It's a Scam: On the Deceptions of Robotic Playmates

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ABSTRACT
We discuss the challenge of exploring interactive technology within a children's culture dominated by toys and stories based on transhumanist narratives of autonomous technology, robotic and artificial friends, timetravel, and future visions shaped by technological determinism. This position statement reflects on our role as design researchers in navigating this cultural backdrop in design efforts that include AI-imaginaries, especially together with children.

Author Keywords
Scam, robots, children, responsibility, narrative

CSS CONCEPTS
• Human-centered computing • Emerging Technologies

INTRODUCTION
In reflecting on the co-agencies involved in design work related to autonomy and generative AI together with children, we here reflect on how such work must be understood as shaped by a broader cultural discourse around autonomous technology, in particular robots.

According to the Convention of children's rights, children should take part in decisions that concern them [12]. A question is how we can make this happen, when saturated in a culture with already given imaginaries?

Robots occupy a powerful space in children's culture [8]. Through films, toys, books, and games, children routinely encounter fantasy robots, i.e. machines that are autonomous, emotionally fluent, and virtually indestructible (see Figure 1). Even in a reading book for first graders, examples of a robot with human-like existence play a central role.

Such fictional portrayals construct early narratives about robotic capabilities: always-on helpers, omniscient companions, and morally neutral. While such visions also inform some strands of research, they profoundly misrepresent current robotic technologies [4, 5]. However, also we as researcher contribute to myths about robots, when arguing how "Robots are increasingly" [7]. Overall, these myths form some of the most enduring expectations children carry into adulthood, influencing how society at large imagines and evaluates robotics.

In contrast, a down-to-earth design perspective [3] emphasizes the *actual* nature of contemporary robotic systems: energy constrained, fragile, maintenance-dependent, and deeply entangled with people and their practices. Robots in homes and workplaces, in the forms of e.g. vacuums, toys, and fabrication arms, are rarely autonomous in a real sense. They get stuck, need charging, misinterpret their environment, and rely on human control, improvisation and care. A grounded approach to robot design calls for acknowledging these material, maintenance, and repair-oriented realities as central characteristics rather than technical shortcomings.

Bringing these two worlds together, fantasy robots in popular culture and the material realities of present devices, reveals a rich site for research. Children's culture acts as an imaginative infrastructure, a place where foundational assumptions about robots were formed long before real-world functioning systems existed. Importantly, these narratives have been developed and upheld largely by grownups, without much influence by children. Therefore, misrepresentations in children's media stems from societal myths around autonomy and intelligence.

A research agenda at this intersection could explore how children interpret robotic limitations when these are made visible through tangible, interactive, or playful encounters. Previous research shows that children can be highly receptive to the breakdowns, quirks, and imperfections of real robots, and willing to engage in tinkering as much as play pretend [4]. They repurpose malfunctions into play, personalize devices with unique intentions, and intuitively grasp that machines require energy, care, and support. This makes children powerful co-investigators in exploring *alternative imaginaries*, computational solutions, including robots, that are humble rather than heroic, situated rather than omnipotent, and collaborative rather than autonomous.

Figure 1. Examples from children's everyday culture. From left to right: Illustration in a book children use is school for learning to read. Still from the film "the wild robot". A robotic toy bird. Backside of construction toy. An AI-powered robot toy, displaying its "setup" screen.

Design interventions within such a framework might foreground aspects typically hidden in commercial products (battery drain, sensor confusion, mechanical wear, repair processes, safety) using them as creative opportunities. Such interventions challenge dominant narratives and propose new aesthetic and narrative forms that communicate the true nature of robotic agency. The resulting understandings can help shift broader cultural expectations toward more realistic, sustainable, and care-oriented relationships with robotic systems.

The research we propose views children's fantasy robots as cultural artifacts that shape long-term societal imaginaries. By creating grounded encounters with real robotic materialities, our work aims to reconfigure these ear ly narratives and cultivate more nuanced, responsible, and meaningful engagements with technology, both for children and the future adults they will become.

EXAMPLE

In 2010, Fernaeus et al [4], presented a study on how children play with a sophisticated robotic toy dinosaur during an extensive time period, showing how the device did not meet the children's expectations. More recently, a news article presented very similar insights, reflecting on experiences from the journalist Ahlström [1] giving his 2- and 6-year-old children an AI-powered robotic toy (Figure 1, right). Below we will present examples from this text, illustrating frictions and tensions between the cultural imaginaries that the robotic toy embodies. and the child's situated play activities. The news article reported how the 2-year-old girl combed the robot even though it has no hair, and used the robot to bang on things, because it looks a bit like a hammer. This implies that a toy robot doesn't have to be intelligent or have explicit functions to be "playable", but it does need to be flexible and durable.

The 6-year-old girl posed questions about Rumi in Demon Hunters, but gets answers about the 13th century poet Rumi. This shows how AI-powered play things, such as a toy robot must share the children's lifeworld, thus knowing "the same" is more important than knowing "everything". The dad, child and robot successfully created a story together and could cuddle on the couch. This highlight how a toy robot didn't have to be a human-like counterpart but can be included as a component or mediator in a social situation. The robot has several apps for math but the child just wants to play a cupcake game. This illustrates a friction between ideas of what is best for the child and the child's own interests and wishes.

An excerpt from the story further reads: *"The conversations lacked a coherent flow, it's like the rhythm of a jerky bus ride: prompt and wait, prompt and wait. When a daughter did not get an immediate response, she talked louder and pressed harder on the screen until the robot suddenly said in a muffled voice: "Oh no, my robot brain is messing up!"* This analysis shows how the child expects to control and shape the interaction, not the robot.

Finally, when a friend came to play the child abandoned the robot. This illustrates the gap between the idea of a 'robot' that cannot compare to a real friend. Together, these examples illustrate how the imaginaries of a human-like robotic playmate, established in children's culture and reproduced by the robotic toy industry, break down and must be re-interpreted in the real context of use.

WHAT'S THE SCAM

From a children's perspective, robots can be perceived as a scam in the sense that they don't live up to the narrative exposed in popular culture and the increasing visual dominance of industry [2]. Robots that are available to the general public are generally overpriced, of low quality and marketed with unrealistic promises. Advanced electronic toys often end as electronic waste. Below is a summary of some of the conceptual troubles we see.

1. Hype vs. Reality

Marketing, as well as much of children's media talks of robots as fully autonomous, AI-powered, and potentially even replacing humans. In reality, any sophisticated robot requires the labor of professional technicians, structured environments, and still provides underwhelming experiences in terms of interactivity.

Robots in industry work when tasks are repetitive and variation is low, but even such robots create unexpected problems, requires tuning, and sophisticated human labor. Many robot videos are heavily edited, shot in pre-mapped environments, and failed takes are not shown. In the current era of AI-generated videos, this is becoming even more prominent. We could be more open about how people are often working behind the scenes to make robots work[6], and cannot exist without human labor.

2. Robots as Pretend Play

As already mentioned, much of what children know of robots comes from fiction, and robots in reality are far from those stories. As researchers in the field, our experience is that even advanced 'AI robots' displayed in demo settings typically work only in highly controlled setups, and are nowhere near what is depicted in the comic books.

It might be worth being explicit about how the entire mission of AI research is to make technology *seem* intelligent, in the sense of 'faking' intelligent action. A common misconception is that a robot toy will learn from interaction, which is extremely primitive in existing products. If a person is trying to guide the robot with the hope it will learn, this is usually not what is happening, instead we are expected to engage in *performed belief*.

A robot moving does not mean it understands. Robotic toys don't reason, but may still be playable. A robot that several people interpreted as intelligent was the Senster [11], an artwork that had a metallic construction with a microphone as a head. When it perceived sounds, the head would move towards that direction, until the sound (appeared to) become too loud. Then the robot would pull back. This installation was perceived to be very intelligent by the visitors. It thereby *appeared* to have a sense of its surroundings, and reacted with socially intelligent cues: curious listening, and reaction by backing. It was all about pretend play.

3. The Darker truths

Robotic devices often appear massively overhyped by investors and media. Looking especially at consumer robots and toys, they are often not living up to expectations, causing the 'scam' feelings that we presented here. Ljungblad [9] proposed that centering 'the robots', may steal the conversation from other more important questions. With the labor, history and other dimensions involved – how is the world manifested in these forms? For example, what is the uncomfortable relation between robots and war, robots and pornography, and robots and the surveillance industry?

How does this development work along with other forms of online media? Today many children spend many hours with computers (without safe adults accompanying them), even though computers are not nearly safe at all, not even at school. Pornographic material, casino sites and violent content can be easily accessed. Filters are not working properly, and it is easy for children to access horrifying materials of many kinds. When children play computer games, only 45 minutes are needed for an adult person to groom the child. This is the reality. Would robots be any different?

ALTERNATIVE QUESTIONS

If most of the stories about robots are scam, what are the alternative questions that we could be focusing on togehter with children? What alternative design visions and imaginaries of futures could children support us to open up? What type of solutions (robotic or not) are critical for democratic societies, so that current and next generations of people can grow and flourish?

As researchers, in the context of Child-Centred AI-Mediated Collaborative Agency, there must be better practices than a mythmaking mission of remote controlling robots and related AI technologies as make-believe intelligence. We would like to ask children for help to challenge this image of technology and contribute.

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Position Statement CAMCAD workshop at CHI 2026

Child-Centred AI-Mediated Collaborative Agency by Design