

Feely Touchpoints and Bouncy Journeys? Kinetic Materials for Service Design

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Abstract

Design materials with unpredictable dynamic qualities such as balancing, bouncing, rolling and falling can lead to surprises that provoke a lively challenging of assumptions. In this workshop, participants will engage hands-on in exploring several contrasting kinetic materials to support negotiating service strategies and values.

KEYWORDS: workshop, kinetic materials, tangible materials, co-design, service design, service values

Services are collaborative, multi-dimensional and unpredictable

Services are neither static, linear, nor fully controllable, and neither are service (co-)design or service innovation processes. Design and delivery of services is inherently collaborative – whether between or within organisations, and it increasingly involves user/stakeholder collaboration too. Somewhat surprisingly, for a field with such an emphasis on “touch points” in these service (co-)design processes, there appear relatively little attempts to exploit sense-making around service strategies and values through collaboratively manipulating tangible and kinetic materials. We fully acknowledge the qualities of combining diverse (largely 2D) ways of working with visuals, journeys, mappings, etc. with (more 3D) ways of working with mock-ups, service prototyping, etc. in such processes. This workshop, however, offers a possible complement to these practices through facilitating negotiations and understandings of strategies and values of services through dynamic, multi-dimensional and partly unpredictable representations and provocations.

Benefits of a tangible approach

The hands-on examples and experiences shared by the organizers at the workshop, are based on many years of research on how material matters in multidisciplinary, participatory design and innovation situations, conversations and processes among diverse stakeholders (e.g.

(Mitchell *et al.* 2009, Eriksen 2012, Vaajakallio 2012, Buur, Ankenbrand & Mitchell 2013). This practice-based co-design research includes, studies of using tangible materials beyond touchpoint/product development for more abstract or strategic purposes such as exploring and negotiating business modelling, value setting as well as identifying and negotiating core issues and challenges to address in (service) innovation processes. From such research, we have found that working in these ways between diverse stakeholders assists in quickly establishing new understandings, generating new perspectives, provoking new narratives and identifying new issues and challenges for (service) innovation. – in other words, that mutual learning is in motion.

Workshop description

The workshop will be organized around participant's literally hands-on experiences, in intimate sized groups to explore three different core topics to the field of service design. This will be done with three sets of diverse kinetic materials described below.

The artefacts we propose to share are carefully selected in order to give participants direct and indirect exposure to a number of different experiences with tangibles. The different artefacts offer different benefits for addressing different aspects of a case.

1. Ricocheting Customer Journeys

Marbles representing customers are lined up behind a gate at the top of a ramp. Upon lifting the gate the “customers” roll down the ramp, unpredictably bouncing off each other and various adjustable barriers, to end up in either of two receptacles (figure 1). Labelling one receptacle “satisfied customers” and the other “dissatisfied” facilitates rich discussions concerning matters like the influences that service customers have upon each other, and the factors that may tilt or steer their experiences.



Figure 1: Marbles representing service users, bounce unpredictably off of barriers that represent the different factors that influence the likelihood of becoming a customer.

This “Pinball” artefact was originally developed to provoke a hearing aid manufacturer in discussions concerning how they relate to users and pre-users (Mitchell & Buur 2010). However since then, we have since deployed variations of this dynamic tool kit in sessions with a wide variety of diverse stakeholders. For instance, sessions concerned with science museum experience design (Murman & Heinemann 2013), educational program strategy planning, and amusement park development (Buur & Gudeskin 2012, Mitchell *et al.* 2013).

2. Balancing front and back stage resources

We offer a series of artefacts that lend themselves to experimenting with balance and imbalance in service strategy.

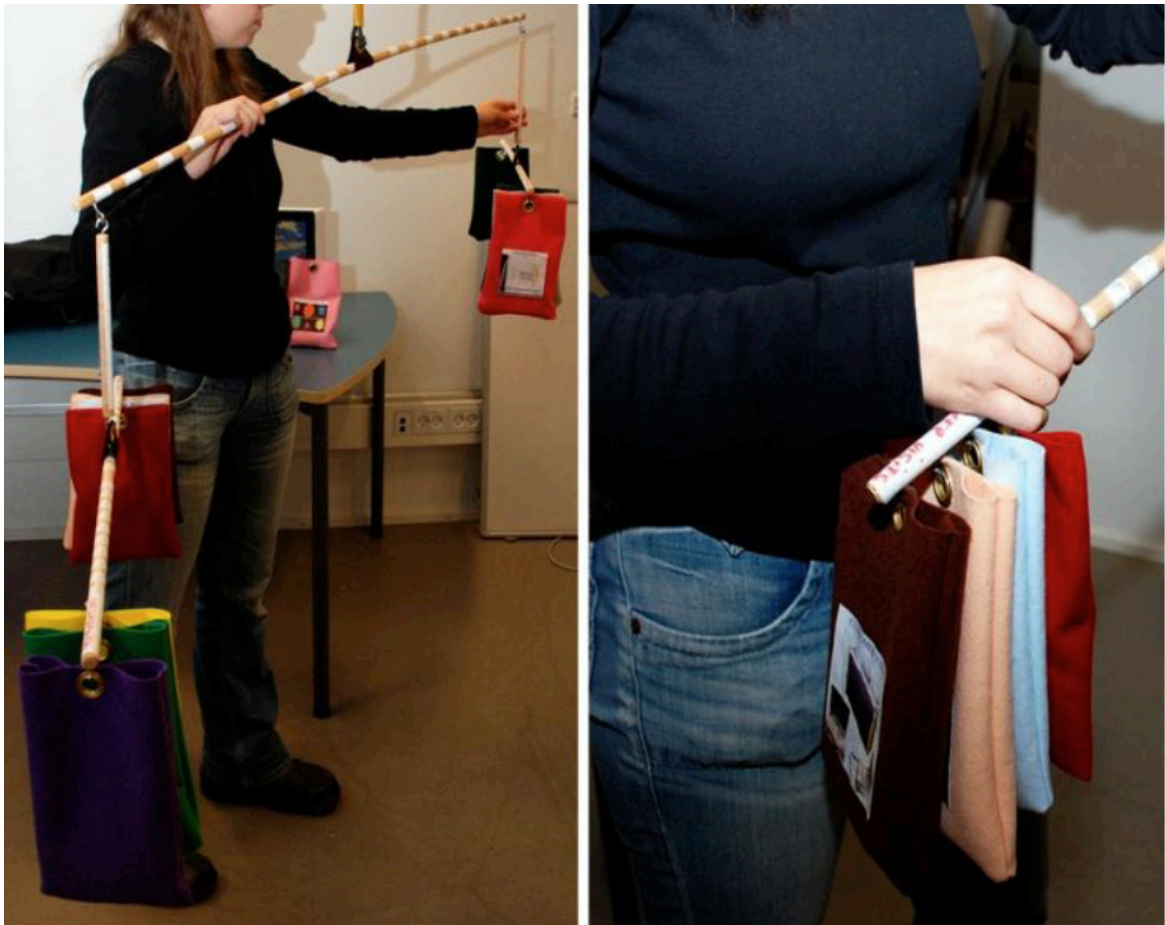


Figure 2: Balancing sales, marketing and research and development resources on unpredictable poles

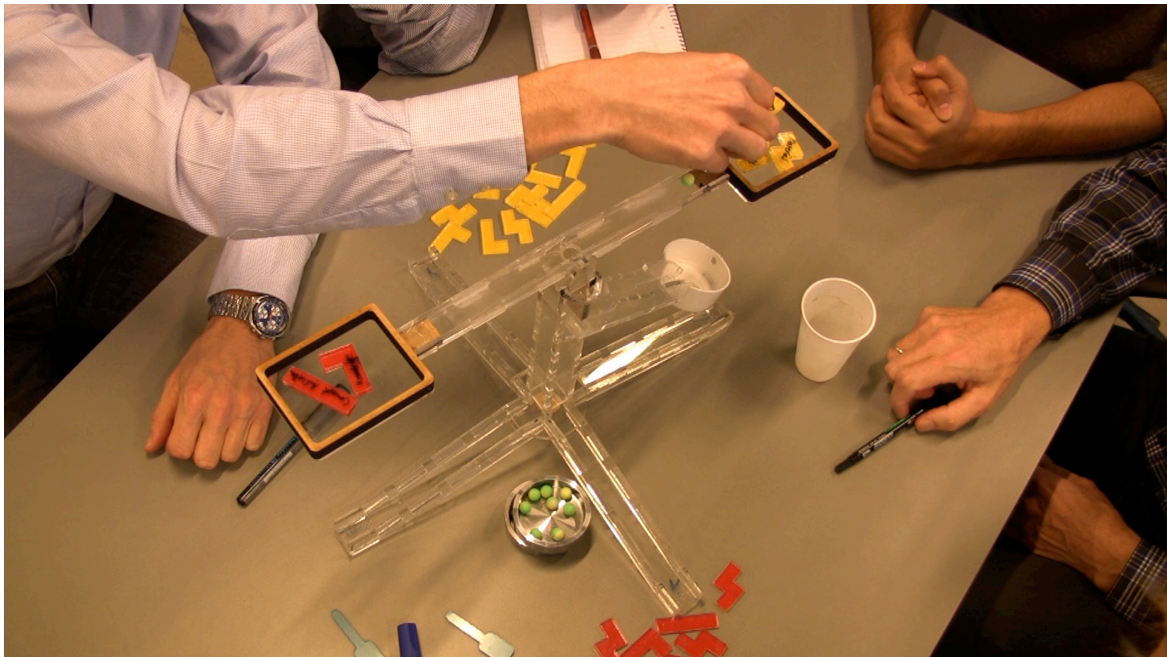


Figure 3. Negotiating to balance inputs and outputs of a novel product-service collaboration

Our first balancing contraption was developed to illustrate business dilemmas experienced by a lighting technology company. It took the form of a suspended mobile comprising a 2m long dowling pole, and two shorter poles suspended at either length of the main pole (see Figure 2). It was designed to support a discussion of the best relative proportion of resources between sales and development departments (Mitchell & Buur 2010).

A later contraption was designed to encourage a smart materials manufacturer to discuss the balance between mutual costs and benefits in a customer relationship (Figure 3). Two weighing pans at opposite ends of beam were supported at its fulcrum by a small table-top frame. A marble would wobble on the beam until an imbalance was reached, whereupon it would drop down to the table-top through a hole in the beam via ramps in the frame (Mitchell *et al.* 2013).

3. Tangible Activity Maps That Snap Back

Since 2009 we have been evolving a bricolage toolkit of similarly shiny materials we call the “Silver Set” (figure 4). Based upon many workshops in which we have challenged industrialists and public sector managers to make a shared tangible representation of their value network (Buur *et al.* 2013), we have been able to also inspire service industry partners in tourism and leisure to fresh perspectives on their strategic landscapes. What has proved particularly engaging and inspiring has been participants responses to materials that “talk back” through providing some kind of surprise physical action or resistance e.g. springs, magnets, wheels (Mitchell *et al.* 2013).



Figure 4. An unpredictable spring provokes a novel shared understanding concerning service contracts

Procedure

1. We start by introducing details about a service innovation case. After this briefest of introductions, workshop participants will be divided into three “tracks”.
2. One of the organisers will guide each track into how to use a particular set of tangible materials. (If needed, each track will be sub divided into work groups comprising two or three people). They will explore the case with, and through the available materials for 20 minutes.
3. Tracks will then rotate, so participants will be able to explore the case with one of the other sets of tangible materials. Same procedure as above for 20 minutes.
4. 2 minutes theoretical perspectives on today’s experiences by each of the workshop organizers.
5. 2 minute silent individual reflection on key insights and surprises (annotations on post-it notes).
6. Plenum discussion based on individual reflections. Clustering and renaming of key insights and surprises in relation to service innovation processes.

Workshop outcome

From active participation at this hands-on inspirational workshop, the one outcome we would like people to learn and take home, is how tangible and kinetic materials/artefacts offer a promising addition to other common ways of working when (co-)designing services and working with service innovation. For example when focuses are on collaboratively exploring non-static and non-linear service strategies and values.

However, this learning will very likely come in several different forms – for example through:

- » experiences of how different tangible and kinetic artefacts can influence direct collaborative understanding, negotiation and discussion of both case and topics

- » observation of how other participants may respond in different ways to the artefacts in motion
- » discussion of individual and collective reflections on insights and surprises as well as possible ways forward – in relation to current service design and innovation processes and practices.

This said, we of course recognize, that what situated mutual and individual learning will be set in motion through the shared hands-on experiences, cannot really be prescribed in advance.

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