Memes in a Digital World: Reconciling with a Conceptual Troublemaker

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This paper re-examines the concept of "meme" in the context of digital culture. Defined as cultural units that spread from person to person, memes were debated long before the digital era. Yet the Internet turned the spread of memes into a highly visible practice, and the term has become an integral part of the netizen vernacular. After evaluating the promises and pitfalls of memes for understanding digital culture, I address the problem of defining memes by charting a communication-oriented typology of 3 memetic dimensions: content, form, and stance. To illustrate the utility of the typology, I apply it to analyze the video meme "Leave Britney Alone." Finally, I chart possible paths for further meme-oriented analysis of digital content.

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Memes are a pain. Or so at least a glance into the world of academic literature would suggest. Ever since Richard Dawkins coined the term in 1976 to describe gene-like infectious units of culture that spread from person to person, memes have been the subject of constant academic debate, derision, and even outright dismissal. Recently, however, the concept once kicked out the door by many academics is coming back through the Windows (and other operating systems) of Internet users. In the vernacular discourse of netizens, the phrase "Internet meme" is commonly applied to describe the propagation of content items such as jokes, rumors, videos, or websites from one person to others via the Internet. According to this popular notion, an Internet meme may spread in its original form, but it often also spawns user-created derivatives.

The uptick in vibrant popular discourse about memes in an era increasingly defined by Internet communication is not coincidental. While memes were conceptualized long before the digital era, the unique features of the Internet turned their diffusion into a ubiquitous and highly visible routine. Memes, since at least as early as the 1990s, have been said to "replicate at rates that make even fruit flies and yeast cells look glacial in comparison" (Dennett, 1993, p. 205). In what follows, I explore the utility of memes for understanding digital culture, positing throughout the following two premises: First, that the intense emotions and dramatic statements characterizing both sides of the memes debate need to be toned down. While enthusiastic advocators argue that the meme explains everything and their opponents assert it explains and changes absolutely nothing, it might be worth asking whether the meme concept may be useful for *something*. In this endeavor I follow the footsteps of researchers

such as Johnson (2007), Knobel and Lankshear (2007), Jones and Schieffelin (2009), Benett (2003), and Burgess (2008), who used the meme as a prism for understanding certain aspects of contemporary culture without embracing the whole set of implications and meanings ascribed to it over the years.

The second premise is that we should look at memes from a communication-oriented perspective. Coined by a biologist, the term meme has been widely adapted (and disputed) in many disciplines, to include psychology, philosophy, anthropology, folklore, and linguistics. For the most part, however, it was utterly ignored in the field of communication. Until the twenty-first century, mass communication researchers felt comfortable overlooking memes. As units that propagate *gradually* through interpersonal contact, they were considered unsuitable for exploring content that is transmitted simultaneously from a single institutional source to the masses. But this is no longer the case in an era of blurring boundaries between interpersonal and mass, professional and amateur, bottom-up and top-down communications. In a time marked by a convergence of media platforms (Jenkins, 2006), when content flows swiftly from one medium to another, memes have become more relevant than ever to communication scholarship.

The questions I address in what follows are rather straightforward: How, if at all, is the meme concept useful for understanding digital culture? What important obstacles stand in the way of its being accepted in research, and how can these barriers be overcome? The answers to these questions unfold serially in five parts. In the first section, I interpret the meme concept and its controversial status in academia, as well as its revival in the vernacular discourse of Internet users. I then look at the promises and pitfalls of memes for understanding Internet culture, suggesting that some previous premises about the concept should be put aside. In the third part of this essay I delve into the problem of defining meme units, charting a communication-oriented typology of memetic dimensions. To illustrate the utility of this typology, I provide a detailed analysis of Chris Crocker's video meme ''Leave Britney Alone'' and its various imitations, as well as a short corroborative analysis of the more recent ''Pepper-Spraying Cop'' meme. Finally, I offer some thoughts about the potential meaning and relevance of this paper to the field of diffusion studies, charting possible paths for further meme-oriented analysis of new media.

Memes: From Academic to Public Discourse (And Back?)

The term *meme* was introduced by the biologist Richard Dawkins in his book *The Selfish Gene* (1976). As part of his larger effort to apply evolutionary theory to cultural change, Dawkins defined memes as small cultural units of transmission, analogous to genes, which are spread from person to person by copying or imitation. Examples of memes in his pioneering text include specific signifiers such as melodies, catchphrases, and clothing fashions, as well as abstract beliefs (for instance, the concept of God). Like genes, memes are defined as replicators that undergo variation, competition, selection, and retention. At any given moment, many memes are competing for the attention of hosts; however, only memes suited to their sociocultural environment spread successfully, while others become extinct (Chielens & Heylighen, 2005).

The word meme derives from the Greek *mimema*, signifying ''something which is imitated,'' which Dawkins shortened to rhyme with gene. Interestingly, a similar term to signify cultural evolution had appeared a century earlier. In 1870 the Austrian sociologist Ewald Hering coined the phrase *Die Mneme* (from the Greek *mneme*, meaning memory), which the German biologist Richard Semon used as a title for his 1904 book *Die Mnemischen Empfindungen in ihren Beziehungen zu den Originalempfindungen* (Hull, 2000). Unaware of this existing terminology (Dawkins, 2004), Dawkins' expression proved an accidental but successful imitation in itself: His concept survived and proliferated in the scientific world.

After more than a decade of sporadic and stuttering growth, *memetics*—understood as ''the theoretical and empirical science that studies the replication, spread and evolution of memes'' (Heylighen

& Chielens, 2009, p. 1)—began to take shape as an active research program, drawing scientists from many fields in the 1990's (Hull, 2000). Important landmarks on this path included contributions made by the prominent philosophers Douglas Hofstadter (1985) and Daniel C. Dennett (1990, 1993, 1995), the emergence of the *Journal of Memetics* between 1997 and 2005, and the publication of several meme-oriented books (Boyd & Richardson, 2005; Brodie, 1996; Distin, 2005; Lynch, 1996). Of this stream, Susan Blackmore's *The Meme Machine* (1999) may well be the most influential, yet also the most disputed.

Since its early days, memetics has drawn constant fire. Among the criticisms raised against it, four positions are particularly relevant to our context. The first is the concept's ambiguity: There is disagreement about what precisely a meme is, which leads to difficulties in quantifying and measuring it. Second, the analogy between nature and culture feeding the field has been criticized as reductive, materialistic, and ineffective in describing complex human behaviors. Third, the conscious selection and mutation of memes has generated heated debates over human agency and memetic control. Finally, some critics claim that memetics has no added value: It does not offer tools or insights beyond those employed in traditional disciplines such as cultural anthropology or linguistics (Benitez-Bribiesca, 2001; Chesterman, 2005; Rose, 1998). We shall return to these four quandaries—and to possible ways of addressing them.

While widely disputed in academia, the meme concept has enthusiastically been picked up by Internet users. A search of Google Trends suggests a spurt of interest on the subject since data collection began in 2008, and a quick Google query of the term "Internet meme" yielded around 1,550,000 hits (January 4, 2012), many of them leading to large interactive depositories of memetic content. For example, on the popular website *Know your meme*, "resident Internet scientists" appropriately dressed in white coats provide various explanations for the success of certain videos in generating wide attention (http://knowyourmeme.com). According to Knobel and Lankshear (2007), the word *meme* is employed by Internet users mainly to describe the rapid uptake and spread of a "particular idea presented as a written text, image, language 'move,' or some other unit of cultural 'stuff'" (p. 202). This vernacular use, the authors submit, is utterly different from the one prevalent in the academic study of memetics: If the former tends to describe recent, often short-lasting fads, longevity is the key of "serious" memetics, since successful memes are defined as the ones that survive in the *longue durée*. Another difference relates to the object of analysis: Whereas in memetics the unit of analysis itself is abstract and controversial, Internet users tend to ascribe the meme tag to concrete phenomena such as particular YouTube videos that lure many derivatives. "Leave Britney Alone," the "Star War Kid," Hitler's "Downfall" parodies, and the "Numa Numa guy" are particularly famous drops in a memetic ocean.

The yawning gap between popular and academic uses of memes may serve as a fertile site for an improved meme theory. Here I follow Johnson's (2007) assertion that memes may be of particular relevance for cultural analysis that is interested in deciphering the meaning of "seemingly superficial and trivial elements of popular culture" (p. 27). Thus, a promising starting point for this exploration would be in identifying and mapping memetic dimensions of texts previously crowned as successful Internet memes, with an eye toward examining whether Internet memes enrich our understanding of this controversial concept.

But before such an expedition begins, we need to get rid of some excess baggage. During its 25 years of existence, the term *meme* accumulated many meanings. Some of them seem very useful for understanding contemporary digital culture; others somewhat less. In the next section I will catalog and differentiate between them.

Memes' Promises and Pitfalls for Analyzing Digital Culture

Three main attributes ascribed to memes are of particular relevance to the analysis of contemporary digital culture. First, memes may best be understood as cultural information that passes along from

person to person, yet gradually scales into a shared social phenomenon.[1] Although they spread on a micro basis, memes' impact is on the macro: They shape the mindsets, forms of behavior, and actions of social groups (Knobel & Lankshear, 2007). This attribute is highly compatible to the way culture is formed in the so-called era of Web 2.0, which is marked by application platforms for facilitating user-generated content. YouTube, Twitter, Facebook, Wikipedia, and other similar applications are based on propagation of content, to paraphrase Lincoln, of users by users for users. Such sites represent "express paths" for meme diffusion: content spread by individuals can scale up to mass levels within hours. More broadly, this decentralized, nonhierarchical, and user-based model also drives new mindsets and social norms occupying media use (Baym & Burnett, 2009; boyd, 2008; Jenkins, 2006; O'Reilly, 2007).

A second attribute of memes is that they reproduce by *various means of imitation.* In oral communication, people become aware of memes through their senses, process them in their minds, and then "repackage" them in order to pass them along to others (Dawkins, 1982). In the digital age, however, people do not have to repackage memes: They can spread content *as is* by forwarding, linking, or copying. Yet a quick look at any Web 2.0 application would reveal that people do choose to create their *own versions* of Internet memes, in startling volumes. Two main repackaging strategies of memes are prevalent on the web: mimicry and remix. There is nothing new about *mimicry*—people have always been engaged in impersonating others. However in the web 2.0 era everyday mimetic praxis have turned into a highly visible phenomenon in the public sphere. Websites such as YouTube are flooded with imitations—almost any user-generated video that passes a certain threshold of views inspires a stream of emulations (Shifman, 2012). The second strategy of memetic repackaging, *remixing*, is also extremely prevalent, as digital technology and a plethora of user-friendly applications enable people to download, re-edit, and distribute content very easily (Lessig, 2008; Manovich, 2005). User-driven imitation and remix have become highly valued pillars of contemporary participatory culture, to the extent that one may argue that we live in an era driven by a *hyper-memetic* logic.[2] The term "meme" is particularly suitable to describe this glut of re-works, as the concept —deliberately connoting "mimesis"—is flexible enough to capture a wide range of communicative intentions and actions, spanning all the way from naïve copying to scornful imitation.

A third attribute of memes that makes them appealing for scholars interested in digital culture is their diffusion through *competition and selection.* Memes vary greatly in their degree of fitness, that is, their level of adaptiveness to the sociocultural environment in which they propagate (Aunger, 2000). While processes of cultural selection are ancient, digital media have afforded researchers with the ability to *trace* the spread and evolution of memes (Shifman & Thelwall, 2009). But it is not only experts who can now analyze digital traces on the Web—in many Web 2.0-friendly websites, metadata about viewing preferences, choices, and responses is constantly aggregated and displayed for all users to view (Benkler, 2006; Burgess & Green, 2009). Thus, metainformation about competition and selection processes is increasingly becoming a visible part of the process itself.

The analysis so far presents memes and digital culture as a match made in heaven: The Internet is not only saturated with memetic activity, but also allows for its investigation in unprecedented ways. However, some controversies surrounding memes—in particular those I shall refer to as "biological analogies" and "who's the boss"—have hindered the wide uptake of the concept in studying digital culture.

Two biological analogies are especially prevalent in the discourse about memes: viruses and genes. The meme-as-virus analogy sees the similarity between memes and disease agents. Taking *epidemiology* as its model, it considers memes the cultural equivalents of flu bacilli, transmitted through the communicational equivalents of sneezes (Alvarez, 2004). In Internet culture, this metaphor is prevalent in the highly visible discourse on "viral" content. Yet Jenkins et al. (2009) rightfully assert that this

metaphor has been used in a problematic way, conceptualizing people as helpless and passive creatures, susceptible to the domination of meaningless media "snacks" that infect their minds.

The second prevalent biological metaphor for memes —deriving directly from Dawkins' work—takes evolutionary *genetics* as its model. However, some works have "pushed the analogy with the gene to its logical extremes" by seeking cultural equivalents for all principal evolutionary genetic concepts, including genotype, phenotype, transcription, and code (Alvarez, 2004, p. 25). This effort was criticized not only because memes behave very differently than genes (Atran, 2001), but also since the reduction of culture to biology narrows and simplifies complex human behaviors. The prevalent notion is thus that the meme-gene analogy should be taken with many grains of salt (Blackmore, 1999). Put differently, it is not necessary to think of biology when analyzing memes. The ideas of replication, adaptation, and "fitness" to a certain environment can be analyzed from a purely social/cultural perspective.

Another fundamental controversy in memetics, tagged here as "who's the boss," relates to the issue of human agency in the process of meme diffusion. On one end of the spectrum, we find scholars such as Blackmore (1999), who claims that people are "meme machines" operated by the numerous memes they host and constantly spread. Nonetheless, I contend here that the undermining of human agency is not inherent to the meme concept itself—only to one strain of its interpretation. A number of works within the field of memetics are clearly opposed to it. Most important to this essay is Rosaria Conte's (2000) suggestion to treat people not as *vectors* of cultural transmission, but as *actors* behind this process. The dissemination of memes, she submits, is based on intentional agents with decision-making powers: Social norms, perceptions, and preferences are crucial in memetic selection processes. This conceptualization of people as active agents is highly appropriate for understanding how memes travel on the digital highway, particularly when examining cases in which the initial meaning of a meme is dramatically altered in the course of its diffusion.

If the biology-driven and power-driven controversies hinder the wide scholarly usage of memes, a third site of struggle—around the meme concept itself—may provide a path forward.

Unpacking Internet Memes

A core problem of memetics, maybe *the* core quandary, is the exact meaning of the term. The jury is still out on what is meant by "meme." As mentioned above, Dawkins' (1976) initial definition of meme was quite ambiguous: He referred to it as "a unit of cultural transmission, or a unit of imitation" (p. 206). His set of meme examples spanned ideas (God), texts (nursery rhymes and jokes), and practices (Christian rituals). Ever since, the study of memes has been subject to disputes centering on the mind/body or genotype/phenotype dichotomy, yielding three positions regarding the nature of memes: mentalist-driven, behavior-driven, and inclusive.

Mentalist-driven memetics, represented by leading scholars in the field such as Dawkins himself (in his 1982 clarification of the theory), Dennett (1995), and Lynch (1996), is based on the differentiation between memes and meme vehicles. According to this school of thought, memes are ideas or pieces of information that reside in our brain. They are not simple ideas such as red, round, or cold, but complex ones that "form themselves into distinct memorable units" such as the ideas of alphabet, chess, or Impressionism (Dennett, 1995, p. 344). In order to be passed along from one person to another, memes are "loaded" on various vehicles: images, texts, artifacts or rituals. According to this view, those observable meme vehicles are equivalent to phenotypes—the visible manifestation of genes. In other words, memes are idea complexes and meme vehicles, their tangible expressions.

In contrast, the stream of thought surrounding *behavior-driven* memetics sees memes as behaviors and artifacts rather than ideas (Gatherer, 1998). In the behaviorist vocabulary, the meme vehicle and

meme are inseparable: The meme has no existence outside the events, practices, and texts in which it appears; that is, it is always experienced as encoded information. Moreover, this approach claims that if memes were indeed only abstract units of information, it would be impossible to identify them separately from their manifestation in the outside world. Defining memes as concrete units enables their evolution and diffusion to be studied empirically. This brand of memetics is closely related to the scholarly approach known as ''diffusion studies'' (Aungar, 2000). Many studies in this rich tradition focus on the diffusion of ''innovations,'' occasionally adapting the term meme and the general memetic framework (For recent overviews of the field, see Rogers, 2003 and Katz, 1999). However, as detailed in the concluding section, diffusion studies tend to cling to narrow definitions of memes, thus overlooking the complexity and richness that may be ascribed to the concept.

Whereas members of the mentalist- and behavior-driven schools see memes as either ideas *or* practices, what I tag as the *inclusive memetic approach*, represented by Susan Blackmore, uses the term ''indiscriminately to refer to memetic information in any of its many forms; including ideas, the brain structures that initiate those ideas, the behaviors these brain structures produce, and their versions in books, recipes, maps and written music'' (p. 66); that is, any type of information that can be copied by imitation should be called a meme.

But this inclusive approach may lack analytical power, as it assembles very different elements under its big conceptual tent. I therefore suggest a fourth approach: moving forward by looking at diffused units as incorporating several *memetic dimensions*. Since this paper focuses on digital culture, I will demonstrate this approach through the analysis of memes that spread via the Internet. Internet memes are defined here as units of popular culture that are circulated, imitated, and transformed by individual Internet users, creating a shared cultural experience in the process. I suggest looking at Internet memes not as single ideas or formulas that propagated well, but as *groups* of content items that were created with awareness of each other and share common characteristics. Going back to Dawkins' original idea—that memes are *units of imitation*—I find it useful to isolate three dimensions of cultural items that people can potentially imitate: *content, form, and stance*.

The first dimension relates mainly to the **content** of a specific text, referencing to both the ideas and the ideologies conveyed by it. The second dimension relates to **form**: This is the physical incarnation of the message, perceived through our senses. It includes both visual/audible dimensions specific to certain texts, as well as more complex genre-related patterns organizing them (such as lip-synch or animation). While ideas and their expression have been widely discussed in relation to the meme concept, the third—communication-related dimension—is presented here for the first time. This dimension—which relates to the information memes convey about their own communication—is labeled here as **stance**. Expanding Englebertson's (2007) definitions, I use ''stance'' to depict the ways in which addressers position themselves in relation to the text, its linguistic codes, the addressees, and other potential speakers. Like form and content, stance is potentially memetic; when re-creating a text, users can decide to imitate a certain position that they find appealing or use an utterly different discursive orientation.

Since I use stance in this context as a very broad category, I wish to clarify it by breaking it into three subdimensions, drawing on concepts from discourse and media studies: (1) *participation structures* -- who is entitled to participate and how, as conceptualized by Phillips (1972), (2) *keying* -- the tone and style of communication, as defined by Goffman (1974) and further developed by Blum-Kulka et al. (2004), and (3) *communicative functions*, as conceptualized by Roman Jakobson (1960). Jakobson identified six fundamental functions of human communication, concisely presented as follows: (a) Referential communication, which is oriented toward the context, or the ''outside world''; (b) emotive, oriented toward the addresser and his/her emotions; (c) conative, oriented toward the addressee and available paths of actions (e.g. imperatives); (d) phatic, which serves to establish, prolong, or discontinue communication;

(e) metalingual, which is used to establish mutual agreement on the code (for example, a definition); and (f) poetic, focusing on the aesthetic or artistic beauty of the construction of the message itself.

This analytic framework, consistent with the three memtic dimensions (content, form, and stance), as well as the three subdimensions of the latter dimension (participation structures, keying, and communicative functions) will be developed and applied in the following section to the analysis of a successful YouTube meme, featuring one somewhat upset fan.

Leave Britney Alone

On September 10, 2007, a young gay blogger and actor named Chris Crocker uploaded a YouTube video in which he reacted to the harsh criticism following pop star Britney Spears' lackluster performance on the MTV Music video awards. Crying and shouting throughout most of the clip, Crocker implored his viewers to "Leave Britney Alone":

> And how fucking dare anyone out there make fun of Britney, after all she's been through! She lost her aunt, she went through a divorce, she had two fucking kids, Her husband turned out to be a user, a cheater, and now she's going through a custody battle. All you people care about is readers and making money off of her. SHE'S A HUMAN! What you don't realize is that Britney is making you all this money and all you do is write a bunch of crap about her. She hasn't performed on stage in years. Her song is called "give me more" for a reason because all you people want is MORE, MORE, MORE, MORE, MORE!. LEAVE HER ALONE! You're lucky she even performed for you BASTARDS! LEAVE BRITNEY ALONE! [. . .] Leave Britney Spears alone right NOW! I mean it. Anyone that has a problem with her you deal with me! because she's not well right now. Leave her alone . . .

The video gained over 2 million views within 24 hours, and many more in the following days and months (current view count is over 42 million). The Crocker sensation was reported on various mainstream media stages and generated worldwide attention (Salvato, 2009). The video soon spawned a stream of derivatives: imitation-based memes (in which known actors and ordinary users impersonated Crocker), as well as remix-based memes (in which music, graphic elements, or dubbing were re-edited with the original).

In exploring "Leave Britney Alone" as a meme, we need to examine the distribution of the original video, but perhaps more importantly, we should investigate the structure and meaning of the *new variations* created of this video. People may *share* a certain video with others for many different reasons (spanning from identification to scornful ridicule), but when they create their *own versions* of it they inevitably reveal their interpretations of the text. The conceptualization of Internet memes as trinities of content, form and stance suggests that we need to follow separately the uptake—or rejection—of each memetic dimension by the text's imitators. In what follows, I will implement this strategy to evaluate the ways in which Crocker's video-meme was transformed in the course of its digital lifespan. The main dimensions embedded in the original video and their alternations by users are summarized in Table 1.

Crocker's 2007 video was a complex potage of ideas, textual practices, and communicative strategies. While in practice these dimensions are importantly intertwined, feeding off each other in multifaceted ways, I attempt to disentangle them here for analytical purposes. Our starting point is the video's content, namely the ideas and ideologies that it conveys. The text includes, among other things, facts about Britney Spears' life (e.g., her two children) and castigation of people criticizing fallen celebrities. More broadly, in this video and others, Crocker wishes to convey the ideological message that being

Table 1 Memetic Dimensions and Their Manifestation

Dimension	Definition	Demonstration ("Leave Britney Alone")
Content	The idea/s and the ideology/ies conveyed by a specific text.	Crocker's video: against mocking fallen celebrities, pro effeminate gays Derivatives: mocking fallen celebrities, against effeminate gays
Form	The physical formulation of the message, perceived through our senses	Crocker's video & its derivatives: one person, standing, plain white cloth as background, shouting, one shot, close-up
Stance	Information about the communicative positioning of the addresser in relation to the text/message, the context, and other potential speakers. Sub-dimensions: participation structures, keying, communication functions.	Crocker's video: serious keying, emotive, conative and phatic functions. Derivatives: cynical/ironic keying, metalinguist and phatic functions.

gay and effeminate is a legitimate practice. In terms of form, or textual construction, the video's layout includes one talking head, filmed in close up and in one-shot and situated in front a white cloth. It further includes repetitions of certain phrases, raised voice pitch, tears, and distraught hair-hand gestures.

The most complex dimension for analysis in Crocker's video relates to the dimension of stance. In relation to the subdimension of *participation structure*, the video, by virtue of its existence, reminds the viewer that a gay, overtly effeminate individual is openly expressing his opinion in the public sphere. *Keying*, as noted above, is the tone, or modality, of the internal framing of discursive events as formed by their participants. People can key their communication as funny, ironic, mocking, pretend, or serious (Blum-Kulka et al., 2004). In the case of "Leave Britney Alone," Crocker keys his utterances as extremely serious and as ultraemotional—sometimes so serious that, at a remove, it can even appear comical and ambiguously parodic. While some commentators questioned the sincerity of the video, Crocker insisted it was utterly genuine (Christian, 2010). In an illuminating analysis of Crocker's video as a case for examining the borders between amateurism and professionalism in contemporary culture, Salvato (2009) describes it not only as being serious and emotional, but also marked by lack of self-control. Crocker embodies the allegedly amateur avocation to "lose it," his body "deemed so wholly out of control in its production of fluids, movements and sounds" (p. 11). In relation to the communication functions defined by Jakobson (1960), of the six described above, the ones that seem most prominent in the video are the referential (Crocker provides us with facts about Britney's life), the conative (viewers are indulged to change their behavior), and above all the emotive, as this video is all about the addresser and his emotional state. In addition, a contextual examination of this video may lead to the identification of a certain phatic function to it. "Leave Britney Alone" is one of a stream of videos uploaded by Crocker on his YouTube channel. Through these frequent feeds, Crocker aspires to maintain the communicative path between himself, his budding acting career, and his faithful YouTube (and MySpace) viewers.

So far, I have charted the memetic dimensions embedded in Crocker's initial video. The question to be addressed now is: Which of these dimensions was taken up and imitated with accuracy by Internet

users in their derivatives, and which ones were altered? In other words, which of these dimensions succeeded in the memetic competitive selection process? Since it is virtually impossible to track and examine all of this meme's offsprings, I compiled a sample of 20 highly viewed derivative videos. To create the sample, two queries where used in YouTube's internal search engine: the string "Leave Britney Alone," and the words "leave" "alone" "Crocker." I then sorted the results according to their view count, and selected the 20 most viewed videos (above 100,000 views) in which people were seen imitating Crocker. Analyzing them qualitatively, I aimed at identifying patterns of memetic uptake.

Among the three memetic dimensions, the one that viewers imitated with a high level of accuracy is the video's form. The *mise-en-scène* of one person in front of a white cloth filmed in one-shot was evident in virtually all texts. Men were featured in 16 videos out of 20, often bearing feminine markers similar to Crocker's (such as a wig or eyeliner). In addition, the composition of Crocker's sentences, as well as key phrases such as "leave X alone" and "s/he is a human," were repeated throughout the sample.

In contrast to the relative accuracy in the imitation of the videos' form, radical changes take place on both the content and stance dimensions. These alternations are related, to a large extent, to the construction of *all* the videos in our sample as *parodies*. A major feature of parody is its construction with a critical difference from a source text that it mimics (Hutcheon, 1985). While all parody includes some kind of imitation, it is important to note that not all imitations are parodies. Many YouTube videos are emulated without mocking their protagonists. For instance, the "Evolution of Dance" hit—itself capturing an openly self-parodying event—has spawned numerous imitations in which people copy the performer's dance movements in various contexts, without lampooning him. This is distinctly not the case in "Leave Britney Alone," where the parodic intentions of the original are at best ambiguous and highly exploitable. As I demonstrate below, parody targets both the ideological and communicative aspects of the original meme.

To begin with, hardly any of the ideas conveyed by the original video were further circulated by its imitators: In only 2 texts out of 20 did speakers repeat Crocker's words; in all other cases, imitation involved a significant alternation of the original utterances. Videos divide evenly between two types. The first (commonly labeled "Leave Chris Crocker Alone") includes clips mocking Britney Spears and Chris Crocker. In these clips, Crocker's message about the legitimacy of being an overtly effeminate homosexual is lampooned in various ways. Thus, for instance, the comedian Seth Green, in a heavily viewed parody, shouts and "implores" the audience to leave Chris Crocker alone, pausing occasionally to fix his black eyeliner: "You can't talk about someone when you are not willing to do what they do! You have not spent a mile walking in his sneakers, or, platform pumps . . . I don't know what he wears . . . . BUT I BET IT'S STYLISH!" The second type of parody videos includes clips that mock a battery of other pop stars and celebrities. In such videos—including, for instance, "Leave Justin Bieber Alone," "Leave Miley (Cyrus) Alone," and "Leave Rebecca Black Alone"—the presenters mock Crocker's outcry to pity celebrities by performing the opposite: they publicly bash these celebs. Thus, for example, in one video the protagonist implores his viewers to "Leave Michael Jackson Alone": "He had sex with a few people, who turned out to be under 13 . . . He's only a human! I think [. . .] And so what if he dangled his child off a balcony. You bastards are even lucky he bothered to show him to you . . . "

A radical alternation of meaning also takes place in the communication-oriented dimension of stance. In relation to participation roles, the notion that users who upload videos may be overtly effeminate gays is disdained through scornful imitations of Crocker's effeminate traits. Another major shift is related to *keying* (the tone and style of communication): User-generated derivatives abandon Crocker's overtly emotional performance in favor of a cynical and ironic one. No one says what s/he means in those videos. When a speaker "pleads" with his audiences to "leave Michael Jackson alone" because he "loves his monkey," it is quite clear that the words spoken are not those meant. The same is true for the clip that implores "Leave Miley [Cyrus] Alone," praising her with the following words:

"She made you guys a movie in 3-D. She didn't have to do that. We would have been OK with 2-D, but she went the extra mile." In all these cases the humorous effect derives from the gap between the uttered words and their diminishing meaning, or intention. Interestingly, the vast majority of the sampled videos employ common ironic keying: These videos are more similar to *each other* than to Crocker's original.

Regarding the communicative functions, I found that the most prominent ones in the original video—emotive and conative—are marginal in its derivatives. While imitators do convey a certain feeling (scornful amusement), and seem to want to generate a similar amused reaction, both the emotive and the conative components are not as explicit and strong as in the original video. Rather, imitations stress a different communicative role: They draw attention to the communication process itself, thus performing more closely to the metalinguistic function. This analysis follows Hariman's (2008) description of parody as "talk beside itself," a mode of communication in which subtle communicative strategies become manifest. In our case, imitations draw attention to the communicative codes and strategies Crocker uses. Shouting, dramatization, and repetitions are all exaggerated and thus scorned as artificial and inappropriate. On a broader level, Crocker's imitations may also be fulfilling the phatic function. In an environment characterized by the rapid propagation and diversification of content, producing a takeoff of a popular and well known YouTube video such as "Leave Britney Alone" helps the person who uploads it stay in touch with the wider YouTube community. Uploading such videos may thus serve as another way to maintain the links underscoring a huge and highly heterogenic crowd.

My analysis so far yields a complex web of imitations and memetic dimensions. While users emulate the forms manifested in Crocker's video, they imitate the other imitators to construct opposing memes at the content and stance dimensions. In other words, the process of imitation combines overt copying and reversals of aspects of the original event. It may be that the most powerful communication-oriented meme spread by users in this process—one that has been replicated in almost all the videos we examined—is that of ironic communication: communication that veers from a definite commitment to one's uttered words, using language in a playful and nonobliging way.

So far I have demonstrated the utility of the threefold meme typology through a video-based example. I wish to further illustrate its applicability to other formats, such as image and text. To this end, I'll briefly look into the recent example of the "Pepper-Spraying Cop" meme. On 18 November 2011, students from the University of California - Davis campus gathered as part of the Occupy Wall Street protest. When they refused police orders to evacuate the area, two officers reacted by pepper-spraying a row of still-sitting students directly in their faces. Shortly after the incident, videos documenting it were uploaded to YouTube, generating uproar against the excessive use of force by American police officers (Dearen, 22.2.2011). A photograph in which one of the cops, John Pike, was shown spraying the students quickly evolved into an Internet meme. Users Photoshopped the so-called casually pepper-spraying cop into an endless array of contexts, spanning historical; artistic; and pop-culture-oriented backgrounds (Jardin, 23.11. 2011).

The plethora of images constituting the "Pepper-Spraying Cop" meme can be analyzed through the lens of the three dimensional model of content, form and stance. Such an exercise reveals that while most versions share a similar Photoshop-based form, they vary greatly in terms of content. Content-wise, two main groups of meme versions were identified. The first group focuses on political contexts: Pike is shown pepper-spraying iconic American symbols such as George Washington crossing the Delaware; the former U.S. presidents on Mount Rushmore; and the Constitution itself, as well as freedom fighters across the globe (e.g., in Tiananmen Square). These political versions share a clear idea: that the officer brutally violated the basic values of justice and freedom as represented by the protestors. A second group of user-generated images is pop-culture oriented. In these versions, Pike is pepper-spraying icons such as Snoopy and Marilyn Monroe, as well as a battery of stars identified with other Internet memes, such as little baby panda and Keyboard Cat. The ideas conveyed by this group

of pop-culture oriented memes are often polysemic. In one case, in which Pike is portrayed as spraying Rebecca Black—a widely scorned teen singer and Internet phenomenon—the original meaning of the photo as criticism of Pike seems to be almost reversed.

This differentiation between two types of memetic content can be further associated with alternations in stance. For instance, the utterly serious keying of the original photograph has been transformed in the process of memetic uptake, which involves explicit playfulness. Yet if in the politically oriented versions of the meme the keying is mainly sardonic, in the pop-culture-oriented ones the main tone is amused and humorous. The analysis of the ''Pepper-Spraying Cop'' meme according to the three memetic dimensions thus reveals that in contrast to the unified pattern of memetic uptake characterizing ''Leave Britney Alone,'' other memes might encompass a more divergent mode of diffusion and evolution. And this differentiation, as elaborated below, should be subjected to further empirical analysis.

Conclusion

This article is essentially about matchmaking. While memes and digital culture seem like an ideal fit, scholars—particularly in the field of communication—have so far been timid about coupling them. The forgoing essay thus both identifies and explores a fledgling field of knowledge. As such, it addresses three basic questions: (a) how, if at all, is the meme concept useful for understanding digital culture; (b) What important obstacles stand in the way of its being accepted in research; and (c) How can these obstacles be overcome?

Three attributes ascribed to the meme concept were highlighted here as particularly useful for exploring digital culture: Memes diffuse at the micro level but shape the macro structure of society; they reproduce by various means of imitation; and they follow the rules of competitive selection. These features were discussed here not only as apt descriptions of the *technological* affordances of the Internet in the Web 2.0 era, but also as *key logics* and perhaps even highly valued ideological pillars of a so called ''participatory culture.'' Yet two different features identified with the meme concept—close linkage with the biological metaphor and the undermined role of human agents—have hindered its uptake by media scholars. Two possible paths to overcoming these barriers were suggested: Forsaking the aspiration to find biological equivalents to all things cultural and conceptualizing humans in a more active way.

Another stumbling block to wider interest in memes relates to the ambiguity surrounding the concept. Since there is still dispute over what memes are, it is virtually impossible to study them empirically. Responding to this lacuna, I suggest in this article to define memes as complex systems incorporating three dimensions: content, form, and stance. When scrutinizing the propagation of memes, we should therefore examine them as trinities rather than as unified entities: The embracement—or rejection—of each dimension must be followed separately.

This distinction between memetic dimensions may serve as an invaluable tool for tracing the ways memes promulgate and shape digital culture. For instance, in the aforementioned ''Leave Britney Alone'' case, users chose to systematically undermine the ideological and communicative memes conveyed by Crocker's video, while simultaneously constructing and spreading opposing memes entailing ironic communication. Thus, while each user-generated video is ostensibly discrete and free to take its own form, a closer look reveals that Crocker's imitators chose to follow similar ideological and communicative routes, emulating each other's imitations. This pattern suggests that the ostensibly chaotic world (wide web) may in fact follow more organized cultural trajectories than meets the eye.

The differentiation between memetic dimensions may also advance our ability to create distinctions and draw borders between Internet memes. If we think of Internet memes as groups of interconnected

content units that share common characteristics, we may further posit that such shared features may include content; form; and stance, and various combinations thereof. Therefore, the definition of a certain meme's scope may rely on the memetic dimension through which it is examined. For instance, if our prism is that of content, or ideas, we may argue that the same memetic content can be expressed in a video, a text, or a Photoshop image. In this case, what we define as a particular ''Internet meme'' will incorporate various formats. Alternatively, we may identify memetic formats, such as Image Macros or Lip-Sync, which are used for conveying various ideas. This differentiation thus allows for a nuanced, flexible, and dynamic account of what constitutes an Internet meme.

In providing a close reading of only two cases, this article implicitly suggests the need for further studies charting a large-scale map of Internet memes. Such works could ask what ideologies, textual conventions, and communication forms are conveyed by popular Internet memes, and what are the webs of relationships between these memetic dimensions. Eventually, this line of research will provide a comprehensive overview of prevalent assumptions, norms, and ideologies behind the memetic construction of digital culture.

As a concluding note, I wish to offer some preliminary thoughts about the potential meaning and relevance of this paper to the field of diffusion studies. At the turn of the century, Elihu Katz (1999), one of the founding fathers of the field, claimed that although questions about ''how things get from here to there'' (p.145) are at the heart of all disciplines in the social sciences and humanities, the field of diffusion studies has gone significantly undertheorized. He describes a gulf between the skyrocketing numbers of diffusion case studies and the lack of substantial efforts to theorize across discrete case studies and fields[3] One of the reasons Katz mentions for this impasse is the fact that ''the items themselves refuse to hold still'' (p.145). Another problem he hints at but does not articulate explicitly relates to the definition of the diffused unit. The study of diffusion until now has tended to focus on specific entities: In most text books, diffusion is defined as the propagation of ''an idea, practice, *or* object'' (e.g. Rogers, 2003, p. 12). The ''thing'' itself which is diffused is always a well-defined entity, with clear boundaries. It is unchanging; its constant nature is what makes diffusion analysis possible.

This paper suggests a different route. Its three-dimension typology for analyzing Internet memes highlights the fact that, in diffusion or other types of communication research, the cultural object itself is a composite. In many cases, an item is at the same time an idea, a practice, *and* an object. Diffusion studies may therefore benefit from exploring the degree to which these dimensions work in cooperation or competition with each other. Indeed, looking at the diffused unit as an amalgam may also provide a key for a more nuanced account of cultural change. So far, the focus of diffusion studies has been mainly on the diffusion of *innovation*. But if we differentiate between content-, form-, and stance- based memes, we might discover that so-called ''innovations'' are sometimes old ideas or communicative practices in new textual gowns. This framework may therefore allow us to think about the delicate balance the *between diffusion of innovation* and the *diffusion of tradition*. Such a trajectory seems to fall in line with Benjamin Peters' (2009) recent suggestion to reconceptualize ''new media'' as ''renewable media'': Rather than just asking if a medium is new or not, it might be more rewarding to trace the various forms that certain technological ideas take in the course of history.[4]

To provisionally conclude, the meme is a natural for studying Internet and digital culture. Memetic behavior is not novel, but its scale, scope, and global visibility in contemporary digital environments are unprecedented. In this hyper-memetic era, user-driven circulation of copies and derivatives is a prevalent logic, or as Henry Jenkins (2009) aptly puts it: ''if you don't spread, you are dead.'' Copies become, in this sense, more important than the ''original'': They are the raison d'etre of digital communication. It is clear that much more work is needed in excavating the wealth deriving from the coupling of the meme concept and digital communication. The fit between the two displays all

the reluctance, enthusiasm, and pragmatic negotiation that one might expect of the marriage of an odd couple. Like it, it may be messy and complicated, but continuously interesting.

Acknowledgments

Notes

1 In this sense, one might argue that memes are equivalent to signs. Indeed, signs have much in common with memes, to the extent that it has been argued that memes are no more than newly labeled signs (Kilpinen, 2008). Yet two fundamental differences between the concepts justify their discrete existence. First, as described above, the meme is not just a sign, but a complex sign: Whereas ''god'' is a meme, ''red'' is not (Dennett, 1995). Second, while each meme is comprised of signs, not all signs are memes. For instance, Beethoven's Fifth Symphony is composed of many signs, but only its first four notes have evolved as a meme. Over time, these notes were replicated as a discrete entity, separate from the symphony, thriving in contexts in which Beethoven's works were utterly unknown (Dennett, 1995). To put it differently: A meme is a sign—or a set of signs—that gets replicated by many individuals. Borrowing from Simone de Beauvoir, we can thus argue: ''One is not born a meme, but rather becomes one.''

2 This ''hyper-memetic'' existence may be related to new modes of thinking about copies, and copying. In his recent *In Praise of Copying*, Marcus Boon (2010) addresses the pervasive presence of copying in contemporary culture, claiming that it should first be celebrated as an integral and fundamental part of being human, and only then be thought of as something that should—or should not—be regulated. For a rich analysis of the concept see also Schwartz, 1996.

3 In the decade following Katz's article, diffusion studies where reenergized by the ascent of the World Wide Web. ''Diffusion of innovations'' has so far been cited in a startling number of 31,598 works, according to Google Scholar. Some of these new studies strive to retheorize the field (e.g. Peres et. al, 2010), yet to the best of my knowledge, they still do not account for the problems of defining the propagated unit—and the changes it undergoes—more sensitively.

4 This mode of thinking of media as renewable, or as re-mediating well entrenched social structures, is evident in some historical works about the emergence of particular media, such as the telegraph (Blondheim, 1994).

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