

Internet memes as internet signs: A semiotic view of digital culture

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Abstract. This article argues for a clearer framework of internet-based “memes”. The science of memes, dubbed ‘memetics’, presumes that memes remain “copying units” following the popularisation of the concept in Richard Dawkins’ celebrated work, *The Selfish Gene* (1976). Yet Peircean semiotics and biosemiotics can challenge this doctrine of information transmission. While supporting a precise and discursive framework for internet memes, semiotic readings reconfigure contemporary formulations to the – now-established – conception of memes. Internet memes can and should be conceived, then, as habit-inducing sign systems incorporating processes involving asymmetrical variation. So, drawing on biosemiotics, Tartu-Moscow semiotics, and Peircean semiotic principles, and through a close reading of the celebrated 2011 Internet meme *Rebecca Black’s Friday*, this article proposes a working outline for the definition of internet memes and its applicability for the semiotic analysis of texts in new media communication.

Keywords: memetics; internet memes; sign systems; semiotic analysis; translation; remix; virality; habituescence

Introduction

The newest forms of media have established internet memes. Such technologies embed most, perhaps all, of the key features that seem to characterize new media artefacts, such as participation, self-organization, free labour, amateur culture, networks, and even virality. In league with the popularity of internet memes is the ubiquity of social media across different technological devices such as computers, mobile phones, TVs, tablets, watches and any ordinary devices that can be re-shaped by internet mobile technology. The ubiquity of social media, across platforms and personal devices, have furthered the notion of universality peculiar to memes.

Today, internet memes raise increasingly legitimate cases during web-based and mobile applications whereby users prescind their awareness about dynamic feeds, pop-up boxes and ever-changing off-topic (OT) sections of forums. These emergent forms of new media can take the form of still-images as well as audio-visual material via videos and animations. A famous example of a still-image internet meme is *Grumpy Cat* which originated when pictures of a supposedly grumpy-looking cat (Fig. 1) were posted on the Reddit website (Grumpy Cat 2012¹), subsequently re-posted on the same site with text added (Fig. 2) and contextualized within other images (Fig. 3a and 3b) then to leak onto mainstream social networking sites as Facebook. Grumpy Cat was eventually seen peeking on a Lloyd bank's advert (0.15", in *Moving Out*, UK, 2013) on national TV. This transference is evidence that internet memes have been incorporated into the commercial culture associated with mass communication and broadcast media.

A notable example of an audio-visual internet meme includes *Downfall* or "Hitler reacts to..." which features modified video sequences taken from the German drama *Der Untergang* (Constantin Film, Germany, 2004). Film sections feature Adolf Hitler losing his temper and scolding his commanders who all, in the remix, become the focus of farcically-subtitled parodies where Hitler tirades over trivialities such as "Ben Affleck being cast as Batman", "Twilight the Movie" (2009), or even anachronistic appropriations of when "Hitler phones Muammar al-Gaddafi" (2009), where the Libyan ex-leader's thoughts are provoked about Hitler's polemic (referring to *Mein Kampf*). Roehampton University in London produced a promotional *Downfall* video where "Hitler reacts to the new Film MA at the University of Roehampton" (2013). Now, when banks and educational establishments turn their attention to Internet memes, albeit for marketing purposes, it is safe to assert that this trend now poses a mature cultural phenomenon and invites systematic media scrutiny. Yet despite the enshrined legitimacy of Internet memes to Web and App audiences, their relevance has only recently proved a fruitful field of critical enquiry (Davison 2012, 2014; Goriunova 2014; Knobel, Lankshear 2007). This is why discursive treatments of internet memes are arguably still in its infancy.

Ironically, instead of academic publications, the most comprehensive and dynamic source of information on internet memes appears to be best covered in online sources and electronic ephemera. Of course, web sites present a rich source of primary data on the historiography of internet memes whilst grounding any serious study of the issue; however, Davison (2012: 122) recognizes how amongst the notable online meme-sources (Wikipedia, Urban Dictionary, Know Your Meme, Encyclopedia Dramatica), "none does so in an academically rigorous way" and so "Internet memes

¹ *Grumpy Cat* 2012 was accessed at <http://knowyourmeme.com/memes/grumpy-cat> accessed 16 January 2014.

lack an accurate definition...” especially since attempts at defining this cultural device invariably prove whimsical and inconsistent. Appropriately, then, Wikipedia explains that “[a]n Internet meme is a *concept* that spreads from person to person via the Internet” (Wikipedia 2012²; my italics, S. C.). On the other hand, Urban Dictionary conceives of an Internet meme as “A short *phrase, picture, or combination of the two* that gets repeated in message boards [...]” (Urban dictionary 2014,³ my italics, S. C.). These divergent views are contradictory since, to invoke Sebeok and Danesi’s terms (2000: 1), it remains unclear whether an Internet meme is a mental form or an externalized form (i.e. a representation). Moreover, let us consider this statement from Techopedia (2014): “An Internet meme is an activity, concept, catchphrase or piece of media that gains popularity and spreads rapidly via the Internet”.⁴ This delimited definition offers little clarity because it posits a hopeless equivalence between particulars and thereby hopes to prove its universal justifiability. The origins of this short-sighted deduction can be traced back to an earlier academic statement as enunciated by Dawkins, the first and chief proponent of memes: “Examples of memes are tunes, ideas, catch-phrases, clothes, fashions, ways of making pots or of building arches” (Dawkins 2006[1976]: 192). It is here that Dawkins conflates ethereal forms with externalized references, and codes with instantiation of codes, an ambiguity that is then transposed on to popular definitions of internet memes.

Another theoretical ambivalence rehearses a linguistic discourse as it applies to internet memes: Urban Dictionary states that “An ‘Internet Meme’ is a *word, phrase, expression, iconic imagery* or recognizable reference popularized amongst online communities such as on forums or in online games” (Urbandictionary 2014; my italics, S. C.), whereas popular platform Whatis contends that “An internet meme is a *cultural phenomenon* that spreads from one person to another online” (Whatis 2014⁵; my italics, S. C.). The first definition implies that an internet meme is a single entity, whereas the latter, broader definition posits, instead, how memes consist at the very least of a set of objects (a cultural phenomenon). This disparity not only shows the incoherence that characterizes Web-based lexicography, but also suggests that internet memes are protean ideas whose reasonable limits prove insurmountable when examined.

² The Wikipedia definition was retrieved from http://en.wikipedia.org/wiki/Internet_meme on 15 January 2012.

³ Urban Dictionary 2014. Internet memes. Available at <http://it.urbandictionary.com/define.php?term=internet%20meme>; was accessed on 5 February 2014.

⁴ Techopedia 2014. Internet meme. Available at <http://www.techopedia.com/definition/16944/internet-meme>; was accessed on 4 February 2014.

⁵ Whatis 2014. Internet meme. Available at <http://whatis.techtarget.com/definition/Internet-meme> and accessed on 5 February 2014.

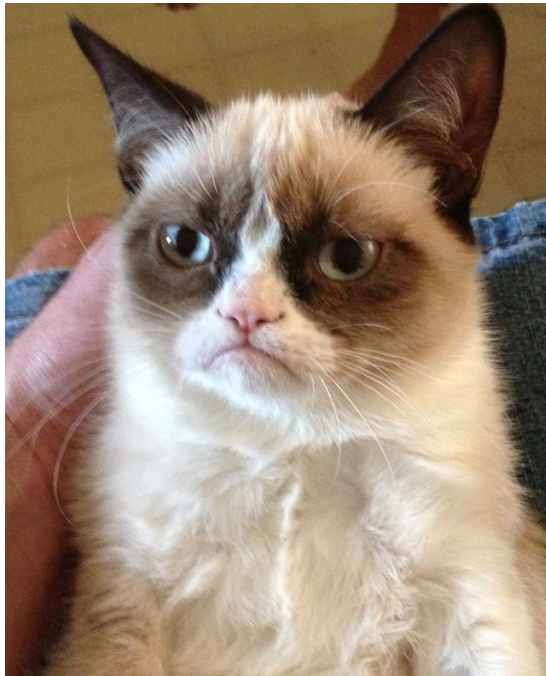


Figure 1. The original picture of the cat which was nicknamed 'Grumpy Cat' due to its downward-pointing 'lips'.



Figure 2. Modified version of 'Grumpy Cat' with added text.



Figure 3a.



Figure 3b. 'Grumpy Cat' contextualized within other famous images as the 'Monna Lisa' and the 'Royal Baby', both recognized as depicting notable grim smiles.

On the other hand, recent academic treatments of internet memes appear to adapt their definitional approaches from software and photography studies, grounding their premises in the *formal* aspect of the internet meme, and then almost casually making considerations and conclusions about semantics (content) or pragmatics (context of use). For example, Nooney and Portwood-Stacer (2014: 249) start with the formal dimension of internet memes as they assert that “The designation meme identifies digital objects that riff on a given visual, textual or auditory form” and make a consideration of pragmatics when they mention how these are “then appropriated, re-coded, and slotted back into the internet infrastructures they came from”, referring to their dynamics. Similarly, Davison (2014: 291) considers how the software impressions of ‘rage maker’ (a software often used for making internet memes) make technical limitations visible and compares it to the photo-realist software techniques of Photoshop. This approach traces the indexical relation of the cultural form with the reality it represents, and thus takes the discussion of internet memes to a semantic dimension. Whilst distorting ideas from aesthetics under the discursive paradigms of linguistics, such garbling remains an issue for any precise meaning of the elusive and protean notion of memes.

Origins of the meme species

In 1994, Mike Goodwin wrote a piece in the magazine *Wired* which described “Godwin’s Law of Nazi Analogies”. This law posited that as an online discussion grows longer, the probability of a comparison involving Nazis or Hitler approaches 1 (Goodwin 1994⁶). This law was based on what Goodwin termed the Nazi-comparison meme. According to knowyourmeme.com’s editor Brad (2009), this was one of the early use of the term ‘meme’ in association to internet culture⁷.

Born 20 years or so before this juxtaposition, the concept of meme was inaugurated by Richard Dawkins in his book *The Selfish Gene* (1976) and then popularized by Hofstadter and Dennett’s *The Mind’s I* (1981). Dawkins pioneered the inherently vital principle of genes that ‘selfish’ survival of the species relied on genes as selfish agents: a “revolutionary” position later dubbed ‘gene selectionism’ (e.g., Hoffmeyer 2008: 75). But Dawkins’ efforts were not limited to biology – he in fact imported this view to the understanding of culture. Dawkins contended that “cultural transmission is analogous to genetic transmission in that, although basically conservative, it can give

⁶ Goodwin, Mike 1994. Meme, counter-meme. *Wired* 10. Available at <https://www.wired.com/1994/10/godwin-if-2/> and accessed on 13 September 2016.

⁷ Brad 2009. Godwin’s Law. Available at <http://knowyourmeme.com/memes/godwins-law> and accessed on 13 June 2016.

rise to a form of evolution” (Dawkins 2006[1976]: 189). That is why he proposed to use the concept of ‘meme’ to provide his evolutionary view of culture with an analytical model: meme is an abbreviation for *mimeme*, a cognate related to the Greek ‘mimesis’ with its etymology overlapping the English word ‘mime’ and ‘mimicry’ or the French ‘*même*’, (‘the same’). An ‘idea-meme’ was defined as an entity that is capable of being transmitted from one brain to another through imitation (Dawkins 2006[1976]: 196), and in this sense is replicated more or less successfully. Propositionally, Dawkins explained that an example of a very successful meme is the monotheistic dogma wherein “God exists, if only in the form of a meme with high survival value, or infective power, in the environment provided by human culture” (Dawkins 2006[1976]: 192–193). So, for Dawkins, memes as information-rich and contagious units would be the key to cultural evolution in a similar manner in which genes would be powerful agents in biological evolution. But, the predicate of this once convincing position weakened as the diffuse meaning of ‘meme’ proved recalcitrant.

Further, ‘meme’ was pressed into widespread use in the study of culture by linguistic and technology scholars of ‘memetics’ during the 1990s, especially after the publication of Blackmore’s *The Meme Machine* (1999). Dawkins’ views on culture (or perhaps his preoccupation with organized religion) were so influential that ‘memetics’ or the science of memes was born. Thanks to Dawkins, the identifiable ‘memeticians’ claimed they had found an appropriate framework for grafting evolutionary enquiry beyond the purely biological world and onto the social sciences (Dawkins 1976; Lynch 1996; Blackmore 1999; Rose 1998; Wilkins 1998). At bottom, the aim of the new field was not so different from that of contemporary semioticians who have turned their attention to biosemiotics in the quest to explore the natural constraints and affordances of culture. However, memetics lacked the centuries-long background in the study of culture that biosemiotics, drawing on semiotics, avails itself of.⁸ Hence the growth of the novel discipline of memetics was adventitious, since Dawkins’ original comparison of memes as metaphors, was reductively misconstrued by his epigones. Blackmore argues this case in light of how Dawkins’ secular preoccupations compounded an already obscure term applicable to religions and ideologies permitting mutations like “idea viruses”, besides an escalating sacred and profane array of analogies (Burman 2012). It is no surprise that memetics’ attempt at forging a new theory of cultural evolution was short-lived. In fact, the *Journal of Memetics: Evolutionary Models of Information Transmission* lasted only a handful of years, from 1997 until 2005.

During this time, a number of critiques of the memetic model of culture appeared in the *Journal of Memetics* itself (Gatherer 1998; Rose 1998; Sperber 2000; Edmonds 2002, 2005). According to Edmonds (2005), the meme-gene analogy proved a waning

⁸ See for example, the roots of semiotics in ancient Greek and medieval logic as recollected in Deely 1982.

gimmick. The “narrow” approach to memetics as he called it, had not provided any extra explanatory power than other evolutionary approaches to culture. In fact,

[t]he central core, the meme-gene analogy, has not been a wellspring of models and studies which have provided “explanatory leverage” upon observed phenomena. Rather, it has been a short-lived fad whose effect has been to obscure more than it has been to enlighten. I am afraid that memetics, as an identifiable discipline, will not be widely missed. (Edmonds 2005 2005, *sine pagina*.)

Through decline, such a critique continues to be sanctioned by those commentators who rely on memetic theory or allied jargon when bandying about internet memes. As Goriunova points out, in academia “it is commonplace to refer, often rather uncritically, to the term’s exodus from Richard Dawkins’ 1976 book *The Selfish Gene*” (Goriunova 2013). Tellingly, Edmonds traduces the inured discourse of memetics, with regard to its place for modelling communication, social phenomenon and sundry evolutionary-based complexes. Edmonds (2005, *sine pagina*) concludes that “work within this approach is often done without appealing to ‘memes’ or ‘memetics’ since it can be easily accommodated within other frameworks”. One such contextualizing framework is semiotics, which can, within its broader discourse, examine key assumptions in memetics, such as its tropes of unit, copying and viral growth.

Unit vs. system

A number of statements in memetics remain prohibitively vague or needlessly gnomical whenever these statements are examined by semiotics; but for brevity, any immediate analysis engenders a conspicuous array of tropes which can be characterized by (a) memes as *cultural units of information*; (b) distributable (cultural) patterns replicated among individuals; and (c) aleatory entities encrypted as the *virus metaphor*. The following views embed point (a). Accordingly, a meme includes:

- (1) [A] unit of cultural transmission, or unit of imitation (Dawkins 1976).
- (2) [The] largest units of socially transmitted information that reliably and repeatedly withstand transmission (Pocklington, Best 1997: 81).
- (3) The unit of cultural evolution and selection (Wilkins 1998).
- (4) Unit of information in a mind whose existence influences events such that copies of itself get created in other minds (Brodie 1996: 32).

These statements betray the perplexing assumption that, somehow, memes are ‘units’ as they are ‘particles’. Dawkins explains why he elects this atomistic model of culture, namely, “the existence of easily repeated and remembered cultural elements such as choruses, tunes, recipes, expressions, figures of speech and religious rites suggest

that at least some elements of culture can be described as discrete cultural *particles*” (Dawkins 2006: 81; my italics, S. C.). Now, since Dawkins offers a material basis to some very abstract phenomena, a helpful method to disambiguate his position comes from the pioneering work first put forward by the code-breaking labours of post-war communication engineering. In its theoretical infancy information was defined as a data unit, a discrete entity, which, although a fully describable binary unit (Szilard 1929), became transmogrified under Shannon and Weaver into unit *selected* in the source. Nevertheless, both conceptions of information share a common ground as they conceive of a *unit of selection*. Thus the unit principle in memetics shares its meaning with this earlier work carried out in information theory. After all, ideals of communication and information proved indispensable for the growth of computational networking and packet-relay of online information, which in turn supports the meme principle universally.

It should be reminded however how ‘units’ of signification are also a key concern of structuralism and are particularly prominent in the semiological analysis of cultural artefacts. Drawing on Saussure’s general linguistics, semiologists set out to analyse everyday instances of culture. They did so by isolating the signification units in a *parole*, identifying syntagmatic and paradigmatic relations amongst such units and reconstructing the higher system of signs, or *langue*. Providing an example of semiological analysis, Culler (1976: 104) explains how

[i]n the food system [...] one defines on the syntagmatic axes the combinations of courses which can make up meals of various sorts; and each course or slot can be filled by one of a number of dishes which are in paradigmatic contrast with one another (one wouldn’t combine roast beef and lamb chops in a single meal: they would be alternatives on the menu). These dishes which are alternatives to one another often bear different meanings in that they connote varying degrees of luxury, elegance, etc.

Semiology was concerned with identifying elements of signification as embedded in syntagmatic and paradigmatic relations. This very tame conception of culture and cultural understanding, free of the vagaries of ‘interpretation’, resonates much with memetics’ interest in isolating units of information in culture.

However, the atomistic conception of culture as an aggregation of units or discrete particles, was already rejected by exponents of the Tartu-Moscow school of semiotics in the 1960s (and Kroeber and Kluckhohn drawing on conceptualizations before their 1952 publication). The school’s most important characteristic was that “it capitalised on the totality of culture, not the segmentation thereof” (Broms *et al.* 1988: 3). The major exponent of Tartu Semiotics, Juri Lotman, held that “different semiotic phenomena come into a researcher’s view not as separate isolated phenomena, but

rather as parts of a vast picture” (Lotman cited in Chernov 1988: 14). In order to avoid treating culture as merely the sum of its parts, Lotman (1967) had come up with the idea of the *semiosphere*, an evolving system of signs that is more than the sum of its parts. Thanks to developments in semiotics, by the end of the 1980s the idea of a ‘cultural unit’ was tackled, criticized, and more holistic models of cultural information were proposed (see, e.g., Sebeok 1991[1988]; Even-Zohar 1986). This is the kind of theoretical development in cultural studies that was probably ignored by the proponents of memetics theory.

Indeed, the idea that a dynamic system (such as information, culture, or an organism’s development) could be considered as a set of ‘units’ was also criticized in cybernetics, which, ironically, built on and surpassed information theory. Psychologist Gregory Bateson had criticized Darwinist evolutionary theory for “[it] contained the error of considering the basic unit of survival as the individual organism under natural selection” (Bateson 2000[1970]: 457) when in fact, the unit of survival should be a flexible organism *in* its environment. This means that in biology, the system under study should be the whole system (system plus environment) and not the isolated system alone. Therefore, in a similar manner in which an organism cannot be studied in isolation from its environment, cultural information cannot be a discrete entity that can be studied in isolation from its context (or several contexts) either. This lesson is inherent in biosemiotics too. Hoffmeyer criticizes the physicalist account of information that refers to information as “isolated facts” or “chunks of knowledge” (Hoffmeyer 1996: 63). Instead, information is a *relational* entity (Hoffmeyer 2008: 29) which must be conceived in terms of relevance (‘information as a difference which makes a difference’) and continuity (‘the pattern which connects’) *sensu* Bateson. Or, in *Cybersemiotics: Why Information Is Not Enough!* (2008), Brier proposes that information should be considered in relation to five epistemological levels: *firstness* (qualia), *secondness* (causality), *information* (or quasi-semiotics), *biological communication*, *cultural paradigms* (Brier 2008: 389–390). Hence information is a much more complex business than a mere unit, as Dawkins proposed and memeticians re-iterated. Directly addressing memetics’ misconception of information, Deacon states, “[Dawkins] ignores that what counts as information is context dependent. By ignoring context, he brackets out consideration of *systemic origin* of gene (and meme) information, and its means of replication” (Deacon 1999; my italics, S. C.). Therefore, in light of more sophisticated treatments of information in Tartu-Moscow semiotics, biosemiotics and cybersemiotics, information appears to be a relational-systemic phenomenon, not an atomic one.

A shift in conceiving of information must result in a shift in conceiving of memes too. So if memes were to be considered as relational rather than discrete information (or units), then they should also be considered in conjunction with their wider cultural

context or as elements of a *constitutive* system – that is, a system made of elements and relations, whose parts cannot be studied in isolation but only in relation to other parts (cf. Bertalanffy 1968). In this view, memes would be *relational* entities and not discrete entities as the memeticians contended. Interestingly, even in digital culture, all those who sets out to say something meaningful about internet memes, whether new media scholars or grassroots web writers, intuitively adopt the notion of ‘information as relational’. They do so despite often advocating the groundings of their work in Dawkins’ non-relational view of information.⁹ For example, Davison (2012: 127–131) explains the working of the ‘Advice Dog’ internet meme by showing no less than 10 images pertaining to the same meme and, indeed, outlining the *relation* between them. Knobel and Lankshear (2007: 209) explain that to characterize the ‘successfulness’ of the memes in their study they had to resort to investigating the “rich kind of intertextuality [of internet memes], such as wry cross-references to different every day and popular culture events, icons or phenomena, and/or anomalous juxtapositions, usually of images”. Lunenfeld refers to internet memes as “a viral text – image *matrix* rather than a pseudo-genetic concept transfer” (Lunenfeld 2014: 255; my italics, S. C.). The popular website Knowyourmeme also lists a number of items in order to illustrate the history of a single internet meme. In short, when observing an internet meme, these commentators have not merely observed a single media text (a discrete unit), but a collection of objects and the way these objects have triggered one another and related to one another through time. So, if internet memes can only be studied in relation to their numerous adaptations and versions across a period of time, it follows that an internet meme cannot be defined as a single image or video or catchphrase (as per the ill-defined conceptions outlined above) or, in other words, as isolated information; instead, internet memes must be defined at the very least as *systems*.

Copying vs. translation

With the second statement (b) according to which memes are “distributed via copying between individuals”, Dawkins contended that memes can replicate through imitation. According to him, an important quality of a successful (meme) replicator would be *copying-fidelity* which would ensure the survival of the meme over a long period of time and would make it into a “viable unit of natural selection” (Dawkins 2006[1976]:

⁹ It is interesting to see that, despite resorting to memetic theory to give accounts of what internet memes *are*, contemporary scholars and grassroots writers have embraced the systemic notion of memes to explain how internet memes *work*. Ontology (definitions of being) is strictly linked to epistemology (*modus operandi* of knowledge), so if a systemic view of internet memes is adopted in analysis, then a systemic view of internet memes should also be adopted when attempting to find a general description for them.

195). However, contending that the complex mechanism for cultural evolution amounts to mere 'copying' appears to be a gross simplification. Every web user knows that there exist several versions of the same internet meme, so how could 'copying' explain such a cultural variability? To disentangle this issue, let us start by noticing that the idea of 'copying' is grounded in the concept of information *transmission*. This view is evident in the following definitions which see memes as

- (1) Culturally *transmitted* instructions (Dennett 1991, 1995; my italics, S. C.)
- (2) Largest units of socially *transmitted* information that reliably and repeatedly withstand transmission (Pocklington, Best 1997: 81; my italics, S. C.)
- (3) A message that is *transmitted*, subject to Shannon and Weaver information constraints (Wilkins 1998; my italics, S. C.).

Again, this conception of 'information as transmitted' was popularized by Shannon and Weaver's *Mathematical Theory of Communication* (1949). According to this model, a message is selected in the source, encoded into a signal and then *transmitted* along a channel to a decoder and eventually to a destination. This view's lineage can be found in the post-war conception of communication which was concerned with encryption (encoding/decoding) and successful message delivery, that is, with the idea that a message sent by a source should be the same message which was received at destination. An interesting aspect of this model of communication is that it is grounded in thermodynamics. That is, the first law of thermodynamics made clear that energy is not created but *transferred*; hence, in a similar fashion, Shannon and Weaver made clear that information, like energy, could be transferred, too, through a linear communication process. Attempts at transposing aspects of this energy-based model of information onto human communication were made by first-wave cyberneticians in the 1940s (Wiener 1948), second-wave cyberneticians in the 1980s (e.g. Luhmann 1986), to an extent, by semioticians influenced by cybernetics in the 1970s (Eco 1962; Sebeok 1991[1988]) and, as it appears, even by Dawkins himself and by memeticians in the 1990s.

However information is a systemic phenomenon and cannot be thought of as being simplistically transferred from one mind to another. This issue was raised from within memetics by Gatherer who pointed out that the 'transmission of belief' is different from the transmission of information: "An individual may have a set of beliefs, but these cannot be memes, since they cannot be transmitted. All that can be transmitted is [technical] information. Belief is not itself information, but an attitude towards information" (Gatherer 1998: 12). In other words, 'beliefs' or 'attitude' are closer to phenomena such as perception, relevance, interpretation rather than the transmission of discrete units of information. Sperber also criticizes Dawkins' and memetics' emphasis on copying-as-transmission as he usefully explains that

[when doing an origami] the instructions are not being ‘copied’ in any useful sense [...]The normalisation of the instructions results precisely from the fact that something other than copying is taking place. It results from the fact that the information provided by the stimulus is complemented with information already available in the system. (Sperber 2000: 9)

In other words, information deals with data/capta in context. One needs to *add* information to a text in order to allow it to provide information. For example, the beaches of the river Thames in London are made up of mud, or pebbles at best, for the casual passer-by who glances at the river from its banks. But to the mudlarker, who ventures out of the cityscape and onto the shore, the beach of pebbles or mud yields a potential of natural and historical artefacts that have accumulated through centuries and millennia. To use Bateson’s expression, adding existing information to potential facts turns them into actual facts. In digital media, ‘remixing’ an internet meme would amount to adding information to it. This process allows the original, single media object to develop into an internet meme. Therefore it would be more useful to think of (cultural) information as something that is at the very least constructed (Cannizzaro 2013), rather than merely transferred, as the memeticians contended.

Memetics’ scholars then, have missed the semiotic component of culture because the construction of information in living beings is too complex as a process to be solely thought of as ‘transmission’ or copying. According to Kull, a meme is a sign without triadic nature, however both terms [memes and signs] denote almost the same thing (Kull 2000: 115). Similarly, Deacon (1999) argues:

A meme is a sign: some physical thing which, by virtue of some distinctive feature, can be recruited by an interpretive process within a larger system as re-presenting something else, conveying information into that system and reorganising it with respect to that something else.

The implication of these statements is immediate: signs make up texts, and texts are not passed on from person to person via copying, but are modelled or *translated*. “Copying”, writes Kull (2000: 109) “is a deterministic process, [whereas] translating is an interpretational process”. Taking up a similar approach in regard with internet memes, Shifman (2014: 354) argues how “Meme genres [...] are operative signs: textual categories that are designed as invitations for (creative) action”. Hence, when talking about the ‘replication’ of internet memes, ‘translation’ is a more appropriate analytical model than ‘copying’ as it gives more room to account for the creativity embedded in the development of internet memes. So, dropping memetics’ jargon and adopting a systemic-semiotic perspective on digital culture instead allows us to consider internet memes as *systems of signs that are subject to translation*.

‘Translation’ surpasses transmission as it encompasses the generation of new information which arises during the evolution of internet memes. Even within the context of digital culture, scholars have come to a similar conclusion: Knobel and Lankshear explain that copying or ‘replicability’ needs to include *remixing* as an important practice associated with many successful online memes. This musical metaphor includes “modifying, bricolaging, splicing, reordering, superimposing, etc., original and other images, sounds, films, talks and so on” (Knobel, Lankshear 2007: 208, 209; my italics, S. C.). However, referring to translation rather than remix enables us to access a range of semiotic terminology that is not available when relying on ‘remix’ alone.

Virality vs. habituescence

In any case, both translation and remix link to the next key feature of internet memes consisting, at root, in their ever-shifting nature. The processual aspect of memes has traditionally been understood in memetics through the virus metaphor, as evinced in Dawkins’ statement that “memes travel longitudinally down generations, but they travel horizontally too, like viruses in an epidemic” (Blackmore 1999: ix). In internet culture, it is normally understood that in order to turn into an actual internet meme, a cultural object has to “go viral” first. Yet in digital media theory, critical attempts have been made to understand Internet memes’ processual nature beyond the virus metaphor. For example, Nooney and Portwood-Stacer (2014: 250) explain how “in meme culture, flow takes primacy over origin, as the creator of an object and even the conditions in which it was made often remain unknown to the legions of users who remix it and pass it on”. Although, to be fair, creator or context of origin are often documented for historical reason, as a result of a mere ritual reconstruction habit, if at all. The point is that when it comes to the growth of internet memes, the explanatory model of cause-effect where there is a specific origin to a specific end, is not as important as what happens in between these two poles. The variety of translations that the internet memes undergo brings to the forefront the collective process of meaning-making that constitutes the internet meme, and this process appears more important than the concern with “who created it first”. In this respect Shifman (2014: 354; my italics, S. C.) argues:

This series of transactions – in which still images activate videos, texts are linked with images, and one image is replaced by another – goes far beyond images’ referential content. It forefronts the technical and *communicative potentialities* embedded in the web, highlighting functionalities such as linking, windows, and interactive surfaces.

Within the context of collective co-creation, internet memes' processual nature can then be conducted to a probabilistic process of change. By inserting probability into the equation, we approach a specific Peircean concept, that of *habit*. Habit for Peirce "is not something fixed once for all, but, on the contrary, a flexible rule of procedure" (Gorlée 2004: 63). Peirce explicates habit through his threefold philosophical model (firstness, secondness and thirdness), meaning that habit is a changeable, yet broadly reliable entity which contains at once the goal-directed stability of thirdness, the compulsiveness of secondness, and the germ of chaos subsumed in firstness. The probabilistic process of growth in habit sustained by these three levels is far removed from close-ended loops of cause and effect (Cannizzaro, Anderson 2016), as one would have it by understanding memes' dynamics as virality.

On the contrary, considering an internet meme within the perspective of habit would imply that a reaction to particular circumstances is more or less likely to occur, not that it will be mechanically occur, nor that it will occur following a certain way or direction. In this light, networked internet communities would develop internet memes along paths of meaning that are probable, not certain. Hence internet memes' processual nature could be understood in light of habituality, or what Peirce called 'habituescence', the "consciousness of taking a habit" (MS 930: 31, 1913). The definition of internet memes in fact could be further pushed so as to encompass systems of signs that are subject to translation in habituescence, or, *systems of signs with the tendency to take translational habits*. But in this light, one can see how the development of internet memes is perhaps not that different from the growth of any other instance of culture.

Analyzing *Rebecca Black's Friday*

In relation to the analysis of texts, Lotman holds that for new information to be generated there must exist *asymmetry* in communication. For example, in the translation of a poem into another language, "instead of a precise correspondence, there is one of the possible interpretations, instead of a symmetrical transformation there is an asymmetrical one [...]" (Lotman 2001: 14). Asymmetry can be a useful analytical term for understanding the transformation of internet memes because it arises from the difference in 'semiotic structures' proposed by the remixing web user. For example, asymmetry can be observed in the translation of a famous internet meme called *Rebecca Black's Friday*. The digital media text which originated this meme was a vanity video starring a 13-year old American teenager singing lyrics such as

It's Friday, Friday,
Gotta get down on Friday,
Everybody's lookin' forward to the weekend, weekend.

Knowyourmeme explains that *Rebecca Black's Friday* was first uploaded on YouTube on 10 February 2011, but “it didn't gain viral momentum until a month later when the popular *The Daily What* posted the video on 11 March 2011”.¹⁰ Just a week after *Rebecca Black's Friday* went viral, or, in a semiotic framework, took up the habit of translation, numerous covers of the video appeared. This collective production triggered the identity switch of the video from single media text into an internet meme or a system of signs with the tendency to take new translational habits.

One of these translations, the cover song *Death Metal Friday* provided a metal soundtrack to the original video. *Death Metal Friday* starts off with the original soundtrack but unexpectedly mutates to a death-metal voice and music as young Rebecca starts to sing; here, the new information that is generated in the asymmetry of translating from song to cover is found in the contradictory feel of its nonverbal communication: that is, we hear an over-exaggerated masculine guttural voice (vocal, nonverbal communication) springing out of the lips of a smiling teenager (visual, nonverbal communication). *Death Metal Friday* was updated on YouTube under the neutral nomenclature of ‘cover song’, but in the context of the growing popularity of the original song as “the worst song ever” (Parker 2011¹¹), the cover became a parody of *Rebecca Black's Friday*. Hence, the contrast created at the level of nonverbal communication (masculine voice on young female face) constitutes the ‘new information’ generated in the asymmetry: from celebrating the life of a teenage American girl, the video ends up ridiculing it; in other words, the change of habit marks the passage from self-celebration to parody, thus a change of media genre.

However, there is more to asymmetry that can be observed in translation. As Lotman (2001: 143) asserts “if dialogue without semiotic difference is pointless, when the difference is absolute and mutually exclusive dialogue becomes impossible. So asymmetry [in translation] assumes a degree of invariancy”. ‘Invariancy’ is probably what memeticians tried to identify as copying-fidelity. Yet invariancy does not work outside a semiotic framework, and must be conceived alongside asymmetry and translation. In the context of the study of internet memes, invariancy can be thought of as a loose common principle – what in Propp's (2000) terms may be called a ‘similarity’ – rather than a set of fixed informational units that are copied. However, one must admit that the looseness of such a principle must have constraints, or that there must be limits to the translational habit. These are the limits towards which meaning gravitates asymptotically. Even for Propp, a text's meaning is negotiated along constants and variables. So, on the one hand, and as for generic texts, asymmetry in

¹⁰ <http://knowyourmeme.com/memes/rebecca-black-friday>.

¹¹ Parker, Lyndsey 2011. Is YouTube sensation Rebecca Black's “Friday” the worst song ever? Available at <https://web.archive.org/web/20110322133013/http://new.music.yahoo.com/blogs/videogaga/71429/is-youtube-sensation-rebecca-blacks-friday-the-worst-song-ever/>; accessed on 14 November 2016.

internet meme ensures that a ‘polysemy of meanings’ (Altman 1999) can spring up during translation through the ‘germ of chaos’ of the internet meme habit in firstness; while, on the other hand, the expectations that web audiences put on internet memes, similarly to the expectations that mass audiences put on film genre (Cobley 2001) constrain the translations and channel them on ‘meaning paths’. This latter level of meaning is arranged along thirdness, the goal-directed aspect of the internet meme habit.



Figure 4a.

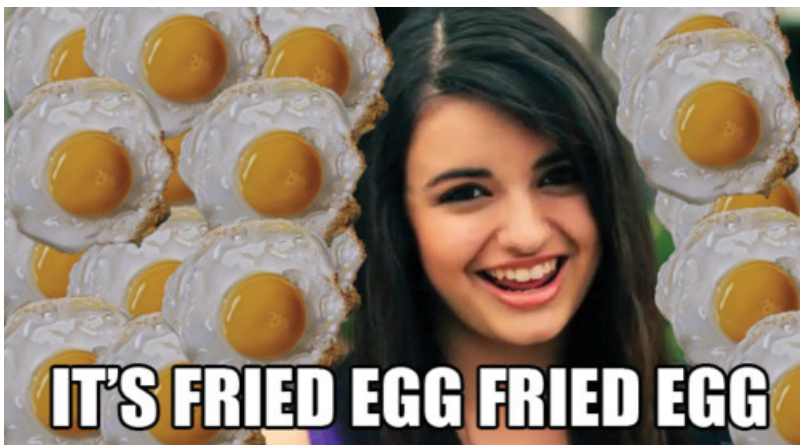


Figure 4b. Image macro sprung from the *Rebecca Black's Friday* internet meme, where the lyrics to the original songs “It’s Friday” have been substituted for pictures of eggs and for the text ‘fried egg’.



Figure 5a.



Figure 5b. The lyrics to Rebecca Black's *Friday* are cited in these image macros belonging to the *Advice Animal* and *Condescending Wonka* internet memes respectively.

The various versions of the internet meme are not randomly produced but follow certain constraints. For example, in the case of *Rebecca Black's Friday*, the ridiculing and negative expectations that the web users put on the video, and on subsequent remixes of it, were not randomly generated but were constrained by notable comments (a general idea, or thirdness to which the meme-habit tends). In fact, a few days after the video took its growth habit (11 March 2011), YouTube Trends Team explained that "Partly attributable to the sudden rise were postings by some influential tweeters on Friday who helped spread the music video" (YouTube Trends 2016¹²). One of these influential tweets by American comedian Michael Nelson (2011) read "Let this be on your lips as you head into the weekend <http://youtu.be/CD2LRROpph0> (it also answer the ? 'what's the worst video ever made?')". This man's reaction to *Rebecca Black's Friday* provided a model for interpreting the video as something to laugh at, because the high number of YouTube viewings that followed was accompanied by negative comments and the visible increase of thumbs down on YouTube by the second. In short, 'the worst video ever made' comment provided semiotic constraints to the polysemy of meanings that the video could have triggered, and broadly channelled web audiences expectations' towards laughter and mocking, which then gave rise to the birth of several parodies of the video.

Invariancy can also be identified in the translation of *Rebecca Black's Friday* from video to image macro.¹³ Brideau and Berret (2014: 307) explain how the Impact typeface that is used in image-macros produces standardization and innovation. In fact, lyrics from the song's chorus in the original video read "Today it is Friday"; however, when the video was posted on to the influential blog *The Daily What*, the platform which marked the rise of the video's popularity, one of the comments to the video read "Is it just me, or does anyone else hear 'Fried Egg?'", to whom somebody replied "i did! really.....i was like.....what fried egg?? then i heard it for the second time and i was like.....oh. FRIDAY. Duh" (the Daily What 2011¹⁴). These comments have provided the semiotic constraints for a change in habit of the internet meme. As Fig. 4a and Fig. 4b show, *Rebecca Black's Friday* morphed from video into a series of image macros where the lyrics 'Friday' were substituted for the text 'fried egg', and pictures of eggs were roughly photoshopped onto smiling Rebecca as a means to anchor the new verbal message. Here, asymmetry can be observed in the change of verbal communication from 'Friday' to 'fried egg' (written, verbal communication).

¹² YouTube Trends 2016. The Rebecca Black Phenomenon. Available at <http://youtube-trends.blogspot.co.uk/2011/03/rebecca-black-phenomenon.html> and accessed on 26 May 2016.

¹³ In the context of digital culture, an image macro is an image bearing superimposed text typically using an impact typeface and seeking to be funny.

¹⁴ The Daily What 2011 was accessed at <http://thedailywhat.tumblr.com/post/3786344046/where-is-your-god-now-of-the-day-i-am-no-longer> on 16 January, 2014.

Invariancy, on the other hand, is in the mental image of the sound (oral, verbal communication) that the word 'Friday' when uttered may produce (as it sounds as 'fried egg'). The invariance in the imagined oral-verbal communication resonates with the thirdness aspect of the meme's habit, whereas its asymmetry at the level of written verbal communication triggers a habit change in the internet meme at the level of firstness.

'Friday' and 'fried egg' in turn placed semiotic constraints on the development of new image macros where *Rebecca Black's Friday* fuses with other internet memes such as the *Advice animal*¹⁵ (Fig. 5a) and *Condescending Wonka* (Fig. 5b) internet meme¹⁶ and takes up a new habit altogether. What is interesting about this fusion or habit-taking is that the familiar teenager's face does not need to be in the picture for the image macro to be recognized as *Rebecca Black's Friday* internet meme. So if the visual elements of these images macros appear different (asymmetry), the connection between the two (invariance) is made verbally. Hence the dynamic growth of the internet meme or its more fundamental change of habit, is in the switch of channel between verbal and nonverbal modes, showing that habit change can cut across thirdness and firstness in different ways.

Conclusion

Contemporary popular culture has chosen to baptize the phenomenon which sees certain digital media texts going 'viral' and being collectively remixed as 'internet memes'. This choice of term is indebted to Dawkins' theory of culture-as-memes as proposed in his book *The Selfish Gene*, and later supported by scholars of memetics. However this choice also imported into digital culture the theoretical assumptions, and their limitations, which became associated with memetics. This article has shown how memetics' emphasis on memes as 'units' of cultural evolution is a conception indebted to early information theory and resonates with structuralism's conception of signifying unit too. However this view was already surpassed by cybernetics (Bateson 1970), and has been made obsolete by semiotics (Tartu–Moscow semiotics and especially Lotman 2001), biosemiotics (Hoffmeyer 1996, 2008) and cybersemiotics (Brier 2008) and in retrospect, also Peircean semiotics (MS 930: 31–33, 1913). These frameworks instead suggest that information should be considered as a relational entity. Hence,

¹⁵ Davison explains that this internet meme is characterized by an image of animal in front of rainbow with a first line of advice followed by a second line of advice (usually a punch line) (Davison 2012: 127).

¹⁶ This meme features "a screen capture of actor Gene Wilder in the 1971 musical *Willy Wonka and the Chocolate Factory* [... who is depicted] as patronizing and sarcastic" (*Condescending Wonka* 2014).

if memes-as-cultural-information should be thought of as relational entities, internet memes should be thought of as systems. Also, memetics' view of cultural evolution as the 'distribution of memes between individuals via copying' is a conception grounded again in the idea of information transmission. Developments in semiotics suggest that memes should be considered as signs (Deacon 1999; Kull 2000), an observation which in turn suggests that it would be useful to think of internet memes as sign systems. The semiotic turn on memes implies that 'copying' is no longer an appropriate choice to account for the growth of culture. At the very least, cultural change should be seen as translation, which enables one to envisage the generation of new information. In this view, internet memes are to be considered as systems of signs that are subject to translation.

The choice of adopting 'translation' rather than 'remix' (a consensual term in digital media theory) in order to account for the morphing of isolated digital media texts into internet memes, allows us to adopt analytical terms that belong to the tradition of the semiotics of culture. Through a semiotic analysis of the *Rebecca Black's Friday* internet meme, it has been shown how the terms 'asymmetry' and 'invariance' can help us to identify and analyse important moments in the evolution of internet memes.

Finally, it was shown that while the processual nature of internet memes has been brutally labelled as 'viral' following memetics, this process can in fact be better understood by the semiotic model of habit as proposed by Peirce. Particularly, the notion of 'habituescence' or the taking up of a habit, enables the definition of internet memes as systems of signs with the tendency to take up a flexible, intelligent translational habit. This habit can be understood as a law of the mind that contains within itself a germ of chaos at the level of firstness (a trigger to change generated through translational asymmetry), a compulsive aspect at the level of secondness (the act of translation itself) and a reliable component at the level of thirdness (the invariance aspect of translation).

In conclusion, the pragmatic concerns covered in this article include concepts such as the unit of information, copying, and virality. These points all challenge the method for most cultural analysis on account of the qualifiable, fluidic nature of digital cultures. Yet Lotman's and Peirce's doctrines of translation and habituescence come a good deal closer towards a critical conception of culture more broadly, whilst also extending these advanced semiotic principles as inflected by bio- and cybersemiotics. And so, within this enlarged conception, historical and contemporary analyses of digital culture can profit much in assigning more apposite and precise semiotic terminology with the popular legacy left by memetics, its allied disciplines, and even incipient, contemporary sequels.

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Images, videos, tweets

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Интернет-мемы как знаки интернета: семиотический взгляд на дигитальную культуру

Статья ставит целью более четкое структурирование интернет-мемов. Наука о мемах, «меметика», предполагает, что мемы остаются 'репликаторами, копирующими единицами', как это было высказано в знаменитой работе Ричарда Докинза «Эгоистичный ген» (1976). Пирсовская семиотика и биосемиотика могут бросить вызов этой доктрине информационной передачи. Поддерживая рассмотрение интернет-мемов в точной дискурсивной рамке, при помощи семиотического чтения реконфигурируются современные формулировки понятия мема. Интернет-мемы могут и должны быть

поняты как вызывающие привычку знаковые системы, которые охватывают и процессы, содержащие асимметричную вариативность. В статье предлагается, исходя из принципов биосемиотики, Тартуско-московской школы и семиотики Пирса, посредством внимательного чтения (*close reading*) знаменитого интернет-мема 2011 года «*Rebecca Black's Friday*», рабочая схема для определения интернет-мемов и его применимости для семиотического анализа текстов новой меди.

Internetimeemid kui internetimärgid: semiootiline pilk digitaalkultuurile

Artiklis püütakse leida selgemat raamistust internetipõhistele meemidele. Järgides selle mõiste populariseerimist Richard Dawkinsi kuulsas teoses “Isekas geen” (1976), eeldatakse memetikaks nimetatavas meemiteaduses, et meemid jäävad ‘kopeerivateks’ üksusteks. Siiski võivad Peirce'i semiootika ja biosemiootika sellele informatsiooni edastuse doktriinile väljakutse esitada. Toetades internetimeemide käsitlemist täpses ja diskursiivses raamistuses, rekonfigureeritakse semiootilisel lugemisel nüüdseks kehtestatud meemide mõiste kaasaegseid formuleeringuid. Internetimeeme saab ja tuleb seega mõista kui harjumusi põhjustavaid märgisüsteeme, mis hõlmavad asümmeetrilist variatiivsust sisaldavaid protsesse. Nii pakutakse käesolevas artiklis biosemiootikast, Tartu-Moskva semiootikast ja Peirce'i semiootilistest põhimõtetest lähtudes ning 2011. aastal tuntust kogunud internetimeemi “Rebecca Blacki reede” lähilugemise kaudu välja töökava internetimeemide defineerimiseks ning rakendamiseks uue meedia tekstide semiootilisel analüüsil.