The Right Thing? Serious games for developing interdisciplinary interactive design thinking

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Abstract:

'Design thinking', or the way designers reason, has, in recent years, inspired problem-solving innovations in disciplines not traditionally associated with design. Design thinking is an efficient approach for addressing 'wicked' problems, problems which are complex, unstructured, and for which no single, or 'best' solution exists. Wicked problems often cannot be solved by a single discipline and require interdisciplinary collaboration/exchange. One widely accepted model of design thinking is called the 'double diamond' ◊◊. Each diamond depicts the divergence and convergence of possible solution options being considered. The first diamond involves a critical querying of whether the designer is 'designing the right thing', the second, whether they are 'designing things right'. Since many societal problems are wicked problems, design thinking is well-suited to addressing them. However, many undergraduate programmes focus on the second diamond – solving problems or answering questions with pre-set briefs, technical solutions and 'best practice' – rather than on encouraging students to start a step earlier, to think about whether the question being asked is even relevant or appropriate, that is, whether they are 'designing the right thing' to begin with. This internationally collaborative project with Dr Andrea Frank, an international expert on built environment pedagogy, deploys a serious games approach to stimulating interdisciplinary multi-lateral discussions relevant to the first diamond. It will do so in a course on 'Architecture, Smart Cities and Design' (CA3342), that is taken by Architecture, Surveying and Civil Engineering students. Using the complexity of urban systems and space as the game setting and working with leading interdisciplinary built environment practices, we will develop a role-playing game as a pedagogic device; the playing of the game is the process by which participants from these disciplines steeped in contrasting approaches to urban problems, can gain knowledge and insights into the shaping of urban environments, and the roles that each of their disciplines contribute to those environments. The game will initially be developed in a face-to-face mode, but we plan to develop an online version. Lessons from this experience will also expand our pedagogic game design knowledge to wider urban education for CityU undergraduates.