

Oh Toodles! The Trouble with Anthropomorphic Robots

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Abstract. What can go wrong when using a strong version of a ROBOT IS HUMAN metaphor is illustrated at the example of Toodles, a Disney character in the TV show Mickey Mouse Clubhouse.

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Toodles is a flying robot in the preschool TV series Mickey Mouse Clubhouse. It is shaped like a flat disk with the contours of Mickey’s head. Its main function is to deliver mission-critical tools when Mickey and his friends encounter obstacles in their adventures. Toodles can be summoned to help by shouting “Oh Toodles!” It then navigates autonomously to wherever Mickey’s friends are and offers a choice of four “Mouseketools” on a screen. Mickey and his gang choose what they need – and it immediately materialises (e.g. a tire pump to blow away sand on the road that is blocking their progress in a rally).

Toodles’ main function could be easily implemented with modern technology. An autonomously navigating drone with an integrated display and a 3D-printer could realise a Toodle-type robot in the real world. The user interaction is simple: just choose from four alternatives with a voice command. Internally, Toodles’ AI would need to decide what to offer based on the possibilities for action that exist in the environment of the users, its capability to quickly 3D-print what is needed, and the history of user choices in similar situations. Apart from inspiring thoughts about how a Toodles-like robot could be implemented, the Toodles episodes also carry another lesson based on a strong version of a ROBOT IS HUMAN metaphor.

In seasons 1, 2 and most season 3 episodes, Toodles is just a tool approaching Mickey and his friends whenever they call it. On Toodles’ birthday, however (season 3, episode 6), Professor Ludwig van Drake, its inventor, equips it with a voice and a face (a surprise birthday present). This event changes everything. By gaining a face and a voice Toodles suddenly becomes a very complex character who has its own identity, emotions and desires that the others need to take into account.

The consequences of Toodles’ upgrade become obvious in the *road rally* episodes (series 3 episodes 10 and 11). In this, van Drake builds a rescue truck as a vehicle for Goofy to take part in a rally with all of Mickey’s friends. Toodles also takes part starting on a bicycle. The rescue truck proves handy when clearing the road of obstacles. This makes Toodles feel uneasy – he thinks that he would not be needed anymore. “Oh, let

me help! Me, me, me!” he swooshes around Mickey’s head. Mickey realises his anxiousness and makes an effort to ask for his help first when new problems arise. So, Toodles saves the lives of the chipmunks when they fall from a large statue. Shortly afterwards, Goofy and the rescue truck save the whole gang from an avalanche. Everyone cheers the rescue truck. Toodles has had enough and leaves. The next time he is called, he does not appear and Goofy is sent to search for him. He finds him sobbing in the woods and talks to him about the situation. Toodles calms down and returns with Goofy. Both rescue Black Pete out of wild waters. Some major repair still needs to be done to the relation between Toodles and Mickey’s gang: “We are sorry Toodles, we didn't mean to hurt your feelings. And we don't ever want you to think that we don't need you anymore. Why, you are the best mechanical pal, a pal could ever have.” At the end, back at the Clubhouse, Toodles gets an extra big surprise. A song about friendship is sung by everyone for Toodles – making up for the previous lack of attention.

In most of the following episodes, Toodles is reverted to having no face and voice. In some later episodes Toodles regains voice and face, but just utters some cheery words when summoned and presents the Mouseketools without further ado. Series 4, episode 20 seems to be a reverberation of the relationship repairs in the road rally episode. Toodles is thanked with a small song each time it helps Mickey and his friends: “what would we do without yoodles, Toodles?” In the end of the episode, van Drake has a surprise for Toodles: a rocking chair ready with popcorn, drink and a TV set, “because everybody needs to relax some time, even the hardest workingest [sic!] Mousketooler in the whole wide world.”

Toodles reminds us that we should be thinking carefully of what we expect from anthropomorphic robots. Should they be useful tools with enhanced user experience or quasi-others? Toodles in its face-and-voice version appears to be highly ambivalent. It seems to be an emotionally overpowered tool as it still performs the same tasks as before. Outside of the rally episode, Toodles’ capabilities appear simple and scripted, the character lacks depth. It says please and thank you and is capable of showing only some cheerful emotions. On the one hand it is still part of the machinery of Mickey’s Clubhouse at the beginning of each episode. On the other hand, Toodles has become a full member of Mickey’s gang and travels with them solving their missions. But we have seen that the other members still treat Toodles like a tool. Its services are taken for granted and it only becomes the centre of attention when it doesn't work as expected. Adding human-like emotions seems to unnecessarily complicate things. Toodles wants to be appreciated like a normal team member with its needs and wishes being heard and cared for. This requires working on the relationship, including repairing when something goes wrong. The episodes show that this causes a lot of extra communication and eventually lowers the efficiency of problem solving. Thus, turning ROBOT IS A TOOL into ROBOT IS HUMAN might be counterproductive if the tasks remain the same.

As with every user interface metaphor the ROBOT IS HUMAN metaphor may at the same time be too big and too small. If we look at the very specific tasks robots solve today, they tend to do these better than humans. Instead of “dumbing them down” or adding unnecessary functionality to better fit a ROBOT IS HUMAN metaphor, we should look for a minimalistic way to include humanness to add to the user experience, or better still, find more suitable metaphors.