Spike Jonze Meets Shakespeare – Artificial Intelligence and Posthumanism

DOI: 10.46522/S.2024.01.6

Anda CADARIU, PhD
University of Arts, Târgu-Mureș
anda.cadariu@yahoo.com

Abstract: *The hereby study aims to answer several questions regarding the impact Artificial Intelligence has had on our lives and on our art, especially on the performing arts, and particularly on theatre and cinema.*
In order to gauge and assess the importance of AI, both as a means of creating works of art and as a theme they trackle, I draw a parallel between Spike Jonze's film, "Her" (2013), and Royal Shakespeare Company's 2016 production of "The Tempest" by William Shakespeare, directed by Gregory Doran. While this particular production of Shakespeare's play is a high-quality illustration of how Artificial Intelligence can enhance a theatre performance, in Spike Jonze's film one can find AI as a theme, character and social issue. Besides being a state-of-the-art work, "Her" raises a question rarely addressed without bias, bigotry or militantism: a human's warmth or a machine's intelligence?
Royal Shakespeare Company's production of "The Tempest" answers: 'Both'. Director Gregory Doran worked with Imaginarium and Intel to create scenes where actors and holograms interact in a three-dimensional immersive experience, a feat which could not have been achieved without Artificial Intelligence.
The hereby essay also tries to answer other questions, such as: Does the use of AI technology improve the spectator's aesthetic experience, or is it rather an encumbering factor? And if so, why? Are we heading towards the posthuman age? And last, but not least, what implications does the increasing use of AI in the performing arts have from an anthropological and sociological point of view?

Key words: *theatre; film; anthropology; technology; posthuman.*

Introduction

As a side effect of the milestone represented in history by the informational revolution – starting with the mass production of personal computers, going through the increased use of social media and the somewhat disturbing (for some of us) recurrence of terms like *Artificial Intelligence* (*AI*) in the more recent years' public discourse - several

questions regarding the impact AI has had on our lives and on our creative endeavours have arisen in all academic and journalistic performing arts circles.

Theatre, "the work of living art" (Appia, 1960), has always strived to please its audience and, whenever new technical devices were invented, it incorporated them almost instantly to this very end. As for cinema, the technological impact the invention of the seventh art has had on all the others – especially on visual arts and theatre – is undeniable. Given the relationship between technological innovation and the performing arts, one cannot not ask the obvious question: 'Is the increasing presence of AI within the realm of performing arts and in our lives signalling the beginning of the posthuman era?'

The answer should be: 'If the posthuman era means "an age without humans", then the answer is "Probably not".', In spite of scientific theories that claim otherwise, the idea that AI will never replace humans stands as a viable counter-hypothesis, one based on historical evidence. If we look back in time, we can ascertain that with every technological breakthrough, humanity underwent a limited-time wave of panic, which eventually subsided. This is the idea I will try to argue in favour of in the following paragraphs, by means of consulting research on Artificial Intelligence pursued by experts in disciplines such as computer science, anthropology, sociology and the performing arts. Through this interdisciplinary perspective, posthumanism - and its subsequent forms, one of which is the much-feared, dystopian idea of an 'AI takeover' - seems unable to infuse art and society in a negative way (as predicted by the anxiety-driven larger sector of the public), just as neither the invention of the telephone – also difficult to accept on a mass level at the time –, nor the production of the printing press or the mass(ive) use of the internet[1] caused any detriment to the existing social order.

In the third millennium, when the large-scale use of social media networks such as *Facebook* or *X* (formerly *Twitter*) is just as controversial and disorienting as the existence of the internet itself for certain social categories – fewer and fewer, though - , the fact that AI has become a talking point is definitely a hard pill to swallow for the conservative and the less technology-savvy segments of society. There have been waves of irrational fear among those who have enquired the matter only superficially. The dubbing of AI as a threat was encouraged by the mainstream media – the hunger for genuine information notwithstanding, we must not forget we have lived in the 'post-truth' age for some time now, and that the recent years in the history of humanity have been peppered with the sensational to such an extent that fake news has become a real issue.

However, from the anthropological perspective, AI and other improvements in the *tekhne* department (e. g. the internet, computers, social networks, messaging apps, and even the use of emojis), on which the average consumer is often asked (in a biased

[1] The forerunners of the internet were closed-circle, academic and military communication methods the funding of which was initiated by several governmental agencies (see Leiner, Cerf, Clark et al., 1997);

manner typical of trick-questions) to give their view in terms of 'good' or 'bad', will eventually become as user-friendly and as widely used in our daily lives as the previous century's trademark-'threats': the radio, the television set or the even-more-'threatening'-and-prone-to-phishing-or-other-security-breaches banking system, in its early 'less-cash-and-more-electronic-payment-devices' days. The anthropological and sociological view, teamed with some basic notions of psychology, can lead us straight to the conclusion that the AI phenomenon shall be, in a few years, no more sensational or panic-inducing than – for want of a better example – the mobile phone phenomenon, one that involved a technical innovation to which, in time, we became as accustomed as to, let's say, other commonplace necessities such as hot water, the washing machine or the cooker. It only took us, humans, a few years after the initial wave of mobile phone mass production to accept owning one as the norm. These devices went 'viral' in no time, making landlines obsolete and improving our lives by increasing our mobility. It must be said here that they were soon included in theatre performances and films; in terms of semiotics, this signals that these two performing arts, being the most lifelike of the arts *par excellence*, mirror society and the changes within it.

That is why, from the bird's-eye-view anthropological perspective on the effect last century's extremely high-paced technological revolution has had on humanity itself, one can surely realise that when we panic in game-changing innovation situations, we forget the benefits they entail. For example, the huge improvements brought about by globalisation and the 'information-at-the-tips-of-our-fingers' attitude that started it, both online and offline (and to which the invention of search engines such as *Google* and social networks such as *Facebook* greatly contributed) tended to be overlooked in favour of public discussions around the negative effects the time-consuming online world seemed to have, initially, on us, its creators and – in greater and greater numbers – inhabitants[2]. It does seem so much easier for the average mind to focus on the subconscious, collective and irrational dread our species has always had of becoming extinct (not that it has not been noticed in other mammal species, as well) and replaced by machines that we, ourselves, have invented. But this has happened so many times before (Orson Welles's radio adaptation of H. G. Wells's seminal work *The War of the Worlds* and the side effect it had on the radio listeners is only one of many examples – the radio being quite a new technological improvement at the time[3]). Needless to say, however, intense one's propensity towards or penchant for irony may be, the idea of an

[2] There are very few people in the world who don't have a *Facebook* account in 2024; internet surfers also 'inhabit' online worlds such as *Second Life*, and, last but not least, we cannot overlook the currency of a bridge-world that connects financially the online and offline worlds, such as *Bitcoin*, when discussing this *status quo*;

[3] For an in-depth analysis of this and other examples of irrational, collective panic-driven reactions in the face of new technology, see Bartholomew, 2001, 219 & *passim*;

'AI takeover' - a sub-branch of posthumanism - seems to the researcher just as preposterous as the idea of an Artificial Intelligence-driven machine creating art.[4]

The ownership and understanding of concepts such as 'humanism' and 'posthumanism', their relationship to the arts in general and to the performing arts in particular, as well as a brief case study involving a contemporary theatrical production underlying the use of AI technology and a film the subject matter of which is AI and human emotion shall hopefully suffice to build a case against the collective fear of humanity's extinction as endorsed by those postulating an AI takeover.

As a method inherent to such a research endeavour as the hereby essay, the Hegelian trinomial thesis-antithesis-synthesis should be considered the most appropriate. Thus, terms such as 'humanism' and its 'antagonist', 'posthumanism', stand at the moment in a dialectical relationship, similar to the anthropological 'nature versus nurture' debate.

Humanism and Posthumanism. An Overview.

While humanism "uses science and reason to make sense of the world" (Law, 2011), the word itself derives from the Latin word *humanitas*, which was first used – and it still is - to describe values related to liberal education *(Kristeller, 1978). It also underlies the reverence towards the classics and the artistic and intellectual 'boom' that took place during the Renaissance, and, on a philosophical level, it glorifies the human mind and its efforts to give meaning to the world (see Harper, 2023).* Nowadays we call the arts, philosophy, history, literature, and related academic disciplines 'the humanities', and this emphasizes the scope of humanism as a trend, world view and cultural approach – as concerned, at its core, with *human* (s. m.) interests or values. Those who endorse a more critical perspective use the term 'anthropocentrism' instead, but its negative, critical connotations hinder us from validating the perspective of the theorists who employ it

[4] Besides being defined, at its core, as a creative activity, there is another defining trait to art, a trait so obvious that it is often unwittingly ignored: art must be *original* (s.m.); each artist has their unique 'voice', just as every human being has their unique fingerprints. (For example, I may be mistaken for another woman just because I have the same hair colour, body shape, height etc., but it may not take comparing our fingerprints, just realizing that she lacks my voice or my eye colour to reach the conclusion that she is not me. Many humans can and do draw or paint in the style of Pablo Picasso – maybe, given the right context, without even being aware that Picasso has ever existed – but none of them will be able to replace his 'voice', his unique 'fingerprint' in the world of the visual arts. Many people can write in their journals a phrase similar to the one that opens Goethe's masterpiece, *The Sorrows of Young Werther*; they, just like J. W. Goethe, can compare the human soul to a fountain, without even being aware that Goethe wrote that. However, nobody could write *The Sorrows of Young Werther* again, word for word. It is the originality, among other things, not the 'algorithm', that makes one an artist and their work - art. That is why I see the idea of 'art' 'created' by AI as out of line as the idea that any child who sings is a musician. AI-created 'art' can be, with a lot of generosity, compared to what an epigone is to an artist: a mere imitator.

as such. It almost sounds like an accusation directed at humanity for being too self-centred, while the milder, more friendly definition encompassed by the word 'humanism' focuses on the valuable intellectual and artistic nature of humans. It is this very nature that the idea of posthumanism, which started as a reaction to the aforementioned humanist cultural trend, challenges.

> Posthumanism is an ambiguous term that suffers from similar semantic uncertainties as postmodernism. Its 'post' prefix hints at the arrival of a new epoch – as 'post'humanism it claims to identify a new mode of being in the world that departs significantly from the conditions of humanism.
>
> Lorimer, 2009

The newly-established trend of thought encompasses a wide variety of branches, including antihumanism (a branch of theory that is critical of traditional humanism and traditional ideas about the human condition), posthuman transhumanism (an ideology which, drawing from posthumanist philosophy, seeks to develop and make available technologies that enable immortality and greatly enhance human capacities), and last, but not least, it proposes the possibility of an 'AI takeover', an idea that has come to name a variant of transhumanism in which humans will not be enhanced, but rather eventually replaced by artificial intelligences (see Lewis, 2015).

'Human', 'humanism', 'posthumanism', 'antihumanism', 'transhumanism', etc. do have, as viewed through the lens of etymology and syntactics or rather, semantics, just like 'art', 'artist', 'artificial', etc., a common linguistic root – in the first case, the lexeme is 'human', while in the second – 'art'. But not all derivatives bear complimentary suffixes. Therefore, it is in a way ironic that the 'art'ist now fears being replaced by 'art'ificial intelligence as an author, inventor, creator, especially since the idea of Artificial Intelligence was, at some point in the history of art, present only in the artists' imagination:

Artificial Intelligence and Posthumanism. Art and Emotion.

When one hears the words 'Artificial Intelligence', one usually connects them to the realm of Science Fiction novels and films, but occasionally, as pointed out above, the expression itself causes in the average human being a feeling of discomfort, an artificially-induced sensation. The fictional worlds it has inspired ever since its invention in the early 1960s (and even before), when Alan Turing, who coined the expression 'machine intelligence' (see Copeland, 2004), conducted substantial research in the field[5],

[5] Not only were Turing's findings crucial to the military communication departments in terms of both embedding and cracking coded messages in times of war, but they also led to the establishment of 'Artificial Intelligence' as an academic discipline in 1956 (Solomonoff, 1985, 149-153). The generally-accepted definition of the field is closely intertwined with the idea of

were not all human-friendly worlds. The attitude most fictional works impressed upon us is mirrored by the evolution in philosophical thinking that led to humanism being challenged by a new trend: posthumanism – a reaction to the *apparent* 'human almighty' delusion[6]. Posthumanism follows the train of thought of modernism being taxed by postmodernism, especially in the realm of arts and culture (see Connor, 1999). Since posthumanism raises, in its extreme forms, the question of a future without humans, if taken at face value, any individual, community or society must and probably will react by rejecting this idea. In defence of posthumanism, there are, however, moderate views and theories that define it in more subtle terms, stating that the new trend of thought

> […] demolishes the Nature/Culture binary as it has been enshrined in the Euro-American tradition. Technologies and humans, it argues, co-evolve, just as humans and nonhumans do. It also examines the prospects of human enhancement, the expansion of artificial intelligence (AI), and the ethics of these developments as they affect humans, the law, concepts of "personhood," and the social order. Popular culture, performance arts, and even architectural styles have been known to incorporate posthuman themes.
>
> Nayar, 2023)

The perspective on AI and machine-learning technology should be confined within the borders of their importance as tools. They are used to make our lives easier, not to complicate them (see, for instance, virtual assistants such as *Siri* and *Alexa*, search engines such as *Google Search*, automatic language translation such as *Microsoft Translator* or *Google Translate*). The concerns that instead of AI serving us, humans, as a technologically-viable tool, we might end up serving *it* instead seem a mere symptom of the fear of the unknown and of losing control on the way we live our own lives. Again, humanity tends to forget that this is a historical recurrence, and it has happened in other realms, such as politics – in extreme, dystopian forms, as well, such as dictatorships. It is, therefore, understandable that it has become a part of our very nature to fear being taken over by a system more powerful than the individual. But dictatorships, which do exactly that – take excessive control of people's lives – lead to revolutions. Maybe there's a reason why these large-scale lifestyle-impacting changes, such as the invention of computers and the internet are talked about as the

machine-learning-based intelligence as opposed to the intelligence of humans or animals – namely, of biological entities.

[6] Humanism's contenders dubbed it as 'anthropocentric' and thus tried to devalue its impact as a cultural and philosophical trend on grounds of a much-criticized so-called 'superior' attitude of humans towards other species. But other species have been known to communicate *only* [s.m.] via non-verbal language, unlike ourselves, who take pride - for good reason! - in using *both* verbal and non-verbal language. Since the word *anthropos* means 'human' in Ancient Greek, my educated guess is that the term 'anthropocentric' and the negative connotations it bears with it arised from extreme political correctness, which, just like any concept in its extreme states is anything but politically correct. I am a humanist - I am not anthropocentric.

'technological revolution', the 'informational revolution', etc. It makes sense, on a deep level, given the thorny relationship politics has always had with art, that the idea of an AI takeover was not sparked by the thought of AI governing us as a hegemon-like political entity, but by the fear that it might end up creating art in our stead. This fear has spread even among the computer-literate, intellect-driven upper class of the 21st century – the computer-literate, the gadget *connaisseurs*, and last, but most certainly not least, the artists themselves. One of the earliest signs of our own creativity as a species being endangered by other types of intelligence was the notable – or should I say 'notorious' – *ChatGPT*, the writers' nightmare (and the scribes' dream), followed shortly by the machine-learning-based software that can apparently create – self-governed by algorithms, and thus, functioning autonomously – works of visual art.

Can we imagine a future without artists? I, for one, cannot.

Can we imagine a future in which engineers, drivers, clerks and other categories of 'working class heroes' will be replaced by non-human entities as a consequence of the most recent technological revolution? I, for one, can.

Biased as this view may be considered, I don't find many obstacles in imagining pattern-based day jobs being taken over by AI. To support this perspective, I shall resort to the expertise of anthropologists such as Yuval Noah Harari, who proposes several hypotheses, proves more than one humanist theory and also looks at posthumanist leit-motifs in his two seminal books *Sapiens. A Brief History of Humankind* (Harari, 2015) and *Homo Deus. A Brief History of Tomorrow* (Harari, 2017). After reading the afore-mentioned works, one feels compelled to draw the conclusion that technology has always been indispensable to life and, therefore, to art, from the first painting on the wall of a cave to the invention of the printing press or from the moment the camera became a product the masses could afford to buy until now, when the computer has become and everyday tool. Harari also signals, throughout his work, the possibility of basic jobs performed nowadays by humans being taken over by AI. However, studying Harari and other anthropologists (see Morris, 2021) leads me to the presumption that the original, creative, playful side of humanity, for which artists are essentially responsible, and illustrative of, makes the idea of humans fighting with AI for 'spiritual dominion' just as unthinkable as a scenario in which Goethe was competing against *ChatGPT* for the role of canonical writer. Whatever 'tools' artists may have used throughout history, it has become obvious that if there is a purpose to those tools – and to the artists keeping up with the technology of their day – that purpose consists of the extent to which these tools contribute to creating emotion in the viewer, reader and the spectator, respectively.

In my view, all art is quite human (to paraphrase Oscar Wilde[7]), and it is us who have created both works of art and the tools that made art possible. And nowadays, "like every tool, AI has the potential to help and harm. In the context of art and entertainment, AI creates new opportunities and provides broader accessibility." (Anon., 2023) Not only does AI do that, but the use of new technology in the performing arts is strongly connected to the notion of *effect*, especially when considering the fact that the 21st century *Zeitgeist* seems to be defined, unlike – let's say – the Renaissance, when the arts were predominantly focused on different subject matters and techniques, by computerized devices bringing along feasible ideas like VR and AR, and, in the case of the performing arts, the increasing interest and self-referential approach entailed by themes such as the impact this most recent technological revolution has had on society at large (see Berghaus, 2005, Fischer-Lichte, 2008, Lehmann, 2006).

But this device-enhanced new reality is not the only example of the happy marriage between *ars* and *tekhne*. There are others. One does not have to look too far in history to ask questions such as: 'Who would have even heard of Shakespeare, hadn't his work been recorded in writing?' or 'What about Da Vinci, hadn't he materialized his visions on canvas?' Cindy Sherman, Henri Cartier-Bresson and Jan Saudek would not be some of the best-known photographers we accept as such on a global level if the camera hadn't been invented in the previous century and subsequently become a mass-production convenience. Not even Pink Floyd or Queen would have existed if the electric guitar, the synthesizer and the music technology of the 20th century hadn't created the opportunities for these artists to express themselves not via traditional musical instruments, but according to a new technology that we, today, take for granted. Andrzej Wajda immortalized his work by having someone push the *Record* button for him at a time when the seventh art was at its peak in terms of popularity. The Gutenberg Galaxy, packed with 'stars', all of which are writers, was the result of the Big Bang known as the invention of the printing press. As for the theatre, the still-alive-and-kicking forerunner of the syncretic performing arts, a quick look at its ritual-based metabolism and history is all one needs to see the obvious symbiosis between art and technology throughout history. So, after looking back at the turn of the millennium and examining the way art and technology have always worked together, the obvious question is: 'Who could even conceive of 21st-century theatre or film productions without a digital device either as a technological aid or, in the more contemporary-themed ones, an underlying presence as a subject matter or motif, as well?'

There is an irrefutable truth no one can overlook when it comes to these questions: the increasing popularity AI has had as a theme in fiction – especially in Science Fiction literature –, constantly gaining territory in the minds of the culture consumers, thanks to books and to the stage and screen adaptation of the original stories, has opened the scope of the performing arts. Here are some examples of performances and films

[7] 'All art is quite useless.' (Wilde, 1994, p. 6);

tackling AI as a theme and/or integrating it in their technical apparatus. In the theatre, there are some notable examples, such as *Hippo World Guest Book* by Chris Goode, *#EmojiPlay* by Gigi Căciuleanu, *Love and Information* by Caryl Churchill. As far as the theatre is concerned, these are only the tip of the iceberg when it comes to the enormous change brought about by the recent technological advancements in the realm of the performing arts[8]. When it comes to the effects they have had on the cinema, whose inception would not have been possible without these very advancements (see *infra*), titles such as Spielberg's *A. I. Artificial Intelligence*, the Wachowskis' cult-film *The Matrix* and the more commercial (and recent) creation from Jon Lucas, *Jexi*, are only a few of the productions in which the viewer can clearly get the feel of the changing tides in the evolution of human society. Thus, at the turn of the century, it has become clear that Artificial Intelligence has had a great impact on and has been incorporated in the performing arts. It is important, though, to keep in mind that AI only offers innovative solutions, while the essence of the performing arts remains rooted in human connection, challenged though it may be by the technological improvements reached through the cool use of our own species' intellect. It is about this conundrum (emotion versus intellect) that artists and (performing arts) critics, theorists, and even bloggers have started to speak extensively in the past few years: „The challenge is ensuring that as we integrate AI, the genuine emotions and experiences that define performing arts, are not lost. I felt and discovered that through exchange and collaboration, the healthy and sane way of using AI in art has emerged" (Evelyne, 2023).

Since the idea of "a healthy and sane way of using AI in art" (see *supra*) is not only desirable, but, in my view, the *only* way IQ and EQ as types of assessable human intelligence can continue their symbiosis, I have chosen two examples of "good practices" from the area of the performing arts to illustrate it. Two directors (Spike Jonze and Gregory Doran) show us how AI can be integrated in performing arts productions in a manner which does not hinder but enhances the spectator's/viewer's aesthetic experience.

An important adjacent thought, before these examples: little did those who feared cinema would replace theatre know that not only would the two arts not be in a conflictual relationship, but they would rather come to complement one another, both borrowing elements – technical et al. – from each other's manner of creating onscreen and onstage universes, respectively. Many a time have they become intertwined, technically speaking, as means of production: films often include all kinds of references

[8] The performing arts, to which the terms 'performer' and 'to perform' are, obviously, adjacent and also subsequently included in the semantical realm the concept designates, offer myriads of top-notch examples that become relevant when one looks at the relationship between the performer and the technology of his/her day, but also, when it comes to performing, one cannot not immediately think about Marina Abramović. Not when discussing the *live*, performative event, performing artists and, more importantly, *performance*, which is what Abramović has in common, besides being its most prominent practitioner, with Laurie Anderson, who has seamlessly combined performativity with technologization.

to the theatre, and – to give just one simple example – short filmed scenes are now 'old news' when it comes to their integration in theatre performances. These performing arts have kept pace with the times not only when it comes to the technical improvements that have been incorporated in both realms, but also in respect to the subject matters they approach. And what does art talk about, create and work with? Emotion, obviously.

Shakespeare meets Spike Jonze – Case Studies

Her (2013), written and directed by Spike Jonze
An Annapurna Pictures Production
The Tempest (2016), written by William Shakespeare, directed by Gregory Doran
A Royal Shakespeare Company Production

Since one of the problems *in esse* tackled in the hereby paper in the framework of the human/posthuman intelligence paradigm is the above-mentioned 'IQ and EQ' relationship, the productions I have chosen to discuss[9] are based on storylines with a common thread: love, the ever-recurring theme and never-depleted resource that has been feeding the minds of artists from time immemorial. And what better illustration of love in times of intense technological advancements than *Her*? The film bears many accolades, and it tells the story of Theodore (Joaquin Phoenix), a lonely writer, and his AI assistant, Samantha (Scarlett Johansson). Samantha's IQ supersedes any and every operating system or human being in terms of efficiency. Theodore feels drawn to the software's feminine voice, but as their relationship develops over time, the lonely writer finds himself – rather subconsciously – attracted to one of his friends and colleagues, a female human. Spoiler alert notwithstanding, it must be said that the subsidiary theme of Spike Jonze's film is – as scientists have dubbed it – *affective computing*. As a subbranch of Artificial Intelligence, encompassed by the field of study investigating AI in terms of its social intelligence, affective computing

> [...] relates to, arises from, or intentionally influences emotion. It is a continuously growing multidisciplinary field that explores how technology can inform an understanding of human affect, how interactions between humans and technologies can be impacted by affect, how systems can be designed to utilize affect to enhance capabilities, and how sensing and affective strategies can transform human and computer interaction.
>
> Myounghoon, 2017

[9] See full cast and crew on www. imdb.com; trailers and scenes on YouTube (*Her* - https://www.youtube.com/watch?v=dJTU48_yghs; *The Tempest* - https://www.youtube.com/watch?v=BZKtQAIE4ew and https://www.youtube.com/watch?v=3bjrx0xlPMg);

Pinpointing thus the existence of the theoretical term for naming one of the themes Spike Jonze approaches in his state-of-the-art film, we can try to answer the question *Her* raises in terms of affective computing: a human's warmth or a machine's intelligence? Legit as it may be, the 'either/or' perspective entailed here can (and must) be, as it were, tweaked. The answer should be: 'Both.', which brings us to our second example, Royal Shakespeare Company's production of *The Tempest.* This performance is, technically speaking, illustrative of the mutually-inclusive combination of emotion and intellect, as it incorporates AI technology and the *live* element which is, for the dramatic arts, a *sine qua non* requirement.

The Tempest, one of the Bard's most-loved plays, needs no introduction. Unlike in *Her*, where love is discussed in terms of it becoming nascent due to the interaction between a human and AI – and this is how, in the economy of the film, an AI software also becomes a character, not just a tool -, in this particular production of *The Tempest*, a character comes alive *with the aid* of AI technology. Director Gregory Doran worked with *Imaginarium* and *Intel*, the well-known digital and tech giants, seeking to create scenes where actors and holograms interact. The set design combines props with video projections and the performance becomes a three-dimensional immersive experience, a feat which could not have been achieved without Artificial Intelligence[10]. What sets this production of the classical play apart is, besides the director doing justice to Shakespeare and to one of the most challenging characters in the history of theatre – Ariel, the spirit -, the fact that it uses the most recent technological developments to create a convincing, plausible, and lifelike character. It is in this respect that the human-computer interaction has achieved its purpose onstage.

On one hand, Spike Jonze's film, *Her*, also deals with emotion in terms of human-computer interaction, but it achieves this end by actually *showing* this interaction on-screen, approaching AI with a touch of postmodern self-referentiality, while on the other hand, in Gregory Doran's version of *The Tempest*, the human-computer interaction is not present as a theme, subject matter or character. AI is merely a tool. Its presence in the performance makes itself felt on a technical level, it is just a device the director used to give life to the Shakespearean universe.

As a personal curiosity, I wonder what the playwright would have made of this performance. After all, Shakespeare wrote his play at a time we now refer to as the beginning of the Renaissance, when not only were notions such as 'computer' or 'Artificial Intelligence' inconceivable, but the very reason for them being unthinkable of is that they were, scientifically speaking, unachievable with the technical means the

[10] This production is often mentioned in recent studies on the use of AI in the performing arts: "Immersive technologies like Virtual Reality (VR) and Augmented Reality (AR) are also being merged with AI to redefine audience engagement. The Royal Shakespeare Company created a digital avatar of Ariel from "The Tempest," merging digital and live performance." ('Suzanne', 2023).

race of the *anthropos* had at their disposal at the time. But humans have always imagined spiritual realms inhabited by intelligent, non-human beings (gods, aliens etc.), and especially those among us who have created art were never ones to avoid the invention of fantastical realms, populated by figments of our imagination. The question is (and always has been): how does one make those beings 'real'? Such a being is Ariel, a character either impersonated throughout the history of theatre by an actor or, more recently, represented onstage via 2D video projections. However, it is only now, after many hundreds of years since he was created by the pioneer of the English Renaissance as a spirit, not as a flesh-and-blood being, that the increased use of AI technology has made it possible for the spectator to be fully rewarded by watching a 3D hologram interacting onstage with human actors impersonating human characters[11]. It is only now that Ariel seems convincing, while also being rendered in a manner consistent with its nature: it is, after all, an ethereal being, and I can think of no better means for representing it nowadays than a hologram. That is the main reason why I consider this production of *The Tempest* a high-quality illustration of how Artificial Intelligence can enhance a theatre performance.

In both examples I have chosen, AI is used in "a healthy and sane way" (see *supra*, p. 7, Evelyne, 2023) to produce emotion in the spectator. In *The Tempest*, it enhances the aesthetic experience of the spectator attending a classical play, whereas the contemporary story *Her* tells bears, besides the rewarding viewing experience, the intrinsic idea that AI is able to enhance human emotional interaction but will never replace it.

These are only two of the numerous examples of works that can give us a perspective on the relationship between the performing arts and the technical novelties of our day.

Authorship, Humanity, Technology. AI and the Performing Arts. Conclusion

As shown above, the relationship between the arts and technology is long-lasting and symbiotic. The eagerness of the professionals in the performing arts to keep up with the most recent developments has always stood out. Theatre, as one of the most social of the arts, has, since its inception, aimed to integrate any element of life itself in any onstage (or, in the case of *performance*, *happening* and other forms that centre around the *live* event - offstage) world, thus generating its being perceived, both among the ranks of the elite and the wider audience, as the most lifelike – and alive, living – of the arts. The changes it underwent throughout history, but, more importantly, its high-paced adaptation to new technology are telling in this respect. Thus, just as candle-lit stages turned almost instantly into spaces that were not only made visible, but also, quite soon, *defined* by electrical light at the time of its discovery, so have theatre productions

[11] Sarah Ellis, the Director of Digital Development at the Royal Shakespeare Company talks about AI in the theatre and the way it was employed in productions that embed new technology in classical plays with contemporary audiences in mind (see https://www.youtube.com/watch?v=PAiFYpO5UTY).

nowadays swiftly adopted the improvements brought about by the AI boom to art and to life itself. It comes as no surprise that AI devices'

> [...]evolving utilization in online and offline theatre shows a promising trend toward creating more engaging and immersive experiences for audiences, whether remote or present in the physical theatre space. This interweaving of technology and artistry contributes to the innovative transformation of the theatre environment, shaping it into an intensively interactive and participant-centric space.
>
> Kelomees & Jansen & Hoppu, 2023, 31

As one of the inciting talking points of the day, the way AI (which is, hopefully, nothing more than a new technology[12]) impacts both life and art has obviously drawn the attention of both (performing) artists and that of the general public. The audience can benefit from this new 'technological revolution', but so can the artists, as long as they do not forget to take responsibility (and the ensuing waves of applause) for their work, not only maintaining their status in this way, but also emphasizing that artists, as creators, hold the magical © sign, because they actually *sign* the work *they* (!) have authored, and not some anonymous AI entity. This brings us to a note on the idea of authorship and ownership which should be taken into consideration when referring to any artistic creation, again, biased as it may seem, since the author of this paper does not believe in the 'creative commons' ideology when it comes to art:

> The ethical and legal issues with using generative A.I. trained on data from other artists are by now well-understood. Additionally, the notion of "creativity" is associated with human imagination and emotion, qualities that A.I. simply cannot, and will never, replicate. (…) A.I. can be a useful tool, and there are even certain narrow applications in the creative arts. But at the center of any conversation about A.I. and art must be an acknowledgment of the truth that has driven art for thousands of years, from Ancient Greek festivals to Sleep No More: Art is a quintessentially human endeavour.
>
> Gibbons-Brown, 2023

Gibbons-Brown's statement endorses the humanist vision of the future, to which I fully adhere: we cannot accept the poshumanist postulate that humans could be replaced by machines. Several studies which point out – more or less explicitly – both the individualistic and the creative nature of the human being, with an emphasis on the artist – and especially on the artist's auctorial status -, are relevant both from the art theorists'

[12] Two theorists, Mikalonytė and Kneer, have concluded, by investigating the possibility of „robots" making art, that, „As regards the other two core questions, we found that, on the folk view, robots *can* make art though they are *not* considered artists." (Mikalonytė, E. S., and Kneer, M. 2022). I consider 'art' a misnomer in this context, since, as mentioned above, the fact that one can sing does not make one an artist, just like the fact that one is able to write does not make one a writer etc.

perspective and from the viewpoint of anthropologists and sociologists, especially when the emphasis is clearly placed on what gives us – and not them (biased, again, as this idea may seem, *we* are the humans, while *they* are the machines *we* created) – the right (including the legal one) to call ourselves – as opposed to bot-like entities – creators, owners of the intellectual/artistic property rights on our *original* work. Researchers have summed up the bigger picture:

> What lies beneath current questions about machinic creativity is a deeper anxiety about the ways humans can continue to be creative, for how much longer, and at what cost. Given the outpouring of visual, textual, and sonic artifacts enabled by AI, we have begun to ponder the future of human creative professions and pastimes. These developments raise questions about labour, about how we value artifacts and institutions that enable the experience of art, and about art education. Even though artists have always borrowed, copied, and remixed material to produce their wares, the plundering of cultural repositories, without due compensation or, indeed, recognition of individual creators, for the sake of the construction of AI training models needs to be interrogated, for reasons of moral and economic justice, if not humanist panic.
>
> Zylinska, 2023

In the same humanist line of thought, we can definitely state that the increasing use of AI in the performing arts should not be an anxiety-generating matter. It should be seen as a mere sign of the times, and any theorist would probably agree or at least concede to presume that Artificial Intelligence and posthumanism shall be viewed in the history of the performing arts through the same lens as the technological change marked by the aforementioned replacement of candle's light on stage with electrical devices.

Theatre, defined as "an encounter between creative people" (Grotowski, 2002, 57), is based on identification, representation and performativity (from the perspective of what has become a subject in performative arts *curricula*, namely the aesthetics of the spectator) and, from the anthropological point of view, it can be dubbed the most 'human' of the arts. Shakespeare knew this: 'All the world's a stage, /And all the men and women merely players, /They have their exits and their entrances (...)' (Shakespeare, 2007, 209). Peter Brook knew this when he wrote the Bible of theatre professionals, *The Empty Space*. The first chapter (just like the biblical Genesis) has humanity at its center, and it begins like this: "I CAN take any empty space and call it a stage. A man walks across this empty space whilst someone else is watching him, and this is all that is needed for an act of theatre to be engaged." (Brook, 1996, 7) It is, therefore, essential that someone watch the person walking across the "stage", and one can easily find that the same *theatron*[13]-related experience is valid when it comes to the seventh art, the cinema. However, there are certain technical aspects that require an in-depth explanation: I chose a theatre production and a film production as illustrative of the perspective

[13] The original word in Greek is *theatron*, "a place of seeing", *Encyclopaedia Britannica*, s. v. Theatre;

I endorse on the impact AI has had on the performing arts (see *supra*, *4. Shakespeare meets Spike Jonze – Case Studies*). But it must be made clear that the technical nature of theatre and cinema should and must be, if only briefly, looked upon in terms of similarities and differences. Thus, according to Martin Esslin, one of the major differences between *live* drama and film is the way space is approached through their respective means: in the theatre, the spectator is, so to say, confronting the space, while in the cinema and television, the viewer is pulled into a sequence of different spaces. Also, there is the question of direct contact between the audience and the performers – in the case of the theatre – while, in the case of the mechanically- and photographically-reproduced forms of drama, such as the cinema, the viewer only has access to the performers' work through the technical invention employed to create the seventh art: the camera. (see Esslin, 1990, 92-94 and *infra*).

Cinema has always had a different relationship to *tekhne* than the other arts, a relationship that, besides being a novelty in the beginning, seemed to threaten other forms of entertainment, such as the theatre, especially at some points in their common, intertwined history (see Nowell-Smith, 1997, 3 and Șerban, 2006, 370). There is more than one thing theatre and cinema have in common, besides being both *kinetic* (s.m.), and that is the script and the fact that, unlike works of visual art, which are viewed in galleries or museums by fewer people at a time, a film and a performance are usually accompanied by massive attendance. Briefly, they are more far-reaching in a shorter period of time than any classical, static visual art work (painting, sculpture, photograph, et al.). Researcher Antonio Pizzo has considered both the perspective of the performing artists and the spectators when dotting the i's and crossing the t's of the performing artists-emotion-audience Jakobsonian-like paradigm:

> The last question to rise is whether the audience may build, with the artificial agents, the same sort of emotional bond that has shaped its relation with characters played by humans. Given the established tradition in cinema where audiences have developed an emotional participation with cartoons and CGI characters, the answer might be positive. Nevertheless, as we said, in theatre lays the question of presence. Therefore, the bond is not with some sort of representation, but with the perception of agency, the intentionality of the act and real time event.
>
> Pizzo, 2021, 106

This statement brings with it some questions wherein the answers to the human-machine relationship problem can also be found. We are actually looking at the same repetitive question, phrased differently throughout history, but present within us ever since we invented the wheel. And that question is: 'Has humanity ever been overpowered by a tool or object of its own making?' Let us rephrase this question, again, in more than one way: 'Can my reflection in the mirror convince me that the mirror has invented me and not the other way around?' 'Can anyone imagine a wheel performing on a stage by itself, watched by an audience of wheels?' 'Can anyone imagine a telephone performing on a stage, watched by other telephones from a, let's

say, a half-booked auditorium?' And last, but not least, 'Could AI entities convey *and* feel emotion, were they to perform for an audience made up of their own kind?' 'Can you imagine high-tech cameras occupying every seat in a movie theatre, laughing and crying while watching cameras performing on-screen?' 'Can you imagine an auditorium full of Jedi knights, robots and aliens watching *Star Wars*?' 'Can you imagine ogres watching *Shrek*?'

This exercise in rethorics hopefully endorses, once again, the view I have already expressed: All art is quite human, a reiterated idea that draws us towards the very end of this analysis.

To sum it all up again, just as the invention of the printing press or the internet enhanced humanity's emotional and intellectual experiences, while these novelties have proved themselves to be rather beneficial than threatening, so does the idea of a posthumanist AI takeover lie – and will keep lying – in the realm of *steampunk* – or, more likely, *cyberpunk* - fiction. To translate this in more scientific terms with the aid of psychology, sociology and anthropology, but still, since we are talking about the performing arts, the reader will forgive my mock-concern (acting as the ironic voice of the artist-researcher) as I draw this conclusion: I am almost certain this collectively-and-subconsciously-felt "panic attack" will lead to valuable performing arts creations that many human beings will enjoy watching, attending, immersing themselves into and (in the case of intermedial and immersive theatre productions, for instance), acting in as creators and co-creators of art.

All the technical improvements humans have achieved throughout history were meant as tools and, in spite of the occasional conservative reaction, they have not replaced the human race or the artists; quite the contrary (writers, for example, became widely-known thanks to the printing press, the computer, the personal printer, and last, but not least, the internet). AI tools are also novelties with the aid of which not only did artists in all fields improve their work, but they also started to create new forms of art (ASCII art is only one example). The intelligence of machines, based on algorithms, also contributed to spreading the news about theatre and film shows, pushing marketing and advertising to the next level, and to the increased online presence of artists and productions in the realm of both performing arts. Just like any part of human life, the online world meets the offline world in the third millenium. This obviously includes the performing arts.

In conclusion, as the theoretical and critical apparatus and resources cited in this paper show us, followed closely by the two productions (*The Tempest* and *Her*) that are illustrative of the viewpoint adopted in the hereby study, we can state that Artificial Intelligence and posthumanism should not be regarded as a threat, but rather as a technological novelty that has generated, in the realm of the performing arts, another happy marriage between IQ and EQ.

BIBLIOGRAFIE

APPIA, Adolphe, 1960, *The Work of Living Art: A Theory of the Theatre*, University of Miami Press.

ANON, s.a., *Encyclopaedia Britannica*, [online], *Theatre*, [accessed April 18, 2024]; BAUDRILLARD, Jean, 1994, *Simulacra and Simulation*, University of Michigan Press.

BARTHOLOMEW, Robert E., 2001, *Little Green Men, Meowing Nuns and Head-Hunting Panics: A Study of Mass Psychogenic Illness and Social Delusion*, Jefferson, N. C: McFarland;

BENJAMIN, W., Jephcott, E. F. N., 2008, *The Work of Art in the Age of Its Technological Reproducibility, and Other Writings on Media*, Harvard University Press.

BERGHAUS, Günther, 2005, *Avant-Garde Performance, Live Events and Electronic Technologies*, Palgrave Macmillan, New York.

BROOK, Peter, 1996, *The Empty Space*, Simon & Schuster, New York.

CONNOR, Steven, 1999, *Cultura postmodernă*, translated into Romanian by Mihaela Oniga, Meridiane Publishing, București.

COPELAND, J. *(ed.), 2004, The Essential Turing: the ideas that gave birth to the computer age,* Oxford, England: Clarendon Press;

ESSLIN, Martin, *The Field of Drama (How the Signs of Drama Create Meaning on Stage and Screen)*, Methuen Drama, Reading, 1990.

EUBANK, Leo (ed.), COHEN, Marshall (ed.), 2004, *Film Theory and Criticism: Introductory Readings*, 6th Edition, Oxford University Press, New York.

EVELYNE, 2023, *The Future of Performing Arts in the Age of AI: Insights from Summer 2023*, https://evelynechevry.medium.com/the-future-of-performing-arts-in-the-age-of-ai-insights-from-summer-2023-4c5c3ddea7f4 [accessed April 15, 2024].

FISCHER-LICHTE, Erika, 2008, *The Transformative Power of Performance – A New Aesthetics*, translated into English by Saskya Iris-Jain, with an introduction by Marvin Carlson, Routlege, Taylor & Francis Group, London and New York.

GALT, Rosalind (ed.), 2010, SCHOONOVER, Karl (Ed.), *Global Art Cinema: New Theories and Histories*, Oxford University Press, New York.

GAUT, Berys, 2007, *Art, Emotion and Ethics*, Oxford University Pres, New York.

GIBBONS-BROWN, Edward, 2023, *Immersive Theatre: Art and Humanity from Sleep No More to A.I.*, in *Creativity Squared*, [online, accessed April 11, 2024].

GROTOWSKI, Jerzy, 2002, *Towards a Poor Theatre*, Routlege Taylor & Frances Group, New York.

ELLIS, Sarah, 2021, *Technoogy and the Future of Theatre*, |*Sarah Ellis*|, [online], *TedX Talks* YouTube channel, [accessed April 13, 2024].

HARARI, Yuval Noah, 2015, *Sapiens. A Brief History of Humankind*, Penguin Books, Vintage, London.

HARARI, Yuval Noah, 2017, *Homo Deus. A Brief History of Tomorrow*, Penguin Books, Vintage, London.

HARARI, Yuval Noah, 2019, *21 Lessons for the 21st Century*, Penguin Books, Vintage, London.

HARPER, Douglas*, s. a., Humanism in Online Etymological Dictionary.* [archived from the original on January16, 2023*,* accessed January 20, 2024].

KELOMEES, Raivo & JANSEN, Taavet & HOPPU, Petri, 2023, *From Past to Present: The Journey of Technological Theatre*, in *OAMK Journal*, 15/2023, Publications of OULU University of Applied Sciences, [online], accessed April 11, 2024, https://vanha.oamk.fi//oamkjournal/wp-content/uploads/2023/09/oamk-journal-125_2023.pdf.

KRISTELLER, Paul Oskar*,* 1978*, Humanism,* Minerva. 16 (4). Springer: 586–595, https://web.archive.org/web/20230116174446/https:/www.jstor.org/stable/41820353, from the original January16, 2023, accessed January 20, 2024].

LAW, Stephen, 2011, 2013, *Introduction: what is humanism?*, in *Humanism: A Very Short Introduction*, Very Short Introductions [Oxford, 2011; online edition, Oxford Academic, 2013, https://doi.org/10.1093/actrade/9780199553648.003.0001, accessed April 2, 2024].

LEHMANN, Hans-Thies, 2006, *Postdramatic Theatre*, [translated and with an introduction by Karen Jürs-Munby], London: Routlege Taylor&Francis Group, and New York;

LEINER, Barry M., CERF, Vinton G., CLARK, David D. et al., 1997, *A Brief History of the Internet* [online, https://www.internetsociety.org/internet/history-internet/brief-history-internet; accessed April 23, 2024].

LEWIS, Tanya, 2015, *Don't Let Artificial Intelligence Take Over, Top Scientists Warn*, in *LiveScience* [online, https://www.livescience.com/49419-artificial-intelligence-dangers-letter.html, archived 2018; accessed April 10, 2024].

LORIMER, J., 2009, *Posthuman Geographies,* in *International Encyclopedia of Human Geography*, [retrieved March 16, 2024 from *Academia.edu*, https://www.academia.edu/25481294/Posthuman_geographies.

MIKALONYTĖ, E. S. and KNEER, M., 2022. *Can Artificial Intelligence Make Art? Folk Intuitions as to whether AI-driven Robots Can Be Viewed as Artists and Produce Art.* In *ACM Transactions on Human-Robot Interaction*. [online], https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3827314, [accessed April 10, 2024].

MONAHAN, Jennifer, 2023, *Refashioning Creativity: Ai Takes Center Stage In Arts And Entertainment*, on *Carnegie Mellon University, Heinz College* website, https://www.heinz.cmu.edu/media/2023/July/refashioning-creativity-ai-takes-center-stage-in-arts-and-entertainment, accessed April 11, 2024.

MORRIS, Julia, 2021, *Degree in a Book. Anthropology*, Arcturus Books, London;

MYOUNGHOON, Jeon (ed.), 2017, *Emotions and Affect in Human Factors and Human-Computer Interaction*, Academic Press, Elsevier Inc..

NOWELL-SMITH, Geoffrey (ed.), 1997, *The Oxford History of World Cinema*, Oxford University Press, Oxford.

ORR, John, 1998, *Contemporary Cinema*, Edinburgh University Press, Edinburgh.
PIZZO, Antonio, 2021, *Performing/Watching Artificial Intelligence on Stage*, in *SKENÈ Journal of Theatre and Drama Studies* 7:1 (2021), pp. 91-109, [online] http://www.skenejournal.it, [accessed April 11, 2024].
PRAMOD K., Nayar, 2023, *Posthumanism* [online], *Oxford Bibliographies*; retrieved from https://www.oxfordbibliographies.com/display/document/obo-9780190221911/obo-9780190221911-0122.xml, [accessed April 10, 2024].
SELL, Mike, 2005, *Avant-Garde Performance and the Limits of Criticism*, The University of Michigan Press Ann Arbor.
SHAKESPEARE, William, 2007, *The Complete Works*, Wilco Publishing, India;
SOLOMONOFF, R. J., 1985, *The Time Scale of Artificial Intelligence; Reflections on Social Effects*, in *Human Systems Management*, vol. 5, pp. 149-153.
SUZANNE, 2023, *AI and the Evolution of Audience Engagement in the Performing Arts*, Medium.com, https://suzanneelkin.medium.com/ai-and-the-evolution-of-audience-engagement-in-performing-arts-6fdd3c3ab177 [online, accessed April, 15 2024];
ȘERBAN, Alex. Leo, 2006, *De ce vedem filme – Et in Arcadia Cinema*, Polirom Publishing, Iași.
WILDE, Oscar, 1994, *The Picture of Dorian Gray*, Penguin Books, London;
ZYLINSKA, Joanna, 2023, *Art in the age of artificial intelligence*, in *SCIENCE*, Vol 381, Issue 6654, pp. 139-140, https://www.science.org/doi/10.1126/science.adh0575 [online, accessed on April the 11th, 2024].