Conceptualizing a Creativity Lab: Turning Physical, Virtual and Lifestyle Spaces into Creativity-Enhancing and Inspirational Environments

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Abstract

This paper is a conceptual contribution to an ongoing debate on how to advance creativity within the context of creativity labs. This paper aims to investigate the conceptual dynamics of a creativity lab that "trespass" the boundaries of a creativity-enabling physical facility and steps further into virtual online spaces and individual lifestyles at large. In turn, this paper is a conceptual analysis on how to conceptualize and extend the concept of a creativity lab towards its wider and further implications.

Based on literature review on creativity labs, the objective of this paper is to provide guidelines and implications on how to extend the definition of a creativity lab beyond the boundaries of physical facilities. As recent research abounds in different factors and elements stimulating creativity in creativity labs, this paper aims to distinguish and conceptualize three basic functional trajectories of creativity labs: a creativity lab as a collaborative space, a creativity lab as an inspirational space, and a creativity lab as a creatively facilitated space.

Keywords: creativity, creativity lab, innovation lab, creativity-enhancing environment, creative collaboration, inspirational space, creative facilitation.

Introduction

Today creativity is a keyword that drives many organisations forward, especially those seeking to gain an outstanding competitive advantage. Indeed, creativity as an organizational competence tends to become a new type of "gold" enabling to conquer unique market positions, ensure long-term returns, and even explore new, untapped directions in blue ocean strategies. To some extent, creativity becomes a new type of lottery in the business world which is available only to those who "start playing the game of creative possibilities". Today an increasingly growing number of companies have an objective to enhance their employee creativity for reaching successful outcomes and ensuring long-term sustainability of their activities (Takouachet, Legardeur, & Lizarralde, 2014; Boutillier et al., 2020).

It this context it's no surprise that recent years have seen an increase in the number of creativity or innovation labs that are purpose-built physical facilities designed to enhance and support creativity and innovation in organizations. Different organizations are trying to find its unique approach to stimulate

creativity and create hubs for innovation. Some of them become pioneers in new approaches to develop creativity labs, while others tend to follow the new trends and best practices in developing creativity and innovation enabling environments.

The concept of a creative lab is not a recent concept as for many years different researchers investigated various aspects of creativity-enabling factors. For instance, we may draw on organizational literature on workplace creativity, more specifically on creative workspace (Amabile, 1996; De Paoli et al., 2017) by assessing factors that influence individual creativity, the impact of technology on creativity (Bonnardel and Zenasni, 2010), or assessing individual creativity in communication media mix (Thatcher and Brown, 2010), creativity-stimulating location, spatial organization and architecture details (Kallio et al., 2015), creativity-stimulating colors, sounds, plants and flowers (Samani et al., 2014), etc. There is a growing number of research aiming to provide guidelines on how to design facilities for stimulating creativity and innovation. In this regard, many organizations are investing in designing creative work spaces or creativity labs to support individual, team and organizational creativity, develop creativity-related competences, foster innovation and communicate a positive image (De Paoli et al., 2017).

Yet, what is a creativity lab? Is it just a limited space or facility? Does it extend further? Or is it boundary-unlimited? This paper aims to investigate the conceptual dynamics of a creativity lab that "trespass" the boundaries of a creativity-enabling physical facility and steps further into virtual online spaces and individual lifestyles at large. In turn, this paper is a conceptual analysis on how to conceptualize and extend the concept of a creativity lab towards its wider and further implications. Based on literature review on creativity labs, the objective of this paper is to provide guidelines and implications on how to extend the definition of a creativity lab beyond the boundaries of physical facilities. As recent research abounds in different factors and elements stimulating creativity in creativity labs, this paper aims to distinguish and conceptualize three basic functional trajectories of creativity labs: a creativity lab as a collaborative space, a creativity lab as an inspirational space, and a creativity lab as a creatively facilitated space.

The discussion of a creativity lab usually focuses on a discussion of a physical space dedicated for creativity enhancement. According to Doorley & Witthoft (2012), space is the "body language" of an organization where the form, functionality, and finish of a space reflect organizational culture, behaviors, and priorities of the people within it. In turn, this suggests that a space designer is simultaneously a cultural translator and a builder as space design has its own grammar and can be internalized physically and emotionally. In the context of creativity labs, the authors named this primary creative space

as the *Home Base*. From an emotional perspective, it is the creative center of gravity from which people advance and retreat four attributes:

- A place to access unique resources and tools;
- A place for things (persistent and accessible storage for work in progress) ;
- A place to showcase contributions (to display and share insights, work, and practice);
- A place for a community to flourish (to share ideas, aspirations, and emotions, and to make connections).

Despite that recent research amounts in conceptualizing a creativity lab; yet, very limited research is visible on virtual or online creative spaces from the perspective of a creativity lab. Indeed, it may be argued that online creativity labs is an extension of a physical creativity lab that provides possibilities of different applications, online forums, virtual platforms, social media meetings, and other IT means to advance creative projects even further. Furthermore, as online presence tends to become a considerable part of our daily lives, creativity-oriented online presence may become a vehicle for integrating creativity into our lifestyle at large. Furthermore, creativity development is never limited to a lab and penetrates into lifestyle habits. In this respect, this paper is a conceptual attempt to discuss implications of possible creativity lab extensions into wider dimensions and their functional trajectories.

Creative spaces and creativity labs: distinguishing functional trajectories

Creative spaces as well as creativity (or innovation) labs are deliberately designed spaces to facilitate creativity and innovation. Numerous researchers have approached the concept of a creativity or innovation lab from different angles and criteria, and even categories of its research trajectories. For instance, in terms of workspace design, research on creativity can be categorized into two groups (De Paoli et al., 2017), specifically: 1) studies examining how space directly affects creativity through material objects and artefacts or specific characteristics of the physical workspace; 2) studies examining how space indirectly affects creativity through its influence on different variables such as communication, organizational culture, etc.

Indeed, much research is focused on concrete space design elements that boost creativity. Dul, Ceylan, and Jaspers (2011) used questionnaires to examine the effect of the physical work environment on the creativity of knowledge workers in Dutch small and medium-sized enterprises (SMEs). The researchers developed a theory about the possible influences of the work environment on creativity, and distinguished between the social-organisational work environment and the physical work environment by presenting a list of 12 spatial aspects (furniture, plants, calming colours, inspiring colours, privacy, window view to nature, any window view,

quantity of light, natural light, indoor climate, sound, and smell) that would influence creativity positively.

Some researchers extended towards wider aspects of creativity-enabling environment. Haner (2005) looked at two cases of innovation laboratories by analyzing the divergent and convergent thinking of teams and individual, and suggesting three categories of spatial characteristics: location (which also includes virtuality), style (which includes soft factors such as colour and materials), and building and layout (which includes e.g. visibility, proximity, and privacy). Moultrie et al. (2007) proposed a framework to better understand the design, role, and goals of innovation labs in a practical sense by distinguishing between strategic intent, process of creation, process of use, and physical embodiment of intent. The authors presented 10 categories within the physical embodiment category, specifically, geographic location, scale, real/virtual, flexibility, design values and imagery, IT resources, data and information, modelling and visualization resources, constraints, and evolution. Thoring et al. (2018) derived themes of creativity-enabling environments: 1) working zones, 2) physical activities, 3) lighting, 4) style and atmosphere, 5) flexibility, 6) open space, 7) break areas, 8) electronic infrastructure, 9) knowledge storage, 10) access to materials, 11) outdoor access, 12) storage, 13) privacy, 14) layers and platforms, and 15) serviced facilitation.

In 2019 Thoring, K., Desmet, P., & Badke-Schaub conducted a systematic literature search within the Scopus database and identified a total of 70 relevant sources discussing creative spaces within academic, practice, or other innovation environments. They analyzed the academic sources regarding their theoretical contribution, as well as regarding their scope. Finally, the included sources are categorized according to three areas of interest: 1) the addressed space types for different creative activities, 2) abstracted requirements for creative spaces, and 3) concrete characteristics and configurations of a creative space. Their results provide an in-depth insight into the current state of research on the topic of creative spaces.

As recent research abounds in different factors and elements stimulating creativity in creativity labs, this paper aims to distinguish and conceptualize three basic functional trajectories of creativity labs based on literature review: a creativity lab as a collaborative space, a creativity lab as an inspirational space, and a creativity lab as a creatively facilitated space.

A creativity lab as a collaborative space
Extensive research indicates the importance of teamwork and collaboration for the purposes of advancing creativity and innovation. Therefore, creative spaces prioritize such solutions that stimulate ideation, collaboration, effective

teamwork, multi-modality of working possibilities and flexibility in teamwork arrangements. Sometimes such efforts crystallize in a strategic attempt to create a creativity or innovation lab that targets creative thinking, innovative solutions and synergistic opportunities.

In most cases of designing a creativity lab, *idea-capturing design* is highlighted as a key element. Interior design for collaborative purposes often include different means stimulating participants to share, synthesize, and discuss ideas by providing necessary tools and interior arrangements. For instance, creativity labs tend to have large display surfaces (both vertical and horizontal) to fixate and synthesize ideas and proposals. Every design object is viewed through the lens of its potential to generate, fixate and increase synergy among different ideas. According to Doorley & Witthoft (2012), the context informs the configuration, and large display spaces creates a perfect environment for synthesis as for grabbing data from a pile of assorted facts and details, and rearranging data in various ways to create meaning, concept or a trajectory. Indeed, the ability to visualize, sort, and re-sort data and insights is a key element to enhance synergy among ideas and combinatorial creativity. The inclusion of many reconfigurable tools such as Post-its, dry-erase surfaces, interactive boards can have a profound effect on the synergetic mind-mapping, discovery of hidden patterns and details among different ideas. Nevertheless, idea-capturing potential is not limited to physical creativity labs (as interior infrastructure) since it has a potential to extent into online applications like idea-generating and fixating apps, creative IT solutions, social media and virtual platforms even when a person is away from a physical creativity lab. Indeed, idea-capturing is a part of a creative lifestyle to generate ideas and share them in specific idea hubs whether it is a physical creativity lab or a virtual space.

Another trajectory in designing a creativity lab is space division for collaborative purposes. Usually we see a creativity lab as a large space of collaboration where participants freely move, gather, and reconfigure their groups flexibly in accordance to their needs. Adaptability and fluidity of spaces plays a key role in designing a creativity lab. Adjustable, rolling tables, chairs and space dividers create a fluid space that is easy to adapt for different creative needs whether it is a round-table brain storming session, an instructional creative class, or even walkstorming where participants generate ideas while walking. In addition, apart from a large gathering room, there is a need for smaller project rooms (for smaller teams) and even individual rooms (as private hubs) for personal reflection and acoustic silence. Flexibility, adaptability, and novelty of tools are key components of a successful creativity lab design, especially in terms of collaborative effort stimulation.

A creativity lab as an inspirational space

It is complicated to envision a creativity lab without its inspirational potential. Indeed, different types of creators and innovators have long argued that inspiration is a key motivator for creativity. The ancient Greeks believed that inspiration is the basis of creativity and a divine gift. Inspiration is something that provides a creator with an initial power and enthusiasm to create, invent, and advance. It is both a stimulus and an emotional state. It may be argued that if a creative lab has a high potential to inspire, it may result in more outstanding creative outcomes.

According to Thrash and Elliot (2003), the term "inspiration" has been used in a variety disciplines (e.g., literary criticism, psychology, theology, etc.) and trajectories of psychology (in the fields of social comparison, humanism, creative process); thus making connections to the field of creativity quite evident. Thrash and Elliot (2004) argued that inspiration involves two distinct processes: a relatively passive process that they called being inspired *by*, and a relatively active process that they called being inspired *to*. The process of being inspired *by* gives rise to the core characteristics of evocation and transcendence, whereas the process of being inspired *to* gives rise to the core characteristic of approach motivation. In this respect, creative inspirational spaces should focus both on "*by*" and "*to*" in a design of a creativity lab.

The inspirational potential of a creativity lab, especially visually stimulating, sometimes is called *creative space saturation.* According to Doorley & Witthoft (2012), all available spaces of a creativity lab should be filled with inspirational photos, inspiring quotes, inspirational artifacts to keep team members inspired and focused on the challenge. The authors also propose to create signs and posters that transmit inspirational messages and convey the vibe and emotion of a creativity lab. Furthermore, the authors introduce the concept of *saturation* as a process for inspiration. A saturated space is mindfully and continuously curated to display and broadcast inspiring information, evoke positive emotion, and immerse a team in the environment of inspiring creative thinking. Today different IT solutions provide possibilities to capture and share inspirational insights on different online platforms. Inspirational environment that starts in a creativity lab has even a higher potential to extent into online apps or online creativity platforms, and personal surroundings.

Another trajectory of a creativity lab is availability of spaces for varied purposes that could be viewed as *multi-functionality.* In order to design a creative and inspirational space, a single space rarely meets different needs of creators. Some spaces we need for creative relaxation and reflection, some spaces for informal conversations, some spaces for concentration and focus, and some spaces for creative stimulation. And, yet, every mentioned space

plays a significant creative role and has inspirational potential. So can a creativity lab be just a single space? According to Brandt & Vejre (2004), implementing multi-functionality involves creating spaces that have multiple purposes. Due to their access to diverse uses in one place, these spaces can contribute to the vitality of a creativity lab. Indeed, some creators could be inspired by a silent indoor Zen retreat or a meditation room, while others by enclosing themselves into spaces of minimalism like the White Room. Doorley & Witthoft (2012) have introduced an interesting concept of *thresholds* to signify different spaces with different purposes. The authors argue that people frequently expect to act differently when exiting one space and entering another as cultural behaviors around *Thresholds* are valuable assets to incorporate into creative spaces and activities. Therefore, the authors urge to design creative thresholds with bold design elements like different colors in flooring or walls. For instance, for the creation of *relaxation* spaces, some design metaphors could be incorporated such as Zen space, mediation spa, yoga studio, etc. Creativity could be enhanced even by the *White Room* concept that creates an environment with a singular finish and function that focuses team members on particular activities. Their ideas become the only color that fills the space. Furthermore, the concept of creative *thresholds* are even more available online where different inspirational platforms, social media sites, blogs, virtual worlds are available for inspirational purposes. Our daily lifestyle may incorporate different spaces as well by choosing what inspirational spaces we enter.

Another element in creating an inspirational creativity lab is *an inspirational metaphor as a design element itself.* An interesting example comes from researchers Trocchianesi & Pirola (2017) who emphasized a view of creating a space within the dynamics of a designer *(creating spaces which are representative of something else)* and artists *(creating spaces which are self representative).* The authors discuss the creative potential of metaphorical spaces where space is transformed, translated and it becomes "something different" from its content (set up) and becomes the content itself (artistic installation). Indeed, turning a creativity lab into some metaphor or some creative interior concept may function as a unique inspirational background for idea generation and creative potential. The relationship between design approach and artistic installations can be recognised in three dimensions of the design process:
  − in exploring the theoretical meaning of the space, where space-art is considered as a medium of knowing novel vocations of spaces during the concept generation process;
  − in experimenting the physical impact of the artifact in the space, where space- art represents the innovative factor, stimulating to "perform" new gestures, behaviours, functions and to envision new impacts in the reality;

  − in expressing innovative spatial concepts, where art is assumed as a "language" to communicate novel, provocative and disruptive visions during the communication of the idea. This means to exploit the potentials of art in triggering the process of creating new concepts of space that stage the Impossible, the Paradoxical, the Utopic.

As inspirational elements are essential for creating evocative and motivating creativity-enhancing spaces, the authors indicate five main actions that lead the designers in conceptualizing and giving shape to these creative environments:

  − exaggerating meanings;
  − provoking strong reactions;
  − stressing design attitudes;
  − triggering new uses of the space;
  − suggesting new behaviours.

A creativity lab as a creatively facilitated space

Every creativity lab needs life, flow, action to be alive. There is no room for stagnation in a successful creativity lab. So what are the drivers that make it alive, flowing, and full of action? It could be argued that proactive creative facilitation is a key component for driving creativity labs forward. Today we may find different interpretations of creative facilitation. Definitions of facilitation emphasize different characteristics of the concept. For example, we have facilitation as the role of a single individual (Schwarz, 2002), facilitation as a process (Burrows, 1997; Adla, Zarate, & Soubie, 2011), and facilitation aiming at helping a group of people (Burrows, 1997). In the context of a creativity lab, facilitation is also related to the concept of change agent, defined as an internal or external agent responsible for initiating, sponsoring, directing, managing or implementing a specific change initiative, project or complete change programme (Caldwell, 2003). Creative facilitation may occur not only in physical creativity labs, but find its way into online spaces and even creative lifestyle coaching.

In order to maintain an effective creativity lab, the continuous presence of a creative facilitator may play a key role. A creative (or innovation) facilitator is defined as a person who educates, advocates, advises, and responsible for raising the awareness of the importance of creativity and innovation, standardising and communicating a vocabulary of innovation, providing a set of creativity enhancing tools, and developing training activities (Johnsson, 2018; Andrew and Sirkin, 2008). Some researchers argue that a facilitator is especially important when an organisation needs to change attitudes and learn new skills or behaviours (Andrew and Sirkin, 2008). Creative facilitators also help with idea screening and idea generation, new concept development, system design, management of details and other innovative competences (Milton and Rogers, 2013; Räsänen et al., 2015). In turn, facilitator

understands and gets involved into group dynamics to guide and stimulate interaction between the participants. During the creative process, the facilitator practices different creativity techniques that are appropriate to the context by keeping the creativity process moving forward. Blumberg and Golembiewski (1976) described a list of the facilitator' functions that could play a significant role in a creative lab:

- − Creating situations conducive to learning;
- − Establishing a model of behavior;
- − Providing new values in process;
- − Facilitating the flow of information;
- − Participating as an expert;
- − Protecting participants from unnecessary stress and attack;
- − Challenging the group regarding its processes.

Discussions and Conclusions

In order to create an efficient and successful creativity lab, the process should be viewed from a perspective of systems thinking. Current research indicates that there are many components and criteria in designing a creativity lab; therefore, different approaches and possibilities should be integrated and applied in order to create a well-functioning unique system. As a system is a number of interdependent components that form a whole and work together to attain a common goal (Maani and Cavana, 2007; Jackson, 2003),a creativity lab could be viewed as a multi-layered, multi-component concept that is enhanced though practice and application of novel concepts and tools. A successful creativity lab is always in progress by adding new elements and expanding itself into new domains.

Furthermore, the analysis of new developments and trends in designing a creativity lab should be viewed within the context of wider societal and business developments. For instance, today creativity labs my also be interrelated with another popular business trend of smart office developments. According to Errichiello & Pianese (2018), Smart Work Centers (SWCs) an innovative type of office that gained its popularity due to flexible work arrangements, teleworking infrastructure, and other workplace innovations. Along with shared desks in open spaces, there are areas for collaboration (e.g. meeting rooms), concentration spaces (e.g. small offices or private hubs), communication spaces (e.g. call booths), relaxing spaces (Myerson et al., 2010). The concept of Smart Working is gaining popularity in many organizations worldwide (Clapperton and Vanhoutte, 2014). Therefore, the new trends and applications of Smart Working also has a huge impact on the conceptualization and implementation of creativity labs.

Based on literature review on creativity labs, this paper attempted to extend the definition of a creativity lab beyond the boundaries of physical facilities. As

recent research abounds in different factors and elements stimulating creativity in creativity labs, this paper aims to distinguish and conceptualize three basic functional trajectories of creativity labs: a creativity lab as a collaborative space, a creativity lab as an inspirational space, and a creativity lab as a creatively facilitated space. The proposed guidelines may serve as a reference material in creating a effective creativity lab.

Guidelines for Applying Research to Practice

This paper proposed implications and primary guidelines on how to extend the definition of a creativity lab beyond the boundaries of physical facilities towards virtual and lifestyle spaces. In turn, it also offers a practical approach in designing and implementing a creativity lab by taking into account three basic functional trajectories of creativity labs: a creativity lab as a collaborative space, a creativity lab as an inspirational space, and a creativity lab as a creatively facilitated space.

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