USING ANTHROPOMORPHISM IN MOVIES FOR PROMOTING HUMANOID ROBOTS IN THE AGE OF ARTIFICIAL INTELLIGENCE: EX-MACHINA MOVIE

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Abstract

In the Merriam-Webster dictionary (2020), humanization is described as representing something as “human” by giving it human qualities. This makes the non-human seem gentler, kinder, or more appealing to people. Such a trial to attribute some human characteristics to non-humans is defined as “Anthropomorphism”. The results of studies show that a product presentation with anthropomorphism can actually be an influential advertising tool, since it creates positive emotions among the audience and has a positive affect in their purchasing behavior. But are there any other possible underlying reasons for such an increase in sales when consumers are made to perceive material objects as ‘human’? And is this advertising strategy being used in the movies today to promote the use of humanoid-robots? It should be noted that this kind of correlation made between the object and the subject (non living and the living) may have foreseeable drawbacks in the future, and they need to be attended. In this article, using anthropomorphism in movies for promoting humanoid robots will be discussed by analyzing the “EX-MACHINA” movie as a case study, and applying content and discourse analysis on the subject.

Keywords: Anthropomorphism, Interactivity 2.0, Avatar Brands, Artificial Intelligence, Advertising

YAPAY ZEKA ÇAĞINDA İNSANSI ROBOTLARIN TANITIMI İÇİN FİLMLERDE ANTHROPOMORFİZM KULLANIMI: EX-MACHINA FİLMİ

Özet

Merriam-Webster sözlüğünde (2020), “insanlaştırma / humanization” bir şeyin “insan” olarak temsil edilir hale sokulması olarak tanımlanır; başka bir deyişle, insani nitelikleri insan olmayana atfedilmesidir. Cansız objelere, hayvan ya da bitkilere insani özellikler vermek, onların bireyler tarafından daha ‘bilindik’ algılanmalarına ve dolayısıyla daha yakın gözükmelerine sebebiyet verebilir. Tek başına bu tanım, insan yaşamında ve dolayısıyla reklamcılıkta “nesne” nin sürekli insanileştirilmesinin arkasındaki nedenlerden birini göstermektedir. İnsan özelliklerini insan olmayanlara atfetmek, antropomorfizm (insanbiçimcilik) olarak tanımlanır. Çalışmaların sonuçları gösteriyor ki, insanlaştırılmış bir ürün sunumunun izleyiciler arasında olumlu duygular yaratması ve satın alma davranışlarında olumlu bir etki yaratması nedeniyle antropomorfizm etkili reklam stratejilerindendir. Bu bağlamda, tüketicilerin nesneleri ‘insan’ olarak algılamaları sağlandığında satışlarda artış görülmesinin altında yatan başka olası nedenler nelerdir? Yapay zeka çağında insansı robotların kullanımını teşvik etmek için filmler bir reklam aracı olarak mı kullanılmaktadır? Nesne ile özne arasında kurulan böylesi korelasyonların gelecekte öngörülebilir sakıncaları olabileceği açıktır. Bu makalede, insansı robotları tanıtmak için filmlerde

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antropomorfizmin kullanılması, “EX-MACHINA” filmi bir vaka çalışması olarak ele alınarak yapılacak; konu, ilgili içerik analizi üzerine söylem analizi uygulanarak tartışılacaktır.

Anahtar kelimeler: Antropomorfizm, etkileşim 2.0, Avatar Markaları, Yapay Zeka, Reklam

INTRODUCTION

Attributing human characteristics to non-humans (products, objects etc...) is known as anthropomorphism (Guthrie, 1993:62). The results of many studies show that a product presentation with anthropomorphism can actually be a very influential advertising strategy since it elicitates positive emotions among the audience. It has an emotional appeal which creates a positive affect in the purchasing behavior (Klein, 2013:265). Object (objectum, gegenstand, objet...), in etimologic terms, stands for the things that exist on the “outside”, things which stand against the “subject” (Bilgin,N.2011:8-9). So, humanization is indeed an effort in familiarizing (and thus bringing closer) the subject with the object by re-defining the distinct division between the two.

Anthropomorphism is especially used in advertising throughout the world. From Coca-Cola with its original bottle shaped like a curvy woman, to chatbots with human names (Siri, Alexa...), and from world famous anthropomorphic Lightning McQueen in the ‘Cars’ movie, to the human-like C-3PO in Starwars, both of which were used in the advertising campaigns. Reavey et al. (2018:440) concludes that consumers mostly prefer watching advertisements that use overt humanization (instead of subtle, or no-humanization) when an ad promotes assertive language (i.e. Just Buy!); however, the same consumers, prefer ads that use more subtle humanization when there is no assertive language. Can this be regarded as an unconscious reaction by the humans to stay away from taking direct orders from the ‘non-human’ and actually to keep their power over any given situation by reminding themselves who is actually in “charge”?

Ex-Machina movie starts with a very simple but profound statement which is worth mentioning: “There’s nothing more human than the will to survive.” When the human feels that his/her life is threatened, then the so called “animal instinct” comes on the stage. Horkheimer, and Adorno (2019:15-16), touched upon this concept in their work “Towards a New Manifesto” and said: “*Happiness would be an animal condition viewed from the perspective of whatever has ceased to be animal. And that to achieve the condition of an animal at the level of reflection would be freedom.*” So, can one say that ‘the animal’ side of the human feels safer by using anthropomorphism and familiarizing the reflection?

Riek and friends (2009:245) stated that people empathize more strongly with humanoid robots and less with mechanical- looking robots. This is explained by Masahiro Mori’s (2012:98) theory called the “Uncanny Valley Effect”, which states that as robots become more ‘humanlike’, it makes them more ‘familiar’ for people, and thus more ‘likeable’. Mori calls this feeling ‘a heightened sense of affinity’. But there comes a time when the mismatch between the two forms (humans vs humanoid robots), the empathy lacking ‘interactivity’, and motion quality start eliciting a sense of unease in the human. Mori gives the example of shaking a prosthetic hand with a high resemblance to the human form. He says, once a person realizes that the hand is

artificial (because of its coldness, or its texture etc ...), he /she experiences an eerie sensation, and loses his/her sense of affinity; this is the moment when the hand becomes ‘uncanny’.

This notion can also be analyzed by the ‘Simulation Theory’, which suggests that humans understand the minds of others through creating “simulations” for empathizing with another’s situation to understand them (Riek et al.2009:245). Here it may be appropriate to discuss another academic writer’s, namely Roy Ascott’s (2016), words: “*The real was only virtual after all. Now we have a different paradox to deal with-actually to celebrate: the virtual is becoming real*”.

If this statement is true, then one may really become the “Human component in a Turing Test” as mentioned in the movie Ex-Machina. Some academic research relevant to the object - subject affinity can be summarized as below:

RESEARCHERS	YEAR	FINDINGS
Caporael	1986	Identifying with an object, induces high affect, accompanied by anthropomorphic behavior.
Goetz,Kiesler&Powers	2003	People prefer more humanlike robots for jobs requiring more sociability.
Hinds,Roberts & Jones	2004	People have the tendency to take less credit for the work done and also less personal responsibility as robots become more humanlike
Krach,Hegel,Wrede,Sagerer, Binkofski & Kircher.	2008	a strong linear relationship can be spotted between cortical activation regarding how humans process other minds, and anthropomorphization.
Chandler and Schwarz	2010	Consumers who likes to anthropomorphize their vehicles, seem to be less willing to replace them.

1. INTERACTIVITY 2.0 AND CONSUMER: CHAT WITH CYBORGS AND BOTS

Roy Ascott (2016) says that reality has always been constructed and mediated by the ultimate technology, human language, in all its varied configurations. And interactive telecommunications is also a language before it is anything else. Thus, interactive telecommunications is a technology that empowers the individual to connect with others. This, however, also has a downside: Today, everything in our online world is indexed. Every search that one makes, feeds the Google database; every ‘like’ that one gives, helps Facebook to give better targeted advertising solutions to its customers; every story someone posts, makes Instagram a better choice for both the entertainment seekers, and the influencers... So what if Google, and the like, or any of the social media companies that we entrust our information with, wanted to use our search histories in order to create the most artificially intelligent robot? Would the humans still hold the comparative advantage thanks to their consciousness? Can a mutually shared meaning

amongst people, or amongst any other communicating/interacting intelligence holders, be possible without consciousness?

Interactivity has been a term used for describing a natural attribute of face-to-face conversation, together with some mediated communication settings like enabling interactivity between two-way cable systems, electronic text systems, and some programming work. Interactivity was, and still is, also present in the operation of traditional media. Examples of this can be given as: Letters to the editor, talk shows and audience participation on television and radio programs. However, for full interactivity to occur, communication roles need to be interchangeable: role assignment and turn-taking are to be non-automatic or nearly so (Rafaeli, 2018:109). But one may say that starting from the times of web 2.0, and especially as we approach the Age of Artificial Intelligence, the definition of ‘interactivity’ has become questionable, and insufficient. Can one call a chat with a robot, or a chatbot interactivity? If we name this new era of communication as ‘Interactivity 2.0’, then ‘who’ or better to say ‘what’ will one be actually communicating with?

In the 2015 movie ‘EX-MACHINA’, a brilliant scientist, Nathan, brings a successful programmer, Caleb, to his well-hidden cabin which operates as a research facility. Nathan’s aim (or at least the aim that he told Caleb) is to test if his new invention, a cyborg called Ava, truly has consciousness just like a human being. At this point, a scene from ‘Ex Machina’ where Nathan Bateman talks about Artificial Intelligence (AI) comes to mind:

Nathan: “One day the AIs are going to look back on us the same way we look at fossil skeletons on the plains of Africa. An upright ape living in dust with crude language and tools, all set for extinction.”

Here, how one defines the ‘human’ becomes utterly important; Is human merely a “body”, or is the human’s most deterministic characteristic his/her consciousness? If the human consciousness shapes the AI, can it be actually considered as partly ‘human’? And at this point one important question comes to mind: Can any living being without a ‘free-will’ be considered as human?

Human-computer interaction has its roots in the Turing test, where a human interacts with a computer. If the human doesn’t understand that he/she is interacting with a computer, the test is passed. In the movie, the Turing test is explained as below (min:10:26):

Nathan: Do you know what the Turing Test is?

Caleb: Yeah. I know what the Turing Test is. It’s where a human interacts with a computer. and if the human can’t tell they’re interacting with a computer, the test is passed.

Nathan: And what does a pass tell us?

Caleb: That the computer has artificial intelligence.

The chatbots that we come across on e-commerce websites and/or shopping apps today, can be given as an example for such a human-AI interaction. At this point it would be relevant to talk about some of the marketing campaigns that were made especially for AVA at the time of the Ex- Machina movie (2015):

- AVA had a Linkedin account as a humanoid robot, promoting herself as a personal assistant. The account is closed now.
- The marketing team from the film created a Tinder profile for the humanoid lead-character Ava, who was played by Alicia Vikander. The design and positioning of the campaign matched perfectly with the story of the film. Marketing crew used photos of Vikander, and created a Tinder bot that asked her visitors some questions on what makes a person human, would they like to meet and what attracts them to her... After answering those trivia questions, the user was directed to an Instagram account that promoted the film. Many people were charmed by the sweet face of the bot AVA online, and they wanted to ‘communicate’. Here, one may quote Caleb’s words about AVA in the movie: *“To escape, she would have to use imagination, sexuality, selfawareness, empathy, manipulation, and she did. If that isn’t AI...”* Actually Caleb was right, people couldn’t escape from AVA’s ‘bot’ charms.

(<https://mashable.com/2015/03/16/ex-machina-tinder-marketing/> 07.05.2020)

In the movie, to test AVA’s response ability, Caleb tells idioms and complicated sentences like *“We have to break the ice...”* which would be difficult for an ordinary robot to respond. However AVA responds immediately, with no hesitation. At this point, however, it should be noted that when Caleb asks if she knows what ‘breaking the ice’ means, Ava responds with a dictionary definition and says: *“Overcoming initial social awkwardness”*.

To determine that, Nathan uses an assessment close to Touring Test to Ava applied by Caleb. Since Caleb knows that Ava is not a human, the object of the test similar to Touring Test in the movie, is not to tell whether she is a human or a machine, but to determine if she has

consciousness as well as ability to understand, empathize and manipulate other people. This is actually what Nathan really wants to test: Can AVA manipulate Caleb to help her escape?

Here one question comes to mind: Can someone's humanity be tested on observing the methods of manipulation one is capable of imposing onto the other? Or does being a human require something much more than the ability to use some mind manipulation techniques?

When Caleb applies the test to Ava, Caleb comments '*testing Ava through conversation is like a closed loop, just like testing a chess program through playing chess*'; meaning Ava might be perfect even better than Caleb in communicating through language (AI can be more intelligent than humans in the specific programs that are uploaded to them), so to test Ava's consciousness through tools of language is not sufficient. This comment of Caleb's is mentioned again at the end as Nathan asks Caleb '*Did we ever get passed that chess problem. Is she feeling or is she simulating?*' So even though Ava seems to pass the test they applied, the results are considered unreliable since the testing tools reveal circular references.

2. THE FUTURE OF AI AND CONSUMPTION VIA ANTHROPOMORPHISM

The 'EX-MACHINA' movie successfully makes the audience imagine where the future of AI or 'thinking machine' is heading. The Cyborg's thinking patterns are told to be emulated from the search engines (which show the way people think: chaotic, impulsive, patterned) and uploaded to Ava's gel based brain. The movie answers 'yes' to several questions about strong AI: Ava is able to understand and think, have free will, make decisions, learn on her own and modify her behavior. Example of Ava's free will in decision making is when she states it is hard to choose among so many options of where to go first when she is free, though then making her subjective choice. Ava also states she searches the web for areas of her interest, showing she can learn on her own.

Another question about AI is 'will the humanoid robots be able to consciously experience 'life' like humans?' One may start by defining what consciousness is here. Consciousness brings along sentience(the capacity to feel, perceive or experience subjectively), and awareness (having a sense of selfhood, and the executive control system of the mind). It must be noted that high intelligence does not necessarily mean consciousness, but Ava seems to have a high IQ too... She does smile at the end of the movie, showing her 'feeling' of happiness after she finally gets free and sees the sun! Another example of a conscious act by one of Nathan's humanoid prototypes is seen in the character Kyoko, who has been unresponsive and servile for the whole film, but at the end she stabs Nathan. Supposedly, she wants to escape from her 'miserable' life, which surely is an act of personal awareness (guessing that Kyoko could not be programmed by Nathan to kill him).

As one may clearly see, the 'awareness' escorted by the 'free will' of the humanoid is being introduced to the audience through out the 'Ex-Machina' movie. This kind of anthropomorphism regarding the 'feeling machines' is also very profitable for the promotion of the robot agenda in

today's world. In the below advertisement, made for the GM hundred thousand mile warranty; one may clearly see such humanization of the 'working' robot, that chooses to end its 'life' by his 'freewill', just like any other failing human could choose to do (Please read the QR code via a smart phone to watch the advertisement)

(<https://www.youtube.com/watch?v=B3NGN4t4hm4> 11.05.2020)

CONCLUSION

As Robert (2017:1) claims, research has shown that humans are more likely to trust and feel safe with robots they view as more human. However, there are also some drawbacks to such humanization of robots. Some of the problems with humanizing robots can be stated as follows:

a. Humanization impacts our emotions towards robots. Such emotions are likely to range from feelings like "fondness" when robots are less humanized to stronger emotions such as "love" when robots are humanized.,

b. Humanization impacts our expectations. The more humanized robots are, the more one expects them to take on human responsibilities.

c. People's expectations on how, and on what level the others will be able to interact with robots increase.

Riek and friends (2009: 246) stated that while people do not have any reason to hesitate when abusing property within the solitude of their home, they can not do the same to another human. That kind of aggressive behavior would definitely be morally unacceptable. The results of Riek and friends' experiment showed that people actually empathized nearly as much with any humanoid robot as they did with another human. Thus, witnessing a crime made against a humanoid robot, could bring emotional harm to the people watching it. However, the results of the experiment also showed that people would not feel as bad if the robot was mechanical looking. So, in short, the way a robot looks is actually very important and it makes a difference when it comes to designing ethical frameworks for the digital age. Advertisers, together with the brand ambassadors online know this very well, and thus they use anthropomorphism to its limits for keeping the 'subject' consume more, until he/she starts consuming his/her own identity, and become presented by a self-made avatar online.

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