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ASSEMBLING THE (NON)HUMAN: THE ANIMAL AS MEDIUM

JODY BERLAND

Abstract | This article revisits McLuhan's well-known phrase "the message is the medium," and it asks: What if the medium is an animal? McLuhan's understanding of his own phrase was profoundly anthropocentric, as critics have noted. But his legacy in mediation theory combined with the insights of interdisciplinary animal studies make it possible to expand the possibilities of the phrase. Media history also challenges the anthropocentric concept of the medium or the mediation process. While the use of animal as medium predates the electric media with which McLuhan was concerned, early computer devices and later mobile technologies have pursued users' engagement through didactically visible identification with/as animal spirits. Animals have become "naturalized" along with the indispensability of these devices as essential mediators of connectivity. In contemporary media arts, we see animals mediate and metaphorically stand for the vitality of mediated connectivity. Recognizing animal figures as mediators of mediation shifts the balance, the affect, and the price of what McLuhan called our "shared media situation." They are both luring enchantments into digital connectivity and anxious premediations of rising challenges to anthropocentric humanism and its destructive blind spots which continue to shape the world.

Résumé | Cet article revisite la phrase bien connue de Mc-Luhan « le message est le médium », et il demande : et si

le médium est un animal? La compréhension de McLuhan de sa propre phrase était profondément anthropocentrique, comme les critiques l'ont noté. Cependant, son héritage dans le domaine de la théorie de la médiation, combiné avec les connaissances des études interdisciplinaires sur les animaux, permet d'élargir les possibilités de la phrase. L'histoire des médias remet également en cause le concept anthropocentrique du médium ou du processus de médiation. Bien que l'utilisation de l'animal comme médium soit antérieure aux médias électriques dont parlait McLuhan, les premiers dispositifs informatiques et les technologies mobiles subséquentes ont poursuivi l'engagement des utilisateurs grâce à une identification didactiquement visible avec/comme des esprits des animaux. Les animaux sont devenus « naturalisés », parallèlement au caractère indispensable de ces dispositifs comme médiateurs essentiels de la connectivité. Dans les arts médiatiques contemporains, nous voyons les animaux faire de la médiation et métaphoriquement représenter la vitalité de la connectivité médiée. Reconnaître les figures animales comme médiateurs de la médiation modifie l'équilibre, l'effet, et le prix de ce que McLuhan appelle notre « situation médiatique partagée ». Ils entraînent à la fois un ensorcellement vers la connectivité numérique et des préméditations anxieuses des défis croissants de l'humanisme anthropocentrique et de ses angles morts destructeurs qui continuent à façonner le monde.

Assembling the (Non)Human: The Animal as Medium

In the electric age, when our central nervous system is technologically extended to involve us in the whole of mankind and to incorporate the whole of mankind in us, we necessarily participate, in depth, in the consequences of our every action. It is no longer possible to adopt the aloof and disassociated role of the literate Westerner. (Understanding Media 20)

A cyborg world might be about lived social and bodily realities in which peo ple are not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities and contradictory standpoints. The political struggle is to see from both perspectives at once because each reveals both dominations and possibilities unimaginable from the other vantage point. ("Cyborg Manifesto" 153-4)

The Medium is the Message

In a 1953 article published in the Toronto journal *Explorations*, McLuhan introduced an early version of the idea that made him famous: "the medium is the message." Critiquing his contemporaries' tendency to interpret media in terms of its content, he wrote: "This assumption blinds people to the aspect of communication as participation in a common situation. It leads to ignoring the *form* of communication as the basic art situation which is more important than the basic idea or information 'transmitted'" (Gordon 56, emphasis added). This introductory remark gives us a slightly different portal to the phrase, "the

medium is the message." McLuhan does not ask us to focus solely on electronic media as a technical assemblage that connects us or mutates our nervous systems or modifies our machinic natures; he asks us to investigate how it shapes our "participation in a common situation." Echoing what he learned from Harold Innis, he writes: "Every medium is in some sense a universal, pressing toward maximal realization. But its expressive pressures disturb existing balances and patterns in other media of culture" (Gordon 86-87). For Innis, such expressive pressures involve different technically mediated configurations of space and time, centres and margins, and their shaping of monopolies of knowledge. For McLuhan, these configurations are further delineated through technically mediated structures of embodiment and perception that we should examine from both perspectives at once: looking at the technology and looking at the technology looking at us.

A medium does not just transmit something from one party to another, or from one to many; it is part of forming a relationship or set of relationships, while sensually as well as socially shaping the subjects who participate in it. New media forms engender new relational processes. Today, when the technical and aesthetic forms of the media multiply so fast that we constantly have to compare and adjust, we may be more aware of this aspect of communication—consider how the press panics about millennials. Perhaps commentators have forgotten what the (no) future economy looks like now to that generation. In any case, there are still aspects of our shared social situation of which we remain largely unaware.

For McLuhan, "man" is the measure of meaning. Yet there is nothing in McLuhan's

argument that excludes the nonhuman animal from the definition of a medium. Consider this premise at the simplest level: if you have a dog, your relationship with neighbours and the neighbourhood is different than if you do not have a dog. You share a particular "common situation" with other people and animals and with the spaces around you when your pet mediates your relationships with them. When you meet through dogs, the dog is an essential medium of communication, as evidenced by the fact that you are more likely to know the name of the dog than that of the person on the other side of the leash. As you prowl the neighbourhood at various times of day and night, you are perhaps acting as the servo-mechanism of the four-legged creature leading you on-just as McLuhan says, in one of his more histrionic phrases, that humans act as the servo-mechanisms of the machine world. As you stop to greet other dogs and people, you become a little bit more dog-like in your awareness of your environment, although becoming-animal in this milieu does not involve the freeing of unconscious energies and instincts with which Deleuzians generally equate the phrase. Rather, we are, following Haraway ("Companion Species Manifesto") simply recognizing the reciprocity of bodies through which humans and animals become companion species.

In a different but not unrelated manner, you share a common situation with people to whom you are connected online who post cat pictures that you like to view and share. Much has been written about this activity, and the way that cats lure so many people in to the space behind the screen ("Cat and Mouse"). For example, the Facebook page "Cats Against Capitalism" offers a space to share and comment on cat pictures, metaphors, lives, and deaths as a gateway to friendly solidarity and banter in

desperate times, making comradery, cats, comedy, and politics creatively interchangeable for me and thousands of other members. Who or what is the subject here? You took the picture, the cat is the object, the screen is the subject or is it the other way around? Indeed, "When I am playing with my cat, how do I know the cat is not playing with me?" (Derrida 7). The cats mediate your relationship with the screen as much as the screen is mediating your relationship with the cats; both are mediating your connection to a community of amenable cat and human comrades who are talking or not talking about the world. There is more than one history haunting this activity, whether as tragedy or farce. Historically, cats were seen as "familiars" possessing the souls of women, and like the so-called witches they were tortured or killed by Christians for their putative carrying or mediating Satan. This mediation has taken a different form in the modern age. Pictures of animals have launched new electronic devices since moving pictures were first made in the 1890s. The first moving picture, made in 1889, featured a running horse; in 1984, both Étienne-Jules Marey and Thomas Edison made short films of cats in motion.1 Since then, the ability of animals to evoke and provoke the human compulsion to connect has been a crucial product of the growth of social media. We may have become a new form of possessed subject reproducing altered human and nonhuman animal population management strategies at a micro-level.

Rather than attend to the finely textured and often bewildering phenomenologies of these experiences here, I want to explore more closely what it means to claim that the medium is the message and can even be an animal. What does introducing animals mean for mediation theory? What does McLuhan's own medium

theory teach us about human-animal relations? What light might this discussion shed on our conventional understandings of human-animal relations and differences?

The Animal is a Medium

McLuhan's "New Media as Political Forms" appeared shortly after another article he published earlier that year on media and art; both demonstrate the emergence of his medium theory. Like Walter Benjamin, McLuhan sought a deeper connection between media as art form and media as a political process, a connection that could only be explained by reference to how our interactions with media technologies change our perceptions of space and time, our sensory experiences, and our relations with one another. McLuhan understood the "expressive pressures" of a medium in terms of its materiality, how that materiality shapes or reshapes users' sensory and haptic dimensions, and how it interacts with other media within a changing media ecology. As he elaborates in Understanding Media, each medium absorbs and extends our body and our attention in specific ways. One could apply this principle equally to clothes, cameras, cars, or cats. We live among them in a state of complex mutual mediation, not just as individuals but also as interactive participants in a "common situation" of media involvement. McLuhan used the light bulb to illustrate this point: it has no content of its own, but it extends our shared environment into the night and alters our perceptions and structures of participation. This extension of light into night creates new affordances and new challenges. Mediated in new ways, the human body no longer coincides with itself. With this understanding of the mediated human comprised of its relationships, McLuhan took a first step towards posthumanism.

Media theorist Friedrich Kittler was strongly influenced by McLuhan's ideas, but drew a sharp dividing line between them on the issue of what he perceived as McLuhan's anthropocentrism. For McLuhan, media are the "extensions of man" (Understanding Media). As Geoffrey Winthrop-Young suggests, "...this prosthetic logic has its point of origin in the human body and nervous system. From Kittler's point of view, McLuhan still subscribes to the anthropocentric delusion that man is the measure of all media, even when the latter reshape the former" (van den Oevre and Winthrop Young 235). Yet Kittler's critique of anthropocentrism does not extend to a consideration of nonhuman species. Like McLuhan, he overlooks the ways that nonhuman bodies experience the world, mediate our relationship with technology, and change our understanding of life. Kittler does not propose that if a train or light bulb can be a medium, so can a horse or a giraffe. Even Claude Shannon, author of the socalled "mother of all models" of information theory (Wikipedia contributors, "Information Theory") would have acknowledged horses as instruments of communication. Information theory studies the quantification, storage and communication of information. Horses transported people and mail for centuries before the faster, automated "horsepower" machines were invented to replace them. Just as problems with data compression could introduce "noise" into the transmission of information, a problem with weather and roads could challenge the efficiency of the pony express or the legibility of the mail. The transmission of information can arguably include and even depend upon a giraffe, or a fox, or a cat, whose relations with humans have been thoroughly mediated and multiplied by communication technologies that are in turn thoroughly mediated and changed by all the cats ("Animal and/as Medium;" "Cat

and Mouse") Are YouTube cats re-enacting or even fetishizing some pre-technological sociality within the context of changed nature-technology configurations?

We require a larger frame for this interpretive process. Animals were among the first mediators of social relations between humans. In some pre-capitalist societies, the bodies of cows or goats were exchanged between families, often for wives, while in others, kinship relations were structured by the totemic enactment of animal spirits. As food, property, companions, or tributes, animals comprise a significant part of the materiality and meaning that constitutes likeness and difference in all societies. Animals appear in all foundational religious texts and played a notable role in the transformation of polytheism to monotheism. Historically, representatives of specific species, including cats, cows, bears, foxes, and goats, have embodied and performed symbolic roles within strongly hierarchical social systems. Such symbols/bodies have been mobilized to perform and legitimate practices of human hierarchy, connection, and violence.

Animals have not just served as mediations between people; as the history of the horse reminds us, they are also mediations between people and machines. A horse and cart can no more be separated than a tribute giraffe from the ship that carried it to an emperor ("Attending the Giraffe"). Understanding animals as mediators in the interplay between these mutually reconfiguring machines and humans is different from viewing animals as content transmitted via a media technology. Surely a horse or giraffe extends our capacity for relationality or changes our "common situation" differently than a lamp does, even when it is housed in a menagerie or a zoo rather than travelling from

one place to another. Just as surely, one must take the history of the beaver into account in examining the maps of Canada or the fashions and perfumes of the 19th century. Many of our mediating materials—from writing implements to transport vehicles, clothes, scents, flavours, and even film, as Nicole Shukin has shown (2009)—have been rendered from animal bodies.

The idea of media affordances and the way they alter our shared environment takes on a particular intensity when faced with our damaged culture-nature habitus. We do not think of animals as media because we think of media as technology and animals as nature within an epistemology that still insists on separating them. So much of what we habitually consider to be "natural" is shaped, though, by interactions with human and technological activities and interventions. It is easy enough to point out the human agency that contributed to forming an animal such as a dog, or more broadly to see how plants, animals, foods, and households are shaped by human activities. Indeed, nature is always-already nature-culture; the world of nature is equally co-constituted by our culture and technology. These concepts are so porous that our understanding of nature-culture has been thoroughly complicated, especially in the last several decades.

This fraying of the boundaries of language corresponds to a process in which "nature and technology leak, spill over, blend into each other. A number of neologisms—NatureCulture (Donna Haraway), MediaNature (my own), Medianatures (Jussi Parikka), entangled ontology (Karen Barad)—have been proposed to highlight the changing relationship between these two domains, whose repercussions and implications have also long begun to inform

debates over the new knowledge formations" (Angerer 18). Humans continuously shape nature-cultures and the parameters of nonhuman life. The reverse is also the case; none of us can be human without our extensions. When I think about media as an extension of myself in personal terms, I also think about what is at the end of my hands: a pen, a musical or alphabetical keyboard, my cat's fur, my dog's nose. Without them, my hands are incomplete; I am not-me. That is to say, I am not modern. When forms of mediation change, whether from cow to coin, horse to car, bird-song to recording, live music to gramophone, painting to photograph, typewriter to computer, pet cat to Grumpy cat, we change too.

It is not just the history of animal sacrifice, displacement, or dismemberment that invites us to look at the animal as a medium. In the mid-2000s, I was researching the television weather forecast as a post-representational assemblage colonial-spatial-optical-digital-environmental materials. Given the interdependency of these lucrative institutions and the flawed accuracy of the forecast, I concluded that the television forecast was best seen as a cultural technology of risk in everyday life ("Animal and/as Medium"). Then the deluge of cat images began to flood my inbox. By 2004, the visual field of the network was morphing from a mélange of landscapes, logos, digital graphics, maps, celebrities, babies, and angels to a cacophony of cats ("Cat and Mouse" 8). Why are there so many cats on the Internet? For some critics, virtual animals compensate for the loss of our direct contact with a variety of species in the animal world. In "Why Look at Animals?" Berger writes: "What man has to do in order to transcend the animal, to transcend the mechanical within himself...is often anguish. And so, by comparison and despite the model of the

machine, the animal seems to him to enjoy a kind of innocence. The animal has been emptied of experience and secrets, and this new invented 'innocence' begins to provide in man a kind of nostalgia" (12). In Electric Animal—Toward a Rhetoric of Wildlife, Akira Lippitt reiterates Berger's claim that animal imagery circulates in electronic media as compensation for the loss of direct encounters with animals. While there is clearly some truth to this idea, it does not explain the function of such compensation in the constancy of digital animal motifs as commercial symbols of technical innovation. These images restore some of the fantasies of childhood, making new media appear to be friendly and anthropomorphically familiar to young users who are more likely to adopt new media tools.

Graham Meikle and Sherman Young argue that LOL cats are videos not only for "creative audiences" to look at but also to make and share for themselves. Making their own LOL cats bridges the gap between doing nothing and doing something." (115). To intercede between downloading and uploading some video is to engage in "participatory culture" (ibid) Indeed, McLuhan argued in Understanding Media that anyone can be an artist, or rather, that art is whatever you can get away with—a favourite sentiment of the blogosphere. Yet once again, this does not account fully for why animal imagery in particular engenders such widespread online participation. Film critic Jonathan Burt, rejecting Berger's focus on the viewing of animals as failed compensation, suggests that the image of the animal evokes and questions the relationship between visuality and life that lies at the heart of film itself. The virtual-cat phenomenon brings to the forefront a vital but perhaps previously less visible triangulation of

humans, technology, and the so-called natural world that now saturates our planet.

To dig into the logics of a technocultural object or phenomenon is to embark on an excavation of the present. It involves outlining the various material and technological trajectories that have led to this present; it also involves acknowledging what Raymond Williams called the "structure of feeling" through which people embrace these objects and processes. We need to think through these processes with Williams and McLuhan together, rather than continue to accept the critical opposition between them that once dominated cultural studies. Technology and affect come together in complicated particularities through which their pasts and presents are continuously channeled by various power dynamics, and thus extended and articulated through the trends and objects that arise. It is difficult to formulate clearly what happens when McLuhan's medium theory is bounced against concepts like "the animal." Our theoretical language, like the imagery I am describing, gives vitality and emergence to media as though they are or were animals already. As technology becomes more mobile, more responsive, more apparently autonomous, we humans, as Haraway famously put it, become increasingly inert.

When you connect to people online with people who post cat pictures that you like to view and share, you are sharing and helping to constitute a "common situation" as McLuhan put it. Much has been written about this activity, and the way that cats lure so many people in to the space behind the screen (cf. Berland, "Cat and Mouse"). This situation is formed from technological and affective ingredients which, like any sociotechnical object, meets in the act of

its constitution. Unlike many sociotechnical objects, though, its materiality is elusive.

As Werner Herzog observes in his documentary Cave of Forgotten Dreams, cave drawings over 30,000 years old already look cinematic in how they capture the fluid motion of animal bodies. The drawing of an animal in motion was the first metaphor for life and its mysteries. The association of animality, movement, and life in these apparently primitive lines evokes both human control over life and the vitality of life that is always on the brink of eluding such control. It is possible that this tension is transmitted in one way when the image is still and another when the image is moving. Modernity made images of animals in motion central to experiments and shifts in imaging technologies, evident in Eadweard Muybridge's studies on motion in the 1870s and his zoopraxiscope, the first movie projector. In short, the relationship between animality, life, motion, and mimesis extends much further back in human history than the age of electronic reproduction, but it is clear that electronic technology affects these processes, how they interact, and how artists respond.

We must ask not so much what these animals mean, but what they are doing in terms of the environments or assemblages in which they appear. "Our conventional response to all media," McLuhan writes, "namely that it is how they are used that counts, is the numb stance of the technological idiot. For the 'content' of a medium is like the juicy piece of meat carried by the burglar to distract the watchdog of the mind" (*Understanding Media* 18).

McLuhan uses this metaphor to contest his contemporaries' failure to understand electronic media in terms of their specific forms and materials, their modes of sensory mediation, their alteration of space and time, and thus the relations and perceptions of viewers. Focused on the content of a medium, we might not understand what a technology does to or with us; without the robber's meat, the watchdog might notice what the cats are up to. In any case the cats have gone elsewhere.

Like our screens, our language is full of animal metaphors. McLuhan chose the watchdog metaphor to represent how the mind works when encountering and yet not perceiving the media environment despite the fact that the media environment he is describing is an extension of the human brain. For John Durham Peters, however, the animal is not a metaphor: "Media theory concerns the different sense ratios with which mind interacts with world and the various worlds that come into being" (60). The senses that concern him are the crustaceans, and the environment that concerns him is the ocean. Taking up the insight that "the medium is the message" without abandoning the dogs, cats, squids, and horses (or the dead animal the robber carries to distract the dog) means acknowledging, as Peters has, the degree to which animals challenge and expand our understandings of mediation whether they occupy aqueous, digital, or philosophical environments.

Animals expand not only our understandings of mediation but also our spaces and platforms of mediation. For more than a century, animals have provided the first images in the cumulative unveiling of the platforms, spaces, and practices of electronic media. The animal mediates the screen while we focus on the screen animating the animal. Moving pictures were launched with horses and cats. American animation began in 1913 with the image of Gertie the Dinosaur strolling out of a cave, drawn

by Windsor McKay of Nemo fame. The graphics identifying early software products included penguins, monkeys, birds, and snakes. The first amateur video posted to YouTube was shot at the zoo; the second and third were cat videos produced by software engineer/graphic designer Steven Chen, titled Stinky the Cat, I & 2. YouTube was launched with zoos and cats; the iPhone 5 was launched with a GIF of a splashing elephant; the anti-spyware encryption technology recently used to open an iPhone 6 was first used against an animal-rights campaign in 2002. Telecommunication hardware and software, computers, and new mobile technologies have all put forth new products with stylized images of animals. In short, animal images are central whenever the new "common situations" of electronic spaces and devices appear (Berland 2014). In the governance of human populations, the more distributed we become, consciously or otherwise, the more the lines between human, machine, and animal become porous and affectively charged. Evidently the presence of virtual animals in new media shapes (or at least is perceived to shape) human users' feelings about these interactions. Commenting on McLuhan's work on the occasion of its half-centenary, Richard Grusin writes: "In the first decades of the 21st century, we find ourselves in the midst of a shift in our dominant cultural logic of mediation away from a predominantly visual, late 20th-century focus on remediation toward a more embodied affectivity of premediation generated by the mobile, socially networked media everyday of the 21st century" (56) The greatest contribution of Understanding Media, Grusin suggests, is "to turn our attention away from a primarily visual analysis of media and toward an understanding of how media operate as objects within the world, impacting both the human sensorium and the nonhuman environment alike" (56).

Animals enact and symbolize this affective turn. As Grusin and others suggest, affect is perhaps a subtler (if no less debated) concept for talking about how people are touched by media encounters than McLuhan's speculative cybernetic physiology. Locating the animal-medium connection in the context of 21st-century technology also highlights its tangible relationship with risk culture. If cats, dogs, elephants, and other animals are premediating our so-called new technologies, they are do just issue an invitation into the portal of mobile digital computing but also provide a means to actualize and reconcile contradictory responses to the risky worlds we have constructed. With nature and technology so closely intertwined, the embodied affect of being-with virtual animals can be explored with some of the same concepts that have been used to analyze the human sensorium mutating in interaction with electronic and digital technologies.

Mediating Risk

For McLuhan, "The body, in sum, is a capacity for relationality that literally requires mediation and that, in a sense, cannot be conceptualized without it" (Mitchell and Hansen xiii). The human body's reliance on technology is precisely what makes humans human. This dance of mediated becoming does not only involve technology; understanding animals as mediators between humans and our technologies is different than viewing them as content in the media milieu. This distinction allows us to talk about the representation of animals as a form of risk management. The animals are doing something-mediating-while metaphorically standing for the vitality of this activity. This double duty conveys the impression that the symbolic, the material, and the vital can coincide in the world beyond the screen

just as they do in the body of the animal. Describing this dynamic as a form of risk management playing out in the space and time of human-technology interactions is significantly different than talking about the representation of animals. It is also different from talking about how people represent the risks animals themselves face in their interactions with humans and human technologies, although these may well be connected. There is no doubt that the representation of animals is connected to the wellbeing of animals, but understanding how they are related or exploring this relationship artistically calls for a fuller and less anthropocentric theory of mediation.

If we consider risk as something that arises and is managed through processes of mediationrather than thinking about risk in terms of the "content," such as pictures of endangered animals or poisoned places—what are the implications for re-examining the human-technology mediation so central to McLuhan's concerns? Risk takes many forms, financial, and social as well as biological. The animal figures circulated by Apple, Fido, Bell, and Telus invite potential mobile phone buyers to join a tribe in which small devices are semiotically and affectively interchangeable with small animals. Everyone loads their devices with animal images, while animals themselves are increasingly linked to or followed by electronic devices. Both cell phones and cats cultivate attention that extends from our hands and arms; they are extensions of us, they extend us into something, some "common situation" that is not-us. Such connection both enhances and depletes our powers. These digital-animal hybrids emerge within a culture in which the use of technology requires ever more developed techniques and constant innovations, or what Edward Tenner calls "the performative use of technology, the

skills and know-how that go into the effective operation of devices" (4). Given the commercial and governmental contexts of control society in which such innovation occurs, it is crucial that users want to adapt to these new techniques, that they feel welcome in the changed environment in which these technologies appear, and that they respond to them as simultaneously linked in to them and free from the implication or effects of being so confined. Animals are part of a regime that stimulates our interaction with digital processing, collects data about that interaction, formulates new communicative and surveillance strategies based on that data, and shapes our perceptual and cultural capacities in ways that feel natural. Consider how children are inundated with images of happy animals that have nothing to do with habitat or struggle from the minute they can see. If we are interested in how media (in the case of McLuhan) or animals (in the case of animal studies scholars) invite us to look back at ourselves differently, what do these images tell us, truthful or otherwise, about their own condition?

The evocation of the animal-digital connection runs across the surfaces of culture: digital animals, logos, art projects, GIFs, stop-motion photography, taxidermy, cartoons. It is no longer strange to see an animal talking; the history of cartoons is based upon this premise, although we no longer really think of them as animals, if indeed viewers of allegorical or anthropomorphic animals ever did. Digital pictures of people's pets travel daily through social media while digital pets delight their "owners" with presents and remind them to stay connected to their mobile phones in case they miss one. Figures comprised of bits of animals, machines, and humans can be found everywhere from cell phones to military labs to art galleries

to political Twitter posts, from high theory to children's television. However, to learn about the realities of wildlife or animals in confinement or factory farms requires documentaries and webcams. This proliferation confirms our fascination with animate life and the pleasure and anxiety of witnessing the merging of bodies, technologies, and nonhuman species. It is not surprising that the contemporary virtual menagerie includes not only pets but also monsters, which explicitly challenge the species barrier.

In the interactive hybridity of digital space, the distinction between sculpture, genetics, animals, and technologies, as well as those between galleries and laboratories, inner and outer space, or information and intelligence, has begun to unravel under the didactic logic of emergence. The experimental relationship between life-like behaviour and system activity is often structured as metaphorical, as when computer-controlled objects are programmed to look or move like life forms such as animals or fish. The practice of modelling software design on evolutionary and biological structures goes back as far as the 1950s, so the relationship is actually not just metaphorical. Multimedia artist Luis Bec created the term "zoosystemic" to describe his art practice of "dynamic morphogenesis and digital bio-modeling" (qtd. in Wilson 346). "Cyborgian" refers to when the quasi-object is comprised of both live and inert matter; "A-life" is configured to be both autonomous and evolutionary. In such experiments, the art work comes to stand for evolution, which Thomas Ray conceives as an autonomous "creative process, which acting independently, has produced living forms of great beauty and complexity" (qtd. in Wilson 353). The search for self-organizing systems is an important part of this same history, and raises

some of the same questions. Life forms do not only evolve autonomously; the ideal of autonomous self-production has a particular salience in evolutionary biology, with its investigation of how a species sustains itself, but the fascination with this idea also speaks to the power of a neoliberal imaginary. If the agents in a particular biological process or species history include other species, humans, and technologies, that is to say if they inhabit an environment, then these life forms are inescapably and increasingly interdependent with dynamics of governmentality and power. Even if this were not the case, even if McLuhan or Foucault or Haraway or Marx have nothing to teach us, we know that life forms and species are fundamentally interdependent and that they co-evolve with others within their environments, within an ecological process, whether that ecology contains media technology or not.

McLuhan invites us to look at ourselves as changed beings from the perspective of the media through which we construct and view the world; critical animal studies scholars invite us to look at ourselves from the imagined perspectives of nonhuman animals attempting to survive as we watch, cuddle, or eat them. Thinking of the animal as a mediator and not just the content of a medium allows us to begin to answer questions about what they see, looking back, and what they are telling us. If a medium creates a "common situation" in human culture, as McLuhan put it, that is, if a medium does not "mean" things but "does" things, then a post-anthropocentric interpretation of mediation must acknowledge that human-technology relationships rely on the presence of animals in their various material and symbolic reiterations as much as they do upon their human-created technological extensions. We need to look more closely at the suppression

and exploitation of the nonhuman and how it mediates our media practices and knowledges. With their contradictory evocations of innocence, Darwinian struggle, childhood, and the liberation of repressed impulses, these mediating animal figures can be seen as a strategic means to shift the balance, the affect, and the price of what McLuhan called our shared media situation. They are also premediations of the rising challenge from nonhumans and other others to anthropocentric humanism and its destructive blind spots as it continues to shape the world.

Notes

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1 A short history of the first motion picture narrated by Kerry Decker includes a clip of moving horses: https://www.youtube.com/watch?v=dDmAxdLvdQ4. Both Étienne-Jules Marey and Thomas Edison entered the field with films of cats. Marey's film *Falling Cat* (1894) can be viewed at https://www.youtube.com/watch?v=XqL9siGDeBA. Edison's film, "Boxing Cats" (also 1894) can be viewed at https://www.youtube.com/watch?v=k52pLvVmmkU.

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