Mistification: the Dreadful Side of Cloud Computing

Vicente Bicudo de Castro

Deakin University
v.bicudodecastro@deakin.edu.au

Heitor Coelho

Universidade do Estado do Rio de Janeiro heitorcoelho@gmail.com

Danilo Bantim Frambach

Universidade do Estado do Rio de Janeiro dan.bantim@gmail.com

Copyright© 2023 Vicente Bicudo de Castro, Heitor Coelho, Danilo Bantim Frambach. This text may be archived and redistributed both in electronic form and in hard copy, provided that the author and journal are properly cited and no fee is charged, in accordance with our Creative Commons Licence.

Abstract: We live in a world increasingly dominated by technology, and there are many technological advances that we frequently use about which we know very little. Among them, one we know mostly through metaphor stands out: "cloudification". Metaphors play a central role in our understanding of the concepts and ideas that present themselves, revealing for the first time something that was already there. In this way, we propose the term *mistification* as a more accurate expression of the current technocratic/technological *status quo* for which the terms "cloud" and "cloudification" are used. The proposed term – a neologism – conveys elements of Gothic horror which, we hope, precisely capture the current experience of endusers of the cloud. Using *New Dark Age* (Bridle, 2018) as a point of departure, we propose an analogy between end-users of the cloud with players in a Gothic horror role-playing game, namely the *Ravenloft* campaign setting of *Dungeons & Dragons*. Similarly to players in a

Gothic horror game, end-users remain ignorant and helpless against all too powerful technocratic/technological giants and their pursuits. This article adds elements belonging to a horror role-playing game campaign setting to a wider cross-disciplinary discussion regarding human-machine interaction.

Keywords: Cloud computing; Gothic horror; Roleplaying game; *Mists of Ravenloft*

Introduction

In this article, we propose the terms *mist* and *mistification* as an expression of the current technocratic/technological *status quo* for which the terms "cloud" and "cloudification" are used. There is an ontological necessity to address the term "cloud" and its derivations due to the inaccuracy of such a metaphor regarding the use of technology, as discussed in *New Dark Age* (Bridle, 2018). Therefore, we use Bridle (2018) as a point of departure for elaborating our argument. After discussing the inaccuracies of the cloud metaphor in describing the phenomenon imprecisely termed as "cloudification", we propose an entirely different interpretation of our society's current technocratic/technological *status quo*, one that evokes elements of Gothic horror. We characterize our new approach for depicting our current situation as mistification. The proposed term – a neologism – conveys elements of Gothic horror which, we hope, precisely capture the current experience of end-users of the cloud.

We develop our proposition with an analogy between end-users of the cloud and players in a Gothic horror role-playing game, namely the *Ravenloft* campaign setting of *Dungeons* & *Dragons*. The analogy suits the proposition because players in role-playing games interact in an abstract setting, just as end-users of the cloud. *Ravenloft* is a campaign setting where mists have such a prominent role, with properties similar to cloud computing.

The remainder of this article is structured as follows: a section explaining our new dark age, as developed by Bridle (2018), followed by a section on the importance of metaphor to our comprehension of concepts and real-world ideas. A further section provides the foundation of the concept of "cloud", which is followed by a section presenting the *Mists of Ravenloft*, a setting for *Dungeons & Dragons*. A section about the metaphor of mistification is then provided, followed by the conclusion of the article.

Light and Darkness

When explaining his usage of the expression "new dark age" in the book named after it, James Bridle explains he does not employ it in its usual sense of "absence or occlusion of knowledge", but in reference to "an apparent inability to see clearly what is in front of us, and to act meaningfully, with agency and justice, in the world – and, through acknowledging this darkness, to seek new ways of seeing by another light" (Bridle, 2018, p. 12).

The questions Bridle engages with and their apparent paradoxes are familiar. Indeed, how can it be that, in such a technologically advanced, interconnected world, with hoards of information and knowledge available at the mere touch of a button, literally at our fingertips, one could rightfully talk of a dark age? Are we not surrounded by the bright light of knowledge?

A blinding light, perhaps:

And so we find ourselves today connected to vast repositories of knowledge, and yet we have not learned to think. In fact, the opposite is true: that which was intended to enlighten the world in practice darkens it. The abundance of information and the plurality of worldviews now accessible to us through the internet are not producing a coherent consensus reality, but one riven by fundamentalist insistence on simplistic narratives, conspiracy theories, and post-factual politics¹. It is on this contradiction that the idea of a new dark age turns: an age in which the value we have placed upon knowledge is destroyed by the abundance of that profitable commodity, and in which we look about ourselves in search of new ways to understand the world. (2018, p. 12)

A compelling statement, though slightly incomplete or, perhaps, imprecise, and for at least two reasons.

First, in this passage² Bridle mistakenly conflates knowledge and information, but what is abundant is the latter, not the former. Since information does not, in itself, constitute knowledge, and never can do so unless we have learned to think with, through and about said information, the imprecision actually seems to work in favour of Bridle's argument: this "deluge of data", as Kevin P. Murphy called it over a decade ago (when it was much less intense; Murphy, 2012, p. 1), drowns us to such an extent and in such ways as to actually deprive us of the knowledge it promises, paradoxically rendering us more ignorant instead. What is required, then, is precisely the ability to meaningfully make use of data, connecting it and giving it meaning – "systemic literacy", as Bridle calls it.

The second reason, however, works against said argument or, at least, exposes its insufficiency: the darkness of the dark age is neither simply the lack of the light of knowledge, nor simply the shadow cast by its excess, but also the result of an alienating social structure that has developed extremely sophisticated techniques, as well as the corresponding technology, to deliberately hinder common access to knowledge – what Zuboff (2019) has termed the

"division of knowledge", mirroring the classic sociological and economic division of labour. This structure has effectively isolated social groups and individuals, obfuscated the functioning of economic, bureaucratic, technological, and many other aspects of social phenomena, and torn public debate apart, subsequently shaping the public sphere into a set of distinct and dreadful realms (a topic to which we will soon return).

For now, it must be said that, imprecisions aside, Bridle's assessment of the challenges ahead of us is still sound: "if we do not understand how complex technologies function, how systems of technologies interconnect, and how systems of systems interact, then we are powerless within them" (2018, p. 8). And, indeed, we must admit that, even though this lack of understanding is, as we see it, not the sole cause of powerlessness, it is a fundamental one. A complete and thorough understanding of all technology, however, is impossible, perhaps in any society, given technology's innate social and collective character, but even more so in ours, due to the scale and complexity (not to mention frequent deliberate opacity) of the many systems with which contemporary life is intertwined. If we are to escape such powerlessness, becoming able to think critically about technologies and technological systems and taking part in their elaboration and use, it would therefore be pointless to try to follow this unachievable path of "functional" understanding; what is required is what Bridle describes as "systemic literacy". More than understanding, this "true literacy [...] goes beyond a system's functional use to comprehend its context and consequences" (2018, p. 8). Technological education alone is, therefore, not enough, just as...

learning to plumb a sink is not enough to understand the complex interactions between water tables, political geography, ageing infrastructure, and social policy that define, shape and produce actual life support systems in society [...] you should be able to understand technological systems without having to learn to code at all, just as one should not need to be a plumber to take a shit, nor to live without fear that your plumbing system might be trying to kill you. (2018, pp. 8-9).

If not coding and functional understanding, then, how is systemic literacy to be achieved? "What is needed", says Bridle, "is not new technology, but new metaphors" (2018, p. 9).

About Metaphor

In his book, Bridle rationalizes the very justifiable need for new metaphors with but a few considerations, followed by many critiques of current metaphors and suggestions for novel ones. We will take particular interest in one of these critiques, surely the most dominant in the

book, which is that of the cloud. We would also like to briefly complement Bridle's considerations of the importance of metaphors, which he argues are essential for developing systemic literacy, i.e., for anyone who wishes to comprehend our technologically intertwined, data deluged, knowledge saturated world.

Metaphors would, as Bridle proposes, allow for some form of comprehension of the world even when (technical, functional) understanding is not possible, but also beyond it; only through metaphor could anyone, "plumber" or "non-plumber", hope to make sense of "the complex interactions between water tables, political geography, ageing infrastructure", etc. In his words, we "often struggle to conceive of and describe the scope and scale of new technologies, meaning that we have trouble even thinking them." Metaphors, then, could provide us with "a metalanguage for describing the world that complex systems have wrought" (2018, p. 9). That is, however, hardly all that metaphors can and even must do. Although Bridle is proposing a more specific use for metaphors, we believe it might be fruitful for us to expand our view beyond such specificities. The discussion about rhetoric and metaphor (a resource privileged by rhetoric) is, after all, an old one, and there is much to learn from even a quick review of it.

Such arguments can be traced back at least to Greek antiquity, having its greatest exponents in Plato and Aristotle. The Platonic position is evident in the *Republic*, a work in which the philosopher structures all his criticism of the poetic discourse and the artistic posture in general. Paradoxically, Plato uses poetic and imagery resources to confirm his own concepts, using images to serve as confirmation of them, in a surprising demonstration of the power of metaphors in providing insightful reflection.

Aristotle, however, inaugurates the idea that metaphor, far from being a simple ornament of speech, is, in itself, a form of knowledge – a fact recognized and very well illustrated by Umberto Eco:

In *Poetics*, he says that understanding good metaphors means "knowing how to discern the akin or the similar concept". The verb he used was *theorêin*, which stands for discerning, investigating, comparing, judging. But Aristotle returned more slowly to this cognitive function of metaphor in the *Rhetoric*, in which he said that what arouses admiration is pleasant because it makes us discover an unsuspected analogy, that is, it "places before our eyes" (as he expressed it) something that we had never noticed, so we are led to say "see, that's right, and I didn't know" (2016, p. 364, authors' free translation).³

Thus, Aristotle understood a quasi-scientific function for good metaphors – not because they "discover" something that was already there, but in making it appear there for the first time; in other words, for creating a way of looking at things, as a cognitive resource. The Aristotelian view of metaphors lost its strength in modernity, however. With Hobbes and Locke, but especially with Hegel, what we see instead is contempt for metaphor. The latter even argues

that when we try to translate the dynamism and complexity of concepts into images, though apparently, we may seem to be sharing ideas and being didactic, in fact, we are destroying the strength and potency of the concept.⁴

It was only in contemporaneity that metaphor regained its place in scientific and philosophical thought, salvaging Aristotle's words: "(...) the soul never thinks without an image" (2014, p. 1499). In this broad conception, we can, alongside Derrida, go so far as to affirm that nothing happens without metaphor:

What is going on *with* metaphor? Well, everything: there is nothing that does not go on with metaphor and through metaphor. Any statement concerning anything whatsoever that goes on, metaphor included, will have been produced *not without* metaphor. There will not have been a metaphorics consistent enough to dominate all its statements. And what gets along *without* metaphor? Nothing, therefore, and one ought to say instead that metaphor gets along without anything else, here without me, at the very moment when it appears to be going on by way of me. (2007, p. 50)

Thus, we see that metaphor is not merely a device with one or other important uses, but rather the proper form of our thought and language; even though it is best known as that which establishes relationships between the previously instituted senses, images and representations, in order to better explain the former, i.e., as an analogy, as an example, as a figure of speech. All this movement makes the process of metaphorical construction a living one, which establishes, each time, the meanings of words. As Ricoeur states:

(...) technical language and poetic language constitute the two ends of a single scale. One end is occupied by univocal meanings anchored in definitions. At the other end, no meaning stabilizes outside the 'movement among meanings' (48)⁵. Certainly, the work of good authors tends to give words fixed values of usage – which is, without doubt, the origin of the false belief that words have a meaning, that they possess their meaning. So too, the theory of usage did not overthrow, but finally strengthened, the preconception of the proper meaning of words. But, as opposed to the usage that fixes their meanings, the literary use of words consists precisely in restoring 'the interplay of the interpretative possibilities of the whole utterance' (55). This is why the meaning of words has to be 'guessed' (53) every time; one can never build upon an acquired stability. The experience of translation is parallel to this. It shows that the sentence is not a mosaic, but an organism. To translate is to invent an identical constellation, in which each word is influenced by all the others and, bit by bit, profits from its relation to the whole language. (2004, pp. 90-91, our emphasis added)

Being alive, like an organism, a metaphor creates and recreates language itself, subverting rules, but, simultaneously, producing new meanings that were not present before. With this analysis of metaphor's philosophical characterization, we can now turn our attention towards two important questions: how do metaphors work? And, moreover, what makes a metaphor inadequate?

As we have seen, metaphors point to displacements of meaning. They are *tropes*, that is, figures of speech that allow one thing to be said instead of another. They are evident in poetic language, for example, when comparing what we feel when seeing the one to which we are in love to "butterflies in our stomach." But in everyday conversations, they often go unnoticed. Thus, when we say: "They are arriving at the foot of the mountain" we resort to displacements of meanings since feet, at first, refer to people. Such expressions, sometimes, become the usual (if not inevitable) way of referring to something – as if they are *demetaphorized* by use. They are, therefore, called dead or sleeping metaphors.

Along with his argumentation theory, Claïm Perelman (1971, 1982) argues that metaphor and analogy are inseparable. According to his theory, metaphors are condensed analogies. The example he gives comes, once again, from Aristotle: we say that an old person is in "the night of life", that is a condensed version of the analogy "old age is to live what night is to day". In other words, what the analogy explains is that the metaphor condenses in one expression, giving more impact to the idea. Furthermore, metaphors establish relations of similarity, not equality of the terms. It is to say that they do not refer to concepts such as true or false but to the *efficiency* in communicating an idea. Doing so, they often hide some aspects. For example, when we say that a soccer game is like chess – emphasizing the rational and logical in a coach's strategy – we hide the human creativity and the players' individual ability and geniality, which often decides the result of the game. However, metaphors show fragility. Unlike demonstrative reason, metaphors do not require the interlocutor's adoption of the idea, allowing them to work with it in unforeseen ways. For instance, faced with the consensus that light is positive, and dark is negative, one could say that an excess of light can blind in the same way as its complete absence.

Even though they have that "instability", metaphors are, like we said, the proper form of our thought and language. In this way, we can argue that they are a fundamental part of our culture, which forms us as humans. In *Metaphors we live by* (2003), George Lakoff and Mark Johnson argue in that way, demonstrating the whole that metaphors have in our perception. In this way, the strength of some metaphors resides in the fact that their broad acceptance imposes, as well, a set of conclusions, ideas, concepts, and even other metaphors. Metaphors such as these are named *root metaphors* by Max Black (1962), and *conceptual metaphors* by Lakoff and Johnson (2003), but we prefer the term *fundamental metaphors*. Those three related terms refer to metaphors that pretend to enforce an ontology and a worldview. As said by Perelman, all philosophical reasoning "develops by an argumentation that aims to have certain analogies and metaphors accepted as central elements in a world view" (1982, p. 125). In other words, instead

of starting from a metaphor that, in the end, must be eliminated, philosophical reasoning will try to offer the reasons that will justify the preference given, in the last analysis, to a certain metaphor to the detriment of another. In this context, we should talk about "metaphorical truth", i.e., one that expresses reality more adequately.

Clouds are, in their own way, a fundamental metaphor for our present-day digital capitalism. And, as we will argue, the metaphor of the cloud shows a very physical and demanding structure built to store data as weightless and fluffy. That is a superficial understanding of the clouds, which, in a way, makes us not fear its hidden agenda, seeing it as a technology made only for our benefit⁶. Nevertheless, this broader understanding of the importance of metaphor allows us to better weigh the importance of a metaphor that is so central to present-day digital capitalism, and to whose critique Bridle has rightfully dedicated much consideration: that of the cloud.

Heavy Clouds

It is easy to understand why Bridle turns his attention to the cloud, as it constitutes a perfect example of the darkening produced by our dark age. It is a metaphor so pervasive, so enmeshed in our daily lives, yet so little understood, that we barely even seem to realize it is a metaphor. The cloud has recreated the language of the internet and has done so in such a way that it has become nigh impossible to display the current technological *status quo* in anything but a benevolent light.

Today the cloud is the central metaphor of the internet: a global system of great power and energy that nevertheless retains the aura of something noumenal and numinous, something almost impossible to grasp. We connect to the cloud; we work in it; we store and retrieve stuff from it; we think through it. We pay for it and only notice it when it breaks. It is something we experience all the time without really understanding what it is or how it works. It is something we are training ourselves to rely upon with only the haziest of notions about what is being entrusted, and what it is being entrusted to. (Bridle, 2018, p. 9)

In a seeming testament to this, any superficial investigation of available definitions of cloud computing will almost exclusively produce answers both vague and benign. Especially if we rely on tech companies themselves to do the answering.

Microsoft Azure's What is Cloud Computing? A Beginner's Guide (2022), for instance, wastes little time in mixing cloud computing with the internet itself: "cloud computing", it tells us, "is the delivery of computing services – including servers, storage, databases, networking,

software, analytics, and intelligence – over the Internet ('the cloud') to offer faster innovation, flexible resources, and economies of scale". TechTarget's definition is similarly wide: "cloud computing is a general term for anything that involves delivering hosted services over the internet" (Chai & Bigelow, 2021). And, last but not least, Amazon's AWS (2022), the world's largest provider of cloud hosting services, offers us some blatantly need-to-know information for would-be customers that simultaneously binds the cloud to their product and its way of functioning: "cloud computing is the on-demand delivery of IT resources over the Internet with pay-as-you-go pricing".

The problem may still remain when we move from introductory websites to introductory books, as evidenced by *Cloud Computing for Dummies*' definition of cloud computing, complete with a borderline advertising finale:

Cloud computing is a method of providing shared computing resources, including applications, computing, storage, networking, development, and deployment platforms as well as business processes. Cloud computing makes computing resources easier to use by providing standardization and automation. (Kirsch & Hurwitz, 2020, p. 8)

Only when searching for definitions on works aimed at adept readers, we are reminded of cloud computing's complexity and very objective materiality. The US National Institute of Standards and Technology (NIST) defines it as "a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services)" (Mell & Grance, 2011, p. 2). Yet NIST's purposely arid definition does little to convey an adequate measure of the influence which cloud computing exerts on our lives and society as a whole. It is only when we resort to other authors who, as Bridle, aim for a more critical approach to technology, that we will find language that conveys more adequately the scale of cloudification, describing it as:

... a terraforming project, covering the globe in subterranean wires and switches and overhead satellite arrays, simultaneously centralizing and decentralizing computing and data storage and the social relations that depend on them (and vice versa). (Bratton, 2015, p. 232)

Yet terraformation here is no metaphor: Bratton means it quite literally, as he will often cite the "billions" of machines that compose the cloud and, more importantly, harshly describe the toils it demands of Earth and its numerous consequences. And that is a big part of the reasons why the cloud is a bad metaphor, as Bridle puts it:

The cloud is not weightless; it is not amorphous, or even invisible, if you know where to look for it. The cloud is not some magical faraway place, made of water vapour and radio waves, where everything just works. It is a physical

infrastructure consisting of phone lines, fibre optics, satellites, cables on the ocean floor, and vast warehouses filled with computers, which consume huge amounts of water and energy and reside within national and legal jurisdictions. The cloud is a new kind of industry, and a hungry one. The cloud doesn't just have a shadow; it has a footprint. Absorbed into the cloud are many of the previously weighty edifices of the civic sphere: the places where we shop, bank, socialise, borrow books, and vote. Thus obscured, they are rendered less visible and less amenable to critique, investigation, preservation and regulation. (Bridle, 2018, p. 10)⁸

Piercing the obfuscation of the cloud metaphor, it can be asserted that cloud computing is not merely a new and useful gimmick (Mattern, 2016, Starosielski, 2014), but represents a "paradigm shift from local to network-centric computing and network-centric content where distant data centres provide the computing and storage resources", as well as how, in "this new paradigm", "users relinquish control of their data and code to Cloud Service Providers" (Marinescu, 2018, p. 3). The "cloud" has pull: it attracts data, code and, ultimately, influence and power to itself; simultaneously, the cloud has length, extending itself as far as it can in order to appear and draw anything from anywhere. That which it attracts can then be rendered to become a part of the cloud: birthday pictures, a poem, medical registers, now cloud-hosted; an online purchase, a cash deposit, a professional meeting, now performed via cloud-based services – the list could go on indefinitely. This process of attracting, extending and rendering is what can be roughly termed "cloudification".

The cloud's opacity is deliberate – and convenient to Big Tech, to say the least.

There are good reasons, from national security to corporate secrecy to many kinds of malfeasance, for obscuring what's inside the cloud. What evaporates is agency and ownership: most of your emails, photos, status updates, business documents, library and voting data, health records, credit ratings, likes, memories, experiences, personal preferences and unspoken desires are in the cloud, on somebody else's infrastructure. [...] The cloud is a power relationship, and most people are not on top of it. (Bridle, 2018, p. 10-11)

In spite of this precise and insightful critique, Bridle does not try to follow his own advice and offers a new metaphor to replace the "cloud". On the contrary, he attempts to salvage it, in a way, to "turn the figure of the cloud over once more in order to produce a new metaphor" and, hopefully, to "supplant base computational thinking with cloudy thinking".

Although an analysis of this endeavour might warrant worthy considerations, we would rather refrain from them and simply point out, instead, that the thing designated as "cloud computing" remains in want of the new metaphors whose urgency Bridle so strongly emphasized – and, following that, to present our own attempt at offering one.

The Land of the Mists

The metaphor we seek to offer, however, unlike cloudification, is not inspired by an everyday meteorological phenomenon, taking its motives, instead, from a role-playing campaign setting and, through it, from Gothic horror literature and art in general. It is to these origins that we must turn now, before returning to the metaphor proper. *Ravenloft* is a Gothic horror campaign setting for *Dungeons & Dragons*, a role-playing game. A role-playing game is a game in which players assume the roles of characters and actions taken succeed or fail according to a formal system of rules, such as Dungeons & Dragons, whose application is determined via collective arbitration, usually led by an arbiter/narrator designated as game or dungeon master (viz. Mackay, 2017). A campaign setting, such as *Ravenloft*, is a fictional world which serves as a setting for adventures in role-playing games.

Ravenloft has been an official campaign setting for multiple Dungeons & Dragons roleplaying material and adaptations (e.g., Hickman and Hickman, 1983, Connors and Miller, 1997, Bicudo de Castro, 2018, Crawford et al., 2016)⁹ and the setting for novels (e.g., DeWeese, 1994, Coulson, 1994, Cunningham, 1994) and video games. Ravenloft followed the path of other Gothic horror games, such as the acclaimed Call of Cthulhu (Petersen, 1981), in challenging the players in different ways from traditional fantasy adventures. Throughout its history, the terms Ravenloft, Land of the Mists, Demiplane of Dread, and Domains of Dread have been used interchangeably.

The *Demiplane of Dread* consists of a collection of domains, brought together by a mysterious powerful force known only as the Dark Powers. The *Mists of Ravenloft* could appear and draw anything from anywhere in the universe (i.e., other *Dungeon & Dragons* campaign settings) into the Demiplane of Dread. Although the exact nature of the Dark Powers is deliberately kept vague, it is evident they are drawn towards evil, as Nesmith et al. (1994a) explain:

The dark powers have some interest in the evil that beings do inside and outside the misty borders of Ravenloft. Acts of great evil and malice can result in transportation to the dark land. (...) There is a common perception that the dark powers tempt people into evil acts. Nothing could be further from the truth. No one has ever been sought out by the dark powers and offered a great reward in exchange for the undertaking of an evil act. Rather, the dark powers are always watching for evil done for evil's sake. They constantly probe time and space with their unimaginable senses. They seem to make no move to foster evil, but act only to reward or punish (depending upon one's point of view) those who have already begun to follow a path of darkness. (Nesmith et al., 1994a, pp. 16-17)

It must be noted that, despite the association with evilness, the *Mists of Ravenloft*, as instruments of the Dark Powers, do not tempt people into evil acts; understanding the Mists is conditional to understanding the Dark Powers:

Exactly what the Mists are or how they function is unknown. (...) The truth will almost certainly remain unknown until such time as the true nature of the Dark Powers is revealed. (Connors and Miller, 1997)

The main elements of Gothic horror relevant to this analysis are ignorance and helplessness. Whereas helplessness represents how the players generally confront creatures and situations far more powerful than any they might be reasonably expected to deal with, hence being powerless to completely obliterate such threats, the element of ignorance pertains to the lack of information available to players, as doubts enhance the feelings of weakness and vulnerability:

No matter how much the players deduce or how many answers they uncover, they must always believe that other crucial tidbits exist that they do not know about. This may very well be untrue, but they should always feel that they are missing some important piece of the puzzle. (Connors and Miller, 1997)

Other elements present in Gothic horror are isolation, alienation, and contrasts (Connors and Miller, 1997). Isolation means players may have no hope of outside assistance; hence, they depend upon themselves and their own resources and often have no route of retreat (e.g., "They stand with their backs against the wall"). Although alienation might resemble isolation; it means the players feel cut off from help even when surrounded by people (e.g., "discovering something that no one else will believe, cultural differences keep the players from interacting with the locals etc."). Contrasts enhance the differences perceived by the players, hence things that appear wholesome and happy by day become frightening and menacing at night, and evil seems even more disturbing when placed side by side with innocence.

The Dark Powers and its *Mists* provide a baseline for helplessness and ignorance in *Ravenloft* because it is a power too great to be subdued and its nature is beyond comprehension. The Dark Powers never reveal themselves; hence the *Mists* are drawn to the front stage in *Ravenloft* as the instruments of the Dark Powers. DeWeese (1994) narrates the experience of entering the mists:

He ran, but even that was silent and dreamlike, and he began to wonder: Did this place have no end? Had he escaped into the Mists? Or simply been trapped by them? (DeWeese, 1994, p. 132)

Entering the *Mists of Ravenloft* is like entering "in a bewildering, foggy dream world, where time and space seem twisted and tangled." (Nesmith et al., 1994a, p. 16). The experience of being captured by the mists varies:

Larson paused, wondering how best to answer this. "I came from a land called Cormyr," he said slowly. "How far it is from here, I do not know. As a scholar and bard, I travel much. One day while I was rowing a skiff, a strange mist covered the river." (Cunningham, 1994, p. 58)

One moment he was about to capture an important stronghold, slaughter its inhabitants, and plunder at his leisure. The conquest would enhance his rapidly growing political strength. But a peculiar fog separated Hans, his three veteran fighters, and Wilm from the rest of the army. And when the mist lifted, the five found themselves in this alien realm, Barovia. (Coulson, 1994, pp. 193-194)

As noted above, often words such as strange, peculiar, dreamlike and bewildering are attributed to the Mists, and people captured by the *Mists* are reportedly trapped and disoriented in a foggy dream world where time and space seem twisted and tangled.

Mistification

Metaphors produce new meanings that, before, were not present there. Following Bridle's (2018) claims that it is necessary to build new metaphors that help us to think about current technological concepts and the complex production of data, we propose the *Land of the Mists* is a suitable simulacrum of the cloudification phenomenon, therefore arguing mistification to be a more suitable metaphor for such phenomenon.

The word mystification derives from mystery, a word originating from the Greek word μὕστήρῖον (mustḗrion), whereas our proposed neologism mistification derives from mist, a word which shares the same root of the Greek word ομίχλη (omíchli). Using the term mystification would impose an already established message limited to mystery and secrecy, whereas the term mistification suggests a metaphor which draws elements from Gothic horror and, more specifically, the *Land of the Mists*. 12

The elements of Gothic horror that are pervasive in the *Land of the Mists*, and the properties attributed to the *Mists of Ravenloft* themselves, capture the current experience of the end-users subject to cloudification. This argument is supported by juxtaposing the elements of Gothic horror used in *Ravenloft* and the properties of the *Mists of Ravenloft* (Connors and Miller, 1997, Hollar and Lilavivat, 2005) with Bridle's (2018) criticism of the cloud.

As a Gothic horror setting, ignorance and helplessness abound in the *Land of the Mists*. In a similar fashion, most end-users often do not understand "how complex technologies function, how systems of technologies interconnect, and how systems of systems interact". As Bridle

(2018) argues, such ignorance makes end-users helpless; to that, we add it also leaves them very often in a state of constant anxiety and paranoia. It is interesting to note Bridle chooses to use the synonym powerlessness instead of helplessness for exploring the power relationship between end-users and technocrats; or, more specifically, how most end-users are not on top of this. End-users, much like the victims of the *Mists*, though understanding little of the way it operates, manage to grasp that they are not on top, that someone else is calling the shots – someone whose identity and goals are not clear to them and who wields some sort of mysterious, nearly incomprehensible power – and this may leave them understandably scared.

The Land of the Mists resembles the reality to which end-users of the cloud are subjected, and cloudification more specifically, at least in its currently established form, resembles the functioning of the Mists of Ravenloft (Hollar and Lilavivat, 2005, pp. 11-12) – in at least four aspects. Firstly, the Mists constantly shape and reshape borders, both on and offline, as the wars over internet territory reflect and condition the real world geographical disputes; being a decisive element of planetary-scale computation, mist,

both distorts and reforms modern jurisdiction and political geography and produces new forms of these in its own image. It perforates and transcends some borders while introducing and re-thickening others at new scales and in greater quantity (Bratton, 2015, p. 23).

Secondly, the *Mists* can transport beings or lands from place to place within the internet, and it goes without saying that physical distance is now practically ephemeral within the digital world. Thirdly, the *Mists* can capture beings or lands from outside the internet; this happens as data can be (and often are) brought to the internet without consent (e.g., "doxing", publishing private information about a particular individual on the internet; Google Street View, Google Maps, and Google Earth capturing all imagery of public spaces and making it available on the internet; and all the vast array of practices Zuboff designates as "rendition", cf. 2019, ch. 8 and 9). Fourthly, the Mists can distort time, which happens as internet neutrality becomes contested and different end-users experience the same content at different connection speeds.¹³

Mistification entails a contemporary gothic representation that expresses anxieties associated with our time, viz. globalgothic (Byron, 2013, Smith and Hughes, 2013, Botting and Spooner, 2015). The emergence of the globalgothic movement can be attributed to the changing perceptions of time and space, accelerated by the phenomenon of globalization as the collapse of borders and emergence of transnational and economic unions, as well as anxieties about how the impact of transnational capitalism and the workings of technology have challenged the stability of cultural, political, and national systems and structures (van Elferen, 2013, Curtis, 2015). There is a similarity between the Mists of Ravenloft and the globalgothic quasi-sentient attribution to capital:

In its ghostly form, capital moves outside of what we once might have considered a real world. Its disembodied and spectral presence now signals something other than an invisible hand conferring or withholding wealth. The new monster operates autonomously, in an inhuman way, disconnected from any relation that might once have benefited humanity. (Botting and Edwards, 2013, p. 15)

Such anxieties and feelings of helplessness will not always stand out. Indeed, users of the *Mists* will often feel more empowered than diminished, and not without reason: mistified computation offers many convenient resources, such as safely storing files; remotely accessing music, video, text or games; or simultaneously working on a co-authored paper. But here again, the metaphor holds, as the Dark Powers have ever shown themselves perfectly willing to grant power to those who would accept their terms – even to those who do not even realize there were terms to be accepted in the first place (viz. Nesmith et al., 1994b, Connors and Miller, 1997).

Reasons to feel anxious and helpless will abound, however, for those who look for them. Be it the mundane fear of losing access to a favored book, song or movie, lost to the shifting wills of the Mists of streaming services; be it that of losing being locked out of accounts and losing every data associated with it, under vague allegations of term violations (e.g. Taylor, 2018), and being suddenly reminded of how that convenience, that power, never truly belonged to you; be it, even, the vague perception of the *Mists* 'appetite, as it

absorbs metadata about each thing and each relation of exchange, all translated by algorithmic militations of cognition, data semantics, manufacture, demand, and response optimization as it links these across continents, compressing and expanding economic rhythms and cycles. (Bratton, 2015, p. 232)

As the Mists redefine borders both virtual and geographical, demanding more and more structure, energy and labour, extracting heavy tolls in natural resources and offering a generous contribution to climate change (Monserrate, 2022), those of us who try to figure out the ways of mistification will likely wonder if we are not feeling as anxious and helpless as we should.

Conclusion

In this article, we analysed the role of metaphor in our comprehension of concepts and ideas. As said by Aristotle: "the soul never thinks without an image" (2014, p. 1499). The process of metaphorical construction is a living one, establishing language itself, but also creating and recreating meanings that, initially, were not there. So, inspired by this living process, we

propose the term *mistification* as a more accurate metaphor depicting the current technocratic/technological *status quo* associated with the cloudification phenomenon. This proposition is built on criticism from *New Dark Age* (Bridle, 2018) and elements of Gothic horror which are juxtaposed to the current experience of end-users of the cloud.

The first step into understanding the conditions to which end-users and society are subject to is by acknowledging our situation. Bridle (2018) understands the panacea begins not by developing a new technology, but by describing this relationship:

What is needed is not new technology, but new metaphors: a metalanguage for describing the world that complex systems have wrought. (Bridle, 2018, p. 9)

The proposed metaphor of mistification implies that technology end-users are experiencing a Gothic horror reality. Therefore, it urges society to question the power relationship between end-users and technocrats. Although *Ravenloft* is a campaign setting for a role-playing game, where players are subject to the whims of the Dark Powers and its instruments (i.e., the *Mists of Ravenloft*), similar to the current experience of end-users of the cloud. Similar to players in a Gothic horror game, end-users remain ignorant and helpless against all too powerful technocratic/technological giants and their pursuits.

This article adds elements belonging to a horror role-playing game campaign setting to a wider cross-disciplinary discussion regarding human-machine interaction (viz. Barclay, 2019). Albeit the existence of powerful and mysterious entities being commonplace in Gothic horror games (e.g., *The Dark Powers, The Red Death, Cthulhu*, etc.), it is worth noting we are not examining the mythology-inspired *Chthulucene* (Haraway, 2016, Hodges, 2022). Further, we are aware that our article's proposition is necessarily open-ended; we cannot and should not pretend that it will have been consistent enough to "dominate all its statements" (Derrida, 1974), or that it will "possess its meaning" (Ricoeur, 2004). We believe that this openness, however, while providing the benefit of easing a much-appreciated transdisciplinary exchange, does not eliminate the substantial validity of the metaphor. In a similar fashion, we must and should not expect the suggested metaphor to adequately capture every aspect of the phenomenon to which it is likened. Quite the opposite, we understand that it necessarily highlights some of these aspects, while depreciating others. Yet, as we hope to have established, the term/concept of mistification serves to more accurately represent the nature of cloud computing and, to some extent, of contemporary computing as a whole.

References:

Adorno, T & Horkheimer, M 2002 [1944], *Dialectic of Enlightenment: Philosophical Fragments*, Stanford University Press, Stanford, US.

Aristotle, 2014, *The Complete Works of Aristotle: The Revised Oxford Translation*, Jonathan Barnes (Ed.), Princeton University Press, Princeton, US.

AWS 2022, *What is cloud computing?*, viewed 9 June 2022, <<u>https://aws.amazon.com/what-is-cloud-computing/?nc1=h_ls</u>>.

Barclay, E 2019, *The Nature of Networks: An Aesthetic Model for the Connected Condition* (Doctor of Philosophy), University of Technology Sydney, Sydney, Australia, viewed 9 June 2022, https://opus.lib.uts.edu.au/handle/10453/136117>.

Berkeley, G 2017, *Alciphron or: The Minute Philosopher A Defence of the Christian Religion against the So-called Free-thinkers*, viewed 9 June 2022, https://www.earlymoderntexts.com/assets/pdfs/berkeley1732_1.pdf>.

Bicudo de Castro, V 2018, *Campanha Boba*, Dungeon Masters Guild, South Yarra, Australia, viewed 9 June 2022, https://trove.nla.gov.au/work/235205527>.

Black, M 1962, Models and Metaphors, Cornell University Press, New york, US.

Botting, F & Edwards, J D 2013, 'Theorising globalgothic', in G Byron (Ed.), *Globalgothic*, Manchester University Press, Manchester, UK, pp. 11-24, http://www.jstor.org/stable/j.ctt18mbfxg.6>.

Botting, F & Spooner, C 2015, 'Introduction: monstrous media/spectral subjects', in F Botting & C Spooner (Eds.), *Monstrous media/spectral subjects: Imaging gothic fictions from the nineteenth century to the present*, Manchester University Press, Manchester, UK, pp. 1-12, http://www.jstor.org/stable/j.ctt1729w2c.6>.

Bratton, B H 2015, *The Stack: on Sotfware and Sovereignity*, The MIT Press, Massachusetts, US.

Bridle, J 2018, New Dark Age: Technology and the End of the Future, Verso Books, London, UK.

Byron, G 2013, 'Introduction', in G. Byron (Ed.), *Globalgothic*, Manchester University Press, Manchester, UK, pp. 1-10, http://www.jstor.org/stable/j.ctt18mbfxg.5>.

Chai, W & Bigelow, S J, 2021, *Cloud Computing*, TechTarget, viewed 9 June 2022, https://www.techtarget.com/searchcloudcomputing/definition/cloud-computing.

Connors, W W 1994, Masque of the Red Death and Other Tales, TSR, Lake Geneva, US.

Connors, W W & Miller, S 1997, Domains of Dread, Wizards of the Coast, Renton, US.

Coulson, J 1994, 'Cold, Hard Silver', in B Thomsen (Ed.), *Tales of Ravenloft*, TSR, Lake Geneva, US, pp. 189-203.

Crawford, J, Hickman, L, Hickman, T, Lee, A, Perkins, C & Whitters, R 2016, *Curse of Strahd*, Wizards of the Coast, Renton, US.

Cunningham, E 1994, 'Song Snatcher', in B Thomsen (Ed.), *Tales of Ravenloft*, TSR, Lake Geneva, US, pp. 52-69.

Curtis, S 2015, 'You have been saved: digital memory and salvation', in F Botting & C Spooner (Eds.), *Monstrous media/spectral subjects: Imaging gothic fictions from the nineteenth century to the present*, Manchester University Press, Manchester, UK, pp. 157–170, http://www.jstor.org/stable/j.ctt1729w2c.17>.

Derrida, J 1974, Of Grammatology, Johns Hopkins University Press, Baltimore, US.

Derrida, J 2007, *Psyché: Inventions of the Other*, Vol. I, Stanford University Press, Baltimore, US.

DeWeese, G 1994, 'Von Kharkov', in B Thomsen (Ed.), *Tales of Ravenloft*, TSR, Lake Geneva, US, pp. 128-143.

Eco, U 2016, *Pape Satàn Aleppe: Cronache di una società liquida*, La nave di Teseu, Milano, Italy.

Edwards, J. D. (2013). 'She saw a soucouyant': Locating the globalgothic', in G Byron (Ed.), *Globalgothic*, Manchester University Press, Manchester, UK, pp. 50–64, http://www.jstor.org/stable/j.ctt18mbfxg.9>.

Haraway, D J 2016, *Staying with the trouble: Making kin in the Chthulucene*, Duke University Press, Durham, US.

Hickman, T & Hickman, L 1983, Ravenloft, TSR, Lake Geneva, US.

Hodges, B 2022, 'Atmospheric Visions: Mirages, methane seeps and 'clam-monsters' in the Yellow Sea', *Shima*, vol. 16, no. 1, pp. 115-136.

Hollar, C & Lilavivat, R 2005, *Van Richten's Guide to the Mists*, Arthaus and Sword & Sorcery Studios, Stone Mountain, US.

Kirsch, D & Hurwitz, J 2020, *Cloud computing for dummies*, John Wiley and Sons, New Jersey, US.

Lakoff, G & Johnson, M 2003, *Metaphors We Live By*, The University of Chicago Press, Chicago, US.

Mackay, D 2017, *The fantasy role-playing game: A new performing art*, McFarland & Company, North Carolina, US.

Marinescu, D C 2018, *Cloud computing: theory and practice*, Morgan Kaufmann Publishing/Elsevier, Cambridge, US.

Mattern, S, 'Cloud and Field', *Places Journal*, August 2016, viewed 28 April 2023, https://doi.org/10.22269/160802.

Mell, P & Grance, T 2011, *The NIST Definition of Cloud Computing*, National Institute of Standards and Technology, Gaithersburg, US.

Microsoft Azure, 2022, *What is cloud computing? A beginner's guide*, viewed 9 June 2022, https://azure.microsoft.com/en-us/overview/what-is-cloud-computing/>.

Monserrate, S G 2022, 'The Cloud Is Material: On the Environmental Impacts of Computation and Data Storage', *MIT Case Studies in Social and Ethical Responsibilities of Computing*, Winter 2022, https://doi.org/10.21428/2c646de5.031d4553>.

Morozov, E, 2014, 'The rise of data and the death of politics', *The Guardian*, July 2014, viewed 12 May 2023, https://www.theguardian.com/technology/2014/jul/20/rise-of-data-death-of-politics-evgeny-morozov-algorithmic-regulation.

Murphy, K P 2012, *Machine Learning: A Probabilistic Perspective*, MIT Press, Massachusetts, US.

Nesmith, B, Hayday, A & Connors, W W 1994a, *Ravenloft: Realm of Terror*, TSR, Lake Geneva, US.

Nesmith, B, Hayday, A & Connors, W W 1994b, *Ravenloft: Domains and Denizens*, TSR, Lake Geneva, US.

Pariser, E 2011, *The Filter Bubble: What the Internet is Hiding from You*, Penguin Press, New York, US.

Perelman, C & Olbrechts-Tyteca, L 1971, *The New Rhetoric: A treatise on Argumentation*, University of Notre Dame Press, Indiana, UK.

Perelman, C 1982, *The Realm of Rhetoric*, University of Notre Dame Press, Indiana, UK.

Petersen, S 1981, Call of Cthulhu, Chaosium, Ann Arbor, US.

Ricoeur, P 2004, *The Rule of Metaphor: The Creation of Meaning in Language*, Routledge, Oxfordshire, UK.

Smith, A & Hughes, W 2013, 'Introduction: defining the ecoGothic', in A Smith & W Hughes (Eds.), *EcoGothic*, Manchester University Press, Manchester, UK, pp. 1-14, http://www.jstor.org/stable/j.ctt18mvk5r.5.

Starosielski, N 2014, 'The Materiality of Media Heat', *International Journal of Communication*, vol. 8, no. 5, pp. 2504-2508.

Taylor, K 2018, 'Furious customers say they've been mysteriously locked out of their Amazon accounts - and they have no idea why', *Business Insider*, April 2018, viewed 12 May 2023, https://www.businessinsider.com/amazon-closes-users-accounts-customers-fight-back-2018-4.

van Elferen, I. (2013). 'Globalgoth?: Unlocatedness in the musical home', in G Byron (Ed.), *Globalgothic*, Manchester University Press, Manchester, UK, pp. 91-104, http://www.jstor.org/stable/j.ctt18mbfxg.12>.

Warren, K 2011, Mistification, Watkins Publishing, London, UK.

Zuboff, S 2019, The age of surveillance capitalism: the fight for a human future at the new frontier of power, Public Affairs, New York, US.

Vicente Bicudo de Castro is a senior lecturer at Deakin Business School who engages with business and interdisciplinary research.

Heitor Coelho is an assistant professor at Rio de Janeiro's State University (UERJ) who engages with philosophy of education, political philosophy and technologies of education research.

Danilo Bantim Frambach is an assistant professor at Rio de Janeiro's State University (UERJ) who engages with philosophy of education, pop philosophy and technologies of education research.

¹ Our dark age, it would seem, repeats yet again (as farce?) that reversion of enlightenment into myth which Adorno and Horkheimer long ago pointed out (2002, esp. pp. 1-4).

² And in a passage that preceded it: "The greatest carrier wave of progress for the last few centuries has been the central idea of the Enlightenment itself: that more knowledge – more *information* – leads to better decisions" (Bridle, 2018, p. 12).

³ In the original: Nella *Poetica* diceva che capire le buone metafore vuole dire "sapere scorgere il simile o il concetto affine". Il verbo che usava era *theoreîn*, che vale per scorgere, investigare, paragonare, giudicare. Su

questa funzione conoscitiva della metafora Aristotele tornava con maggiore ampiezza nella *Retorica* dove diceva che è gradevole ciò che suscita ammirazione perché ci fa scoprire un'analogia insospettata, vale a dire ci "mette sotto gli occhi" (così si esprimeva) qualcosa che non avevamo mai notato, per cui si è portati a dire "guarda, è proprio così, eppure non lo sapevo".

- ⁴ It is important to note that, even in modernity, there were authors who disagreed with this view. Among them, George Berkeley stands out. By refusing to blame our natural faculties for our failure to understand reality, Berkeley paved the way for an explicit acceptance of the use of metaphors, analogies, and the like as essential to science (cf. Berkeley, 2017, especially the seventh dialogue, section thirteen, p. 124).
- ⁵ The numbers in this passage refer to the work of I.A. Richards, *The Philosophy of Rhetoric*.
- ⁶ This paper itself could be named as an example. Using cloud computing, more specifically cloud storage and services, allowed this paper to be written by academics located in different countries over a much shorter timespan than it would have taken 20 or even 10 years ago when such technologies were not yet so widely available and accessible.
- ⁷ Therefore, according to this definition, to which we will adhere going forward, cloud computing encompasses resources such as cloud storage, cloud hosting, cloud-based software etc.
- ⁸ Bridle himself has dedicated significant effort to render this structure more visible through his uncanny artistic work, such as with "The Nor" project https://jamesbridle.com/works/the-nor>.
- ⁹ The campaign setting called Masque of the Red Death (Connors, 1994) is an adaptation of Ravenloft to the Victorian era, named after Edgar Allan Poe's homonymous short story. The campaign setting keeps the Gothic horror elements of Ravenloft and the Dark Powers replaced by an entity called the Red Death. However, the scenario lacks the Mists, which are so prominent in Ravenloft.
- ¹⁰ Laudable examples are *Ravenloft: Strahd's Possession* and *Ravenloft: Stone Prophet*, both published by Strategic Simulations, Inc. (SSI) in 1994 and 1995, respectively.
- ¹¹ The origins of the words mystery and mist were checked using Google's English dictionary, which is provided by Oxford Languages, the Dictionary.com, and the English-language Wiktionary.
- ¹² It is worth noting the term mistification has been used previously in regarding as a power used to keep the horrors of reality hidden from the world (viz. Warren, 2011), however, not associated with the Mists of Ravenloft and its properties.
- ¹³ Although not directly related to cloud computing itself, another aspect of the Land of Mists that could adequately represent the internet's and most especially social media's functioning, has to do with isolation and alienation. The Mists' function of effectively barring movement and communication between distinct domains, shaped by the Dark Powers' designs, is not unlike how algorithmic regulation (Morozov, 2014) shapes social media's filter *bubbles* (Pariser, 2011) and echo chambers, with known and dreadful consequences for democratic practices. This claim, however, would require further investigations.