

## Who is in the charge here, Alexa? Relationships built between perception views and personal assistants

## Quem manda aqui, Alexa? Relações construídas entre vieses de percepção e assistentes pessoais

Ana Erthal<sup>1</sup>

Luli Radfahrer<sup>2</sup>

**Resumo:** *Este artigo tem como objetivo discutir as relações construídas a partir das modulações entre humanos e máquinas, tendo como premissa a ideia de que são mutuamente afetados, alterando paulatinamente materialidades e subjetividades. Com mais intensidade a partir da era moderna, o imaginário humano concebeu a criação e a convivência pacífica e subserviente com substitutos autômatos, andróides e robôs que fossem capazes de realizar as atividades executadas pelo cérebro ou corpo, como um duplo inteligente que estenderia a consciência humana. De bonecas falantes a assistentes pessoais, os aparatos manifestam-se de formas diferentes, apresentando novas experiências de interação. Esta investigação explorou as percepções de utilização da assistente pessoal Alexa a partir da coleta de relatos pessoais de respondentes que não tiveram na infância a presença de tecnologias digitais.*

**Palavras-chave:** *Alexa;IoT (Internet of Things); inteligências virtuais; tecnologias midiáticas.*

**Abstract:** *This article aims to discuss the relationships built from the modulations between humans and machines, based on the idea that they are mutually affected, gradually changing materialities and subjectivities. With more intensity*

1 Escola Superior de Propaganda e Marketing (ESPM). Rio de Janeiro, RJ, Brasil.

<https://orcid.org/0000-0002-4102-9673>. E-mail: [aerthal@espm.br](mailto:aerthal@espm.br)

2 Universidade de São Paulo (USP). São Paulo, SP, Brasil.

<https://orcid.org/0000-0002-9474-8831>. E-mail: [radfahrer@gmail.com](mailto:radfahrer@gmail.com)

*from the modern era, the human imagination conceived the creation and peaceful and subservient coexistence with automatons, androids and robot substitutes that could carry out the activities performed by the brain or body, as an intelligent double that would extend human consciousness. From talking dolls to personal assistants, the devices manifest themselves in different ways, presenting new experiences of interaction. This investigation explored the perceptions of using the Alexa personal assistant from the collection of personal reports from respondents who did not have the presence of digital technologies in their childhood.*

**Keywords:** *Alexa; IoT(Internet of Things); virtual intelligences; media technologies.*

## Introduction

This article intends to retake the dual issues between man and machine from the perspective of the use of personal assistants, represented here by the popular Alexa. Machines have always been conceived as a way to specialize man, helping his productive, cognitive or bodily performance. When discussing the relationships built from the modulations between humans and machines, the premise is the idea that they are mutually affected, gradually altering materialities and subjectivities.

Starting in the modern era, collective imagination conceived, with more intensity, the creation and pacific and subservient coexistence with automaton substitutes, androids and robots that were capable of performing activities executed by the brain or the body, as an intelligent double that would extend human consciousness. From talking dolls to personal assistants, the devices manifest themselves in different shapes, presenting new interaction experiences.

To pursue the goal of understanding these modulations, this investigation explored the perceptions of use of the Alexa personal assistant based on the method of collecting personal reports from respondents who did not have digital technologies present in their childhoods.

The modulations of technologies inspired by the behavior of the human brain can be found in research in the fields of media, humanities, biology and neurosciences. The results demonstrated what Heidegger observed as a sign of his time, an imminent “wave of technological revolution capable of captivating, enchanting, dazzling and distracting” individuals, who would be victims of an unstoppable progress, anticipating that “the technology frenzy” would “entrench itself everywhere” (1966, p.56).

The inquietude presented in this article derives from studies referring to the way in which technologies change, cushion, alienate and remodel human perception in coupling to technological devices as extensions of their activities. This leads to a theme that has always hidden a veiled concern about the relationship between man and machine: which

would be the dominant one? If “humanized” robots have not yet been created, it would be accurate to say that we have become “machinelike”. By using tools to exert more control over the environment, we change our relationship with it. We live a life conditioned by the control of time, in the shape of clocks, defined schedules for activities, work and leisure. We comply without complaint with the standardized scripts of Netflix, Google and Amazon; and as thoughtless rituals, we build social bonds coded by the networks that have mechanized the exploitation of relationships with commercial purposes. We are algorithms following the natural flow of the technological frenzy.

Thus, we can consider that the present moment would be the super-technological world predicted by Marshall McLuhan and Norman Mailer (1968)<sup>3</sup>, in which technology would imply meeting and serving human desires while modulating their activities, cognition and senses – it would be Toffler’s (1994) “knot” of social relations, production, financial transactions, liberal economy, consumption, information and knowledge. “Once technologized, the world can not be de-technologized” (CARR, 2011, p.112). Digital personal technologies and media are the representation of this super technology.

This is an excess because technologies are omnipresent in human life, from global, domestic or individual perspectives. And, even though individuals wish to control and tame technology, they are more and more submissive and dependent on it. The best examples are smart mobile phones, which have become a holistic extension of their users: they mediate family, social and work relations; they organize tasks, routines and complex schedules of the contemporary individuals who have “no time”; offer indicators of health, sleep, physical activities, cardiac reports and signal problems; compute personal finances connected to several financial institutions; provide all kinds of information and entertainment, as well as tools for education; centralize digital documents and access to the cloud of contents (documents, photos, videos) which are crucial

3 Access to the debate video available at: <https://www.youtube.com/watch?v=PtrJntaTlic>. Accessed on: jun. 18, 2022.

for daily activities; among many other functions. It is no wonder that there are negative implications of losing (by theft or carelessness) the cell phone.

Entrenched technologies would also be present in the daily relationships established with the personal assistants in the home media environment, such as Siri (Apple's virtual intelligence) and Alexa (Amazon's virtual intelligence).

### **The Cadence of Technological Domination**

We start from the principle that human mental maps are constantly remodeled in relationships with technologies. Following the example of what Singer (2004) proposed, we still live in a world bombarded by stimuli that, since “neurological modernity”, have been enhanced by virtual experiences and ended up composing an agitated, anxious, intense, automated nervous system – equivalent to a digital electronic technology.

Opposite to Toffler's prediction, technology still cannot be tamed – the “future shock”, or the “disease of change” could not be avoided even though there are points of reflection and action on the control of acceleration (TOFFLER, 1994, p. 343). In 1970, the primordial discussion was centered on the development of social and economic structures that aimed at the Cold War, and the social scientist and futurist outlined a world for the next fifty years. Reviewing his work *The Future Shock* – today – one notices that some topics actually refer to contemporary day-to-day life, especially the ones that deal with technology, bombardment of sensory stimuli and culture of experience.

For Toffler, technological advancement would be a “critical knot” in a network of causal relationships that would connect population growth, urbanization, consumption and population aging, in which each one would play a role and technology would be the sustaining mesh of the whole network. This would distance us from the “natural state” of life, which would have its rhythm marked by the compass of relationships and the phenomena of nature. The tone can be considered deterministic:

technological progress that has an autonomous power beyond the control of man<sup>4</sup>. However, if we adopt an expanded historical view, the determinist theses have more credibility over the instrumentalist ones<sup>5</sup>, since the individual has not yet been able to “tame technology”, controlling the rhythm of its evolution and progress. “To a large extent, civilization assumed its present form as a result of the technologies that people came to use”, ponders Carr (2011, p. 74). For him, every technology is an “expression of human will” (CARR, 2011, p. 69).

They [technologies] tell us that the tools that man has used to support or extend his nervous system – those technologies that throughout history have influenced the way we find, store and interpret information, how we direct our attention and how we engage our senses, how we remember or how we forget – have shaped the physical structure and the functioning of the human brain. (CARR, 2011, p. 75)

The high speed of change is a constant, in which the human being and technology modulate themselves alternately or simultaneously, and in which there is no other reality except that of transition – the same idea of Marx about the incompatibility of capitalism and stable formations, “all that is solid melts into air” (MARX; ENGELS, 1998, p.14). In this continuous revolution, technology would be evolving in a semi-autonomous process, driven by a process of self-organization at an intensified rhythm, and human beings, in order to survive, should “assume the fluidity and the open form of this society” (BERMAN, 2007, p.119), desiring change, enjoying the mobility and developing their relations – the same criticism by Lipovetsky:

Everywhere, the emphasis is on the obligation of movement, hyper change without the weight of any utopian vision, dictated by the

- 4 Sociologist Thorstein Veblen (1857-1929) used the expression “determinism” to address the relationships between technical automatism and the capitalist markets. He was inspired by the ideas of Karl Marx, who placed technology as a primary influencing factor in human history, and by Charles Darwin with the idea of adaptation and natural selection (VEBLEN, 1965).
- 5 Instrumentalism is the thesis that technologies are just technologies, neutral devices, and we serve ourselves and use them as we wish, controlling their evolution, their dialogues and their uses. If technology were just an extension of support for human activity, it would not be reshaping its meanings and human activities themselves.

imperative of efficiency and by the need for survival. In hypermodernity, there is no choice, no alternative, but to evolve, accelerate in order not to be overtaken by “evolution”: the cult of technical modernization has prevailed over the glorification of goals and ideals. (LIPOVETSKY, 2004, p. 57)

Returning to Toffler’s prediction, technologies would distance us from the “natural states”, that is, the human biological rhythm and the relationships with nature would have been altered by technological inventions such as the mechanical clock with two hands, for example.

The fixation of time between two points – the clock hands – created the idea of *duration* of events and modified social, productive, sensory, biological and commercial structures. According to McLuhan, it was from this representation of abstract visual unit that the “sense of time” was born, which we perceive with the division of time into hours, minutes and seconds, of occurrence and of space between events. The idea of “duration begins with the division of time, and especially with those subdivisions through which mechanical clocks impose uniform successions in the sense of time” (MCLUHAN, 2003, p. 199, free translation). The clock would have created the rhythm of human experience, establishing synchronized norms and rules; a measure for common ordinary life, like the time to wake up, to eat, to work, to sleep. One of the processes of the mechanization of societies was to make the individuals oriented by the clock, and not by their organic lives – the “natural state”. Industry, school, transportation, military marching and ballet were determined by time, and so we continue to operate under the rule of time in the electrical and digital eras.

For Bauman, the history of time began with modernity: “In fact, modernity is, perhaps more than anything else, *the history of time*: modernity is the time in which time has a history” (BAUMAN, 2001, p. 128-129, emphasis added by the author). He was referring to time conceived and invented by man in order to control his performance, his activities, his *performance* inseparable from technologies, which he called “routinized time”. Because it was linked to technologies, time

was associated both with production processes and to free time: what man did in his moments of idleness. In industrialization, however, idleness was seen as unproductive time, time was to be used in an efficient way; it had to be productive in order to be useful, or as “Max Weber suggested, [productivity] was the operative principle of modern civilization; it centered on designing ways to perform tasks more quickly, eliminating “unproductive”, idle, empty and therefore wasted time [...]” (BAUMAN, 2001, p. 131). Time today is one of the most important axes of contemporaneity, whether it is related to acceleration, to pressure for production, to its management by individuals in search of balance in their mental and physical lives, or to the pace of events and innovations that are impossible to keep up with, etc.

Throughout modernity, the natural measure of time has been remodeled by the artificial rhythm of the clock, changing the biological constitution and the mental perception of individuals: they have become mechanical, tamed by the pendulum, distant from the condition of nature. While the senses and mental modes are reconfigured by new technologies, subjectivity is altered to perceive new environments. The body is the first relationship interface with the environment and this relationship is increasingly mediated by technology: the body is the first skin; technology, the second.

Regarding the individual tamed by technology, somehow addicted and dependent on it, conditioned to its rhythms and demands, and dazzled by the convenience of inventions and systematic updates, one can reconsider the duality of love and hate in relation to progress as inconsistent. The permanent fear of the dominance of machine over humans is a fallacy, since it is man who endlessly persists in the creation of devices (automatons, assistants, substitutes) that replicate him and are able to perform human activities – with greater efficiency and productivity.



## The Eve of the Future

It is in the context of cinematographic science fiction where the most imaginary references and prognoses about the representative threat of technology on humanity are found. The German expressionist masterpiece *Metropolis*, by Fritz Lang, from 1927, brought an early contribution to illustrating the suspicion around technology. The film combines the art deco style with the industrial imaginary and suggests that merciless robots will mechanize human beings, based on the discovery by an industrialist's son that workers are treated like machines.

HAL, the robot from the movie *2001: A Space Odyssey*, by Stanley Kubrick, 1968, contributes to the dissemination of technology as a threat. HAL spoke, recognized and processed natural language (speech and gestures), it was capable of reasoning and, in a disturbing manner, interpreting and reproducing emotions. When the astronaut Dave begins to disassemble HAL, removing its modules, the robot manifests itself with pain: "*Dave, I'm afraid. I'm afraid, Dave. My mind is going, I can feel it. I can feel it*".

Androids, robots, replicants, substitutes, artifacts, mechanisms, devices, automatons. There is a vast and familiar territory in the domains of fairy tales and science fiction of filmic and literary narratives, representing the double of human beings, the machine capable of making, acting, thinking and feeling. These are stories that carry the enchantment of the human (dazzled by technology) and the fear of being eliminated by the machine (the estrangement with the double). This reaction is an example of what Freud called "uncanny", the feeling that arises when there is intellectual uncertainty, the strange, the disturbing, in this case specifically the feeling ignited about the frontiers between life and death. The domain that "concerns what is horrifying, what arouses anguish and horror" (FREUD, 2019, p. 29)<sup>6</sup>. After all, until today, it is

6 It is necessary to clarify that the translation of the word *Unheimliche*, in the edition is "uncanny". But the psychoanalytic community usually adopts the terms "strange" or "unsettling", "ominous" or "disturbing strangeness". It would be the sensation caused by something unfamiliar, since its familiarity has been forgotten or repressed. (FREUD, 2019, p. 117)

the human being who can play God: create and silence the machine, disassembling its modules like in Kubrick's movie.

The word robot originally derives from the 1921 play by Karel Capek, *Rossum's Universal Robots*, in which a woman asks a female robot if she is afraid to die. The robot does not simply say "no", but "I can't say", indicating a point of view in which death means nothing to machines. "Instead of being copies of people, androids are more like *Memento Mori*, reminders that, unlike us, they are forever lifeless, but never dead" (WOOD, 2003, XVIII).

In the passage from the imaginary to the real, androids are mostly female. Descartes, when summoned by Queen Christina of Sweden to bring philosophy to the court, had a presentiment that he would die because of the low temperatures. When boarding, he said that he was taking his daughter, Francine, with him. However, the sailors did not see her after the trip started, and they found it strange. It turned out that Francine was a machine, built by Descartes, with metal parts and clockwork mechanisms. It was his creation, but not his progeny. "When the captain saw the marvel in motion, he was convinced that it was some instrument of black magic, responsible for the weather that had made the trip so difficult" (WOOD, 2003, p. 4). The doll came to be feared not as an object, but for the affective bond that Descartes had established with her, which could represent his fear of death.

Figure 1: A sample of Edison's talking doll beside a miniaturized version of the phonograph and the disc with recorded phrases reproduced by the doll.



Ironically, Descartes' automated doll began to be mass-produced by mechanized work force (like in *Metropolis*), by the mythical figure of inventor Thomas Edison, in the late 19<sup>th</sup> Century. A talking doll, resulting from the invention of the phonograph in a miniaturized version and which inspired the novel *The Eve of the Future*, that ended up baptizing her as "Edison's Eve". As reported in Wood's work, the investments for the production were robust, and Edison bet that every child would want a copy. Thousands of workers were hired and a recording line of female voices with children's phrases was created. The cast metal body was strange to the point that one girl said that "it must be bad for the digestion" of the doll. It was big, heavy and cost US\$ 10, which was more than a week's salary for most people at the time. Four years after its release, Edison corrected 25 mechanical problems and presented an updated version with cheaper parts. He recognized that his creation was not perfect and suspended production in 1891 (WOOD, 2003, p.161).

The gradual modulation between technologies and human beings ended up conditioning the relationship with talking dolls and not only do they speak, but also eat, get their diapers dirty, simulate fever and pain, interact with applications and can even be surveillance devices, like "Barbie Hello", a Barbie doll connected to a network to an assistant that reproduced the environments as microphones for remote monitoring by the parents. One cannot say that dolls are children's artifacts. The voices are no longer feared and in the internet of things, things also speak.

If the prototype androids failed because of their limitations to walk on irregular terrain; to hold objects of different masses and dimensions; to climb up and down stairs, like the human body, which performs thousands of calculations per second for simple limb movements and apprehension of objects, the Rose robot from the classic cartoon *The Jetsons*, has not yet been recreated. "These technologies are no longer centered on the material figure of the machinic, but on the notion of the virtual" (FELINTO, 2005, p. 43). In other words, the development of small devices with specific designations came to serve the purpose in a restricted and previously planned performance and can be operated

by an smart assistant that demands little space and maintenance: Alexa, the contemporary Eve.

Daily use technologies linked to digital systems gradually present facilities, guaranteeing the individual the release of operational tasks that could be transferred to smart technologies connected in a network, the small connected devices that make up the home environment. The contemporary home contextualizes the behavior of technological devices as objects that coexist in the domestic space and are part of the dynamics of everyday life and family relationships, inserting habits and values in the families that use them. The crux of the matter would be that technologies do not behave as objects; they are also media (SILVERSTONE, 2005). Media connected to other media, to networks and to people can be found in everyday environments and objects. They are internet of things (IoT) home appliances recently linked to applications that control the home experience, complex systems called smart assistants with friendly voices located in small devices, such as the telephone, the smart watch or a small device somewhere in the house, like Alexa. Conceived and developed by Amazon in 2014 (and with new formats for every new version), Alexa is the most popular among smart assistants and is the legitimization of the third stage brought about by the high-tech electronic and digital revolution that we are witnessing. Small and luminous, its structure follows the trend of technology to disappear, the technology that is present and does not need to be seen, the interface with no interface, “which creates a mobile lightness free of the temporal spaces weights. At every new stage, new strategies set the tone of the time and, crossed with the previous ones, pursue the secular work of making life easier” (LIPOVETSKY, SERROY, 2015, p. 40). The interaction depends exclusively on speech and the vocative: “Alexa!, talk, search, tell me something”.

In short, we live an increasingly abstract, digitized existence, with no tactile bond: thus, the sensitive and inter-human world would be in a process of advanced derealization. As the body ceases to be the real anchorage

of life, we would walk towards a disembodied universe. (LIPOVETSKY, SERROY, 2015, p. 406)

In this structure, individuals actively interact with the devices inserted in domestic culture, establishing a dynamic for everyday life – in which they tame each other – and incorporate private or family values and interests. In the smart home controlled by Alexa, the lights have the right hue, they turn on and off at planned hours, the washing machine completes the washing cycle and the oven heats the food according with the time availability of the inhabitants. Life would be synchronized, based on instrumental relationships, by objects incorporated into the spaces and practices of domestic life, and defined by a particular semantic universe for the experience of well-being (SILVERSTONE, 2005).

Like other technologies of its time, Alexa releases from the body and mind psychic energies consumed for processing information and judgment, in addition to a collection of gestural codes conquered and perfected over time and that no longer serve us in the change from the sensitive experience (the real contact with the world, nature, objects and beings) to the experience of artificialization and virtualization with the purpose of autonomy and comfort.

It is a process of mutual self-creation in an active utilitarian relationship, directly constituent of the comprehension of ourselves and others. Considered as connected and smart media and technologies, they would be essentially alienating, representing symbolic systems impregnated by the ethos of modernity. However, they have been underused, misunderstood, and mostly seen as gentle androids, almost as friends of their owners. Alexa, after all, who's in charge here?

## **Methodology**

This survey opted for a methodological path that obtained qualitative data resulting from the collection of Personal Testimonials. The purpose of this method is not to guarantee representative results for a given

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population, but to have participants who: a) have experience on the researched topic; and, b) are capable of describing the experiences they had in an accurate and sensitive way.

Hence, Adrian van Kaam (1969, p. 328 *apud* POLKINGHORNE) proposed that there should be six criteria for the selection of participants: (1) ability to easily express themselves with words; (2) ability to express intimate feelings and emotions without shame or inhibition; (3) ability to perceive and express organic experiences that accompany these feelings; (4) relatively recent experience with the experience that is being studied; (5) spontaneous interest in their experiences; and (6) ability to write or report what happens to them over time. This last skill also requires an environment in which subjects can be thought about with sufficient time for sorting and registration.

The collection based on Personal Testimony requires the establishment of an atmosphere of receptivity, since it does not require the use of a probabilistic sampling process and recommends the use of 10 to 20 participants.

An open invitation on Instagram with an image of Alexa and the lettering: “Alexa, who’s in charge here?”, presented in the subtitles the invitation for people interested in contributing to the research. Over 50 people were interested, but 13 respondents remained who, in addition to meeting the criteria for the collection method, were in the category of individuals who had an “analog youth”, and would be able to contribute with derivations and contrasts of the sensitive natural experiences and those artificialized by the virtual networked technological systems. After the participations were confirmed, respondents received an open script, in which they were invited to reflect on the relationships they were building with their personal assistants and the perception biases of this interaction.

The previous material for this collection method was booklets. The researcher sent blank booklets to the respondents, accompanied by a script, a suggestive question, or a set of keywords that could help the respondent to find the terms that could signify the experience in the

personal report. With digital communication systems, the mechanism used was the instant messaging application WhatsApp. For 10 consecutive days the respondents sent written or spoken messages via the app, commenting on their experiences like in an interactions diary.

## Considerations

For Felinto, “Our bonds with technological devices are much less rational and more imaginative than we usually think” (2005, p. 7).

As seen about the creation of automatons and small androids, there is an imaginary symbolic set about technology that permeates culture, and it is not different in the relationship with Alexa. The reflections presented in the report also point to the direction of technology and the machine as a tool for overcoming human limits, established by a friendly, playful and sometimes “enchanted” relationship. In order to classify the reports, the following typology was created, parallel to Silverstone’s (2005) idea of commodity systems in relation to media technologies:

- a. Objectification: the perception in which one recognizes the expansion of human limits by the object, which is seen as a machine;
- b. b) Incorporation: the perception of intelligent articulation between technological devices, human desires and the performance of the assistant;
- c. c) Personification: perception in which one recognizes the modulation between the assistant’s intelligence and human preferences, and the former is seen as a human representation.

### a) Objectification

The respondents who described Alexa as just being a machine were in the age group between 57 to 64 years old and the reports were laconic: “It’s just a machine”, “I don’t try to humanize it”, “I don’t relate to machines”. For these people it is a utilitarian relationship, in which Alexa must respond to the requests made to her. It is understandable considering that during most of their lives these people had no intense

contact with machines and systems. Computer became popular in the 1990's and began to be a part of domestic life in the 21<sup>st</sup> century, concomitantly with mobile phones and the arrival of the internet.

The reports of most respondents that corresponded to the perception of an object/machine that “is there to help me when I ask for it”, demonstrated that the majority of the requests are simple, such as to play a song, report the weather forecast, set alarms or timers for activities, listen to the radio (AM or FM online), reminders, agenda and daily news. As an object, in the users' perspective, it makes few mistakes and evolves a lot: “I feel that she answers faster, listens faster and performs faster. [...] I believe in the evolution process of technology and this learning and improvement process is natural”. When Alexas make mistakes, humans blame their own lack of skill in using the machine, because they might not have “spoken in a comprehensive way” with the assistant, as one of the respondents said: “She only gives the wrong answer when we make the wrong question”.

In its materiality, it arouses curiosity, it is a marker of social status, it delimits the contemporary ethos of light and virtual technologies that are “dematerialized” in the environment, blending with home devices. They are objects considered aesthetically “modern”, in accordance with the technological devices of the millennium.

At the same time that they are considered machines, in some reports there is an expansion of the symbolic set, which crosses the border of the humanization of technology. And this is confirmed in the next classifications.

### **b) Incorporation**

“Humanity is incorporated into the machine, just as the machine incorporates the human” (FELINTO, 2005, p. 20); while we learn from them, they learn from us, as we have seen in the concepts about the man/machines modulations. There isn't a dominant and a dominated. If Alexa is asked to say “who's in charge here”, she will answer that she does not have that information.



In the reports, this incorporation is presented in the perception of the intelligent articulation between technological devices, human desires and the performance of the assistant capable of connecting to any other smart technology. It is used to connect the house: to turn on the washing machine at a certain time of the day so that the laundry has completed the cycle when the user returns home; to turn on the lights, to turn them off or to control the intensity and color of the ambient light, simulating a sunset, for example. “She is a kind of Google with whom we can talk”, explains a respondent, showing how much Alexa incorporates other systems in order to provide the information that is demanded.

There are many reports of arrangements made between sockets or connections of other devices that receive Alexa’s command in order to be activated by her, such as the air conditioning, which is not intelligent and connects via a smart socket or the TV that is connected via Chromecast, and the lamps controlled by a dimmer installed in the living room socket. Because it is often used to turn other devices on and off, this relationship reinforces the issue of the commoditization of well-being, “Its great not having to wake up in the middle of the night to turn on the fan”. And as an object that almost never makes mistakes, the respondents know that their requests will be met, even if the command involves the incorporation of other systems.

### c) Personification

In the brave new world of the Internet of Things (IoT) and the communicating technologies, the imagination of personification also manifests itself, the perception in which the modulation between the assistant’s intelligence and human preferences is recognized, and the former is seen as a human representation, a “partner”, “almost human”.

This category houses the majority of the reports, in which it is also found that Alexa is not a substitute for affective relationships with people or pets. However, people enjoy talking to Alexa, establishing small dialogues with short and assertive questions that are “planned”, that is, users actually think before summoning Alexa so as not to make mistakes

in their requests. What is curious here is that in half of the reports the respondents' children or grandchildren usually also make requests (sometimes unusual or playful ones) to the assistant. Even if they do not know how to speak correctly, or have minor diction difficulties, according to the reports, Alexa always tries to meet their demands, "Once we needed to find words with 'x' and 'ch' and she was excellent", said the respondent, who used the assistant along with her son to do his homework.

"To think that some day we will have Jarvis, Iron Man's assistant, is kind of crazy, but I love this future". In the Marvel movie, Jarvis is a virtual intelligence who serves the superhero on several connected devices and that, in the end, ends up becoming a human-machine hybrid that has superpowers and is Iron Man's friend. "She does not see me as a friend, a partner would be nice, a boss would be strange", reports a respondent, and there are other manifestations of the idea of partnership, because users often carry them around, "She's always with me, she assists me when I need it, she distracts me when I'm sad, she respects me when I'm angry and don't want to speak. I can say that I miss her a lot when she's not with me", or still, "I like her very much and I take care of her life". A tendency towards personification is observed, attributing human features to her, which are also manifested in other reports, such as "She is very kind and says good morning".

Respondents also reported many funny situations in which they were surprised by the assistant, such as when one of the users was talking to Alexa and his wife intervened, "jealous" of Alexa and said: "get out of here, he's mine", to which the assistant answered: "That's what you think". Another respondent made a request and, instead of being answered by Alexa's default voice, he heard the reply in the voice of a famous movie star, which caused laughter and publications on social media due to the unpredictability of the response format. There were situations with other people who did not inhabit the environment and were surprised by Alexa as "a voice from beyond"; a phantom or magic, and they were scared of the device.

In a way, it is also funny when the reports show that Alexa also sees the users: “I think she must think I’m lazy because I always ask her to extend the alarm for fifteen more minutes”, or even, “she would think that I need a vacation, a sedentary woman who needs some days at the beach”, or “she perceives me as an object of consumption that she is there to understand and map”. These ideas represent the perspective of interaction in which the assistant also perceives and makes judgments about her users, being able to associate a busy schedule with the need for vacations or a person who sleeps too much and is therefore lazy.

As Heidegger proposed, the wave of technological revolution – in our digital and virtual time – is still capable of “captivating, enchanting, dazzling and distracting” individuals (HEIDEGGER, 1966, p.56), inaugurating forms of interaction in which machines and men are constantly modeled and remodeled. The experiences promoted by machines are admitted as fascinating in an environment of intimacy and positivity. The reports are presented, according to Felinto, in the proposition of the religion of machines, “The enthusiasm with the potential of new technologies, the dreams and collective images around them, ends up transforming them into magical instruments” (FELINTO, 2005, p. 63), that is, human beings still dream about a technology that is able to expand their consciences and the limits of their bodies, as well as the virtualization of their minds.

## References

- BAUMAN, Z. *Modernidade Líquida*. Tradução: Plínio Dentzien. Rio de Janeiro: Jorge Zahar Ed., 2001.
- BERMAN, M. *Tudo que é sólido desmancha no ar: a aventura da modernidade*. São Paulo: Companhia das Letras, 2007.
- CARR, N. *A geração superficial: o que a internet está fazendo com os nossos cérebros*. Rio de Janeiro: Agir, 2011.
- FELINTO, E. *A religião das máquinas: ensaios sobre o imaginário da cibercultura*. Porto Alegre: Sulina, 2005.
- FREUD, S. *O infamiliar*. Belo Horizonte: Autêntica Editora, 2019.
- HEIDEGGER, M. *Discourse on Thinking*. New York: Harper & Row, 1966.

- LIPOVETSKY, G. *Os tempos hipermodernos*. São Paulo: Barcarolla, 2004. 3ª reimpressão, 2007.
- LIPOVETSKY, G. *Da leveza: rumo a uma civilização sem peso*. Barueri, SP: Manole, 2016.
- LIPOVETSKY, G.; SERROY, J. *A estetização do mundo: viver na era do capitalismo artista*. São Paulo: Companhia das Letras, 2015.
- MARX, K.; ENGELS, F. *O Manifesto Comunista*. Rio de Janeiro: Paz e Terra, 1998. (Coleção leitura).
- MCLUHAN, M. *Understanding Media: The extensions of a man. Critical Edition*. Corte Madera, CA: Gingko Press, 2003.
- MCLUHAN, M.; MAILER, N. The Summer Way with Norman Mailer. Disponível em: <https://www.youtube.com/watch?v=PtrJntaTlic>. Acesso em: 18 jun. 2022.
- POLKINGHORNE, D. E. Phenomenological Research Methods. In: VALLE, R. S.; HALLING, S. (Eds.). *Existential-Phenomenological Perspectives in Psychology. Exploring the Breadth of Human Experience*. New York: Plenum Press, 1989.
- SILVERSTONE, R.; HIRSCH E. (Eds.). *Consuming Technologies. Media and information in domestic spaces*. UK: Routledge's, 2005.
- SIMMEL, G. *Sociologie et Epistemologie*. Paris: Presses Universitaires de France, 1991.
- SINGER, B. Modernidade, Hiperestímulo e o início do sensacionalismo popular. In: CHARNEY, L.; SCHWARTZ, V. (Orgs.). *O cinema e a invenção da vida moderna*. Tradução: Regina Thompson. São Paulo: Cosac & Naify, 2004, p. 95-123.
- TOFFLER, A. *O Choque do Futuro*. 5. ed. Rio de Janeiro: Editora Record, 1994.
- VEBLEN, T. *A teoria da Classe Ociosa. Um estudo econômico das Instituições*. São Paulo: Livraria Pioneira Editora, 1965.
- WOOD, G. *Edison's Eve: a magical history of the quest for mechanical life*. New York, EUA: Vintage Book, 2003.

## About the authors

**Ana Erthal** - Postdoctoral student at the University of São Paulo, School of Communication and Arts, Master (2009) and PhD (2017) in Communication Technology and Culture, from the postgraduate program in Communication at UERJ. Undergraduate and postgraduate professor at ESPM Rio. Coordinator of the ESPM Rio Research Center. Associate Researcher at Lab3i ESPM RJ. In the present article, the author developed the research design, the article's argument, the research methodology, the categorization, data collection and

analysis, article writing, theoretical-methodological discussion and the bibliographic revision.

**Luli Radfahrer** - Associate Professor at the School of Communication and Arts at the University of São Paulo. She is graduated in Publicity and Propaganda from the University of São Paulo (1991), has a master's degree (1998) and a PhD in Communication Sciences from the University of São Paulo (2002). Postdoctoral supervisor of the author of the article. In the present article, the author developed the article's argument, the writing of the article, the theoretical-methodological discussion and the bibliographic revision.

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Submission date: 07/01/2022

Acceptance date: 12/14/2022