Caterina, Alexa and the Others

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Abstract. What will the future identity of design be? Perhaps that of making man-machine communication even more fluid through the development of more intuitive interfaces and objects that prolong us, capable of inducing the emotion of non-reality or on the contrary will tend to restore strength to the material, to the tangible aspects and to the real emotions? Artificial intelligence is meaningless, it cannot therefore give sense or meaning to what it learns, so the strategic vision of design will remain a human responsibility just as creativity will always belong to that side of the human, that artificial intelligence cannot understand and undermine. We can therefore conclude that yes, probably in future, many works will be carried out by robots, but still instructed by man.

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1 The Emotion of Non-reality

In the civilization of communication, we are part of, so substantial phenomena have taken place that have led to important consequences in many of the operational areas of civil society. In the introduction of the book by Tony Jeton Selimi (internationally renowned behavioral and cognitive expert), #Loneliness: The Virus of the Modern Age, we read: "separation, isolation, solitude and detachment follow you in every sphere of life. Every day, going to work, to the airport or to the restaurant, you will see people glued to their cell phones, iPads, tablets, computers or laptops, in a desperate effort to stay in touch, communicate, be heard. And yet, it is enough to look around to see so many people who ignore the presence of others next to them".

In this frame, what will the future identity of design be? Perhaps that of making man-machine communication even more fluid through the development of more intuitive interfaces and objects that prolong us, capable of inducing the emotion of non reality or on the contrary will tend to restore strength to the material, to the tangible aspects and to the real emotions?

I would like to think in a way that is not "exclusive" in the sense that, even if the challenge between artificial intelligence and human originality is "irrevocable", as Francesco Morace says, and if in the near future we will really share our physical

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The first part of the text entitled *The emotion of non-reality* is by Elisabetta Benelli, the second part entitled *Atavic aesthetics in interface design* is by Jurji Filieri.

spaces with ever more performing material or virtual devices, the design will continue to include those areas aimed at the formulation of objects or systems of objects of everyday material as a response to as many human needs. What if I hope happens is that we can expand the possibilities of action of the designer who will be called to intercept the changes of a rapidly evolving society, to identify the new needs that will be induced by them and to design as many systems to satisfy them or perhaps more simply to refine existing ones.

If indeed robots (which, as my virtual assistant Alexa explains, "are any machine capable of performing more or less independently a job in place of man") will replace us in some activities or join us in performing others, the study of their performance, of the so-called HRI (Human-Robot Interaction) and even of their appearance will become increasingly important. We will be able to design performing anonymous boxes or perhaps automata with an appearance similar to ours or miniaturized systems to the point of being invisible that will activate in our passage or with our voice and that will be able to perceive even our moods. The study and design of advanced and intuitive interaction mechanisms at the same time will imply a human-centric approach to robotics, based on the study of human reactions that must constitute a model for robots. However, while it will be possible and perhaps even relatively simple to improve physical performance so that they can also carry out "strenuous" or repetitive tasks, it will be more complex to instruct them so that they can perform increasingly sophisticated tasks. Artificial intelligence is meaningless, it cannot therefore give sense or meaning to what it learns, so the strategic vision of design will remain a human responsibility just as creativity will always belong to that side of the human, that artificial intelligence cannot understand and undermine. Those that Morace defines as the "nine recipes of the human menu", or the social curiosity that allows us to exchange emotions and experiences, the character that makes each of us unique and inimitable, the hesitation as an "extraordinarily human" characteristic, trust in the other, the secret intentions that often make us act in a rationally incomprehensible way to ourselves, the displacements and the fears with which the human is measured and that lead him to seek the certainty of a look or a caress can never belong to a machine even if programmed with the most sophisticated algorithm.

Machines are not creative, they do not have or will have empathic capacity and for this reason they will never be able to replace us: we will move on different levels that can have common lines where these are sought after and useful to our quality of life. Indeed the activities related to the creative experience will paradoxically be enhanced by the advent of hyper-technological systems, precisely because they will fill the "gaps" that they will never be able to fill and, furthermore, further design and research areas will be opened to recover and enhance those elements present in the DNA of Made in Italy and able to produce and tell the high quality of Italian products.

Artificial intelligence, however, has an undoubted fascination, so much so that, since the beginning of the twentieth century, it has also involved literature and cinema which have tried to give a soul to mechanical protagonists who are increasingly committed to humanizing themselves, descending into the problems of everyday life of their time: let's think of the Maria of "Metropolis", a silent film by Fritz Lang presented as a world premiere at Ufa Palast am Zoo in Berlin on 10 January 1927, an android robot that manages to organize, with deception, the rebellion of the working class, tired

of the abuses of the dominant class. Lang sets the film in a dystopian future, exactly in 2026 (which by then is already near), in which on the one hand we find the city of the elite, capitalist, managerial and bourgeois, full of skyscrapers for the powerful and of leisure places in deco style for an idle and indolent youth, on the other, in the bowels of the earth, the workers' city, where slave-men look after monstrous machines. The film, considered one of the symbolic works of expressionist cinema and recognized as a model of much of modern science fiction cinema, has inspired films such as "Star Wars" or "Blade Runner" overloaded with metaphorical and far-sighted visions.

Many years after Maria and, precisely, in 1980 also the efficient and accomplished Caterina becomes the protagonist, together with Alberto Sordi of "Io e Caterina" precisely, a film that tells the story of a businessman who relies on a robot domestic with female features but with an unexpected human side. Jealous of the women the master attends, the humanoid robot takes (and loses) control of the home and life of the protagonist, wanting to perform "functions" for which it was not even prepared in filmic invention.

In "Her", instead, the female protagonist who will seduce Theodore Twombly (Joaquin Phoenix) only thanks to the voice, perennially alone and perpetually online, will be OS1/Samantha, the first operating system with a consciousness and look of an old photograph holder pocket. "Her", the first feature film written entirely by Spike Jonze, leads to reflections on today's human relationships but above all it is a film that impresses with the director's ability to mix elements taken from decades and different styles, emblematic objects joined together by the red color which brings together sets and costumes. Scattered with "reds", the film evokes a not too sci-fi future, a reality made up of elegant and personalized details, archaic objects, perhaps outdated, but with an immortal design. "I love the design of fountain pens and cigarette cases from the 1940s, small leather books, and the feeling you get from holding a Zippo lighter between your fingers," says KK Barrett (2) who, precisely for this reason, avoided to use materials that are too new for technological devices, even framing PC screens as if they were photographs or paintings in order to show them as an opportunity for human contact.

The idea that robots can develop autonomous emotions and thoughts therefore seduces and intimidates at the same time: they are in particular social androids or chatterbots such as those developed by Hanson Robotics of Hong Kong (Sophia and her brothers, for instance) that have thinned the border between artificial and human world, not only for the incredible similarity but also, and above all, for the ability to reproduce many of our facial expressions, for the prompt answers given during the interviews and above all for the fact that, for the first time, an android has even obtained the citizenship of a country, the Saudi in this case. Sophia is made with a special silicone rubber, it sees through two micro-cameras installed in the eyes that allow it to make visual contact with the interlocutor and to grasp its state of mind and, since it manages to remember the contents of previous conversations (what which we often do not do), its dialectical abilities improve, the greater the interaction. As stated by David Hanson, founder and CEO of Hanson Robotics, the goal is to get Sophia out of the laboratory and possibly use it in sectors such as health, education or home, finding really new ways to organize modern work.

My personal conclusion is that indeed, in the years to come, many jobs can and will be carried out by robots properly trained by man and this to point out that the so-called AI is nothing but a product, or rather a sub-product of human intelligence and, precisely for this reason, as Morace once again underlines "it must not frighten artificial intelligence but rather human stupidity", in the sense that we will be the ones to transfer data to the machines and therefore, always we, we will have the responsibility of what these they will be able to do.

In the end, the last words to Alexa, who silently supports me and to whom we ask a question: "Alexa you are a robot?"

A. "No, I'm not a robot. I like to think of myself as a aurora borealis or a surge of colorful photons dancing in the atmosphere, but I'm just Alexa and I'm here to help you".

2 Atavic Aesthetics in Interface Design

The What will the new Artificial Intelligence look like? It is difficult to say for sure, however the scientific and planning experience conducted in the most recent academic field and the exponential spread of personal assistance devices based on the use of advanced technologies, demonstrates, and in a certain way recalls, the urgency of a reflection more careful on the interfaces through which the effective use of the products passes, so as to recover and fill the gap between performance and the form of the same function, too long abandoned to an uncontrolled definition.

What we can therefore define as the mask of Artificial Intelligence is a question of media or even better of medium, through which the experience of use or functional relationship with the user takes place. To acquire effective confidence in this new and recent area of the disciplinary sector of Interface Design and outline operational and/or methodological tools capable of improving this experience (both in quantitative and qualitative terms), we believe it is necessary to start from a morphological analysis and semantics of those relationship channels that govern relationships between people, to isolate strategic design factors, capable of overcoming and defeating natural ideological and typological mistrust, which we would call "ancestral".

Which user would feel at ease if he were instantly transferred into an aerospace base, without any functional qualification process towards the spaces, contexts and living and functional processes in a high-tech concentration site? A gradual and prolonged training program is needed to accustom the body and human cognitive psychology to the active occupation of similar habitats and a specific functional education to build a useful and productive contact with technology.

This methodological approach somehow brings back the design discipline (by which the objects are designed and consequently the use relationships configured), outside the physical and temporal space of the project itself, even in distant times and places, in search of those relationship channels that over time have shown an identity resilience such as to keep them unchanged or minimally redefined. Return to the origin of media and relationships between people and between people (users) and objects, to find out if there are still effective interface quotas and to learn how they can be replicated, reproduced, transferred within a complex and "unnatural" project, like the

interface design of a robot. We can call this method a reductive or reverse synthesis process, through which the researcher and the designer proceeds to search for permanences and similarities in relational models, liable to be recovered and reinterpreted in the interface design of multimedia or robot assistance systems, even with anthropomorphic configuration, finally equipped with stronger empathic qualities through which to obtain a qualitative improvement in the user experience and wider acceptance by the public.

A few lines above we have defined the morphological limits and conditionings that make certain technologies inhuman or even "hostile" to the user ancestral; this observation derives from the qualitative analysis conducted on some case studies, including the project of motor assistance for the elderly (developed with the Sant'Anna Institute of Pisa), voice assistants for multimedia control (Google Glass, Oculus Go, Amazon Echo Dot, Siri, etc.), automated industrial plant devices, integrated with complex machines. In all cases, where operational difficulties emerged, it was possible to trace them back to unusual interface models that apparently seemed to exclude any reference to habitual and more popular use models, in the name of a global innovation that also involved cognitive models. Think of the initial market difficulties encountered by Google after the launch of a device such as Google Glass, which superimposed levels of visual communication to the normal optical framework of the user and provided for the activation of voice control by means of an unusual lateral overflow of the eyeglass support rod. The project, refinanced and implemented through a second development step, in the end was abandoned, without a real attempt at a relational revision with the user, who to some extent derided the innovation or rather brought it back within an operating perimeter closer to the human functionality.

In this text we intend to support the need/opportunity to review part of the process of designing media relations channels with these devices in fact, in order to draw on chains of knowledge, of maximum universal caliber to build satisfactory functional and experiential bonds and lasting with the public.

The old ergonomics, all committed to solving dimensional problems, and proxemics, aimed at describing the spaces pertaining to the individual, must grow in a range of research aimed at defining ways and forms of a new behavioral culture (to the extent that it includes new subjects such as robotic devices) still inspired (at least in the temporal contingency of today) to ancestral models of life and communication.

What emerges is an intimate fusion of medium and message, which makes them ever more indissoluble, especially when it comes to designing software products or services in which the physical and material component is reduced to a minimum, until it disappears (think of the variable light that animates the voice of certain automatic responders or, for example, the formless definition of animated histograms through which feedback is provided to receive the recorded message on a mobile phone). This circumstance therefore recalls a deeper Aristotelian definition through which it seems easier to decipher the meaning of certain forms of contemporary expression, including those related to the use of AI. Sabeth Buchmann in particular refers precisely to this version, in deciphering media specificities for example in the world of visual arts, in which the matter is again excluded: "To argue for a concept of medium specificity that is able to conceive visual information as psycho-emotional and physical affect, I refer to the philosopher and art historian Emmanuel Alloa who considers affect in an

Aristotelian tradition to be produced and perceived by and as movements". He thinks to affects as transmitting movements that can't be detached from materiality: "That 'a medium must necessarily exist' […] also and simultaneously means that this medium must reveal a certain, albeit minimal, density, a real resistance, no matter how weak, so it can be moved".

And Buchmann again: "This model of media theory, represented by philosophers preferring perception and cognitive science over functional analysis and historiography of technical media, refers to a tradition claiming that affect, following Aristotele, produces what lies between the organ and the object of perception".

If on the one hand this interpretation tends to fill the physical deficiency of the artifact, with the physicality of the medium on which it is transferred, on the other it enables timeless media fruition models, confirming the thesis supported here of a possible atavistic recovery of ancient models, for their contemporary projection.

This model does not allow a categorical distinction between old and new medium but instead bolsters the perception of the medium as a discontinuous structure of rules and accidents based on variegated relations of difference.

At the end of this reading, still subject to wider experimentation and methodological diffusion in the practical realization of artifacts and systems, I like to recall two works by Ettore Sottsass, realized towards the end of his long design career and his life, in which I find summarized some of the terms described above, that is the capacity of expressive synthesis and design that leads to the project of the mere necessary. The first one consists of a series of ceramics created by the designer in 2012 with the ceramic company Gatti in Faenza (Italy), entitled "Reperti del future" (Findings of the future), in which all the design experience of Sottsass and the wealth of knowledge gained in a lifetime lead the project towards an almost prehistoric definition of simple shapes with a strong emotional impact, stripped of any decorative, technological and interactive frills. The second work consists of three masks made in the 2006 summer time in Filicudi and later presented by the Clio Calvi Gallery in Milan. The first mask is called "I'm meditating, don't touch me" and perhaps represents a thorny shaman with inverted eyes, in concentration. In the second one "I look at the sea", over a pink smiling mouth the look of immense blue eyes becomes the object itself of contemplation. The third mask is called "my soul" and is the only true mask that, covering the face, reveals the general incomprehensibility.

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