

CO-CREATION FOR EXHIBITION DESIGN. THE CASE OF THE **HIVE**: CO-CREATION

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Introduction

The last decades, we experience a slow shift- in the way many cultural institutions globally relate to their visitors. This originates mainly from a current tension expressed from them to move away from a traditional conception of value making, into a more inclusive and user-centered one. Especially, as far as exhibition design is concerned, Co-creation and User Experience Design appear as two concepts which cultural institutions explore and are interested in to employ for the design of their exhibitions. However, most of the cases museum professionals and specifically curators find it hard to apply and use these concepts efficiently. This happens mainly, because of the broad definitions and the multiple approaches that these two notions can get. This leads to confusion for museum professionals that face difficulties when it comes to the design of meaningful experiences with the involvement of the public. Through the main research question to be:

How can we create a digital toolkit or model able to suggest or create new, diverging museum experiences?

The toolkit needs to simulate impressions of these experiences and facilitate co-creation processes to involve all stakeholders in the design process we highlight the importance of the aforementioned notions and the benefits that they can provide, through the examination of the design process of a co-creation toolkit specifically designed in order to bring together museum professionals and potential visitors for the design of upcoming museum exhibitions. The Hive: Co-creation incorporates multiple aspects that are taken into account throughout the different phases of exhibition design and introduces a framework and a methodology that aims to foster further co-creation practices within cultural institutions.

Method

Design / Apparatus

For our project, we used the Agile: Scrum methodology, in combination with a Design Methods toolkit developed by MediaLAB Amsterdam. Every Sprint (three weeks duration) begun with a goal definition, where our team decided on the main objectives, tasks, actions and methods that would be used in order to reach our goal by the end of every Sprint. Through the six Sprints that took place, we were able through this method to define our projects' goals and intentions, understand clearly the context surrounding it, and know better our users and stakeholders' needs and expectations so to move on with ideation, prototype creation and testing. Moreover, feedback insights played also a crucial role throughout our design process, while they provided us with further ideas and defined every new Sprint goal. Overall, applied research was the one that progressively led to the design of The Hive: Co-Creation.

Participants

The main participants during the design process of our product were museum professionals, members of the public and our colleagues at MediaLAB Amsterdam. By conducting user testing through workshops, surveys or by professional meetings, we tested at many phases, the functionality, content and design of The Hive: Co-creation. Further, we conducted interviews with museum professionals and made use of the Photo-Safari method, to understand better visitors' preferences within exhibitions. We used all the feedback insights to make adjustments and bring about new developed versions of our product. The ages and ethnography of all participants vary, with museum professionals and visitors to be between 28 and 50: Netherlands based, while MediaLAB interns between 19 and 31: International.

Materials

Throughout the design phase we made use of questionnaires, storyboards, wireframes, concept sketches, design method cards and digital design platforms. Further for our workshops we made use of the similar material while they proved easy to use and with low cost.

Procedure

Throughout the design process of The Hive: Co-creation all participants were approached via email or direct contact. They were asked if they want to take place on the testing of our toolkit through a workshop, to participate on interviews/surveys or express their perspectives through the Photo Safari method. Further, all the cultural professional that visited MediaLAB for the presentation of our products were asked to provide recommendations for the improvement of our end product.

Results

	GOAL	OBJECTIVES	METHODS	CONCEPT
1	Define a clear concept with the aim to design an end product able to help museum professionals to better understand which media to use for exhibitions, that best respond to their visitors needs.	Understand curators', visitors' and stakeholders' needs and problems in order to define the functionalities of our end product.	1 on 1 interviews Literature Review Survey/Stakeholders map Clickable Prototype User Stories Personals Clickable Prototype	An iPad application that visitors will make a selection from a set of tools related to the upcoming exhibition. Their choices will be visualized on a physical interface through a visual mapping installation.
2	Create a smart guide including information about co-creation, experience design and evaluation frameworks to be used for the creation of a new concept.	Define the elements that constitute a co-creative museum experience. Implement the smart guide information into a new concept.	1 on 1 interviews Boundary Shifting Literature Review/ Photo Safari Infographics/ Brainstorming Concepts sketch Storyboard	A set of cards that include different categories and activities related to a new museum exhibition. The results of the activities will be visualized on a physical maquette representing the exhibition's space.
3	Create a complete toolkit, improve prototype and make a product website.	Select relevant cards for the toolkit. Define content and activity for each card. Test cards with uses and analyze output.	Brainstorming Literature Review Paper Prototype Nine Dimensions Boundary Shifting	A set of 12 activity cards based on 4 main categories Design/Experience/Social/Enrichment and 10 media cards. A first version of an instruction manual and website.
4	Develop all the products of The Hive: Co-creation.	Develop new activity cards. Provide a manual for museum professionals. Design a website for the organization of the workshop's content.	Literature Review Content analysis and evaluation User test Infographic Navigation map	A new improved set of 21 activity cards and 10 media cards. A complete instruction manual. A game board including information for the participants. A clickable prototype of the website.
5	Improve game board. Make a product packaging, a website, a video for the product and write a research paper	Improve the design and the questions provided on the game board. Make a scenario for the video. Make a first layout for the paper. Design the product packaging. Apply a mutual framework.	Literature review Boundary shifting Storyboard Design platforms	An improved game board including new information and design elements. The complete design of the product packaging A scenario for the video production.
6	Deliver a high fidelity prototype of the Hive: Co-creation and a complete research paper.	Create a clear game board for facilitators that helps the workshop structure. Test the content of the cards. Improve instruction manual	User test. Feedback evaluation. Literature Review.	A workable prototype of a co-creation toolkit including 21 activity cards, 10 media cards, an instruction manual, a Game board and a website

Discussion

The table above demonstrated the overall design process of The Hive: Co-creation. For every Sprint- three weeks duration- we defined a certain goal, identified our core objectives as designers and researchers and then decided on the use of the most useful methods in order to rethink of or develop a new concept.

For Sprint 1 it was important first to make clear for whom we design for, so to better understand their possible needs and expectations regarding our end product. After a personal contact with museum professionals and our stakeholders along with a survey conducted with potential visitors, we gained a first overview of the differences amongst them but also of the common ground that we could work with. This resulted on our first concept, which after evaluation proved to be time consuming for users and with need for further development.

For Sprint 2 and on, we moved on with literature and case studies review, brainstorming and also made an analysis of the results that derived from the surveys and interviews we conducted on the previous Sprint. Significant role to our new concept which we developed till the end of MediaLAB, was a list of all the aspects that museum professionals take into account and that can influence for the design of every new exhibition. This list was provided to us by the research group Experience Design for Crossmedia Content: CREAT IT part of the Amsterdam University of Applied Sciences which is our main stakeholder. We decided to make use of twenty aspects from this list, while after research they proved to be the most efficient for the scope of our design since it was important to make relevant and easy to execute activities out of them.

The next steps we undertook included professional meetings in order to discuss our design on the many different phases. Further, during this process we decided that Co-creation was the most accurate method to use as the milestone of our product, since Co-creation provides its users with the opportunity to come up with relevant solutions to various problems through mutual understanding and respect. Having this in mind, the brand name of our product derived from our willingness to bring something from nature into a human centered design. Fascinated from the way the bees collaborate all together within a beehive for the best result within their small community, we decided that museums could function similarly towards inclusiveness. The Hive: Co-creation toolkit includes a set of twenty activity cards, ten media cards, a Game Board and a website. Within the time of twenty weeks, we made use of all the sources and facilities provided to us, came into contact with various museum and technology professionals and succeeded to deliver a first high fi prototype version of a tested and useful Co-creation toolkit for exhibition design. This product appears as a possible solution to the main research question of this project.

Next Steps

We made use of the time given for this project to deliver the best possible outcome. However, after extensive research and contact with other professionals who work on similar projects we realized that five months are not enough in order to achieve all the potentials goals of a product.

The design and content of The Hive: Co-Creation has been developed in a more than satisfied level and there are few developments needed before it will ready to reach the market. Nevertheless, as far as its functionality is concerned, we didn't managed to test it with members of the public: potential visitors and thus we do not have a clear idea of how it can function. Finding participants for a user testing is a process that needs time and thus it was easier for our team to test our toolkit with museum professionals since it was easier to find and contact them through a preexisting network of our partners.

The results from the tests we conducted were very encouraging and most important it was an opportunity for us but also for museum professionals to see what we have created and decide if they would be interested to use it or not. Taking this into account it is very important that from now on there will be more using testing with actual visitors and more research based on its use and the goals it progressively achieve.

Further, The Hive: Co-Creation website is still under development and is the one that still also more time in order to be fully functional. We encourage and invite other scholars or designers interested on similar projects to use our product as a case study for their research and to purpose new insights that could be important for the further development of The Hive: Co-creation. Culture related projects like this one can last for years but most of the cases the final outcome can lead to problem solving.

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