

- **Assessment Task One: Group Technology Innovation**

Worth 40% of the overall course grade.

A Group Assignment comprising 2 parts. Each part of equal value.

Due: Part 1, Friday 18th October; Part 2, Sunday 20th October 2019.

Two group tasks follow the teaching program over the weekend. Together these tasks research and present an application of digital technology for the construction industry. The application needs to be specific to a given digital technology and organisation/discipline context, and should promote integrated project delivery. The assessment tasks in class offer a template for the independent study task required in Assessment Task Two: Individual Technology Innovation.

You will be allocated to a group of 5-6 in number, based on the preferences of your peers.

Each group will be assigned a particular digital technology and organisation as the 'target' for their applications of the innovation, as follows:

- TOWNLAND ...is a multi-disciplinary planning and design consultancy. Discipline: Planning. Digital Technology: Machine Learning/AI.
- AECOM ...is a global network of architectural design experts. Discipline: Architecture. Digital Technology: Cloud Computing.
- Gammon Construction Ltd. ...delivers high quality construction building and civil construction projects. Discipline: Construction. Digital Technology: Robotics.
- Savills plc ...is a global property management service. Discipline: Facilities Management. Digital Technology: Internet of Things.
- Colliers International ...is one of Hong Kong's leading real estate agencies. Discipline: Real Estate. Digital Technology: Blockchain.

Working collaboratively, each group will identify, evaluate and pitch an application of the specific digital technology that promotes Integrated Project Delivery in the assigned discipline field:

Part 01: Technology Description – Friday 18th October

You are to work as a group to research and describe your allocated digital technology in general and a specific case study application of your technology in the discipline domain allocated. The generic technology has to be described in current functional terms (what it is capable of delivering at this point in time, its current impact in general as well as its current impact specific to the construction industry), and the domain application has to be an existing product/use case illustration.

Prepare a presentation that describes the specific product/use case in functional terms, explain what advantages or opportunities it affords, and the value arising from those advantages or opportunities for your allocated discipline context. The presentation will be strictly time limited to 5 minutes and all group members must participate in the presentation.

The presentation will be assessed in terms of:

- the quality and specificity of the technology description (50 marks)
- the relevance of the technology use case to the discipline and IPD (30 marks)
- the clarity and professionalism of the presentation (20 marks)

Marks will be shared equally by all group members.

Part 02: Innovation Proposition, Evaluation and Pitch – Sunday 20th October

You are to work as a group to evaluate the disruptive potential and production issues relevant to your proposed application of the digital technology, if adopted by your assigned organization/industry sector. To determine the value proposition of your disruption you will identify what barriers might exist to the production and use of the application with respect to a specific product/use case and evaluate its broader market potential.

You will then work as a group to produce a 3 minute pitch to present your application as an innovative opportunity to support Integrated Project Delivery to the senior management of your assigned organization/industry sector. The presentation will be strictly limited to 3 powerpoint slides. One or more group members can present on behalf of the group.

The presentation will be assessed in terms of:

- the imagination, strength and relevance of the innovation (25 marks)
- the depth and breadth of the disruptive evaluation, technical assessment and market potential (50 marks)
- the structure, clarity and professionalism of the presentation (25 marks).

Marks will be shared equally by all group members.

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