THE GOSPEL ACCORDING TO GOOGLE THE FUTURE OF RELIGIOUS NICHES AND TECHNOLOGICAL SPIRITUALITY

Tommaso Bertolotti∗ and Carolina Cinerari

University of Pavia, Department of Arts and Humanities, Philosophy Section, Pavia, Italy

(Received 19 August 2012, revised 10 October 2012)

Abstract

This paper deals with the developments of online religiosity and its possible perversion. The first section examines whether the impact of Internet on traditional religions is fundamentally helpful in adding anything new to the world of spirituality and devotion. The second section deals with some instances of religious and spiritual behaviours that are being produced by digitalized lifestyle, even though they are not concerned with traditional religious beliefs. The question underlying this research is whether we are looking 'the right way' when we mean to study the link between computers, Internet and religiosity.

Keywords: religion, cyber-religion, supernatural agent, religious niche, internet

1. The religious niche, virtualized

Religion has always played a fundamental role in everyday life of human beings, to the point that it can be said that we are often embedded in a sort of 'religious niche': this is conceptually modelled on the concept of *ecological niche*, that could be defined, following Gibson, as a setting of environmental features that are suitable for an animal [1] (and differs from the notion of habitat in the sense that the niche describes how an organism lives its environment, whereas habitat simply describes where an organism lives), and the concept of *cognitive niche* [2, 3], indicating a series of externalizations of knowledge into the surrounding environment, through for instance material culture, resulting in a modification of the selective pressure that an organism has to face.

Religion, understood as a set of beliefs and practices, has such a clear counterpart within material culture that it can be easily seen to individuate a full 'religious niche'. In everyday life, this religious niche is overlapping with other niches (cultural, moral etc): most readers could at this very moment stand up, leave their chair or desk for the nearest window and see at least one religious building (be it a church, a mosque, a synagogue or another kind of temple: some might even be able to see different ones), and some readers could have a cross

---

∗ E-mail: bertolotti@unipv.it

hung onto the wall, or some other religious symbol adorning the neck of a colleague or classmate. The religious niche is also made up of external gestures, and words, which of a distributed nature – being accessible to other cognizant agents in a local ecology.

In many cases, the significance brought about by the religious niche can be seen as another layer juxtaposed over a pre-existent one. Consider churches and temples, for instance: they belong to a cognitive niche inasmuch they are the externalization of skills concerning architecture, arts, material studies etc., but they differ from all other buildings since they embed the further signification of being *holy* places [4]. People with different levels of religiosity do not react the same way when, moving about in their local ecologies, come to face parts of the religious niche, but these encounters hardly ever fail to spark peculiar glimpses of thought in the subject: it could be in fact suggested that most elements of the religious niche often act as 'moral mediators' [5].

The concept of moral mediator refers to the intentional or unwilling use of external artefacts (including spoken or written words or body gestures and positions), and particular natural phenomena and landscapes, as a prop for unexpected or enhanced moral deliberation and reflection. Western literature is teeming with examples of sudden conversions and abrupt changes in one's course of action following the sight of a religious artefact or building: these are clear testimonies of how moral mediators work. This reflection on moral mediators was meant to help us understand how everyday, in our more or less usual itineraries in anthropomorphic environments, we are faced with a number of elements from religious niche, and these *external* encounters are often the prop either for a moment of religious considerations, or for a new moral appraising of peculiar situations in our lives.

1.1. Perverting the enhanced religious niche

For a better understanding of how the various facets of the religious niche are strictly intertwined with our everyday life, and how the enrichment of the former can deeply affect the way we cope with spirituality, it is useful to consider some characteristics of enhanced cognitive niches [6]: this allows to sketch out some analogies in order to appreciate the religious niche as an enhanced niche, and to foresee some potential consequences of its digitalization and its becoming more and more autonomous.

More specifically, the widespread use of new technological artefacts in our everyday environments brought about two peculiar phenomena: the omnipresence of technology within the niche and a dramatic incrementation in the niche's predictive capacities. As a matter of fact, on the one hand we are surrounded by digital artefacts, accumulating an astonishing quantity of data and information of every kind, on the other hand those same artefacts are able to interfere with our preferences and habits, as they continually monitor our behaviours. Both these phenomena can be witnessed to take place in digitalized religious niche and could be responsible for interesting changes in our

relationship with spirituality especially after the massive advent of Internet and the so-called Web 2.0 and its hunger for *user generated content*.

The World Wide Web and other Internet-related technologies are also part of our cognitive niches, and they are mirroring at an ever growing rate many activities that were once carried out chiefly in the physical reality. Such a displacement must certainly concern also a number of activities concerning religion. As a matter of fact, the online presence of religion is growing daily. One Pew Internet and American Life study reports that, among Americans, "25% of Internet users have gotten religious or spiritual information at one time." Once again, though, this impressive figure must be tempered with other Pew-generated data showing that the number of Internet users who seek online religious information on a daily basis is considerably smaller, at just under 5% [7].

Data like these are extremely meaningful. First of all, a noteworthy hiatus jumps to one's attention: in our ordinary human niches, as suggested before, it is nearly impossible to go through a whole day without encountering bits of what we defined the *religious niche*. In physical reality, we have far less power to make the environment to depend on our intentions than in virtual reality. Statistics concern when and why people *seek* for religion on the Internet: most of the time, it is unlikely that a user will stumble on a religious website why browsing for a cheap flight for her summer holidays, whereas it could happen to her to find a church while walking to the travel agency. In the physical world, bits of the religious niche come to us even if we do not *seek* it.

The first intuitive difference between religion online and in the virtual world is the extent to which the religious niche is juxtaposed as a sometimes different layer of meaning over other contexts: to find about religion on the internet, we usually must want it. It rarely happens *serendipitously*: if a user is not in the mood for anything more religious than anything likely to appear in the headlines of a news website, she must be well intentioned to look for it, maybe already know where to find what she is looking for.

It is already possible to draw a reflection from what was laid out so far: the role of moral mediation supported by the religious niche in physical reality was twofold, and while the intentional side is preserved (I can look up a religious website to ponder some moral issue in my life), the unintentional one is weakened. It must be acknowledged that the effect of a moral mediator is not only local, but the consequences of a single moral deliberation can extend far beyond the agent's immediate surroundings, both geographically and chronologically.

The first consequence that is immediately perceived is that the digitalization of the religious niche involves a separation of the niche itself from other dimensions of everyday (digital) life: this is coherent with the view expressed by a recent article in *Wired* magazine [8], suggesting that the idea of the Web as a free, open-range environment is about to see its end, supplanted by an 'App-based' conception of internet (also pushed by the diffusion of smartphones and tablet pc's). This way of structuring the Internet seems to echo

the original subdivision in thematic *portals*, that were popular in the late 90's and early 00's, in a way that on the one hand facilitates users' retrieval of needed information, contacts, etc. but on the other hand jeopardizes the level of serendipity that could characterize a session of 'surfing'. As I already contended, such specialization of virtual environments could further encapsulate occurrences of online religiosity, further alienating them from the diffused dimension characterizing its non-virtual counterpart.

The ever-growing digitalization of the religious niche radically changed people's way to perceive and share their spirituality: the world wide web has become, since the nineties, an ideal setting to share one's doubts and beliefs in forums and, later, blogs. "Using text to communicate in forums like ORIGINS, individuals began using the Internet to express their religious beliefs and concerns, as well as simply to talk about religion. In a sense, these Internet bulletin boards became a computer-generated, unofficial, religious environment." [9] "This illustration of the shift from the offline world to the online indicates two very important social consequences of the Internet: a crisis of authority and a crisis of authenticity. […] The obviously constructed and pluralistic character of religious expressions online tends to have a relativizing effect on the truth claims of any one religion or its authorities. Rather than appearing unreal, with enough exposure to the Internet religious people may come <to doubt the absolute claims of sacredness and permanence that a religious site can make in the 'real world'> in light of the obvious 'ephemerality' and heightened access [to] religion in cyberspace." [7, p. 2]

Keen [10] has provocatively denounced the *mass amateurization* processes triggered by the diffusion of user-created content on the internet. His claim is coherent with Dawson's, as the latter stresses how the communicational capacities offered by new technologies are coupled with the increasing presence of statements whose authenticity and authoritativeness cannot be guaranteed by anyone.

This is partly an effect of the major delegation of responsibilities onto the artefactual dimension of the religious niche, and – instead of fostering its enrichment – it could ultimately pervert the relationship between the individual and its environment, in this case consisting chiefly of knowledge, so that the environment could finally become utterly unusable by those who were originally meant to use it: what is at stake is therefore the possibility that the enriched digital niche supporting religion online eventually became *maladaptive* for believers and religion itself.

1.2. The feasibility of online religion and the problem of disembodiment

In this subsection I will contend that the limit of online religion, understood as the virtual transposition of devotional practices originated in the physical world, arise inasmuch religion cannot be body-blind: recent studies about religion as a natural phenomenon do stress indeed the importance of the

embodied dimension of religious behaviour and beliefs (Atran for instance pays extreme attention to this aspect in his exhaustive analysis of religion [11]).

Rituals are something that take place in our ordinary ecologies, and we take part to rituals using our minds and our bodies: it should be enough to think of an ordinary Christian mass to realize to what extent *body* activities are crucial: we express our inner cognitive states by standing up, sitting down, moving our hands, using our vocal cords and by touching other believers as well: the work of the body is part of what turns rituals into "acts that work" [12].

Even though a virtual dimension of ritual seems to exist, it is usually either informing the user about what should be done in the world of the body, or it is supposed to be mentally and symbolically rehearsed by the user, in a way which completely excludes the bodily dimension of ritual. Let us take as an example a part of a ritual where one must light a candle: in the first case, the Internet will mediate the non-virtual action of lighting the candle, for instance telling the believer when and why to do so; in the second case, the believer-user will light a 'virtual candle', usually in a text-based or graphic environment. In the latter case, rather than acting the user could be said to witness their own actions and interpret them symbolically, according to something non-virtual that has already been lived: in this sense, interactivity turns indeed into *interpassivity* [L. Wilson, *Interactivity or interpassivity: a question of agency in digital play*, Fine Art Forum, 17(8) (2003)] since believers use themselves as passive screens for projecting parts of their own psyches (e.g. past experience) instead of living the real experience interactively. Campbell's contention is that this kind of virtualized religion is rather similar to the idea of broadcasting services on the radio or on TV, where the only spiritual inspiration comes from the fact of having, *upon another time*, *been there* with one's body: in this sense, the virtual service has not a full dignity in itself but works as a prop to recall previous fully embodied experiences [13]. Löveim also stresses the extent to which online religion lacks *necessarily* the persuasiveness that comes from the involvement of the body: "The ritual is seen as primary; belief in the conventional sense of that term is almost beside the point. By participation in the ritual, the actors invoke a goddess who may well be seen as a collective fiction but who nevertheless provides some spiritual sustenance and comfort to her followers. [...] What the online ritual lacks, in and of itself, is precisely the quality of physical presence that enables ritual actors to become so deeply embedded in the belief system that they will end up in an underground chamber, clutched with each other in a death embrace." [14]

Campbell's main objection to the possibility of online religion refers to its possibility of being nothing but a prop to consider something else, and not the real thing *per se*: it is nearly a Platonic argumentation, sustaining that because of its radical disregard of the bodily dimension, online religion is a weaker, stranger and sometimes just more comfortable alternative to real-life religious commitment: "Consider Brasher's description of the implications of the Internet for the evolution of religion: 'A fantasy universe that stimulates the imagination but ignores the rest of the body, cyberspace is a nonenvironment that sucks

attention away from the immediate surroundings in which most traditional religious life occurs'. Such a statement is stark, perhaps even foreboding; but it must be asked whether instances of online Christianity really bear out such a characterization of Internet religion as being so utterly disembodied […]. These suggestions make explicit reference to an offline, embodied aspect of the online prayer experience. For example, in the stage of prayer that involves cultivating an awareness of the presence of God, one is instructed to accompany the verbal and/or mental prayer with body and breathing exercises. [...] Again, the experience of the body, this time through the sense of sight, is used to assist the online prayer. Hence despite its presentation of an opportunity for online prayer, which is a clear instance of what we can categorize as online religion, this site still makes extensive use of embodied experience as an essential component of this prayer. That is, online religion still makes explicit reference to the offline." [13, p. 101]

Summing up what we discussed so far, it seems that if we consider online religiosity as the virtual transposition of established cults (or the transposition of ways of being religious), it seems that the whole concept of 'online religion' delivers far less than it promises: indeed, the digital religious niche affords unprecedented and (at least in principle) unbiased ground for religious communication, setting up an incredible framework for dialogue with people holding similar and different beliefs, but on the other hand the risk of *amateurization* is always looming over the whole enterprise: to use a Christian metaphor, if it could be said that e-believers are brought back to a climate of fertile confrontation that reverberates the beginnings of the Church, it is also true that the final result is that they end up barricaded each in their own *catacombs*.

This second subsection, instead, challenged the possibility of online religion by questioning the absence of the body in the virtual conception of the ritual: if the body is involved, it is not fully virtual. Conversely, if the body is *not* involved, then it is virtual alright, but the quality of the religious performance is scarce.

In the next subsection, though, we will try and answer a different question: 'Could we be looking the wrong way? If the Internet is a whole new world, might there be radically different instances of religious behaviour that rely on the same mechanisms but concern radically different frameworks?'

2. Cyberspiritual but not religious

So far, it seems that – when dealing with internet and religion – we are not going to find anything new, except pre-established practices taking advantage (and disadvantage) of enhanced communication systems. To say that explicit online religiosity fails to address *significantly* those human features characterizing religion and spirituality does not imply saying that those features cannot be found address at the intersection of Internet and religiosity.

As a matter of fact, this claim can be exemplified by a few examples of how tacit supernaturalness (and its perception) can emerge in Internet-related activities. Furthermore, what should be observed is that Internet seems to afford users with characteristics that are typical of supernatural agents.

2.1. Super(natural) users and avatars as semi gods

Within the perspective of distributed cognition, it is clear that contemporary information technologies empowered human beings in an unprecedented way. It can be argued, though, that this enhancement can be traced back to a quantitative shift rather than a qualitative one. As eco-cognitive engineers [6], human beings have always exceeded their bodily limits by resorting to external artefacts and manipulations, not only from a physical point of view but from a cognitive one as well, as we already suggested in the introducing section. Written language, for instance, allowed to dislocate complex communication in space and time, thus breaking many limits of natural animal communication.

It takes little effort to appreciate how there is a continuum and not a series of ruptures between the first instances of material culture [15] and present day Internet highways connecting billions of individuals worldwide, allowing any kind of data exchange. Conversely, a more challenging reflection could be brought about by observing certain conceptual analogies between the development of cognitive and communicative devices, the evolution of beliefs in supernatural agents and how the constant improvement of cognitive artefacts similarly managed to 'supernaturalize' human beings.

As suggested by recent literature about the cognitive origins of religious beliefs [16 -19], the notion of supernatural agent developed step by step, thanks to a progressive, intuitive and often unwilling erosion of ontological boundaries (and the related gnoseological ones) regulating our expectations about the presence and the behaviour of biological agents. What we mean to stress by recalling this kind of research is the phenomenon's progressive dimension: supernatural agent-concepts were diachronically refined and *updated* consistently with a population cultural development: clearly, such a slow progression caused the impossibility to appreciate discrete changes from within the process itself (just as parents often fail to appreciate the fact that their children are growing taller unless they notice it thanks to some external mediator, for instance their being able to reach items that were once out of reach), which in turn fostered theoretical hypocrisies like suggesting that research about the origins of religious belief is consistent as far as primitive cults are concerned, but complex religions such as Judaism or Christianity are a whole different kettle of fish (pointed out for instance by Barrett [20]).

The progressive obliteration of preceding steps is the same that can be observed in the perception of the empowerment achieved thanks to the artefactual distribution of cognitive tasks (calculation, observation, communication, memory storage etc.): many users fail in fact to appreciate the

continuum connecting iPhones all the way back to our ancestors' notched animal bones. (This kind of connection was instead very clear to Stanley Kubrick, as he exemplifies in the epic opening of *2001: A Space Odissey*.) Therefore, we tend to perceive only the mighty enhancements we benefit of thanks to computers and Internet (think of webcams, video-calls, online shopping, virtual really or the ability to access ever-growing knowledge bases...) by comparing them to an hypothetical *stage zero* of cognitive engineering, forgetting how some of these improvements were actually anticipated by pre-digital ones such as the telephone, an efficient mail system, increased diffusion of literacy and drop in the cost of books and so on.

The bottom-line of this contention is that technology, even if we often fail at appreciating its diachronic and often slow development, makes man 'supernatural' by letting him transcend some of its natural limits, and this process is reaching an unprecedented magnitude in the digital era. We would like that our statement be not understood in a 'weak', quasi positivist way: conversely, we believe that current technological development is apexing the process by which human beings are endowed with traits that were once considered as typical of supernatural agents.

Let us make some short examples to make the concept clearer: we can know – and share – information about events that took place on the other side of the globe nearly in real time, and add to them from our own: Greeks and consequently Romans had in their pantheon of deities none less than *Pheme/Fama*, the personification of gossip and rumour, of which Latin author Virgilius eloquently stated "Fama crescit eundo", Rumor grows as it moves on. A beast with many eyes, many ears and many mouths to know and repeat as much as she could: Facebook and other social networking websites and services turn us into a host of minor Fama's [21]. We can know and appreciate with our eyes distant sights and people like sorcerers without the need of crystal balls (replaced by monitors), and we can fake our identities and interact with other people with an ability to mislead them that was equalled only by the Olympus Pantheon's passion for disguisement and taking the appearance of humans, animals etc. Such 'supernaturalization' does not affect only the social-moral side, but also our ability to cope with the external reality and act on it: via the Internet we can move objects and people from a distance and physically interact with them like genies of ancient tales. With this respect, it seems interesting to notice how the lexicon of computers and Internet often reflects mythical and supernatural themes: consider for instance words such as *portal, wizard, superuser, trojan horse* and so on.

The current epitome of this phenomenon can be individuated in two elements: virtual reality and, in particular, the *avatar*.

The concept of avatar, etymologically linked to that of incarnation, represented the essence of virtual social environments [22]: the avatar is a partial embodiment of the operating user, and their identities can be told one from the other. Furthermore, the avatar has usually been a warrant of anonymity for the user, allowing the Internet to become a reenactment of Victorian morality, where

everyone could pursue more or less licit perversions protected by the mask of their avatar. Of course, avatars have reputations as well, but unless data leaks are the case, they do not affect that of their *puppeteers*.

In fact, all is needed is the recourse to the *virtual self*, as [23] put it. According to his definition, the idea of the virtual self describes the expectations about the character a person is supposed to have playing a given role. So, one is who he is, and who he is supposed to be when playing a given role in society. In a traditional virtual context one can stress the process of 'role distance' as much as she wants: Goffman used that expression to refer to all those cases in which a person distances herself (or who she actually is) from the role she has been assigned to in a given context. This can safely happen in the virtual world as long as no one expects the role of the avatar to coincide with the role of the actual user: conversely, in a social networking website, the role of my profile is expected to be the same role I display in real-life interactions.

Yet, the interest of the Avatar does not reside uniquely in the moral dimension, but in how the Avatar empowers the user to move in a different environment, if we consider the Avatar not just as the image representing the user on forums and bulletin boards, but the fully-virtualized representation of the user herself in virtual environments, usually consisting of massively multiplayer online role playing games (MMORPG) – like *World of Warcraft* – or complex 3D virtual environments like *Second Life*, which are impossible to categorize exclusively as games or enhanced social environments, since they partake of many different dimensions.

In all of these cases, the Avatar not only allows to the user to disembody herself from his flesh and blood and re-embody herself in bytes and pixels, but also to construct habits and expectations about a new peculiar environment. For our quest about virtual spirituality, avatars offer a twofold interest. On the one hand, they display many characters that are typical of traditional supernatural agency: if as for certain games (e.g. the aforementioned *World of Warcraft*) it is in the games' intent to recreate a partly mythological scenario including elves, trolls, minotaurs and so on, avatars in *Second Life* are endowed with a number of characteristics that can be defined 'supernatural' (they can shift shape and gender, create objects from nothing and yet share them with other avatars, fly etc.), and those traits were not conceived intentionally as to echo mythological beings, but they were just the fittest to allow the best enjoyment of the virtual environments. On the other hand, as far as the spiritual level of avatars is concerned, a kind of *Matrix* paradigm is at stake: if magic is about observing, creating and manipulating distortions in our expectation about ordinary space-time behaviour, in a digital environment magic is actually the same thing, but it involves being able to create and exploit distortions in the *code* describing the virtual world. *Cheating* can be an example of virtual magic, when it is not meant in a simply moral but onto-digital sense: users who are able to cheat the system, the code (and not to fool other users) are usually considered by their peers with a mix of awe and fear as it happened for sorcerers.

In conclusion, avatars are a nice example of how instances of spirituality and religiosity can arise from different grounds than our ordinary life settings: this situation can be interestingly (but maybe pointlessly) 'perverted' when forced to connect with *real life* beliefs and practices. In Second Life, for instance, it is possible to find churches and other temples where avatars can gather and worship as in real life. Following our argumentation, though, it is legitimate to wonder whether this is a kind of circular action: what are avatars worshipping, inasmuch as they are already 'supernatural' themselves? is this a paroxysm of the failure of wanting to mingle habits of the virtual world with those of everyday 'real life'?

2.2. Tacit worship of Internet highways

If on the one hand, the enrichment of the religious niche offers to the user an unprecedented quantity of information and powerful research capabilities, on the other hand the extreme autonomy of that same artefactual dimension yields unexpected consequences that should be dealt with. As we have already pointed out, the massive diffusion of the so-called *apps*, to browse and navigate the Internet, triggered a shift in the way we look for, and filter, information online: our searches, and indeed our virtual behaviour as a whole, are affected by the transparent algorithms embedded in the app.

This aspect should be considered also in connection with another one, that is *profiling*: it is, summarized to its essence, the series of activities by which the collection of apparently anonymous and irrelevant data can lead to the construction of users' profiles, for instance for security, commercial or safety purposes [24, 25].

"Prins argues that the profiles, which are at the very core of technological possibilities, can be considered as imposed identities, both individually or collectively. She also fears that such profiles generate biased perceptions of individuals" [26], but it should also be added that profiling activities impact and bias the very perception we have of the whole Internet environment.

The idea would be that being profiled means being observed, and if we are observed then there must be an *observer*. As contented by common sense and recent research [27], human beings are extremely eager to postulate the existence of superior beings especially if these are seen as able to affect their lives in a moral way: the Internet as a subject-like observer is indeed often perceived in a moral sense, either as a benevolent entity looking over our safety and making sure we receive any information we need at right time, or as a potentially evil controller, ready to punish us for illegal (or immoral) transactions, copyright infringements and so on.

As some recent studies in Paleoanthropology and Cognitive science show [11, 16-19], beliefs in supernatural agents *happened* to us and were not really intentionally chosen, and similarly the most radical atheistic claims cannot eradicate those neural wirings that contribute to originating supernatural beliefs. Likewise, the development of devotional attitudes towards the Internet (which

could be seen as echoing the worship of natural elements in ancient cults) could be a mostly tacit activity supported by the way our cognitive systems cope with the (now digital) environment: as sustained by Breton, there is a real cult of the Internet going on [28].

The distopian novels of the XX century increased our likeliness to entertain such *beliefs* by providing some recognition templates, and they fostered the establishment of the *Panopticon* concept [29]. Prima facie, our intuition of the Internet as an omniscient guardian could indeed be traced back to a kind of Panopticon controller [30], in a more subtle realization of Orwell's 1984 scenario: yet, upon further reflection, we could say another concept could be more useful to identify the kind of omniscience we more or less tacitly appreciate in the Internet, that is the *Panspectron*. It was introduced by De Landa [31] to indicate the possibility of controlling people's behaviour not by actually observing them, but by monitoring and recording the whole electromagnetic spectrum they emit thanks to separate sensors.

While Jeremy Bentham's concept of the panopticon characterized well information collection in the service of power under modernity, it is De Landa's notion of the panspectron that better captures the situation under postmodernity. The panoptic condition opens with the identification of a subject about which knowledge is desired and then arrays the tools of information collection about it. The panspectral condition, however, is one in which information is collected about everything all the time, with individual subjects becoming visible only when specific questions are asked [32].

Braman, that is, warns us that there is no active omniscience in the Internet: unlike our conceptions of God, the Internet could be seen as an information deity, made of knowledge but devoid of any mind. Even knowledge about single users can only be made actual through the appropriate query.

This kind of description should make us aware that tacit devotional feelings towards artefactual niches could be misplaced, and inasmuch as they are misplaced they could be intentionally mislead: for instance, Governments could be interested in fostering citizen's perception of the Internet as an actual guardian knowing, just like the Christian God, what each and every user is doing. Similar issues have already been pointed out by Magnani [4, 5, 33].

3. Conclusion: are we looking the wrong way?

The aim of our short paper was to reflect on the concept of online religion. Our final contention is that when scholars look for online religiosity they might be looking the wrong way. If religion is a complex phenomenon that originated from the way our cognitive systems coped with environmental constraints, then it is much more interesting to investigate *new* forms of religiosity and spirituality that are being born out of the encounter between our same cognitive endowments and a radically new kind of environment, brought about by the advent of computers and the Internet. Those new forms of cyber-religiosity need

not resemble the forms of spirituality we have been used to so far, as long as it is possible to individuate some kind of religious, devotional principle.

The spirit of this new kind of spirituality is well exemplified, albeit provocatively, by the *Cyberpunk's prayer* reported by O'Leary [34], in which the author expressed her real and sincere devotion and awe for the superior being allowing the prosperity of a new environment, which is the digital system.

Our Sysop, Who art On-Line, High be thy clearance level.
Thy System up, Thy Program executed Off-line as it is on-line.
Give us this logon our database, And allow our rants, As we allow those who flame against us.
And do not access us to garbage, But deliver us from outage.
For thine is the System and the Software and the Password forever.

References

[1] J.J. Gibson, *The Ecological Approach to Visual Perception*, Houghton Mifflin, Boston, 1979.
[2] F.J. Odling-Smee, K.N. Laland and M.W. Feldman, *Niche Construction. The Neglected Process in Evolution*. Princeton University Press, Princeton, 2003.
[3] L. Magnani, *Abductive Cognition: The Epistemological and Eco-Cognitive Dimensions of Hypothetical Reasoning*. Springer, Berlin/Heidelberg, 2009.
[4] L. Magnani, *Understanding Violence. Morality, Religion, and Violence Intertwined: a Philosophical Stance*. Springer, Berlin/Heidelberg, 2011, section 6.4.
[5] L. Magnani, *Morality in a Technological World. Knowledge as Duty*, Cambridge University Press, Cambridge, 2007.
[6] E. Bardone, *Seeking Chances: From Biased Rationality to Distributed Cognition*. Springer, Berlin/Heidelberg, 2011.
[7] L.L. Dawson and D.E. Cowan, *Introduction*, in *Religion Online: Finding Faith On the Internet*, L.L. Dawson and D.E. Cowan (eds.), Routledge, New York, 2004, 6.
[8] C. Anderson and M. Wolff, Wired magazine, **September** (2010).
[9] C. Helland, *Popular religion and the world wide web: A match made in (cyber) heaven*, in *Religion Online: Finding Faith On the Internet*, L.L. Dawson and D.E. Cowan (eds.), Routledge, New York, 2004, 21–33.
[10] A. Keen, *The Cult of Amateur. How Today's Internet is Killing Our Culture and Assaulting Our Economy*, Nicholas Brealey Publishing, London, 2007.
[11] S. Atran, *In Gods We Trust: The Evolutionary Landscape of Religion*, Oxford University Press, Oxford, 2002.
[12] J. Sørensen, Method and Theory in the Study of Religion, **19** (2007) 281–300.
[13] H. Campbell, *"this is my church": Seeing the internet and club culture as spiritual spaces*, in *Religion Online: Finding Faith On the Internet*, L.L. Dawson and D.E. Cowan (eds.), Routledge, New York, 2004, 98–111.
[14] M. Löveim, *Young people, religious identity, and the internet*, in *Religion Online: Finding Faith On the Internet*, L.L. Dawson and D.E. Cowan (eds.), Routledge, New York, 2004, 55.
[15] S. Mithen, *The Prehistory of the Mind. A Search for the Origins of Art, Religion, and Science*. Thames and Hudson, London, 1996.
[16] P. Boyer, *Religion Explained*, Vintage U.K. Random House, London, 2001.
[17] D. Dennett, *Breaking the Spell*, VIKING, New York, 2006.

[18] J. Schloss and M.J. Murray (eds.), *The Believing Primate*, Oxford University Press, Oxford, 2009.

[19] T. Bertolotti and L. Magnani, *The role of agency detection in the invention of supernatural beings: an abductive approach*, in *Model-Based Reasoning in Science and Technology. Abduction, Logic, and Computational Discovery*, L. Magnani, W. Carnielli and C. Pizzi (eds.), Springer, Heidelberg/Berlin, 2010 195–213.

[20] J. Barrett, *Cognitive science, religion and theology*, in *The Believing Primate*, J. Schloss and M.J. Murray (eds.), Oxford University Press, Oxford, 2009, 76–99.

[21] T. Bertolotti, International Journal of Technoethics, **2** (2011) 71–83.

[22] M.S. Meadows, *I, Avatar: The Culture and Consequences of Having a Second Life*, New Riders, Berkeley, 2008.

[23] E. Goffman, *Encounters. Two studies in the sociology of interaction*, Bobbs-Merrill, Indianapolis, 1961.

[24] M. Hildebrandt, IDIS-Identity in the Information Society, **1** (2008) 55–70.

[25] M. Hildebrandt, *Profiling and ami*, in *The Future of Identity in the Information Society*, K. Rannenberg, D. Royer and A. Deuker (eds.), Springer, Berlin, 2009, 273–310.

[26] S. Gutwirth, IDIS-Identity in the Information Society, **1(1)** (2009) 123–133.

[27] D. Johnson and J. Bering, Evolutionary Psychology, **4** (2006) 219–233.

[28] P. Breton, *Le culte de l'internet: une menace pour le lien social?*, La Decouverte, Paris, 2000.

[29] M. Foucault, *Discipline and Punish: the Birth of the Prison (1975)*, English translation by A. Sheridan, Vintage Books, New York, 1979.

[30] E. Steinhart, Journal of Ethics and Information Technology, **1(2)** (1999) 155–160.

[31] M. de Landa, *War in the Age of intelligent Machines*, Swerve Editions, New York, 1991.

[32] S. Braman (ed.), *Communication Researchers and Policy-Making*, The MIT Press, Boston, 2003, 13.

[33] L. Magnani, International Journal of Technoethics, **2** (2011) 1–19.

[34] S.D. O'Leary, *Cyberspace as sacred space: Communicating religion on computer networks*, in *Religion Online: Finding Faith On the Internet*, L.L. Dawson and D.E. Cowan (eds.), Routledge, New York, 2004, 45.