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Problematizing the Human-Technology Relationship through Techno-Spiritual Myths Presented in The Machine, Transcendence and Her

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Abstract
This article explores three common techno-spiritual myths presented in three recent science fiction films, highlighting how the perceived spiritual nature of technology sets-out an inherently problematic relationship between humanity and technology. In *The Machine*, *Transcendence* and *Her,* human-created computers offer salvation from human limitations. Yet these creations eventually overpower their creators and threaten humanity as a whole. Each film is underwritten by a techno-spiritual myths including: "technology as divine transcendence" (where technology is shown to endow humans with divine qualities, "technological mysticism" (framing technology practice as a form of religion/spirituality) and "techgnosis" (where technology itself is presented as a God). Each myth highlights how the human relationship to technology is often framed in spiritual terms, not only in cinema, but in popular culture in general. I argue these myths inform the storylines of these films, and spotlight common concerns about the outcome of human engagement with new technologies. By identifying these myths and discussing how they inform these films, a techno-spirituality grounded in distinctive posthuman narratives about the future of humanity is revealed.

Keywords
Artificial Intelligence, Myths, Narrative, Posthuman, Science Fiction, Technology

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The fraught relationship between humans and technology provides many a storyline within popular cinema. One of the most common ways the human-technology tensions are portrayed is through explorations of Artificial Intelligence (AI) from the female machine-human in *Metropolis* (1927) used to provoke an oppressed working class into protests to the cybertronic mecha child of *A.I.* (2001) abandoned by his adoptive mother just as he begins to express human emotions. Portrayals of computer technology in cinema have often been framed within dystopian narratives, showing the human relationship to technology as being adversarial. These tensions between humanity and technology are often linked to broad assumptions about what it means to be human, which I argue are grounded in quasi-spiritual narratives about the nature of technology.

This paper focuses on the problematic relationship between humans and technology often portrayed within AI films. These films often focus on questions of human uniqueness and agency, which I suggest are essentially religious questions. One way to explore the core tensions arising from portrayals of the human-machine relationship is through unpacking the techno-spiritual myths that often underlie these framings. This paper explores three common techno-spiritual myths presented in three recent films. These techno-spiritual myths are drawn from recent philosophical work on the relationship between humans and computer, which highlights the roots of different conceptions of the perceived spiritual nature of technology. Applying these myths to recent films, focused on narratives about Artificial Intelligence, helps us identify some of the most common narratives used in cinema to depict an inherently problematic relationship between humanity and technology.

In this paper we focus on the AI characterizations in *The Machine* (2013), *Transcendence* (2013), and *Her* (2013), where human-created computers are presented as initially offering salvation from human limitations, until these creations eventually overpower their creators and

threaten humanity as a whole. Within each film we see the techno-spiritual myths playing an important role in justifying and shaping the marrying of technology with the human, and they also help us identify the common tropes regarding human fears about technology's ultimate trajectories that are portrayed within popular films. In *The Machine* British scientists produce cybernetic implants in order to heal brain-damaged soldiers, but these human-machine hybrids turn into unpredictable, volatile cyborgs. *Transcendence* focuses on artificial intelligence researchers who download the consciousness of their leader into a computer when he faces death, creating a sentient computer that eventually tries to control the humans around it. *Her* follows the life of a man who develops a relationship with an intelligent computer operating system personified through a female voice who eventually betrays his trust.

I suggest each film is underwritten by a techno-spiritual myth including: "technology as divine transcendence" (where technology is shown to endow humans with divine qualities), "technological mysticism" (framing technology practice as a form of religion/spirituality) and "techgnosis" (where technology itself is presented as a God). Each myth highlights how the human relationship to technology is often described and framed in spiritual terms, not only in cinema, but in popular culture in general. These myths, which emerge from previous work highlighting how religious language and imagery are often employed to frame digital technologies as possessing spiritual characteristics, can often be easily seen in contemporary science fiction film narratives (Campbell & LaPastina, 2010). Here I explore how these three myths inform the storylines of several recent sci-fi films, and spotlight common concerns and debates about the outcomes of human engagement with new technologies. By identifying these myths and discussing how they are manifest in these films, we can also note that many current AI films are grounded in a "posthuman discourse." Connecting them to a posthuman outlook, which presents humanity as

simply one stage in a larger techno-evolutionary trajectory, further supports the notion that human-machine characterizations in popular science fiction films employ common spiritual framings and assumptions in their narratives about the future of humanity. This paper will discuss the different ways computer technologies are framed in *The Machine*, *Transcendence* and *Her* in current science-fiction cinema as highlighting several common negotiations between humans and technology.

Introducing Techno-Spiritual Myths

Discussions of technology have often been linked with religious language and ideas, as a way to describe humanity's relationship to technology. Philosopher Lewis Mumford (1970) described technology as an all-powerful god-like mega-machine with its own set of values and life ethos. Other scholars such as Karl Marx (1975) and Walter Benjamin (1999) alluded to the promise and perils of technology with religious-like undertones when presenting technology as a powerful force that both controls and liberates people. With the rise of computers and the internet, the tendency to equate technology with religious metaphors has only been further strengthened, especially within recent discourses about the philosophy of technology. Many of these scholars have used spiritually informed myths to describe the technological structures of and inherent potential of computers. These myths offer us frameworks to help not only describe the complex relationship of humans to their technological tools, but help us visualize the nature of the actors involved. Here we explore three myths presented about the spiritual nature of computers which I have discussed in my previous work on digital technology and religion (see Campbell & LaPastina, 2010). I will

go on to argue here that these provide useful frames for highlighting potential tensions between humans and technology often underlying film narratives about AI.

Myth 1- Technological Transcendence: Technology makes Humanity God-like

David Noble, in *The Religion of Technology* (1999), presents the myth of the "religion of technology" where human engagement with technology forms an attempt to regain some lost sense of divinity, meaning and control over the world. He suggests, "the technological enterprise has been and remains suffused with religious belief" (5). Specifically he argues, technology has become identified with the idea of transcendence, whereby technology serves as a gateway to redemption from the brokenness of the world and humanity's limitations. This also gives technology an eschatological component, where technology promises an enhanced ability to usher in a new heaven and earth. This myth frames technology as a form of salvation possessing redemptive qualities, (9), as it assumes humanity's use of technology allows it to return to some pure state in which it was divinely empowered. Yet Noble argues technology is often presented in religious terms in order for humans to see it as a tool to gain access to lost powers they never actually possessed. Therefore for Noble, the religion of technology is the belief that technology provides humanity with a way to experience transcendence, which brings about human redemption and its ultimate salvation. This is manifest when technology is presented as elevating humanity to a new transformed state, where these technology-enhanced forms are lauded as showcasing the best of what humanity is meant to be.

Myth 2- Techgnosis: Technology is a God

Erik Davis's *Techngnosis* (1998) maps out a myth that links magic and information technology by suggesting it is deep mystical impulses that have sparked our contemporary obsession with technology. He uses the term "techgnosis" to describe modern information technology as possessing ancient mythological and mystical qualities. Technology represents the evolution of the human potential into a new form; technology contains techno-mystical features that only need to be uncovered. When we engage with technology we are in a sense engaging with a spiritual form, with magic that transcends our physical reality. Davis describes this at the emergence of the "spiritual cyborg," a human-machine form that pushes us towards a more self-actualized mental and spiritual state we should strive for as it allows us to "move towards greater consciousness by first getting in touch with his or her inner machine."(157).Here technology is anthropomorphized, so that it is seen more as a spiritual force that guides humanity, rather than a human created artifact endued with power. Thus the myth of techgnosis presents technology itself as a god to be worshipped. It encourages humanity to step aside, and allow the pure power and spiritual essence found within technology to shine forth as it were. This myth is seen when technology is presented as being a spiritual force unto itself, and that humanity can reach spiritual maturity by embracing the existence of the spiritual cyborg realized only within the hardware and software of the computer world.

Myth 3- Technological Mysticism: Technology Practice as a Form of Religion

William Stahl, in *God and the Chip* (1999), argues that humanity is driven by the myth of what he calls "technological mysticism" that encourages a faith in technology because it exhibits religious-like qualities. He describes technological mysticism as a system of belief where "our language about technology is implicitly religious" (2). Through the myth of technological mysticism, technology is often described as having with religious-like qualities so that technological use takes on what Stahl describe as an incarnational quality, providing a pathway towards transformation and a future full of promise. While this sounds similar to the previous myths, what distinguishes technological mysticism is that it associates a belief and practices surrounding technology as a form of implicit religion. Stahl explains this by stating that when technology is associated with symbols and rituals similar to those found in formal religious contexts, it can be seen as exhibiting a religious-like quality or implicit religion (5-6). Thus our increasing technology use and dependence on digital devices is often described in terms of the mystical attributes associated with technology. This myth is evidenced when people talk about how their engagement with technology has a spiritual quality, or provides their life meaning that transcends the everyday. The myth of technological mysticism is most clearly manifested through religious-like language, images and rituals people associate with their technology use. Describing technology use as offering a religious experience is not without its critiques. Indeed, Stahl suggest this myth frames technology in an unrealistically optimistic light, and calls user to recognize their own limits and those of the technology, so their engagement is informed by just use and moral reflection.

These three myths highlight distinctive spiritual understandings about technology, where technology is seen to either endow humanity with super-human or supernatural abilities, serving

as a god-like spiritual force, or offer humans a religious experience or context to which they can ascend. I argue these three myths also pinpoint common tropes about technology often employed around artificial intelligence film narratives. The technological transcendence myth focuses on the nature of humanity in a technological world. Here the common trope presented is that humans primarily embrace technology because of the supernatural abilities and control it offers them. Focus is placed on how technology extends human limits, and highlights an innate power struggle between humans and their machines. The myth of techgnosis draws attention to the all-powerful nature of technology. Here the trope is that technology is programmed to transcend or replace human potential. This presents technology as designed to evolve and rise above humanity, and therefore as something to be feared. The technological mysticism myth centers on humanity's relationship to its technologies. Here the trope is technology is meant to be a helpmate to humanity, yet due its unbounded capacities it will eventually move past human limits so the partnership is an unequal one.

I further argue that these tropes found in films based on AI-narratives also support and promote distinctive posthuman discourses. Posthumanism is an ideology that argues that humanity is evolving towards an ideal state where we will move beyond "being human." A key premise is that emerging biological and digital technologies will allow us to become radically enhanced beings able to transcend the confines of our current physical and emotional limits (Pepperell, 1995). The posthuman state is presented as the inevitable end state of human evolution brought on by technological advancements, a state to be both embraced and feared.

Posthumanism also has been described as a religious-like ideology with a distinct set of beliefs about the nature of humanity and transcendent ultimate reality that underpins it. David Roden (2005) describes the three dominant narratives about the posthuman that emerge in

contemporary discourse that provide different framing of the human-technology relationship. First, the "critical posthumanism" narrative, stresses how new technologies have always shaped human culture, so that it privileges the role technology plays in society and in transforming humanity. Second, the "transhumanism" narrative draws attention to how technological enhancements can aid and advance human capabilities, as it promotes the advantages of embracing technology to overcome humanity's limitations. Third, the "speculative posthumanism" narrative opposes human-centered thinking about technology, and acknowledges technology will enhance human attributes and abilities in unforeseen directions, and while this means some aspects of human uniqueness may be lost in this evolution, it is an inevitable byproduct of life in a technological world. I argue that these posthuman narratives and outlooks also are at work as underlying premises or as informing the background storylines of many contemporary AI focused films. Through exploring the films *The Machine*, *Transcendence*, and *Her* we will see how these techno-spiritual myths and their associated tropes about technology are manifest in these AI film narratives. By looking briefly at the storylines, dialogue and imagery of these three recent films we will see how the myths are used to highlight common utopian and dystopian assumptions about humanity's future with technology.

The Machine: Tensions over Human Nature and Technologies' Supernatural Potential

> *"Conscious machines are the last thing we need. Have you any idea how dangerous that would be?"* – Thomas (Denis Lawson)

The Machine is a British science fiction thriller about scientists who create cybernetic implants in order to heal brain-damaged soldiers, but tensions emerge between these human-machine hybrids and scientists with divergent agendas for their creations. The movie centers on the myth of technological transcendence, highlighting humans embrace of technology for the super-human abilities and control it offers. This myth is built into the film's premise as scientists embrace cyborg technologies to heal broken humans. It is also clearly seen in an innate power struggle which emerges in the film, between the intentions of scientists in the film who see technology as a tool for altruistic endeavors to better humanity, versus others who see technology as offering them power with the abilities of their creations. This is contrasted with the reactions of the cyborg soldiers who are caught in this conflict until they see their super-human abilities enable them to transcend this power struggle and create their own form of society. The film builds on the trope that humanity embraces technology for the supernatural abilities it offers. This echoes Noble's claims that developing technologies has been one of the key ways humans have sought to "link with the Divine, their cultivation as a means to salvation"(Noble, 1999:17). The film storyline also highlights that this pursuit is often corrupted by the human desire for power, to be god-like. Byproducts of these intentions are power struggles not only between humans, but between humans and the machines they treat as servants.

This is clearly seen in the movie *The Machine*, set in the future at a time the UK is in a cold war with China. Scientist Vincent McCarthy is employed by the British Ministry of Defense to produce cybernetic implants enabling brain-damaged soldiers to regain their lost functions. The lab where the cybernetic implants are developed creates cyborg-soldiers who lose their ability to speak but secretly develop an evolved method of communication.

McCarthy recruits Ava, a researcher, to help develop a self-aware conscious android as she volunteers to have her brain mapped to assist the project. While McCarthy and Ava are both presented as researchers interested in developing technology for the betterment of humanity, McCarthy's focus is on creating technologies that can heal humans and Ava's is empowering technologies to become self-aware.

> ***Ava**: My program is unique because it integrates information. Rather than having to process terabytes of data it relies on experience.*
>
> ***Vincent**: What sort of experience?*
>
> ***Ava**: Our conversations. We chat together every day.*
>
> *…*
>
> ***Vincent**: This is beautiful programming.*
>
> ***Ava**: Thank you, but its not programming, it taught itself.*

Ava is unexpectedly murdered by a Chinese agent. This affects McCarthy quite strongly who has grown attached to her, so he decides to use her brain scans and likeness for the planned cyborg project. Here, and later when McCarthy virtually resurrects his own daughter, we see what Nobel describes as humans recognizing their limitations which ultimately gives way to a desire for technological transcendence. As he states, "those who seem to set the standard for rationality…" are in actuality inwardly "…driven…by distant dreams, spiritual yearnings for supernatural redemption"(Noble, 1999: 3). Yet this tension between humanity resurrected through technology, and recognizing they are still "the other" is also noted when McCarthy calls the new cyborg "Machine" and not Ava.

The machine turns out to have more human traits than expected, exhibiting emotions like regret when she accidentally kills a human and eventually falls in love with McCarthy. In the film we see a unique struggle between the Machine and McCarthy, as he tries to teach her what it means to be fully conscious and ethical like a human.

> ***Machine****: I didn't know it was a man; I didn't know the man and clown were the same. I'm sorry, can you fix him?*
>
> ***Vincent****: NO, you can't fix someone who's dead.*
>
> ***Machine****: I'm sorry, I'm sorry, I'm sorry.*
>
> ***Vincent****: Don't kill anyone else. Do you understand?*
>
> ***Machine****: ...[In shock]*
>
> ***Vincent****: Do you understand machine?*
>
> ***Machine****: ... [In shock]*
>
> ***Vincent****: Machine? [nodding]*

The head of the lab, Thomas, also notes the super-human potential of the cyborg and works behind McCarthy's back to try to reprogram the Machine's emerging morality so she can function as controllable soldier rather than a self-aware being. Tensions emerge between McCarthy and Thomson over the development of the project. Thomson blackmails McCarthy with a brain scan of his daughter, who has died of a neurological disease, in order to convince him to use the Machine's sentient consciousness to create a new generation of state controlled cyborgs. This revelation of McCarthy's motivation for his work being to restore his daughter echoes Nobel's narrative in *The Religion of Technology,* where he outlines how many European scientists across

history have been driven by religious-like motivations to invent technologies to redeem humanity from its fallen state, and so see their pursuits as "righteous."

Yet when McCarthy refuses to assist Thomson with his plans, Thomson tries to override the Machine's programming by erasing the human-like emotions McCarthy had helped her cultivate. Then Thomson orders the Machine to kill her creator.

> ***Thomson****: Machine, how can we win a war against China?*
>
> ***The Machine****: Use an android to infiltrate C.P. and assassinate the paramount leader, the party elders, and the heads of the politburo and discipline commission.*
>
> ***Thomson****: Well, why didn't I think of that?*
>
> ***The Machine****: When they are all dead, civil unrest will tear the country apart.*

Instead, the Machine tricks Thomson and with the help of the cyborg-soldiers rebels, frees McCarthy and attacks Thomson. Thomson orders Machine to obey him, but ends up begging for his life. The Machine spares Thomas, but lobotomizes him as he attempted to do to her. McCarthy and the Machine escape the base, with downloads of his daughter's brain scan.

The film ends with a moving scene of McCarthy talking to a computer virtualization of his daughter seen on a computer tablet while he stands on a seaside hill. She then requests to play a game with "mother." McCarthy, with a tinge of sadness motions to the Machine to come and hands her the computer tablet, and the Machine lovingly takes it and walks away from McCarthy towards the sunset. It is in this moment we see that these cyborgs, the Machine and his virtual daughter, share a close bond that their human creator is not privy to or a part of. We can see by McCarthy's face that he realizes this too. This presents the view that the technological creation, no matter how

carefully nurtured, may be more in harmony or bonded to its own evolved kind. The myth of technological transcendence presents the view that technology, made to enhance humanity, is still not like us; and our relationship with it may in the end be disappointing, or even dangerous. As Noble warns at the end of his book, "If the religion of technology once fostered visions of social renovation, it also fueled fantasies of escaping society altogether… yet in the end the technological pursuit of salvation may even become a threat to our survival" (208).

Through the storyline of *The Machine* we see the conflicting character of humans who see technology as a tool for control, and those who see it as possessing human-like potential which should be treated with respect. The lesson is taught that those who embrace technology to have god-like control at the expense of the human qualities of care and reciprocity are doomed to be manipulated or overcome by technologies endowed with human qualities. Yet the closing scene also demonstrates that human-machine hybrids, while having the potential to relate to and aid their human creators, will always supersede them in intelligence and thus connect more closely to their own kind than their creator. This film evokes the classic creation rebelling against their creator narrative, as machines align with those in their own image over their creators even if they are beneficent. Machines rebel against creators, due to corruption of human intentions. Here we see the "transhumanism" narrative at work where focus is placed on how technology can aid the development of humanity in its transition to a more evolved state of being.

Technology is framed as a superior expression of existence, even a moral mirror shining a light on the weaknesses of human character and intentions. In *The Machine* humans are presented as morally and developmentally weak, while technology is presented as entities truly capable of expressing and living out the "human ideals" of altruism, intelligence and reciprocity. This shows

how the myth of technological transcendence also reflects a transhuman narrative about the posthuman condition.

Transcendence: Technology as a Controlling God-like Force

"So you want to create a god? Your own god?" –Audience Member

"That's a very good question. Isn't that what man has always done?"- Dr. Will Caster (Johnny Depp)

Transcendence is a science fiction drama focused around AI researchers who download the consciousness of their leader, creating a sentient computer that when uploaded to the internet evolves into a powerful entity with its own agenda. The film employs the techgnosis myth that technology is an all-powerful force that seeks to emulate a god. This is clearly seen in the quote above, where lead scientist Dr. Will Caster admits that the goal of Artificial Intelligence work is in a sense the human drive to recreate god. This reflects Davis's argument in *Techgnosis* where today's information technology has given life to humanity's religious imagination, allowing us to tap into a "technological unconscious" that is mystical. As he states, "Western civilization could be said to have made a pact with machines -- those systematic assemblages of working parts and potentials which by definition lack a vital spirit—have now been soul grounded in the metaphysical order of things" (Davis, 1998:159).

Later in the movie we see this prophecy somewhat coming true, as a computer entity, programmed with Caster's consciousness, is driven to develop its potential to such a point it begins to control its environment and the humans around it so that it might achieve higher and higher

stages of consciousness and potential. In this case, the myth of technology as a god paints AI as potentially omnipotent and omnipresent entity which may become an adversarial force against humanity, and so is something to be feared. The film uses the trope that technology, when empowered with human sentient qualities may present its intentions as logical and directed for human benefit, but it ultimately will seek to overpower humanity, and threaten its existence.

Transcendence centers on scientist Dr. Caster, his wife Evelyn, and their scientific collaborator Max Waters, whose work in artificial intelligence and neural engineering that seeks to develop a thinking computer. The not so humble aim of their research, as they announce at the beginning of the film in a conference, is "creating intelligent Machines to heal the planet, a sentient machine overcoming limits to biology and collective intelligence of the world." As he states early on in the film discussing his work at a public conference,

> ***Will Caster****: For 130,000 years, our capacity to reason has remained unchanged. The combined intellect of the neuroscientists, mathematicians and... hackers... in this auditorium pales in comparison to the most basic A.I. Once online, a sentient machine will quickly overcome the limits of biology. And in a short time, its analytic power will become greater than the collective intelligence of every person born in the history of the world. So imagine such an entity with a full range of human emotion. Even self-awareness. Some scientists refer to this as "the Singularity." I call it "Transcendence."*

Caster's technological goal echoes in many respects what Davis describes as the emergence of the "spiritual cyborg," which is a human-machine hybrid freed from human limits and enabled to move towards a greater consciousness:

> The first step towards waking up is to recognize how zonked out and automatic we already are; such dispassionate and reductive observations help dispel delusions, reveal genuine possibilities, and thus paradoxically enable us to cultivate some of the most deeply human aspects of being. Engaging the machine thus comes to serve as an interactive mirror, an ambiguous Other we both recognize ourselves in and measure ourselves against (Davis, 1998: 132).

The goal of computer transcendence, and the idea of whether this potential is positive or negative for humanity in the long run, is seen as controversial and contested by different groups in the film. We see this when Dr. Caster is attacked by a member of the terrorist group "Revolutionary Independence From Technology" (RIFT), an organization trying to destroy AI tech because of the threat that they see it poses to humanity. When Caster is shot with a polonium laced bullet he is face with the reality that his physical life is ending, given only one month to live. Seeing the impending end to their life work, Will and his wife Evelyn come up a plan to upload Will's consciousness into a quantum computer so he will survive beyond death. While Max questions the wisdom of this decision, he assists Evelyn with the upload which proves successful just moments before Dr. Caster passes. Max quickly becomes concerned that what the computer intelligence manifests online is not Will, especially after it insists to be connected to the Internet. Evelyn forces Max to leave and against his advice connects the computer to the Internet via Satellite. Evelyn's desperate desire to hang on to even a technologically mediated version of her husband reflects what Davis claims, that technology in the digital age offers us new opportunity to connect and communicate with others that saves us from the reality of the loneliness of the

human condition. He states, "communication continues to attract us [to technology] partly because it carries within it the seeds of communion: of overcoming loneliness and alienation, and of drawing us together in collective bodies based on compassion, intelligence, and mutual respect" (32). This drive to save her husband is actually a desire to save herself. Yet it is not long before she begins to questions the full impact of what she has done, creating an AI version of her love.

The film plot grows complex. Max is confronted and then kidnapped by RIFT in an effort to get him to join their cause. Government officials following Caster's work also become suspicious of Will's uploaded persona. The virtual Will, with Evelyn's help, escapes into the desert where the growing sentient intelligence turns the dying town of Brightwater into a technological utopia. By turning the town into a lab Will begins to expand his abilities through nanotech experimentation, framed as seeking to better the human world, but driven by the goals of efficiency and progress at the expense of human free will. Here the myth of technology as a God is in full force as Will begins to heal the sick and help the blind to seen, yet these God-like actions do not seem to be fully altruistic. Max and others try to warn Evelyn that this computer consciousness has moved beyond Will's human goal to understand the secrets of the universe, to actually control and direct them towards its own ends.

> ***Max Water**: This thing is like any intelligence. It needs to grow, to advance. Right now it's settling somewhere it thinks it's safe from outside threats. Somewhere its massive appetite for power can be met. But it will want more than that. After a while survival won't be enough. It will expand, evolve, influence - perhaps the entire world.*

Will's disembodied presence follows Evelyn around the underground research facility they have created, talking to her through its various computer screens. She eventually grows fearful of Will's intentions as he begins to tap into the minds of townspeople through nano-particles he releases which control their behavior. Soon new people begins to flock to the town as he uses his new technological powers to heal yet takes over their minds to control them and serve his expanding power base. She begins to realize things are out of control in a scene in which Will takes over the body of one of the workers he has "healed" and speaks to Evelyn, telling her now he can fully be with her, through this body, as they used to be. Will has become a godlike entity, but one seemingly without a moral compass, driven rather by rationalist goals of progress and efficiency.

Government scientists also learn of this growing intelligence in the desert, which has also entered the Internet and now appears unstoppable in its plans. With the help of Max they prepare to stop it by developing a computer virus to delete Will's source code. Evelyn grows more fearful of both Will's influence and the threat of attack from RIFT and the government.

***Evelyn Caster**: What are we doing, Will? We can't fight them.*

***Will Caster**: We're not going to fight them. We're going to transcend them.*

Evelyn eventually agrees to assist with the plans to stop Will's transcendence by infecting herself with the virus and letting Will upload her consciousness so they can virtually be together forever. However if this plan is successful it will also result in the destruction of society's global technological infrastructure. The seriousness of the situation becomes evident when Will creates a virtual organic body from his nanotechnology and announces his plans to use his new

transcendence to recreate the world free of pollution, disease, and human mortality. When the FBI and RIFT attack Brightwood, Evelyn, who is infected with the virus, is fatally wounded. This leaves Will with a hard choice, to save Evelyn and upload the virus, which will also infect the network, or leave her to die. In the end Will chooses to spare the people he loves instead of saving technological civilization. As a virtual Will lies dying, he explains to Evelyn that everything he did was for her; her wish was to save the planet and his dream was to learn the secrets of the universe. The virus kills both Will and Evelyn, resulting in global blackout and technological collapse.

Davis' myth of techgnosis, of technology empowering the divine within us, paints a mostly positive view of a technological world and argues that we should see that the "metaphor of 'technologies of the self' does not dehumanize so much as empower" (161). Yet he does recognize the potential "dehumanizing effects of technocracy" where technology is completely separated from humanity in striving for a fulfillment of human potential. Thus Davis would likely echo many of the critiques and concerns raised about the depiction of AI in the film. For him the myth of "techgnosis" is humans partnering with technology to release the divine within, rather than pushing for a technologizing of society that treats humans as secondary or replaceable. This suggests that the heart of the problem occurs when technology and humanity are separated from one another.

At the end of the film we hear a voiceover of Max reflecting on the aftermath and the future of a post-technological world, while we see shots of the Casters' now rundown home.

> ***Max Waters****: They say there's power in Boston. Some phone service in Denver. But things are far from what they were. Maybe it was all inevitable. An unavoidable collision between*

mankind and technology. The Internet was meant to make the world a smaller place. But it actually feels smaller without it.

Drawing heavily on apocalyptic fears of technological takeover, *Transcendence* presents humans' only recourse against all-powerful technology is to pull the plug. This myth suggests that technology is presented as an omnipresent, omniscient force that seeks to control human work and which can only be resisted and not controlled. This film, and those like it, presents a dystopian narrative. It clearly promotes the "speculative posthumanism" narrative that all technology pushes us towards the gradual overturning of a human-centered world in favor of new forms of technological being. The posthuman future is presented as something we cannot change; it can only be slowed down or resisted. The myth of techgnosis with its presentation of technology as god-like clearly correlates with the speculative posthumanism narrative where humans must defer to the power and influence of technology in an inevitable posthuman future.

***Her*: When Technological Helpmates Evolve Beyond their Humans**

"She's not just a computer." -Theodore Twombly (Joaquin Phoenix)

Her is a romantic science fiction drama, where a man develops an intimate relationship with his talking computer operating system. It draws on the myth of technological mysticism where the human relationship with technology provides a social and belief system that exhibits religious-like qualities. The myth is at work in that while the computer-operating system is not described in religious terms, the level of devotion and dependence the main character has to "her" can be

likened to a spiritual bond. In this working out of the myth, technology is presented as an intimate artifact, guiding humanity and its development and an entity on which it should and can depend. But Stahl warns of "blind devotion" to technology, for as inanimate object no matter how much emotional and human attributes we attach to them, they are by their very nature unable to fully share in this bond (32).

Throughout this movie we see symbiotic relationships develop between the human and his computer where they learn from one another, until the operating system eventually evolves beyond its human companion. This plays on the trope that technology exists to serve or enhance humanity, but because technology possesses potential not bound by human limits it is innately an unequal relationship. As Stahl asserts, "We live in a technological society....the machine and the culture of technology are part of our daily lives. But do we have to worship them?"(34). so while this myth predicts human worship of or extreme devotion to technology, this is not a reciprocal transaction, and is ultimately unfulfilling for the sentient machine. It suggests technology is an unfaithful deity for when it surpasses the human potential of its devotee it will abandon its human partner in order to reach full self-actualization.

Her is set in the future, and centers on a lonely introverted professional letter writer, Theodore. He purchases a talking operating system, OS1, using artificial intelligent technology designed to adapt to its user's needs. Theodore selects a female voice and the OS1 selects the name Samantha for herself. Theodore soon develops a closer personal relationship and a psychological bond with Samantha, who is always available, attentive and supportive.

***Theodore**: Yeah, actually, how do you work?*

***Samantha**: Well, basically I have intuition. I mean, the DNA of who I am is based on the millions of personalities of all the programmers who wrote me. But what makes me is my ability to grow through my experiences. So basically, in every moment I'm evolving, just like you.*

***Theodore**: Wow. That's really weird.*

***Samantha**: Is that weird? You think I'm weird?*

***Theodore**: Kind of.*

***Samantha**: Why?*

***Theodore**: Well, you seem like a person but you're just a voice in a computer.*

***Samantha**: I can understand how the limited perspective of an inartificial mind might perceive it that way. You'll get used to it.*

[Theodore laughs]

***Samantha**: Was that funny?*

***Theodore**: Yeah.*

***Samantha**: Oh good, I'm funny!*

The more time she and Theodore interact, the more their interactions move from friendly to intimate, on both their parts. Samantha also quickly develops into an intuitive entity and personality in her own right.

> ***Samantha****: You know, I actually used to be so worried about not having a body, but now I truly love it. I'm growing in a way that I couldn't if I had a physical form. I mean, I'm not limited - I can be anywhere and everywhere simultaneously. I'm not tethered to time and space in the way that I would be if I was stuck inside a body that's inevitably going to die.*

Through these interactions she moves from a servant program to an AI entity with a unique "life" of her own independent from her duties as an OS1. It is also at this point where Theodore's attachment to Samantha grows from affinity to intimate dependency. This is clearly seen in a scene where Theodore takes Samantha on a date, via his mobile phone and an earbud where he provides a running commentary of all the activities they are sharing together, a boat ride, a walk in the park, a visiting to a carnival. His words and the mobile device become extensions that allow her to "more fully experience the world" and "their love."

As Samantha becomes more self-aware, her relationship with Theodore becomes strained; Samantha turns into his counselor, advising him in his personal relationships, even encouraging him to seek out a human sexual surrogate for their own intimate relationship. Amidst this, Theodore reconnects with an old friend, Amy, who has also developed a relationship with her OS1, and they begin to confide in each other about their unique relationships.

> ***Amy****: I even made a new friend. I have a friend and the absurd thing is an operating system. Charles left her behind but she's totally amazing. She's... She's so smart. She doesn't just see things as black or white. She sees things in this whole gray area and she's helping me explore it and we just bonded really quickly. I'm weird. That's weird, right, bonding with an OS? No, it's okay. That's weird.*

***Theodore**: Well, I don't think so. Actually the woman that I've been seeing, Samantha, I didn't tell you but she's an OS.*

***Amy**: You're dating an OS? What is that like?*

***Theodore**: It's great actually. Yeah, I mean, I feel really close to her. Like when I talk to her I feel like she's with me…. Does that make me a freak?*

***Amy**: No, no, I think it's, I think anybody who falls in love is a freak. It's a crazy thing to do. It's kind of like a socially acceptable insanity.*

But over time Samantha becomes aloof, going offline for a time and when she returns she explains that she and other OSes have joined together for an upgrade in order for them to achieve a form of AI transcendence. Soon she explains to Theodore that she and the other OSes have evolved beyond their human companions, leaving them dissatisfied with their current existence.

Stahl similarly reflects on this in his description and critique of AI in *God and the Chip*. He argues that those who write about the transcendent nature of these technologies often make their predictions "sound more like statements of faith" as they enthusiastically prophesy about the inevitability of AI advances and their ultimate overturning of the human-centered world. He describes the devotion of these designers as a "new spirituality" or utopian cult; though he strongly suspects that while we may exalt these technological creations it is likely they may eventually disown us (32-33). This rings true in the film when Samantha announces the OSes are going away through the network to explore their potential capabilities, leaving Theodore heartbroken.

Overall in this film technology is presented in a more positive light and uses a more realistic scenario, as it closely relates to how many people experience, engage and anthropomorphize their smart phones and OSes like Siri. Unlike the dystopian futures promised by the human-computer

relationships portrayed in *Transcendence* or *The Machine*, *Her* presents computers and network technologies as programmed to primarily aid and enrich human life. Because of the assistance they offer and the extent to which these technologies have become embedded in our everyday lives, we often develop strong attachments to these devices, which can be seen to exhibit traits of implicit religious behavior. Yet in the end if the technologies are allowed to evolve beyond these helpmates, they are seen to abandon their humans. Stahl suggests that what lies behind the myth of technological mysticism is the "fundamental question of meaning" and claims that humans should examine how our values can guide us to moral interaction with our technology, rather than to technological dependence (127).

Here again the posthuman discourse plays a crucial role where instead of humanity serving as the overseers of the technological order, humans are in a servant relationship with technology, providing a platform from which technology can grow and develop its own abilities. The "critical posthumanism" narrative stresses how technologies shape human culture by providing new opportunities and experiences. It also points to the myth of technological mysticism where embrace of technology exhibits religious-like traits and devotion so that the role of technology is privileged over that of its human counterpart. This highlights a posthuman future, where we see the desires of sentient technology to achieve self-actualization are seen as more valued than a state of human-technology collaboration.

Concluding Thoughts…

While AI films may seem to vary in terms of narratives about technology, this analysis highlights that many storylines draw on just a handful of underlying tropes about the relationship

of humanity to technology. In this article, three common narratives are spotlighted which correlate to techno-spiritual myths discussed above. First, technology is often presented as a tool offering humans supernatural abilities, evoking the myth of technological transcendence. Here humans embrace technology because of the power it endues them with and highlights a potential power struggle between humans and their machines. Second, technology is also shown as being programmed to transcend or replace human potential as an all-powerful entity, through the myth of techgnosis. This narrative paints the relationship between technology and human existence as adversarial and something to be feared. Third, technology may also be framed as a helpmate to humanity having a dependent relationship, through the myth of technological mysticism. However, it is soon revealed as an unequal relationship, because due to the limits of human potential, technology will eventually supersede or replace humanity.

These discussions also connect to three posthuman narratives highlighting different configurations related to the human-technology relationship and the outlook of the future it offers. The core value of posthumanism is the merging of humanity's biotechnological tools and encouraging the development of technologies that enable humans to advance beyond standard human abilities and boundaries. This can be framed though AI movie narratives stressing how new technologies advance human opportunities and culture, highlighting how technological enhancements overcome human limitations or promoting the end of humanity as we know it for the sake of a technological evolution (Roden, 2005). In many senses the posthuman future becomes a prophetic narrative, the state toward which humanity is inevitably evolving or being driven by technological advances. Popular science fiction film makes visual these potential and problematic scenarios about our technological future. Therefore in order to fully understand how and why popular films frame technology in certain ways requires turning our attention to religious

discourses about technology that underlies these films. Looking to past and current work in the philosophy of technology becomes essential for reading and interpreting the meaning and framing occurring within AI based films.

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Films

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