



Learning Environments Conference

Designing for Inclusion

Case Study: UWE Faculty of Business and Law

02.07.15



University of the
West of England



Stride Treglown



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Project Director

June 2013
Project
inception



Business case & masterplan



Feasibility

Engagement



Design development



Inclusion and flexibility



BIM and no surprises



Jan 2017
Building
opens

Going forward: what's next?



UWE strategy 2020

Recognises the competitive market we are operating in

- Programmes
- Accreditation
- Infrastructure

UWE strategy 2020

Recognises the competitive market we are operating in

- Programmes
- Accreditation
- Infrastructure
- Facilities

UWE strategy 2020: Business case



- Create inspiring places to study and work
- Create modern, efficient, flexible and exciting spaces that can adapt and change over time as we see learning and working evolve

UWE strategy 2020: Business case



Campus 2020

- **New, innovative** and **vibrant learning environment** for staff and students, as well as providing services open to the **local community** that will transform the way the university operates

Faculty of Business and Law vision

- Provide a **first-class teaching** and **learning environment** comprising lecture facilities, teaching and seminar rooms, specialist learning facilities



Faculty of Business and Law vision

- Provide a **first-class teaching and learning environment** comprising lecture facilities, teaching and seminar rooms, specialist learning facilities
- Include **specialist executive development facilities** as well as space for **collaboration, business development and informal learning**



Faculty of Business and Law vision

Head of Faculty Strategic Developments



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Preparation and Brief

Capture project objectives to inform concept design

Inform detailed business case

Feasibility study

- Establish amount of space required
- Space requirement basis (space standards)
- Student and staff 10 year projections
- Space modelling exercise

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Key stakeholder groups

- Student Partnership Services
- Academic Services
- IT services
- Catering
- Cleaning
- Equality and Diversity
- Disability Services
- Security
- Estates
- Academic staff



Stakeholder engagement strategies

- Departmental engagement
- Faculty forum
- LTEG (Learning and teaching enhancement group)
- Teaching spaces group
- Staff space group
- Storage space working group
- Stakeholder workshops
- Focus groups
- Blog
- Exhibition and feedback wall
- Visits

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Teaching spaces group

- Space layout and configuration
- Small power and data locations
- Ways of working and curriculum
- IT strategy
- Collaborative / technology enhanced active learning
- Exam / timetabling / space planning
- Student requirements
- Furniture

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- **Visits**

Visits

- Cardiff Metropolitan University
- Cass Business School
- Nottingham Trent University
- Manchester Metropolitan University
- Exeter University
- Newcastle University
- Northumbria University
- University of Reading
- Environment Agency HQ

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Planning: 3D representation



Floor plans

Moving away from the flat floor plan

Planning: 3D representation



Envelope design development
Moving away from the flat elevation

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A collaborative 'living building'

*'A building to promote collaboration which **all** staff, students and visitors want to spend time in'*

•Open and transparent building

- Central hub to the building
- Open circulation routes (moving away from corridors)

•Spaces to collaborate

- A variety of social learning spaces
- Breakout spaces and rooms (including bookable rooms)

•Cafe

- Shared learning café

- Inclusive and flexible building

‘ A building for all which is able to respond to the changing needs of its occupants and the inevitable changes that will occur in higher education over the coming years’

- Agile and responsive

- Flexible convertible spaces
- Multi-use spaces

- Balanced building

- Also dedicated spaces that feel permanent and give the building legibility

Environmental Comfort

‘Conditions within occupied space optimised for comfort almost to the point where users do not realise it’.

•Passive solutions wherever possible

- Maximising daylight (with control)
- Natural ventilation (wholly or mixed mode)

•Acoustic control and comfort

- Acoustic insulation (appropriate for use)
- Acoustic audibility (for all)

•Visual comfort

- Visual contrast (best practice)
- Legibility and wayfinding (building form and colour)

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BIM: 'Building Information Modelling'

- A collaborative process of virtual design, construction and management of buildings.
- The use of BIM unites design phase; construction phase and post construction phases (including facility management).

Aim

- To make the construction process more efficient and eliminate uncertainties before construction, to reduce cost.

FBL: 3D representation

An aerial, 3D architectural rendering of a modern multi-story building complex. The building features a mix of solid facades and large glass windows. It has several courtyards and a central glass-enclosed structure. The rendering is presented in a dark, semi-transparent style, overlaid on a dark background.

Internal space interrogation
Utilising 3D navigable software

Collaborative working

Design Team

BIM workshops every 2 weeks

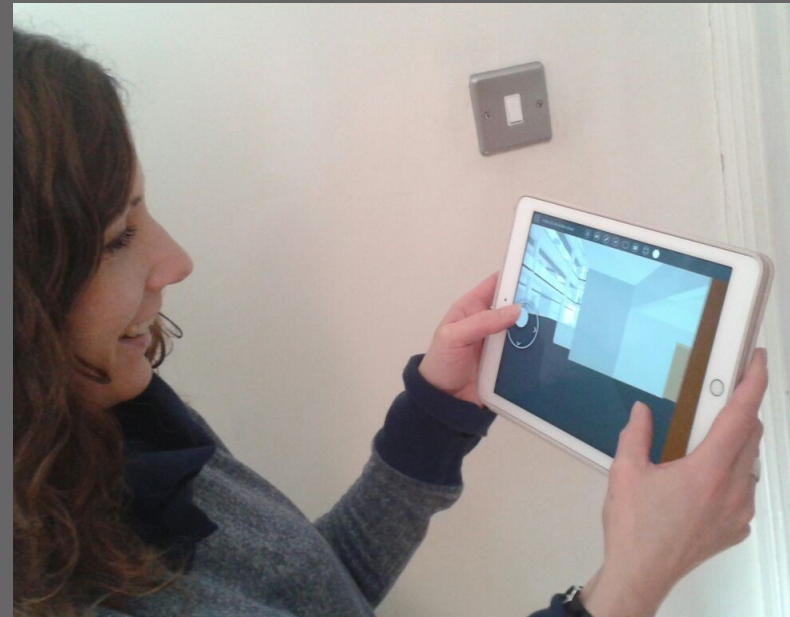
Building End User

Provided with Revit model on iPad

Provided with extensive 3D information
(client contributed to animation with narration)

Client FM & Estates Department

Design team set the BIM protocols and standards for all future projects



FBL: 3D representation



Communication of Design
Moving away from 2D information

BIM: Client communication

- Presenting information in a more coherent, interactive and accessible way.
- Moving away from flat 2D visual communication
- Utilising the federated 3D model
- Making the design process transparent and engaging
- Making data and modelled information available
- Make the design process efficient and eliminate uncertainties before construction in order to eliminate uncertainties before construction to prevent variations and ultimately drive down cost

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Going forward: what's next?



Going forward: What's next?

- Contractor on site:

Enabling works complete and concrete frame starting.

- Final FFE arrangements:

Stakeholder engagement continues to inform loose furniture, fittings and equipment for procurement.

- Small power and data:

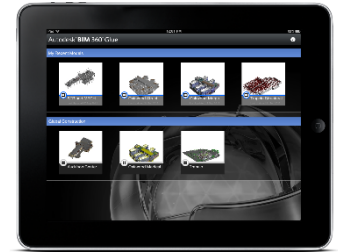
Stakeholder engagement to finalise positions of small power and data across the building.



Any Questions?

stridetreglown.co.uk

Revizto model



Option 1



Option 2



Client navigation through working model on iPad

Main contractor appointment

- ISG have been appointed as the main contractor for the new FBL building
- construction work started in May 2015
- ISG is an international construction services company, with strong education sector credentials, delivering fit out, construction, engineering services and specialist solutions, operating in 28 countries worldwide.

Enabling works

- enabling works now complete
- in excess of 350 piles in the ground
- protruding reinforced steel bars forming the structure of the building i.e. columns and walls
- hoarding erected around the perimeter of the site
- hoarding runs adjacent to the public right of way so work being done to improve long-term movement of pedestrians and cyclists

<https://fblnewbuild.wordpress.com/>

Project team

Project team

Procurement of project team

Project manager

Architects/design team

QS

<https://fblnewbuild.wordpress.com/>

Engagement activities

IT

ITS 2020 strategy and new build

Four major principles in the IT/AV design to enable and facilitate:

- the best possible teaching and learning using appropriate technology
- in a cost effective manor
- that is simple to use
- that is flexible for the future

Where are we currently?

- Confirming configuration of spaces
- Small power and data
- Furniture procurement
- What's next?

Specialist space stakeholders

- Trading room
- Law courts
- Professional law
- Executive education
- Research centres
- PhD student space

Conclusions

Improve the learning environment to retain students and improve student retention for all equality groups.

Retention of staff and attract new talent to the University

Provide a healthy positive environment for all to work, study and socialise.

Incorporate new strategies to measure internal space performance creating a benchmark from which to measure continuous improvement.