Collaborative spaces: innovation, regulation and competition

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1. Introduction

Under the banner of a new model of collaborative economy, a new type of workspaces have emerged in the recent years. These collaborative workspaces’ organization aim at boosting creativity and innovation, on the basis of shared competencies and knowledge. The extension of Fablabs, hailed by their promoters as the new frontier in design and even future manufacturing, brings into the space the shared use of machines (high tech such as laser cutters, 3D printers, numerical command tools, or lower tech: panel saws, band saws, jointers, planers...). The first Fablabs where directed at local community use, they are now enlarging to prototyping and innovation multi-users spaces aimed at pre-industrialization studies and are also becoming a new trend in larger firms building in-house collaborative spaces for their conception teams.

These new work organizations, supposedly non-taylorian, should be considered and studied by ergonomists. This field is somewhat new, as ergonomists have mostly developed their knowledge on studying the impact of organizations inspired by the pervasive Scientific Organization of Work put forward by F.W Taylor more than a century ago.

2. Methods

The paper presents a conceptual frame to describe competition and regulations, based on observation of work activity, spatial analysis and feedback from users of these collaborative spaces dedicated to improve creativity and innovation.

3. Discussion

For the ergonomist trained in work activity analysis, such spaces of shared environment and tools raises several questions we would like to address in the symposium.

Collaborative spaces are situations where limited resources are shared: space, competences, machines...and time. Preliminary observations identify the tension between collaboration and competition in using these limited resources, as well as the necessary adjustments between individual benefits and contribution to the collective development. We need to study the explicit and implicit regulations operating on the use of material and immaterial resources offered by the collaborative spaces. Ergonomists can use the models of work activity as a dynamic trade-off between aims, spatial constraints, tool characteristics and use, collective work and knowledge management, to describe how these workspaces function and are (or not) better places for creativity and innovation.

In the collaborative shared office type, typically, small start-up enterprises look for a favourable emulative environment where to incubate projects and ideas. Regulations of work activity are evidenced by differential allocation of time to collective or individual activities, depending on personal profile, project’s development phases, and the need for external competencies or knowledge. The workspace is not homogeneous, and competition appears for square meters, furniture, noise avoidance, and delimitation of collective sub-spaces.

In the Fablabs, where complex or hazardous machines is are installed, regulation is likely to come from the organizational structure itself, reintroducing the figure of the production/methods manager. His role is there to prevent hazard, manage safety for occasional users of the machines, and provide instructions and help to cope with the trial and error process of prototyping. Competition appears for the space, machine time, materials, as well as for the access to immaterial resources of skill and technical knowledge.

As relates to the conditions for improved creativity in these collaborative workspaces, it is useful to observe whether users are experiencing mere co-presence, or co-activity, or real co-elaboration and what are the outcomes in terms of innovation, personal development and business viability.