

DISRUPTING SERVICE DESIGN

Mark Green, Paul Rodgers, Andy Tennant

mark.green@northumbria.ac.uk

Northumbria University, United Kingdom

Abstract

This paper describes a series of examples of disruptive design in practice, taking place in a service design context and observed as part of a wider case study. The subject of the case study was a large UK based manufacturer/retailer for-profit organisation and the disruptive design intervention was focused on the design of a new form of resource to replace an existing staff handbook, viewed by the organisation as a key part of its internal services to employees. These examples are given in relation to the attitude, process, methods and outcomes of a disruptive design approach. Our findings include the development of design knowledge amongst participants, the emergence of active designers and the potential value of unfinished artefacts. We conclude by considering whether these examples suggest opportunities for service design.

KEYWORDS: disruptive design, design activism, design knowledge, unfinished artefacts

Introduction

In this paper we suggest that adopting a disruptive design approach may offer opportunities to compliment the practice of service design.

A disruptive design approach involves an intention to disrupt people and their organisations through provocation and encouraging the making of artefacts. We do not present an exhaustive analysis of disruptive design; instead we have set out an overview of the background to disruptive design and then chosen a series of relatively clear examples of disruptive design in practice, taken from a recent case study involving the design of services. As we view our disruptive design practice, as designers and researchers, in terms of *attitude*, *process*, *methods* and *outcomes* we have given examples of each of these themes and the relevant findings. We conclude by considering what a disruptive design approach may offer to the practice of service design.

In suggesting a distinct vocabulary for a disruptive design approach we are mindful that some of the aims of our approach and many of the practices described in the case study will be familiar to service design practitioners and researchers. The disruptive design approach we describe shares some of the stated aims, in particular the intention to provoke, of established design movements such as speculative design and critical design. We take the view that these qualifications – *speculative*, *critical* and even *disruptive* – are unhelpful, and that what matters is the impact and, in our case, whether “you can find people to testify that they were provoked” (Tonkinwise, 2015). The idea that these are all essentially just forms of *design* applies equally to our practices and methods, and, as noted by Kimbell (2008), service design shares much common ground with other kinds of design practice and theory.

Background

A disruptive design approach comes from two distinct areas: firstly, the rejection of traditional design processes and, secondly, design activism.

Rejecting traditional design processes

Celaschi suggests that:

The discovery of disruption and the consequent decision to transgress as a rule takes place incidentally ... via an intense journey, a formative event or an experience that opens up a door left ajar in the mind through which the discomfort of dissatisfaction with the everyday way of working had already begun to filter. (Celaschi et al 2013)

In our case the *formative experience* has been the use of established linear design processes within both the design school and industry. These processes are typified by Ulrich and Eppinger's generic process (Figure 1) and also by, the currently fashionable, design thinking processes, of which d.school at Stanford University is an exemplar (Figure 2).

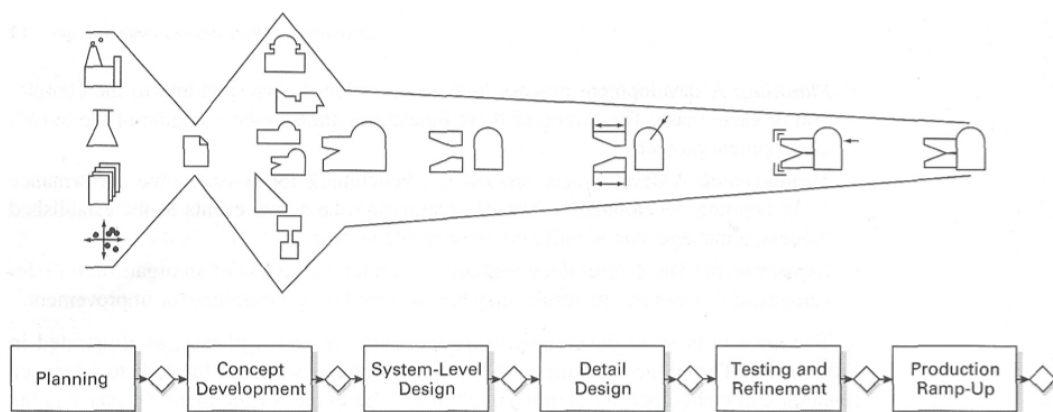


Figure 1: The generic development process (Ulrich & Eppinger, 2012)

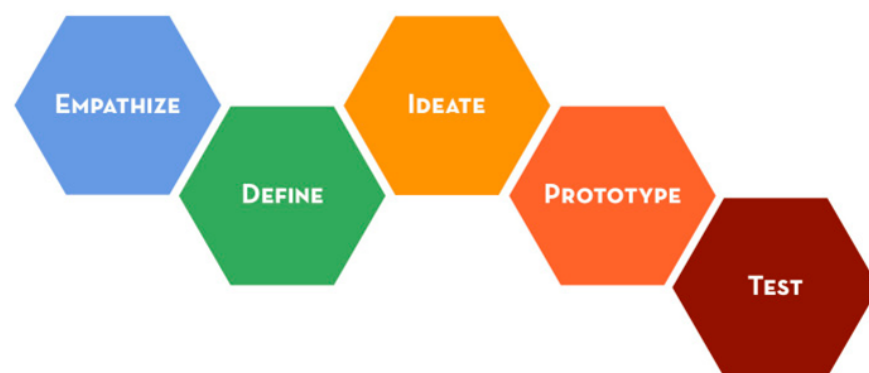


Figure 2. The design thinking process (Stanford University, 2015)

These established processes are undoubtedly valuable, however we feel they do not reflect the messy non-linear nature of actual design practice and research. In the context of the service design Stickdörn (2010) notes that “the proposed process is just a rough framework and should not be considered a prescriptive, linear how-to-guide” and that

“the very first step of a service design process is to design the process itself”.

Celaschi characterises such rejection as “disobedience”, a “disavowal of methods” and “transgression” whilst Galli et al (2014) place importance upon “the violation of usual rules, trying disruptive actions, with unpredictable effects.”

Galli’s model of a disruptive design approach (Figure 3) shows disruptions and modifications to the decision process, which we have interpreted as being applicable to the decisions within each stage of the design process. Unfortunately Galli’s model focuses on what a disruptive design process *is not* and does not go far enough to say what a disruptive design process *is*.

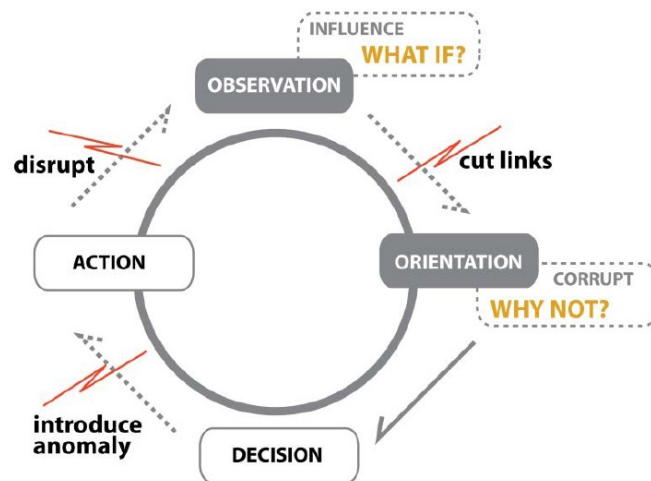


Figure 3. The decision process adapted to support a disruptive design approach (Galli et al., 2014)

Our other concern with Galli’s model is that Galli sees the inspiration for this disruptive design approach as disruptive innovation, famously modelled by Christenson et al (2006) and something that can be learnt by designers from innovation specialists. This ignores significant design movements that suggest a disruptive design approach including the Situationists and Debord’s notion of *dérive* (Debord, 2006), the radical Italian architects such as Superstudio and design provocateurs such as Droog (de Rijk, 2010). These are all forms of design activism and we suggest that a disruptive design approach is another form of design activism.

Design activism

A comprehensive definition of design activism is offered by Faud-Luke:

design thinking, imagination and practice applied knowingly or unknowingly to create a counter-narrative aimed at generating positive social, institutional, environmental and/or economic change (Faud-Luke, 2009)

In the context of our own practice this use of design to create a *counter narrative* is evident in methods such as encouraging participants to make protest posters, such as that shown in Figure 4. Indeed this materiality is an important element, both of design activism and our own practice, and we agree with Lenskjold et al’s (2015) observation that “a material translation though some form of material incursion” is required.

We recognize the apparent conflict between the *social* aims of design activism and the for-profit aims of our case study. We suggest that design activism has moved on and now accords with Julier's argument that a form of "everyday" design activism exists (Julier 2013): focusing on making things better through utility, development, function and process, and working with economic systems, rather than simply being a method of protest. At the same time we accept the criticisms levelled by Markussen (2013) and Berglund (2013), and acknowledged by Kaygan and Julier (2013), that design activism will not be impactful if it is reduced to exhibition material or used to maintain the status quo. Our argument is that we are seeking to use disruptive design to provoke and challenge the status quo, in various contexts including the design of services, and that it is impactful.

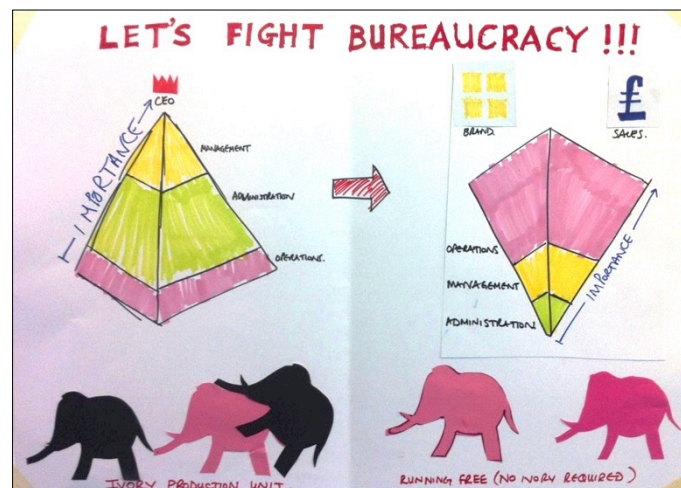


Figure 4. A protest poster made by participants during the case study

Case study

The examples of disruptive design in practice referred to below arose during a wider case study. During this research we followed a participant observation methodology where the principal researcher was a designer participating in the disruptive design interventions. This approach was both opportunistic and open ended and followed Jorgenson's model of fieldwork (Jorgensen, 1989). Research activities were observed using mixed methods and from a qualitative perspective.

The client organisation ("the client") operated in a UK manufacturing and retail sector worth £4 billion and which had grown by an estimated 8% in value between 2009 and 2014 (Mintel, 2014). In order to remain competitive within this marketplace the client had recently undergone a process of centralisation that involved moving away from regional management to a single central senior management function. At the time we were working with them, the client employed 20,000 people across the UK, spread between retail outlets and manufacturing plants.

In mid 2014 we facilitated a disruptive design workshop for a group of senior managers employed by the client. The brief was wide: to introduce the participants to disruptive design. One of the senior managers, Manager A, who took part in that workshop,

belonged to the client's People team, or "human resources". Following the initial workshop Manager A introduced us to a colleague, Manager B, also from the People team, who had a service design problem. Manager B had been charged with creating a new form of resource to replace an existing staff handbook. The resource would form the core reference material in the services provided by the People team to their internal customers, all 20,000 of them. The challenge was to create an authentic product that would become a catalyst for the design of new services. There was also dissatisfaction with the status quo with Manager B complaining that the client's iterative approach to the development of services led to more of the same thing.

Attitude

Our response to the problem was to suggest the staff handbook be reimagined as a travel guidebook, one that would suggest a series of journeys through the organisation as well as offering guidance as to how those journeys might be best enjoyed. These suggestions led to a proposal by us to the client that they make a large three-dimensional map constructed of physical representations of those very journeys. Rather than draft a lengthy proposal we gave the client a prototype model we had made using artefacts created in the earlier initial workshop (see Figure 5).

We told the client that our intention was to intervene in the established processes used by the organisation, in order to provoke debate and open minds to different ways of thinking and acting. We also told them that the outcome was unknown. The client's response to this pitch was a mixture of intrigue and frustration. We were told that senior management would not commission a project with entirely unknown outcomes and that for the purpose of their internal audience they would describe the project as simply "drafting a new staff handbook".

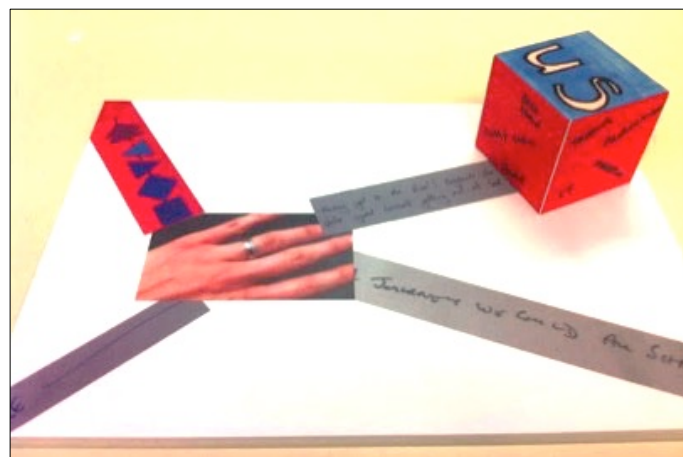


Figure 5. Prototype for a map-making intervention

Our reflections upon this early part of the case study were that as well as encouraging interaction with artefacts we were being intentionally provocative. This intention is identified by Galli (2014) as being a key feature in a "disruptive attitude" in designers and suggests it could take the form of corrupting the orientation of the project and of consciously steering the project towards a particular view. We suggest that this intention to provoke is important because it is the common ground shared by disruptive design and design activism.

Process

In the case study we told the client that we would instigate a three-stage process of *disrupt*, *understand* and *utilise*. The first stage, *disrupt*, was through the facilitation of a one day workshop where the participants were given a series of prompts to make artefacts from a variety of craft materials. These artefacts included buildings, vehicles, roads, people and stories and were used to populate the map (see Figure 3).

The second stage, *understand*, was simply a suggestion to the client that they would have to make sense of the map possibly by displaying some of the artefacts in their offices. The third stage, *utilise*, was equally vague with the suggestion that the client should interpret the map when creating the new staff resource.



Figure 6. Artefacts made in the map-making workshop

On reflection we admit that our intended involvement consisted only of *provoke* and *make*: *provoke*, through the large but empty map we had made and the series of prompts we would deliver; and *make*, by inviting the participants to respond to the provocation by making artefacts. The other stages were simply blank spaces we had left for the client to explore. This approach was intentionally vague, incomplete and open ended.

Methods

A number of design methods were used during the map-making workshop that formed part of the case study. These all involved making artefacts, using craft materials, of different aspects of their collective organisational identity. The artefacts included text, sketches, painting and making three-dimensional models. In each case the participants were presented with a visual prompt, were given some contextual information by the facilitators, such as a reference to a relevant designer or artist, and were then asked to make an artefact in a prescribed period of time. Examples of these artefacts are shown in Figure 6.

Prior to the workshop we designed a small notebook that was given to each of the twelve participants one week before the workshop took place. The notebooks contained a series of informal prompts that related to possible journeys through the client organisation. The prompts took the form of a series of sentences, such as “when I leave I hope people remember me as ...” The participants were instructed to complete the notebooks and bring them to the workshop. This was the only information given to them prior to the

workshop. The notebooks resulted from our concerns that the initial act of making a mark on the map, which measured 15 square meters, would be daunting for the participants and would cause them to be inhibited. At the workshop we asked each of the participants to choose one piece of information from their own notebook and write it in a continuous line upon the map. We suggested that these marks were not particularly important but would form part of the background information of the map, in the way that actual map information such as contour lines does. There was initial reluctance from the participants until one by one they approached the map and began to write (Figure 7). The participants then realised that they would need to work on their hands and knees, which resulted in several humorous conversations between them as they made way for each other.



Figure 7. Participants making marks on the map using content from their notebooks

The workshop concluded with a short period (less than 10 minutes) of reflection upon the map and the artefacts that had been made and added to it. This period of reflection was unstructured and informal.

We do not suggest that there is anything novel in the methods used in this workshop or indeed in our wider practice. These methods are commonplace in service design practice and research, with the importance of visualisation (Segelstrom, 2009) and prototyping (Holmlid & Evenson, 2007) widely recognised as core activities. We are not attached to a single method and, in common with Celaschi's suggestion (Celaschi et al., 2013), prefer to experiment. However a common theme in our practice of disruptive design is making simple artefacts from craft materials or, as we have referred to above, a material incursion.

Outcomes

The outcomes of the disruptive design intervention that featured in the case study were wide-ranging and complex. These were recorded using first hand observation, video, surveys and interviews. We sought to record and understand people's thoughts, discourse and actions during and following the disruptive design intervention. We also sought to record and understand the artefacts that were made.

In terms of achieving the client's goals, a new staff resource was created by Manager B. This was created in paper and digital form and included text and images that were identified as having originated from artefacts on the map. When asked about its *authenticity*, Manager B told us "it's definitely more about what people think about being

at [the organisation] ... it doesn't feel like its just things the management want to say.” This new staff resource could be viewed simply as a product whilst the service element - the delivery and use of the staff resource - continues to be developed by the client and will not be utilised until Spring 2016. We intend to evaluate the client's design of the entire service element through further interviews as part of our wider study.

In addition to the design of the new staff resource we suggest that taking a disruptive design approach caused a number of other outcomes, unforeseen by the client.

Following the map-making workshop Manager B invited us to install the map, complete with artefacts on the top floor of the client's head office. Manager B wanted other employees to make further artefacts and add them to the map. A co-design process followed between us and Manager B during which a number of issues were dealt with including providing context for what had already been made, providing a similar experience to the new participants, how Manager B would facilitate these further making workshops, how information could be extracted from the map and how data could be recorded.

The workshops went ahead, facilitated by Manager B and other managers who had attended the original map-making workshop, and in total a further 65 people from across the organisation took part over three months. We subsequently interviewed Managers C and D, both of whom had been participants and then acted as facilitators for their own teams. In both cases we discovered that as well as acting as facilitators in relation to the map-making project they had gone on to use similar techniques for unconnected activities relating to their own roles within the organisation.



Figure 8. Artefacts from a manager's self initiated workshop

Manager C worked in a department responsible for delivering learning and development across the organisation. She told us that in a recent project she had used a model making activity similar to the map-making workshop to get a team of people to explore what the culture of a new team being created might look like. She had asked them to think about a journey and any blockages they might encounter. An example of some of the artefacts made is shown at Figure 8 above. When we asked Manager C why she had taken this

approach she told us that she had “loved” the map-making workshop and felt that she had “a lot of freedom” to do what she wanted and so was able to do this.

Manager D worked in a regulatory role. He told us that, like Manager C, he had used a model making activity similar to the map-making workshop in a development meeting with his team. He told us how he had combined the model making with approaches he used regularly such as “reverse brainstorming.” When we asked him why he had taken this approach he told us that he was one of a group of “mavericks” within the business and that he “could identify with the disruptive design principles.”

Findings

We have made a number of findings in relation to the potential impact of disruptive design. Insofar as these findings relate to the examples of practice given here, they are the development of design knowledge, the emergence of active designers and the potential value of unfinished artefacts.

Design knowledge

An early observation in the case study was that people participating in the interventions appeared to be learning from making. This proposition suggested to us that people might be learning through receiving instruction, experiencing the act of making and from reflecting upon the artefacts they had made. This conclusion is supported by Cross’s model for design knowledge (Cross, 1999), in particular his suggestion of “a designerly way of knowing” residing in people, processes and products. In our case we have interpreted *products* as being the artefacts made.

We applied Cross’ suggestion that this design knowledge or ability can be positively developed both by taking part in design activity and by receiving instruction in it to the case study and observed those types of activities taking place. We then used a survey at the end of each workshop to ask a range of questions designed to indicate whether people had developed design knowledge as a result of the activities. One of the questions asked people if those activities had made them “more confident about making things” on a scale of 1 to 10 (negative to positive) as an indicator of design knowledge being developed. Of the 12 participants from the original map-making workshop 11 gave a positive response (in the range of 6-10). However, when we asked the same question to the 65 participants in the workshops run by the client itself almost half of them (29 people) gave a negative response (in the range of 1-5). We subsequently found, through interviewing the participants, that these differences in people’s perception of design knowledge being gained were due to the different amounts of time spent taking part in the activity (6 hours in the original map-making workshop compared to less than 1 hour in the later workshops) and, to a lesser extent, our absence from the later workshops.

Accordingly we suggest that the participants in the initial map-making workshop, which included Managers B, C and D, may have developed design knowledge. These initial findings will be evaluated further through interviews with the participants as part of a wider on-going study.

Emergence of active designers

Managers B, C and D were all independently, and without direction from the

organisation, carrying out covert forms of design activity. None of them had a formal design education, their job descriptions did not include the word “design” and the activities they engaged in were not labelled by them or the wider organisation as “design”. Accordingly we adopt Gorb and Dumas’ argument (Gorb & Dumas, 1987) that they were practising a form of “silent design”. The types of design activity they were practising were arguably within the “new roles” for designers described by Yee et al (2014). In particular, we suggest that Manager B fits the role of storyteller identified by Myerson (2007) whilst Managers B, C and D all displayed aspects of the roles of facilitator and co-creator identified by Inns (2007).

Unfinished processes

Insofar as our disruptive design approach can be viewed as a process it is an unfinished process. In limiting our interventions to *provoke* and *make* we are intentionally providing only part of, or the beginning of a design process. In seeking to understand why this approach might motivate people to go on and complete the process for themselves, by thinking and acting, and sometimes by making more artefacts, we suggest that it is helpful to consider our provocations as a series of artefacts that we had designed. In the case study the artefacts that served to *provoke* included a large blank map, as shown in Figure 7, and a series of visual prompts, consisting of words and images including “buildings”, “journeys” and “walking.”

We have suggested above that viewed as a process *provoke* and then *make* are vague, incomplete, open ended and unfinished. We would also suggest that viewed as collections of artefacts the same descriptions apply and that they are all elements of ambiguity as described by Gaver et al (2003). Gaver deals directly with the issue of peoples’ motivation to think and act when noting that “ambiguity of information impels people to question for themselves the truth of the situation.” Gaver also suggests that “by thwarting easy interpretation, ambiguous situations require people to participate in making meaning.” Accordingly we suggest that our unfinished approach, or process, may be what compels participants to engage in further design activity.

Unfinished objects

We have found that artefacts made by participants as part of a disruptive design approach, such as those pictured in Figures 4, 6 and 8 above, often have an unfinished quality which we attribute to them being made quickly from basic craft materials whilst at the same time seeking to challenge serious personal and/or organisational issues. Julier (2009) has noted a similar trend by design activists to create unfinished objects. When Julier put this to a group of sociologists Celia Lury suggested that unfinished objects should be understood as “an open-ended series or system” and that there may be value in “how an object might become, how it might evolve, how and with what (as well as who) it might connect, interact and so on.”

We suggest that the unfinished quality of the artefacts is a further provocation – separate from the provocations caused directly by the disruptive designer and often continuing long after the designer has departed. Indeed Flood et al (2014) have recognised this provocative quality by characterising design activism artefacts as “disobedient objects.” This is supported in a wider design context and indeed Boland et al (2008) note how the architect Frank Gehry uses the technique of making his early designs “purposefully crude and unfinished” and suggests that these unfinished models were “tools for thinking” rather than the “finished design.”

A further example from the case study that supports this suggestion of unfinished artefacts as a source of provocation can be found in Manager B's actions. During one of the co-design meetings regarding the further map-making workshops at the client's head office we asked Manager B how she was going to approach writing up the information that came out of these further workshops. Manager B's response was to say: "I will be moving my desk up here when the time comes to write [the artefacts] up ... I think I need to be near the map so that I can understand it, keep going back to it."

Conclusions and future work

We have sought to describe the practice of disruptive design in terms of attitude, process, methods and outcomes and to give relevant examples taken from a case study involving the design of services. At the heart of what we have described is an intention to disrupt people and their organisations through provocation and encouraging the making of artefacts. We suggest that these stages of *provoke* and *make* are catalysts for further activity in the form of *thoughts* and *actions* and that this suggestion is supported by the outcomes and findings we have described.

Whilst the aims of our approach and the practices undertaken in the case study may be familiar to service design practitioners and researchers, we suggest that adopting a disruptive design approach may offer a different perspective to compliment existing service design methodologies. The opportunities this may offer can be summarised as:

- » The methods required, of making simple artefacts from craft materials, are familiar and accessible for designers already practising service design.
- » The emphasis on making artefacts may lead to the emergence of active designers within organisations.
- » The artefacts, in the form of the provocations and the artefacts made are often unfinished and ambiguous and as such may act as a catalyst for self initiated design activity by the participants and their wider organisations.
- » The outcomes are not entirely goal orientated and are likely to be unknown at the beginning and multiple at the end.

In terms of future work we intend to develop a framework for disruptive design practice, providing more detailed examples from case studies that will allow practitioners to use and evaluate our approach.

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