

Deconstructing Experience - pulling crackers apart (endnote)

Alan Dix

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Endnote – 15 years on

It is 15 years since this chapter was first written and there have been developments both in virtual crackers and in design and creativity methodology during that time. The original conclusions mentioned that deconstruction–reconstruction was "*one part of a systematic armoury for the design and remediating of experience.*" This endnote will expand a little on this methodological message and on the changes since that time.

Unknown knowns – externalising tacit knowledge

A central part of the deconstruction–reconstruction process is identifying the core elements. On the whole, surface elements are not hard to identify: if you ask experts in any field they are usually able to name the key concrete nouns and verbs in their area. However, the experienced effects are more difficult: while concrete nouns are easy, often more abstract nouns are far harder to name, in particular qualities, concepts, criteria, and design dimensions. They are unknown knowns: tacit knowledge, things that you know, but don't know that you know.

Making this tacit knowledge explicit is a core goal of *externalisation*; elsewhere Layda Gongora and I have argued that this externalisation can lead to a step change in understanding, making it possible to reason and discuss about one's own knowledge (Dix and Gongora, 2011). Indeed this is at the heart of the higher levels of Schön's (1984) reflective practice and precisely how the experience construction–deconstruction gets its power.

Fun but not engaging – seeking critical transitions

The examples in the case study derived some of their concepts from analysis and some, apparently, from thin air. However, even the more systematic analysis does not in itself create the concepts, instead this is another a largely tacit expert skill. Part of the 'armoury' are techniques to help this externalisation process.

One approach is to try to find *critical transitions* (Sas and Dix, 2009), pairs of concrete examples that are as similar as possible to one another and yet one of them has some hard to frame property and one does not. In articulating the

difference, often criteria or design dimensions emerge. This may involve deliberately engineering scenarios where you have a visceral reaction, and then use this as a trigger for reflection and analysis.

One example of this was in work with Masitah Ghazali trying to better understand what makes an experience 'fun'. One question that emerged was whether all fun experience are also engaging. It was easy to find engaging experiences that were not fun, but every 'fun' experience also seemed to be engaging. This vocabulary of experience is complex and tacit, we easily recognise 'fun', even the fact that others find something 'fun' that we do not, but find it hard to explain.

To explore this we started with an experience that was boring, neither fun nor engaging: waiting for a kettle to boil when you are desperate for a cup of tea. We then tried to modify it until it was fun, but still not engaging. One idea was a tweeting kettle, when the kettle boiled the pressure of the steam would pop up a small bird (plastic not live!), which would then tweet as the steam vented. However, this was itself slightly unsatisfying, possibly 'funny' rather than 'fun', or perhaps a moment of 'fun' ending an otherwise unfunny experience ... but then how is that unlike a shaggy dog story?

The critical transition of the example was from 'no fun' to 'fun', but recognising the visceral sense of dissatisfaction had turned a question about 'fun' and 'engaging' to an apparently closer one between 'fun' and 'funny'. We then went on to explore linguistically, looking at the variety of Malay words that might translate as 'fun'. Whereas most languages 'cut up' the conceptual space of concrete objects in a similar way, the less delineated abstractions of perception and emotion, are often dealt with differently; languages 'chop' the space in different directions, and in their cross-cutting expose finer distinctions.

(Re)coding dialectic – visceral reactions for theory development

Another technique that exploits this combination of critical transition and visceral reaction is *(re)coding dialectic* (Dix, 2008). Perhaps you have performed a grounded theory (Glaser and Strauss, 1967) analysis of interview transcripts, or perhaps you come to the transcripts with an existing theoretical construct such as actor-network theory (Latour, 2005). You need to know whether your theory, indicative or theoretical, is adequate for the data. The grounded theory analysis relies on its process, and actor-network theory on its theoretical foundations, and previous utility in other domains, but have they worked here, now, on your data?

(Re)coding dialectic starts by coding the data with the vocabulary of the theory – in the case of inductive theories a recoding as they had already started with a theory-free coding.

Some parts of the transcript may be hard to code with the existing categories. This may be because it is irrelevant to the purpose at hand, but the gap may suggest broadening your remit, or expanding your vocabulary.

Perhaps most interesting are those parts that can be coded, but where the coding feels inadequate; for example, an account of pulling crackers, or watching Soviet-era protest theatre (agitprop) might equally be classed as "leisure activity". Often saying "just a" helps to make the issue obvious: "Brecht's play is *just a* leisure activity". You look for that visceral reaction, the sense of insufficiency, the feeling in your stomach that your vocabulary does not adequately represent the phenomena. Again this is sometimes fine, for the purposes of your analysis the expression is acceptable, even if it might be inadequate in other contexts. However, in examining the dialectic between term and thing, word and world, and attempting to explain it, "it is not sufficient because ..." , new insights, new criteria, new distinctions emerge – your analytic vocabulary and model of the world become richer.

Bad Ideas – breaking boundaries and mapping the domain

Perhaps the most successful, and certainly most fun, technique in uncovering criteria and dimensions is *Bad Ideas* (Dix et al., 2006). Normally, during brainstorming or similar ideation exercises, you try to think of good ideas, the emphasis is typically on non-judgemental idea generation, to encourage out-of-the-box thinking and occasionally technology is used to allow anonymity. However, in practice it is hard not to generate small changes to existing ideas, and to feel the need to defend one's own idea.

Bad Ideas does the opposite, it asks you to think of bad or plain silly ways to tackle whatever issue or design problem is at hand; an example during one session was 'an inflatable dartboard'. Because the ideas are deliberately bad, you have increased freedom to be divergent to explore the far-flung reaches of the design space, however inhospitable. Furthermore, if it was deliberately a *bad* idea, then there is less of the emotional attachment that creates defensiveness; you can be free to critique it.

However, Bad Ideas does not stop with idea creation, but follows this with a series of questions to prompt reflection: "it is bad, but why is it bad?", "is there anything good about the bad idea?", "is there something that has the bad property, but is not bad?". This investigation can sometimes itself lead back to a good idea: the bad idea allowed exploration and the critique brought the bad idea back into 'good' territory, but in a new and unexpected place.

As important, the probing questions force one to articulate critical distinctions in the design space. Initially the very craziness of the idea suggests instant criteria, but the "sharing the property but not bad" question (or equivalent for good features) forces finer distinctions – critical transitions again.

Extensions by others

Other researchers have developed work based on some of these techniques, either working with the author or individually.

While virtual crackers were about creating virtual experiences from physical ones, often making things physical, or embodied can help externalise them.

Paula de Silva (2012) worked with specialised forms of Bad Ideas in addressing ubiquitous computing design; this included participants creating models of proposed devices. Similarly, Layda Gongora's RePlay method (Gongora and Dix, 2010) uses theatre improvisation techniques to explore both physical design questions, but also more abstract concepts, for example encouraging participants to act out computers and networks.

Finally Clare Hooper created a systematic method TAPT (Teasing Apart and Piecing Together) based on the deconstruction–reconstruction methods of this chapter (Hooper and Millard, 2010). Her work was targeted at software engineers who are used to more systematic methods, and so she constructed a series of worksheets within a step-by-step method.

Virtual Crackers – aging, but soldiering on

Since this chapter was first written, virtual crackers had a brief foray into Facebook. This required a similar redesign process due to the nature of what was possible given the Facebook interface and API at the time – although still digital, effectively a different medium to plain web pages. In particular, there used to be a limit on the number of posts that an application could make on a user's behalf, and so the user had finite 'box of crackers' which were used up during the day and replenished at night (another job for TorQil the cracker elf). Unfortunately, only a year or so after, Facebook changed its model for application developers, and so Facebook Christmases were once again bereft of crackers.

However, virtual crackers on the web are still going strong. They have had a few minor upgrades over the years, but with the same, now web-retro, look and feel. They no longer attract the same level of 'fan mail' as they did in their first days, but for various people they have themselves become part of the traditions of Christmas, which they initially emulated. Perhaps most interesting was the conversation with someone born in a non-crackers country, who told me how in her first Christmas in the UK, she had known what to expect because she had previously received virtual crackers – definite hyper-reality.

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