

# Manytyping: Seamless Mixed-tool Prototyping for Multichannel Services

An emergent experiential prototyping practice



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In 'manytyping', techniques such as desktop walkthroughs, paper prototyping, investigative rehearsal and 2D or 3D mock-ups are used together. By switching seamlessly between techniques during one prototyping instance – or using parallel techniques – complex experiential prototypes are possible very early in a project. It's low-tech, fast, immersive and surprisingly easy.

Many techniques are used to prototype services, from low-tech methods such as desktop walkthroughs and paper prototyping, to electronic sketching (e.g. Arduino) and virtual reality. Outside fully immersive environments like VR, it's often said that several prototypes or prototyping methods are needed to illuminate a single service concept.

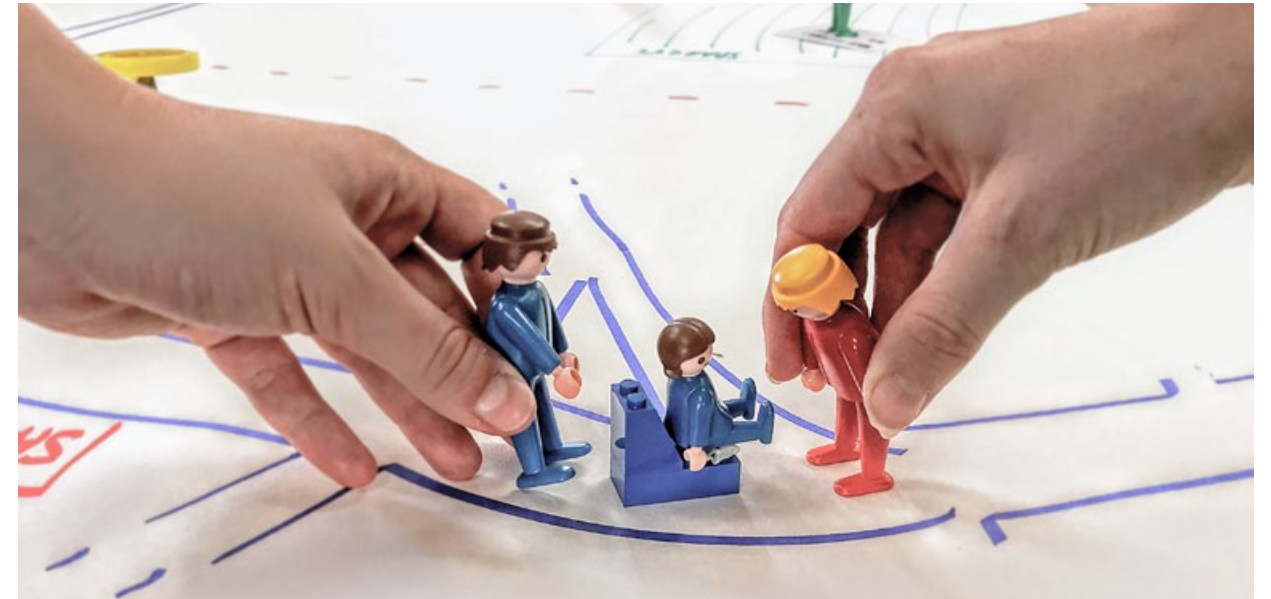
Each prototyping method has a bias, working well in representing some aspects of a service concept, but failing in others. Desktop walkthrough<sup>1</sup>, for example, is a powerful tool for simulating processes – especially at larger scales – but does

not allow us to zoom in to see details of interactions. Investigative rehearsal<sup>2</sup> is highly immersive and handles human-human and human-machine interactions well, but with its 'human scale', participants sometimes struggle to show details of interfaces or deal with larger geographies. 2D and 3D mock-ups are excellent at representing screens or devices, but because they are isolated models, they cannot show context in themselves.

Recently, we have observed practitioners combining these methods among others, jumping between them within the same run-through, representing complex experiences and

<sup>1</sup> Desktop walkthrough is a popular prototyping technique where processes and experiences are played through on a map using counters or toy figures like Playmobil. It often feels like a combination of tabletop gaming (or military sandtabling) and puppet theatre.

<sup>2</sup> Investigative rehearsal is a theatrical method where team members act out processes and experiences, with each participant playing the part of a human, machine or software interface. See Touchpoint 3.3.



Desktop walkthrough level: stakeholders meet

underlying processes in an engaging, experiential way. This method was examined at a recent explorative meet-up<sup>3</sup> between the service design and applied improvisation<sup>4</sup> communities, and the term 'manytyping' was coined.

## Illustrative example

A team is working on the service ecosystem, processes and user experiences around a farm produce vending machine. They have already iterated several prototypes of various sub-processes and have evolved a desktop walkthrough set: a cardboard-based vending machine, and various digital interfaces created as click-dummies. Now they want to combine them in a single run-through of the holistic system and experience.

The desktop walkthrough forms the backbone of the manytype, and the process begins with one Playmobil figurine representing a tourist walking through a village. She encounters another figurine and a conversation begins.

At this point, rather than abbreviating the conversation or playing it as 'puppet theatre', two of the team stand up.<sup>5</sup> They step into an investigative rehearsal, where the 'tourist' asks for a local shop and is directed instead to the vending machine. The tourist's questions about directions and methods of payment are noted for future iterations.

The conversation ends and the tourist figurine explores the village while team members scribble notes about signage. When the figure arrives at

<sup>3</sup> 'MiniCamp: AI meets SD', Oslo 4-7 February 2019. Publications are in preparation.

<sup>4</sup> Applied improvisation uses the principles, tools, practices, skills and mind-sets developed in comedy, jazz and theatre and utilises them for non-theatrical or performance purposes. See <http://appliedimprovisation.network>

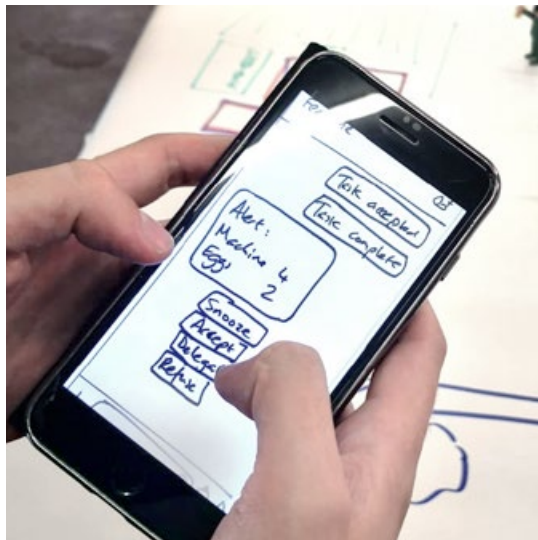
<sup>5</sup> This is reminiscent of Schön's work on reflection in action: "When good jazz musicians improvise together [...] listening to themselves, they 'feel' where the music is going and adjust their playing accordingly." (Schön, D. (1987). A.(1987): "Educating the Reflective Practitioner". San Francisco: Jossey-Base, p. 30)



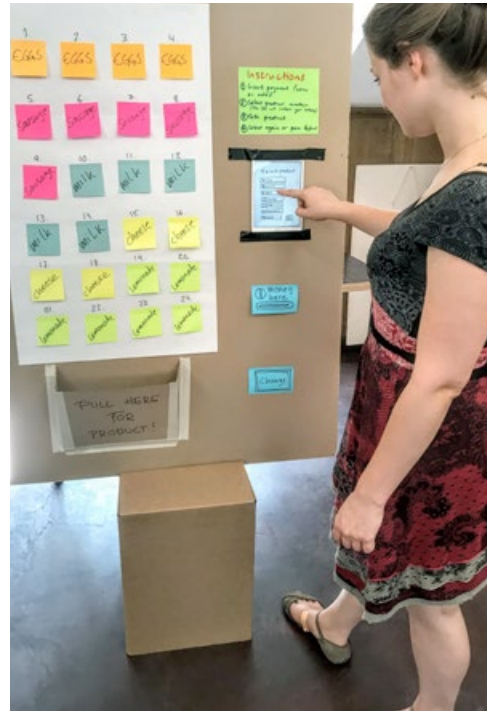
The real thing: a farm produce vending machine in Germany



Investigative rehearsal level: stakeholders interact



Click model level: interaction with device



3D prototype/click model level: interaction with device

the machine, the designer playing the tourist stands up again, approaches the cardboard mock-up, reads the instructions, and buys some 'eggs' using a click model on a tablet taped to the mock-up. The tourist tucks the eggs under her arm awkwardly, and a colleague scrawls "carrier bags?" on the bug list.

During the desktop walkthrough, one of the team moves a paper token, representing a text message, from the tiny vending machine to a figurine working on a farm. The 'farmer' pulls out his phone, where a click dummy of a messaging app tells him "Alert! Machine 4; eggs 2". It's almost lunch, so he decides to act immediately and clicks 'Delegate'. The message tokens move from his phone to various points on the desktop walkthrough, and a Playmobil truck heads for the chicken barn.

### Links to applied improvisation

As well as using familiar prototyping techniques such as desktop walkthrough, paper prototyping, mock-ups and click models, this method incorporates or echoes practices from the world of applied improvisation such as 'Switch Scene'<sup>6</sup>, 'Life Game'<sup>7</sup> and 'Fast Forward'<sup>8</sup>. And there is one pre-existing overlap: the service design technique 'Investigative Rehearsal' mentioned above is based on 'Theatre of the Oppressed'<sup>9</sup>.

Paul Z. Jackson (of The Solutions Focus and a leading applied improviser) reflects, "The technique reminds me of the best sort of applied improvisation – drawing on whatever is most appropriate at any given moment. That's what AI principles like 'Making Use of What's There', 'Accepting and Building' and 'Spotting Successes' are all about."

### Applications and summary

The manytyping technique has proved very useful in helping teams shift focus from individual channels and touchpoints of a service, to consider the holistic experience and underlying process. Patti Hunt of MAKE Studios and Service Design Hong Kong, writes, "As well as enabling an instinctive understanding of how channels and sub-processes connect, sticking to one 'live' timeline allows teams to examine important experiential factors, such as timing and dramatic arcs."

Manytyping is also easily understood by less experienced co-creative partners, serves especially well to communicate the prototype to outsiders, and is far cheaper and faster to set up than a VR environment.

- 6 Switch Scene is a theatre improv game in which performers create more than one scene and switch between them on command, like zapping between channels on TV.
- 7 Life Game is a format by Keith Johnstone in which an audience member or invited guest is interviewed about their life, after which the performers recreate scenes or more playful interpretations.
- 8 Fast Forward is a technique often used in theatre improv, where the players jump scenes forward in time to investigate more interesting or critical moments.
- 9 Also called Forum Theater; see Boal, A. (2000). Theater of the Oppressed. Pluto Press.

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