# DO ANDROIDS DREAM OF ELECTRIC LLAMAS? AI-GENERATED CINEMA IN LATIN AMERICA

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### Initial Considerations on a (Latent) New Medium

As a protean amalgam of art and technology, cinema continues to evolve at the level of its mechanical, chemical and digital processes, and in the way it interacts with our sensory perceptions. The irruption of artificial intelligence (AI) represents the latest seismic shift for cinema as an artform and an industry. This presents a challenge for critics, filmmakers, and audiences who seek to comprehend the cultural relevance and global impact of this technology, and, more specifically, for my essay's focus, its implications in Latin America – a region characterized by its unique attributes. AI has precipitated a self-reflexive questioning on the nature of the cinema, by presenting itself not only as one more technological innovation, but perhaps, as a medium in its own right. I will refer to this (conceivably) new audiovisual medium that fuses the power of artificial intelligence with the artistry of cinema as "AI cinema" – even as I acknowledge its evolving nature as medium, form, and/or format. By AI cinema I am referring broadly to cinema created and promoted with the aid of artificial intelligence, in part or in full, at any level of its production and distribution phases. No doubt, the effects AI will have in Latin America will be immediately transformative, as has happened with other major technological developments from this century that have radically changed the region's cultural arena (digital mass media, cell phones, the Internet, social media, etc.). Although my focus is on the technology's effect on cinema, the influence of AI is penetrating every aspect of life: from social activism to governmental surveillance, from democratization to autocratization processes, from environmental advocacy to extractivist exploitation, from the homogenization of cultural traditions to the emergence of new local art practices, with many intended and unintended consequences. Antonio Garrastazu and Beatriz de Anta comment on the contradictory nature of this rising technology, stating that "the AI revolution presents enormous challenges and opportunities for Latin America – and the region has a compelling interest in deciding on, and

pursuing, strategies that maximize the positive potential of AI tools and push back on their use for malign ends."

Whether focused on Latin America or elsewhere, claims about emerging and (arguably) radical art forms or media need tempering to avoid fetishizing the very novelty of such phenomena. Although AI has a tremendous capacity to destabilize and disrupt, we have conceivably seen this movie before, since, as Richard Brody observes, "the history of the [cinematic] art has always advanced in step with technical invention – as well as with the inventiveness of filmmakers in finding uses for these advances." The adaptation of AI technology to filmmaking has historical precedents in other technologies and processes that altered the cinema throughout its history: the photographic camera, the movie projector, the development of sound, the arrival of color, the emergence of television into the audiovisual scene, digital cinema's destruction of the material base of the medium and its decoupling from indexicality – to name a few. Dire predictions about the myriad ways in which AI cinema will destroy or supplant HI (human intelligence) cinema also have precedents. When cinema was first invented, it was perceived as a threat to the theater, just as photography before had been considered a death knell for drawing and painting. Along a similar vein, moving images were not initially considered as a new, distinct medium but were conceptualized through reference to other media, including associating them with various forms of pre-cinema (e.g., magic lanterns and kinetoscopes, vaudeville, shadow plays, photoplays, picture plays, etc.). During these previous shifts, artists, critics and scholars eventually incorporated the new form, style, technology or medium into their art and learned to interpret the resulting works. As we similarly attempt to come to terms with AI and its applications to the cinema today, the initial discussion is likely to be wide-ranging, halting, tentative, and inevitably, incomplete - and even more so when we examine the technology as it manifests in the periphery, in Latin America, distant still from the main centers of high-tech development. This essay makes some theoretical observations on this putative new medium and examines Latin American works that are themselves incomplete, primitive forms of a young format, often created by amateurs and dabblers, but nonetheless, revealing as to the potential of AI cinema in years to come.

Some questions raised by AI cinema center on technology rather than on the cinematic product; for instance, the speculative question about AI's capacity for sentience informs much of the artistic production and current debates about the technology globally, including in Latin America. Other issues sparking interest (and alarm) deal with its social and economic repercussions, encompassing fears about the replacement of filmmakers, scriptwriters and artists, concerns further aggravated in Latin America by endemic cycles of economic inequality, joblessness, brain drain and labor displacement. Other questions center on the new aesthetic possibilities for this form and how it will

adapt to specific regions. Such variegated concerns provide scholars with many entry points into the same object of inquiry – and Latin Americanists should not shrink from this challenge or arrive late to the conversation.

This essay represents an exploratory entry point that seeks to spur further investigation into this emerging cultural practice: at once a cautious dipping of the toes and an exhortation for others to follow into the unexplored waters of AI cultural scholarship, to untangle the implications of what could be a nascent avant-garde. Indeed, AI cinema resonates as a new avant-garde practice, one whose revolutionary potential remains as of yet untapped.<sup>3</sup> Capturing the present instant and its purported avant-gardism, my essay maps some of the contours of the earliest stage of AI cinema (maintaining a specific focus on Latin America), providing historical parallels that can guide our inquiry by suggesting analytical tools and frameworks for in-depth future studies, as critics engage with artificial intelligence cinema going forward. To be clear, I do not aim in this article to develop a comprehensive theory of AI's application to the cinema, but rather to consider AI generated cinema as a potential new medium (broadly understood), one whose tools and vocabularies are still in process of becoming. That is to say, while AI cinema retains many significant elements of the cinematic medium, there are also enough differences to begin considering that we may in fact be assisting the birth of an altogether separate medium (one which will eventually depart from its cinematic roots altogether). I also will explore the current state of the art in Latin America, as well as the specific issues related to AI in that region, where the implementation of new technologies often becomes entwined with a postcolonial history of oppression, neoliberal economic practices, disenfranchisement, human rights violations and other endemic catastrophes.

As a yet-to-be-clearly defined innovative set of practices, AI generated cinema is a nascent form seeking to legitimize itself (in some cases by emulating previous artistic media, such as older forms of the cinematic, but also video games, computer art, virtual and augmented reality, and so forth). AI cinema is in a transitional early period, recalling similar transitions during early film or photography's infancy. As such, initial questions swirling around AI cinema (and other AI generated art) echo questions asked about these earlier formats: Is AI generated cinema an art? Or a technology? Perhaps both? Is it cinema proper or a distinct audiovisual medium, as I suggest? If the latter, what new forms of representation will be possible in this medium? How will AI cinema affect methods of cinematic production? How will it change filmmakers and their practices? And, more broadly, philosophical queries pertinent to AI's capacity to simulate human intelligence, such as: Will this art form/medium be capable of self-generating itself? Will it, thinking dystopically, "liberate" film from the filmmaker? Or, if thinking utopically, unchain the filmmaker from the film industry? I examine some of these questions during my exploration

of AI cinema's emerging formats – for example as it appears in festival venues, through its deployment in various experimental projects in Latin America (and in works that resist geographic specificity, or mobilize a transnational perspective), and as seen in rough works by amateurs and enthusiasts during this initial transitional phase.

### Androids, Cyborgs, and the Global Rise of AI Cinema: The Latin American Case

As I stated earlier, my interest here is to reflect on the intersection between AI technology and the cinema, with a focus on the Latin American region where AI implementation in the film industry encounters economic disparities, political instability and obstacles to access high tech resources and where anxiety about androids, cyborgs or AI replacing human labor takes on added cultural valence and exposes specific material realities. The focus on Latin America as a case study of how AI affects the cinematic arts raises a broader question about technology and geographic specificity. Given the global nature of these high-level technologies, we might ask if it even matters whether AI is created and implemented in Latin America or elsewhere, in terms of its ultimate implications as an emerging medium. As I will show I believe that it does matter, and that AI has a distinct impact depending on a region's cultural, sociopolitical, and economic specificity. Nonetheless, at various points throughout the essay this assumption comes into tension with the transnational reality of AI and its leveling of national difference (its homogenizing tendencies). This clash between local specificity and transnationalism proves productive when considering AI cinema as a medium with a particular set of promises and challenges. It also recalls similar debates surrounding the development of photography, early cinema, the Internet, and so on, as they emerged in Latin America.

Indeed, this global rise of AI encompasses a growing interest across Latin America in using generative technology for every aspect of filmmaking. Although AI development in countries of the Global South lags the USA and Europe, swift progress is being made in adapting these tools for making films and videos. According to the *Government AI Readiness Index*, Chile, Uruguay, Brazil, Argentina, and Colombia ranked near the top of the Latin American region in AI implementation (with Mexico following slightly behind), while Guatemala, Cuba, Nicaragua, and Venezuela ranked near the bottom, a landscape which predictably aligns with wealth (GDP) and political stability indicators across the same nations. This reality underscores the obvious fact that economic conditions still play a key role not only in whether AI is implemented in the region (or how quickly) but also, potentially, in the ways it will be adopted. There is an emphasis on more affordable workarounds and projects that may use the technology not to create entire films but for certain elements

within those films, ensuring that projects remain economically feasible. These obstacles also compel Latin American creators to collaborate with US and Europe-based developers, as well as to seek funding from foreign sources and corporations – factors that inevitably also affect the content and target audience for the works. At the same time, easy-to-use and free online AI tools have also opened the door for independent creators to experiment with AI, rekindling a DIY (do-it-yourself) spirit that recalls the way super 8 or video was embraced by artists in earlier decades, or, more recently, cell phone filmmaking.

Among the various obstacles facing the implementation of AI in the region is that of keeping qualified developers from leaving for tech jobs in the US and Europe, as brain drain endemically plagues Latin American technology sectors. Other concerns include the likely exacerbation of existing economic inequality, resource extraction, and job displacement, among other justifiable fears. Despite these caveats, the Latin American commercial film industry is entering the AI arena head on, and so are many independent filmmakers and amateur video content creators. The future of AI cinema's production in Latin America seems assured, but it is unclear what shape it will take, prompting many doubts about the development of the medium: how, exactly, is AI being used in Latin American film production, what types of works are emerging, and what might this new technology mean for the region's cinematic output long-term?

Additionally, this essay asks about the place of Latin America within a global phenomenon (the rise of AI) that challenges the very notion of area studies. Indeed, a question that arises is, how might we write Latin American criticism in the (global) age of AI? What role might Latin American cultural studies play in the nascent field of Critical AI Studies? Much of this piece deals with factors that are global or transnational in their dimension (technology, movement of artists and designers, diffuse notions of identity and geography), but which are in tension with issues more materially localized (labor, displacement, resource extraction, local politics), so that the local and global remain inextricably entangled. Thus, I begin the next section of the essay by focusing on a localized phenomenon: film festivals from Latin America or with significant participation by Latin American filmmakers. The aim is to document these early developments in AI art in the region. I will also demonstrate how these local festivals and films are, in fact, quite transnational and inextricably linked to global cultural trends and practices. These initial moves already anticipate the direction this and other (as yet unimagined) future formats will take; echoing what the late Ana M. López observed in relation to the emergence of early cinema in Latin America, "in this early period we find not only complex global interactions but also extensive evidence of the contradictory and ambivalent transformative processes that would mark the later reception and development [...] of other media."6

I include therefore in this next section the analysis of AI films that retain at least some regional specificity and focus on Latin America, even as I also refer to movies that are not strictly Latin American but have begun to define certain trends for AI cinema globally (thematically, technically, aesthetically). Taken together, all these films draw the contours of a new cinematic modality, or, as I suggest, a novel medium. To conclude, I return to various Latin American AI projects that are still evolving and, in many respects, remain incomplete at the moment of writing. This incompleteness brings up a relevant issue about the task of criticism in moments of artistic transition. By examining AI cinema at its moment of inception, this article itself will be incomplete. It analyzes a format that lacks its "final" shape and definition, although we can discern its fundamental features in order to begin assessing its function and aesthetics. This is reminiscent, as I have stated, of those early years of cinema and cinema criticism. In this sense, this article is experimental like its subject, and it calls forth a question of timing – a timing that is arguably too early (as we do not yet know where the technology will go, and so we cannot assess all of its effects with certainty). The paradox here should also be noted that it is also too late, as we cannot keep up with AI's rapid change, its incessant evolving, and our methods of criticism, publication and analysis are inevitably outmoded and outpaced. Of course, the "present," even when registered with some delay, is also an interesting moment to consider – as the technology begins its impact on Latin American society and changes, whether positive, negative or neutral, remain highly unpredictable. That "untimeliness" (too soon, too late), however, provides an opportunity to also reflect on our field, its direction, and its capacity to adapt in the Age of Artificial Intelligence – its ability to respond to the medium as it transforms, and to the ways artists and filmmakers engage with it.

### AI in the Latin American Film Festival Scene

Film festivals have been among the first venues to register the presence of AI in Latin America, constituting a kind of avant-garde phase in which the excitement generated by technological novelty plays a key role in attracting audiences. Much like early cinema found its mass appeal as a technological wonder in vaudeville houses, theaters, circuses, as part of live shows, and only later in nickelodeons and dedicated movie theaters, various festivals have included AI technology as their centerpiece, perhaps as a way to spark media attention and boost attendance. Case in point, the 2023 Festival Internacional de Cine de Guanajuato in Mexico billed itself as the first film festival in Latin America featuring AI as its thematic focus and as a technology to be implemented throughout the event. According to the organizers,

These new technologies promise to revolutionize the way

in which we work, live and even how we think. Reflecting our *avant-garde spirit*, AI will be used in every area of the festival: publicity, events, accreditations, etc.<sup>7</sup> (my emphasis)

True to this assertion, the festival's official poster and its central promotional image was created by an artificial intelligence program under the guidance of local graphic artist Analí Jaramillo, who entered the prompts and modified the AI-produced sketch. As a metaphor of this hybrid process, the poster features a face with both human and machine characteristics, a cyborg. The piece therefore gestures toward the human-artificial collaboration that the festival projects as the future of cinematography, not just in Mexico, but globally. The Guanajuato festival has, since its inception in 1998, promoted young innovative filmmakers and fostered what they consider to be avant-garde cinema practices. It is therefore not surprising that festival organizers adopted a hitech theme at the cutting-edge of cinematic trends. But, echoing now familiar concerns, critics and detractors have accused the organizers of displacing human artists and ushering the eventual demise of human filmmakers.

It is illustrative to see how the very AI created products and their aesthetic betray very human fears about replacement – sometimes unintendedly. Despite the festival's techno-utopian framing of AI's revolutionary potential, the uncanny poster undoubtedly triggers an unsettling sensation (Figure 1). The facial profile of a human-android hybrid reveals electrical circuitry under a layer of organic skin. The anthropomorphic cyborg is reminiscent of Jules, Sophia, and other AI robots built by Hansen Robotics, a Hong Kong-based corporation specializing in intelligent machines. With their life-like skin, conversational capabilities and accurate mimicry of facial expressions, these androids which seem "almost" human are representative of Freud's unheimlich, undeniably and frighteningly Other. Within the poster's aesthetic, one can also trace a history of cinematic AI gone-awry, as the image cites several filmic precursors. Among them, this cyborg's general appearance recalls the maschinenmensch from Fritz Lang's 1927 Metropolis, or Star Trek's Borg collective and their will to subsume all biological lifeforms ("Prepare to be assimilated. Resistance is futile").8 In the festival's poster, the cyborg's red eye, and its red "ear," double also as camera lenses, suggesting also surveillance and control – perhaps evoking drones, video cameras, and other monitoring devices deployed at the U.S./Mexico border, or even referencing the authoritarian militaristic past that has gripped the region on and off throughout the 20th and 21st centuries. These cameras also imitate the unblinking "eye" of the fictional HAL 9000 unit (manufactured here in Urbana, Illinois) from Stanley Kubrick's 2001: A Space Odyssey (1968), suggesting AI as potentially invasive, malevolent, and not entirely well-meaning toward its human creators.9



**Figure 1.** Poster for the *Festival Internacional de Cine de Guanajuato* (Mexico 2023). Design by Analí Jaramillo with AI assistance.

This is not the only festival in Latin America making overtures toward AI. The 2023 Festival Internacional de Cine de Cartagena de Indias (FICCI) in Colombia similarly focused on the theme of AI and, as in the Guanajuato festival, organizers sought to explore not only the technology's promise but also its putative threat to humanity. The FICCI festival team likewise designed their poster with AI assistance and received criticism from the press, artists groups and the public, for not relying on Colombian artists to create the event's promotional materials. 10 Organizers defended their use of AI on the basis of expanding the limits of what is possible within Latin American cinema today, in the spirit of experimentalism and the avant-garde. Nonetheless, the displacement of human artists by AI fueled a kind of automation anxiety that has long been present in the region and is now rekindled by this technology's menace to creative work. Festival organizers might have missed the implications of how using AI to design the promotional materials exemplified their own festival's theme. Said theme centered on "cyber feudalism" (a correlate term to cyber capitalism), that is, the festival sought to promote films that exposed and opposed forms of domination based on technological development and the accumulation of digital power on the hands of the elite – precisely the concerns AI tools raise among artists and filmmakers; interestingly, the theme serves as a (faint) echo of the struggle against imperialism and neocolonialism that characterized the New Latin American Cinema of the 1960s, casting AI by analogy as either a tool of cyber-oppression or a chance at cyber-liberation. Regardless of the controversy surrounding the promotional materials, the festival still tackled issues about labor and AI that concern not only Latin America, but the world at-large. Instead of focusing solely on the darker implications of the technology, the festival maintained a balance between techno-utopianism and its pessimistic dystopian counterpart. To that end, the festival's director, Lina Rodríguez, underscored that the selected movies explored "the advantages and potential disadvantages that this technology has contributed to contemporary life." <sup>11</sup>

Whether in the mainstream film industry or within amateur and independent circles, AI is being used for much more than creating promotional materials, including for the making of the films and videos themselves. This, as we have seen in the recent screenwriters and actors' strikes in the U.S. film industry, is an increasingly thorny issue. As of September 2023, U.S. writers obtained considerable concessions from the industry regarding retaining their rights versus AI penetration into filmmaking, including requiring "studios and production companies to disclose to writers if any material given to them has been generated by AI partially or in full," and determining that "AI cannot be a credited writer. AI cannot write or rewrite 'literary material.' AI-generated writing cannot be source material." No doubt writers, actors and filmmakers alike will seek similar protections in Latin America, given that these issues are of paramount concern in that region as well.

One aspect of AI filmmaking in the region that I already gestured toward is, precisely, how creators must often seek both funding and technological cooperation globally. Some AI filmmaking, therefore, falls under a transnational category, involving collaborations among various Spanish-speaking nations and filmmakers. This continues to destabilize the notion of a strictly national or even a Latin American specificity, especially within a diverse set of countries with vastly different conditions. For instance, the Festival de Cine de Málaga, held in March 2023 in Spain, featured a section titled Hack MAFIZ Málaga that was dedicated to experimenting with AI. But the emphasis was not exclusively placed on AI generated films, instead this event was human-centered and fostered collaborative work by transnational teams of filmmakers making movies with various degrees of AI assistance. 13 Hack MAFIZ Málaga received 1,700 international entries for proposed short works that incorporated AI in assorted ways. The best entries were workshopped during the festival, from script to final product. Several multi-national teams of filmmakers created AI-assisted shorts across multiple genres. These transnational collaborations are also reminiscent of the early days of filmmaking, as European technicians introduced the cinema to the Americas, and Latin Americans went to Europe to learn the craft, in order to eventually produce their own national films. Similarly, these AI film projects included various transatlantic efforts between Latin American and Spanish filmmakers, with participants hailing from Peru, Argentina, Colombia, Mexico, Chile, Costa Rica, Spain, and other countries

from the region. <sup>14</sup> The festival rules required these films to be at most two-minutes in length, and the filmmakers relied on AI technology in some capacity, to develop the concept and aesthetics of their works. The script needed to be generated using tools such as ChatGPT and the audiovisual elements also had to be composed using image processing AI tools such as the image generator Midjourney. It is quite useful to consider some of the specific elements of the films themselves, beyond their festival framework, in order to think through formal aspects, thematic concerns, as well as details of their production and distribution – as I do in the next section.

### Latin American AI Film: The (Very) Early Works

There is no denying the involvement of corporations and software manufacturers in supporting, encouraging and funding these projects, which also recalls the patterns of neocolonialism and dependency that characterized the early spread of cinematography in the region at the outset of the 20th century. Despite these constraints, AI developers manage to inscribe elements of critique within the films – a hopeful sign for this medium. Indeed, many of these first-generation AI movies could be described as independent, amateur, or even unpolished, but they are also, at times, conceptually daring. Let us examine some of the short works featured in the Málaga festival. One filmmaker from Argentina, Lautaro Kiel, worked with Candelaria Solomita (Argentina), Chris Molina (Mexico), and Javi Martín (Spain) to develop a trailer for a future feature film that, if made, will be titled No nos moverán (We Shall Not be Moved). The filmmakers generated the script entirely with ChatGPT and used the image software Midjourney for the trailer's flyer design. 15 As required by the festival rules, AI subject matter formed an integral part of the plot. The narrative centers on a young photographer's search for his long absent father, tracing an immigration journey from Argentina to Spain.<sup>16</sup> The theme of the film also reflects a recurrent gesture toward older media found in many early AI films, in this case a wink to the age of indexical photography. In the story, the protagonist uses AI technology to alter an old photograph of his father as a young man – whom he ages to his projected appearance – to facilitate finding him in present-day Spain. The film therefore draws on the theme of AI to investigate well established topics within Latin American cinema, issues related to migration, exile, and diaspora. Indirectly, the film conveys contemporary concerns about deep fakes, the alteration of photographic records and the ontology of the image and its vanished indexicality. While the narrative perhaps too uncritically presupposes AI as a benevolent tool useful for restoring family ties and reconstituting the past, Kiel also identifies the built-in mechanism of human obsolescence that lies within the evolving capabilities of AI-generated cinema, declaring in an interview that, "in a sense, these developments could

end up replacing many of the creative and human elements of filmmaking."17

Not all AI-centered films represent human anxieties about being replaced by artificial intelligence, others manifest a recurrent posthuman fantasy by considering the benefits of uniting organic and inorganic life forms, blurring the boundaries that separate living and non-living matter. Among these, an amusing entry at the Málaga festival was framed precisely along the theme of fusing biological life with AI. AI Love You (2023) was created by a team comprised of Luis Lambert (Venezuela), Katya Zevallos (Peru), Sofía Nieto (Argentina) and Alex Ygoa (Spain).<sup>18</sup> The subject for this comedic sci-fi short is the liminal love between a zombie and an AI. Both AI and zombies represent entities that problematize how we might define the human, transgressing the limit between life and death, consciousness and its absence. The film returns again to the thematic obsession with sentience, by coupling two beings that may or may not be self-aware. The zombie, like AI technology, displays certain similarities with humans but arguably both the undead and AI lack a real inner life (Figure 2). The script was written with the help of ChatGPT and the DALL-E 2 tool was used to render some of the film's images. Nevertheless, most of the process still entailed standard (non-AI assisted) filmmaking, including using real actors (not animations), and relying mostly on non-CGI, artisanal special effects.<sup>19</sup>



Figure 2. Screen capture for AI Love You (2023), AI-assisted short film.

Despite its minimal recourse to the latest AI technology the work's charming lo-fi aesthetic is a throwback to old videogames, and the spirit of the piece exemplifies a DIY, amateur ethos characteristic of first-generation AI assisted filmmaking in Latin America. For these works any engagement with AI signifies a radical departure, a first step into the unknown. AI Love You also al-

ludes to recent developments in gaming AI, by which the technology can read the emotional state of players and adjust the game environment accordingly, real-time, although this process also involves the collection of game metrics, player data and biometrics, raising troubling issues about human data mining and privacy violations.<sup>20</sup>

Still from the same festival, it is worth mentioning another fledgling project entitled Autorretrato creado con AI (Inteligencia Artificial) Halli 10000 (Self-Portrait Created with AI; 2023) by Costa Rican filmmaker Allan Merayo.<sup>21</sup> Shot with a cell phone, this micro movie included some basic AI-generated images within a paired down narrative. The piece was presented in "vertical format," that is, oriented vertically for viewing on a cell phone screen with a 9:16 frame. The vertical format can be easily uploaded to platforms that use the same aspect ratio, such as TikTok and Instagram, facilitating a free and rapid distribution, and bypassing the industry gatekeepers that might otherwise reject the project based on its quality, content or political posture.<sup>22</sup> Proving that deep knowledge of programming is unnecessary for these DIY first gen works, Merayo relied on an easy-to-use free online AI tool (drawanyone.ai) to modify several of his selfie photographs. The AI applied a sci-fi filter to the photos according to instructions from Merayo's prompts. The filmmaker then edited and incorporated the images produced by the AI into his final movie. The end product exemplified the decidedly home-made, DIY appearance characteristic of these first-generation AI films. The possibility to use simple AI applications that require no coding skills (known as "no-code AI") makes it feasible for filmmakers without high tech training or programming skills to incorporate artificial intelligence into their moviemaking, accelerating the expansion of AI cinema in the region. This is particularly beneficial to amateur and independent filmmakers in the Global South, who may not have access to more advanced training or tools, as their counterparts in wealthier nations do. However, they do have access to examples and models to follow as these are shared online. Again, the pattern is similar to the spread of early cinema throughout the region during the silent period. That precursor to AI showed that, despite imperialist and neocolonialist pressures, foreign models were not slavishly followed, rather Latin American filmmakers were "active constructors of their own representations [... so that ...] the question is not whether Latin American filmmakers adopt and adapt global as well as local models and practices, but how they do so and for what purposes."23

Merayo's one-minute short is paired down to a schematic narrative, one easily shared in platforms such as TikTok that rely on brief forms. In the video the filmmaker is framed in the lower section of a split screen; he is wearing a gamer's helmet, an improvised prop that also recalls hazmat and/or space suits – an aesthetic fitting for our era of pandemics, environmental apocalypse and deep-space exploration. Thus, the film motions toward the new conditions of

our existence in a sociohistorical period of great upheaval, a moment in time that these artists are trying to capture with AI technologies (Figure 3). At the start of the video Merayo prompts a fictional AI named "Halli 10000" (a wink to cinematic history and Kubrick's HAL 9000) to select from among several hundred AI generated selfie-style portraits of the filmmaker the one that best captures his essence. These selfie AI portraits are generated from uploaded photographs, which are altered, placed against various backdrops, and provided with multiple artistic effects and distortions.<sup>24</sup>

It soon becomes evident that the focus of this very short film is its preoccupation with the filmmaker's own self-image and his online self-projection. As the video plays out, the AI generated portraits appear in the upper portion of the divided screen in rapid succession until one is (perhaps randomly) selected. The piece suggests that we are entering a new stage in photographic self-portraiture, no less narcissistic than previous obsessions with the selfie, but now approaching a posthuman dimension in which the AI is imbricated in the filmmaker's process of self-representation and even identity formation. The focus on the face, however, is just one more stage in a long history of such representations in visual media, harking back at least to Jean Epstein's concept of photogénie as exemplified by films like Carl Theodor Dreyer's The Passion of Joan of Arc (1928), whose power resided in close-up shots of the lead actress' face. Today, there are many AI programs that transform selfies and headshots into various styled avatars, often for the purpose of integrating such images with social media. This suggests that our obsession with the face, and more specifically, our own face, is not new but rather found in a long aesthetic tradition that includes sculpture, paintings, photographs, and films.

Merayo ends his short by asking the AI to write a text that will then constitute the audio portion of his entry to the film festival, so that, in a meta-fictional turn, the video we are watching is the very same one produced by the fictional AI.<sup>25</sup> While at first glance there may not seem to be a direct focus on Costa Rican concerns, a certain national ethos pervades the video. In addition to the filmmaker's accent and diction, there are expressions such as his use of "pura vida" (literally, pure life), which encapsulate a national attitude of being laid back, stress free, ecologically-minded, all qualities that would seem to directly oppose the spread of AI technology and its acceleration of economic processes. This contradiction brings to the fore the link between globalization and AI, as new technologies and industries take advantage of the Central American isthmus' relatively open and unprotected markets – through the existence of so-called Free Trade Zones which often have looser environmental and labor regulations. But the Costa Rican connection also comes through on the aesthetic front of the video, as colorful and rapidly shifting portraits also recall aspects of the Latin American neo-baroque, such as the hybrid mixing of media, the cultural syncretism between high and lo-fi aesthetics, as well as a

tendency to reappropriate foreign models and the promiscuous mix of popular and high art.



Figure 3. Screen capture for Autorretrato creado con AI (Inteligencia Artificial) Halli 10000 (2023), AI-assisted short film.

These are just some examples from the initial phase of AI cinema, with works that are still charmingly amateurish but highly imaginative, and which are mainly being shown at festivals or showcased online. These are also seminal steps being taken by Latin American filmmakers and videomakers in the realm of AI-generated cinema. This, once more, recalls the early efforts of primitive cinema in the early twentieth century, as it sought to define itself as a medium uncertain of its status as art and experimenting to develop new visual codes. As we have seen, through these foundational works filmmakers are also prompting artificial intelligence to explore philosophical questions about its own capacity for consciousness, the hybridization of humans with machines, or the very pro-

cess of identity formation in the age of AI. These concerns and experimental efforts might be driving toward developing a type of AI also called artificial general intelligence or AGI. AGI is a variant of AI designed to match or surpass human intelligence, with a potential to go well beyond the mere following of instructions, perhaps eventually to develop a capacity for accessing emotions such as love or hate. This still distant possibility leads to the conjecture that such technology might give rise to the anticipated AI singularity (as AI merges with, or perhaps replaces, organic life). While these disturbing hypotheticals remain presently unresolvable, they profoundly influence the thematic content of these early works, as well as their aesthetic and stylistic choices. Once again, the parallel here is with the origins of cinema, dual moments ushering in a new perception of the world, a new way of experiencing time, space, and self. This also encompasses the utopian or dystopian visions that these novel media give rise to.

# Is AI Cinema Achieving "Escape Velocity" (Yet)? Human versus AI-centric Cinema

Innovative by virtue of their newness (but not necessarily transgressive and even potentially regressive), AI-assisted projects, such as the ones I described above, are often controversial because they raise questions about a range of perturbing issues of particular interest to Latin American creators, although not necessarily exclusive to the region. These issues include the status of authorship and authenticity, the rightful ownership of original material scraped by AI from databases and online sources, the potential loss of jobs in the arts and intellectual sectors, concerns about AI's amplifying systematic bias in representation, or the threat to meaning-making as the purview of human intelligence; that is, the challenge to the belief that storytelling is precisely what makes us human, the ability to generate narratives serving as another kind of Turing test that relies on our belief about human's superior capacity for creativity. Voices of alarm are cautioning against the dangers of AI for the arts and humanities, but also demanding that the arts and humanities take a critical stance to examine AI generated work. Rather than delivering on the promise of seamless efficiency and fairness they purport, AI technologies will, according to Kris Paulsen and others sounding this warning, merely reproduce the biases and worst instincts of their human designers, so that ultimately AI will "exacerbate the structural inequalities for vulnerable populations while masquerading as objective and rational."26 Yarden Katz has made similar arguments in his critical AI study Artificial Whiteness: Politics and Ideology in Artificial Intelligence and Dan McQuillan argues along similar lines in Resisting AI: An Anti-fascist Approach to Artificial Intelligence.<sup>27</sup> From this standpoint those biases and inequalities will disproportionately impact Latin American nations

on the periphery of the networks of power and wealth that control and profit from emerging technologies. That means that, although some of my concerns in this essay transcend the local and regional—raising broad questions about the technology itself and its uses, its capacity to evolve, its threat or promise to humanity that are necessary to understand its global effects—other aspects have a definite and profound material impact on Latin America as a region. Issues such as inequality, displacement, and migration complicate the task of the critic when appraising the changes brought by AI to the cinema and other sectors. These transformations can reflect the competing interests of the Global North and South, the wealthy power centers, and the peripheries. The AI tide will not lift all boats equally and may, in fact, sink some of them.

It is certain that—as I have been pointing out throughout the essay—some of these debates are a reprise of what was once argued with regard to older technologies, photography, for example, or the cinema itself. These now enshrined technologies were once considered as methods of mechanical reproduction that eliminated the human-based techniques found in painting, displacing artists with mere technicians, stripping art's "aura"—observations that have arguably lost their force over time, even if we allow for the existence of the aura. Not all is doom and gloom, then. The collaborative effort between human and machine seems promising to many filmmakers, and as Mazzone and Elgammal optimistically sustain, "the very best outcome we can imagine is a fruitful partnership between an artist and a creative AI system." <sup>28</sup>

But there is a significant difference once human agency itself is partly or entirely eliminated from the process of image selection and creation, and the artistic process is limited to issuing textual or verbal prompts, or even image-based ones, to a machine. While examining these concerns in greater depth goes beyond my scope in this article (but it is, as noted above, a point of departure, or invitation to think more about these ontological questions), I acknowledge that AI needs to be adopted with ethical guardrails in place, rather than merely released to the world without care, as seems to be happening today. These concerns go well beyond the question of cinematic AI, to the technology's adoption in every sphere of life. The pitfalls of the technology are many, rendering nightmarish visions of massive job dislocations, of military uses of AI, of the threat posed by deep-fake technologies, or the increasing surveillance and biometrics invasions to our privacy already mentioned. In places with long histories of human rights abuse, dictatorial regimes, economic inequality and class oppression, including most Latin American nations, the potential for AI to aggravate the divide between the powerful and the dispossessed, the wealthy and the impoverished, increases wantonly, and could reinforce existing mechanisms that concentrate political control in the hands of a few technocratic elites. In the hands of repressive governments, the capacity to use AI-driven biometrics to control and monitor the population could lead to

unimaginable horrors – one need only consider what the Dirty War brought to the region without the magnifying capacity of AI.

As I have been suggesting, the most extreme scenario, broadly speculated upon by the sci-fi genre, is the moment when the exponentially growing brain-like AI architectures develop something approximating consciousness. Admittedly, this scenario remains unrealized, but is perhaps not as distant or inconceivable as it once seemed. For AI ethics researcher Susan Schneider, "as science fiction-like as the topic sounds, it is crucial to take it seriously," since there may be "existential or catastrophic risks linked with the development of synthetic consciousness."29 Returning to AI applications for the film industry, we must wonder how using AI will change the types of narratives, plots, characters or even temporalities of films. Speaking specifically about creating AI characters that adopt human identity traits and model human behavior, Pataranutaporn, Danry et al. caution that "our inevitable future with AI-generated characters will require us to rethink the fundamentals of human identity, its formation, its safeguarding and its role in society."30 AI and AI-generated culture must be critically appraised from a variety of disciplines to gauge both its beneficial and deleterious effects, including the ethics and morality of the technology's artistic applications. As AI might exacerbate existing inequalities in Latin America, and radically alter the region's cinematic practices, Latin American film scholars should train a critical lens on algorithm-driven cinema as it is an inevitability. By not addressing the rise of AI cinema, Latin American film criticism risks missing the ways in which artificial intelligence is already altering and influencing filmmakers across the globe, including Latin America – and in consequence might neglect the legitimate and pressing ethical and philosophical concerns about the dangers posed by the technology to the cultural field at large.

### AI Cinema is Here: Combining Human and Machine Creativity

But what is the reality of AI generated cinema now? While manipulating still images is a simpler task, processing short film and video fragments is becoming also quite feasible with AI technologies designed for that exact purpose. This includes tools that allow amateur cineastes to experiment with AI cinema with relative ease. Meta's Make-A-Video is one such easy to use tool, to mention one example among many. With a text prompt and some input parameters, its AI can generate a minimally acceptable very short work on virtually any subject, placing a rudimentary kind of AI videomaking, as well as amateur, DIY and independent filmmaking, virtually within anyone's reach. Of course, it must be understood that a fully AI-generated feature-length film that can pose a real challenge to human-centered cinema is not yet within reach of filmmakers. However, given the acceleration of the technology, it

could become a reality soon. That is to say, the case in which an entire feature-length movie is generated based on just some minimal prompts—without the need for post-production—by a user or filmmaker is imminent, regardless of its aesthetic value. As I outlined earlier, what is possible presently is the use of AI to assist in filmmaking, or facilitate the transfer of text, images and videos, into partial AI cinematic experiments. These are works that are aided by AI to various degrees but still require considerable human participation (editing, filming, acting, etc.). AI-assisted film experiments are compelling not because of what they currently represent in terms of their aesthetic or narrative value, but on account of the possibilities and pitfalls they suggest for AI cinema in coming years.

The endpoint of these efforts would seem to be the moment when AI cinema (requiring little or no human input) is indistinguishable from cinema made by human filmmakers. Thus, the ultimate Turing test of whether AI art has been generated successfully is "whether human beings appreciate it as art and do not necessarily recognize it as AI-derived."31 This end goal raises the immediate question about the choice humanity might be already facing: one between machine-centric versus human-centric AI filmmaking. As Priya Chetan Parikh provocatively asks: "are we looking forward to the creation of artistic products born out of a total replication of human cognition and consciousness or the advancement of AI as tools that support and propel human creativity?" 32 If the aim is the latter (human-centric), then the hope is that the collaboration between human and AI might trigger a leap forward in human creativity, and a qualitative improvement in cinema, so that AI becomes an augmentation for filmmakers, rather than their eventual replacement and perhaps even the obsolescence of human-created art altogether. Or, worse yet, the creation of a kind of art that is endlessly specular, self-referential to absurdity, devoid of any human relatability.

Cautiously taking the optimistic view that AI might develop in a way that still promotes and prioritizes human potential, we might consider the human to machine interactions that propel these collaborative cinematic works as a beneficial augmentation of human skills and values with new technological enhancements, resulting in an analog and digital hybrid that surpasses barriers and injects a new vigor into an old, partially exhausted form. This would facilitate a cinematic art that combines the best of both human and machine creativity. Following on this outlook, AI cinema could also potentially enhance interactivity and immersion in film.<sup>33</sup> Likewise, AI might be used to seamlessly incorporate other forms of media into films to enhance the spectators' sense of being present, drawing on augmented and virtual reality, theater and performance, even generating 3D spaces and objects that can be physically traversed (there is already a variant of virtual reality cinema that could be enhanced through AI). Such AI films might not necessarily be finished products

but could also be in a state of flux or becoming, subject to continuous alterations by viewer preferences, thereby reconceptualizing what we think of as a "movie." Rather than a fixed work that needs to be viewed chronologically, this AI-driven cinema—on-demand, chose-your-own outcome—could entail, for example, an ongoing webseries tailored to each individual viewer and would respond to the user's personal experiences and desires real-time. While many might consider this shift toward a user-driven cinema the end of the cinematic art itself (a threat to the autonomous work, as it were), others might consider it an opening of this medium toward new creative potential, as it becomes immersed in the very fabric of lived experience.

Generated by an AI with access to one's social media, browsing history and other personal data, this interactive and immersive alternate reality environment could mimic the outside world almost perfectly, suggesting the potential for both an all-expansive space of creativity, or a dystopian *Matrix*-like scenario. As I have been suggesting, rather than considering AI as a mere tool with certain limited applications, it is more expansive to think of this technology, as Mazzone and Elgammal argue, as an emerging medium – a proposition that does raise some immediate questions about what we understand as "medium." According to these critics, "the word medium in the art world indicates far more than a tool, a medium includes not only the tools used (brush, oil paint, turpentine, canvas, etc.) but also the range of possibilities and limitations inherent to the conditions of creation in that area of art." <sup>34</sup> The possibilities offered by the medium of AI cinema seem almost limitless; some of them are quite terrifying, but also exhilarating. Various recent projects from Latin America begin to hint at these possibilities.

## Work(s) in Progress: Latin American AI Projects, Prototypes and Prospects

In what follows, I will briefly comment on just a handful of additional attempts at creating AI films, including incomplete cinematic projects, ideas still under development, and even software design initiatives associated with Latin American filmmakers and nations. These efforts, however, transcend the narrow confines of nation and geography. In addition, several endeavors to advance AI cinema are starting to yield initial results that are still unsatisfying in terms of visual and narrative quality, but they point towards an inevitable evolution of cinematic AI, leading to increased feasibility, aesthetic value, and creative potential. Many of these imaginative projects signal a re-conceptualizing of sci-fi and fantasy genres, and in many cases they also entail imitating a particular filmmaker's vision in an extension of fan culture practices. This applies, for instance, to U.S. artist Johnny Darrell's use of the AI Midjourney to reimagine the 1982 sci-fi classic *Tron* through the lens of Chilean filmmaker

Alejandro Jodorowsky's cinematic style, creating a set of stills that stunningly combine both of those influences (Figure 4).<sup>36</sup> The images in this Latin America-inspired endeavor represent a hybrid amalgam of two distinct styles and also emerge as something entirely new, AI-generated. Interestingly, many of the images are also thematically associated with the figure of the cyborg, the amalgamated human-machine identity I have discussed in relation to other AI-generated works. This project also returns to a kind of retro-video game aesthetic already present in the original *Tron* film and ubiquitous in several of the Latin American AI creations I mentioned earlier as well. Of course, this is a prime example of how the hybrid nature of AI projects bring together a U.S. creator, a Latin American filmmaker (or rather, his style), and various elements borrowed from global pop culture, so that regional and national characteristics are either hybridized or homogenized, depending on one's perspective. This hybridity, however, also points to the power of invention and newness, as well as to the danger of unauthorized appropriation (Jodorowsky has never granted permission for this work). The emphasis offered in this project, and quite possibly AI's best contribution to the cinema, lies in exploring worlds and artworks that never existed (impossible juxtapositions, stylistic hybrids, works performed in the style of long-gone artists, collage films randomly assembled from the video detritus of the Internet, artistic assemblies of neo-baroque art), but which are nonetheless possible and can now be materialized through supercomputing. This juxtaposition of impossible worlds is in many ways representative of the hybrid nature of Latin American art, which I will now return to.

In a transatlantic effort, Colombian filmmaker Jorge Caballero and his Gusano Films production company partnered with Barcelona's Pompeu Fabra University to develop visual arts and interactive media projects that employ or consider AI in some capacity. Among these projects, Caballero and a fellow documentary filmmaker, the Spaniard Anna Giralt Gris, are creating a web series called Artificio (2020-).<sup>37</sup> The stated purpose of this documentary-style web series is to showcase the potential offered by the power of AI across various art forms, including in the cinema. The series itself uses AI tools to generate some of its script and its voice over, as well as including AI generated graphics and documenting examples of AI applications seen throughout the arts. This project is still under development, and to date only a trailer has been released, functioning like other AI-related content in the region as "seed" or proof-of-concept for future work. Its creators, Caballero and Giralt, have expanded the web series concept to a broader project also called Artificio, which now includes organizing workshops and applied research on various ways to incorporate AI in film and other creative arts. Artificio, a clever reference to "art," "artifice," "artificial," and so on, was released with the stated intent to democratize access to AI and to provide information about AI in Latin America



**Figure 4.** Still image from artist Johnny Darrell's reinterpretation of *Tron* through AI (*Jodorowsky's Tron*).

and Spain, but also to guard against some of the dangers posed by this rapidly progressing technology.<sup>38</sup> The ambiguity displayed by Caballero and Giralt in terms of what artists should do with AI technology, how they may apply it and to what end, is illustrative of various other efforts throughout the region, which are still in their initial phase. As artists learn to use AI and decide how to best apply the technology, Latin American AI cinema will rise to the next level, provided those filmmakers are not absorbed into the film industries of other Western nations through the brain drain mechanisms that have consistently plagued the Global South.<sup>39</sup> This again raises the question of origin, since content is not necessarily uniquely focused on regional questions, and filmmakers are not tethered to national identity or countries of origin, and the global markets for these AI cinema products are equally disseminated and unmoored. The critic is left wondering, what is "Latin American" about the nascent AI cinema form, and by extension, what is the implication—for our geographically and language-centered discipline—of the arrival of art forms that evade these territorial categories?

To mention one final example illustrative of the potentially groundbreaking nature of artificial intelligence research and development in the audiovisual creative space, as well as its transnational dimension (its challenge to local, national and regional affiliations), I highlight a team composed of two Chilean software designer-artists (Cristóbal Valenzuela Barrera and Alejandro Matamala Ortiz) and their Greek computer scientist colleague (Anastasis Ger-

manidis). Through their jointly owned New York-based company, they created RunwayML, a software machine learning platform and video editing tool that also enlists AI to animate and generate video. This powerful tool is leading to the next generation of AI-assisted films and videos, allowing for the creation of remarkable special effects with the use of a single prompt. In the RunwayML website the creators of the software claim that their program can "turn any image, video clip or text prompt into a compelling piece of film."40 While this and other video-generation tools are still in a development phase and not yet widely available for all filmmakers to use, or when available, can require a steep learning curve, they are gradually being adopted even by amateurs. Increasingly, videos are appearing in YouTube, Vimeo, Instagram, and other social media platforms that are modified with AI to varying degrees. The line separating computing specialists and artists is being further eroded. For instance, the question of whether Valenzuela and Matamala are strictly entrepreneurs and software designers, or artist-filmmakers, further complicates the issue of AI. They have created a filmmaking tool and platform, made possible the making of AI videos (including making their own), and organized AI film festivals, rendering divisions between these various disciplinary boundaries somewhat moot. Along with the work of the critic and the question of nation, AI has further eroded the notion of discipline and occupation.

While the work of these Chilean software designers (and perhaps also artists) could be identified as an obvious case of brain drain (they left Chile and opened a firm in New York), this factor is somewhat mitigated by their expressed desire to reinvest in their country of origin and promote AI development in the Latin American region more broadly. To that end, they have been on several speaking engagements throughout Latin America and Spain to promote RunwayML, both from a self-interested standpoint of increasing their own business outreach and revenue, but arguably to also make the tool available beyond the USA and Europe, to encourage the development of AI filmmakers from the Global South. Without a perspective from the region, by local filmmakers, the narratives represented by this emerging medium will trend toward a homogeneous sameness dictated by the wealthier nations. Moreover, this Chilean-led company has sponsored the so-called First AI Film Festival, taking place in New York from February through March 2023, to encourage international amateur filmmakers looking to incorporate AI in their work. descriptions and perhaps also and perhaps also are described by the sentence of the perhaps and perhaps also are described by the sentence of the perhaps also are described by the sentence of the perhaps also are described by the sentence of the perhaps also are described by the sentence of the perhaps also are described by the sentence of the perhaps also are described by the sentence of the perhaps and perhaps also are described by the sentence of the perhaps also are described by the perhaps are described by the perhaps also are described by the perhaps are described by the p

### Parting Thoughts: When the Machines Take Over ("Open the Pod Bay Doors, HAL")

The implications of a self-generating cinema are far reaching, and if a HAL 9000 "open the pod bay doors" scenario in which the AI take over the film industry as a whole seems unlikely, other disquieting possibilities loom larger.

These concerns are often framed not just in terms of human labor displacement, but also in relation to the disappearing role of the artist and filmmaker, or about the homogenization of cinematic production as all AI consciousness converges toward a single perspective. Some adverse effects of adopting intelligent technologies to make films are already present in Latin America and Spain. For example, the case of labor displacement, where voice actors who dub foreign films into Spanish are being replaced by AI algorithms that supposedly do the same work, but cheaply – and less accurately. The algorithms have been, paradoxically but predictably, trained by processing the very human voices they are replacing, so that humans are preparing AI to render human intellectual work obsolete. This is akin to the concept of "ghost workers," developed by Mary L. Gray and Siddharth Suri in Ghost Work: How to Stop Silicon Valley from Building a New Global Underclass. These low earning tech workers, based mostly in the Global South, are uninsured, underpaid, overworked, and perform the menial coding tasks and high-tech piecework that underpins the AI revolution. Moreover, as Paulsen also observes, these workers are employed by technology companies to refine their automated processes and AI tools, and ultimately render their own labor obsolete.<sup>43</sup>

Adding a further aspect of neocolonial exploitation that recalls decades of foreign investment and extraction of resources in the continent, most of the companies doing the AI dubbing are not Latin American or even from Spanish-speaking countries; instead, they are scattered globally.<sup>44</sup> The anticipated bonanza of the brave new world that is emerging around AI and its wondrous possibilities is simultaneously dampened by a lack of foresight regarding the imminent dangers such unrestrained capabilities can bring to humanity, especially to nations vulnerable to exploitation across the region. Critics need to weigh the real effects of this technology, considering all positions between a facile techno utopianism that only fathoms opportunities and, on the other end of the spectrum, a more pessimistic outlook that reflects solely on a vision of unemployment, growing inequality and AI-generated global oppression. Perhaps the application of this technology to cinema will fall somewhere between these extremes. Regardless, AI presents us with an imperative to address these issues now, before it is too late.

Similarly, the emergence of AI cinema has raised questions about the ethics of human-computer collaborations in filmmaking, and the films themselves have begun to reflect these pressing concerns. Borders, media, and bodies have become gradually more porous, as the Hispanophone world becomes increasingly more diffuse as a region, including not only Latin America, Spain and other Spanish-speaking nations, but also diasporic communities that identify with the region throughout the globe. The shifting nature and location of AI work and workers further globalize our understanding of what it means to be a Latin American AI creator. They challenge the role of the cultural critic as well,

whether facilitating new insights into the process of artistic creation, eliciting resistance toward the algorithms themselves and their underlying biases, or, ultimately, assimilating or being assimilated by the very tools being critiqued. The changes that transnationalism and AI practices will bring to cinematic culture in the future are equally unpredictable but in a best-case scenario could foment innovative and thought-provoking forms of cinema for the foreseeable future, or, perhaps, just until the machines take over.

#### NOTES

- <sup>1</sup> Antonio Garrastazu and Beatriz de Anta, "The AI Revolution Is Coming for Latin America. Is It Ready?," *Americas Quarterly*, August 3, 2023, https://www.americasquarterly.org/article/the-ai-revolution-is-coming-for-latin-america-is-it-ready/
- <sup>2</sup> Richard Brody, "Technologies That Changed the Art of Cinema," *The New Yorker*, July 24, 2018, https://www.newyorker.com/culture/culture-desk/technologies-that-changed-the-art-of-cinema
- <sup>3</sup> Most avant-gardes are often accompanied by manifestoes, provocative declarations, new media (or new uses for old media), radical formal experiments, and, occasionally, revolutionary politics. The filmmakers of the Culture DAO Collective constitute one example of this avant-garde gesture of formal rupture within AI cinema. This collective issued their provocative "AI23" manifesto as a shot across the bow of the mainstream film industry. The group is a "decentralized autonomous organization" (DAO), a leaderless collective loosely organized through their online presence and comprised of independent filmmakers, videogame designers, AI engineers, animators and video artists from throughout the globe. Made public via Twitter, the Culture DAO Collective's manifesto calls for the creation of an entirely AI generated cinema that will use prompts rather than cameras and, they argue, free filmmakers from the tyranny of commercial cinema, thereby shaking the industry to its core. Whether they will deliver on their promise of remaking the film industry remains to be seen, but their manifesto encapsulates the energy and excitement generated by the possibilities of AI to alter the way films are made, distributed and experienced. See: The Culture DAO, "AI23," Tweet, June 16, 2023, https://twitter.com/theculturedao/status/1669752247495065600?cxt=HHwWgIDU7dC0k6wuAAAA
- <sup>4</sup> Kirsty Trim and Sulamaan Rahim, *Government AI Readiness Index 2022*, eds. Kirsty Trim and Sulamaan Rahim (Oxford Insights, 2022), 19, static1.square-space.com/static/58b2e92c1e5b6c828058484e/t/639b495cc6b59c620c3ec-de5/1671121299433/Government\_AI\_Readiness\_2022\_FV.pdf
- <sup>5</sup>Trim and Rahim, Government AI Readiness, 21.
- <sup>6</sup> Ana M. López, "Early Cinema and Modernity in Latin America," *Cinema Journal* 40, no. 1, (Autumn 2000): 48-78; 48.
- <sup>7</sup> All translations mine unless noted otherwise. "Estas nuevas tecnologías prometen revolucionar la forma en la que trabajamos, vivimos e incluso cómo pensamos. Fieles a nuestro espíritu de vanguardia, la IA será utilizada en todas las áreas del Festival; editorial, eventos, acreditaciones, conferencias, etc.;" Cinthia Salvador, "Festival de Cine de Guanajuato presentó su nueva imagen inspirada en la Inteligencia Artificial," *infobae*, March 29, 2023. https://www.infobae.com/mexico/2023/03/29/festival-de-cine-de-guanajuato-presento-su-nueva-imagen-inspirada-en-la-inteligencia-artificial/

- <sup>8</sup>Worth mentioning what was most likely the first film about mechanical robots, *Gugusse and the Automaton* (*Gugusse et l'Automate*, 1897) by Georges Méliès, a work that is sadly lost.
- <sup>9</sup> 2001: A Space Odyssey, directed by Stanley Kubrick, performances by Keir Dullea and Gary Lockwood, Metro-Goldwyn-Mayer, 1968.
- <sup>10</sup> Laura Patricia González, "El FICCI 2023: territorio digital e inteligencia artificial," *Catarsis*, February 23, 2023, universidadean.edu.co/estudiantes/catarsis/el-ficci-2023-territorio-digital-e-inteligencia-artificial
- <sup>11</sup> "las ventajas y potenciales desventajas que la tecnología ha aportado a la vida contemporánea;" González, "El FICCI 2023."
- <sup>12</sup> Jake Coyle, "In Hollywood writers' battle against AI, humans win for now," *Napa Valley Register*, September 30, 2023, https://napavalleyregister.com/life-entertainment/nation-world/movies-tv/ai-hollywood-strike-wga-artificial-intelligence-jobs/article\_8320edca-f3ca-5dc9-8f50-412fee3cde29.html
- <sup>13</sup> This is one of several such "hackathons" that have taken place recently in conjunction with or separate from film festivals, to promote AI experiments in film including the MIT Filmmaking Hackathon (February 2023) and the University of Nebras-ka-Lincoln's AI+Creative Filmmaking Design Hackathon (April 2023).
- <sup>14</sup> Victor Zapata "Argentinos reciben premio por la creación de cortos con inteligencia artificial," *BeInCrypto*, March 28, 2023. es.beincrypto.com/argentinos-reciben-premio-creacion-cortos-inteligencia-artificial/
- <sup>15</sup> "Ganadores del Hack Málaga presentaron sus proyectos audiovisuales," *PRODU* (*Television Industry Publication*), March 16, 2023, www.produ.com/noticias/ganadores-del-hack-malaga-presentaron-sus-proyectos-audiovisuales
- <sup>16</sup> The trailer for Kiel's film can be viewed in YouTube at: https://www.youtube.com/watch?v=EhpGZIEAQO0
- <sup>17</sup> "de alguna manera, esos desarrollos podrían reemplazar muchos de los procesos creativos y humanos de las películas;" Rodrigo Álvarez, "Un festival de cine premió a realizadores argentinos que crearon cortos con inteligencia artificial," *TN (Todo Noticias)*, March 27, 2023, tn.com.ar/tecno/novedades/2023/03/27/un-festival-de-cine-premio-a-realizadores-argentinos-que-crearon-cortos-con-inteligencia-artificial/
- <sup>18</sup> AI Love You is not to be confused with Shôgo Miyaki's 2016 feature film by an almost identical name (A.I. Love You), a romantic comedy that explores a similar concept and was shot entirely with a cell phone. The film we are concerned with is

AI Love You, directed by Luis Lambert, Katya Zevallos, Sofía Nieto, and Alex Ygoa, HACK MAFIZ, 2023, www.youtube.com/watch?v=L3AyOWtzoyE

- <sup>20</sup> Christopher Pedersen, Julian Togelius and Georgios Yannakakis, "Modeling Player Experience for Content Creation," *IEEE Transactions on Computational Intelligence and AI in Games* 2, no. 1 (April 2010): 54 67.
- <sup>21</sup> Autorretrato creado con AI (Inteligencia Artificial) Halli 10000, directed by Allan Merayo, HACK MAFIZ, 2023, www.youtube.com/watch?v=CtYWXGwUDyY
- <sup>22</sup> For more on the emerging phenomenon of cell phone cinema see: Eduardo Ledesma, "Cell Phone Cinema: Latin American Horror Flicks in the Post-Digital Age," *Revista de Estudios Hispánicos* 53 no. 3 (2019): 821-854, Project MUSE, doi:10.1353/rvs.2019.0068
- <sup>23</sup> Paul A. Schroeder Rodríguez, "Latin American Silent Cinema Triangulation and the Politics of Criollo Aesthetics," *Latin American Research Review* 43, no. 3 (2008): 33-58; 36.
- <sup>24</sup> AI image processing technology raises concerns for some critics about its potential uses for facial recognition and surveillance. For others, it sounds alarms about the propensity for AI tools to render images as more "Caucasian" looking, demonstrating the bias of its creators, and more broadly, the danger of applying supposedly "universal" technologies and coding without adapting them to regional, national and local specificity.
- <sup>25</sup> The video can be viewed at https://www.youtube.com/watch?v=CtYWXGwUDyY
- <sup>26</sup> Kris Paulsen, Kris, "Shitty Automation: Art, Artificial Intelligence, Humans in the Loop," *Media-N: The Journal of the New Media Caucus* 16, no. 1 (Spring 2020), 4-23; 10.
- <sup>27</sup> For more on the subject see Yarden Katz, Artificial Whiteness: Politics and Ideology in Artificial Intelligence (Columbia UP, 2020) and Dan McQuillan, Resisting AI: An Anti-fascist Approach to Artificial Intelligence (Bristol UP, 2022).
- <sup>28</sup> Marian Mazzone and Ahmed Elgammal, "Art, Creativity, and the Potential of Artificial Intelligence," *Arts* 8, no. 1, 2019, www.mdpi.com/2076-0752/8/1/26; 6.
- <sup>29</sup> Susan Schneider, "How to Catch an AI Zombie: Testing for Consciousness in Machines," in *Ethics of Artificial Intelligence*, ed. S. Matthew Liao (Oxford UP, 2020): 439-58; 455.
- 30 Pat Pataranutaporn, Valdemar Danry, Joanne Leong et al. "AI-generated Characters

<sup>19 &</sup>quot;Ganadores del Hack Málaga."

for Supporting Personalized Learning and Well-being," *Natural Machine Intelligence* 3, no. 12, (December 2021): 1013–1022, https://doi.org/10.1038/s42256-021-00417-9; 1020.

- <sup>31</sup> Mazzone and Elgammal, 5.
- <sup>32</sup> Priya Chetan Parikh, *AI Film Aesthetics: A Construction of a New Media Identity for AI Films*, MA Thesis (Chapman University Digital Commons, https://doi.org/10.36837/chapman.000118; 28.
- <sup>33</sup> This interactive AI cinema might include the recruitment of chatbots embedded within cinematic narratives to elicit viewer participation, perhaps offering options to alter or modify the ending of relatively open works, a cinematic development that may not be to everyone's taste.
- <sup>34</sup> Mazzone and Elgammal, 8.
- <sup>35</sup> One such project currently being developed in Finland is an AI tool called Cine-AI, designed to generate cinematographic scenes specific for video game narratives, using characters, scenarios, and parameters extracted from the games themselves.
- <sup>36</sup> These images are currently available at the following website: www.djfood.org/fantasy-jodorowsky-tron-visualisations-by-johnny-darrell/. In addition, in November 2022 the still images were assembled by Darell into a kind of fragmented "film" (entitled *Jodorowsky's Tron AI*) with an electronic music overlay, which can be seen in the following site: www.youtube.com/watch?v=N3Yfv4kedD8; *Tron*, directed by Steven Lisberger, performances by Jeff Bridges, Bruce Boxleitner, David Warner and Cindy Morgan, Buena Vista, 1982.
- <sup>37</sup> Artificio, webseries, directed by Jorge Caballero and Anna Giralt Gris, Gusano Films and Cuiba Media Inc., (in production).
- <sup>38</sup> Jorge Caballero and Anna Giralt Gris, *Artificio* (webpage), 2021, https://artificio.gusano.org/en/home/
- <sup>39</sup> As Caballero and Giralt state on the webpage for the *Artificio* project at artificio. gusano.org/en/home/#.
- 40 RunwayML (website), 2023, runwayml.com/
- <sup>41</sup>Francisco Kemeny, "El triunfo de RunwayML," *LinkedIn* post, February 14, 2023, www.linkedin.com/pulse/el-triunfo-de-runwayml-francisco-kemeny/?trk=pulse-article&originalSubdomain=es
- $^{42}$ The first fully AI generated film festival, held in NYC in March 2023, can be accessed at: aiff.runwayml.com/

<sup>43</sup> Mary L. Gray and Siddharth Suri, *Ghost Work: How to Stop Silicon Valley from Building a New Global Underclass* (Harper, 2019); 9.

<sup>44</sup> Lucía Cholakian and Facundo Iglesia, "Voice Actors are Training the AI that Will Replace Them," *Rest of World*, February 2023, restofworld.org/2023/ai-voice-acting/. As Hito Steyerl has observed, ghost work, in addition to exploiting labor, also has negative effects for the environment: "In the case of machine learning, the infrastructure consists of massive, energy-hungry, top-down cloud architectures, based on cheap click labor performed by people in conflict regions, or refugees and migrants in metropolitan centers. Users are being integrated into a gigantic system of extraction and exploitation, which creates a massive carbon footprint;" Hito Steyerl, "Mean Images," *New Left Review* 140/141 (March 2023): 82-97; 97.