

# A BOARD GAME FOR PARTICIPATORY INNOVATION: INSTRUCTIONS AS DESIGN MATERIAL

DR SARAH EAGLE  
NTNU, TRONDHEIM, NORWAY  
[SARAHEA@IDI.NTNU.NO](mailto:SARAHEA@IDI.NTNU.NO)

SARA REINHOLTZ, JANE WEBB,  
MAHDIS ALIASGARI & MARCEL PENZ  
INTERACTIVE INSTITUTE SWEDISH ICT  
[SARA.REINHOLTZ@IIL.SE](mailto:SARA.REINHOLTZ@IIL.SE)

## ABSTRACT

Designers, users and stakeholders who work together in the pursuit of innovation often collaborate in workshop settings, facilitated by professionals. The focus of this paper is a ‘thing’ designed by the Stockholm studio of Interactive Institute for use in such workshop settings; it consists of a board game, together with a technique for use of video by the players of the game. What is not clear is the relation between the various elements of the design and the process through which ideas can unfold. The team responsible for the design worked with an academic researcher to analyse the ‘things’ in use; by taking an analytical stance to their own process of collaboration in the context of the board game, they were able to produce new ideas. The creative outcome is a series of theoretically informed questions on the role of instructions for use with ‘things’ designed to support participatory innovation, together with ideas for further studies.

## INTRODUCTION

The joint work on which this paper took place arose from the pairing of maker and analyst partners by the organisers of the PIN-C 2015 conference track *Designing Through Things*. The makers had produced ‘things’ for use in workshops involving groups of designers and innovators, whose purpose was to help

teams collaborate effectively. We begin by introducing the makers and the two ‘things’ that are of interest; a board game and a technique for use of video before and following the playing of the game.

### THING 1: THE BOARD GAME

The maker team consisted of a group of four colleagues from the Interactive Institute in Stockholm. Amongst other work, this team designs and facilitates workshops to help participants come up with new ideas and then explore one or more of them in depth. One tried-and-tested approach involves running a compressed version of a design process, using a board game, designed to structure collaboration, on the basis that the board game is an object which invokes certain ways of behaving: it provides a play situation, which Huizinga describes as follows: *play is not ‘ordinary’ or ‘real life’*. *It is stepping out of ‘real’ life into a temporary sphere of activity with a disposition all of its own* (Huizinga 1967:8). In entering into this situation we depart from the ‘here and now’; the game requires us to think, plan and interact in an imaginary landscape. A board game has its own rules. For example, players may be asked to do things in specific roles and in sequences of turn-taking that they might not otherwise use.

When used in a workshop, a board game is placed at the centre of a table at which a group of three to five participants work, equipped with instructions in the form of written prompts, to be used at specific steps of the game. Participants are asked to record short videos about their work before the workshop, and the game commences with players sharing this video with others in their group. The game then leads the players through a process of identifying challenges, of suggesting ideas of how to tackle them, and then further developing at least one of their ideas to pitch to others present at the workshop, again using video. The maker team considered the video to be a designed ‘thing’ worthy of analysis as the following sections will explain.

### THING 2: THE ONE-SHOT VIDEO

The board game includes a final instruction to players to film a short video summarising the ideas they have

developed, using a smartphone. The one-shot video is a technique that the maker team routinely use to support their own work and have experience of sharing with others (Interactive Institute, 2014). As has been explained, participants had produced videos prior to the workshop, as material to work with while playing the game. The maker team considered that these could be regarded as ‘input videos’, and that the videos produced at the end of the activity could be seen as ‘output videos’.

## ANALYSIS

The maker team reviewed videos produced by board game players during workshops at professional events in Stockholm, categorising them according to quality, based on a loosely defined mix of characteristics ranging from camera technique, verbal and visual communication skills, humour, and in how much teamwork was shown in the videos. The team observed that most videos had only one speaker, usually not shown on camera, following a well-rehearsed or well-written script, and became curious about whether the board had helped structure the pitch videos, noticing that the camera often panned over the materials used or produced during the game, and there was sometimes no close connection between the idea that was being pitched and the objects on display.

A pairing with an analyst through the conference track *Designing Through Things* seemed to offer a fresh take on what happened for participants during the games. The makers were particularly interested in understanding the relation between the input material and the output material. Would an analyst be able to say anything about the value of the games by looking at the video material?

## THE ANALYST’S APPROACH

The academic researcher to whom the maker team was introduced studied the role of designed objects and environments in human activity in the interest of understanding how learning is or can be supported (see, for example, Eagle 2012). Pairing with a maker represented an opportunity to try out her own approach to analysis with a different group of people and different kinds of objects. The underlying expectation was that video for analysis would include sequences of video in which people collaborated around a board using associated objects such as dice, counters or tokens. The maker group supplied samples of ‘input’ and ‘output’ videos from the workshops they had run. As has been explained, these had been made to share the ideas that groups had come up with, and did not include sequences of interaction as it unfolded minute by minute in the context of the designed object. It was clear that in order to collaborate, the analyst would need to change her approach away from analysing the structuring of dialogue. Accordingly, the work of analysis began with a ‘blank page’ rather than an existing framework, requiring her to watch the videos and allow new questions to surface.

In the course of email correspondence about the need to develop a new analytic approach it was agreed that the best way forward would be for the analyst, Sarah Eagle, to visit the maker team at their Stockholm office, to play a board game together. The email correspondence was treated as ‘input material’. The written observations that Sarah made after watching the videos, set out in the section below, were brought to the game and contributed in conversational form during the course of using the board game.

On watching the video, her attention was drawn to the way that groups participating in the workshops had used models, images or physical objects when producing their pitch videos. There was a tendency to point at or refer to something and explain either what it was or what it denoted; and this was more pronounced in some videos than others (for example, the buildings in which people worked were represented and they were described as such; a narrator indicated a model of a ghost and explained that it represented a problem). One narrator of a video explicitly expressed her purpose as *illustrating* a rather abstract notion, of collaboration, to others; “*what I wanted to tell you about in this video, or an example of how that collaboration could look*”. If a response to instructions to make a video implicitly put the emphasis on visual depictions, did this necessarily restrict the range of matters that could easily be referred to, or could it impose an interesting or helpful challenge? Collaborating groups might already have been familiar with genres of expression for representing connections and more abstract concepts; for example, gestures, juxtapositions, lines and marks drawn on surfaces, icons, and so on; it is possible that as a means of expression, video may challenge groups to convey more conceptual matters.

Without knowing how the participating groups went on to use the video that they had produced as an ‘intermediary production’ (Béguin 2003) in subsequent activity away from the event, it is not possible to say whether a tendency to foreground the physical over the conceptual either aided or restricted groups in their own design work. Even in the absence of that knowledge, however, the question of potential relevance is: what instructions or support might have facilitated a group’s discussion, description and eventually, in the video, representation of the more conceptual aspects, such as a process, or connections between things?

## THE PROCESS OF MAKER/ANALYST COLLABORATION

We have shown that the makers’ interest was in how people used the game to produce new ideas, and the analyst’s was on the support that was available to users for representing connections and conceptual relations when they produced shared output material. The expression of these interests, and the thinking that developed over initial rounds of email communication, became the ‘input material’ for a new round of the game, this time played by the maker and analyst

partners. In what follows we show how, out of the 'input material' (ideas, questions, theories) that partners brought to the table, new ideas and questions grew; and we show how the board game was also used as material in the creative process.

#### INSTRUCTIONS AS THE MATERIAL THROUGH WHICH WE DESIGN

The early stages of the game involved turning over pairs of cards with terms or words printed on them. The terms had been derived by the maker team from the correspondence between the partners before meeting, and therefore represented some of the input material. During game play, the exposure of each pair of cards was followed by players writing down thoughts that the pairings stimulated, then sharing them and discussing ideas. The board was soon covered with pieces of paper. The subject of 'following instructions', when it came up as one of a pairing of two cards, was one that captured attention. Discussion led to the question: What happens when we think of instructions as the material through which we design? As the discussion unfolded, in ways that were structured by the game, the analyst introduced some ideas from theorists: *instructions as enabling constraints* which open possibilities by limiting choices (Davis, Sumara, & Luce-Kapler 2000); and *instructions as signposts through a field of related practices*. In a discussion of instructions, in which he uses a cookbook and a recipe as an example, the anthropologist Tim Ingold makes the point that instructions draw their meaning from their positioning within the familiar context of everyday, or familiar activities, or a *field of related practices*.

No known cookbook comes with such precise instructions that its recipes could be converted into behaviour just like that. (...) The verbal commands of the recipe (...) draw their meaning not from their attachment to mental representations in my head, but from their positioning within the familiar context of my activity in the home. Like signposts in a landscape, they provide specific directions to practitioners as they make their way through a field of related practices - or what I have elsewhere called a 'taskscape'. Each command is strategically located at a point which the original author of the recipe, looking back on previous experience of preparing the dish in question, considered to be a critical juncture in the total process. Between these points, however, the cook is expected to be able to find her way around, attentively and responsively, but without further recourse to explicit rules of procedure - or in a word, skilfully (Ingold 2001:137).

The ideas drawn from the theorists are, on the one hand, that instructions are something that open possibilities because they narrow down the range of choices of what is possible; and on the other, that instructions are something that might be perceived of as having some non-arbitrary meaning, but, in use, they are meaningful

and capable of interpretation in their relation to what is familiar for the person or persons using them, and the skills and knowledge that they have already developed.

Out of the newly established, and shared focus on *instructions*, and the theoretical ideas summarised above, came thoughts, ideas and questions about what goes on when we sit down to play a board game. Three themes, and the way collaborative thinking developed, are outlined below.

#### TAKEN-FOR-GRANTEDS: THE ROLE OF IMPLICIT AND EXPLICIT INSTRUCTIONS

Attention turned to the table, on which the board game had been laid out, by that time littered with the notes that had been written each time a new pair of cards had been upturned, and around which all participants were sitting. The board game was obscured, but the positions in which participants sat at the table, and the papers and pens which were being used to frame collaborative activity, were then recognised as a loose set of instructions, but one that all understood from prior experience of board games. This led to discussions how, when people come together to work, collaboration is already framed by already accepted and already shared assumptions about what is going on; that there are taken-for-granted that are framing the activity (see e.g. Lantz-Andersson & Linderoth, 2011). In the layout of the room, the seating arrangements, the means by which we were introduced, the fact that we were assembled for a purpose, we had followed a set of instructions, albeit loosely specified ones; unstated, unspoken, but understood in relation to familiar practices.

#### MULTIPLE INTERPRETATIONS

On reading through the extract from Ingold the maker team commented that preparing for activities had indeed involved thinking through which instructions were necessary to guide the participants through a process, while also retaining room for multiple interpretations. The expectation was that during the game, participants themselves would together negotiate meaning in the instructions. What did the instructions mean? What did they ask of them? How should they approach this task? It seemed clear from some of the input and output video that groups had drawn on the familiar office genre of slide presentations. It seemed that these groups' *interpretations of instructions* were made in relation to something that was familiar, or well known. Given the articulation of an interest in examining and understanding the role of instructions to game-players, further work on an analytical project might investigate how the instructions that groups were given functioned as signposts in Ingold's sense, since a collaborating group might have multiple interpretation of those instructions; and whether the instructions themselves, and the conventions that participants drew on and the materials they used when representing concepts, people and things, functioned as enablers or constraints. Such a study could take place alongside some measure of the

eventual value of the game session for the collaborating group.

#### THE TENSION BETWEEN ENABLING AND CONSTRAINING

The maker team considered the notion of enabling constraints in relation to video produced at the end of workshop events. Recalling that the examples they had found most engaging were those that stood out because they were different, they suggested that instructions themselves have an inherent tension; a dual enabling and constraining character. Tight instructions could inhibit the diversity of response. Yet even with explicit instructions, groups had not seen the potential of the board game as an enabler, a structuring device for their pitch videos.

#### DISCUSSION AND CONCLUSION

The PIN-C track is about designing through things, and the bringing together of analysts with makers in the interest of exploring what analysts can offer makers and what ‘things’ mean to analysts. The focus of this paper has been tracking the generation of ideas between people in the course of using a ‘thing’ which is itself designed to structure collaboration and the generation of ideas, and to invoke a context of game play, in which people can *step out of ‘real’ life into a temporary sphere of activity with a disposition all of its own.*

Two linked observations can now be made. First, tracing the way that ideas developed enables us to comment on how the use of the game for the process of analysis contributed to the development of ideas. Second, the collaboration produced innovative ideas concerning the design of ‘things’ to support participatory innovation, and ideas for further investigation.

It was evident that development of ideas during the game arose out of the structuring materials; the activity of game playing plus the ‘homework’ that both partners had done, which became ‘input material’ for the game. The analytic work that took place therefore drew on the analysis of output of previous users of the ‘thing’ but also centred on the ‘thing’ in the course of its use by a group made up of the analyst and the makers. Logically speaking, this meant that we might have been looking at the capacity of the designed ‘thing’ to help us, the analyst and makers, come up with analytic ideas about the activity of analysing our own activity! However, rather than falling into an endless spiral, we kept the focus of our collaboration on the ideas that were brought to the game as ‘input’ material. The ideas that featured in our own ‘input’ material had arisen out of analytic thinking about the videos that previous groups had used during the game, and were rather conceptual in nature. In this case, the focus on instructions as design material that is an integral part of the ‘thing’ without being visual or tactile can be traced back to the involvement of an external analyst whose approach was inspired by theory.

The creative idea that had emerged during early contact between the partners and which was further elaborated through and with reference to the board game was the notion of instructions as design material. Instructions are both explicit (e.g. written on cards, set out on a whiteboard and timer) and implicit (e.g. arrangements of things in the room), and it can be fruitful to think of them as simultaneously enabling and constraining. Users, or players of the game, can be thought of as interpreters of the instructions, and the diversity of interpretations as a potential driver for creativity.

In interpreting, players draw on diverse previous experience, orientations and understandings, some of which is explicitly shared as ‘input material’. In acting on instructions, users make their interpretation of shared material visible. And, at the same time as making visible or materializing their interpretation, they produce an ‘enabling constraint’ – a shared understanding of what is being done or discussed which narrows down the possibilities for interpretation of material or ideas introduced in the course of interpreting and following the next instruction. The question that can be put forward for future investigation is whether an emphasis on representation of ideas through visual means assists with the generation of ideas, and how and whether representation and discussion of the more conceptual aspects, such as a process, or connections between things can (or should) be facilitated.

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