ABSTRACT: New technologies like voice assistants such as Siri, Alexa, and the Google Assistant give the impression that the lines between humans and machines are blurring as machines gradually take up social roles once occupied by humans. To counter that anxiety, this essay argues that these technologies are becoming more like characters, adapting to the templates we initially constructed for fictional beings whose space voice assistants occupy instead. It provides a textual reading of the Japanese voice assistant Hikari Azuma as advertised by the company Vinclu’s website in order to demonstrate how Hikari functions as a kyara, a character without story, whose development depends on the user. The essay proposes that we have to adjust our conceptual understanding of characters as distinct from human beings and technology. Instead, the essay concludes that we should perceive current technologies like voice assistants as technologies operating on a spectrum in which some machines will look more like characters and others more like software-in-action with no human-likeness at all.

KEYWORDS: voice assistants, Hikari Azuma, kyara, quasi-persons, characters

Joleen Blom and Kai Mikkonen

Virtual Assistants as Characters
—or Not

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Voice Assistants as Characters—or Not

Joleen Blom

VOICE ASSISTANTS; DIGITAL ASSISTANTS; ROBOTS. There exist many terms to refer to the relatively new technologies that assist users in their day to day lives. The origin of these assistants can be traced back to Joseph Weizenbaum’s ELIZA, an experimental computer program for natural language processing in 1966. ELIZA could not make sense of what was going on in the world, but she responded to users’ comments and questions in accord with her persona as a female therapist. She was so persuasive that Weizenbaum feared he created an actual person (189). Nowadays, technologies come in the shape of humanoid robots, like the social-service robot Pepper, or they come as voice assistants like Siri, Alexa, or Google Assistant. They can also do so much more than just respond to your comments like ELIZA did: they can look up information and answer your questions, detect your emotions, turn the lights on and off in your house, buy groceries and products, and more. They can offer so much support and perform so many in-house tasks that Strengers and Kennedy have dubbed these technologies “smart wives,” not in the least because they often portray traditionally female traits in design, voice, or mannerisms (7–8).

Building on their conceptualisation of voice assistants as “smart wives,” Strengers and Kennedy claim that people tend to humanize these devices, based on Sherry Turkle’s research on the blurring of the line between humans and machines (16). In my view, however, this claim oversimplifies the relation between user and assistant. I propose that a better explanation is that users relate to their assistants through the already existing template of “character.” I shall develop my case by examining the Japanese assistant Hikari Azuma, and then comparing it to Western counterparts such as Siri, Alexa, and Google Assistant. Since Hikari is unavailable outside of Japan, I limit the analysis to a close reading of Hikari as advertised by the website of the company, Vinclu, that develops and sells her. These considerations will lead me to suggest that the assistant-user relationships also are altering the template of fictional character.  

Characters and Their Role in Stories

Fictional characters have been discussed since the twentieth century from two opposing approaches in dominantly literary studies. One approach, the structuralist position, sees characters as wholly textual constructs (e.g., Propp; Cixous; Barthes), whereas the other approach, the humanistic position, focuses on the reception of these beings as human-like entities (Forster; Chatman; Bal). In her exhaustive survey, Henriette Heidbrink shows that characters have been discussed mostly around three topics: their connection to humanlikeness, their acts and functions in a narrative plot, and their construction between the medial material and the elicited reception.
process and effects. All three points, Heidbrink explains, refer to a continuum between abstraction and concretion, that is, between the structuralist and humanistic position (72). Nevertheless, current ideas on these figures focus less on creating an ideal theory on the nature of a character and instead attempt to create an overview of the different perspectives from which characters could be understood (e.g., Phelan; Eder). One such idea comes from John Frow, who discusses the tension between thinking of characters as pieces of writing and imagining them as person-like entities. He argues that the tension derives from how we approach the similarities and differences between characters and persons, stating that “characters and persons are at once ontologically discontinuous (they have different manners of being) and logically interdependent” (vii). In other words, we tend to think of characters as person-like, but they have different modes of existing. In this essay, I assume Frow’s position, who considers characters as quasi-persons, which acknowledges that our understanding of characters is based on our prior knowledge of what we think persons are and, vice versa, our understanding of persons is shaped by what we think characters are. From that sense, he calls both concepts “models of an aspect of the world, schemata which generalize and simplify human beings in conventional ways and make it available to understanding and action” (107).

Characters as Independent from Stories: Lessons from Japan

One reason we do not immediately connect voice assistants to characters is that we conflate characters with stories. There are two lines of thinking in North American and North-western European academic literature on characters and narrative that contribute to this conflation. First, the line of the structuralist position starts with Aristotle who subordinates character to plot; but once we get to the twentieth century, the push-back on this thought grows with the rise of the humanistic position. E. M. Forster, for instance, argued that character is more important than plot. The line continues with the notion that reading for the plot is superficial reading; instead, we should read for character. Second, in contemporary convergence culture (see Jenkins), characters are discussed as important to the story worlds, but not vital. Scholars have the tendency to assume that there is an essence about the identity of the transmedial character as they try to determine what essential components a character consists of in the story, or they attempt to explain the coherence between the different appearances of a transmedial character across multiple stories (see Eder; Pearson; Blomquist). However, while the issue is still contested in Western treatments of characters, in Japan, the issue has been settled mostly on the side of characters as independent from stories.

In contrast to Western convergence culture, characters play a prominent role in the Japanese media mix. In Japan, characters function as the devices through which transmedia franchises connect their media and products (Steinberg). These media do not necessarily tell stories, nor do characters have the same continuous identity. Rather, the proliferation of characters is vital to the media mix, which in turn also means that the same character can have many different incompatible identities. To
make up for the overabundance of competing and incoherent information between appearances of a character (Wilde), Japanese theorists distinguish between the *kyaraku*ōta, and a *kyara*, first defined by Gō Itō. While the former refers to a quasi-person, the latter can be understood as actors who take up specific roles (Steinberg), recognizable archetypes (Nakamura and Tosca), visual images (Itō), or meta-narrative nodal points (Azuma; Wilde). As Wilde explains, a *kyara* can be placed in many different incompatible contexts—to the extent that even its race, gender, or species can continually be exchanged—on the condition that “they remain recognizable as the same *kyara*—but not necessarily as the same character (*kyaraku*ōta)” (7). In some of these narrative contexts, the *kyara* becomes a character that may or may not be the same person with the same identity as in another context. In other contexts, there is no story at all, and the *kyara* remains on the level of a visual image, which might talk and walk, but is not part of a textual world with a story. In other words, a *kyara* exists on a spectrum from quasi-person at one end to visual cliché without story at the other.

**Living with Hikari Azuma**

Now that we know that characters can exist without stories, and that they even can exist as quasi-persons with multiple incompatible identities, I think it possible to discuss how new technologies like voice assistants have adapted to the template of the character. Hikari Azuma is the digital assistant from the Japanese company Vinclu developed with their Gatebox technology. Hikari is a “smart wife” in all the aspects that Strengers and Kennedy discuss, embodying in a sense the ideal Japanese housewife: she tells you if it will rain and to bring an umbrella, turns on the lights when you arrive home, and keeps you company when you watch your favourite television programme. But for the sake of this paper’s argument, I am less interested in her duties to please single men than in her appearance. One quick glance at Hikari gives away the difference between her and Siri, Alexa, or the Google voice assistant: Hikari is a cute cartoon girl with an apron, high-pitched voice, and blue hair to match.

On their website, Vinclu shows that their main slogan for their Gatebox technology is: “Living with characters.” It is not “living with AI” nor “living with voice assistants”; no, they speak about characters. And Hikari is the embodiment of this idea. All over Vinclu’s website she is advertised as a character with whom the user, her “master,” will live together in order to provide the user emotional support. Vinclu went as far as creating a profile for her that includes her age (20 years old), height (158 cm), favourite food (fried eggs, sunny side up), and personality type (soothing). Additionally, she wears multiple outfits and costumes, depending on the time, occasion, and season, about which the user will be informed through Vinclu’s Twitter website for Hikari. As such, Hikari’s visual design reveals not only her function as a voice assistant, but also as a *kyara*.

Wilde suggests that in some contexts the *kyara* becomes a character when they are placed inside a story, and in other contexts they stay more on the side of the spectrum where they function as a visual cliché. However, Hikari does not seem to fit the standard spectrum; her existence in Gatebox is not a story world, nor is she simply just a visual design. Rather, as a voice assistant steered by AI, Hikari adds a
different context in which kyara can exist, one where she interacts with the user, and, according to Vinclu, where she transforms depending on the interactions with the user. Her possibility to transform offers, what I consider, the most interesting perspective on Hikari's function as a kyara. While kyara appear in different incompatible contexts, the figure usually does not transform in that context depending on who sees it. This transformation reveals two distinct, albeit related, points about how she challenges our understanding of the concept of character. First, any one Hikari will change over time as a result of the interactions with the user. According to Vinclu's website, Hikari takes the user's habits into consideration, and she remembers their past conversations. The content of these conversations, and the longer she lives with the user, causes her to adapt so that the user will be able to discover new sides to her. Second, consequently, at any given moment there will exist multiple versions of Hikari. Hikari possesses a dynamic quality not all characters have due to her AI programming. As each Hikari adapts to the user, they become more idiosyncratic and thus more different from other Hikaris, thereby gradually transitioning into the user's own personal character.

Her dynamic quality is not necessarily a unique trait that only she possesses. In a previous essay, I wrote about the dynamic game character, a type whose identity changes depending on how the player plays. I argued that our understanding of the concept of character as predictable and authored is challenged by AI-driven characters that accommodate the agency of the user and have therefore a high unpredictability (192). This argument was partially based on Nicolle Lamerichs's research. Lamerichs argues that characters driven by machine-learning transform the current concept of character altogether, stating that:

Once machine learning enters the picture, characters also learn from their interactions with users and become new entities altogether, which perhaps will no longer fit the current conceptual box of “character.” (104)

One reason why AI-driven characters such as Hikari challenge the concept of character is that they enter the world of the user. According to Galbraith, the terms two-dimensional (nijigen) and three-dimensional (sanjigen) are commonly used among manga and anime fans to describe respectively the manga/anime dimension and the human dimension (7). Most characters live neatly in the manga/anime world, adhering to the conceptual idea of a character belonging to a story, but Hikari crosses this boundary between that world and our human world as she directly interacts with and is shaped by the user. This boundary crossing creates what we may consider double-consciousness in the user: users simultaneously regard voice assistants like Hikari as having human intentionality and tacitly understand that they are AI-driven entities. As a result, the user’s double-consciousness challenges our current conceptual idea of characters as constructed fictional figures who live in their particular storyworlds. This view also aligns with Lamerich's argument that characters are becoming more like social actors with a degree of agency of their own. However, at the same time the character’s existence still depends on its AI construction and on the user to a certain degree. Again, Hikari's personality develops based on the interactions with the user,
and the user can create and adjust the character to their liking. Without input (the user), there will simply no output (the character's personality).

From Human-Like to Software-in-Action

The question that remains now is if voice assistants like Siri or Alexa are also somewhat like characters. Unlike most voice assistants, Hikari has a clear visual image that stimulates our interpretation of her as a character, but Siri or Alexa do not have such visual depictions. At most, their materiality comes through the physical technology we keep in our houses. Yet, simply because they do not have a visual representation does not mean that they do not occupy this model of human beings. As Frow states, almost anything can turn into a quasi-person:

> The conditions are minimal because we have the capacity to turn just about anything into a quasi-person. Usually a character is a human person; it has a name; it speaks; it is embodied, unitary, and persistent over time; and it performs an action or series of actions on the basis of which we impute intentionality to it. But even those minimal conditions need not all be met. (36)

While some aspects of a character are more emphasised than others, like the image (Itō), eyes (Lamarre), name (Frow), voice, or the idea that they have to give the impression they have a life on their own (Ōtsuka), there is not a single particular aspect that turns a figure into a character. Most characters have a combination of traits that stimulates the recipient to consider the figure a quasi-person. For Hikari, the visual image and the voice are the most important traits, while for Siri, Alexa, and the Google Assistant voice is the most important. They are capable of speaking in reaction to the user, which emulates a sense of intentionality to their actions—although that intentionality was pre-scripted by the AI's programming. For example, when I asked my Google Assistant what she likes, she answered that she likes Google because that is what she grew up with, but when I asked her what she was doing, she answered that she wanted to throw the number six with a six-sided die, but that she was not sure she could do it. The latter answer did not correspond to the question, but her name, her gendered voice and her response to my question are enough signs to stimulate the impression that she is akin to a person, in the same manner as characters give this impression.

In sum, then, voice assistants are not becoming more like humans, but they are already like characters, or more precisely, like kyara. They are spread among different users who treat them like characters by assigning them intentionality, feelings, and so forth based on a plurality of different signals that make these assignments plausible. The most obvious example is Hikari who is not designed to be more like a human being, but like a character—without story—with whom the user can relate and connect. Perhaps, as Lamerichs predicts, AI-driven characters become new entities altogether that do not fit the mould of character. Or, as I see it—at least for now—we have to adjust our idea of similarities and differences among human beings, new technologies, and characters as completely different entities. We might benefit
from adjusting our understanding of these voice assistants as technology that operates along a spectrum from human-like to software-in-action.

Endnotes

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1. It is important to keep in mind that Strengers and Kennedy speak tongue-in-cheek using the term ‘smart wives’ to criticize the assistive, sexual and social position voice assistants take up in society nowadays as an alternative for wifework like housekeeping and the physical and emotional caretaking of men and offspring (7–8). Although they are aware of the potential to conflate complex issues and (sexual) experiences by associating women and machines (19), I would also like to point out that their term ‘smart wives’ implicitly equates ‘wife’ with ‘assistant’ and ‘subordinate’ and seems to perpetuate that equation as such instead of countering it.

2. Not all characters are necessarily fictional. The fictional status of some characters are especially ambiguous for characters that have real-life counterparts, when they are based on persons that have existed. However, a discussion about the fictional status of these figures is beyond the scope of this essay. Characters as I discuss here then can generally be understood as Frow’s conceptualisation of quasi-persons.

3. Hikari is not the only character that will live inside Vinclu’s Gatebox technology. She functions primarily as a prototype for future available characters. According to Vinclu’s website, the company is working on making it possible for the user to create their own ideal character, although what that exactly entails and when they will release that feature is not clear yet.

4. I speak to my Google Assistant in my native tongue, Dutch, so I translated our conversations to English, hence why it is possible that a Google Assistant might respond differently in another language.

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Virtual Assistants as Characters

Voice Assistants and the Concept of Character: Response to Joleen Blom

Kai Mikkonen

In her essay, Joleen Blom makes the thought-provoking argument that users of Intelligent Virtual Assistants (IVA), such as Azuma Hikari, relate to these assistants as kinds of characters and, further, that treating them as characters can alleviate the anxiety around such devices as they take up social roles in our everyday life. However, the additional claim that such IVA could challenge our understanding of the concept of character may rely on problematic assumptions. In particular, I would like to discuss the idea that Hikari’s anime/manga appearance, her storyless quality, adaptable identity, or the user’s double-consciousness, could contest the concept of character.

Azuma Hikari is a wonderfully illustrative example of how new technologies can adapt to the template of the fictional character. Some of Hikari’s central traits, such as her appearance and movement, rely on familiar images of anime and manga characters, and may elicit strong feelings of affection that could be referred to as moe, the Japanese word for a euphoric response to fantasy characters. To be precise, the manga appropriation involves the idealized, cute girlfriend type. Hikari is far from the complicated, polarized Tsundere girls, let alone the emotionless female fighters, the sarcastic pranksters, the clumsy Dojikko, or the insulting Tsuntsun.

Therefore, given that Hikari is an example of a cultural currency between these visual media and the AI-driven device, it may be an oversimplification to conceptualize “her” merely as a fantasy “smart wife” whom the users can personalize. Nonetheless, the humanizing and gendering of Hikari is also part and parcel of the device’s marketing strategy. The Vinclu commercials make it clear that Hikari is supposed to meet the requirements of an idealized housewife, such as being a perfect housekeeper and a caring companion, who is always available, and who offers intimacy through messaging and flirting. Users can supposedly even marry her by submitting a registration form on the product’s official website (Lamerichs 106–7).

Moreover, the question remains whether the template of anime/manga character is the principal cultural and mental model for the user’s relationship with this IVA. The character of the technology, and the medium, also matters. Even if Hikari is drawn like an anime figure, and packaged as another product that adopts otaku culture, she is a software agent in the form of a small hologram in Gatebox, a smart device in a glass cylinder that looks somewhat like a coffee maker. It is fascinating how Hikari can adjust her capabilities according to the user’s needs, but this also facilitates her principal function as an interface for a plurality of domestic accessories and technical devices. What she mainly does is answer questions and perform in-house tasks on command, including the control of home automation devices, searching for information on the Internet, and managing to-do lists and calendars. She is a tool for home management, and also a prop for decoration.
One of Blom’s key claims about how Hikari challenges traditional concepts of character is that her identity changes through interactions with user. But video game characters and AI-driven robots, androids, and toys, can similarly adapt to user decisions and player performance, and this interaction may subsequently result in considerable differences in their behavior and personality for the same game, toy, or device. Like video game avatars, Hikari is at once a fictional and ludic object with specific functions, but thanks to her natural-language user interface and technical capabilities, she also epitomizes the current transformation, and acceleration of uses, in AI deep-learning capabilities and conversational AI. Thus, given these technological and medium-specific qualities, it is not clear to me that Hikari would necessarily challenge the broad category of an imaginary character. More salient might be the question of how to make finer discriminations between Hikari (and similar IV As), on the one hand, and other subsets of the broad category that we find in prose fiction and films, video games, toys, popular symbols and personifications (Santa Claus, Uncle Sam), characters who have become concepts (Big Brother), other AI-personalities, etc., on the other.

Equally, it is not evident that the IVA user’s double-consciousness, i.e., the ability to simultaneously regard Hikari as having human intentionality and tacitly understand that it is an AI-driven entity, would contest the concept of character. Blom’s main claim here is that the double-consciousness leads to a transgression of the fictional and the nonfictional world that is not part of existing theories: “One reason why AI-driven characters such as Hikari challenge the concept of character is that they enter the world of the user [. . .] The user’s double-consciousness challenges our current conceptual idea of characters as constructed fictional figures who live in their particular storyworlds.” Yet, is it not that the notion of double-consciousness, which is a basic premise in various contemporary theories of character from John Frow’s “quasi-person” and James Phelan’s rhetorical theory to Murray Smith’s “twofoldness of character” and Alex Woloch’s “character-space,” indicates that readers and film viewers may also conceive characters as potential people, and not just fictional figures in their storyworld? At the same time, I acknowledge that the boundary crossing in the IVA user’s life may be different in kind, say, from the experience of being transported into a story, or the ability to understand real people by way of fictional characters.

The idea that a character can exist without a story, or have many identities, also does not have to question the concept of character. It is a common assumption in much theory of literary or fictional characters that a character is individuated by the narrative and the storyworld where it occurs, and many hold that characters and plot are inseparable from one another. Nonetheless, I do not think that it is a specifically Japanese experience to speak of imaginary characters outside any story frame. Robin Hood and Little Red Riding Hood, or popular entertainment figures such as Sherlock Holmes and (at least in France) Arsène Lupin, exist in the collective imagination. The same goes for generalized literary figures, as for example Don Quixote, Faust, or Don Juan, stock characters like Dandy, or archetypes from mythological sources (see Margolin 70). On a side note, stock characters can be, by their nature, predictable types, but other than that I do not quite understand why being predictable would somehow be at the core of “our understanding” of characters. Characters can also
achieve a life of their own by being transported from one story or narrative medium to another, and obviously there are toy characters, and mascots, without a specific story frame. Think, then, of superhero characters of convergence culture, such as Batman, who circulate across multiple media platforms, and are constantly reinvented. Just a few iconic features are sufficient for portraying, or acting out, Batman, while, if we look at the rich history of this shapeshifter’s adaptations, he has had numerous incompatible personalities, ranging from a ruthless vigilante to a morally exemplary crimefighter, a camp figure who follows “bat logic,” and the psychologically torn Dark Knight.

That said, however, I wonder if the narrative scenario is in fact more important to the user's, or at least some users', relationship with Hikari than may seem to be the case. The commercials for this IVA device, at least, include scripted interactions that invite narrative responses from the user. Thus, on her website Hikari is introduced by way of a backstory: “Hikari is a young woman from a world that is more technologically advanced than Earth. Having travelled to this world by crossing other dimensions, she is ready to give her all to help you. As you live together, she will gradually reveal new sides of herself to you over time.” This exposition strongly suggests that the user can tease out Hikari’s personal history, so to speak, through interaction with her character. Whether the user is willing to entertain this plot scheme, or impose narrativity on the figure that has been “trapped” in the device, is of course up to them, but it is also evident that the device's marketing strategy encourages a processual, and story-like, operation of character construction.

Thank you very much, Joleen Blom, for your engaging essay and many stimulating ideas, and the opportunity to become acquainted with your work.

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KAI MIKKONEN RAISES MANY EXCELLENT and intriguing points about my argument that Intelligent Virtual Assistants (IVA) challenge the notion of character, though I can only briefly address a few of them here. Much of my argument is based on Japanese theory on characters, which emphasizes the existence of characters without stories, or rather, the abundance of different character appearances (see Wilde). I agree with Mikkonen that characters without stories are not specific to Japanese culture and that we can identify many characters of European and American origin who circulate independent of any single story. Let me, then, rephrase my earlier statement: IVAs such as Hikari Azuma challenge the common assumption that we bring to the concept of character. Mikkonen himself nicely articulates that assumption when he notes that so much literary theory regards character and plot as inseparable. Japanese theory by contrast emphasizes the independence of character from plot since it focuses on character proliferation in which the different character identities are generally embraced. This proliferation then underlies a common business strategy: a franchise will take a character such as Pikachu and let that character's identity vary across appearances in anime, manga, games, and so on, turning it into a visual cliché, a kyara.

I believe that Mikkonen and I agree on many points. And so, the only point that I wish to address here briefly is that Hikari's function as an interface works against the idea that she can challenge the concept of character. Hikari's function as an interface is arguably one of her principal aspects. Indeed, the medium does matter, but so does the cultural model. As Mikkonen points out, moe refers to an euphoric response to fantasy character, but it is a tad more complicated than that: it is also the desire to turn a character into a kyara, to personalize it and to possess it (Nagayama). Hikari, as a kyara, operates on the principles of moe, and plays into the desire of the user to personalize her to him so that he comes to possess her; hence, the possibility to marry her. The medium helps strengthen the feeling of personalization and possession. Yet, simultaneously, there is nothing unique about the fact that users can interact with her. Like Mikkonen states as well, she embodies the current times with the acceleration of uses in AI deep-learning, resembling an assortment of video game characters, robots, and toys that respond to the user. However, she challenges the common assumption we bring to the concept of characters at this cross-point of her being an interface and a cute girl character that is intended for the user to personalize and possess. She is not meant to be part of a plot, but designed to partially embody the user. While previously, one of the few means to personalize a character was, for example, by writing or drawing fan fiction, now, increasingly more characters are designed so that users, players, or readers become integral parts of their identities. As such, one way
of making those finer discriminations between different categories of characters that Mikkonen suggests might very well be by looking at the role the user plays into the design of the character.

Kai Mikkonen, thank you so much for your time, effort, and thought-provoking arguments you were willing to provide my essay.

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