explorer
GoToMeeting (vidcon)
Tele-Conference
PowerPoint
Word
Excel
Acrobat Reader
Room Control
Welcome to Room 11G2

AstraZeneca

Tap on the image below for help

- Learn how to use the touch-screens
- Learn how to launch a video-conference
- Learn how to connect an iPad
- Learn how to use the keyboards
- Learn how to connect a laptop
- Learn how to use the room control