GENERATIVE THINGS

The State of Responsible Tech 2025

ThingsCon Report:
The State of Responsible Technology 2025

Published by Stichting ThingsCon Amsterdam, June 2025
Curation, editing, design: Andrea Krajewski, Iskander Smit

Stichting ThingsCon Amsterdam
Silodam 366
1013AW Amsterdam
The Netherlands

More about ThingsCon: https://thingscon.org

Note: The portrait images are AI-generated based on the original images as an experiment thematically inspired by 'Generative Things'. They were created with Chat GPT 4o. Prompt: "Black and white vector illustration, full portrait: head, hair, shoulders, arms visible, strong lines, clear contrast, white background, white clothing, format: 50 × 75 mm, 300 dpi (printable)". The results may not correspond to the original. The designers apologise for the AI.

Contents

Methods

Provotypes

Urban perspectives

Ubiquitous immersive relations with generative things

Iskander Smit

The history and emergence of generative things

Generative things became the inspiring theme for the ThingsCon conference last year. We realized that a new type of physical object could emerge when they will be combined -or better, infused- with generative AI. What that new type would unlock was a question to address. Before diving deeper into my thoughts, let's roll back a bit on the path toward the current and near-future reality or generative things. And especially add the current iteration of generative AI; agentic AI. This means that "things with agency", a concept we introduced concerning cities of things back in 2018 (Lupetti et al., 2018), becomes a reality. The Generative Things signify a new wave of AI — physical AI — that appears in our daily environment and becomes part of our living space.

We come from a world where digital was an extra layer on top of everything, a new kind of service, into a world where everything is digital. Our lives now follow, in great part, the affordances given by digital services: continuous connectedness, knowledge about the context we are in, and an ad hoc way of living very much in the moment with less planning. I am not telling anything new.

What is new, however, is that we are adding generative AI to this digital reality. Since the introduction of ChatGPT as an interface to the transformer models that were invented around 2017, we have a new form of creating more generative intelligence. By introducing this chat interface, OpenAI accelerated its use, and now, three years later, we see it becoming more part of our reality, similar to how the Internet launched in our lives in the second half of the 90s, became the engine of our daily social life with the smartphone in the 2010s. As with every technology, this new one has a dramatically shorter time to be adopted. We are not at the smartphone levels, but it feels like we are approaching some tipping points.

We're seeing rapid development, especially in certain domains, as people begin to replace their search engines and default digital behaviors with generative AI helpers. People are still looking for the right collaboration here. Are we just replacing search with a different format and different output? Are we formulating new questions? Are we expecting different things from our tools? We can see how people now expect more, especially with the reasoning models released in the last few months. These models can produce full research papers and are being extended with agentic behavior. Mixing different types of input (multimodal), and delegating tasks to the AI is still in an early stage, but might follow soon, especially as it becomes integrated into existing digital services.

The consequence is that we are already partly replacing the conversational interface by assigning tasks to AI agents. And the next logical step is vibes coding, making very personalized services using the abillities of the rise of AI-powered code editors. As often, this is not a new concept in thinking about applying computation, but now it's becoming accessible for everyone to address problems in daily life or work environments by building apps themselves through conversations.

Generative things becoming ubiquitous physical AI

In the next few years, we can expect to see this development of agentic AI continue. As vibes coding becomes more personalized, it will be adopted by larger groups of people, becoming more part of our daily lives—we'll start to expect these capabilities in every-thing we do. Additionally, the technology will become more solid, higher quality, and able to take over more of the coded world. Complex systems that currently need solid coding structures will become accessible through these new interfaces.

What we're adding to the mix now, is the physical angle—the things angle. What happens when things become more based on the principles of generative AI? We still have to figure out how to relate to these new things. A common belief is that every computation task we perform in our life, from producing text or planning our agenda, from organizing social life to finding relations, are all possible candidates to be enhanced with conversations with or delegating to generative and agentic AI. It is not strange to think that the same will happen to things that have computational interfaces with us. From our kitchen appliances to electric bikes, to name a few.

As these generative things become more part of our natural habitats, we approach a form of ubiquitous AI—a new reality and environment. Where all of the things are working as an ecosystem creating an intelligent interactive environment. How will we experience this? How will our environment treat us? Will we have different forms of understanding and interacting? How will this change our perspective on reality?

The impact on our everyday life

In this expected interactive environment, there are multiple layers of interaction. Consider a delivery bot: there's the contact moment when you order and receive a pizza, which is a task for the bot. But there's a higher level related to the conversation you have with the bot based on your profile with that service. These two aren't necessarily connected—delivery bots might just do deliveries, while the real experience comes from the service provider. This opens up new types of interactions because we can have a history or memory of our different communications with the tool and service. Compare how we use ChatGPT to address specific questions, while you can also ask to create personal psycho-analytical coaching advice based on all of your chat history.

This example of layers within ChatGPT, it stays -in principle- within your personal premises, and is it initiated by your question. This changes if everything you encounter in the everyday world is capturing and interacting. Even if this environment is not continuously capturing, the potential of having all the non-human actors connected in an active network brings the so-called active network theory reality, where human and agentic things are operating on the same level.

So will we be like fish swimming in the sea, not understanding the concept of water, with ubiquitous intelligence becoming part of our everyday lives? Or will we be more feeling the intelligence as a panopticon that is unseen but something we always take into account in our interactions. As with all future developments, this will not be a one-day overhaul—we will grow into it, just as our smartphones shifted from handy tools to shaping everything we do.

As most important shift is from responsive to initiating computing through things with agency. We're moving from tool-based, on-request use to a ubiquitous environment. Our environment might interact with us proactively—triggered by understanding that we're looking for something, wandering around, recognizing insecurity, or connecting us with other people. The scenarios are endless.

Designing for co-performance and human-AI teams

We shouldn't think about design merely as creating services, things, or products. We should think about what kind of life or interactions we want in our day-to-day existence—what conversations we want to have, what feelings we want to experience. This ubiquitous AI shapes a continuum where we are in constant conversation with a more intelligent world.

But there's another dimension to consider: what is the end goal of this whole system? We can give this ecosystem of things and services an overarching strategy or goal. We can design for perfect individual experiences, or we can design in such a way that focuses on collectivity—always approaching a person as part of a whole community. We need to mention here a big question about who is controlling these ecosytems.

There are still different choices and scenarios possible on how we let these new generative things and ubiquitous physical AI develops, what the conditions are, socially driven, and based on regenerative principles. This needs to be part of the discourse, of the considerations of designers and policymakers. Independent of the outcomes, we need to think about how we want to relate to this new ubiquitous intelligence. This will play out on multiple levels. The most direct level is all focused on the interactions we shape with the generative things towards respectful relationships. I come back to the thinking of co-performance (Kuijer & Giaccardi, 2018)—making the right balance between human and AI, seeing human and AI actors as teams of collaborating actors that set overarching goals connected to our societal beliefs.

The next level is how we will organize these new societies. What does it mean for governance and social structures? Will things become almost like fellow citizens, or will they remain tools we use? How do we deal with goal setting? How can we create systems of collective things and humans that have a built-in intention to stay collective, to steer toward collective goals? How can we prevent people from putting personal interests before everything else? With the emergence of physical AI with agentic behavior we are entering a new phase in the still brief history of living with generative AI as part of our digitally shaped lives. In this short piece, I can only touch upon the potential big shifts happening. The shift from tools towards a ubiquitous presence —or immersiveness in current popular framing— is the creation of new experiences, new realities, with new impacts.

And that is only looking at the impact on our daily life, not taking into account the impact on the environment, and the role of Big Tech in influencing our behavior that will become seriously a factor to address. We once started with the internet as a democratic, almost punk movement where everyone could make their own stuff. We have this promise again with vibes coding, but more than ever with AI we are dependent on big parties for the models because they require vast amounts of data and investment in data centers. I leave this aspect for another moment to address in more detail. And I can point you to the piece from Kars Alfrink in this RIOT report and (Alfrink, 2025).

So how do we relate to this? Are we designing for individuals, or should we oppose this move toward individualistic development? Should we put it in the context of design for collectivity, thinking about what it contributes to society—both smaller-scale societies like neighborhoods and larger ones like countries or interest groups?

There are many opportunities to think about these layers: the operation of interactions, the emotional layer of conversation, and then the commons—the community and society layer. The intent of the community layer is to improve societal aspects.

How can we enable, enforce, or leverage the possibilities of things that become part of our environment—this ubiquitous new reality where we always have opportunities to conversate with the things we use? How can this contribute or take an extra role in creating new kinds of society and community-based layers?

Conclusion: design for collectivity needed, also in human-AI co-living realities

Our goal for near-future thinking about generative AI in our lives should be a combination of designing for human-agentic AI teams and designing for collectivity—for societal structures that put the common good above individual economic interests. We need to translate our societal beliefs into “system cards” for both generative AI and for humans interacting with AI actors.

The ultimate challenge for all of us is how to address these questions together. What insights, questions, action points, or considerations can we collect from every project and article to build up something collaborative? How do we move from designing for individual convenience to designing for collective well-being in this new era of generative things? This is where we must focus our attention as we navigate this emerging landscape of ubiquitous physical AI becoming an integral part of our social fabric.

References

Alfrink, K. (2025). People's Compute: Design and the Politics of AI Infrastructures.

Kuijer, L., & Giaccardi, E. (2018, April). Co-performance: Conceptualizing the role of artificial agency in the design of everyday life. In Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems (pp. 1-13).

Lupetti, M. L., Smit, I., & Cila, N. (2018, September). Near future cities of things: addressing dilemmas through design fiction. In Proceedings of the 10th Nordic Conference on Human-Computer Interaction (pp. 787-800).

Iskander Smit is the founder and chair of the Cities of Things Foundation, a research program that started at TU Delft, where he was a visiting professor. It now serves as an independent knowledge platform in cooperation with academic partners and industry. Iskander is deeply involved in exploring the relationship between human and machine intelligence from a design perspective. He founded Target is New and is a curator and board member of ThingsCon. Prior to this, he held positions in strategy and innovation and was involved in various technology initiatives and events as an organizer and public speaker.