ICT’s role in Next Generation Universities

What will IT look like in a New Campus?

Noel Wilson
University of Ulster, Northern Ireland
The University of Ulster’s Greater Belfast Development proposes a new urban campus in Belfast’s city centre.

**Three new buildings, providing 73,000 square meters of accommodation, will form the campus around their existing architecture school.**

The massing is sculpted to respond to divergent frontages ranging from 19th century conservation areas in the south to shattered commercial and residential districts to the north. While this urban context has been an important design consideration, inspiration has equally been taken from the morphology of Northern Ireland’s dramatic geology and the relationship of the city to the surrounding lough and hills.

**Construction value:** €180,000,000

**Completion Date:** Mid-2018
Overview

• Origin of Project
• Stakeholder Engagements
• ICT: What’s required?
• Working as part of Project Team
• Going Forward
The “Belfast” Story so far

The Vision

• €258M development
• 73,000 m² space
• 3 new buildings
• Construction starts 24 June 2013
• Phase I opens October 2015
• Phase 2 opens October 2018
• 6 Faculties, 1300 staff
• 15000 students
• City location

Planning

A new campus
### The RIBA Stages

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Stakeholder Engagement: Stages

2006: Review of condition of existing real estate

2008-09: Ryder Space Plan

2009: Public announcements

2010: Detailed Brief/Requirements

2011-12: ICT User Requirements Specification

2012-13: Detailed Design

March 2013: Planning Approval Granted

June 24th: Demolition (Phase 1) Commences
Stakeholder Engagements II

- Innovative ideas
- Best practices
- Requirements review of plans

Focus groups
- Teaching and Learning Co-ordinators
- Staff and Students
- Staff by Specialisms

External
- Reference sites
- Professional bodies
- Citizens
- Local Authorities
Stakeholder Engagements III

Meetings
Architects
Estates Department
ICT Consultants
M&E Consultants
Acoustic Consultants

detailed designs
proofing of plans
cost estimation
F,F and E work

“Just as the users requested!”
The ICT User Requirements Specification

• Created at RIBA Stage C
  – (Specialist consultants Reports etc.)
  – A “High Level” (outline) Specification
  – Involved many stakeholder groups
  – Content includes:
    • Requirements by specialism e.g. faculty, library, IT
    • Section on Building Information Management Options
    • Advice on ICT contractual and procurement process
    • “Latest Decision Date” guidance
  – Approximately 90 page Report
ICT: What’s Required

- Pervasive wireless access
- Remote support (web cams)
- Interactive white boards (?)
- Well-designed spaces (sight lines, acoustics, décor etc.)
- Consistent use of technology control mechanisms
  - “Student Hubs”, “Social Learning Spaces”
- Video-conferencing, lecture capture and streaming

ICT User Requirement Specification

Detailed Design: ICT Requirements

User Acceptance via Workshops

Learning Wall Design

ICT “Bill of Quantities”

Control Panel(s) Schematics
Teams and Team Working

A large and complex project – many teams!

Several specialist consultancy companies involved

University Project Office

Information Services

Information Services – Estates Department
Meetings every 2 weeks

Focus Groups
Meetings with senior academic managers, etc.
Teams and Team Working II

IT staff working closely with various consultants:
- Arup Consulting: User Requirements Specification
- Electrical and Mechanical Engineers
- Cable runs (ducts), primary and secondary equipment rooms, physical space and materials impact on wireless hotspots
- Architects
- Design of learning and teaching spaces; also social spaces and ICT provision in public spaces e.g. wayfinding and information displays
**The Future ?**

**VALUE ENGINEERING (VE):**

- creative, organized effort, which analyses project to achieve the essential functions at lowest *total* costs (capital, staffing, energy, maintenance) over life of project

- through group investigation using experienced multi-disciplinary teams, value is improved by studying alternate design concepts and methods without compromising functional and value objectives

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Project:
http://www.ulster.ac.uk/greaterbelfastdevelopment/index.html