

Photoboarding

Exploring Service Interactions With Acting-out and Storyboarding



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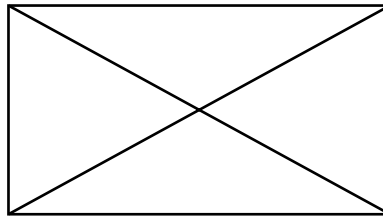
In conceptualising services, the design team has to consider a complex set of related factors, including user experience, situation, infrastructure and person-to-person interactions. For this they need a shared language that crosses disciplinary boundaries and avoids jargon. In the film industry, storyboards have performed this function of expressing and discussing visions for over half a century, and in interaction design, acting-out techniques have gained prominence as a means of developing such visions.

To convey the essence of a new service, you typically have to tell a story about one or more people interacting with it over time, with the aid of certain technologies. The story addresses the experience of these people ('Why do they like it?'), the situation where the service is used (home, work or public space) and the machinations behind the screens that make it all work. In designing services, these considerations require a multidisciplinary team to understand and discuss each other's views, concerns and ideas.

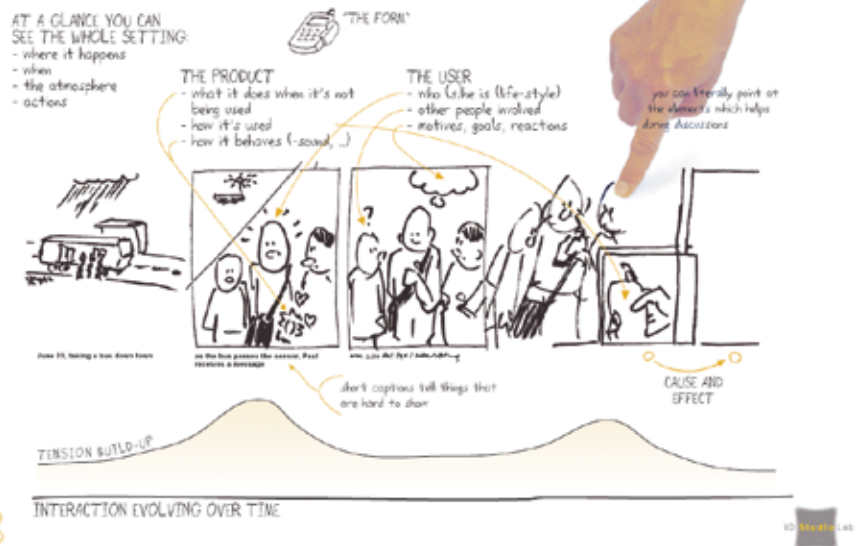
Storyboards have proved to be a great vehicle for communication in these matters. They depict situations, people and time in a storyline made of a sequence of images and words. Furthermore, they provide a canvas for adding specialist concerns and opportunities, such as user

needs, infrastructure requirements, unresolved questions and opportunities. The strength of storyboards in supporting team communication is that, like a movie, they tell a story in everyday, experiential language that the whole team understands, and – unlike a movie – they present all this in an overview that can be annotated. The viewer can step into the subjective experience and step back into the objective overview¹.

Storyboards emerged from the movie industry, where not only the director and cameraman use them to envisage and plan the movie, but also the actors, as well as those responsible for sets, props, costumes, casting and locations. Their advantages are clear: anyone can read and discuss them, and you can point at them in a group meeting. A barrier is that



how a STORYBOARD can show more than a product sketch



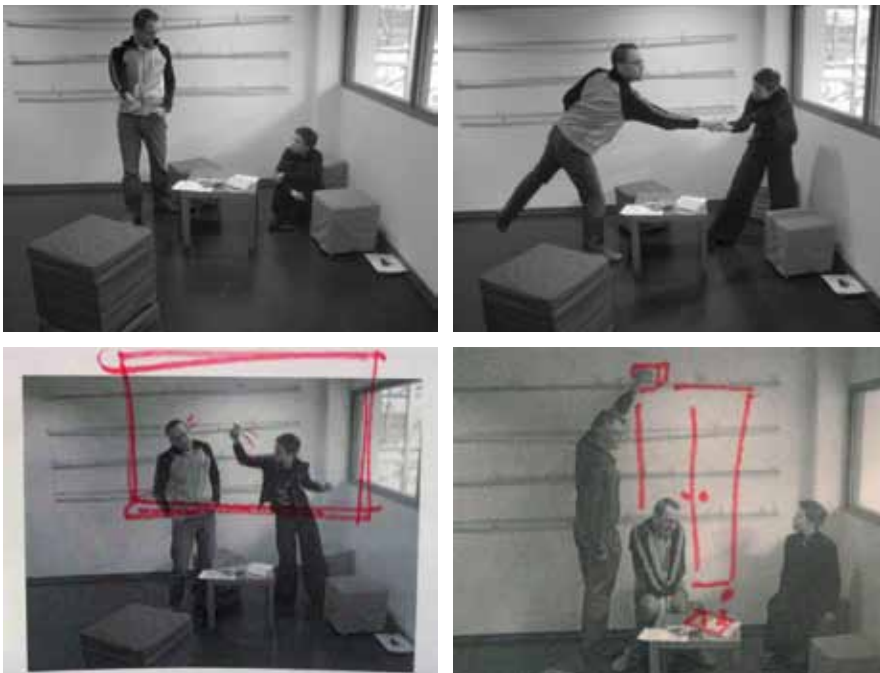
Storyboards express the what, where, why, when, who, and how of interactions and experiences

they require visualisation skills in depicting people and environments that are beyond those of most of the team.

Acting-out techniques (such as play-acting and bodystorming) became popular in interaction design and experience design during the 1990s, as it became clearer that human interactions and experience are difficult to think about and discuss while sitting at a table, but are more easily conceived and expressed when physically performing the actions[2]. You can talk for hours about picking your mobile phone out of your pocket in a densely packed lift, but when standing together, squeezed in a small room, many abstract concerns become much more tangible (often quite literally tangible). Although many of us feel awkward when asked to act, an appropriate facilitator can usually put team members at ease and can bring them into the mood for play. The advantages of acting-out techniques are that they give direct access to factors such as time ('How long is 20 seconds wait

in an lift?'), person-to-person interactions ('Are they standing too close for comfort?'), and comfort ('Can I do this sitting down?'). The disadvantage is that acting leaves no trace. Even if captured on video, looking at it again takes special effort. Moreover, many aspects that were in the play-actors minds are not explicit in the video ('The room used for acting out the scenario is not a real elevator').

The photoboarding technique³ was developed at ID-StudioLab in the 1990s to form a bridge between storyboarding and acting-out techniques. With this technique, a group of actors (the design team themselves) conceive a storyline that conveys the essence of the product or service interaction



Photoboard sequence about brother and sister fighting over the TV's remote control, and father placing the control out of their reach

and act out a small series of scenes, which are photographed, printed, and further embellished with captions, drawn-in background elements and annotations. The technique forms a bridge between storyboarding and acting-out. It can be used as a quick way to produce a storyboard (without the need for advanced drawing techniques), and provides a practical motivation to encourage people to perform acting-out (as a means of producing documentation) and it introduces them to the development the concept design in the performance.

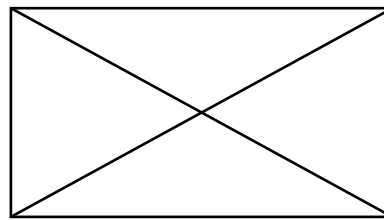
The technique starts by forming a story that conveys the essence of the product or service for its users (in the scenario shown here, a group of people were tasked with selecting TV channels together).

Once an initial idea is formed, they should move away from the table (to prevent endless talk), act out the interaction themselves and decide upon at most five images to convey the whole story. The five photos are shot using whatever furniture and backgrounds happen to be available to match the story and printed immediately, preferably in low-contrast black-and-

white, so that details of dress don't catch your attention and so that it is easy to draw in background elements. Finally, captions are added to explain those things that are not apparent, and the resulting photoboard is given a title to start the viewer in the right direction.

The resulting photoboard should be reviewed by the team ('Is it correct?'), by volunteers unfamiliar with the technique ('Is it clear?'), and should be improved where necessary. The discussions usually lead to new insights into the concept, which can be acted out again and worked into new iterations of the concept and into the photoboard. After the session, it may be worthwhile to work the photoboard into a storyboard for longer-term use, which may involve tracing over the people, adding more realistic backgrounds and giving it an appropriate aesthetic.

We have applied the techniques for about a decade in design courses, conference workshops and projects in industry [4]. Photobordering helps as a motivator to get the design team into acting: many people are hesitant to act out scenes, but they see the advantage



of posing to create the basis of a storyboard. On the other hand, you should watch out for pitfalls. Some people lose themselves in aesthetics or a striving for completeness. It pays off to be strict about having only five pictures in the story (at least to start off with), and to avoid elaborate explorations of camera angles (using Photobooth on a Macbook worked marvellously, because all the actors could see what the image would be like and nobody wasted their time on finding a dramatic camera angle). In photoboarding, you don't zoom the camera, you cut the print-out with a pair of scissors.

When applying photoboarding in practice, keep in mind how the results will be shared and how the technique is explained to the participants. Producing

the results on paper posters works best during a workshop, but you may want to capture the final results in Powerpoint for sharing it with the team. Also, especially in practice, make sure that the participants recognise the value of the acting (after it's finished): if they don't realise how the concepts have developed during the acting-out, spending a few hours on 'just making five photos' may seem like an exorbitant investment of time.

When introduced correctly, photoboarding is an easily-learned, inexpensive and quick technique that can serve as a start for design teams to bring both acting-out and storyboarding into their design process. ●



References

- ¹ van der Lelie, C. (2006) *The value of storyboards in the product design process. Personal and Ubiquitous Computing*, 10(1), 159-162.
- ² Boess, S., Saakes, D. & Hummels, C. (2007) *When is role playing really experiential? Case studies. In Proceedings of the 1st International Conference on Tangible and Embedded Interaction*, 279-282.
- ³ Saakes, D.P. & Keller, A.I. (2005) *Beam me down Scotty: to the virtual and back! In Proceedings of Designing Pleasurable Products and Interfaces*, 482-483.
- ⁴ Stappers, P.J., Sleeswijk Visser, F., & van der Lelie, C. (2011) *Storyboarding for Designers and Design Researchers. Course at the ACM Conference for Computer-Human Interaction (CHI) 2011, May 7-12, Vancouver, Canada.*

"Complete photoboards carry a title, captions, annotations, and drawings to guide the viewer (result of student exercise)