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## **FROM SYMBOLIC VALUES TO SYMBOLIC INNOVATIONS EVIDENCE BASED ON INTERNET-MEMES**

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### **Abstract**

Technological assets capture the attention of many scholars in innovation studies, while leaving other sources and forms of innovation less tackled. Among this neglected corpus, this article stresses the important role played by symbolic value in the production and consumption processes of innovative goods and services. We focus more especially on Internet-memes - such as lolcats - that represent iconic productions of the Internet 'lead culture' i.e. embed significant symbolic values. Therefore, this article refers to the economic sociology and strategic management literature to emphasize the force of the symbolic values' creation by new culture-lead communities, through their not so trivial productions: the Internet-memes. We especially aim to contribute to innovation studies and to refine the concept of symbolic innovation, by applying it to both physical and digital goods and services. We argue that Internet-memes are symbolic innovations per-se, but we also emphasise that they represent an almost boundless source of innovative goods and services in various sectors from cultural industries to less expected ones like finance.

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**Abstract:** Many innovation scholars focused on technological assets, while leaving other sources and forms of innovation less tackled. Among this neglected corpus, this article stresses the important role plays by symbolic value in the production and consumption processes of innovative goods and services. I explore more especially Internet-memes - such as lolcats - that represent iconic productions of the Internet 'lead culture' i.e. embed significant symbolic values. Therefore, this article refers to the economic sociology and strategic management literature to emphasise the force of the symbolic values' creation by new culture-lead communities, through their not so trivial productions: the Internet-memes. I argue that Internet-memes are symbolic innovations per-se, beyond the fact that they represent an almost boundless source of innovative goods and services in various sectors (from cultural industries to less expect ones like finance). Although exploratory the present contribution extends the debate on the nature of innovation, its symbolic and cultural assets and its diffusion process.

**JEL code:** O33, Z13, O39, M3

**Keyword:** Internet-meme, Symbolic Value, Symbolic Innovation

## I. Introduction

As the saying goes, in 1966 the Beatles were more popular than Jesus. Half a century later it seems that the Fabulous Five were, in turn, exceeded by an heterogeneous zoo: Keyboard cat, Doge, Confession Bear, Dramatic Chipmunk or Charlie the Unicorn. Who are they? These are examples of Internet-memes. With over 3 billions of Internet users in 2014 (UN, 2014), the Internet Culture - and its iconic Internet-memes - expanded with the facilities to produce, diffuse and remix digital contents. Those online productions are the common blocks of a growing culture that is shaping our daily experience of Internet, but its influence goes much further than a cultural niche trends or obscure geeky characters. Internet-memes may impact both productions and innovations in many sectors and thus are worthy to be explored.

In order to acknowledge the considerable weight of Internet-memes, there is firstly a need to clarify what is really an Internet-meme. By reference to Richard Dawkins' term - in his book *The Selfish Gene* (1976) -, memes are cultural element of individuals that can be replicated and transmitted by others through an imitation process. More especially, "memes can be ideas; symbols; or practices formed in diverse incarnations, such as melodies; catch-phrases; clothing fashion; or architectural styles" Schiffman (2012). The main difference between the original biological term 'meme' and its web's cousin is that the mutation process appears in the first case by random changes and is diffused according to a Darwinian selection process whereas the Internet memes are "altered deliberately by human creativity" (Solon, 2013). The diffusion power of memes is facilitated by specific platforms: such as dedicated blogs (e.g. 4chan or Ihascheezburger); video platforms (e.g. the 'Broadcast Yourself' YouTube or Dailymotion); social media (e.g. Facebook, Twitter); direct e-mails or fora. After imitations or remixes processes, it finally becomes part of the Internet culture and is recognised as an Internet-meme. This phenomenon concerns sometime the entire web-users' community and sometime a more specific part of this culture (Schiffman, 2012; Knobel and Lankshear, 2005). But these contents are not viral they are memetic. 'Viral' consists in an increasing of the scale of an

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audience by an epidemic digital diffusion, whereas ‘memetic’ implies a more participative process (Burgess, 2008; Jenkins et al. 2009; Schiffman 2014).

There is basically a diversity of Internet-memes: animations, ani-mutations, videos, pictures and Tumblr or musical productions<sup>i</sup>. Knobel and Lankshear (2005) established a typology of five main meme media and idea types including: collaborative, absurdist humour in multimedia forms; fan-based memes; hoax memes; celebration of absurd or unusual; and social commentary (social critiques, political comments, social activist). These productions generate in its wakes a myriad of contributions, following a more complex process than some of their regressive contents could suggest. Indeed, as pointed by Schiffman (2012) a meme needs a “creative user engagement in the form of parody, pastiche, mash-ups or other derivative work”, by imitation process (parroting element from a meme) or re-mix (re-edition). Those types refer one way or another to social and cultural pre-existing constructs; norms; values or specific environments. In other words, Internet memes such as Lolcats<sup>ii</sup>, beside their apparent ‘stupid’ forms and contents, are hiding a huge symbolic charge embedded in a complex cultural context.

Far from trivial, Internet-memes are the object of numerous researches in social and computer sciences - including the recent contributions of Shifman (2013; 2014) - but, to our knowledge, not much in Economics. More especially the present article addresses the poor visibility of Internet-meme in Innovation studies. This is overall surprising because Internet memes have invaded our online daily life, but they are no longer confined to the Internet cultural sphere. Memes – with their high and deeply rooted symbolic values - mutated into physical goods; they became resources for economic sectors and, as I will underline it, they became also the sources of innovations in many sectors.

The reminder of this article is organised as follows. The next section (II) will present the concept of symbolic value and emphasises the relevance for firms’ competition of such symbolic assets embedded in Internet-memes. I provide empirical evidences that Internet memes represent important sources for innovative activities (section III). This exploration of Internet-memes opens

discussions and challenges (section IV) on the existing conceptualisation of innovation because of their natures, forms and their specific generation and diffusion process. Our findings will argue for a better consideration in innovation studies of new forms of digital productions - itself symbolic innovations - that are spurring and impacting many economic sectors.

## II. Symbolic value and Internet-memes

In order to acknowledge the weight of Internet-memes as resources for innovation (section III), there is a need to emphasise that Internet-meme are much more than trivial productions. Thus, they are valuable for firms' competitions and innovations.

The success of Internet-memes is approached here through the concept of symbolic value. Indeed, since Veblen (1912)'s seminal work on 'conspicuous consumption', a vast literature in sociology; anthropology; and more recently in organisational management has focused on the importance of socio-cultural assets (e.g. social or symbolic capital) in the production and consumption processes. In this frame, Ravasi et al. (2008; 2012) developed a cultural understanding of symbolic value's creation since it became a crucial issue for competition in the last decades.

"Consumers are increasingly purchasing goods not only for their practical functions, but also for *their meanings (...)* The symbolic value of a product is determined by the social and cultural meanings associated with it that enable consumers to express individual and social identity through the product purchase and use". Ravasi and Rindova (2008, p. 270).

This shift in consumption was already identified by scholars in the 1950<sup>th</sup>, but since the 2WW this trend increased with both acceleration of fashion consumption and with marketing activities creating faster obsolescence. For example fashion - clothes and accessories - because of the nature of those goods, could be considered as productions with high symbolic values. But more 'traditional' types of goods also incorporate symbolic value: e.g. a car is not just a vehicle to go from A to B (Gatersleben,

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2014). In effects, it implies key challenges for the management of the production: for firms but also for new type of producers.

From a managerial point of view, Ravasi and Rindova (2004) identified three intangible assets or types of capital involved in the firm's symbolic value creation. There are the intellectual capital (ability to understand cultural meanings, especially from lead-cultures), the social capital and the reputational capital. Close from these capitals, some authors also consider that design and brand could be considered as intangible assets related to symbolic value (Cezanne and Saglietto, 2014). But firms are not the only symbolic values creators. And it becomes even more obvious when it comes to Internet-related productions. Firms and especially the marketing/communication agencies are indeed positively valuating the symbolic values behind the Internet-culture movement. But overall, it is the Internet community itself that turned some productions to Internet-memes. This e-community has also switched from an almost passive way of consuming images on screens to a more participative way thanks to accessible platforms and software tools. In other words, basic web-users became meme-factories and so meanings factories. Those meanings evolve over time and become worthy of exploration in order to understand the real contributions of Internet-memes to the economic sphere.

To illustrate it, we could dissect the symbolic value of lolcats. It would require tracing the cultural contexts and its evolutions: this symbolic value being deeply rooted in the inter-relations of people with cats from early cats' taming (Linseele et al. 2007; Hu et al. 2013; Van Neer et al. 2014); in the ancient beliefs of Egyptian dynasties (e.g. the god Re or the goddess Bastet<sup>1</sup>) or in the Middle-Age (Darnton, 1984). Examples of these symbolic values can also be seen in recent displays (e.g. Zhao Cai Mao in China or Maneki Neko in Japan); or commercial uses (e.g. Hello Kitty phenomena) that both contribute to the good image of cuteness associated to (lol)cats today<sup>2</sup>.

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<sup>1</sup> During the second dynasty (2890 B.C.), Bastet divinity has evolved over time and was associated as the goddess of music, housing, and pregnancy: the word 'feline' itself shares common etymological roots with 'female'

<sup>2</sup> Note that Japan had been a fertile field for the "moe" - i.e. synonym of cute, attracting, mania - with the Otaku culture. This was partially spread by the 2channel online forum. Also, Giko or Gikoneko the cat - drawn with computer graphic technics (Shift JIS art) - is recognized as the more ancient Japanese visual Internet Meme in 1999.

But, what is surprising with the evolution of the symbolic value associated to cats is that it seems to have taken advantage of Internet, to become now ‘memetic’ (Shifman, 2012). One of the explanations of this movement might stand on the democratisation of camera and recording devices; easier and faster access to online sharing platforms; normalisation of sharing personal content and, well, undoubtedly this is linked to the fact that people have more cats in their environment (cf figures<sup>iii</sup> of the different pet-care markets) and offer them higher level of care (Holbrook and Woodside, 2008). As a consequence Internet platform is more and more cats-full<sup>3</sup>. We can also link the evolution of this symbolic value with the advertising campaigns: pets create a membership-feeling on the consumers’ behaviour which is still a successful recipe (see Lancendorfer et al. 2008). But more recently a new meaning was associated to cats: they are the symbols of cuteness, of fun but overall they became the symbol of the connected community/society. The growing number of lolcats, videos of cats and cat-related memes – because of their strong symbolic value – may explain this re-use by marketers. This movement in marketing’s communication illustrates how lolcats and more generally Internet memes - because of their high and deeply rooted symbolic values of their lead-communities - are important intangible assets for firms. As described by Ravasi and Rindova (2004) firms accumulate “cultural capital through a systemic exposure to sub-cultural variety, especially to cultures that generate significant amount of visible symbols”: those are lead-cultures (by analogy with Von Hippel ‘lead users’). Firms in many sectors can benefit from lead users within their innovative production process (Parmentier and Mangematin, 2014) and, to my knowledge, this was never explored through the prism of the Internet memes.

This section underlined that Internet memes are far from simple regressive online production, since their incorporate high symbolic values from a lead culture. Moreover, in a cultural context where the digital/Internet culture expands<sup>4</sup> (e.g. Castells, 2001), this lead-culture should ‘naturally’ represent an important source of symbols and meanings for firms’ production and, as I will explore it, for innovation as well.

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<sup>3</sup> Turning Internet to a kind of Fubirai Island (a Japanese « paradisiac » island mostly populated by cats)

<sup>4</sup> See for example illustrations of this trend through the success of TV-shows such as the Big-Bang Theory, IT-crowd; VGHS (web-series) or the positive image gain by nerds through the business successes of start-ups’ founders.

### **III. Internet-memes and lolcats: symbolic resources for symbolic innovative activities & services**

I previously emphasised that Internet-memes have a high symbolic value representative of a new lead-culture. Since the literature mention lead-cultures as beneficial sources for innovation, I want, in this section, to find empirical evidences that Internet-memes can indeed generate innovative goods and services, in many sectors. I propose to explore a set of activities from communication marketing; animation; visual activities; film; video games; music and finance.

#### **A. Scope and method**

The objective of the present exploration is to reveal the important symbolic values generated by the lead Internet-culture, therefore the choice of Internet-memes is justify by their natures and their specific generation process (c.f. introduction). Since Internet-memes are dynamic (emerging and evolving rapidly) the examples of Internet-memes listed here come from a unique source (knowyourmeme.com) and are “confirmed” Internet-memes. This open platform adds new entries proposed by users, and then submits to votes and contributions by the community: it is only after this process that it can be considered as a “confirmed” Internet-memes. The exploration of Internet-memes symbolic value used by firms is voluntarily restricted to few sectors. The selection includes sectors that are often listed as creative industries (e.g. DCMS, 2015) and therefore are more likely to deal with cultural contents (but not necessarily Internet-memes). On the other hand, the aim of the exploration is to move forward of these “usual creative suspects”, so another sector (finance) was also investigate. Note that through the exploration of the marketing sector, it is in fact a larger set of activities - using their services – that are impacted and explored. The innovativeness of the firms cited as examples below was judged on the basis of ‘traditional’ conceptualisation of innovation: launch of a new product, a new service, a new process or a new design. For some companies their innovativeness was also judged on recent recognitions by their peers like Innovation awards.

As a result, the upcoming sections will provide empirical evidences that “confirmed” Internet-memes are the resources and the sources of various forms of innovations for many companies in a wide set of sectors. The exploration ends with a specific focus on lolcats and provides interesting insights regarding the nature of innovations observed.

## **B. Exploring sectors**

### **Memetic marketing**

By sticking to the culture of the Internet-memes, advertising companies and the companies they advise/work for, are indeed innovating since they offer a new way of expressing idea and relating a product to an existing symbol. The memetic quality of the lolcats and other related symbols of Internet-memes make them as highly trendy as quickly out-of-date. In other words capturing this lead-culture require specific capital to be effectively re-used (cf Ravasi and Rindova, 2004).

The famous ‘Harlem shake’ for example, started in February 2013: this video shows a band of 5 costumed persons dancing frenetically on the song “Harlem shake” by Baauer. It itself features a video realised by the video-blogger Filthy Franck. From shares, retweets, reposts, Facebook’s likes to personal remakes and parodies, the Harlem Shake became an Internet-meme with sometimes higher political statements (series of Harlem Shakes videos by the youth populations during the “Arabic spring” in Tunisia, Egypt, Gulf Emirs...). Even firms started to record their own and appeared as trendy. After a pick in March 2013, the trend slowed down. But few weeks later many ‘late’ companies started to produce their own Harlem Shake for communicational purposes. Those produced the reverse reputational effects: the company were recognized as ‘uncool’ or lagging behind. So with successful (or not) results in terms of communications/reputations, the Internet-memes embed enough symbolic value to be useful for firms. The real issue for companies is to take advantage of those intangible assets with internal competences or by externalisation. This explains why memetic marketing agencies or ‘enteractive’ (entertainment and interactive) companies have popped up in recent years.

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Indeed Internet memes became an asset for marketing agencies, advertising and branding, because they gather in their tails a wide audience that originally built them; that daily watch them and appreciate them (Murray et al. 2014). There are many successful memetic marketing campaigns like Blendtec or the little Darth Vader (see Holt and Cameron, 2010, for a detailed analysis of VitaminWater campaign). Murray et al. (2014) developed the concept of meme around the marketing and advertising activities. They show how the concept of meme can fit with the existing theory in this field: from the role of ideology in advertising (replication mechanisms, connotations, psychological triggers) to the role of habitus or other social mechanisms behind the consumption. They also argue that meme theories - in lines with Blackmore (1999) - could be beneficial for social science, including marketing and advertising<sup>5</sup>.

We can observe that some marketing agencies are already specialised in memetic marketing like: **Fractl**, (which 'mission is to produce the most engaging and emotional experiences on the *web*') ; **Forsman & Bodenfors** ; **Don't Panic** ; **Thinkmodo** that 'mashes-up viral fun with marketing function to create effective viral video campaigns for brands' or **Viral Spiral** which defines its activities as 'working with some of the biggest YouTube creators, Viners, Instagramers and memes, we identify the hottest new social video trends as they break, which makes Viral Spiral the source for *Social Video Content/Influencers*'. In the same frame, we can also note that the Internet-memes have even created a new kind of occupation: Internet-memes manager. For example, Ben Lashes is the manager of the Internet-memes such as **Keyboard cat**, the **Grumpy cat**, **Nyan Cat**, **Scumbag Steve** or the **Ridiculously Photogenic Guy**. Memes around cats and their symbolic values were also used in memetic marketing campaign: 'Sprint Nexus-S 4G' created by **Silktricky** (a company specialised in 'interactivity'). As an intermediary product, Internet-memes and their symbolic values became a key source for innovativeness in advertising campaigns and for communications agencies. The company examples cited can be considered as innovative regarding their respective awards (Webby award, BAFTA, Cannes' Lion, specialised and professional magazines' awards...) for the quality of their

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<sup>5</sup> if applied with methodological cautions since culture and knowledge are not genes and memes; and since they do not necessarily follow the same horizontal and vertical transmissions mechanisms

works, their originality, creativity and innovativeness. In other words, we could consider Internet-memes as innovation-push in this specific sector...but its influence goes much beyond.

### **Animation activities**

One of the earlier Internet-memes was a 3D animation: the Dancing Baby. Other animations like Charlie the Unicorn or Happy Tree Friends also became Internet-memes in the recent years. Jason Steele (the creator of Charlie the Unicorn) developed his production company in 2005: FilmCow. After the success of his short animation he recently produced new cartoons and is now part of the Channel Frederator network. The example of Happy Tree Friends animation is also interesting in this regard. The creators and the production company behind it (Mondo Media) started on YouTube before being diffused on MTV, and then selling DVDs, developing mini-flash games, a video-game on PC and X-box, iOS- and Android apps... According to their website, the YouTube channel of Mondo Media is now the 35<sup>th</sup> most viewed channel of all time and one of the top 3 video-podcasts on iTunes. Their network gathers a community of “only the highest-quality animation-focused YouTube channels. With over 1.6 million collective subscribers and 1.5 billion views, the Mondo Mojo team carefully selects partners, who receive a custom-tailored package of promotion, monetization optimization, production guidance, localization support, off-YouTube distribution, and social media assistance, leading to rapid channel growth and a surge in subscribers”. In other words, capitalising from Internet-memes and their past experiences some companies develop innovative services at destination to animation creators or related partners.

### **Visual and film activities**

I mentioned that Internet-memes can take several forms, which include many visual productions: images (e.g. lolcats, the ‘Tron Guy’); Tumblr; photoshopping; or mottos’ derivatives of ‘Keep Calm and Carry on’. In this category there are also all the memetic videos (e.g. the Keyboard cat) or videos for more noble causes (e.g. ‘Let’s Go! Artic!’ by Greenpeace). By creating new memes or diffusing them, visual activities in general seem to have benefited from Internet memes to develop the sector’s activities: i.e. to develop new activities and innovative productions. The success of Tumblr

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itself is representative of the economic power of microblogs platforms where those memes are exchanged. When in 2013 Yahoo bought Tumblr (created in 2007) for \$1.1 billion, the company was ‘only’ generating \$13 million revenue from advertising in 2013<sup>6</sup>. But Tumblrs are powerful tools for many professionals (photographers, advertising companies, fashion, design activities or artists) that increase their visibility. Indeed there are reservoirs for innovation or new ideas: the format itself of Tumblr presents contents not only as information per-se but as contents ready for a re-use.

As I presented it, visual Internet-memes are used voluntarily in many activities through memetic marketing, including by the Film industry. Amongst others, we can cite the memetic campaign used by Dream Works for Puss in Boots - one of the spin-off movies of Shrek series released in 2011– that was advertised deliberately referring to an Internet meme (the Old Spice Man). In some cases, the film sector is the passive source for Internet-memes: such as the series of parotic subtitled videos of the Downfall (see Schiffman, 2012). The director of the Downfall appreciated the buzz around the re-uses of scenes of his movie, whereas the production company disapproved it. Nevertheless involuntarily this series of parodies contributed to the success of the movie by the communications around it: online as well as relayed in other traditional media.

### **Video-game activities**

Video games and their derivative characters are part of the ‘geek’ lead culture: therefore many memes refer to it. Some video-games advertising became Internet-memes because of their marketing choice (e.g. Chuck Norris’ icon for teasing World of War Craft). But more interestingly some video games became itself Internet-memes and amongst the others Surgeon Simulator 2013 or Line Rider. The successes around these games are partially due to their innovativeness and originalities. It permitted the development of the companies behind it. Innovation in video-game industry being quite difficult to evaluate, we could simply note that Bossa Studio (producing the Surgeon simulator) won the 2012 BAFTA award in the Online-Browser category and the BAFTA Game Award 2013, while inXile Entertainment (editor of Line Rider) won the Canadian video-game award 2013 category Game

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<sup>6</sup> Data from Forbes, 21 January 2013. <http://www.forbes.com/sites/jeffbercovici/2013/01/02/tumblr-david-karps-800-million-art-project/>

on the Go (for the Bard's Tale). This company realised also an important crowd founding operation for the development of 'Wasteland 2' in 2013 (\$2.9 million received for a \$0.9 million targeted). In other words, Internet-memes symbolic values were used for the development of new products as well as next generations of video-games themselves innovative.

### **Musical and dance activities**

Within the category of Internet-memes, musical and dance productions are numerous: most popular being the Gangnam Style, OK Go or the Trololo Guy. Similarly to the film industry, musical productions benefited from the memetic processes to push the success of unknown singers/dancers (i.e. built a carrier on these early unexpected e-successes like Psy) or to re-boost the carrier of forgotten singers (e.g. Rick Ashley). Internet-memes have generated many original songs, singers, remixes and compositions thanks to the increasing digitalisation of the music industry. We could even consider that some of them have generated new musical genres: e.g. the composition made by pieces of existing videos by Guillaume Delapierre alias 'Giovanni Sample'.

### **Financial activities**

I listed the numerous activities where Internet-memes by itself could be considered as products with high symbolic value and as sources for symbolic innovative goods and services. Most of the sectors underlined were almost all 'cultural usual suspects' from advertising, marketing, music industry or video-games. But the lead-culture Internet community - and its ideals for freedom, privacy and global sharing - started also to develop alternative currencies. The crypto-money Bitcoin offers to web-users a currency that follows their principles even if the weaknesses of this currency are its uses in the dark web and its high volatility (due to market speculation<sup>7</sup>). Many crypto currencies are simultaneously developed including the DogeCoin. One of the most famous Internet-memes dog is called Shiba Inu alias 'Doge' – and he gave birth to an innovation in the financial sector: the Dogecoin crypto-currency. It is an open source decentralised peer-to-peer digital currency, available on a

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<sup>7</sup> The "Ether" crypto-money aims to overcome these weaknesses.

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desktop, phone, online or paper wallet and can be used for payments in some online stores<sup>8</sup>. In Sept. 2014, 1,000 Doge was equal to \$0.17 (converted into Bitcoins). After a peak to \$80 million in February 2014, the market capitalisation of Dogecoins was about \$28 million in September 2014. Despite hacking actions against Dogecoins in end-December 2013, the community offered to cover the loss of the Dogewallet holders: an operation called the ‘Save Dogemas’. The same community remains strong and engage into the development of the Dogecoins but also through charities: e.g. fundraising in the frame of the World Water Day or a fundraising for the Jamaican Bobsled team for Sochi Olympics Games in 2014. The investment of Dogecoin community goes also to sponsoring actions like recently: sponsorship of a Nascar driver.

Coupled with the evidence in the different sectors explored, the Dogecoin is representative of how Internet-memes are spurring innovations in a wider range of activities than the cultural sectors. This finding is calling first of all for deeper understanding of the innovation mechanisms based on memes in innovation studies, but it is also questioning how those innovations are captured. Indeed I introduced how their symbolic value became a crucial issue for competition, and I presented the interest for firms to take advantage of Internet-memes. But those Internet-memes are firstly high symbolic value products generated and diffused by a community. So I propose, here, to go a step further by exploring if Internet-memes itself could be considered as innovations (i.e. without the intermediation of companies). As mentioned previously, Internet-memes i) can take diverse forms and ii) have to be understood from their specific cultural context. Therefore I focus the next part of the exploration on a specific but iconic Internet memes: the Lolcats.

### **C. Further explorations: a focus on Lolcats**

I explored the development of innovations by firms in different sectors using Internet-memes as a resource. But the first creators of Internet-memes are the users themselves, so it might be interesting to explore if the community itself generated innovations within the users: in other words if Internet-

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<sup>8</sup> To rephrase a famous hip-hop gimmick Lol-Cat ‘rules everything around me’, but ultimately the Doge holds the purses strings...

memes can be a form of innovation. The Lolcats are the objects of scientific research in many fields like in communications (Miltner, 2014) or in linguistics (Gawne and Vaughan, 2012) but to my knowledge not in Economics of Innovation<sup>9</sup>

Basically a Lolcat is composed by two terms: “LOL” a contraction of “Laugh out Loud”, and “Cat” that simply refers to the feline. As a construct a Lolcat has to follow three basic principles. First of all, it has to be funny (which give a large spectrum for subjective appreciation), secondly it must include a picture of a cat and thirdly the English-slang funny text should be written in some specific font (Impact, Arial Black or sans-serif fonts). As defined by the Wikipedia community, “the text is often idiosyncratic and grammatically incorrect, and its use in this way is known as "lolspeak" or "kitty pidgin". So this first definition already offers evidence that lolcats are generating an innovation: a new language.

Those productions have also generated a series of contents and websites around the theme of cats that could also be considered as innovation. Indeed websites such as [www.breadedcats.com](http://www.breadedcats.com)<sup>10</sup>; <http://meowtfit.tumblr.com><sup>11</sup> or the wiki project LOLCat Bible<sup>12</sup> went from community-based platforms to Internet-memes. One could argue that an innovation requires to be sold on a market, or at least should answer existing/potential need. In fact, by contributing to the website (for example by posting their productions) some contributors agree to transfer their intellectual property to the websites (e.g. on breadedcats.com). Pragmatically, the visitors of those websites around internet-memes - through their simple views or even clicks- are in fact rewarding the websites for their existences/services since generating flux equals generating revenues<sup>iv</sup>. Those websites play the role of platforms for exchange (i.e. a market) that give rise to direct or indirect transfer of valuable assets.

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<sup>9</sup> A search of the term “LOLcat” on ISI Web of Science provide only few articles (related to the LOLCAT method: a variant of Gillespie Algorithm) i.e. none of them in Economics or relevant to our study.

<sup>10</sup> This website collects pictures of cats that have their faces inside a piece of bread. From funny, this confidential trend became memetic in 2011. With appearance of the phenomena in Newspapers; in a South Park episode in 2012; or even with an application for iPhone developed by Bake450 with more than 33 000 five-stars’ ranking by customers see [knowyourmeme.com/memes/cat-breeding](http://knowyourmeme.com/memes/cat-breeding) for more details about this trend.

<sup>11</sup> This blog is run by a Swedish blogger who shares pictures of her cat Gucci dressed in tights and invite people to share their own.

<sup>12</sup> The aim is to translate the entire Bible into Kitty Pidgin English (the slang used in Lolcats, see Gawne and Vaughan, 2012). The project started in 2007, the webpage being visited by more than 3 million people. See Martin Grondin, the administrator of the project. [www.lolcatbible.com](http://www.lolcatbible.com).

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While we cannot seriously argue that there is a vital necessity for those websites - we cannot ignore the large amounts of visits and contributions i.e. they are surely answering/creating a form of need.

Beside the numerous websites, cat-Internet-memes have developed around themselves a series of merchandising products (i.e. new products such as books, DVDs, t-shirts), new cat related Internet memes (Surprised Kitty, Maru the Cat or Kitler ) but they also developed services such as selling their images for advertising (e.g. the Keyboard Cat<sup>13</sup> or Maru) to various sectors. Some turned to a brand (like the Grumpy Cat<sup>14</sup>). More recently this trend even gave births to a series of Festivals (like the Cat Video Film festivals were organised in Minnesota in 2012 or The L.A Feline Film Festival in 2014) and to a Hip-hop album remix (of Run the Jewels) using only cat samples (Meow the Jewels).

#### **IV. Discussion: innovations and Internet-memes**

The empirical evidences presented in the previous section underlined that Internet memes are spurring innovations in many sectors and in many ways. The notion of symbolic value appears as relevant to weight the importance of even trivial object of studies. Symbolic values represent a vast source of innovations: these assets need to be better investigated and not only mentioned like in the case of design (Walsch, 1996; D'Ippolito 2014); of branding and user innovators (Fuller et al. 2013) or consumers' motivations (Ballot et al. 2015; Damanpour, 2014). Overall these findings offer two streams of discussions for Innovation scholars: on the nature of innovations observed; and on the diffusion of innovation.

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<sup>13</sup> The Keyboard Cat video has been viewed about 33 million times.... But by typing « keyboard cat » on YouTube offers a range of more 400 000 videos, so about a few hundred millions of views in total. The main 'actor' of this video - a ginger cat with a blue pullover, manipulated from the background to make it play on a keyboard – sells, by the intermediary of his manager, its image for many commercials<sup>15</sup>: Wonderful Pistachios, Nokia, Starburst and others. The image of the keyboard cat remains the same and the products too but the meanings of it changed

<sup>14</sup> He became an Internet-meme in September 2012 - is now presented in showcases for its fans around the world. Overall, it became a registered brand Grumpy Cat®. Its image is reproduced on t-shirts with partnership with apparels, a brand of coffee (Grumpuccino®), and the merchandising goes from calendars, plush, stickers, mugs to magnets with the face of the grumpy cat...In addition, this cat associates its image to famous brand such as Purina (Friskies) and recently released a book and signed a movie deal

## Nature of innovation

The exploration of Internet memes underlines that they are firstly the kick-off for the development of many activities (the creator of Internet-memes capitalising on this success to build sustainable business). Secondly they generate new products (merchandising, DVDs, books, Applications), new platforms, new activities (new occupations, new companies), new marketing (memetic marketing), new areas of activities (interactive activities), new services (e.g. tailored services for specific platforms like Youtube), new brands, new music genre, new generation of video-games or even new money. Ultimately, Internet memes are creating new meanings, new symbols, new knowledge or even new language related to their lead-culture. Therefore the challenge for Innovation scholar is to capture this whole set within a definition. And the traditional definitions of innovations (e.g. OECD Oslo Manual) turn to be limited to this regard, especially because those innovations are related to symbols, user-innovators and a specific diffusion process. We could approach those innovations through the concept of symbolic innovation developed by Hirschman (1982)<sup>v</sup>.

Thinking about products as symbols helps to understand the adoption and the diffusion of it. It expresses “lifestyles” which are the references - or ‘intangible assets’ in Hirschman’s terms - for potential consumers. Therefore symbolic innovation using these references will be diffused and be adopted even more widely a fortiori if a larger range of consumers understand these references external than their original social context. This conceptualisation also joins technological innovations and symbolic innovations: “symbolic innovations will diffuse primarily due to their association with a given reference group; whereas technological innovations will diffuse primarily as a result of consumer perceptions of and need for their superior performance.” Hirschman (1982).

Consumers, advertisers or the media are considered, in this frame, as the sources for symbolic innovations whereas technology doesn’t necessarily need to be manipulated to create a new product. The meaning has ‘simply’ to be changed. In the case of the Internet-memes, there is clearly a primary community or a social meaning environment for those products, as described in the previous section: a restricted community gathered by geeky humour; funny videos, hoax, lolcats and .gif. This community

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generates a secondary diffusion “among those identifying with the relevant reference group” that changes the meanings but not the forms (Hirschman, 1982). In other words, Internet memes can be considered as symbolic innovation. The main difference between her conceptualisation and this interpretation of symbolic innovation is that she only referred to an intangible asset (symbolic) in physical goods whereas it could also be applied to digital goods and forms of services.

**[Table I about here]**

Illustrated through the prism of the lolcats, Internet-memes present the characteristics of symbolic innovations as defined by Hirschman (1982). This joins also the intuitions regarding the different sectors explored in the previous part, where Internet-memes were the sources of innovations while sometimes crossing the border to be itself considered as innovations. Indeed, I mentioned the internet-memes in the musical activities that partially generated novelties within genres and new genres, i.e. those Internet-memes could be associated to symbolic innovations as well (or to “aesthetic” innovations if the forms changed c.f. Capetta et al. 2006). I also mentioned the uses of services, such as communication marketing, mobilising the symbolic values of Internet-memes: those could as well be considered as a symbolic innovation (since the use of memetic references is new to their markets). While some innovative video-games or crypto-currencies became memetic those could as well be considered as symbolic innovations. These examples argue that symbolic innovations should also go beyond the limit of tangible product since examples of intangible goods (websites) and forms of services (exhibition performance, consulting, branding, financial services...).

A scan of the Economics of Innovation literature underline the poor reference to this concept of symbolic innovation<sup>15</sup> despite the growing importance of alternative forms of innovations that emerged in the recent years. For example the concept of stylistic innovation was developed by Cappetta et al. (2006) in the context of the fashion industry. They define “style as both an aesthetic and a symbolic choice a company makes regarding the products/services, their main features, and

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<sup>15</sup> Among this group: Dickerson (1983), Capeta et al. (2006), Dell’Era and Verganti (2010) or Cillo et al. (2010).

how they are combined". Since style is a major factor affecting the competition in those markets, stylistic innovation becomes a necessity. The stylistic innovation goes beyond the concept of symbolic innovation: the innovativeness remains in the reassignment of the social meanings associated to an existing product, but the stylistic innovation also stands on the change in the aesthetic or physical form of the product. If the aesthetic changes can be observable, the new social meanings have also to be explained/shared to a wider community (in the case of fashion: the specialised press, gatekeepers or cultural intermediaries play this role)<sup>16</sup>.

More generally we could include symbolic innovations within the group of the 'hidden' or 'soft' innovations (Miles and Green, 2008; Stoneman, 2010), which help to capture non-technological forms of innovations in various sectors (e.g. Santamaria et al. 2009; Tether and Tajar, 2008; Abreu et al., 2010; Evangelista and Vezzani, 2010). But those studies are more likely to consider symbolic contents as resources for innovative firms whereas those should also be considered as innovation per se. On the other hand, those conceptualisations do not capture the specific process of diffusion of Internet-memes that might offer insights for other innovations.

#### The diffusion

The specific diffusion process observed for Internet-memes [i.e. "altered deliberately by human creativity" (Solon, *ibid*)] are different from the meme in biology and those last may challenge the existing model of innovation diffusion. Basically, the literature offers different ways of modelling the diffusion of innovations according to the characteristics of the innovation; sector; adopter; organisation or social context (Rogers, 1962). While cultural assets are important drivers of adoption - but are too complex to be fully integrated into models - the conceptualisation itself of the diffusion innovation as a memetic process may offer interesting insights. See for example O'Mahoney, 2007 for the memetic diffusion<sup>17</sup> of management innovations (an area where the conceptualisation of organisational evolution is still debated c.f. Abatecola et al. 2015). Nevertheless, this set of research

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<sup>16</sup> To this respect, some authors prefer the term 'newness' rather than innovation since the product has existed whereas only its meanings changed (Campbell, 1982), while this newness both results from and impacts the consumers (Coskuner-Balli and Sandikci, 2014).

<sup>17</sup> From a methodological point of view, see the works of Edmonds (1998) or recent applications by Massad et al. (2013)

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calls first of all for a consensus in Biology-Genetic disciplines on what's a meme and does it really exist, before thinking to a robust conceptual and methodological translation in other disciplines (see Gill, 2012).

## **V. Concluding remarks**

In this article I develop the idea that Internet-memes such as lolcats represent a non-trivial research objects for innovation studies despite their quasi absence in the literature. Memetic productions are indeed iconic - symbolic valued - that are nowadays representative of the Internet culture and in a sense of the society. Following the literature in economic sociology, anthropology and strategic management, I underlined the importance of symbolic value within the economic productions by including the Internet-memes. In line with recent studies such as Ravasi et al. (2012), I consider symbolic values as a key factor for competition, especially in some sectors/activities able to absorb and diffuse meaning. My contribution has been to extend these borders: Internet-memes are intensive symbolic value products and therefore represent an almost boundless source of innovative goods and services in various sectors from 'usual suspects' (i.e. cultural industries) to unexpected ones such as finance. Finally, I built on the original concept of symbolic innovation from Hirschman (1982), and emphasised how Internet-memes could also be considered as symbolic innovations.

This study aims at pushing researches further than the technological conceptualisation of innovation to consider symbolic values and symbolic innovations more systematically. This research also interrogates the way innovations are captured today in the innovation literature by underlining the potential impact of apparent meaningless digital productions for other industries, not necessarily within cultural industries (music, video games, animations, film...) and not necessarily generated by firms. The aim of the present work was to open the research agenda toward new forms and conceptualisation of innovation, but as a first exploration this study has some limitations. The number of sectors investigated as well as the number of examples cited could in fact be expanded. It may offer a stronger weight to the findings regarding the importance of symbolic value as a source for

innovations or it could balance it. In addition, the dynamic of meme-based innovations has been in watermark of this exploration of new activities (e.g. enteractive marketing companies), new professionals (e.g. Internet meme managers) or new products (e.g. video-games or crypto-currency). Those two limitations deserve further explorations but surely open questions for further research. For example we could wonder to what extent memetic productions - because of their fast creation, diffusion, appropriation and re-creation within open communities - might offer new playgrounds for researchers in innovation studies. It can indeed represent also a sustainable model for firms to develop innovative product and services by reproducing the conditions of memetic processes.

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**Table I: Example of symbolic innovations linked to the Internet-lolcat memes**

	<b>Tangible/interactive</b>	<b>Intangible/digital</b>
<b>Good</b>	A lolcat and meme: T-shirt, posters, mouse pads, phone-case, badges, mugs, jewellery, canvas...	New conceptual websites: breadecat or cats-in-tights, Lolcatbible, the LOLwork reality TV-series...
<b>Service</b>	Showroom/public performance/festivals (like Grumpy Cat for Purina Petcare)...	Digital, communication, production, marketing agencies or brands using lolcat's codes...

**Note:** Author elaboration

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### Highlights

- The study explores the relevance of Internet memes (IM) for Innovation Studies
  - IM embed high symbolic values of the Internet lead-culture, that represent resources for innovative companies
  - IM can be considered as symbolic innovations
  - IM challenge the current understanding of innovation studies in many respects.
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<sup>i</sup> Examples of Internet –memes forms:

- Animation: like the ‘Dancing Baby’ (a 3D rendered image of a baby dancing that was released in 1996); or Charlie the Unicorn (a flash animated short film first released in 2008).
- Ani-mutation: a flash-based animation with strange pop-culture images and (mostly Asian) music. Neil Cicierega is the father of this movement with The Japanese Pokerap in 2001: Hyakugojiyuuichi!!!
- Videos: remixes like The Reagans speak out on Drugs; the parodies of The Downfall scenes; or funny cats videos.
- Pictures and Tumblr: lolcats (pictures of cat, with a text written in specific fronts and using specific slang language); Jay Maynard alias the Tron Guy; or Shiba Inu (a dog) alias Doge.
- Musical productions: Dancing Banana; Trololo; or Rickrolling (in fora users provide an hyperlink apparently relevant to the topic but sending to famous Rick Ashley song)

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<sup>ii</sup> The abbreviation 'LOL' appeared in the late-1980s. The Oxford Dictionary attributes the origin of this Internet slang to the FidoNews- a Newsletter that described acronyms and emoticons of the early web - the 8th of May 1989. But, specialised websites such as knowyourmemes.com reveal that in early 1980s Wayne Pearson may have use 'LOL' for the first time on Viewline (a Canadian Bulletin Board System). Then the slang would have been spread through GENie (an online service created by General Electric business, with many chatrooms). Unfortunately there is no copy of those early chats, which did not certify the paternity of the 'LOL' to Mr. Pearson. In addition, the acronym may itself found its origin much deeper into English letter-writings (standing for 'lots of luck' or 'lots of love'); in the popular Dutch language (lol means 'fun', 'lollig' means funny); or in the Welsh language (lol means 'nonsense').

<sup>iii</sup> An insurance company specialised in pets, evaluated in 2011, the number of cats owned by French household to 10 million (~ 1 cat per 6 inhabitants) whereas in the US, there are about 93.6 million of cats (~1 per 3 inhabitants). According to analysts and world leaders on this market, expectations of pet-foods sales are growing despite the economic crisis and are stimulated by the increasing level of life of catching-up countries such as the BRICS. The sales of cat food (dry food only) in the US went from 2.3\$ billion in 2000 to 3.7\$ billion in 2013. As well, expenditures made for insurance and treatments are also increasing (data from the petfoodinstitute.org).

<sup>iv</sup> In 2010, the weblog ihascheezburger.com was attracted about \$30 million of investments, which represents an important founding for a blog, but its traffic was estimated to tenth millions visitors a month and millions videos

<sup>v</sup> "An innovation that is generated primarily through symbolic changes is one which communicates a different social meaning than it did previously. Its physical form remains predominately unchanged, but the meaning assigned to that form is novel." Hirshman (1982).