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Engaging with Things: Speculative Realism and Ecomedia Literacy Education

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Abstract: In recent years, media scholars and educators have made an effort to address ecological issues in their work. Ecomedia literacy adapts the principles and practices of the media literacy movement in order to prepare the public to critically engage with the relationship between media and the environment. However, this article argues that the philosophical frameworks, on which existing approaches to media literacy education are founded, are limited. The field's reliance on traditions of constructivism and cultural studies allows learners to engage with ideas, but not things. The article argues that an ecomedia literacy that draws from speculative realism—in particular, in recognizing the reality of non-human things, emphasizing materiality, and challenging the nature/culture divide—will more effectively prepare the public to critically engage and practically respond to pressing ecological issues such as climate change.

Keywords: ecomedia literacy, media literacy, sustainability education, speculative realism, object-oriented ontology, critical media literacy, media literacy education

Existing Efforts in Ecomedia Literacy

The primary objective of media literacy education is to prepare the public to critically engage with media culture, providing them with opportunities to "access, analyze, evaluate, create, and act" as media consumers, creators, and citizens (NAMLE, n.d.). Yet, within the community of media literacy scholars and educators, there has been some disagreement whether media literacy initiatives should make efforts to remain politically neutral (for example, simply emphasizing civic participation in democratic societies) or embrace its potential as a critical political project (by more explicitly advocating for media literacy education as contributing to social justice) (Hobbs, 1998, 2010; Lewis & Jhally, 1998; Kellner & Share 2005, 2007).

Regardless of these differences in the political positioning of media education, both the media literacy movement and critical media literacy perspectives have tended to define their engagement with the civic in terms of issues of representation including "topics like violence, gender, sexuality, racism, [and] stereotyping," only occasionally including ecological issues among their subjects of inquiry (NAMLE, 2007). López (2014) notes that "though media literacy advocates often sympathize with environmental issues, the general practice of media literacy marginalizes ecological perspectives" (p. 1). A 2019 survey of media literacy scholars and educators in the U.S. revealed that ecological perspectives ranked lowest on the topics included in media education curricula, with only 6.6% respondents reporting that they address "ecomedia literacy/sustainability" in their teaching (NAMLE, 2019, p. 6).

As the global public has become increasingly more aware of the climate crisis, these environmental advocates within the media education community have sought to integrate elements of sustainability education into media literacy, research, and pedagogy (Damico et al., 2018; Hagan & Redmond, 2019; Kellner & Share, 2019; López 2012, 2013; Redmond, 2019). López (2014) describes this approach as *ecomedia literacy*, which, in his words, helps learners to:

- "reconnect an awareness of media with their physiological impact on living systems;
- recognize media's phenomenological influence on the perception of time, space, place, and cognition;
- understand media's interdependence with the global economy, and how the current model of globalization impacts living systems;
- analyze how media form symbolic associations and discourses that promote environmental ideologies; and
- become conscious of how media impact our ability to engage in sustainable cultural practices by encouraging new uses of media that promote sustainability" (p. 30).
 Scholars and educators interested in ecomedia literacy have adapted the best practices, core principles, and key questions of media literacy in their efforts to achieve these objectives.

For example, advocates for critical media literacy have attempted to articulate the connections between *social justice* and *environmental justice* (Kellner & Share, 2019) and members of the media literacy movement have tried to include *ecology* and *sustainability* among the topics addressed in their research and pedagogy (Center for Media Literacy, 2015; Cooper, 2011; Hagan and Redmond, 2019; López, 2012, 2014; Redmond, 2019). The focus of these conversations is often on addressing how media frame ecological issues by deconstructing media messages that represent "nature" and the "environment" and, in so doing, interrogating the ideological perspectives and ecological practices perpetuated by these representations. These efforts often draw upon theoretical principles and analytical practices from traditions like eco-criticism, environmental communications, and environmental humanities. For example, a teacher may lead their class in an analysis of the "Keep America Beautiful" PSA aired on television in the 1970s and discuss how the text relies upon a stereotypical representation of Native Americans to evoke an emotional response from the audience, and thereby influence their consumption practices (Dunaway, 2017).

Some media literacy initiatives go beyond ideological critique and apply a political economic analysis to these issues. Educators may lead their students in examining, for example, how corporate interests, economic issues, and capitalism more generally shape the production and circulation of ideas about consumption, the environment, and so on. Returning to the example of the "Crying Indian" ad, teachers and students may examine the production of the campaign, revealing that the famed Iron Eyes Cody was in reality played by an Italian-American. Or more importantly, their analysis may reveal that the organization behind the anti-litter campaign was comprised of a group of packaging and bottling companies and their interest was less to prevent littering than it was to shift the responsibility for sustainable practices away from their industries and onto individuals (Dunaway, 2017). Whether ecomedia literacy educators focus on the deconstruction of texts or broader analyses of industry practices, their efforts have typically sought to demonstrate how existing frameworks for media literacy education can accommodate the critical engagement with ecological issues.

While the inclusion of ecological issues in media literacy research and pedagogy is clearly a progress, this article argues that the existing approaches to media literacy—founded on constructivist and cultural studies traditions and, in particular, emphasizing the critical interpretation of media messages—limit the ability for media literacy scholars and educators to adequately prepare the public to conceive of and engage with media's role in ecological issues. In this article, I propose an alternative theoretical framework for ecomedia literacy—drawing from the increasingly relevant discourse of *speculative realism*—that emphasizes *engaging with things*. The article will first discuss how speculative realism responds to the limitations of constructivist and cultural studies traditions. Then, I will describe, in theoretical and some practical terms, how realizing the reality of non-human things, emphasizing materiality, and

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challenging the nature/culture divide might open up new pathways for media scholars and educators to help the public conceive of and engage with such pressing issues as global climate change.

The Limitations of Constructivism & Cultural Studies

Central to the core principles, best practices and key questions of media literacy is the claim that knowledge is not external to the learner; rather it is constructed by the individual through their interpretations of their experiences with the world (see Hobbs & Jensen, 2009). This *constructivist* learning theory that informs media literacy education suggests that rather than to discover some external truth, the objective of teacher and learner is to critically engage with the world around them and actively make meaning of it. Cultural studies occupy an equally influential place in mainstream approaches to media literacy, focusing on the examination of media and culture's role in our understanding of the world. Media literacy education has inherited from cultural studies a special interest in identifying the various "moments" in this meaning-making process and emphasizing the interpretive work involved in cultural participation (Alvermann, 2004; Johnson, 1986). Constructivism and cultural studies have provided the philosophical foundation for media literacy education, celebrating the capacities of humans to exercise reason and engage in self-reflection as well as cultivating critical and analytical engagement with media, culture, and the world.

As awareness of the climate crisis has increased in recent years, a growing number of scholars have argued that while these foundational frameworks have been key to helping us understand our world—for example, how culture and language structure our perception of the world, how dominant cultures serve the maintenance of social and material relations, how we actively participate in the construction of culture and the meanings of specific cultural texts, and so on—these same frameworks have a clear limitation. They argue that in defining experience as primarily *human discourse*, these philosophical traditions are unable to adequately account for the realities of the material world around us (Bogost, 2012; Bryant, 2014; Bryant et al., 2011; Harman, 2010; Latour, 2012). In constructivist and cultural studies approaches (and by implication, in media education, including most existing approaches to ecomedia literacy) any engagement with *things* is really just an engagement with *ideas*. Thus, learners are left relatively unprepared to deal with the real material and ecological consequences of a *thing* such as climate change. Bryant (2014) explains:

...because we had either implicitly or explicitly chosen to reduce things to vehicles for human discursivity, it became impossible to theorize something like climate change because we only had culture as a category to work with. Having brought about the dissipation of the material in the fog of binary oppositions introduced by signs, there was

no longer a place for thinking the real physical efficacy of fossil fuels, pollutants, automobiles, sunlight interacting with the albedo of the earth, and so on. Even among the ecotheorists in the humanities we find a preference for discussing portrayals of the environment in literature and film, rather than the role that bees play in agriculture and the system of relations upon with they depend. (p. 4)

Media literacy education's emphasis on the interpretation and interrogation of texts and their underlying ideological assumptions, while clearly beneficial in many ways, demonstrate this limitation. We remain stuck in the realm of representations of human discourse. When our end goal—even of critical pedagogical projects like ecomedia literacy—is to "raise awareness" about ecological issues, with the hope that this critical consciousness will lead to new consumption practices, we are effectively reducing the exercise of human agency to the practice of critical thinking.

However, when we open up this discourse, acknowledge that there is a material world that exists independent of our perception of it, and allow ourselves to engage with not just ideas but also *things*, we are capable to go beyond just changing minds and also practically and productively intervene in ecological realities such as climate change. In *We Have Never Been Modern*, Bruno Latour (2012) describes how the issue of climate change is perhaps the most illustrative example of the necessity of engaging with "hybrid" realities, constituted by both *ideas* and *things*. Describing journalistic coverage of climate change, Latour emphasizes how it requires an alternative ontology to make sense of the eclectic and somewhat contradictory assemblage of things involved in the issue:

The same article mixes together chemical reactions and political reactions. A single thread links the most esoteric sciences and the most sordid politics, the most distant sky and some factory in the Lyons suburbs...none of these is commensurable, yet there they are, caught up in the same story. (p. 74)

In recent years, philosophers like Bryant have taken up Latour's (and other's) alternative ontologies and have developed a philosophical approach, called *the speculative turn*, that attempts to account for these "hybrid" realities, to engage with things, and in so doing, to more effectively address ecological crises (Bennett 2004, 2010; Bryant, 2014; Bryant et al., 2011; Harman, 2010).

Perhaps because media literacy education is so steeped in constructivist and cultural studies approaches, or perhaps because these conversations are relatively new and still somewhat esoteric, *speculative realism* has yet to be applied by ecomedia literacy scholars and educators. This article demonstrates the value of borrowing from this approach, and integrating an engagement with things into existing theories, practices, and pedagogies within media literacy education. Bryant (2014) writes of the political and ethical objective of his particular speculative philosophy which he calls *onto-cartography*:

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It is my hope that a variety of political preoccupations...can be fruitfully ported into the framework of onto-cartography, assisting in the development of new avenues of inquiry and political practice, revealing blind-spots in other theoretical frameworks, and helping to render certain concepts and claims more precise and rigorous. The aim of onto-cartography is not to close off styles of inquiry, but to expand our possibilities for intervening in the world to produce change... (p. 8)

To clarify, my intention is not to dismiss the constructivist or cultural studies traditions that have informed media literacy education. Rather, my objective is to demonstrate how existing approaches to ecomedia literacy education can more effectively address issues of climate change through an integration of the philosophies of speculative realism—with constructivism and cultural studies. Specifically, this *engagement with things* entails revising existing theoretical approaches to media education in ways that (1) recognize the reality of non-human things, (2) emphasize materiality, and (3) challenge the divide between culture and nature.

Object-Oriented Ontology: Recognizing the Reality of Non-Human Things

To be a speculative realist, one must abandon the belief that human access sits at the center of being, organizing and regulating it like an ontological watchmaker.

Ian Bogost, Alien Phenomenology: Or What It's Like to Be a Thing. 2012, p. 5

In his book, *Onto-Cartography: An Ontology of Machines and Media* (2014), philosopher Levi Bryant shares a personal anecdote in which his critical engagement with a video game was key to his own "speculative turn." In the early 2000s, Bryant was playing the popular game *SimCity 4*, in which players design and maintain urban simulations, complete with factories, foliage, stores, citizens, pavement, pollution, taxes, and taxis. Bryant recounts that as he played and reflected on his playing, he realized the significant role that *non-human things* have in what we typically term the *human experience*. Despite Bryant's best efforts to conceive and create his little virtual community as efficiently and effectively as possible, he inevitably ran into material realities that he couldn't have anticipated and were outside of his control. Bryant writes of his experience:

Despite being mediated through something as apparently *immaterial*—in both senses of the word—as a computer game, I had an encounter with real materiality, with physical stuff, with things, and encountered the differences they make. (p. 6)

Through this experience, Bryant recognized the necessity for philosophy to engage with things, and in particular, to rethink the ontology that places the human subject at the center of the world.

Key to developing a speculative ecomedia literacy is the de-centering of human experience from our underlying ontological framework and recognizing the reality of non-human

things. Speculative realism reminds us that there is, in fact, a real world independent of human thought and experience—the tree that falls in the forest *does* make a sound, even if no human is there to hear it. And perhaps just as importantly, it suggests that humans are not the only things to exercise power—the wind traveling through the trees, the woodpeckers nesting in the limbs, the microorganisms assisting in the decomposition of the dead wood, and the tree itself growing, dying, and falling are all active, vibrant forces. Bennett (2010) describes the force exhibited by these things using the term *vitality*, writing:

By "vitality" I mean the capacity of things—edibles, commodities, storms, metals—not only to impede or block the will and designs of humans but also to act as quasi agents or forces with trajectories, propensities, or tendencies of their own. (p. viii)

The argument that reality exists independent of human thought, and that humans are not the only ones capable of exercising power may seem self-evident to those not steeped in this philosophical discourse. Nevertheless, according to the logic of the philosophies on which current scholarly traditions (media literacy included) are founded, "Humanity remains at the centre of these works, and reality appears in philosophy only as the correlate of human thought" (Bryant et al., 2011, p. 2). In order to address this limitation, speculative realism decenters these works, proposing an alternative ontological framework called *object-oriented ontology* (OOO). Bogost (2012) provides a helpful definition, writing:

OOO puts things at the center of being. We humans are elements, but not the sole elements, of philosophical interest. OOO contends that nothing has special status, but that everything exists equally—plumbers, cotton, bonobos, DVD players, and sandstone, for example. (p. 6)

Humans are still present in this ontology; our intellectual understandings, cultural practices, and practical interventions in the world still hold weight. However, OOO de-hierarchizes our understanding of the dynamic power relations among all things, human and non-human, enabling us to more effectively understand all the forces at work in the world.

What does it look like to recognize the reality of non-human things in ecomedia literacy education? Whereas most media literacy initiatives heavily emphasize the critical analysis of media messages, a speculative ecomedia literacy places less emphasis on the interpretation of media texts. In their introduction to *The Speculative Turn: Continental Materialism and Realism* (2011), Bryant et al., write "By contrast with the repetitive continental focus on texts, discourse, social practices, and human finitude, the new breed of thinker is turning once more to reality itself" (p. 3). This is not to say that speculative ecomedia literacy cannot include textual critique, but rather that it recognizes the limits of interpretive work and makes use of multiple modalities to engage with this reality—political economic, scientific, physiological, creative, and so on. López (2014) stresses that ecomedia literacy should be "unlike the traditional media literacy approach that focuses on the study of texts, symbols, and messages as separate from living

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systems" (p. 30). This suggests that, beyond analyzing the "Crying Indian" ad, learners, for example, do historical research on trends of sustainable practices in the packaging and bottling industries, conduct experiments to determine the chemical compositions of commonly-used packaging materials and their relative biodegradability, go on "urban hikes" along busy roadways to collect and catalog trash, and then make use of that garbage as materials for a collaborative art project. While learners still exercise reason, practice critical thinking, and interrogate the world around them, they engage with more things than just media messages, and their engagement will involve more than deconstruction of texts. Through this type of multimodal, interdisciplinary approach to ecomedia literacy education, learners become more aware of ecological realities and see how the meanings they make of media texts fit within a broader understanding of the world.

What does is look like to recognize the vitality of things in ecomedia literacy education? While most media literacy initiatives celebrate and seek to cultivate learners' critical and creative capacities, a speculative ecomedia literacy emphasizes that humans aren't the only powers in play on our planet. The things that have the *vitality* spoken of by Bennett, certainly include media messages, but also lithium-ion batteries, algorithms, cancer cells, industry regulations, carbon emissions, the learners' own corporeal bodies, and so on. At the beginning of her book, *Vibrant Matter: A Political Ecology of Things* (2010), Jane Bennett speculates on the political significance of recognizing the vitality of things, writing:

How would political responses to public problems change were we to take seriously the vitality of (nonhuman) bodies?...My aspiration is to see how analyses of political events might change if we gave the force of things more due. How, for example, would patterns of consumption change if we faced not litter, rubbish, trash, or "the recycling," but an accumulating pile of lively and potentially dangerous matter? (p. viii)

This is not to suggest that ecomedia literacy's acknowledgment of the vitality of things overrules human agency. Media literacy advocates, while occasionally draw from fields like media ecology and media effects, are careful to resist the "direct effects" and "technological determinism" associated with these traditions because they fail to account for human agency (Hobbs 1998, 2010; Kellner & Share, 2005, 2007; NAMLE, 2007). After all, media literacy education's objective is to prepare learners to "access, analyze, evaluate, create, and act" assumes that doing so will make some difference in the world (NAMLE, n.d.).

However, speculative ecomedia literacy acknowledges that in order to cultivate a learner's critical engagement with media, it is also necessary to understand the forces acting alongside, and sometimes in opposition to, human agency. Thus, while ecomedia literacy's engagement with the vitality of things might *start* by considering the power of media representations to frame humanity's relationship with "the natural world," it would eventually go beyond that. For example, ecomedia literacy education might examine the effects of the radiation

emitted by cell phones on our physical bodies. Or, it might explore the role of search engine algorithms in presenting users with perspectives on ecological issues that simply confirm their existing opinions. Some ecomedia literacy advocates have pioneered the practice of helping students measure the impact of the carbon emissions produced by server farms that power the cloud (López 2014). In ecomedia literacy education that draws upon an object-oriented ontology, learners still exercise their agency and cultivate their critical thinking and creativity, while also developing awareness of the diverse web of forces in the world of which they are only a small part.

Materiality: Media Are Things Too

Before there can be a story to analyze, a message to decode, or a pattern to identify in collective or individual media use, there has to be a physical medium, a technical means of communication.

Richard Maxwell & Toby Miller, Greening the Media, 2012, p. 10

The statement from Bryant quoted above in which he describes *SimCity 4* as "immaterial—in both senses of the word" is the type of witticism that scholars rely on to make their publications more enjoyable to read (Bryant 2014). It's clever, but ecomedia literacy scholars and educators are likely to disagree with his claim. To quip that video games are "immaterial" in the sense that they are inconsequential, superficial, unimportant, or powerless is to ignore the facts. According to a 2019 report from the Entertainment Software Association,

2018 was a record-breaking year for our industry, with total video game sales exceeding \$43.4 billion. Over 164 million adults in the United States play video games and three-quarters of all Americans have at least one gamer in their household. As the leading form of entertainment today, video games are an integral part of American culture.

(Entertainment Software Association, 2019)

Even if we question the accuracy of the statistics provided by industry insiders like the ESA, anecdotal evidence (including Bryant's own story of playing *SimCity 4* and likely our own personal experiences) suggests that video games, and media in general, can be substantive and consequential and play an increasingly powerful role in our world. After all, this is how we justify efforts as media scholars and educators—we believe that media matter.

Yet, a speculative ecomedia literacy takes this a step further to say that not only we believe media matter, but also that *media are matter*, independent of any belief we have about them. Media, even digital media, have material properties, occupy physical space, make use of natural resources, and are made of molecules. Again, I acknowledge that the argument that media are material things might seem self-evident, but this is where the limitations of media literacy's

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reliance on constructivism and cultural studies are particularly evident. An especially illustrative example is *The Core Principles of Media Literacy Education* (NAMLE, 2007), perhaps the most commonly cited document in the field and a valuable reference for media literacy scholars and educators. Looking over the document's 2000, or so, words I could find only one sentence that mentions the materiality of media. It reads,

MLE [Media Literacy Education] enables students to express their own ideas through multiple forms of media (e.g., traditional print, electronic, digital, user-generated, and wireless) and helps students make connections between comprehension and inference-making in print, visual, and audio media. (NAMLE, 2007, Pr2.1)

There is only one mention of media as material things, and even in this sentence, media are primarily positioned as "vehicles for human discursivity" (Bryant, 2014, p. 4), as platforms through which humans can "express their own ideas." The rest of the document understands media as *immaterial*—as messages and representations made of not matter, but language, aesthetics, intention, ideology, and so on.

With an understanding of this lack, how might ecomedia literacy education engage with media's materiality? First, while most media scholars and educators primarily approach media as messages, the inclusion of creative production within the definition of media literacy does encourage learners to go beyond analysis and grapple with actual technological things in their efforts to express themselves and communicate to others. Advocating for media studies to reengage with *media ecology* in what they call "platform studies," Bogost and Montfort (2009) discuss the benefits of including practical interventions with physical, technological things among our engagements with digital media. They write:

just as the serious scholar of film might choose to learn about film production in order to understand the methods by which his chosen medium is created, a serious scholar of the book might study bibliography, printing processes and technologies, and how binding and paper-making is done, so the serious scholar of digital media might need to delve deeper into the material construction of software and hardware. An appropriate education in these areas would not be focused on creating new computer platforms or on becoming an expert developer upon them, but on knowing the best questions to ask about existing ones and how to go about answering them. (p. 5)

Media scholars and educators are typically careful not to overemphasize technological proficiency in their definition of media literacy. Rather, they often contextualize these skills within a larger group of competencies including the analytical, reflective, creative, civic, and so on. After all, while the critical engagement advocated for, by media literacy scholars and educators, involves some baseline technical skills, it's not limited to simple button-pushing. In advocating for "platform studies," Bogost and Montfort are not suggesting we cease our critical inquiry of media as messages, but rather that we include among our areas of interest the

materiality of media—and specifically some practical, physical interactions with things like devices and equipment, software and hardware, lights and lenses, mics and mixers—so that we can more effectively make sense of media in their entirety. A speculative ecomedia literacy would be careful to emphasize the role that the material properties and physical compositions of devices, and the affordances and limitations of various media platforms, play in the conceptualization, production, distribution, and interpretation of media.

Furthermore, our engagement with media's materiality must go beyond our present engagement with the things that we use to produce or consume media and extend into both past and future engagement. This involves asking questions like: Where did these things come from? How were they made? What materials are they made of? Where did these materials come from? What will come of these things after our use? What is the ecological impact of these production and consumption practices associated with these things? Nevertheless, this is not the line of inquiry that media scholars and educators have often pursued. In their book *Greening the Media*, Maxwell & Miller (2012) write:

the foundation of media studies is machinery that is created and operated through human work, drawing on resources supplied by the Earth...Despite this fact, media students and professors generally arrive at, inhabit, and depart universities with a focus on textuality, technology, and/or reception; they rarely address where texts and technologies physically come from or end up. (p. 10)

If among ecomedia literacy education's objectives is to help learners understand the impact of media on ecological issues, then we must encourage learners to consider the origins and destinies of our technological things and the environmental impact of global media industries (Gabrys 2011, 2014, 2016; López 2012, 2014; Redmond, 2019). Again, this is not to suggest that we abandon our discussions of the influence of dominant representations of "the environment" on public consciousness. Rather, we must acknowledge both cultural and physical impacts of media.

Nature All the Way Down: Challenging the Nature/Culture Divide

In this actual world there is not much point in counterposing or restating the great abstractions of Man and Nature; we have mixed our labour with the earth, our forces with its forces, too deeply to be able to draw back and separate either out. Except that if we draw back, if we go on with the singular abstractions, we are spared the effort of looking, in any active way, at the whole complex of social and natural relationships which is at once our product and activity.

Raymond Williams, "Ideas of Nature," 1972, p.162-3

One more piece of video game-related anecdotal evidence serves to illustrate my last argument: In 2017, animator and game designer David O'Reilly released a game called

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Everything, in which players navigate a nearly endless three-dimensional space, playing as almost anything you can think of—mammoths, molecules, blades of grass, cumulus clouds, taco trucks, traffic cones, evergreen trees, skyscrapers, solar systems, and so on. The game's website describes the gameplay experience:

Everything is a simulation of reality as a phenomenon of interdependent systems. There are thousands of things that perceive, think and interact differently while being driven by the same underlying rules. All things are aware of themselves, each other and their environment, and simulate with or without player interaction. ("What is *Everything*?", n.d.)

If the game sounds unlike any other game you have played, that is arguably because of the way that it *engages with things*. While most games provide a human-centered experience in which things *enable* (magic mushrooms, crossbows, or bunches of cherries) or *inhibit* (zombies, barrels, or alien spaceships) the achievement of the player's objective, *Everything* is most interested in the consideration of *things* in themselves. In an article for *The Atlantic* titled "The Video Game That Claims Everything Is Connected: Instead, it shows how individual and unique things really are" (2017), video game scholar and OOO proponent Ian Bogost articulates the connection between speculative realism and the unique perspective afforded by *Everything*. At the conclusion of the article, Bogost remarks on a moment of meta-commentary within the game that is significant for our discussion, writing:

There's a lovely moment in *Everything*, just before the player reaches its version of awakening. A new thing appears in a curious murk. It's a PlayStation, wired up to a television. The game displayed upon it is *Everything*, and the scene is the very one the player currently occupies. In a humble whisper, *Everything* admits that it is not everything, but only a video game by that name, full of things made from polygons, just pretending. People play games—and read books, and listen to lectures—not to mistake their ideas for the world, but in order to find new ways to approach that world. (Bogost 2017)

In my mind, the acknowledgement within *Everything* that the game "is not everything" is not suggesting that the game is nothing—that it's "immaterial." Rather, this moment emphasizes that this game is just one little part of a vast, diverse, messy universe made up of individual and unique things. And Bogost's claim—that when humans engage with media and culture, they do so not because they understand the world as being comprised of ideas, (or messages, or texts) but rather because they want to better understand and access the world—is not suggesting that "ideas" don't have some role in reality, but rather that their role is limited in this vast universe. Bogost, and the game itself, suggest that we shouldn't confuse our *understanding* of reality with reality itself. In this example, media—and by implication, culture—exist not above, but alongside, and perhaps even as part of, the natural world.

How we define *nature* and *culture* and how we perceive the power relations between these two terms have significant implications for our approach to ecomedia literacy education. In one respect, constructivist and cultural studies traditions advocate for an understanding of reality that is wholly comprised of ideas, language, and representation—*everything is culture*. Interestingly, these discourses simultaneously try and make sense of reality using the dichotomy of *culture* and *nature*, which divides the realm of humanity (characterized by things like subjectivity, creativity and contingency) from the realm of the non-human "other" (characterized by objectivity, necessity, and essence). Speculative realism suggests an alternative perspective on the issue—the argument that "being consists of nature alone" (Bryant, 2014, p. 251). Bryant's particular brand of speculative realism argues for the dissolution of the nature/culture dichotomy in favor of an understanding of *all things as nature*. He writes:

Culture and society are not something other than nature, but, like Amazonian rain forests or coral reefs, are a particular formation of nature. Historically the nature/culture divide has been justified on the grounds that culture is historical and contingent, while nature is characterized by necessity and eternity...This is premised on a deleterious pre-Darwinian concept of nature that should be abandoned. Nature is not characterized by necessity, eternity, and inevitability, but rather by contingency, history and creativity...Life is contingent and historical. (p. 251-2)

Bryant's perspective that *everything is nature* gives greater significance to the PlayStation that pops up among all those things in *Everything*. By this logic, media (like the game *Everything*, and even the physical PlayStation game console) are just as much nature as the mammoths, molecules, and anything else.

What is the benefit of understanding all things as "nature"? The perspective advocated for by Bryant clearly provides a "new way to approach the world" (returning to Bogost) and a potentially productive perspective which has traditionally been marginalized. But it may also have particular practical import in our engagement with ecological issues. Bennett (2010) asserts the political (and ecological) benefits of flattening not just ontology but also these categories of nature and culture, explaining:

Theories of democracy that assume a world of active subjects and passive objects begin to appear as thin descriptions at a time when the interactions between human, viral, animal, and technological bodies are becoming more and more intense. If human culture is inextricably enmeshed with vibrant, nonhuman agencies, and if human intentionality can be agentic only if accompanied by a vast entourage of nonhumans, then it seems that the appropriate unit of analysis for democratic theory is neither the individual human nor an exclusively human collective but the (ontological heterogeneous) "public" coalescing around a problem. (p. 108)

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The "hybrid" reality with which we are faced—especially in the age of global climate crisis—requires us to think beyond ourselves, beyond categories of human and non-human or culture and nature, and understand and interact with the world in all of its complexity.

What are the practical implications of this challenge to the nature/culture divide in ecomedia literacy education? In general, it involves a deliberate use of multimodal and interdisciplinary pedagogical perspectives and practices. These are not new concepts in media literacy conversations—there have been efforts for decades to resist media literacy as a discrete subject area and to recognize the significance of integrating MLE as pedagogy across disciplines (Hobbs, 1998, 2008, 2010; Jenkins et al., 2006; NAMLE, 2007; NCTE, 2003). MLE often emphasizes the benefits of diverse methods of inquiry that allow teachers and learners, with diverse backgrounds, experiences, perspectives, strengths, and styles to benefit from the educational experience and engage with the objects of inquiry from a number of different points of view. However, I think it is safe to say that most media literacy scholars and educators still work within disciplines of the humanities and social sciences, and in particular media, communication, and/or education. As demonstrated throughout this article, in order for a speculative ecomedia literacy to effectively engage learners with the relationship between media and ecological issues, and reconceptualize themselves as part of the world of things, these disciplinary boundaries have to be overcome—and in particular, the arts, humanities, and social sciences have to be in conversation with mathematics, technology, and the hard sciences.

Cooper (2011) provides a very quotable claim (especially among ecomedia literacy advocates) writing that "In order to be climate change literate, the public must first be media literate" (p. 235). While this statement ties these two discourses together in a way that I find ultimately productive, I think the causal relationship established between "climate change" and "media" is problematic. Perhaps in order to be "climate change literate," the public must be critically literate in their engagement with media (certainly), but also governmental policy, economic systems and practices, biological, geological, and other scientific data, and so on.

Lastly, in order to overcome this nature/culture divide, I argue that speculative ecomedia literacy needs to go outside. For too long, education in general, and media education in particular, has reified this nature/culture divide in the actual physical space it does (or does not) occupy and the objects of inquiry it does (or does not) deem worthy of attention or interrogation. Taking these educational efforts outdoors benefit teachers and learners for a number of reasons: providing an extended, less-structured classroom space, increased opportunities for experiential learning, and so on. Though, the benefit for ecomedia literacy education is especially apparent. Taking ecomedia literacy outside provides teachers and students greater opportunity to engage with things and develop a practical and multifaceted understanding and involvement in ecological issues. I am reminded of López's (2014) explanation of the complex epistemology on

which his own work in ecomedia literacy relies and the various activities he includes in his inquiry. He writes:

Given that an ecological perspective is by nature multifaceted, it is important to acknowledge that complexity is also part of my extended epistemology. Thus, my orientation is hermeneutic in combination with extended epistemologies that encompass complexity. This means "not everything in reality is socially constructed, and social constructions and conversations are not floating in an ocean of chaos...but are embedded/entangled with attractors, i.e., intervening variables at physical, chemical, biological and ecological levels of reality" (Kagan, 2011, p. 20). Subsequently, my inquiry process included meditations in nature, testing ideas in classrooms, traveling internationally to engage practitioners at conferences, walking through the streets of Rome, conversing in online social networks, gardening, worrying about the future of my children, absorbing cross-cultural encounters from past educational experiences, struggling with colleagues, and using art for inspiration. (p. 19–20)

A comprehensive response to issues, like climate change, requires comprehensive education related to ecological issues. The teachers and learners in a speculative ecomedia literacy education may (like López) meditate, test, travel, engage, walk, converse, garden, worry, absorb, struggle, and utilize art, among many other activities, as means of developing their own multifaceted understanding of the world and their own responses to addressing the problems facing it.

Devices in the Dirt: A Quick Case Study

This article is just the start of a conversation: one in which scholars and educators interested in addressing ecological realities in their work can make use of speculative realism and incorporate engagement with things into their ecomedia literacy initiatives. My argument has been largely theoretical, with only few practical examples peppered throughout, and that is definitely a limitation. Only through practice (by engaging with actual things including students, places, problems, data, and so forth) will speculative ecomedia literacy be realized. For that reason, I feel obliged to include in this largely theoretical exercise one last practical pedagogical example.

In an undergraduate course I teach called Contemporary Screens, I have at times included an activity called "Devices in the Dirt." In the course, I introduce students to relevant themes in studies of digital media, including authorship, interactivity, aesthetics, platforms, and so forth. I include the "Devices in the Dirt" activity early in the semester to ground (literally and figuratively) the students' studies of digital media. First, I lead my students out of our classroom, and then out of the building into a nearby lawn on the university campus for a collaborative art project. I give them instructions to bring all of their technological devices—phones, tablets,

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laptops, game devices, smart watches, and so on— and put them in a pile on the ground. After some quizzical looks, and often some visible hesitation, the students typically follow my directions. Then, with the pile of screens on the ground, I direct the students to go and encourage others on campus to take part in the art-making and add their own devices to the pile. Students reluctantly leave their screens and do their best to recruit passersby to our project. Now, the pile is bigger and so is the crowd of people anxiously awaiting to get their hands on their gadgets. Before I give them the go ahead to retrieve their devices, I ask them to take a moment to feel their feet on the ground and then take note of the thoughts and feelings that they're having. Finally, the students scramble back to the pile to sort through the mix of devices and reclaim their things.

After everyone has their devices safely stowed away again, I invite the students to sit on the grass and discuss the experience. I invite them to reflect on those thoughts and feelings they noted during the art project and share them with the class. Responses from students often include thoughts like, "That was a big pile of devices." "I was worried about putting my devices in the dirt, it didn't seem right." "I felt anxious walking away from my device because I was afraid it would be lost or damaged." "I felt nervous that other people might handle my device or see a private notification." "I felt guilty or embarrassed asking others to hand over their devices." "I didn't realize how attached I was to my device until it was in that pile."

Then, drawing from the responses from the students, I share my own thoughts and steer the conversation to address some of the points outlined in this article—the pile was big. That's a lot of stuff. It's interesting that as creators and communicators, (my students are mainly Media Arts majors) we typically study media as ideas and not things. But putting those screens in a pile reminds us of the reality and materiality of media. I also felt a similar mixture of anxiety, guilt, and confusion putting my devices in the dirt and asking others to do the same. This emotional response speaks to the power that these devices wield. We may emphasize our exercise of agency as conscious consumers and creators of media, but we're not the only ones with power here. I may go a day or a week without seeing a loved one, but I struggle to put my phone down in a field for a few minutes.

Lastly, I share that it's interesting that we don't want our devices down in the dirt. I wonder if this a result of the distinction we often make between technology and nature? What does it convey that we feel more anxious about the Earth's effects on our devices than vice versa? After all, our devices are made of resources derived from the Earth. And where do we think these very devices will be laying on in another few years? Down in the dirt, most likely.

The "Devices in the Dirt" activity is just one practical approach, among many others that I have workshopped and even more that I have conceived of but not yet integrated into my teaching. My inclusion of it here is not to provide the illustrative example of speculative ecomedia literacy, but to provide some practical jumping-off point, so that our efforts as media

scholars and educators can make a difference in arguably the most pressing issue facing our planet today. My intentions for this research echo that of Bennett (2004) who writes:

I pursue this project in the hope of fostering greater recognition of the agential powers of natural and artifactual things, greater awareness of the dense web of their connections with each other and with human bodies, and, finally a more cautious, intelligent approach to our interventions in that ecology. (p. 349)

I look forward to the theoretical and pedagogical work that I and the community of ecomedia literacy scholars and educators will engage in together.

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