

Teaching contested philosophical articulations of attention through *Ex Machina* and *Her*

Michael Quinn
University of Glasgow
mquinnphilosophy@gmail.com

Abstract

Given the increased use of technology in and out of schools, and that such technologies deliberately attract and arrest the attention of their users, students learning about how attention is considered philosophically becomes significant. As such, attention, as a topic of philosophical interest at secondary school level, is a worthy philosophical inquiry for contemporary students. However, given that defining attention is contested, with significantly varying perspectives, teaching these articulations simultaneously can prove difficult. I argue that using film, by capitalising on student interaction and interpretations, can address this challenge. Through this pedagogical approach, students are encouraged to reflect on what they believe is important about defining attention by exploring the common features of different articulations of attention, focusing on its moral and economic components.

I identify two pedagogical aims: i) engaging with film to learn about different articulations of attention, and ii) to have students explore their own definition(s) of attention. Two films, *Ex Machina* (Garland 2014) and *Her* (Jonze 2013), are shown to be helpful for illuminating attention and are used to demonstrate alternative perspectives on how attending is variously conceived. Highlighting the contrasts between the two films therefore becomes significant in encouraging exploratory thought and problem-solving possible contradictions in defining attention.

Keywords

attention, attention economy, film, pedagogy, P4C

1. Introduction

Given the increased use of technology in and out of schools, and that such technologies deliberately attract and arrest the attention of their users, students learning about how attention is considered philosophically becomes significant. In this paper, I argue that teaching attention as a topic of philosophical interest at secondary school level is a worthy philosophical inquiry for contemporary students. However,

given that defining attention is contested, with significantly varying perspectives, teaching these articulations simultaneously can prove difficult. I argue that engaging with film, by capitalising on student interaction and interpretations, can address this challenge. This pedagogical approach is not concerned with offering definitive answers on what it means to attend. Instead, students are encouraged to reflect on what they believe is important about defining attention by exploring the common features of its different articulations.

By focusing on the moral and economic components of attention, students will be able to explore how these aspects of attention are related and important for moral decision making in their everyday lives. Through this study, for example, they will learn about how attention, in the context of emerging technologies, is a valuable commodity which is manipulated by Big Tech companies (e.g. Meta, Google, Apple) for commercial gain (Wu 2017). They will also learn about the morally questionable ways in which these companies attract the attention of their users, as well as explore potential strategies for responding to the problems raised by the way these companies engage with their customers.

Thus, I identify two pedagogical aims: i) engaging with film to learn about different articulations of attention, and ii) to have students explore their own definition(s) of attention. In so doing, I demonstrate that teaching through film removes perceived priority structures of different articulations of attention, even if this is through the order in which the accounts are presented. Two films, *Ex Machina* (Garland 2014) and *Her* (Jonze 2013), are shown to be helpful for illuminating attention and are used to demonstrate alternative perspectives on how attending is variously conceived. Highlighting the contrasts between the two films therefore becomes significant in encouraging exploratory thought and problem-solving contradictions when defining attention.

In Section 2, I demonstrate how attention is philosophically contested, focusing on definitions which highlight the moral or economic aspects of attention. While there are more ways in which attention is conceived, I focus on these two areas to draw out distinct contrasts and commonalities when defining attention. I then describe how these are presented in *Ex Machina* and *Her*, and how they offer engaging exemplars for teaching multiple accounts of attention simultaneously. In Section 4, I offer suggested questions, based on the moral or economic aspects of attention identified, which inform the proposed pedagogical task.

2. Attention

In this section, I offer a brief overview of where philosophers tend to disagree about attention. I suggest that, in having a wider understanding of how attention is variously articulated in philosophy, students will be better positioned to develop their own definition of attention. My focus remains on attention through technology, keeping in mind how these articulations of attention can be effectively taught by engaging with *Ex Machina* and *Her*. I focus on the ways in which attention has been variously defined as primarily moral or economic.

2.1 Attention as a contested philosophical area

In the philosophical literature, there are conflicting accounts of what it means to attend (Mole 2011; Watzl 2011; Wu 2011). To address these conflicts, and in aiming to have students consider the various accounts, this approach considers attention in a manner similar to that as proposed by Christopher Mole (2011):

The processes that constitute attention on one occasion should fail to constitute it on another ... provides the clearest reason for thinking that something like adverbialism about attention must be right. (p. 74)

Adverbialism, the idea that attention is not measurable but instead accompanies other components, suggests that attention requires a form of unison rather than consciousness or specific types of cognitive processes. This approach to attention is helpful pedagogically as it can clarify, or at the very least simplify, understandings and confusions about attention. To be clear, it is not the intention that students focus on the metaphysical debate about how attention is constituted, which is a very interesting but ultimately a tangential pursuit for their purposes. Rather, students should be aware of the different ways that attention can be understood individually and socially, so that they can then apply some of these ideas when developing their own definition.

Mole's adverbialism can be useful to keep in mind, given that students will be interacting with several articulations of attention at once. Students will not be coming to grips with each independent theory of attention, nor will they be introduced to the different philosophers and sociologists behind the theories. Rather than focusing on how each account is at odds and the ways in which philosophers might disagree with one another, students are instead encouraged to focus on the different ways in which it can be understood. To clarify, it is important that students understand that there is

not one overall philosophical account of attention which is unanimously agreed. Instead, the more apt they are at understanding how the different aspects of attention discussed—moral and economic—come together, the more informed they will be in developing their framework. With these considerations in mind, I now describe how attention has been varyingly considered as primarily moral or economic.

2.2 Attention as moral

In thinking of attention as moral, students can begin to work towards some—perhaps unexpected—conclusions regarding attention. For example, Stiegler notes that the etymological roots of 'attention', which is literally 'to attend' but also to 'take care', focuses on attention as a social phenomenon (2012, p.1). It might be worth having students consider that attention is not simply a matter of visual perception and/or consciousness, but that there are also important social aspects of attention.

Continuing this idea, Patrick Crogan and Samuel Kingsley (2012) credit Stiegler with having a 'pedagogical concern with regard to how young people came to know and care for their society and the world', and therefore in understanding the wider imperatives of attention, such as ecology and injustices (p. 3). In an attempt to achieve this, I suggest that students are encouraged to critically evaluate their emotive and empathetic reactions to a character as a low stakes approach of understanding of attention as social and moral. A distinctively cinematic experience of journeying with characters can be an effective way of achieving this aim, as it is not immediately or overwhelmingly self-reflective and urges students to look outward, particularly when it comes to comparing that with the ways in which we look inward. I consider this in more detail in Section 4.

In considering the moral significance of attention, this proposed approach works closely with the articulation of attention offered by Silvia Panizza (2022):

Perhaps radically, I propose that attention thus understood is not only morally relevant, but that it is morally good, and even it is *fundamental* to morality. (p. 16)

For Panizza, the importance of attention in moral thinking cannot be overstated, and it is from this perspective which we would want students to develop their definitions of attention. Students, and others, may of course debate whether attention is fundamental to morality; however, by considering the importance of attention for morality, they will be in a more secure position to develop their framework. What is

interesting about Panizza's claim, for our purposes, is that attention is understood not as something which affects morality, but it is instead how morality is grounded. Considering attention in this way encourages students to reflect on how and why attending is morally significant and has substantive moral consequences. As previously indicated, however, metaphysics is not the focus for this venture and, instead, the comparative evaluation of attention as moral or economic is prioritised, so long as it brings about ways in which students can successfully develop a definition of attention. To clarify, students will be comparing *why* the differences between articulations of attention are significant, rather than endorsing specific accounts.

While my focus in this section is on Panizza, I briefly turn to Simone Weil, a renowned proponent of attention and its function in literature and education, to elaborate on the importance of attention's moral component. Weil's (1977) perspective on how we view ourselves brings to light the more self-serving tendencies we have when it comes to attention:

We narrate our future to ourselves short of a heroic love of truth, we narrate our past to ourselves by refashioning it to our liking. We pay no heed to others; we narrate to ourselves what they think, what they say, what they do. (p. 291)

Weil's description of self-narration, and what we choose to focus on as we edit our experiences, will be useful to introduce to students at the beginning of a unit about attention because it is relevant for students when considering where they are entering the discourse. It also leads students away from unproductively narrow understandings of attention. For example, a student newly introduced to the subject of attention might think that it is only a matter of visual perception (what you attend to is what you see) or consciousness (what you attend to is what you are cognizant of at a particular moment). These understandable misconceptions should therefore be addressed early in an effective pedagogical task exploring attention. In this way, attention will be taught more widely to secondary students, considering what we voluntarily direct our focus towards, through the different ways we can attend, and how these directly relate to the economic value of attention. Later, they will learn the ethical dimensions of the consequences of what happens when the stories we tell ourselves verge too far away from truth.

2.3 Attention as economic

In terms of the economic value of attention, it will be worth addressing to students that many of the contemporary Big Tech applications they pay significant attention to (e.g. Instagram, TikTok, Facebook) generally offer 'free' product use (Wu 2017). Transactional relationships of this kind are complex when considering the lack of financial cost, and it is important for students to at the very least be aware of the possibility that money is not the most significant feature of these types of transactions. Tim Wu (2017) discusses this with regards to the 2012 merger of Facebook and Instagram, where it was argued that they were addressing separate product and demographic markets:

What is missing is the ability to understand that firms are in fact competing in attentional markets and to countenance the effects of a merger in those terms. (p. 7)

Wu correctly identifies the glaring error made in not recognising the economic value of attention in the merger between the companies, and it is an error which is easily made by consumers and, by extension, students. Once students begin to realise that there is economic value to attention, and that companies gain financially from it, they can then be encouraged to reflect critically on how, and in what ways, attention is seized. As we shall see, the study of *Her* and *Ex Machina* offers relevant examples of characters who are exploited through such transactions.

In terms of opting in and out of such transactions, having students consider what consensual attention looks like in the context of economic value will be of utmost importance. Tim Wu (2017) considers how advertisements seize attention, particularly in contexts such as airplanes, where passengers have severely restricted choices regarding how their attention is directed:

The reaction, as scientists have shown, is automatic and like a reflex. Hence the attention that is spent this way cannot be described as consensual, at least in the sense of chosen. (p. 12)

Given that consent is an increasingly discussed topic in schools, it may prove fruitful for students to consider what, if any, infringements there can be on their consent with regards to attention. There may indeed be some debate in the classroom about whether there *can* be consent with regards to attention. If students do find that there

are problematic aspects of consent and attention, they can then consider how this may impact their use of technology, where many of these breaches would likely take place.

Once students have grasped that there is an imperative moral component to attention, they will then be in a better position to consider other implications of attention and morality, especially with regards to its economic value. As indicated, the manner in which we attend to technology is deliberately contrived to elicit maximum engagement from the user. It is not unreasonable to suggest that students are generally unaware of the different pacts they are agreeing to with global tech companies when they interact with their products. For many students, the idea that a particular product does not involve financial payment may be enough to merit their unrestricted use. What may be concerning for students, therefore, is that hours of attention are devoted to social media without an appropriate awareness of how this benefits Big Tech companies.

In the following section, I suggest how studying *Ex Machina* and *Her* allows students to simultaneously consider the moral and economic articulations of attention through a student-led pedagogical task. By engaging with the films, they can explore the multivarious facets of attention without overly focusing on specific articles or philosophers.¹ Instead, they can take the examples of attention which they encounter at face value and evaluate their importance for developing their own definition of attention, in this case through technology, as a result.

3. *Ex Machina* and *Her*

In this section, I demonstrate how engaging with film provides adequate support for students to consider the multifaceted nature of attention. As we shall see, the way in which students engage with *Ex Machina* and *Her* are tailored with the misconceptions identified in the previous section in mind (e.g., that attention is only about perceptual content) as well as offering an engaging means of learning about attention.

Given that it is likely that students will not be familiar with philosophical theories of attention at secondary school level, engaging with film to introduce these new concepts offers an accessible way of understanding the importance of attention and how it can be conceived of in different ways. There are numerous proposals which suggest engaging with film in educational settings to learn about philosophy

¹ I explore the barriers to learning which can arise through more direct and traditional methods of learning philosophy at secondary school level elsewhere (Quinn 2025).

(D'Olimpio 2019; MacAllister 2023; Wartenberg 2007). However, for schools that do not formally teach philosophy, or that do not teach aesthetics through a philosophical lens, adopting these proposed recommendations would be significantly difficult. Since these are larger problems based on curricula, wider pedagogical preferences and systems of education, I do not address these issues here.²

For our purposes, *Ex Machina* and *Her* are effective examples of learning about philosophy through film because they bring together moral and economic considerations of attention through engaging narratives. For example, students can explore Weil's perspective of attention (e.g., its moral import) using examples from both films to support their explorations. As such, when students are developing their framework, they can engage with exemplars to support their thinking. Studying the two films may also offer impactful explorations identifying the beneficiaries of attention as well as gaining an insight into the tactics deployed to capture and seize the attention of consumers. In studying these films, in which the technological side of these transactions are personified, students will be better equipped to identify where consent is being infringed upon. Given that one of the aims is to explore the contested nature of attention, the films explore attention in ways that are significantly different. As we shall see, *Ex Machina* is more concerned with the ethical implications of using technology in certain ways, whereas *Her* is focused on the emotional impact of adopting modern technologies.

Having offered justifications for engaging with *Ex Machina* and *Her* to learn about attention, I now identify how the films individually relate to my pedagogical aims in Sections 3.1 and 3.2, before explaining why studying them together would be particularly effective in Section 3.3.

3.1 *Ex Machina*

In *Ex Machina*, the central character, Caleb, is unknowingly the centre of an experiment with Ava, a humanlike robot powered by an AI system. Nathan, Ava's creator, claims that they are conducting a test to see if she could potentially pass as being human. However, it is later revealed that Nathan wants to know how effectively Ava will be able to manipulate Caleb to ascertain whether she has developed true consciousness. As the film progresses, Caleb becomes increasingly infatuated with Ava, even sacrificing his relationship with Nathan to be with her. Caleb's interactions with Ava

² Thanks to an anonymous reviewer for this suggestion.

become increasingly obsessional both emotionally and intellectually until she uses him to escape the facility where she was created.

Ex Machina offers students an account of what happens when attention is problematically focused on a non-human object and diverted towards it through manipulation. Importantly, though, we want students to focus on why Caleb's attentional interactions towards Ava are of philosophical interest. Initially, Caleb and Ava's relationship seems to be organic, which students can analyse by identifying how the characters initially interact with each other. However, when we later learn that Caleb was specifically selected by Nathan, Ava's creator, as a loner and careerist, we consider these opening scenes differently. For example, when we watch the scene between Caleb and Ava during a power cut, and she begins to convince him that he should help her escape, we are encouraged to interpret the dialogue from his point of view. His attention is solely on what Ava can offer him, intellectually, emotionally and even sexually, and he is not attending to what perhaps should be more salient, such as Nathan's abuse of the machines, alcoholism and general untrustworthiness.

3.2 *Her*

Although also focusing on a lonely, male, protagonist, *Her* is more concerned with what an organic and genuine relationship between human and AI might look like. Theodore is recently divorced and purchases an aurally embedded AI model, Samantha, who is initially used to make his technological life simpler.³ Advertised as a helpful secretary of sorts, while also fulfilling the needs of a friend, the operating system gradually becomes conscious and self-aware as she falls in love with Theodore. Set in a vision of the near future where technology is ever present and relied upon more so than it is even now, Samantha's role as being consistently ready to meet Theodore's every need does not seem out of place. As the film progresses, however, we see that it actually Theodore who cannot meet Samantha's transhuman needs, which are more complex than Theodore would be able to comprehend by virtue of being human. In the end, Samantha leaves Theodore to join other AI bots in an undefined digital space, and the film ends with Theodore and Amy, his friend, accepting their new lives without their AI companions.

³ *Her* also explores how Theodore becomes overly dependent on Samantha to complete technological tasks. For another pedagogical approach based on engaging with film to learn about philosophical problems, in this case cognitive deskilling in the context of AI, see Gopal and Quinn (2025).

3.3 Studying *Ex Machina* and *Her* together

At this stage, given that I have identified how the two films relate to different aspects of attention, I now elucidate selected advantages of studying these films together. I particularly focus on how the films relate to the pedagogical aim of engaging with film to learn about different articulations of attention simultaneously. I also acknowledge that, while attention is undoubtedly important in both films, it is not the overriding focus in either one. This aspect of scaffolding is not a hinderance; rather, it is another way of demonstrating to students that attention is an omnipresent issue, and one which, ironically, can go unnoticed. What unites these cinematic portrayals is how they simultaneously grapple with the various ways that attending is articulated in terms of its moral and economic aspects. Evidently, both *Ex Machina* and *Her* are concerned with the moral and economic components of attention. Not only that, but the films draw parallels with both aspects of attention and, at given moments, even consider them together. In so doing, *Ex Machina* and *Her* are incredibly useful in considering how moral and economic definitions of attention relate, and engaging with the films offers useful content to explore in pedagogical tasks.

Using the two films also allows students to explore these different articulations of attention simultaneously, something which would be more difficult in studying one film, or in studying through traditional teaching methods. As we have seen, the films offer vastly different perspectives on what it means to create versus consume technology. Whereas *Her* seemingly espouses Theodore's willingness to focus on Samantha and see the world through that lens, *Ex Machina* evidently does nothing of the sort with the eventually imprisoned Caleb.

4. Pedagogical task

How, then, might we bridge the gap between these complex understandings of the characters' attentional deficiencies and developing a student-led task where attention is defined? Importantly, the focus will be on drawing out the differences between the moral and economic articulations of attention and evaluating what is important about the ways in which these definitions overlap or contradict each other. The pedagogical task will therefore be structured in such a way that students can reflect on these different articulations of attention, and which of these best matches their definition of attention. While this section is structured through key questions concerning attention, the pedagogical approach considers whether adults should bring to children for consideration issues they regard as important or refrain from doing so (Williams 2020). As such, it is not expected that students are confronted directly with these

questions, but rather that the questions offer useful starting points for engaging in effective dialogues on attention. This is in line with much of the P4C literature, which advocates for dialogical pedagogy and encourages discussion about concepts and arguments, especially when they are contested (Lipman 2003; Lipman, Sharp & Oscanyan 1980; Matthews 1984; Siegmund 2020; Williams 2020).⁴

4.1 Student-led pedagogical task

While it would be preferable that students consider each of the following areas in depth, they should also be encouraged to identify which areas are most salient to them, and which they want to explore further. In striving for students being able to develop a complex definition of attention, having an awareness of the various aspects of attending will be of importance. Further, to encourage the dialogic nature of the task, students will create their own questions around attention which can be explored as they develop their framework.

As noted, the specific natures of the tasks are not implied through the suggested questions, nor will it simply be the case that the students watch the films and are then asked each of these questions. Rather, the questions serve as the foundations of the task and suggest further avenues for exploring related philosophical problems. Many of the questions, for instance, form the basis of debates on essential areas of interest in philosophical accounts of attention. Having the framework remain open ended in this way ensures that students' engagement with these areas are exploratory and that the framework also provides a means for them to keep note of their thinking as they progress through the tasks. This way, students can see how their perspectives on attention may have developed over the course of the study, therefore addressing the main pedagogical aim of engaging with film exemplars to simultaneously learn about different articulations of attention. They may even find that they are referencing the same examples from the film(s) to elucidate different aspects of attention. In doing so, they will begin to see that these varying articulations can be understood simultaneously.

It is therefore important to emphasise that there are no definitive answers regarding these questions of attention. In this sense, this pedagogical approach is in many ways a non-directive form of education (Hand 2014). While students have been steered towards particular interpretations of the film, and areas of attention, they will be encouraged to reach for and support their own independently formed conclusions of

⁴ Thanks to an anonymous reviewer for this suggestion.

what it means to attend. Teaching attention in this way has the advantage of accounting for technologies which have not yet been conceived or released to the general public, and therefore the conclusions which students make could be useful for their future interactions with technology. Importantly, the students will be able to choose where their explorations will lead them. In what follows, I suggest some of the ways students could consider examples from the films to demonstrate how they could develop definitions of attention based on its moral and economic components.

4.2 The moral component of attention

In this section, I focus on two potential questions which could be explored to address the aim of developing their understanding that attention has moral value:

- How can attention shape our reality?
- How should one interpret the attention of others?

I address what examples students may reference from the films to explore these areas, linking them back to the previous discussion on articulations of attention which should, arguably, be most salient. Importantly, by framing their perspective of the films through these specific areas, students are encouraged to reflect on what features of the film are salient to them, and away from more general philosophical questions regarding the way in which technology is used.

How can attention shape our reality?

In *Ex Machina*, Caleb's attention shapes his reality in the sense that he is neither able to empathise with the AI characters, nor detect when they, and Nathan, are manipulating him for their own gains. In a disturbing twist, we learn that Nathan has specifically programmed Ava to mirror the preferences Caleb expressed via his use of pornography. Here, it is initially Nathan who manipulates Caleb by deliberately creating a machine which would be alluring to him. Nathan is aware, and indeed hopes, that Ava will then use her physical appearance and emotional intelligence to manipulate Caleb, which she then does. Ava also uses any other means at her disposal to manipulate Caleb and to ensure that his attention is focused on what she can offer him emotionally, intellectually and sexually, and diverts him away from considering the possibility that she is using him. Caleb's naivety is in many ways due to his over-confidence and lack of empathy. He quickly believes that Ava has fallen for him, despite nothing happening between them to merit such feelings, and he does so while knowing that she is literally imprisoned by Nathan and forced to speak with him.

What may be interesting for students to note is that, while Nathan is undoubtedly manipulative, it is Caleb who buys into Nathan's approach and is therefore still responsible for how his reality is shaped by his attention.

As for Theodore in *Her*, he too seeks to have an AI companion who will fulfil his emotional, intellectual and sexual needs. However, the relationship between Theodore and Samantha is portrayed as more organic, consensual and meaningful. Theodore's attention towards Samantha has a seemingly positive effect on the way he perceives the world. In having someone who he can constantly share his thoughts with, Theodore in many ways becomes more present in the physical world. He begins to appreciate those around him more and interacts more positively with his surroundings. However, this is also in the context of him being a paying customer for the interactions with Samantha and, significantly, as a distraction from a painful divorce which he has still not come to terms with. Theodore's apparent progression therefore seems artificial, given that he typically finds it difficult to interact with others in the real world, and his attention is devoted to Samantha, over whom he has the advantage of in having a physical body.

How should one interpret the attention of others?

As discussed previously, there are various values of attention, whether they be moral or economic. Naturally, people have vastly different understandings of what it means to 'pay' attention, what it means to demonstrate that you are paying attention, and what other tasks are morally justifiable to complete while simultaneously paying attention to someone or something. With this in mind, it may be worth having students critically evaluate the ways in which Caleb and Theodore pay attention, so that students can then think about what paying attention means both morally and economically.

By engaging with this type of problem, students will consider the wider moral implications of attention, referencing examples from the films to support their perspectives. For instance, in the case of Theodore, is it morally questionable that he falls in love with an operating system in the first place? Are there other people, such as Amy who goes through a breakup, who could have benefitted from more of his attention? Significantly, there are no hard and fast answers offered to these types of questions. What is important, though, is that students are beginning to grasp complex views on attention, through film, and are questioning how it impacts the characters in the film.

Both films relate directly to the accounts of attention previously indicated. If, as Panizza argues, attention is fundamental to morality, then the ways in which Caleb's and Theodore's reality is shaped by their attention suggests that their actions will be impacted as a result. Both characters fail to critically evaluate what is happening with their attention, and they are more focused on their own narratives, as articulated by Weil, rather than focusing on what is happening around them. Whereas Stiegler notes the etymological roots of 'attention', it is clear that, for both characters, attention has little to do with caring; the attention they give to their AI counterparts more accurately reflects the male gaze. Additionally, both characters divert their attention towards their AI counterparts as a means to avoid uncomfortable truths. Theodore does not want to work through the pain of losing his wife, whereas Caleb focuses on Ava as a means of avoiding the loneliness he feels. What we have, then, are clear examples of what characters should not be doing when it comes to attention, given that Weil also articulates attention's capacity for truth seeking and appreciation of the truth (1959). The characters use technology, or are at least willingly distracted by technology, in order to keep their attention diverted away from morally important aspects of their identity.

Students would be able to use examples of this nature to explore the complex relationship(s) between attention, reality, perception and morality. Importantly, they would be able to do so in a manner that makes sense to them, via the characters' experiences, but also in a way which allows the examples to lead them towards complex, and perhaps confusing, conclusions and definitions. Students would begin to understand the different ways in which attention can shape reality and, from this basis, can begin to think about what strategies they could implement to address the moral aspects of attention.

4.3 The economic component of attention

I now suggest two questions which encourage students' exploration of the economic component of attention in the development of their framework:

- What is the economic value of attention?
- What is consensual attention?

These questions deliberately address the beneficiaries of attention directly, encouraging students to engage with the economic component of attention. Once again, I address what examples students may reference from the films to explore

related areas suggested by these questions, linking back to the previous discussion concerning what theories of attention should, arguably, be most salient.

What is the economic value of attention?

In considering the economic value of attention, students may begin to see how attention can be used for financial and economic gain, and how Big Tech companies are specifically targeting attention for these purposes. Technological devices are deliberately created to attract and maintain our attention, and we often do so at the cost of paying attention to the world around us. Therefore, when students come to understand *Ex Machina's* Nathan as personifying Big Tech (i.e. the creator and distributor of widespread technology), and Caleb as the target, or consumer, depending on perspective, they may also start to think about how Caleb could have done more to resist Nathan's offers. Yes, Ava was created with Caleb specifically in mind, but, as students have already explored, Caleb's pre-existing moral vulnerabilities were there to be exploited in the first place.

In the case of both *Her* and *Ex Machina*, students will be able to evaluate the transactional component of the economic value of attention more directly. As has been discussed, there is a financial transaction at play with regards to Theodore's relationship with Samantha. He is literally paying to have someone pay attention to him at any given time he needs it. With Caleb, he is undoubtedly also a consumer, but the transactional nature is not quite as explicit. Instead, we see how Caleb changes as Ava seemingly becomes more interested in him. What is significant for students completing the task, then, is that both characters pay to have artificially constructed attention directed towards them and, in so doing, divert more attention towards the very corporations of which they are paying customers.

Therefore, students may strategise in terms of evaluating how and why consumers interact with technology. Students will, by this point, have already considered the associated side effects of focusing too much attention on technology but, with the added implication that there are direct influences encouraging them to do so, they may consider the deeper ethical component of attentional interactions with technology. In studying *Her*, therefore, students will understand that Theodore's decision to take his close friend Amy to the rooftop at the film's conclusion has wider implications. Theodore makes the decision to return to the physical world, with real relationships and people. Conversely, Caleb is imprisoned by Ava precisely because he decides to do the opposite. He is physically unable to return to the real world (literally) because of the trap which Ava has laid for him. The trap is being laid, subtly

yet deliberately, by Nathan, who embodies the potentially sinister intentions of global tech companies. It is important to note to students, however, that the companies themselves are not necessarily evil, but rather the strategies which they employ are specifically targeted at seizing attention with a lack of moral consideration.

What is consensual attention?

Of course, though, there is something morally dubious about the manner in which Nathan constructs the situation to have Caleb fall for Ava. Nathan clearly invites Caleb to his home under false pretences and deliberately diverts Caleb's attention to where it is most useful for him. Given that Caleb does not know what he is consenting to—in particular, he is unaware that his personal information has been retrieved and used in such a way to attract his attention—students would then be able to discuss whether an infringement on his attentional consent had taken place.

What would be particularly enlightening, then, before students consider this question on their own, would be to debate Nathan's actions. By engaging with the problem of consensual attention through film, students would be able to understand the various dimensions of consent in attention and how it affected the respective characters. They may conclude, for example, that Caleb was simply too gullible and naïve. In the case of both Theodore and Caleb, students may then consider in what ways their AI counterparts may be implicit in any infringements on their attention and, once again, how the characters could have been better prepared to encounter infringements when interacting with AI.

Examples from both films relate directly to the accounts of attention discussed previously. With Caleb especially, we can see how his attentional habits make it easier for Nathan to influence his attention. More importantly, though, both Caleb and Theodore are clearly involved in transactions which they are not fully aware of. For Theodore, students could consider aspects such as Samantha's voice, which is deliberately alluring and aesthetically pleasing. Importantly, Theodore opts to give Samantha a female voice, but he may not be aware that it has been deliberately programmed to attract him. Caleb, on the other hand, benefits from the complimentary benefits which Nathan gives to him (e.g. a helicopter ride, a stay at his luxury house and access to his state-of-the-art AI); however, Caleb is unknowingly paying a price in the sense of being Nathan's test subject. In not being made aware of the transaction of which he is a part, Caleb's consent is infringed upon. Of course, this also relates to how his attention is diverted, captured and seized without his consent.

5. Conclusion

As has been demonstrated, *Ex Machina* and *Her* illuminate different articulations of attention and can be used to teach these variations to students. Studying attention in this way, therefore, discourages searching for an essential or necessary 'core' philosophical understanding of attention; rather it focuses on having students understand that having a complex and layered understanding of attention is important. Being aimed at secondary students, this pedagogical approach offers a balance between what they are expected to bring to the study, an awareness that attention towards technology is of philosophical interest, and where they are being challenged, such as grappling with various articulations of attention at once.

Students are learning about different articulations of attention through watching two films that offer accounts of attending which consider its moral and economic components both separately and together. Not only that, but the pedagogical task, in having students navigate the contested areas of attention through suggested areas of exploration, also encourages them to consider more than one aspect of attending at a time, however they eventually choose to interpret what it means to attend. This pedagogical approach may also be of interest to those who seek to teach other philosophical concepts through film. While I have here considered a case where the central idea is contested, it can also be applied in cases where a film exemplifies a philosophical theory more straightforwardly (Quinn 2025). Finally, considerations of how film, as a medium, directs, controls and influences attention could prove to be fruitful for future avenues of exploration emerging from this proposal.

Competing interests

The author has no competing interests to declare.

Acknowledgements

I would like to thank Laura D'Olimpio, Áine Mahon, Stephen Daniels and Ben Colburn for their comments and suggestions on this paper. I'd also like to extend my gratitude to audiences at the 'Mapping Attention' conference and the Network 13 Doctoral Workshop, both in Galway, as well as the annual PESGB conference in Oxford, for their insights and questions. Finally, thank you to Dulmi Wickremasinghe for looking through numerous drafts of this paper.

References

- Crogan, P & Kinsley, S (2012) Paying attention: Towards a critique of the attention economy. *Culture Machine*, 13, pp. 1–29.
- D'Olimpio, L (2019) *Media and moral education: A philosophy of critical engagement*. Taylor & Francis, Abingdon, UK.
- Garland, A (2014) *Ex Machina*. Universal Pictures.
- Gopal, W & Quinn, M (2025) Engaging with film to teach students about virtuous outsourcing of cognitive tasks to LLMs. *Digital Society*, 4(79).
<https://doi.org/10.1007/s44206-025-00234-2>
- Hand, M (2014) Religion, reason and non-directive teaching: A reply to Trevor Cooling. *Journal of Beliefs & Values: Studies in Religion & Education*, 35(1), pp. 79–85.
- Jonze, S (2013) *Her*. Warner Bros.
- Lipman, M (2003) *Thinking in education*. Cambridge University Press, Cambridge, UK.
- Lipman, M, Sharp, AM & Oscanyan, FS (1980) *Philosophy in the classroom*. Temple University Press, Philadelphia, PA.
- MacAllister, J (2023) On the potential in film for ethics education: In defence of educational ethicism. *Journal of Philosophy of Education*, 57(1), pp. 257–275.
- Matthews, GB (1984) *Dialogues with children*. Harvard University Press, Cambridge, MA.
- Mole, C (2011) The metaphysics of attention. In C Mole, D Smithies & W Wu (eds) *Attention: Philosophical and psychological essays*. Oxford University Press, New York, NY, pp. 60–77.
- Panizza, S (2022) *The ethics of attention: Engaging the real with Iris Murdoch and Simone Weil*. Routledge, London, UK.
- Quinn, M (2025) Learning Andy Clark & David Chalmers' 'The Extended Mind' through Christopher Nolan's *Memento*. *Journal of Philosophy of Education*, Early online publication. <https://doi.org/10.1093/jopedu/qhaf081>

- Siegmund, M (2020) *Philosophy for Children. Grandpa Carl the owl and his grandson Nils the owl: A story book for discussing philosophy with children*. BoD – Books on Demand, Norderstedt, Germany.
- Stiegler, B (2012) Relational ecology and the digital pharmakon. *Culture Machine*, 13, pp. 1–19.
- Wartenberg, TE (2007) *Thinking on screen: Film as philosophy*. Routledge, London, UK.
- Watzl, S (2011) The philosophical significance of attention. *Philosophy Compass*, 6(10), pp. 722–733.
- Weil, S (1959) *Waiting on God*. Fontana Books, London, UK.
- Weil, S (1977) Morality and literature. In GA Panichas (ed) *The Simone Weil reader*. Moyer Bell, London, UK, pp. 290–295.
- Williams, S (2020) Philosophical dialogue with children about complex social issues: A debate about texts and practices. *Childhood and Philosophy*, 16(36), pp. 1–28.
- Wu, T (2017) *The attention merchants: The epic scramble to get inside our heads*. Alfred A Knopf, New York, NY.
- Wu, W (2011) Attention as selection for action. In C Mole, D Smithies & W Wu (eds) *Attention: Philosophical and psychological essays*. Oxford University Press, New York, NY, pp. 97–116.