# Discursive Studio Analysis: An Interdisciplinary Approach to Social Design, Learning, and Creativity

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#### **Abstract**

In recent years, the emergence of new technologies and ways of communicating, creating, and sharing has spurred a new interest in social and collaborative forms of creativity that transcend traditional conceptions of "creativity as an individual effort." By posing social creativity as participatory design, this article presents a methodological approach called Discursive Studio Analysis (DSA), which can be used to make sense of situated discourses, artifacts, and practices found in design-driven social spaces. By considering the influence of concepts such as prosumers, participatory cultures, Discourses, multimodality, intertextuality, and affinity spaces, this interdisciplinary methodology aims at offering useful interpretive tools to researchers, designers, and practitioners in order to help them make sense of emerging creative and learning practices in informal social environments.

**Keywords:** Online interaction; online discourse; computer-mediated communication; discourse analysis; codesign; social creativity

#### 1. Introduction

Creativity is often linked to the image of the "solitary genius," an inspired visionary spirit that works and creates in isolation. However, if we think of creativity in terms of *collaborators*, *supporters*, *tools*, and *audiences*, it becomes clear that any creative individual is also part of a network of creativity.

Seitz (2003) brings forth the example of a movie, in which the collective effort of different figures (writer, editor, director, makeup artists, actresses, actors, and many others) produces a work that draws on a *tradition* (previous movies), uses *tools and technologies* (costumes, video cameras, editing software), and comes to life in a *social context* made up by reviewers, advertisers, distributors, viewers, and other stakeholders. In this framework, creativity can be considered from both a micro perspective and a macro perspective, in which the products of creativity (*artifacts*) are dynamically constructed through the work (*practice*) and interaction (*discourse*) of multiple contributors across space and time (Bakhtin, 1981).

However, social creativity is not an exclusive domain of art. For instance, if we look at the academic and research world, we can notice that scientific knowledge, creativity, and innovation advance through a scholarly discourse in communities that strongly rely on interaction and collaboration. Submitting an article to a peer-reviewed journal implies the attention and evaluation of experts in the field who decide on its success, based on their knowledge, which, in turn, builds upon previous writings, experiences, and social interactions. Once the article is approved, it is published and reaches an extended network of experts and peers, but also a larger audience made up of those who may be peripherally approaching the field (Lave & Wenger, 1991; Wenger, 1998) and even a few casual readers.

ISSN: 2184-3120 CC 2019 DIGIMEDIA

# 2. Social creativity in the digital age

In recent years, scholarly research on creativity has broadened its focus from individual creativity to its social, distributed, and participatory dimensions (Hutchins, 1995; John-Steiner, 2000; Sawyer & DeZutter, 2009). This outlook has become even more relevant because of the development and diffusion of tools and technologies that support social endeavors (Fischer, 2004, 2005; Fischer, Giaccardi, Eden, Sugimoto, & Ye, 2005). From this perspective, creativity is no longer considered uniquely as the product of individual factors and environmental factors (Csikszentmihalyi, 1990; Feldman & Goldsmith, 1986; Gardner, 1993; Seitz, 2003; Sternberg & Lubart, 1991), but also as the outcome of social and collaborative efforts (Connery, John-Steiner, & Marjanovic-Shane, 2010; Mercer, 2000; Seitz, 2003).

Besides the professional world, the advancement and diffusion of information and communication technologies has fostered the proliferation of virtual communities dedicated to informal and free-time creative endeavors driven by the interests and passions of people. In these "creative networks" (Gaggioli, Riva, Milani, & Mazzoni, 2013) or "communities of creators" (Sylvan, 2007) people learn skills, present their work, provide and receive feedback, share resources, and negotiate understandings.

Information and communication technologies, as well as new digital tools and environments, support, facilitate, and encourage a social and participatory dimension of creativity on different levels (Fischer et al., 2005). Modern digital tools and environments allow the construction of "creative repositories" that include not only the digital artifacts created by people, but also the discourses enacted to produce, critique, and share them (e.g., the threads and posts in a discussion forum dedicated to the topic). Such spaces and repositories offer an environment for personal and social reflection that is constantly available and open to further contributions. This entails a continuous process of social construction and negotiation of meanings in which learning and creativity emerge as interconnected and often inseparable components.

#### 3. Prosumers, participatory cultures, and Discourses

Creativity is a complex and multifaceted construct, and defining it in all of its facets (Cropley, 2011) is a task beyond the scope of this writing. Nevertheless, it is important to acknowledge that an understanding of new creative practices, often enabled or facilitated by technology, calls for new approaches. These can be better understood by considering the *prosumer* revolution (Hall, 1993; Leadbeater & Miller, 2004; Ritzer & Jurgenson, 2010; Tapscott, 1995; Toffler, 1980), the emergence and diffusion of *participatory cultures* (Jenkins, 2006; Jenkins, Purushotma, Weigel, Clinton, & Robison, 2009), and the social spaces in which people construct a variety of situated *Discourses* (Gee, 2010) stemming from personal interests.

McLuhan & Nevitt (1972) predicted that the proliferation of consumer electronic devices would have progressively transformed users into producers, or *prosumers* (Hall, 1993; Ritzer & Jurgenson, 2010; Tapscott, 1995; Toffler, 1980). This portmanteau term combines the words *proactive*, *producer*, or

professional, and the word consumer. It denotes the active participation of non-professional users in the design and production of texts and artifacts that are shared or distributed in social settings. Another term used to indicate the blurring edges between professional and consumer domains is *Pro-Am* (Professional-Amateur), which indicates a fusion of roles fostered by the diffusion of powerful and relatively inexpensive tools, technologies, and means of communication (Leadbeater & Miller, 2004). Today, the Internet allows millions of people to participate as active creators of texts, artifacts, and practices, as they construct and negotiate identities, understandings, and meanings in a variety of social environments.

Shared interests and shared practices take place in social spaces that can be interpreted in the framework of knowledge cultures (Lévy, 1997) and participatory cultures (Jenkins, 2006; Jenkins et al., 2009). Knowledge cultures represent social environments in which people construct, organize, and share information, seek and give advice, and review products and services. In these spaces, knowledge is socially constructed, distributed, and constantly available as a manifestation of collective intelligence (Lévy, 1997). Participatory cultures are characterized by low barriers to participation and engagement, mutual support, individual contributions, collaborative efforts, and social connections that promote the creation and sharing of texts and artifacts (Jenkins et al., 2009). In these spaces, both personal and social dimensions play an important role, as knowledge flows from expert users to novices through multiple forms of support, mentoring, and apprenticeship, but also through the development of shared repositories of knowledge (e.g., discussion forum threads, FAQs, and wikis) that benefit all participants and help the community advance and develop as a system. Each of these spaces involves a Discourse, with its specific ways of thinking, talking, and being (Gee, 2004, 2010; Lankshear & Knobel, 2007). Gee (2010) defines capital "D" Discourses as ways of being that people enact by using situated social languages and by performing situated practices to achieve valued social goods like acceptance or recognition. Gee (2010) argues that Discourses involve:

"a) situated identities; b) ways of performing and recognizing characteristic identities and activities; c) ways of coordinating and getting coordinated by other people, things, tools, technologies, symbol systems, places, and times; d) characteristic ways of acting-interacting-feeling-emoting-valuing-gesturing-posturing-dressing-thinking-believing-knowing-speaking-listening (and, in some Discourses, reading-and-writing, as well)." (p. 40)

Discourses are characterized by *social languages* that represent specific styles or varieties of language (e.g., colloquial, technical, or academic) associated with ways of being different "kinds of people" (Gee, 2010, p. 34) in different contexts, in order to socially construct situated versions of the world (Burck, 2005). From this perspective, social languages can be considered the spoken/written elements of Discourses that develop through personal and social interactions with multimodal texts, artifacts, and practices (Kress, 2011).

# 4. Social creativity as participatory design

If we consider the prosumer revolution, participatory cultures, and social spaces in which people contribute to the development and enactment of different Discourses, conventional categories associated with creativity, such as *novelty* and *usefulness* (Amabile, 1983) may need to be reinterpreted. If we consider the *novelty* of a digitally manipulated creation that blends different texts and modes, how can we draw a dividing line between "remixing," "recycling," "assembling," "imitating," "copying," and "replicating?" *Mashups* represent an important part of new creative practices in the framework of "new literacies" (Lankshear & Knobel, 2007) and they cannot be fathomed through traditional categories and approaches to creativity (like those that rely on conventional understandings of what can be considered as "new" or "innovative").

By acknowledging the complexity of the construct of creativity, and by considering it as a social, cultural, and situated phenomenon expressed through the artifacts and ideas people share with one another, we can look at *creativity as design* (Koberg & Bagnall, 1991; Schön, 1988). From this perspective, creativity can be conceived as knowing in action (Schön, 1992) embodied by the iterative design process—and the artifacts produced by such process—which is guided by and oriented to creative problem-solving (Baer & Kaufman, 2012; Newell, Shaw, & Simon, 1962; Osborn, 1963; Wertheimer, 1945). In order to call attention to its collaborative, participatory, and discourse-mediated qualities, this approach has been defined in the literature as *codesign* (Lee, 2008; Scrivener, 2005), *participatory design* (Fischer, 2004; Winters & Mor, 2008), and *discursive design* (Marone, 2015), respectively. Design-driven activities often involve creating, sharing, and critiquing *multimodal* and *intertextual* texts, artifacts, and practices in *affinity spaces* (Gee, 2004), as discussed below.

# 5. Multimodality, intertextuality, and affinity spaces

Multimodality, intertextuality, and affinity spaces can help us conceptualize the interactions that take place in design-driven social environments from a multidimensional perspective that acknowledges their uniqueness and specificity.

Multimodality (Jenkins, 2006; Jenkins et al., 2009; Kress, 2011) reflects the variety of modes, tools, and techniques involved in the production and consumption of artifacts and media. Kress (2011, p. 207) defines multimodal texts as "the result of semiotic work of design, production, and composition ... resulting in ensembles composed of different modes."

Intertextuality (Barthes, 1977; Kristeva, 1986; Lankshear & Knobel, 2007; Marsh & Millard, 2000) or inter-text-action (Prior, 2008) represents the intricate threads, links, and references that connect different texts, practices, artifacts, modes, and media. Intertextuality can be interpreted as "texts within texts" (e.g., quoting) and "texts related to other texts" (e.g., referencing or alluding to other texts) (Fairclough, 1992; Gee, 2010) through different modes of communication.

The construct of "affinity space" (Gee, 2004, 2005; Gee & Hayes, 2010; Hayes & Duncan, 2012) was first introduced by Gee in 2004 in his book titled *Situated Language and Learning: A Critique of Traditional Schooling*. Gee (2004) describes affinity spaces as social sites in which people pursue common interests such as TV shows, games, or movies, as they interact and learn from one another. Participation in affinity spaces is carried out through self-directed, goal-oriented, and multimodal practices, beyond social, generational, and geographic boundaries. More recently, Gee (2012) has

defined these informal creative and learning sites as "passionate affinity spaces" (p. 240) which highlights their interest-driven nature and the passionate forms of participation that emerge from people's shared interests. Affinity spaces that evolve around the design of user-generated artifacts have unique features that require a specific conceptualization, as discussed in the following section.

#### 6. The discursive studio

A design-driven affinity space in which people present, discuss, and critique the artifacts they create can be defined as a *discursive studio* (Marone, 2015). A discursive studio is an *open showroom* in which users present and display their creations to an interested audience, a *social laboratory* in which users construct artifacts with the support of peer-feedback and collaboration, and a *discursive space* in which participants discuss and critique multimodal and intertextual artifacts and practices. Overall, a discursive studio can be defined as a *multimodal hub*, an *intertextual gateway*, and a *participatory platform* that enables and facilitates sharing, learning, and creating in a social context (Figure 1).

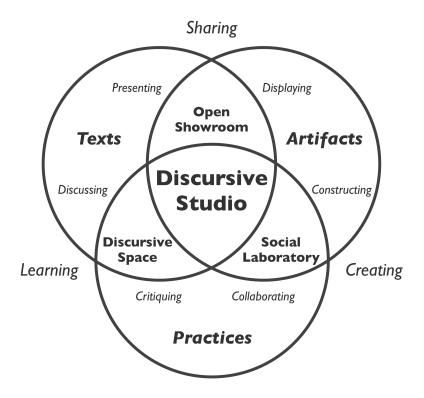


Figure 1. The Discursive Studio.

In order to make sense of the interactions in these design-driven affinity spaces, a new methodological approach may be needed, as prompted by the literature discussed in the following section.

# 7. Methodological issues and perspectives

The literature review revealed that one of the main concerns in the field of affinity spaces research is methodology (Duncan, 2012; Lammers, Curwood, & Magnifico, 2012). The problem seems to be elicited, to a large extent, by the multimodal and intertextual nature of texts, artifacts, and practices that animate affinity spaces. In this context, scholars acknowledge that it is not sufficient to analyze online texts to make sense of multimodal practices (Androutsopoulos, 2008; Lammers et al., 2012), and there is an ongoing debate on methodological approaches. Methodologies that consider only written/spoken texts may not be well suited to the study of multimodal and intertextual practices, especially those enacted in design-driven affinity spaces (Lammers et al., 2012). From this perspective, it is not enough to analyze talk, since texts, artifacts, and practices in design-driven affinity spaces influence and build on one another. Acknowledging these issues and concerns, this article presents an interdisciplinary analytical approach to investigating design-driven affinity spaces (Marone, 2015); it considers the intertextual, multimodal, and design-driven nature of the discourses, practices, and artifacts found in these creative social spaces. This methodology is called *Discursive Studio Analysis (DSA)*, and is presented in detail in the following section.

# 8. Discursive Studio Analysis (DSA)

Building upon the methodological concerns and perspectives presented in the previous section, Discursive Studio Analysis (DSA) is an interdisciplinary and intertextual methodology developed to make sense of multimodal texts, artifacts, and practices found in creative and design-driven social spaces. It draws upon *discourse analysis* (Gee, 2010; Potter, 1997; Wood & Kroger, 2000), *studio critique* (Buster & Crawford, 2007; Darracott, 1991; Santoro, 2013), and *design process analysis* (Koberg & Bagnall, 1991).

This methodological approach entails a dual approach to data analysis: a bottom-up approach, used to analyze content without "prespecified goals" (Schegloff, 1996, p. 172) through Gee's (2010) seven building tasks of language, and a top-down approach that uses seven analytical categories derived from studio critique (Santoro, 2013) and seven analytical steps derived from design process analysis (Koberg & Bagnall, 1991). It is grounded on the assumption that *texts*, *practices*, and *artifacts* cannot be separated (Armstrong, 2002), as "saying things in language never goes without also doing things" (Gee, 2010, p. 2) and "language has meaning only in and through social practices" (p. 12). In other words, "saying things" (*texts*), "doing things" (*practices*), and "things" themselves (*artifacts*) need to be considered in their interrelationships as a systemic and coherent whole. Following this line of thought, practices and artifacts can be both considered texts, or texts-in-action (Prior, 2008) that need to be investigated and understood in their networked complexity, as integrated components of a dynamic Discourse.

#### 8.1. Discourse analysis (discursive texts)

Discourse analysis (DA) focuses on naturally occurring language-in-use in situated social contexts (Gee, 2010; Lamerichs & te Molder, 2003; Peräkylä, 2005; Potter, 1997; Potter, Edwards, &

Wetherell, 1993). These texts are defined as "naturally occurring" in order to differentiate them from researcher-inducted and researcher-controlled texts, such as those in most experimental studies. Written texts mediate multiple aspects of social life in our contemporary world (Peräkylä, 2005), and discourse can be considered both a linguistic/semiotic and a social/constructive phenomenon (Gee, 2010) that embodies a "means to achieve consensually produced understanding" (Kress, 2011, p. 207). If it is true that "we make or build things in the world through language" (Gee, 2010, p. 17), discourse analysis offers "a framework for the deconstruction of meanings" (Burck, 2005, p. 249) that can help better understand the world that people construct socially by actively participating in situated Discourses.

Discursive texts represent multimodal data used by the participants of a discursive studio to present, discuss, and critique creative artifacts. Gee's (2010) seven building tasks of language (significance, activities, identities, relationships, politics, connections, and sign systems and knowledge) guide the discourse analysis without utilizing preset analytical categories. In this context, "unmotivated looking" (Edwards, 1997; Mazur, 2004; Psathias, 1995; Sack, 1984; Schegloff, 1996; ten Have, 2007; Wood & Kroger, 2000) is a technique derived from conversation analysis that fosters an "examination not prompted by pre-specified goals" (Schegloff, 1996, p. 172). This approach helps the discourse analyst notice apparently unremarkable features of talk that may be disregarded in a study guided solely by predetermined categories of analysis (Burck, 2005; Lamerichs & te Molder, 2003).

Through this technique the researcher takes nothing for granted, avoiding pre-set categories and directing the attention to what the discourse is *doing* through a participant-centered approach, which focuses on the perspectives of the participants, rather than those of a researcher (Lamerichs & te Molder, 2003, p. 459) who may use "rudimentary" (Lamerichs & te Molder, 2003, p. 469) categories of analysis. Discourse analysis does not look at talk as an expression of what people "actually" think, but rather at structures and functions of talk "performing various kinds of discursive actions" (Lamerichs & te Molder, 2003, p. 452). These discursive actions can take place synchronously or asynchronously in both physical and virtual spaces.

More specifically, discourse analysis in computer mediated communication (CMC) looks into social interactions enacted through the use of information and communication technologies (Gao, Zhang, & Franklin, 2013; Mazur, 2004), and, in particular, at social online environments such as discussion forums, blogs, and chats. Different interpretive models have been conceptualized to make sense of the discourse in these virtual spaces (Gao, Wang, & Sun, 2009; Garrison, Anderson, & Archer, 2000; Gunawardena, Lowe, & Anderson, 1997; Henri, 1992; Newman, Johnson, Webb, & Cochrane, 1997). Discursive Studio Analysis builds upon these methodological approaches and expands them by integrating methods derived from studio critique and design studio analysis. The heterogeneous work of James Paul Gee in the fields of new literacies, linguistics, and discourse analysis informs and "harmonizes" the methodological approach within a coherent framework. In this context, Gee's seven building tasks of language (2010) are integrated as tools of inquiry to analyze the construction of situated meanings through the use of social language:

- 1. Significance
- 2. Practices (activities)
- 3. Identities
- 4. Relationships
- 5. Politics (distribution of social goods)
- 6. Connections
- 7. Sign systems and knowledge

Gee's building tasks of language prompt discourse analysis questions that can be used by the researcher to "interrogate" texts and make sense of them. For example, the first building task ("Significance") entails the following question: "How is this piece of language being used to make certain things significant or not and in what ways?" (Gee, 2010, p. 17). Discourse analysis has a leading role in Discursive Studio Analysis. Not only does it offer analytic tools to interpret the discursive texts, but it also directs and "feeds" the analysis of the studio artifacts and the constructive practices that take place in a discursive studio.

#### 8.2. Studio critique (studio artifacts)

Rooted in the fields of art and design, studio critique is an approach that considers artifacts created with functional and aesthetic purposes (Buster & Crawford, 2007; Darracott, 1991). A studio critique entails a session in which teachers and/or peers provide feedback on works showcased by students. In the context of the proposed methodological approach, *studio artifacts* are the artifacts created and shared by the participants of a discursive studio and that are up for critique. This definition is used to distinguish these artifacts from other user-generated content that may be found in a discursive studio, but is not the object of the critique. Studio critique uses a participant-centered approach that considers the object of the critique in relation to the declared intentions of the creator and the feedback of the audience. In relation to critiquing artifacts, Dewey (1980) argued that:

"The material out of which judgment grows is the work, the object, but it is this object as it enters into the experience of the critic by interaction with his own sensitivity and his knowledge and funded store from past experiences." (pp. 309-310)

In other words, a studio critique implies a dialogic interaction that involves both the *subject* (the critic/researcher) and the *object* of the critique/inquiry (Darracott, 1991), as well as the orientations expressed by the creators of the artifacts and other participants in the discursive studio.

In order to analyze studio artifacts, Discursive Studio Analysis uses seven analytical categories derived from the studio critique approach (Santoro, 2013). In this process, the researcher analyzes the discourse in order to see if the studio critique categories are "picked up" or made relevant by the creators of the artifacts or other participants, in relation to the artifacts shared and discussed within the community. These seven studio critique categories are (adapted from Santoro, 2013, p. 28):

- 1. Content
- 2. Form
- 3. Function (project goals)
- 4. Structure (hierarchy, order)
- 5. Usefulness (audience pragmatics)
- 6. Aesthetics (form enhancement)
- 7. Distinction (uniqueness)

# 8.3. Design process analysis (constructive practices)

Design process analysis (Koberg & Bagnall, 1991) focuses on the iterative stages of the design process. The creative practices enacted within a discursive studio reflect these steps and connect discursive texts with studio artifacts. In the framework presented in this paper, which considers creativity as design, Koberg & Bagnall (1991, pp. 34-41) describe specific behaviors associated with the seven steps of the iterative design process:

- 1. Acceptance
- 2. Analysis
- 3. Definition
- 4. Ideation
- 5. Idea-selection
- 6. Implementation
- 7. Evaluation

These steps alternate between convergent thinking stages (acceptance, definition, idea-selection, and evaluation) and divergent thinking stages (analysis, ideation, and implementation). *Acceptance* involves self-motivation, dedication, accountability, purposiveness, and enthusiasm. *Analysis* entails an open-minded approach, curiosity, fact-finding, data-gathering, questioning, and comparing. *Definition* requires focus, pattern-finding, conceptualization, and essence-finding. *Ideation* implies a speculative, non-judgmental, inventive, option-finding, and loose approach. *Idea selection* calls for an assertive, judgmental, discerning, logical, and strategic stance. *Implementation* demands a passage from abstract to concrete, giving form to ideas, and translating dreams into realities. Finally, evaluation involves a critical stance directed at self-improvement, artifact-improvement, and process-improvement, by testing, comparing results with intentions, and considering external feedback.

These seven steps/categories can be used by researchers to analyze the constructive practices enacted by the participants of the discursive studio as they iteratively design and share their artifacts. Constructive practices represent the link between what is discussed and the artifacts that are shared within the discursive studio. Researchers can consider *action verbs* in the discursive texts as "pointers" to constructive practices related to studio artifacts. A bird's eye view and synthesis of Discursive Studio Analysis is presented in Table 1; it can be used as a reference for both researchers and practitioners seeking to analyze or work with design-driven affinity spaces.

Object of Analysis Discursive Texts Studio Artifacts Constructive Practices Analytical Approach Discourse Analysis Studio Critique Design Process Analysis Reference Gee, 2010 Santoro, 2013 Koberg & Bagnall, 1991 Tasks, Categories, and Steps **Design Process Steps Building Tasks of Language Studio Critique Categories** 1. Significance 1. Content 1. Acceptance 2. Practices (activities) 2. Form 2. Analysis 3. Identities 3. Function (project goals) 3. Definition 4. Relationships 4. Structure (hierarchy, order) 4. Ideation 5. Idea-selection 5. Politics (distribution of social 5. Usefulness (audience pragmatics) goods) 6. Connections 6. Aesthetics (form enhancement) 6. Implementation 7. Sign systems and knowledge 7. Distinction (uniqueness) 7. Evaluation

Table 1. Discursive Studio Analysis (DSA)

# 9. Implications and recommendations

This paper proposes an interdisciplinary approach to investigating multimodal texts, artifacts, and practices in design-driven affinity spaces. Such multimodal texts are the result of a semiotic work (Kress, 2011) that takes place in a situated Discourse (Gee, 2010) through the use of specialist language (Hayes & Lee, 2012) and design grammar (Gee, 2007). In these spaces, here defined as discursive studios, participants design, share, and critique user-generated artifacts. An artifact represents a situated "selection, transformation, and encapsulation" of knowledge (Kress, 2011, p. 211); it can be interpreted as a sign of learning (Kress, Jewitt, Ogborn, & Tsatsarelis, 2001). It is therefore important to analyze and make sense of artifacts in relation to the written texts that discuss them and the practices enacted to create them; this is reflected in the methodological approach of Discursive Studio Analysis. If we think of the "representational affordances of specific modes" (Kress, 2011, p. 211), we need to consider how such affordances can contribute to the creation of meaning, as well as support learning and creativity in a social space. The methodology proposed in this paper can inform researchers and empower practitioners with useful *tools of recognition and interpretation* of the semiotic work enacted by participants who interact in design-driven affinity spaces.

The application of these tools (related to texts, artifacts, and practices that embody participants' semiotic work) allows researchers and practitioners "to use the learner's principles to lead her or him to the meanings of the culture: not via imposed power but via the road of the learner's principles" (Kress, 2011, p. 216), which reflects a participant-centered approach focused on what they do and

how they orient themselves to what they do. This approach is different to that of researcher-centered studies that look for "signs of learning" by applying categories derived from research in formal educational settings (Duncan, 2012; Friesen & Hug, 2010; Lamerichs & te Molder, 2003; Lester & Paulus, 2011). In this context Duncan (2012) argues:

"It may be beneficial to address the many ways player [sic.] wish to, say, become game designers not necessarily as a career goal, not for the proximal goal of developing a "skill," but perhaps because of their desire to be involved with games for games' sake. If affinity space research is to continue to blossom, I suggest that the goals of the educational researcher must be further reconciled with the goals of participants within affinity spaces, taking into account practices that participants undertake within them, the constraints that guide how participants shape and reshape them, and, ultimately, the goals that drive participants to devote themselves to such engagements." (pp. 81-82)

If we investigate creative social spaces looking for supposed (and expected) "footprints of education," we may be missing the learning and creativity that spur from the informal and interest-driven interactions that animate these spaces. Consequently, "what can we learn from an informal social space for education?" or "what are the educational implications of design-driven affinity spaces?" may be ill-posed questions. They could however be rephrased as "what can we learn from design-driven affinity spaces to *rethink* what we know about learning and creativity in formal education?" or, more broadly, "how do design-driven affinity spaces *challenge* our assumptions about learning and creativity?" To answer these questions, the proposed methodology can contribute to the understanding of how participants' texts, artifacts, and practices support the construction of situated meanings and Discourses (Hayes & Lee, 2012).

### 10. Conclusion

By cross-referencing texts, artifacts, and practices, researchers and practitioners can construct an insider's knowledge and a design grammar that can help them approach the object of inquiry from a participant-centered, multimodal, and intertextual stance. Oftentimes, the interactions and activities that take place in a design-driven affinity space are simultaneously directed at artifacts (shared, discussed, and critiqued), practices (e.g., creating an artifact and learning from one another), and discourses (e.g., providing feedback to other users by sharing comments and reflections), which calls for a methodology that considers these multimodal and intertextual endeavors from a systemic and holistic perspective. In Discursive Studio Analysis, artifact-oriented and practice-oriented categories derived from studio critique (Santoro, 2013) and design process analysis (Koberg & Bagnall, 1991), respectively, complement and support the discourse analysis of users' interactions (Gee, 2010).

This methodology can serve both researchers and practitioners as a tool to make sense of multimodal and intertextual discourses, artifacts, and practices. While it has not been conceived as a tool to evaluate or assess the texts, artifacts, and practices generated by participants, it may be used by teachers and designers as a reference to create such tools. In conclusion, as new technologies and new ways of interacting emerge, methodological approaches need to follow this evolution in order

to effectively make sense of how people learn and create from a participant-centered stance that acknowledges their interests and passions.

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