

Geographies of making: the jazz of participatory fabrication, improvisation and hackerspaces

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Innovation and Creative Labs in Berlin – Organizing Temporary Spatial Configurations for Innovations

Innovation and creative labs can be defined as physical and / or virtual places that offer spaces for testing the innovativeness of novel ideas, alternative business models, new economic practices or flexible cooperation structures. As such they are experimentation fields, where physical structures are transformed to spatial nucleuses for temporary practices aiming at generating economic (product / process / organizational) innovations to crystallize. There, processes of interdisciplinary collaboration, open innovation and crosspollination embrace and combine knowledge from several knowledge domains, most prominently from creative and technology intensive sectors. The paper presents and discusses results from a desktop research (in cooperation with Verena Brinks at the IRS and Sascha Brinkhoff at the Humboldt Universität zu Berlin) that compiled an inventory and typology of the growing spatial and organizational phenomenon of innovation and creative labs in Berlin. The empirical evidence points towards a categorization of temporary spatial configurations that ranges from grassroots labs, different forms of co-working, design and R&D-oriented studios, incubation and acceleration models to events. These categories epitomize distinct temporary social settings in an economic environment characterized by diverse modes of democratization, flexibilization, commercialization and decentralization of innovations. The paper demonstrates how these places contribute to forming emerging fields and discuss possible implications for local and regional governance.

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A Learner-centred Design for Tele-robotic Collaboration

On March 11, 2011 a catastrophic tsunami badly damaged cooling systems to reactors at the Fukushima Daiichi nuclear plant in Japan. Four reactors exploded and radioactivity was released to the atmosphere. In 2014 the consequences of the Fukushima accident continue: evacuees cannot return home; depression is becoming prevalent among the strained residents; workers are struggling to maintain the safety of the plant; and deformities have been discovered in local wildlife. One of the most surprising technology related episodes during the post-disaster efforts was Japan's lack of robots to assist with the recovery operations. These events motivated my Media Architecture students at Future University Japan to take ownership of the design, iterative development and construction of a 3D virtual space where participants are involved in simulated disaster recovery using robots. The result is that remotely located students in Japan and Wales, UK collaborate to solve specific tasks of measurable complexity.

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Navigating the digitisation and gamification of citizen science

Citizen science is not new, but its gamification and digitisation is. Recent years have seen a noticeable upsurge in citizen science through the provision of shared data collection or analysis via digitisation (i.e. Zooniverse), collective knowledge creation within the online space (Wikipedia, Encyclopedia of Life) or the design of 'games with a purpose', computer or video games created by scientists and game designers to engage and enlist gamers in scientific research and analysis (i.e. FoldIt or EteRNA). This paper presents the author's navigation of the earliest examples of these games through a process of ethnographic exploration and visual analysis. Is the ability to produce and collect 'big data' transforming these virtual geographies of knowledge? Are these games truly the only ones with a 'purpose'? And what are they discovering? Is this reshaping the landscape of scientific knowledge and production? Or is it simply symptomatic of our current digital era with its predilection for a widespread production of 'knowledge'.

Kenneth Y T Lim, National Institute of Education, Singapore

Examples and enactments of maker culture in the Asia-Pacific

Makerspaces have been hailed as exemplars of community-led grassroots constructs. Their rise in several countries in the West has led to a renewed interest in reframing learning in terms of models akin to post-industrial apprenticeship. Across the Pacific, makerspaces have also emerged, including in Hong Kong and Singapore. These recent developments encourage the study of the extent to which community-driven initiatives cohere with more traditional conceptualisations of ordered civil society which characterize much of East Asia. This paper describes one such enactment in a state-funded school in Singapore, in which the local makerspace emerged without any formal structuring from those who might be seen as the brokers of power and authority. The study is of interest in that the culture of tinkering and improvisation that has supported the student-driven makerspace shares characteristics with community-initiated makerspaces in the West, rather than with the more prescriptive and regulated socio-political constructs which are often associated with countries in East Asia.

Marianna d'Ovidio and Elanor Colleoni, University of Milan-Bicocca

Making space for making. The case of a makerspace in Milan, Italy

The paper focuses on the metropolitan area of Milan, Italy, where many makers workshops have been recently developed. Italy is a particularly favourable stage for such movement because of its legacy of craft-based industry and for the spreading on the territory of countless artisanal clusters.

By following the path and creation of a makerspace from the very beginning to the actual opening and functioning, the paper addresses two kinds of relationships:

1. the relation between makers and the urban space: how do they use the city, what kind of resources do they need, what policy does support the makers activity, how do such workshops transform the organisation of the urban space and so on;
2. the relations among makers: how do different proximities (off-line and on-line) combine and what outcome (in terms of innovation, success, productions...) result from such combined proximities; what's the nature of these organisations in terms of open source or free software culture, opposing to traditional market-based business.