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COST Action: IS1305
STSM type: Regular (from Austria to Spain)
STSM Title: Designing collaborations: Could design probes contribute to better communication between collaborators?
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1. Purpose of the STSM

The majority of research in Digital Humanities (DH) is interdisciplinary. Initiatives in DH constantly require researchers from different scientific and cultural backgrounds to work together in order to produce collaborative work.

Interdisciplinary research is often described in professional literature as being difficult to reach its full potential. Initiatives that bring together multiple disciplines are expected to go beyond the limits of individual methodologies [9]. Unfortunately, when this vision becomes a reality, scientists enter a new and unnerving territory where they often encounter new and unfamiliar methods, workflows or jargon.

We suggest Design Probes [7] as a device to mediate between the different project participants. Design probes are reported to provide insights into the personal perspective of the user that are hard to gain otherwise. They are encouraging open discussion and stimulating the imagination.

The mission was dedicated to developing design probes to enhance the capabilities of interdisciplinary collaborations within the field of DH. The project was timed with the TEEM'16

conference and featured in the COST ENeL working group 4 meeting on user driven innovation in eLexicography.

2. Description of the work carried out during the STSM

The original design probe had many adaptations over the years. The needs and goals of each independent project dictated the content of the kits and the instructions that the participants received. Existing probes can not be reused `as-is'. Each new application has to be analyzed individually. A major aspect of designing a design probe is the need to be specific in the input you ask for, without restricting too much the insights that may come from the probe [6]. In order to develop a probe for DH we need to discover as much as possible on the customary methods and conventions in the collaboration and inner-communication of scholars in DH. To that end we planned to carry out two participatory design activities:

- Survey and interviews.
- Immersive workshop.

2.1 The Survey

The online-questionnaire was prepared and distributed before arriving to Salamanca. The survey highlighted 6 areas of interest: interdisciplinary, knowledge, methods, prototyping, design and dissemination. The survey was answered by 24 participants 65% women from 12 states. The survey was answered by 10 scholars with background in humanities, 10 scholars whose research focuses on methodologies, education and art, and 4 scholars from information technologies. The survey was answered before and during the stay in Salamanca. We conducted three additional interviews based on the same list of questions with visitors of the TEEM'16 conference.

2.2 The Workshop

The second part of the development process was a workshop for DH scholars. The workshop was built around a participatory design game that was designed for the purpose of this STSM. The design of the game (working title: Cards Against DH) was inspired by three unrelated sources:

- Critical Loop [2] is an open source multi-player board game, created in 2015 by the students of the IIT Institute of Design, Chicago. The game offers players an opportunity to discuss the socio-technical aspects of emerging technologies in relation to Internet of things (IoT)
- Connected-Spaces toolkit [1] The Connected-Spaces toolkit was developed for FIMM unConference to facilitate an expert dialogue about mobility. It consists of a deck of cards for the different aspects of prototype design (e.g., Touch-points, Outputs, etc.).
- Cards against Humanity - a very simple party game. Each round, one player asks a question from a black card, and everyone else answers with their funniest white card [10].

The workshop was scheduled for the COST ENeL working group 4 meeting. 12 members of the working group participated in the game. The game consisted of eight hubs distributed on the table. Each hub highlighted an emerging area of experimentation [3] that were chosen by us in order to provide a concrete base for the discussion (e.g., Humanities Gaming, Visualization and data design, Code, Software, and Platform Studies, etc.).Each hub surrounded by 7 empty spots, which the players filled out using the cards they were dealt.

As a possible case-study, our discussion focused on innovative approaches to the European dictionary portal.

The game provoked a speculative discussion about the practices and ingredients of a DH project. We observed the lively interaction and discussion between the players with the goal to distinguish challenges of communication in a diverse group of collaborators.

3. Description of the main results obtained

3.1 Survey results

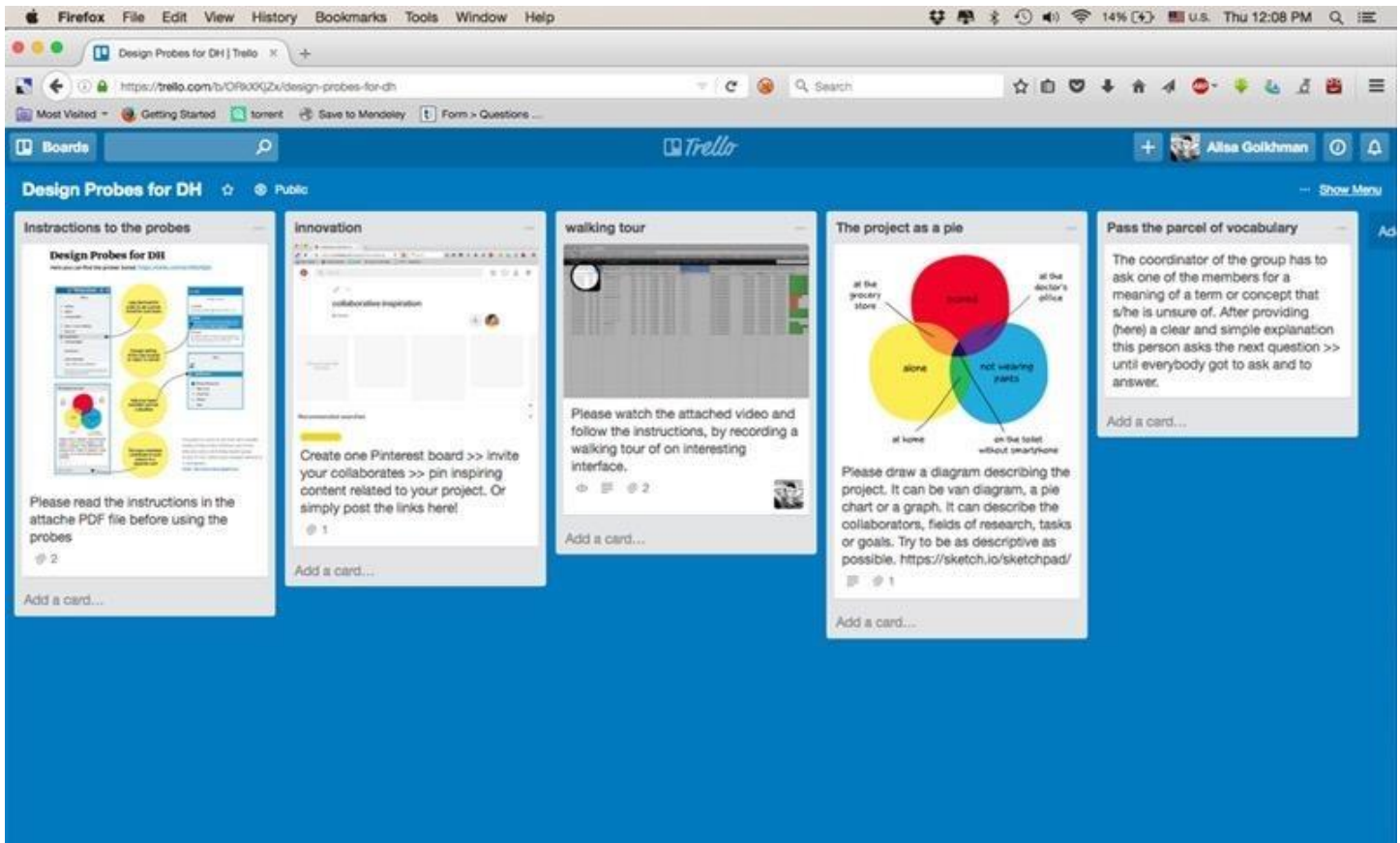The Results of the questioner highlight the following issues:

1. Terminology misunderstanding two which all sides contribute. Professional jargon is being used with no regard to its obscurity and members are not forthcoming about knowledge gaps
   a. The public working environment does not allow for asking "basic" questions
   b. Collaborators do not realize they don't understand terms
   c. Lack of digital literacy
2. Work processes – the majority of collaborations are structured similarly to client/service provider relationship, where the IT team is less involved in the conceptualization process
   a. Strict top-down approach
   b. Unclearness about decision making
   c. Lopsided collaborations
3. The prototype is often regarded as an end product rather as a method to define project's goals and communicate between the members.
   a. Absence of established workflows for prototyping
   b. No user testing / external evaluation
   c. Prototype publishing is considered dissemination
   d.

3.2 Game results

The discussion during the game was extremely interesting to observe. The players were eager to engage in an imaginative project development. They pitched elaborate ideas and discussed them seriously. It was clear however, that everybody were reluctant to ask questions regarding terminology or vague work plans. For example, the promise "this will engage the audience" was

often used without an explanation of how exactly it would do that. In other words, players based their feedback on the assumption that their collaborators know something that they do not, and didn't ask the necessary questions in order to make sure of it, or to clarify the problem for themselves.

This observation coincided perfectly with the popular descriptions of difficulties in collaborative research[9].

3.2 The probes

The first prototype of the probes focuses on addressing the knowledge gap issue as well facilitating work on prototypes. As collaborative projects are often also international, the communication between members is for the most part digital. Because of that, we suggest to build the design probes as a digital tool. For hosting and interacting with the probes we use the free tool Trello [8], a web-based project management application. We have chosen Trello because its structure allows to present input from multiple contributors in a clear and transverse fashion. As well as the possibility to upload files, keep history of conversations and comments. Its free version is unlimited in time and has all the needed features for our project. The board contains four tasks

visually decided by columns. Each collaborator is asked to upload his results for each of the following tasks:

• **Creating a common inspiration**

The collaborators are invited to share visual content that they find inspiring and relevant to the project. The probe is intended to define the context of the project within existing technological and visual solutions.

• **Screen capture — walking tours of related projects**

Using a free add-on for the Google Chrome browser, each contributor choses a digital platform which is related to the research project and prepares a video where he/she showcases (with narration) interesting or problematic features of the product.

• **Venn diagram drawing of the project components**

Collaborators see the same project from different perspectives which often leads to different definitions of the project. The Venn diagram allows participants to summarize their view of the project and provokes discussions and questions.

• **Pass the Parcel game for terminology**

In order to define a common vocabulary for the project, each participant must define a "field specific" term he uses and request an explanation for a term he doesn't know, or find ambiguous.

4.Future plans

In order to get a feedback on the first prototype of the probes we sent the link with the probes to several existing research groups with the instruction on how to operate them and a request for a feedback. Once we receive the users' comments and identify common issues, we will modify the probes accordingly and republish them.

5. References

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