Emotions: The invisible aspect of co-creation workshops

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Abstract: This article focuses on the emotions service designers experience in their role as facilitators.
We will explore emotions in the context of a co-creative environment, and discuss how encounters
between participants and facilitators generate different perspectives despite a common environment.
Facilitators' perceptions of participant emotions are lacking in accuracy due to the influence of their
own emotional experiences during a workshop. This article suggests that knowledge and
understanding of the emotional aspect of co-creation workshops could provide facilitators with
additional support when conducting workshops, and lead to better outcomes and more meaningful
experiences for all involved.

Keywords: emotions, service design, co-creation, facilitators

1. Introduction

Service design as a distinct design field has developed quite a bit over the last few decades, and the
value of its participatory methods lies in involving people in the process (Polaine, Lovlie, & Reason,
2013). According to Prahalad and Ramaswamy (2004, p. 14), "Each person's uniqueness affects the
co-creation process as well as the co-creation experience." Indeed, people's actions are guided by
individual emotional response mechanisms, which are activated when encountering different situations
(Damasio, 2018). With regard to co-creative design processes, the relevance of emotions arises when
considering: first, how an individual's participation can affect the process and second, how facilitators
can be prepared for and aware of all the components that influence the overall co-creative workshop
experience. Hence, one important challenge for workshop facilitators is to manage the flow of emotions
that result from participant interactions (including their own). Increased knowledge of emotional
influences during co-creation workshops could help facilitators design better experiences for
participants, enhancing both workshop success and project outcomes. This paper addresses the emotions
that arise during co-creation workshops, focusing on the experience of participants and facilitators. More
specifically, this article examines the following questions:

- Which emotions are most prevalent during the co-creation process?
- How aware of their emotions are facilitators during co-creation workshops?

Based on the findings of two types of questionnaire, we discuss the emotional experience of participants
in a co-creative workshop environment. We start with an explanation of the concept of co-creation in
service design and the emotions involved in this process. We then present our research methods, data
collected, and main findings.

2. Theoretical framework

The role of co-creation is to integrate users into the design process. Co-creation can be defined as "any act of collective creativity, i.e., creativity that is shared by two or more people" (Sanders & Stappers, 2008, p. 6). Such collaborative processes are used in different fields, can involve different methods and tools, people from various backgrounds and variable roles for facilitators.

In the co-creation process, the role of a facilitator is to plan, prepare and present co-creation sessions, such as workshops. These usually active actions engage various stakeholders and offer the possibility of social learning and transformation (Collins & Ison, 2009). In literature, facilitators have several designations, including curator, metadesigner and negotiator (Teder, 2019). Facilitators guide discussion and dialogue, and help individuals fully express their thoughts and feelings. They are also likely to be equipped to pinpoint issues related to daily routines about which individuals might not otherwise have been aware (Raelin, 2012). A wide variety of methods and techniques exist to conduct workshops and to create and strengthen participant engagement (Hogan, 2007). Facilitators should be communicators, and they must develop the proper skills to drive the process forward on a clear path for all involved (Miettinen, Rontti, & Jeminen, 2014). Greenhalgh et al. (2016) suggest three principles for a successful co-creation process, which are summarized as:

(1) a systems perspective (assuming emergence, local adaptation and nonlinearity); (2) the framing of research as a creative enterprise oriented to design and with human experience at its core; and (3) an emphasis on process, including the framing of the program, the quality of relationships, and governance and facilitation arrangements, especially power-sharing measures and the harnessing of conflict as a positive and engaging force. (p. 418)

Facilitators have a critical role to play regarding a co-creative workshop's success. This paper argues that their ability to navigate the invisible emotional layers present during these workshops could also contribute to more successful processes.

Emotions have previously been investigated in the context of industrial design. Desmet (2002) proposes that emotions could be triggered by the interactions and relationships developed with a product, which could result from either direct interaction or simply a mental evocation of the product in question. Further, Norman (2004) defines biologic responses, according to visceral (automatic reaction), behavioural (unconscious) and reflective levels (conscious). These studies focus on improving the relevant aspects of industrial and interaction design, and examining how emotions affect these processes. Over the last two decades, studies concerning emotion have become more common (Lerner et al., 2015), with most research being conducted in the fields of psychology, biology, and particularly neuroscience. Frijda (1986; 1988), for example, is seen as a foundational reference connecting emotions with motivations and "action readiness", which includes responses such behaviour, impulses, desires or their absence. Emotions are social (Lerner et al., 2015), and have a footprint in both cognition and actions (Izard, 2009). There are different emphases concerning the universal or transcultural nature of emotions. Ekman (1971) explains the existence of pancultural characteristics as pertains to facial expressions for *fear, anger, sadness, disgust, surprise, happiness* and *interest*. Similarly, Plutchik (1984) identifies eight basic human emotions: *fear, anger, joy, sadness, disgust, acceptance, surprise* and *curiosity*. With the same emphasis on basic emotions, Bloch (2008) states that *joy, sadness, anger, fear, eroticism* and *tenderness* are associated with specific breathing rhythms. Izard (2009) added a few more basic emotions—*interest, joy, sadness, anger, disgust, fear, shame, guilt, contempt, in love* and *attachment*—as affective processes triggered by the stimulus perceived by the senses.

Overall, emotions have no unique definition (Frijda, 1986). However, a greater general understanding of emotions in a co-creative environment could help sharpen facilitators' awareness of emotional processes, both their own and that of participants, leading to greater skill in directing the emotional flow of workshops and thus to improved experiences.

3. Research data and methods

This research is based on two questionnaires (see Table 1), a participant version and a facilitator version, both of which were titled "Emotional Record". Respondents chose one or more emotions from the list (quantitative) joy, love, fear, anger, sadness, astonishment, satisfaction, confused and bored. In the same questionnaire respondents added an explanation of their experience (qualitative), to which they could

add more emotions. To avoid misunderstandings or overthinking, and to equip respondents with a level of common understanding, simple explanations of the listed emotions were provided using hypothetical situations in a workshop context. The facilitators' questionnaire also included several open questions and a personal reflection entry, while participants were asked to identify five keywords associated with their day. The questionnaires were distributed during three design sprints which took place in Finland, Sweden and Estonia, within the framework of a project called Co-Designing Healthcare. The design sprints were intensive, usually 4-5 day long workshops, and their principal objectives were to increase innovative capacity, engage various stakeholders and transfer knowledge through design thinking in healthcare settings.

Table 1. Research data information

	Purpose	Respondents	Place	n = responses
Questionnaire 1	Emotional experience exploration during a co-creative workshop where respondents identified their daily emotions, selecting from one short list of emotions	Participants	Gothenburg	18
			Tallinn	20
			Rovaniemi	6
		Facilitators	Gothenburg	3
			Tallinn	4
			Rovaniemi	2
Questionnaire 2: Open questions	To establish perceived importance and a common understanding of co-creation	Designers	Online questionnaire	65

For both questionnaires the analysis process started with a quantification of the responses to determine the number of coincidences and differences. The second step was qualitative, diving into the explanation of each response. The analysis of the qualitative data followed the structure of initial immersion, value type coding, and interpretation through triangulation of all data (Leavy, 2017). The data was collected as part of ongoing doctoral research; all of the data collected was anonymized and protected. All respondents were encouraged to respond freely and, as pertains to the Emotional Record questionnaire, participant and facilitator responses were not taken into account as an evaluation or for participation analysis purposes.

4. Emotional flow in co-creative workshops

As a recurring practice for the development of service design projects, co-creation is an additional source of demand for service designers. Regarding the importance of co-creation in the practice of service design, 87.1% of questionnaire respondents deemed it relevant. Negative responses (12.9%) mainly pointed to co-creation as simply one way to do the work, depending on project characteristics and timing. Positive responses had three common themes: 1) the relevance of user and stakeholder experience in terms of understanding the context and the opportunities for improvement (problem framing); 2) the lack of omnipotence of designers and a perception of their role as process facilitators rather than problem solvers; and 3) the view of co-creation as an interactive and collaborative path that allows the integration of different experiences and perspectives.

For the three design sprints referenced above, the challenge was to develop innovative solutions for specific cases in the healthcare sector. According to the Emotional Record, participants' emotions changed daily (see Figure 1), and the keywords identified by students reflect that process in terms of the inherent challenges associated with teamwork, the workload and sometimes emotions. Even when *joy* was one of the most recurrent emotions during the process, *anger* also appeared on the second and third days, when participants were called upon to complete tasks such as collecting field work and making difficult decisions. The keyword *overwhelm* also cropped up on occasion. The emotion *satisfaction* appeared more frequently during the final days of the workshop, when participants began to anticipate outcomes, as did keywords such as *productive*, *prototyping*, *relief*, *stress* and *frustration*. *Tired* was one of the most common keywords listed, as well as an emotion listed in the Emotional Record.
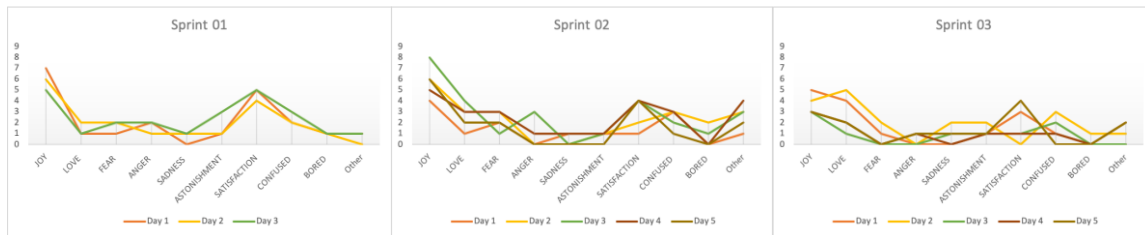
Figure 1. Participants' daily emotions. The three figures show the different peaks of participant emotion during the workshops (sprints). Figures show the total number of responses each day in each sprint (Sprint 1: Day 1 n = 10, Day 2 n = 9, Day 3 n = 8; Sprint 2: Day 1 n = 10, Day 2 n = 12, Day 3 n = 14, Day 4 n = 10, Day 5 n = 10; Sprint 3: Day 1 n = 5, Day 2 n = 6, Day 3 n = 3, Day 4 n = 5, Day 5 n = 5). The x-axis lists the emotions from the Emotional Record, the y-axis indicates the daily total number of answers collected (different each day) and the different coloured lines represent the different days. This graphic visualisation provides a clear overview of the participants' emotional fluctuations.

Fear appeared commonly during the initial stages. According to comments in the Emotional Record and the keywords selected, there appeared to be a link between this emotion and meeting new people and/or having doubts as to whether they would be able to meet expectations. *Love* was an emotion linked with the group experience and the ultimate workshop achievements. *Sadness* was associated mainly with challenging teamwork situations and feeling overwhelmed in that regard. *Confusion* was used to describe a lack of understanding of certain aspects of the sprint structure and related exercises. *Bored* was the least common emotion experienced by participants, and was mainly clarified as a lack of engagement with a team or with the outcome. *Astonishment* appeared more frequently toward the end of the sprints, when participants began to see signs of visible progress and had viewed the culminating video presentation.

5. The emotional component of facilitation

The challenge for facilitators is to observe and interpret participants' emotions, while simultaneously processing their own emotional responses and reactions. Facilitation therefore requires a dose of emotional self-awareness, and facilitators should have the capacity to transcend personal emotion so as to be consistently attentive to participants' emotions. Facilitators are an essential cog in the machine of a successful co-creative workshop, as are participants. The emotions experienced by both categories are thus significant.

In the facilitators' Emotional Record (see Figure 2) *anger* and *sadness* are associated with group project development, participant progress, and the structural confusion incited by the arrival of external guests (mentors). *Fear* is indicated as the emotion related to the possibility of unexpected occurrences, as well as to the responsibility of maintaining workshop flow. *Love* and *joy* arise spontaneously from the adrenaline rush of conducting the workshop and active observation of evident participant enjoyment. *Joy* in particular was an emotion present during all stages. *Satisfaction* and *astonishment* appeared in association with participant achievements. *Satisfaction* was also one of the preferred means of describing the joy of having completed the workshop, often followed by expressions such as, "Glad to end the whole thing , we did it!" or "Satisfied with how well everything went." or "Overall the week went good." *Bored* was the single emotion not selected.

As facilitators, service designers act both as guides during the co-creative process and as community organisers. Figure 2 shows the intense emotional variations that are experienced during a workshop, clearly demonstrating why it is essential for facilitators to hone their personal emotional management skills as well as the ability to "read" emotions in a co-creation setting, where their role is an essential driving element.
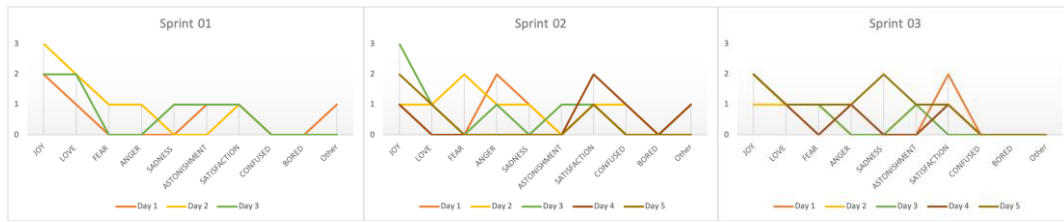
Figure 2. Facilitators' daily emotions. The figures show the different peaks of facilitator emotion when conducting the workshops (sprints). The figures show the total number of daily responses for each sprint (Sprint 1: n = 3; Sprint 2: n = 4; Sprint 3: n = 2). The x-axis lists the emotions from the Emotional Record, the y-axis indicates the daily total number of answers collected (different each day) and the different coloured lines represent the different days. This graphic visualisation provides a clear overview of the facilitators' emotional fluctuations.

6. The emotional encounter and its scope

The co-creation workshop as an encounter among individuals comprises a number of various perspectives and roles. One of the questionnaires asked facilitators to describe their emotional perception of participants' daily emotions during the sprints, and the results were compared with the daily emotions participants indicated in their personal Emotional Records and those of the facilitators (see Figure 3). The three different emotional perspectives exhibit both similarities and differences. A simplistic approach might lead to the assumption that facilitators project their own emotions as those they perceive in participants. However, in many cases facilitators and participants experienced the same emotions, but facilitators did not correctly distinguish the participants' emotional states. Indeed, some of the facilitators' perceptions were completely different than what was actually being experienced by either participants or themselves. The immediate probing questions which arise are:

- Why did they perceive those emotions?
- What variables or factors did they perceive from the behaviours, expressions, or the situations in general?

Further research would be required to explore these questions in depth.
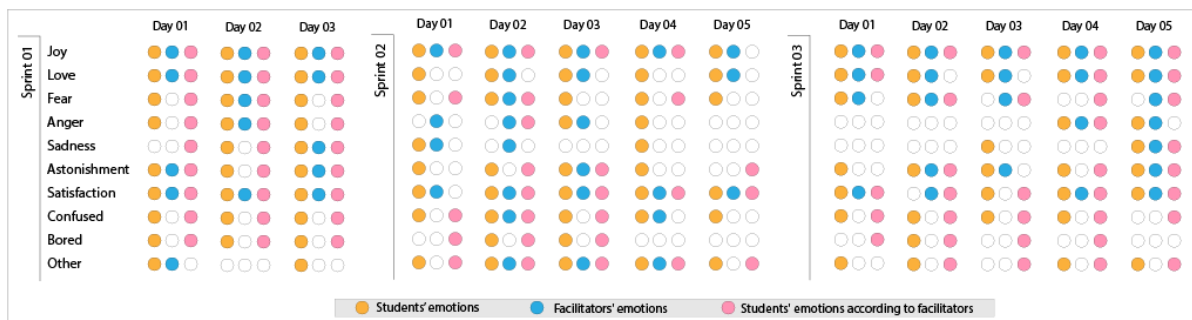
Figure 3. Emotional comparison and perception. This figure shows the similarities and differences between emotions experienced and perceived.

On the last day of each workshop, three additional questions were added to the facilitators' Emotional Record. The first concerned their perceived strengths, the second areas of potential improvement and the third environmental influences. Generally speaking, facilitators identified their strengths as communication skills and management skills (i.e. maintaining workshop structure and methods). Areas of improvement included strategies to simplify and clarify instructions, and to have more consideration for the language difficulties experienced by certain participants. Facilitators unanimously assessed environmental influences. Two considerations were emphasised: 1) setting the mood to encourage creativity (lighting, quiet space, proper wall space to hang up papers); and 2) environmental efficiency (proximity to the area of intervention, in this case a hospital, easy access to health staff, and an immersive experience in the hospital facility).

Many elements play significant roles in the success of co-creation workshops. As Frijda (1988) states, there is a clear connection between emotion and a situation. In this case, Frijda's perspective helps us understand how emotions are triggered by different stimuli or conditions. During co-creation workshops, the significance of the process varies for each participant, sometimes shifting several times during the same day. While analysing individual emotions is certainly beneficial, in a co-creation environment it is necessary to examine the collective perspective. According to Tolosa (2013) there is unquestionable value in interacting with others and the constitution of an *us*—being together and creating together. From his point of view personal interactions could introduce conscious or unconscious changes in the participants' behaviour, and of course a co-creative environment can lead to strong bonds among participants during a workshop, and sometimes long after. With its associated challenges and emotions, co-creation builds temporary communities in which all participate in a common effort to create a tangible result (Mollenhauer & Soto, 2019).

7. Conclusions

Service designers performing as facilitators experience a wide range of emotions. Such emotions depend on their individual personalities, on their skill in establishing meaningful connections with participants, and on maintaining a flow suitable to the process and purpose. The emotions involved in co-creation are mostly linked to the satisfaction or frustration associated with ultimate achievements, the perception of progress and workload, the challenges inherent to human interaction, and general environmental conditions. There is a connection between emotion and the proper functioning of co-creative workshops, but the perception of facilitators in that regard is not highly accurate due to the influence of their personal emotions. Further, it can be difficult to discern the emotions of all participants in a workshop interaction. Many other factors come into play, including the environment, personal processes, and the general characteristics of a situation. The questionnaires indicated that the facilitators' awareness of their own emotions and the accuracy of their perception of participants' emotions can be influenced by their skill set; thus, facilitators' perceptions often vary even when they prepare and conduct workshops together. Greater understanding of the emotional aspects involved in co-creative workshops would likely lead to both to improved facilitator overall performance and better participant workshop experiences.

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