McLuhan and Posthumanism: Extending the Techno-Animal Embrace

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ABSTRACT

Background This article builds on McLuhan's medium theory to address the undertheorized role of animals as mediators in network cultures.

Analysis McLuhan's medium theory aligns with and to some extent anticipates contemporary discussion about posthumanist thought that recognizes that human perception and experience are shaped by and extended through non-human tools and connections. Both digital culture and the endangered status of the natural world now call upon us to elaborate less anthropocentric concepts of mediation to understand our interdependence with the non-human world.

Conclusion and implications Using as illustration various moments of media change, including early coins and the first cat videos, this article argues that the proliferation of animal imagery is significant not only in the affective management of digital practices and investments, but more broadly in the management of cultural and ecological risk.

Keywords McLuhan; Medium theory; Affect theory; Posthumanism; Animals

RÉSUMÉ

Contexte Cet article se fonde sur la théorie des médias de Marshall McLuhan afin de traiter du rôle sous-théorisé des animaux en tant que médiateurs dans les cultures du réseau.

Analyse La théorie des médias de McLuhan s'aligne avec—et dans une certaine mesure anticipe—les discussions contemporaines sur la pensée post-humaniste reconnaissant que des connections et outils non-humains contribuent à former et à prolonger la perception et l'expérience humaines. La culture numérique et le statut menacé du monde naturel exigent que nous élaborions des concepts sur la médiation qui soient moins anthropocentriques afin de mieux comprendre notre interdépendance avec le monde non-humain.

Conclusion et implications Cet article se rapporte à divers changements médiatiques, y compris la création de certaines pièces de monnaie anciennes et les premières vidéos sur les chats, pour soutenir que la prolifération d'imagerie animale est importante, non seulement dans la gestion affective de pratiques et d'investissements numériques, mais aussi plus généralement dans la gestion de risques culturels et écologiques.

Mots clés McLuhan; Théorie des médias; Théorie de l'affect; Post-humanisme; Animaux

In the early 1970s, not long after the publication of Marshall McLuhan's 1964 book *Understanding Media*, a British design consultancy firm was commissioned to improve the corporate image of a civil engineering firm called Bovis. Writing of this event in his 2001 book *Picturing the Beast*, Steve Baker relates that the consultants' research into the company's work environment led to "a corporate identity programme" that relied on "colourful and realistically rendered images of a hummingbird" (2001, p. 122). Like other corporate logos developed during this period, the highly stylized hummingbird image was designed to invite viewers to enjoy aesthetic and emotional connections to a company whose corporate mandate was completely unrelated to birds. One of the company's partners, Wally Olins, claimed retrospectively in his book *The Corporate Personality* that the company's workers liked it so much they placed the hummingbird logo on their cars; " 'the design scheme is popular in the sense that people like it,' " was his explanation (quoted in Baker, 2001, p. 122).

The choice of a hummingbird appears strangely arbitrary for an engineering firm, but this clearly did not matter; its purpose was to invite a feeling of fast-moving serendipity that would help attach viewers to the company and its products. The realization that images of animals could make people feel good about objects or services was one of the notable cultural developments of the 1970s, and it coincided precisely (but not coincidentally) with the emergence of what has been called the information society. As I have shown elsewhere, it is a challenge to find a software or computer company that hit the market between the late 1960s and the mid-2000s that was not identified with a figure or name of an animal.[1] These figures capture a space midway between the utopian ideals of freedom and self-expression influential in the 1960s and the corporate trajectories of information management and military cybernetics. Like their live antecedents displayed in menageries and zoos in earlier historical periods, these virtual menageries created new spaces populated by objects or species that were otherwise spatially incompatible, or what Michel Foucault called heterotopias (1986). This picturesque digital remediation of an older practice of collection allowed animals and humans to migrate together, so to speak, to the new virtual spaces being built by digital computing.

As McLuhan (1964) wrote in *Understanding Media*:

> The hybrid or the meeting of two media is a moment of truth and revelation from which new form is born. For the parallel between two media holds us on the frontiers between forms that snap us out of the Narcissus-narcosis. The moment of the meeting of media is a moment of freedom and release from the ordinary trance and numbness imposed by them on our senses. (p. 63)

In the following pages I use McLuhan's trope of the hybrid media and his more familiar aphorism that the medium is the message to reflect on the possibilities of posthumanism in media theory. This is a historical as well as theoretical task. The growing preference for animal imagery, with its indelible link to emergent domains of software and digital computing, perfectly illustrates the desire to conjugate new kinds of freedom that was so powerfully expressed in the 1960s. As its history and grammar show, however, such imagery is equally the result of precisely the kind of research McLuhan

had in mind when he wrote in his earlier book on advertising, *The Mechanical Bride*, about "the many thousands of the best-trained individual minds [who] have made it a full-time business to get inside the collective public mind" (1951, p. 87).

Beginning in the 1960s, images of hummingbirds, penguins, lions, and other exotic species emerged as the preferred imagery used to brand and promote new digital and communication software and products. Images of animals continue to play a singular role in mediating the new spaces and situations created by connective technologies. It is important to acknowledge the traces of their influence on the feelings, understandings, and techniques that have emerged in the context of these technological developments. The animal imagery emerging in these contexts was directed toward encouraging viewers to experience impulses that were simultaneously friendly, curious, acquisitive, and competitive. The popularity of this strategy suggests that it has been successful in reaching users who, urged to complicity through some kind of symbolic mimicry, seek to pursue online the animals that appear before them. That is to say, the animal functions as a mediator between the human user and the digital device, raising new questions about McLuhan's well-worn phrase "The medium is the message."

In a 1953 article published in the Toronto journal *Explorations*, McLuhan introduced an early version of this idea. Critiquing his contemporaries' tendency to discuss electronic media in terms of their contents, 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' " (quoted in Gordon, 2010, p. 86, boldface emphasis added). Impatience is a notable driver in McLuhan's writing, and this emotion clearly motivates his argument here. His contemporaries are "blind," they have missed the "basic art situation" that confronts them. It might have startled his contemporaries to hear mass media described as a "basic art situation," but the disruption of complacent cultural taxonomies—being/communication, art/media, content/sense—was entirely the point. Media are our environment, he insists; they call

Figure 1: Screen capture of first cat video posted to YouTube

Source: "Stinky the Cat 1" by Steve Chen, YouTube co-founder, 2005

upon us to attend in particular ways, they speak to or cultivate particular modes of attention, at the expense of others; and it takes a particular (and in his view, lamentably absent) conscious attention to grasp their underlying meanings and effects. That is the purpose of art, for McLuhan: to re-orient us to an environment that simultaneously awakens our senses and induces oblivion. McLuhan's own method for arousing such reflection was fittingly non-linear; he formulated a series of probes: non-linear interconnected critical explorations of themes that hover below the surface of everyday thought. In the following pages I pursue a similar mode of inquiry to consider the role of animals as media, and thus to draw out what can be gained from exploring McLuhan's work in the context of contemporary posthumanism. I seek to use this trope to explore what omnipresent animal mediators are doing in our contemporary mediascapes: how they modify the "basic art situation" in our media environment, and, if we can consider a mediated animal as a medium, what it is mediating.

Understanding media

McLuhan's book *Understanding Media* (1964) elaborates and illustrates the idea that every medium of communication absorbs and extends our body and our attention in specific ways. One could apply this principle equally to clothes, cameras, cars, or cats; each of these sets of objects provides material for our relations with others and with ourselves; each absorbs and extends our bodies and our senses in particular directions while diminishing the influence or power of other means of perception. In an earlier article, "New Media as Political Forms," McLuhan experimented with this new way of thinking by pointing to media as the source of our "common situation." In "New Media as Political Forms," McLuhan set out to explore the processes through which media extend and envelop our minds and bodies in dynamic perceptive experiences that both awaken and numb our senses. When he alludes to the "expressive pressures" of a medium, he is not only talking about its materiality—the page versus the screen, for instance—but more fundamentally, about how that materiality shapes its users' sensory and haptic dimensions as they interact with each other within a changing media ecology. *Understanding Media* elaborates and illustrates the idea that 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. Applying this principle to cats is not only a significant move in media theory; it is also an increasingly important move for academics and artists responding to the images that animate contemporary media flow in the context of the structures of feeling that are organizing and disorganizing our responses to climate change (Berland, 2019).

McLuhan's earlier writings, like some of Walter Benjamin's essays, explored the aesthetic dimensions of media experience in relation to the political process through which such experience unfolds (Stamps, 1995). In the preface to his 1951 book on advertising, *The Mechanical Bride*, he wrote: "Ours is the first age in which many thousands of the best-trained individual minds have made it a full-time business to get inside the collective public mind" (1951, p 4). The environment in which we become who we are (he insisted) is not just replete with mediation; such mediation has histories and intentions as well as forms. Just as no person is really alone in this experience, no medium of technology works alone, but in combination. From this insight McLuhan

pursued clearing the way for a more than metaphorical link, which creates a more than metaphorical link between living and technological systems of connection. Ecology referred originally to the interactions of species and their sustainability within particular habitats, but McLuhan applied the term to the interactions of communication media. When a new medium emerges, the old ones do not become obsolete; their position in the social landscape of media uses changes, and old media become art. The place of a medium depends on its interactions with others, and any animal can become a mediator when it appears in the middle of things.

You cannot venture into online social space for more than five minutes now without your eyes falling upon representatives of other species. Their appearance, like that of the screen on which they appear, mediates our interaction with the larger non-human world of which we are merely one part, but that interaction is specific to its mediation; these animals will not attack us, piss on us, or go extinct. They appear to serve their purpose well, for there we are, glued to the screen, ready for the next *prrrr bon mot*. Without these objects, these animal faces and keyboards and screens, my own hands are incomplete; I am not-me. The object that awakens your nervous system and saturates your sense of the world is most often found at the end of your hands. It might be a shovel, a musical or alphabetical keyboard, a pen or steering wheel, a remote control, the pages of a newspaper, the cat getting into the middle of things, ruffling the pages, all migrating to and from the screen. My point, or rather McLuhan's point, is that the essence of the human as a species is to be incomplete. As dominant objects of mediation change, whether from cow to coin, horse to car, live music to gramophone, painting to photograph, typewriter to computer, birdsong to sound recording, pet cat to Grumpy cat, our senses, habits, and perceptions change along with them. Always technologically mediated, increasingly mediated in new ways, the human body no longer coincides with itself. With this understanding of the always already mediated human, McLuhan has taken an early step toward posthumanism.

When McLuhan alludes to the "expressive pressures" of a medium, he is not only talking about its materiality—the page versus the screen, for instance—but more fundamentally about how that same materiality shapes our sensory and haptic dimensions as we interact with each other within a changing media ecology. I don't think, then, that "Everything changed with innovation x or y in media platforms"; I think, "Everything changed when cats took over the internet." "New Media as Political Forms" experimented with this new way of thinking by pointing to media as the source of our "common situation."

Media theorist Friedrich Kittler was strongly influenced by McLuhan's ideas, but drew a sharp dividing line on the issue of what he perceived as McLuhan's anthropocentrism (Winthrop-Young & van den Oever, 2014). For McLuhan, media are the "extensions of man." If media are extensions or prosthetics of the human body, the human cannot properly be understood by humanist thought. But "McLuhan still subscribes to the anthropocentric delusion that man is the measure of all media, even when the latter reshape the former" (Winthrop-Young and van den Oever, 2014, p. 235). Kittler's critique of McLuhan's anthropocentrism does not extend to a consideration of non-human species. He does not propose that if a train or light bulb can be a

medium, so can a horse or a giraffe. Even Claude Shannon and Warren Weaver (1963) would have acknowledged horses as instruments of communication, since horses successfully transported people and mail for centuries before the faster, automated "horse-power" machines were invented to replace them. So is a cat, whose relations with humans has been thoroughly mediated and multiplied by communication technologies that are in turn thoroughly mediated and changed by the complicatedly intentional presence of the cats (Berland, 2008).

"We have committed the fundamental error," Marcel Mauss wrote in "Techniques of the Body," "of only judging there to be technology when there is an instrument." Mauss (cited in Debray, 1996, p. 115) means that the human body can itself be understood as a technology, as an instrument or "a living mediation of intersections between orders, artifact, and nature" (p. 115). As Joanna Zylinska (2018) reminds us, however, Jean-François Lyotard (among a range of thinkers) takes this point further, arguing that we must extend the idea of originary technicity in the human species to encompass all living things. Surely horses and cats mediate or "extend" our capacity for relationality and so change our "common situation." While anxious to show human interconnectedness with mediating objects, McLuhan and Kittler both overlooked the ways that we share our "common situation" with non-human bodies. Their work does not take into account how animals mediate our relationships with ourselves and one another and with the technologies that connect us. Technological innovations (re)mediate our encounters with animals, just as animals (re)mediate our encounters with technology. Whether the outcome of this interaction is measured in ecological or symbolic terms, we humans can no more be separated from non-human bodies and meanings now than when our species was new.

Thinking of animals as essential figures in a wide range of encounters is radically different from viewing animals as part of the content transmitted via a particular medium, as McLuhan went to such great pains to explain with reference to other media forms. Acknowledging his influence, Regis Debray (1996) called upon readers to "look not for that which is behind a symbolic utterance, but rather that which takes place between" (p. 18). In his 1996 book *Media Manifestos*, Debray rejected the idea of analyzing a medium in the singular and replaced this idea with the concept of mediology. In a critique that took aim equally at McLuhan, semiology, and sociology, Debray advocated for an approach that reconnects the technological, semantic, and political spheres so as to generate the most useful questions about a media event. He explained:

> In the word "mediology," "medio" says not media nor medium but mediations, namely the dynamic combination of intermediary procedures and bodies that interpose themselves between a producing of signs and a producing of events. These intermediates are allied with "hybrids" (Bruno Latour's term), or "naturecultures" (as [Donna] Haraway puts it)[,] mediations that are at once technological, biological, cultural, and social. (1996, p. 17)

The animal is not necessarily "inside" the frame or screen; it is not the "content" of that frame or screen, as McLuhan tried so hard to explain. Rather, its place is "between" the frame and the viewer within a temporality that is both individual and collective. This encounter is individual in the moment that a human body faces a screen

and looks the animal in the eye, but it is collective in the way that these encounters form and proliferate to such an extent that bodies and screens and other aspects of the world are changed forever. The difference that the animal's presence makes here is mediological in that it co-constitutes a relationship. To understand the animal that provides the hinge between technology and body as a medium is to acknowledge that it does not arrive later to symbolize or legitimate what has occurred, or to compensate for what is absent or lost. The animal is there when the story begins. Its presence is made essential to the search for meanings, for new markets, new feelings, new ways of life, and it is an inextricable part of what the story becomes. Making explicit this mediological hinge between constituent elements of change—the animal, the milieu, and the emergent technology—shows how a perceptible event emerges from one set of meanings and conditions while opening (possible) doors to new conditions and experiences.

If recognizing the ability of media aesthetics to shape individual affect was salient in the 1950s, when McLuhan began to explore these themes, it is positively critical today, when it carries broader and arguably graver implications. Writing of *Understanding Media* in celebration of the 50th year of its publication, Richard Grusin (2014) suggested that its achievement was "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" (p. 58). Not only must we expand our analytical scope beyond the text; we must also extend our social horizon beyond the human, as our inescapable online cats are prone to remind us. In this respect, as in so many others, cultural practice precedes social analysis. Hundreds of designers created animal imagery whose ambivalence offers a perfect expression of the freedom/unfreedom of the human in the new "information society."

Figure 2: Telus marketing materials featuring animal imagery

Source: Courtesy of Telus

If a mediated animal is a medium, we have to wonder: what is it mediating? Images of diverse species invite potential users to join a virtual collectivity through technical

devices that are semiotically and affectively linked with animals. These digital devices extend our senses, they are extensions of us, they extend us into something, some "common situation" that is not-us, and so "us" is also "not us" if also not not-us. These extensions enhance our powers, but they also deplete them, as McLuhan so often reminds us. The digital-animal hybrids emerge within a culture in which the use of technology requires ever more developed techniques, constant innovations in what Edward Tenner (1997) called "the performative use of technology, the skills and know-how that go into the effective operation of devices" (p. 4). Given the economic and political contexts in which such innovation occurs, it is crucial that users want to adapt to these new techniques and feel confident in their ability to do so. Users must feel welcome and optimistic in these ever-changing environments and be prepared to shed their earlier forms of knowledge and uses of their bodies. They must respond to technological innovations as simultaneously indispensable to them and capable of freeing them from the implication or effects of being confined by these same indispensable machines. In stating that "the medium is the message," McLuhan (1964, p. 8) wanted us mediated subjects to become more conscious of how such media shape our "participation in a common situation." That every communication medium alters the way people live in space and time is the basic premise of Canadian communication theory. Every new technology introduces changes in the space and scale of human relations (McLuhan, 1964). Each medium extends some human capacities and perceptions at the expense of others. This is McLuhan's unique contribution to the study of mediation.

The digital animals advertising the machines that produce them play out their mediological roles in the context of a capitalist economy that since Keynes, writing in the 1930s, has been characterized by a foundational oscillation between rational deliberation and "animal spirits." This phrase, "animal spirits," describes an outburst of energetic spending or speculation that could be fuelled by either confidence or uncertainty regarding the health of the economy (Keynes 1936).[2] Dancing across our screens, these virtual menageries appear to be speaking the language of these animal spirits, implicitly associating "instinct" (posited as the vital essence of the non-human animal) with the "natural" human desire to explore, acquire, and own things according to the impulse of the moment. In these moments, animality and digitality are not two separate things but one entity whose graphic unification conveys the assurance that the decision to acquire something digital is a rational investment. To accept the invitation of the iconic animal spirit is to accept the premise that the warring sides of human nature can be reconciled through the rational/magical force of digital capitalism, regardless of what Freud or Keynes might have thought. This premise confirms the superstitious belief that the evolution of technology follows the same logic as the evolution of species (Berland, 2009). According to this logic, fusing with the ever-new digital device makes us more advanced, less animal. We need the animal for this assurance, and our compliance with its invitation makes us more animal, even as it makes us more human.

These animal figures vitalize the market for information-gathering digital devices on which the global security state relies. They have helped to create online spaces for activists defending animal welfare or endangered species, and for bored workers doting

on cats' antics. They have enticed young children into using interactive toys that pre-pare them to interact cooperatively with intelligent machines. They have provided familiar shapes for robotic toys that embody the liveliness of animal spirits. What these digitally interactive toys lack, Sherry Turkle suggests, is alterity. Unlike live animals, they have no minds of their own. Children recognize this lack, Turkle finds; they know their toys are not "real" pets, but they bond with them anyway. In the end, says one eight-year-old subject, how the pet was made " 'doesn't matter when you are playing with the robot' " (2011, p. 57). For Turkle, this dismissal of origins gives rise to the new pragmatism in millennials who are reputedly indifferent to the idealism of earlier generations. The children know the robot is not a pet, her research indicates, but embrace it "as if" it were a pet anyway. This same eight-year-old reminds herself in her own robot diary of the many ways that this pet should not be treated as a dog. And yet the more one plays with the robot, another girl comments, "the more actful it becomes" (Turkle, 2011, p. 58). Its potential to be other is immaterial.

Digitized animal creatures work to ensure that the potentially vacant or decom-modified spaces and devices within digital networks continue to reward the financial and creative investments made in them. They have supported the growth of a three-dimensional informatics grid that makes it possible to fight wars with robot dogs and robot hummingbirds, the latter sketching an indeterminate thread from the popular Bovis hummingbird of the early 1970s to now. They provide the sights and sounds of a carefully rendered therapeutic apparatus designed to observe and measure human emotions and to help humans cope with physical and mental stress. These activities re-animate and alter the hinges that connect our material, social, and intellectual life. This summary may oversimplify what animal mediators actually do in the world created by digital technologies and how one generation gives way to the next. But what they actually do cannot be understood without these ideas.

The animal before us, this hummingbird or kitty cat, is a medium, a message, an event, a ghost. McLuhan's work helps to explain how an object or image can be (but is not necessarily) all of these things at once. By advising readers to develop greater awareness of how the electronic media are changing our "common situation," McLuhan is echoing what he learned from Harold Innis, author of The Bias of Communication (1964), who writes: "Every medium is in some sense a universal, pressing toward realization. But its expressive pressures disturb existing balances and patterns in other media and cultures" (quoted in McLuhan, 1964, p. 27; Berland, 2009). As technical and aesthetic innovations appear and multiply, disrupting as well as ex-tending one another, we must constantly adjust; we are reconnected and changed in ways we inadequately understand. The expressive disturbance Innis describes is si-multaneously social, economic, political, cultural; it is so powerful that empires rise and fall on the basis of it. The disorientation that Innis and McLuhan ask us to attend to is not the result of being newly mediated in some universal sense; there is no pre-mediated or non-technological way to be human. As Walter Ong (1982), McLuhan's former student, put it, "Technologies are artificial, but—paradox again—artificiality is natural to human beings. Technology, properly interiorized, does not degrade human life but on the contrary enhances it" (p. 81). Such disorientation is the result of the

bias, complexity, and strategic application of mediating technologies that proliferate and conflict through ever more compelling planes of connection. The collision of intensity and abstraction actualized by this technology "extends" our bodies and perceptions into the world. The spell-binding quality of the media makes us alert and perceptually mobile, but it also makes us compliant, stationary, and numb.

Each new medium shifts or challenges the spatial orientations and sensory memories congealed by earlier technologies. The numbness created by our habituation to these frames and flows of interaction strangely echoes or mimics the non-worldliness that modern philosophers attributed to non-human animals. Mediation does not only transmit something; it constitutes the environments and relationships through which we become who we are, together with the expectations, pleasures, customs, and power relations that unfold within them. My students are literally incapable of imagining life before or without cellphones, the way a fish is unaware it is in water, as McLuhan puts it, which means, in effect, not that the fish does not feel water, but that it is unaware that there is anything that is *not* water. Our habituated or numbed physiologies are vulnerable to moments of fluctuation and disruption, as though we are losing our natural habitats. This leads to the search for ways to express and calm the stressful shock of the new experience.

If recognizing the ability of media aesthetics to shape both individual affect and politics was salient in the 1950s, it is positively critical today, when it carries broader and arguably graver implications. Writing about *Understanding Media* in celebration of the 50th year of its publication, Richard Grusin suggested that its achievement was "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" (2014, p 56). That is to say, not only must we expand our analytical scope beyond the text; we must also extend our social horizon beyond the human. Here the "message" is understood as an object-relationship that mediates our interaction with the larger non-human world of which we are merely one part. The object that is saturating your sense of the world might be at the end of your hands. It might be a pen, a steering wheel, a musical or alphabetical keyboard, a remote control, the pages of a newspaper, the cat getting into the middle of it and ruffling the pages. Whatever kind of object it is, it is connecting your nervous systems with the world, which reaches back with diverse strategies to join those responses into some common situation.

The essence of the human is to be incomplete, to be interdependent with our tools. Always clothed, decorated, and equipped with tools, always technologically mediated, and increasingly mediated in new ways, the human body never truly coincides with itself. With this understanding of the always already mediated human, McLuhan took an early step toward posthumanism. In this realm of thought, the humanism arising in the wake of Judeo-Christian thought defined the human body as exceptional because of its verticality, its use of tools, its capacity for adaptation, ingenuity, mental organization, and conceptual thought. Ironically, however, we are seeing the effects of this presumption: the cumulative effects of exploiting human capacities the same way humans have exploited others suggests to some that humans collectively can act less

like the humans bequeathed to us by religion and more like the animals bequeathed to us by science.

Mediating animals

Taking up the insight that an animal can be a medium means acknowledging, as John Durham Peters does in his book *The Marvelous Clouds*, that thinking about animals in the context of mediation expands our understandings of mediation itself. For Peters, media are the containers and vehicles through which meaning is communicable. They are not only the means through which messages are delivered—those means that are, as McLuhan suggested, the messages themselves— they are also the ways in which our very beings emerge and are disclosed. McLuhan's insights demonstrate "that media are not only carriers of symbolic freight but also crafters of existence" (Peters, 2015, p. 51). This premise applies to animals whether they occupy terrestrial, aqueous, pictorial, digital, or philosophical environments. This does not mean that animals are always in their habitats or that they are always willing mediators. As Peters notes, "Because media are in the middle, their definition is a matter of position, such that the status of something as a medium can fade once its position shifts" (2015, p. 15). Peters thus describes the concept of media as an "amphibious" entity moving between the terra firma of technology and the sea of nature. Exposing this mediological hinge between the constituent elements of change—between the animal, the milieu, and the emergent technology, for instance—shows how a perceptible event emerges from one set of meanings and conditions while opening (possible) doors to new possibilities. The mediology of the animal helps to illuminate essential links between our colonial past and our Anthropocene present.

What has to happen for these digitized animal spirits to acquire their remarkable agency in the electronic mediascape? Their presence in the midst of our transactions increasingly means they are not in the midst of their own environments. This extractive process follows a definite pattern. The hummingbird has been semotically removed from the woodlands of the North and the tropical vistas they inhabit in the winter. The bird has been repurposed as a mediator and rendered as a sign. Likewise, the giraffes are not wandering the savannah in the company of extended families; the industrious beaver from which pelts and logos were extracted is not swimming across a river; the penguin announcing new ways to distribute data is not standing on the ice; the beaver on our T-shirts is not chewing on trees or building its remarkable lodges beneath the surface of the river; the bird singing to us in the clinic or spa is not bothered by the noise of squirrels or wolves. Their presence is the result of a process of extraction that is fundamental to the "common situation" to which the media render us blind. Their powerful affects and capabilities are simultaneously mobilized and contained by the virtual zoos we create to extract their lives and picturesque vitality for our human, mainly profit-oriented purposes. This mobilization removes the animal habitus from our attention again and again while drawing animal figures into a different complex of animal, human, and material entities that act upon one another in sometimes unpredictable ways. You could say the animalization of the technology involves a de-animalization of the animal. The de-animalized animal becomes a supplement to all the other mediums in this ensemble, and the continuous redevelopment

or remediation of this biotechnological ensemble further complicates the meanings of the living and symbolic animals and the ways they build and rely upon one another. This supplementarity has an older history than the previous pages might suggest.

Here is a well-known story that illustrates this process of de-animalization. When Moses descended the mountain to deliver God's laws etched onto stone tablets, he was, according to the Biblical story, horrified to discover dancers circling and worshipping a golden calf. Encountering his flock engaged in pagan worship of an icon, Moses perceived a profane unhinged lust, as though the dancers were being dragged back into the world of the animal that was supposedly supplanted by God's word now entrusted to him. "He saw the calf and the dancing, and his anger waxed hot, and he cast the tables out of his hands, and brake them beneath the mount" (Exodus 32:19). The fable offers us a template for the hierarchical world picture and the more secular topography of the Enlightenment. My grandfather, Jacob Berland, painted a lovely portrait of Moses modelled on Gustav Doré's Biblical illustration. The earlier artist's etching included the dancers, but not the golden calf they were fetishizing. This calf almost never appears in Western depictions of the tale. Jacob Berland's painting, (see Figure 3) now hanging in my house, includes neither the pagan dancers nor the golden calf. Over time, the animals disappeared from depictions of the fable. Moses appears alone, the tablet in one hand, his other pointing upwards, with the light behind him streaming through the clouds.

Figure 3: Moses by Jacob Berland

Source: Jody Berland

W.J.T. Mitchell (2015) has described this religious fable as the earliest expression of social anxiety about what is called the pictorial turn. In his account, the story of the gilded calf symbolizes the split between ancient law and the profane worship of images. The story gives rise to superstitions that images make people do irrational things, that they are "potentially destructive forces that seduce and lead us astray" (Mitchell, 2004, p. 19).

Anticipating the appearance of the golden calf, the ancient coin actualizes contradictions immanent in the cow's dual entity as sentient body and exchangeable commodity. The coin socially and symbolically redefined (or "remediated") the animal as both measurable and equivalent to metal. In this way the coin acquired its own status as a commodity or medium redefining the time and space in which it was circulated. Finally the animal was no longer needed to symbolize the corrupting fetishization of wealth. The British Museum's history of money exhibition (Room 68) reminded me that early coins were often illustrated with the animals for which they were exchanged. Inscribed with images of the very objects for which they were exchangeable, the coins simultaneously indexed and mediated the relationship between farmer and trader. The animal body was made exchangeable with and thus in some way equivalent to non-sentient fetish objects like statues, or pieces of gold, or randomly valued pieces of metal. Anticipating the appearance of the golden calf, the ancient coin actualizes the contradictions immanent in the cow's dual entity as sentient body and exchangeable commodity. Money enabled new trading relationships that were inevitably shaped by colonial history. The coin socially and symbolically redefined (or "remediated") the animal as measurable and made equivalent to metal. In this way the coin acquired its own status as a commodity or medium redefining the time and space in which it was circulated.

Laying the groundwork for the colonial trade in exotic specimens and animal body parts that later populated menageries and curiosity cabinets, these coins inscribed and naturalized the trading relationship between the person who had the animal and the person who had the coin. The colonial geopolitics of animal exchange made this a relationship of unequal power. The first coins made in Canada had beavers imprinted upon them and facilitated the exchange of pelts for other commodities introduced by the colonialists for this purpose. Indigenous traders had to learn a new method for assessing the value of the animal in relation to the nominal coins and gifts presented to them. When storied calves are made of gold, when beavers and loons illustrate our coins, currency is simulating the accumulation of wealth of the world formerly represented by the possession of the animal. The fact that monetary value is still attached to the body of some animals does not necessarily improve their treatment at the hand of humans. Despite the insight that it is technology that makes us human, and the recognition that money is a technology, it is possible that in the end money makes humans less (or differently) human, not more so. In any case, images of animals continue to impart representation of the wealth of the world, even when the world rewards them with less consideration than what is granted to a piece of mass-produced metal.

In sum, the calf, the hummingbird, the beavers, the coins, the boats, and the emperors and explorers have formed a colonizing assemblage inseparable from the combination of its parts. If a medium creates a "common situation" in human culture, as

McLuhan has proposed; if a medium does not "mean" things but "does" things; and if a boat is a medium that brings people, water, and things together, then a post-anthropocentric interpretation of historical events must acknowledge that they relied as much upon the animal as they did upon the media of transport and exchange.

Anaesthetics, aesthetics, proaesthetics

Cultural representations are symbolic articulations of, and so responses to, deeply conflictual social and aesthetic positions and situations. These representations are not only expressions of a personal vision. Their shapes and meanings are negotiated through a range of discursive structures or *dispositifs*: the process and legibility of creation, the orientations of art education, the forms and infrastructures of the medium, the reception of the work, the organization of responses and uses that situate it in the world into which it springs. McLuhan's characterization of media as the "basic art situation" reminds us that we can see media in a similar light. The inchoate and potentially numbing pressure of cumulative human technological extension is widely mediated by images of animals whose beauty holds and withholds the meanings they might offer to us. Media inscribe the antimonies of their own existence, as we have seen with the cow and the coin that "represents" it. The autonomy and mobility we seek in mobile devices coexists with the concentrated corporate power that produces them, and our felt sense of freedom is contradicted by the fact that the technology inexorably traces our movements. Into this apparatus springs an image of a cat or monkey that mediates the cellphone you hold in your hand. We have learned to interpret intensely colourful images of animals as signs of vitality and freedom in the context of communication networks so embedded in commercial and surveillance apparatuses that they can just as easily mean the opposite. If animals appear here as ghosts of the machine, they also haunt our relationships with the networks in which we find ourselves. Our technological innovations (re)mediate our encounters with animals while animal symbols (re)mediate our encounters with technology. It does not really matter whether the user who picks up a phone or game believes that technology restores our proximity to other species. The animals seem to matter by virtue of their appearance, "as if" they are alive, but it is not predominantly the animal that matters in this encounter.

The first moving picture, made by Eadweard Muybridge, featured a running horse; in 1894, both Étienne-Jules Marey and Thomas Edison made short films of cats in motion to illustrate the exciting potential of the new medium. These images in the first appearances of electronic and digital media promised a re-energized relationship between machinic and human life. Early cinematic achievements were populated by boxing cats and electrocuted elephants. American animation was launched in 1913 with the image of Gertie the Dinosaur strolling out of a cave. Early American animation featured Felix the Cat, Mickey Mouse, Pluto the Dog, and Bimbo, the canine companion of Betty Boop. Beginning in the late 1960s, software products were almost universally branded with graphic images of animals. Early software engineering set out to complete the cultural revolution of the 1960s by engineering a reconciliation of the creative individualism and technological pragmatism so deeply embedded in American culture. Its proponents sought to introduce computing software and its affordances to a wider and freer social arena; to encourage individuals to pursue their own innovative geek

impulses; and to connect everyone in what Howard Rheingold (1993) famously called a virtual community. The mandate of the animal logo was to appeal to our self-identity as "social animals," to intensify the impulse to connect while channelling the impulsive spirit into the necessary and naturally evolutionary acquisition of digital software and mobile devices. The introduction of new computer-based commodities associated with animal icons was propelled through a force field of conflicting values and intertextual machineries of meaning that vastly exceeded the functional space of any particular product.[3]

The first commercially successful interactive toys (looking back to Sherry Turkle's research) were the animal-like robots Tamagotchi and Furby, developed to be interactive and alive-like. The first amateur video posted on YouTube, "At the Zoo," displayed one of the YouTube founders posed in front of an elephant at the zoo, her tail gently flickering behind him. The first videos posted by Steve Chen, YouTube co-founder, were of his cat "Stinky" (see Figure 1, p. 596). Each of these launch events attempted to animate the medium by linking it to the liveliness embodied by the animated animal. Because the animals are cumulatively so central to this process, it is inadequate to describe them as the "content" of these media; each plays an agential role in connecting us to the medium, and in that sense, can be understood as an emissary (in the language of the past), or a medium that is necessary to creating the "common situation" of media experimentation, user adoption, and aesthetic experience.

In his book *Online a Lot of the Time*, Ken Hillis (2009) argued that "[t]he screen displays help foster indexical reception to viewers by inducing their desire to access a larger totality of content lying beyond the frame of the screen. What is absent is made present" (p. 126). The phrase "is made" suggests an elusive assemblage of agencies: the screen, the desktop, the website, the icon of the animal. If animals mediate our relations with other humans and spaces, they also mediate in essential ways the relations between people and machines. An animal possessing the power to animate a media object, enrich its investors, and evoke desire in its viewers also has the power to interrupt this event. Anecdotal evidence of this power is popularly circulated in the form of iconic images of dogs or cats sitting on or chewing up our domestic machineries of textual production, along with wild animals attacking hunters and food animals escaping the trucks en route to the slaughterhouse. Part of us wants the animal to win. The trope is similar to the scene in which the movie protagonist throws his cellphone into a pond, but when a puppy chews up your essay or a kitten sits on your keyboard, it is not your decision, so what can you do? This is a triangulated relationship in which none can act without the other.

Feeling risk

A culture in which animals and natural environments are becoming as precarious as their meanings inspires a range of expressive strategies through which the culture of images negotiates the sense of risk. Global media flows are dominated by cute "cartoon animals" or "animaloid characters" circulated by multimedia franchises. Mickey Mouse, Hello Kitty, Lux the Penguin, Pokémon, and Pikachu are only the tip of the (melting) iceberg. Animaloid figures operate as hinges between life and technical mediation where they appear as mascots, totems, amulets, conductors, and transistors in

national, transnational, and transmedial networks. Given the ubiquitous association of children and animals, this market involves a widespread evocation of animals combining animistic vitalism with domestication. The evocation of child-animals strongly affects our conceptualizations of animals and nature. We seek to attend to what is most embraceable. The emphasis tends toward scenarios of re-naturalization: rather than return to nature as the foundation of life, nature has to be digital before it can figure as ecologically meaningful.

These natural-digital icons challenge us to explore the aesthetic and affective dimensions of contemporary human-animal relations in connection with what Jacques Rancière (2011) called the "distribution of the sensible," the system of divisions and boundaries that define what is visible or audible within a particular aesthetico-political regime. Through the digital-animal assemblage one can trace a complicated conceptual path from McLuhan's "common situation" to Rancière's more politically sophisticated "distribution of the sensible." The media environment that McLuhan understood to be our common situation is fraught with differences. What is made visible relies not only on the genealogy of inscription and the ghost of the animal, but also on the discursive technologies of making-invisible the biosphere on which the imagery of animals relies. These proliferating animal mediators play significant roles in the cultural management of risk within an affective ecology of anxiety and avoidance. Advertising campaigns use cute animals to reassure consumers that life and the advertised product are equally happy and fine. Iconic polar bears represent concerned corporate agents who make themselves appear responsible by engineering a visual identification with these heroic but endangered animals. Monkeys and elephants identify populations and habitats that are endangered, inviting protection in the familial tradition of Noah's Ark. Beagles and bunnies appear as illustrations for the scientific claim that animals can be truly known as data and their otherness overcome; they, or parts of their bodies, appear as test material in the isolation and commodification of biological bits; they speak consolingly (but like any supplement, any animal, sometimes disruptively) to consumers who are concerned about climate change but cannot escape their routines and responsibilities in the everyday life of capitalism, and so buy animal-themed products for their children; they advance the culture of "cruel optimism" (Berlant, 2011), in which affect-rich animals assure us we need not let go of our attachment to them; they enact taxonomies of biological difference while shifting difference away from race and onto real and imaginary species; they beg, with remarkable success, for our attention.

Can the global proliferation of digital animal imagery inspire people enmeshed in these complex techno-social-animal assemblages, these "common situations," to transform our relations with other animals and the natural world? What shifts in this "common situation" could help make such essential change occur, and occur faster? McLuhan was impatient with what he viewed as the somnambulism of his contemporaries and sought to electrify them with aphorisms, rebukes, and speculations. Fifty years of remediation have passed since McLuhan's work was published, and we are still discovering and elaborating the implications of his thinking. In my own research on cultural technologies of space, I have found his arguments resilient enough to enrich every inquiry I undertake. The recently celebrated UNESCO designation of his

archives as cultural heritage does not only point to his place in history; his work and his lively impatience are as relevant today as they were half a century ago. No matter what path my own curiosity and impatience take me, I learn once again in a new milieu that "the medium is the message" (McLuhan, 1964, p. 8). New technologies have introduced greater knowledge about animal bodies and the tracks of their lives. They have elaborated the continuing aestheticization of animal bodies and voices and the structures of visibility and invisibility that shape our perception of non-human life. They have intensified the instrumental research on human and non-human neurology and affect, and led to ever more complexly hybridized pragmatic adaptations, commodity compulsions, graphic abstractions, therapeutic resources, fetishistic obsessions, endangered species webcams, animal rescue sites, secretly made horrifying videos of human cruelty, close-up insight into animal lives and deaths, visible and invisible monsters, clonings and necrofauna, and virtual menageries galore. An important cumulative effect of this proliferation is to intensify the carbon emissions now endangering half the animal species that inhabit the planet (Lofti & Elmeligi, 2018). The global creatures, bits, extensions, prosthetic eyes, and internet connections that comprise our environment are hauntings of a planet flooded and afire while the media cacophony speaks of everything but. It may be the animals, acting together with the children now gathering and marching in the streets, that wake us up.

Acknowledgements

Notes

1. I explore this process at length in Virtual Menageries: Animals as Mediators in Network Cultures (Berland, 2019).

2. The idea of an economy driven by opposing forces within human nature has been expressed by a number of authors, including Adam Smith, Keynes, Freud, and Donald Trump. See Berland (2019, pp. 10–14).

3. This passage summarizes a longer historical account elaborated in Berland (2019).

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