



Art with a Life of its Own: Questioning Mimesis in Media Art Prototypes

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Abstract

This paper is a theoretical discussion about new media art prototypes that use interactive components such as programmed microcontrollers, which respond to the presence of viewers in a host of dynamic ways. The media art prototype is examined in relation to the Western philosophical concept of mimesis, or the convincing imitation of aspects of life, with the aim of understanding the overall aesthetic and cultural implications of media works of art that appear to possess life or agency of their own. Media art is shown to reinvigorate the ancient concept of mimesis in important politico-cultural capacities: by revealing that works of art can be endowed with the illusion of agency, contemporary new media artists also suggest that such powers of agency and possibility for change extend to other aspects of the lived world. The former modernist/postmodernist critique of mimesis as rote naturalism or hegemonic cultural coding thus modulates itself. The suggestion of mimetic animism in new media art prototypes proffers invention and manufacture as a potential space of reconciliation between mechanized materiality, systems of production, and organic life.

Keywords

Mimesis, microcontrollers, prototypes, interactive, agency, autonomy, code, programming, hardware, physical computing

Introduction

The notion of mimesis in art, or the convincing imitation of nature through various systems of artificial representation, is an ancient concept in the tradition of Western aesthetics. Yet its venerability as a contested aesthetic concept discussed by Plato, Aristotle, and myriad other writers in the Western canon, has not precluded its continued relevance in a modern and even postmodern context. The debate over mimesis remained central to the avant-garde critique of art history in the first half of the 20th century, in which a concerted break with the ideological goal of naturalism or verisimilitude manifested in one regard through the guise of pure abstraction. In postmodern theory, mimesis has taken on fresh valences in relation to issues of simulation, virtuality, hegemony and appropriation, among other topics.

I argue that this profoundly historical genealogy of mimesis can currently be reconsidered once again in light of the contemporary proliferation of new media art prototypes,

particularly those that feature a digital interactivity based on coded microcontrollers equipped with reactive components such as sensors, which respond to the movement of the viewer in a manner that suggests the illusion of life or sentience on the part of the artwork. How can this impression that the interactive new media artwork has autonomy, animism, agency, or a life of its own, be compared with the traditional and pre-digital aesthetic value of mimesis, or the skillful imitation of given aspects of reality? Does the new media art prototyping process correspond in some significant manner to the preliminary drawing, the painterly study, and the masterpiece in its pursuit of the perfection of a persuasive imitation of life? More fundamentally, what does the frequent showcasing of life-like qualities for contemporary new media artworks mean in terms of critical aesthetics, in which art encompasses the ability to comment upon and potentially shape cultural horizons?

Ultimately I conclude that new media art prototypes using interactive components like coded microcontrollers radically alter the ancient and ongoing dialogues about mimesis in Western art, and that this commentary implies an important critical statement about contemporary culture as a space of politico-cultural possibility and not just mechanistic. Media art prototypes employ programmed circuit boards that vastly transform and enhance the representational illusion permitted by traditional fine art mediums such as painting and sculpture. Rather than resembling life in the form of a convincing representation or image, media art prototypes enact a paradoxically automated sentience through programmed hardware. This suggestion of animism on the part of the artwork projects an aesthetic statement of increased agency in general: on the part of the maker, the viewer and the artistic object alike. Such a scenario of suggested shared agency is, I argue, a platform for an optimistic, though not necessarily utopian, position of possibility in human-to-human and human-to-object relations.

Old Mimesis and New Media

Although interactive media artworks actively engage the aesthetic concept of mimesis through their extensive play with registers of illusion and imitation, they also fundamentally recalibrate mimesis. Whereas traditional art mimesis

was based upon the sign operations of the icon, which communicated through visual resemblance, new media mimesis is activated through the language of code. Programmed code, as a set of encrypted instructions that communicate and translate messages between human and machine, has nothing to do with resemblance and association based on likeness, to be sure. Inter-textual reference systems such as citation and allusion are also minimized or excluded altogether in programming. [1] The increasing prevalence of artworks based on programmed code in current new media art production therefore suggests another crucial break or refusal (out of many former historical breaks) with past legacies of imagistic mimesis in art production, but also importantly points to the fact that such interactive art prototypes must be 'read' in new ways by viewers who are conscious of the difference between programmed code and the cultural encoding inherent in the mimetic work of art. Rather than mediating between reality and virtuality in a mimetic and semi-transparent fashion as the resemblant image does, coded digital art interacts with the physical world through concealed formulas and algorithms; preconfigured directives engineered by an artist-programmer; and scenarios of code communicating directly with code. Even while a contemporary interactive art prototype may engage with the registers of both iconic mimesis and cultural encoding, it will also always contain a third coded-register: that of programmed code, generally inaccessible to the viewer and not legible for 'reading.'

Nevertheless, the issue of artistically-rendered, visual verisimilitude is still central to a discussion of digital art prototypes in an overarching manner, as is the communicative nature of the work of art as a coded signifier. Such a change in the dynamics of communication between artwork, artist and viewer inevitably shifts the viewer's reception of mimeticism and the ramifications of this aesthetic endeavor in important ways that merit analysis. In a broad sense my aim is to take stock of what could be perceived as a significant shift in aesthetics in the 21st century from a focus on mimesis as a form of resemblance or depiction – or an avoidance of mimesis altogether through various avant-garde strategies such as abstraction, the readymade, time-based arts, language versus image and others – toward a re-invigorated potential for *imitatio* that has more to do with activating a kind of artificial life and/or an artificial consciousness into art through the application of sensors, digitally-programmed robotics and other physical computing components. Rather than allowing for a convincing *depiction* of life per se, as the veristic image might be said to achieve, interactive digital art permits a *fabrication* of animate simulation that can itself actively manipulate the surface of the physical world to some degree, with suggestions of autonomy, agency and even certain kinds of independent purpose – even while such autonomy/agency may only be illusory and a result of pre-programmed directions.

This activation of artificial life, the crafted appearance of a work of art that possesses some form of 'sentience', exceeds the mimetic capabilities of the iconic image even in light of the more relational art historical interpretations of the icon as having 'presencing' and 'presenting' capabilities that link it physically and semantically to the body of its original 'physical' example: the actual model that is imitated, represented or copied by an artist. [2] Due to the kinetic, responsive and operational character of interactive art prototypes in a new media context, the mimesis of life there – although most often not based on imagistic resemblance – potentially allows for a more literal, immediate and deceptive expression of mimesis or life-like representation than do other forms of representation.

My interest as regards interactive digital art lies primarily in the domain of the concrete and the physical, the three-dimensional and perhaps at times the sculptural, and slides toward the rubric of the thing or the object or the construction and therefore away from the mirage-like capabilities of the ever-ghostly and eidetic *picture*. In particular, these reflections concern the developing trend in a new type of prototyping in contemporary art over the last decade, with an emphasis on materiality as a kind of *hardware* vehicle that supports coding rather than unequivocal objecthood as such (understood to be complete in itself), and the way in which this peculiar version of materiality corresponds to and/or diverges from the legacy of the visually resembling likeness (and previous art historical rejections of such optical mimeticism) in the Western art tradition. At the same time, it seems pertinent to mention at the outset that this is not merely a question of image versus thing and therefore also a query about different tiers of resembling iconicity and materiality – nor is it even a matter of the familiar aesthetic binary of ideal and real. Rather than investigating the physical and conceptual differences between images and things as such, I am more interested in distinguishing between the systems of communication, meaning and information exchange that are embodied by images and also by 'encoded hardware'. For it seems that the fundamental contrast that is novel in current culture is not so much a question of the typological 'order' or ontology of things and representations themselves as it is the mode of rhetoric and signification that defines the status of their iteration in society. The preference in contemporary new media art prototypes for the animate illusion of artificial awareness or life (rather than mimetic representation through iconic images) is a result of augmented technological capabilities and is also part of a larger shift in postmodern art in the substratum of presuppositions about the way art should represent us to ourselves. [3]

Prototyping and Physical Computing in Art

The cultural development that concerns this discussion is the recent spread of physical computing and digital prototyping practices in fine art production over the last decade, which

have pioneered a new sophistication in the area of interactive aesthetics. ‘Physical computing’ refers to the construction of physical digital tools that interact through hardware and software with the analog world in a manner that is more readily understandable by non-technicians, and that can be used in a comfortable and practical manner by the animate form of the human body. [4] The term ‘physical computing’ was coined in 1992 by Dan O’Sullivan, Associate Professor of Communications and Director of Research at New York University’s Interactive Telecommunications Program, as part of the Tisch School of the Arts – a department that was founded in 1979 as one of the first graduate education programs in alternative digital media. According to Tom Igoe, O’Sullivan’s close collaborator and co-author of the 2004 book, *Physical Computing: Sensing and Controlling the Physical World with Computers*, the phrase ‘physical computing’ may have been recently coined, but such attempts to create user-friendly interfaces between engineered entities and humans is by no means new. In particular, he cites E.A.T, the Experiments in Art and Technology Program out of Bell Labs, Myron Kruger, Max Matthews, Heddy Lammarr, and George Antheil as 20th century precursors to the current understanding of ‘physical computing’, although he also suggests ties to such efforts in previous centuries. [5]

The exercise of physical computing and the consideration of body-technology interactions often results in functional prototypes. By ‘prototyping’ I refer to the process of constructing experimental, preliminary models that are self-consciously understood by their makers to be incomplete and require periods of testing, manipulation and possible revision. Prototypes are ‘early’ or ‘primitive’ versions of various kinds of operative entities that gesture toward future iterations based upon information learned from the testing process, although in current art practices most prototypes are rarely meant to reach an endpoint of perfection or finality. They embrace an aesthetic of the rudimentary and the developmental.

I refer in particular to the recognizable increase in art-making of various kinds based on ‘smart’ open-source digital hardware, available for free or at a low cost on the internet or in certain stores and hacker spaces. A key development of note in this regard is the debut of the Arduino microcontroller by an international team of designers in Ivrea, Italy in 2005, to which Alicia M. Gibb devoted an Art History thesis in 2010 at the Pratt Institute. [6] Responding to a practical need for affordable, easy-to-use microcontrollers to serve as learning and teaching tools in schools, the Arduino design team pioneered a remarkable series of unique prototyping platforms that facilitate a host of new applications made by a diverse body of users. At the same time that practical considerations were at the fore of this design impetus, however, the Arduino collaborators fostered an ideological orientation in their prototyping process from the beginning, remaining committed to values of pedagogical information sharing, the goal of technological progress and an open-source copyright model. Users are encouraged to hack,

‘prosume’ and modify Arduinos at will in order to make clone microcontrollers that will support the needs of their unique projects, and the product source code and instruction manuals are made available to the public under open-source terms.

One example of this phenomenon is a prototype by the German collective VR/Urban (Christian Zöllner, Patrick Tobias Fischer, Thilo Hoffmann and Sebastian Piatza), the *SMSlingshot* (2009), which was included in the “Talk to Me” art and design exhibition at The Museum of Modern Art in New York from summer to fall of 2011. Employing a hacked Arduino board, a high frequency radio, a display screen, a laser, a wooden keypad, a wood sling-shot support and batteries, *SMSlingshot* aims to arm the passive viewer of urban media with a remediated weapon of intervention and participation. [7] Users enter text messages into the keypad which are then fired off by the responsive mechanism of the slingshot and virtually propelled onto surfaces in a cascade of dripping, luminous color, with the help of a projector and a laptop featuring a custom software interface. As part of their commitment to the “visual activism” of “reclaiming screens” that have been imposed upon urban dwellers in public spaces, VR/Urban’s prototype becomes a tool based on the graffiti tradition of empowering individuals through the practice of tagging and ‘bombing’ (graffiti slang for applying graffiti to an unauthorized surface). [8]

The physical computing platform of the slingshot, with its featured Arduino, provides a medium through which the viewer/user can negotiate and manipulate the interface between the real and the virtual, thus rendering the slingshot itself a hybrid entity as well as that of its activation as a physical object with a digital interface. The object then absorbs something of the diaphanous and mirage-like qualities of the image, while the digital interface exhibits an increased sensitivity and emphatic responsiveness to the physical world. It is the Arduino microcontroller that allows this amphibian navigation of two kinds of spaces, for its flat screen of connections is the ground and support for coded communication between programmer, computer, device and user.

As a digital tool, the *SMSlingshot* already subverts any totalizing comparison with the aesthetic register of mimesis, although certainly there is a simulacral quality to its utility as a virtual ‘slingshot’ of programmed data bits, as mentioned above. As an imitation of a tool/weapon that hurls tangible objects, *SMSlingshot* is in some regards a mimetic representation in that it adopts the resemblant form of a slingshot even though this form is not vital to its digital operations. On one level then, *SMSlingshot* does function as an image, given this mimicry of an actual tool as well as its ability to converse in an intermedial fashion with a rich host of historical and cultural associations (biblical narratives, the history of graffiti, other popular culture references and so on). Yet, as an interactive art prototype produced in a new media context, *SMSlingshot* also takes this mimesis to an-

other register as an encoded device that enacts its functionality digitally through programmed directives that are not readily apparent.

However, not all contemporary art prototypes submit themselves to ‘use’ per se, nor is their virtuality the most common prerequisite for connections with the venerable language of mimesis. Take for example the 2011 work, *Tape Recorders, Subsculpture 12-14* by Rafael Lozano-Hemmer, who has pioneered the growth of interactive digital art in a variety of internet and 3-D approaches for nearly two decades. Like the *SMSlingshot*, Lozano-Hemmer’s *Tape Recorders, Subsculpture 12-14* uses an embedded microcontroller and several other devices to permit programmed correspondence between the living and the artificial, and yet *Tape Recorders* emphasizes the artwork’s illusory appearance of lifelike agency even while it is still reliant on the viewer to activate its sensors (as well as its programmer to write its code and its engineer to build its components). On each wall of an otherwise empty gallery, twenty-some metal-encased measuring tapes are bolted securely into place on an even horizontal plane. When viewers enter the installation and move through the room, the measuring tapes automatically respond by successively emerging from their casing, projecting upwards steadily until they at last extend the full three meters—the tape itself ultimately collapsing onto the gallery floor with the weight of its length.

Eventually the tapes retreat entirely, with only a few yellow inches protruding, poised for the next interaction with the viewer. Witnessing this ‘defeat’ of the work of art that seemingly seeks to act of its own will and ‘size up’ the onlooker through its calculating measurement apparatus, the viewer can appreciate their own experience of ambulation as a subtle form of escape from the rampant work of art. Rounding the corner to another anteroom, the viewer then apprehends another kind of ‘secretion’ by the pseudo-sentient tape measures. A computerized tracking system surveying the movement and amount of time that visitors remain in the installation prints a long receipt of ‘time spent’ for the sum of viewers each hour.

The step away from iconic mimesis and toward the illusion of consciousness as another kind of mimesis (dependent in the new media context upon programming) that I argue is encapsulated by digital interactive works like the one described above by Lozano-Hemmer, concerns both their status as prototypes as well as their computing identity. The work of art in this capacity is both ‘becoming’ rather than ‘resolved’, and ‘responding’ rather than ‘resembling’. As an art prototype that employs physical computing aspects, Lozano-Hemmer’s *Tape Recorders, Subsculpture 12-14* achieves definite functionality as an operating system, but at the same time presents itself as an evolving and open-ended platform in two ways. First, it creates variation in its outcomes, even while it repeats a pattern of action, through the randomness of the effect of gravity forces and the comings and goings of mobile spectators. Second, its mechanical

system, which was made by a collaborative team of programmers and designers who assisted Lozano-Hemmer, is constructed with diverse elements such as cameras, computers, tracking systems, motorized measuring tapes and customized software and hardware (including microcontrollers), which possess potential for probable future adjustment, improvement and modulation (a few different versions of the prototype have already appeared). But more impactful perhaps than this developmental model for the work of art that responds to variable surroundings and must endure mechanical ‘tune-ups’ of sorts by a team of collaborators, Lozano-Hemmer’s work appears to be ‘open-ended’ and ‘evolving’ through its engagement with a powerfully convincing order of mimetic illusion which gives the viewer the false impression that the work of art is to some degree ‘alive’ and ‘aware’.

This robotic and interactive form of mimesis, made possible by programmed code and digital technology, is radically different from the ‘aping’ of reality inherent in most past iterations of iconic mimesis, which were more limited in their attempt to breathe the semblance of ‘life’ into the work of art. Yet, both kinds of mimesis are also inherently linked. As Lozano-Hemmer himself said in a 2005 interview:

Today digital art, – actually all art – has awareness. This has always been true, but we have now become aware of art’s awareness. Pieces listen to us, they see us, they sense our presence and wait for us to inspire them, and not the other way around (...). Pieces of art are in a constant state of becoming. It’s not that they ‘are’ but that they are ‘changing into’. I think the artist no longer has a monopoly over their work, or an exhaustive or total position over its interpretation or representation. Today, it is a more common idea – an idea that I defend – that the work itself has a life. [9]

Whereas art of the past encompassed the “aura” that Walter Benjamin ascribed to the singularity of the tangible work of art as expressed through the hand and mind of an individual maker in a unique material and temporal context, the data-laden mechanical matrix of contemporary interactive art entails the convincing illusion of art’s ‘awareness’, which supposedly reacts to the transient life and somatic idiosyncrasies of the artist and viewer. *Tape Recorders, Subsculpture 12-14* aggressively disrupts the act of spectatorship through a reflected surveillance of the viewer and an unruly attempt at contact with the living through the action of programmed microcontrollers and sensors. According to Lozano-Hemmer this amounts to a conceptual ‘freedom’ of the work of art from the intentional burden of its maker and toward a semblance of autonomy that defines its own place in the present moment – and yet the work remains ‘dependent’ on the artist as maker/programmer and the viewer as mobile ‘activator’. This ‘inter-activity’ creates a complex circulation of different kinds of ‘code’ between artist, work and viewer: the operational programmed source code and the cultural coding. The ongoing drive toward ‘awareness’ in works of

art, which Lozano-Hemmer characterizes as a continuum between different platforms of mimesis, therefore becomes more open-ended in this complex system, allowing for the viewer and artist to ‘depend’ on the work of art in some limited capacities, upsetting hierarchies of agency.

The Aesthetic Implications of Art Prototyping

Can the kind of prototyping executed by Lozano-Hemmer and his team in *Tape Recorders, Subsculpture 12-14* be compared to earlier examples of prototyping in a modern art context? Although I argue that digital prototyping using physical computing in contemporary art is related to industrial prototyping methods that were often adapted into modernist art from the 19th and 20th centuries, it is important that their numerous divergences are also made clear. As anthropologist Susanne Küchler has shown, the Western canon of modernist art is permeated with homages to the industrial prototype and meditations on its subtle differences from more venerable modes of experimentation, perfection and reproduction in a studio or workshop context, such as artists’ proofs, moulds, multiples and studies. Centering on the shared drive toward what I would distinguish as iconic or representational mimesis, Western art practices before the modernist period relied on various methods and stages of preparatory work in advance of the complete and perfect über-example, the masterpiece.

Pedagogical structures such as apprenticeships, workshops and later academies supported a culture of models to be repetitively imitated and multiple studies to be completed in advance of the finished work, as well as an archive of canonical images that were deemed worthy of the role of recognized iconic signifiers to be incorporated and cited across generations. Entrenched within this society of mimesis was the ever-present tension between the original and the copy, of course, as well as the drawn (*disegno*) and the physically fabricated, the material and the immaterial. [10] The constant struggle in art practice to adeptly translate the fluid mental concept or idea into a less-pliant rendered image or manipulated material, and even more crucially – to morph the real into some form of the ideal – was painstakingly articulated in the permutational and developmental compulsion of the preparatory model schema.

I concur with Küchler that the upsurge of the industrial prototype in modern art coincides with the avant-garde critique of mimetic representation in the wake of a dawning information society, and that the broad shift away from preparatory model to prototyping in late 19th and early 20th century art production is indicative of such historical shifts and the attendant impact upon aesthetics and taste. The avant-garde revolution and its upset of academic hierarchies permitted the privileging of strategies that were favorable to the trial-and-error operations of the prototype: process, incompleteness, experimentation, an ethos of design and utility in art, the ascent of the conceptual over the mimetic, the aestheticization of the machinic and industrial, the

acquisition of non-art skills, and collaborative authorship, among other impulses. However, it is arguable that for the most part modernism primarily embraced the *aesthetic* of industrial prototyping through methods such as serialization, multiplication, objectification through the readymade and the embrace of duration and diagrammatics, rather than adopting actual *prototyping methods* that were widely in use for practical, utilitarian and investigative ends in the industrial realm. The examples that Küchler discusses by Degas, Kandinsky, Le Corbusier and Duchamp therefore approach the prototype more metaphorically than literally: they embrace their ambiguous status as stages in a process of becoming; they are moments in a larger series; or more specifically (as in the case of Duchamp) they are pseudo-utilitarian commodities that need to be ‘tested’ by the viewer-consumer.

It seems rather that the experiments in avant-garde art that merged more fully with design and engineering practices fall closer to the spectrum of procedural prototyping as such, with early kinetic works by Bauhaus practitioners such as Moholy-Nagy playing a crucial initial role, as well as constructivist sculptures by Naum Gabo and Antoine Pevsner. Later efforts in kinetic and machinic art by Len Lye, Jean Tinguely and Alexander Calder, among others, also contribute to this lineage of art prototyping as a method of instilling an interactivity into three-dimensional art that went beyond the engagement of the senses and conceptual activation in the mind – and toward the kinetic, operational, the reactive and the animate. That all art itself is inherently technological seems more apparent from the standpoint of today’s intensely mediated world, but the question of the artist as a designer is still tenuous in dialogues about aesthetics. This legacy of art that engages directly with engineering is not limited to modernism and postmodernism, of course, as the persona of Leonardo da Vinci must constantly remind us, but nevertheless is a branch of aesthetics that has been overshadowed in historicization and institutionalization for most of art history’s existence as a liberal arts discipline. The contemporary obsession with technology and the recent digital revolution, however, have rendered any ideological separation of aesthetics (be it in production or in critical consideration) from the language of engineering nearly impossible, and so art production can again now sway toward this well-established and well-founded tendency of art as *techne*.

Yet, there are inescapable differences between the digital age and the mechanical or industrial ages that must be illuminated to some cursory degree at least, if the gap that exists between industrial prototyping practices and digital prototyping is to be understood in relationship to contemporary art. Without reverting to the contested argument regarding the possibility of a ‘third’ industrial revolution – that of the digital, it is clear that computing proposes elaborate variations from older models of building and making in opposition to that of the mechanical and the industrial. Unlike earlier forms of prototyping, which sought to “*tame variation*”, “*transcend chance*” and deliver a “*world made to*

measure,” digital prototyping presumes an entirely alternate outlook toward production, consumption, the nature of medium and source, and authorship. [11] An analysis of some of these differences in outlook permits further comprehension of this shift in aesthetics I have tentatively described as a move toward a distinctly encoded kind of mimesis, and from the image to hardware as a platform for artificial sentience.

Like earlier forms of prototyping, digital prototyping stems from an experimental, procedural operation that assumes a process-based approach to creation and construction. Prototypes are preliminary versions and test cases based on a repetitive activity of trial-and-error, implemented hypothesis and elimination through application and validation. But where in mechanical-industrial prototyping the tools, components and materials used to build various prototypes may vary widely and not share identical commonalities, digital prototyping is always identified at bottom by the physical computing aspect of its makeup, even if these sensors and microcontrollers are stored in markedly divergent ‘housing’. These miniature ‘brains’ of the work are not necessarily identical. Different users purchase, make (or design and pay to have fabricated), and even print myriad kinds of digital hardware components, and each unit has the potential to achieve specific ends tailored to the task at hand.

Nevertheless, at the heart of these prototypes is the determining anchor that is the circuit board, the breadboard or the microprocessor, which presents a vast array of potential applications thanks to its dynamic capabilities of interface with different hardware components. Instead of ‘taming variation’ and ‘transcending chance’, therefore, as the exacting science of mechanical prototyping sought to do, digital prototyping suggests almost infinite possibilities for construction types and functions. Measurements, reproducibility and perfection of a ‘product’ that can be made en masse are less pressing concerns for the unbounded realm of the digital prototype than is the potential for continually inventing new structures and applications.

These differences impact the ways in which prototyping applies to aesthetics in contemporary art, and also how prototyping varies from traditional aims and ends of iconographic mimesis. For all the variation possible in the appearance and output of current types of prototyping, the physical computing aspect of the digital prototype permits its reduction in an essential manner to the core device of the microcontroller or processor, which delivers the code to the rest of the hardware framework. This hidden hardware implement is the unspoken medium of the construction and the very framework for its iteration as interactive – and yet it most often has nothing to do with the final appearance of the work of art. Thus, rather than resembling life through any kind of imitation or mimetic approach through biomechanical simulations, robotic demonstration or other types of uncanny mimicry that might allow the prototype to approach the important legacy of the engineered automaton, the approximation of life in digital prototyping is achieved by a

small, two dimensional hardware system that permits a new performance of life that is not based on iconic proximity. As a radical reiteration of the image, if you will, the microcontroller does not so much imitate life as it invites the potential for life itself to adapt or respond to the device’s array of activities. In this way, digital prototyping in contemporary art could be seen as supporting a new understanding of mimesis, and that smart hardware may even upset the lasting hegemony of the mimetic icon due to the transformative kinds of knowledge and communication it promotes.

Conclusion

To what extent has the expansion of physical computing practices in art prototyping in the last decade effected significant and potentially lasting changes in the roles of artist, art object, aesthetics and audience? At minimum, it can be said that the continued development of interactive art practices has destabilized the hegemony of iconic mimeticism and its counterparts of iconoclasm and aniconicity by granting a constructed type of awareness and agency to the art object that is distinguishable from other modalities of meaning such as aura and signification. With its embrace of technology as an ongoing state of becoming, a development that evokes the durational tangent of life itself, interactive digital art unseats the formerly exclusive dominance of the artist and the spectator to some degree – although the level of autonomy of the art prototype is still debatable. Beyond the modernist claim for the autonomy of the art object through a break with mimetic representation through distortion or erasure, contemporary interactive art does not negate the doubling strategies of iconic mimesis but rather exceeds them in its performance of the characteristics of life.

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