

Available online at www.sciencedirect.com

ScienceDirect

Procedia - Social and Behavioral Sciences 166 (2015) 521 – 525

Procedia
Social and Behavioral Sciences

International Conference on Research Paradigms Transformation in Social Sciences 2014

Internet of things as a symbolic resource of power

Lukianova Nataliia^{a*} Fell Elena^a^a National Research Tomsk Polytechnic University, Lenin Ave., 30, Tomsk, 634050, Russia

Abstract

The resources of power are usually understood as the entirety of means of influencing the object of power in accordance with the subject's aims. This paper investigates the phenomenon of Internet of Things (IoT, or Cloud of Things, or CoT) as an emerging resource used in the formation of the symbolic capital of power. As well as evaluating the potential of IoT already used in this capacity, the authors are also interested in clarifying and evaluating specific characteristics involved in its usage.

© 2015 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/3.0/>).

Peer-review under responsibility of Tomsk Polytechnic University.

Keywords: internet of things; symbolic power; presentational symbolism; discursive symbolism; communication strategy

1. Introduction

One's reputation, appearance and name as well as material objects representing abstractions such as insignia, the symbols of one's high social status are, according to Bourdieu, traditional symbolic resources of power. (Bourdieu, 1998). P. Berger and T. Luckmann describe these resources as "symbolic capital of power" or "symbolic power" (Berger and Luckmann, 1966).

General public use these resources to explain social events and social structures. These resources are involved in the formation of a popular worldview predetermined by the conceptual boundaries set by authorities. Today's symbolic resources include websites, blogs, television shows, and news reels, all contributing to the creation of popular hypotheses and theories, assumptions and speculations. They are used in political shows and programs, and politicians make use of them whilst creating their own political images.

In 2008-2009 the number of objects connected to the web exceeded the number of people connected to the web. This shift amounted to a transition "from the Internet of people to the Internet of things" (Chernyak, 2013), followed by the acknowledgement that the IoT can be considered a resource of the new generation. (Gubbi et al.)

This paper investigates the phenomenon of Internet of Things (IoT, or Cloud of Things, or CoT) as an emerging resource used in the formation of the symbolic capital of power. As well as evaluating the potential of IoT already used in this capacity, the authors are also interested in clarifying and evaluating specific characteristics involved in its usage. It is important to understand the role that this new phenomenon plays in society.

* Corresponding author. Tel.: +7-905-991-24-95
E-mail address: lukianova@tpu.ru.

2. Internet of Things (IoT) as a new resource of power

It is important to understand the specific meaning of a *thing* in the context of IoT. A *thing* in IoT can be real or virtual. This *thing* is always associated with the digital world and is connected herewith via a wireless communication system. One can always find this thing in space; it emphasizes a specific relation to the object.

On the one hand, IoT constitutes a network of physical objects (things) with embedded technology used for internal interactions within the network and for interactions between things and environment. Examples include various built-in sensors, smart home technology and cutting edge means of communication such as weight control management programs, photographic and video devices, alarms, dictionaries, scanners, games etc.

This is only one side of the concept of IoT, which reflects the physicality of the thing and can be compared with the material composition of a sign.

An object can be material (a physical thing or a class of things) or imaginary (the image of power, for example). Thus IoT can be considered a resource used to create the symbolic capital of power as a non-material object of the virtual space of the internet which exists as one network.

3. Current usage of IoT as a resource of power

Political space is one of fundamental social mechanisms of the contemporary society. Virtual things contained therein gain extra social validity as something official. As Victor Kirnyaev, a United Russia Deputy, noted in an interview, “Now the trend of the personalisation of politics is becoming noticeable. For a voter, personal and professional qualities of a candidate are more important than his or her belonging to a particular party.” (translation ours) (<http://ria.ru/interview/20131225/986349893.html>).

Indeed, Prime Minister D. A. Medvedev’s interest in latest gadgets is becoming part of his image, Angela Merkel communicates with her subordinates via SMS messaging (<http://relax.ru/post/74447/interesnye-fakty-ob-angele-merkel.html>) and David Cameron joined Twitter (Gadget Blog: <http://hi-tech-gadget.ru/david-cameron.html>).

As for Obama, he deliberately uses iPhone as a political tool. To him it symbolises American high technology and, promoting it, he even gave an iPod to The Queen of England, as noted by Vladimir Isayev, *XX Finam* expert (<http://www.rb.ru/article/gadjety-politikov-i-biznesmenov-foto/6761437.html>). Indeed, the symbolization of power is now being realized via new communication methods. Interestingly, when it comes to technology, politicians value imagery over functionality, Isayev observes, as in their choice of gadgets politicians may opt for a more visually impressive model rather than the one that is easier to use. (<http://www.rb.ru/article/gadjety-politikov-i-biznesmenov-foto/6761437.html>)

It can be argued that contemporary political space is represented primarily by mediatized personalities as bearers of a specific, visualized political culture. Taking the above into consideration, one could add that another characteristic of deliberative politics demonstrates belonging to a particular group whose members share a specific way of life.

The idea of a person’s identity is relevant to this discussion. There are many ways in which one can be identified but one has only one identity (despite the range of discussions that deal with *identities* rather than *identity* – see for example Ely’s discussion of the unity of identity in relation to political systems (Ely, 1997) and Appia and Gates’ discussion of identity contextualized by gender and race (Appia K.A. and Gates, 1995).

When we talk of an individual identity, we consider the person’s relation to himself or herself, as his or her personal development takes place in the course of social interactions.

“As for collective identity, it is not so much the awareness that a particular community has of itself, as it is a particular meaning ascribed to the community from without. It is customary to distinguish two levels in the structure of identity – the individual level and the social level. The individual level is a set of personal characteristics making a given person unique. The social level is linked with the identification of an individual according to the norms and expectations of the social environment in which he is immersed.” (Translation ours) (Trufanova, 2010). This kind of identity is limitless. Whilst discussing identity, it is necessary to talk about identification first of all. The problem of identification and identity is always connected with the problem of the possibility of the existence of a single, continuous Self of a person, with such Self combining various Self-images. This problem can be local or global in its

scope, and this is more apparently revealed in socio-political processes. N. G. Osoyanu notes that it may be possible to talk about a number of forms of identity, e.g. economic, historic, legal, geopolitical, linguistic, ethnic etc. She demonstrates how identity is revealed in political communicative practices.

“The history of the passing of the “Law of securing equality” in the Republic of Moldova representing the realisation of one of the fundamental EU demands can serve as an interesting example of a combined influence of economic and geopolitical identity on human rights.” The fact that part of its provisions is directed at the protection of sexual minorities caused a real flood of social protests, political actions and public statements.” (Our translation) (Osoyanu, 2013). This identification, given the present day’s excess of Self-Images, is the key process involved in the individual’s self-determination, in his or her identity formation. It seems that the abundance of Self-images contributes to the formation of a richer and multifaceted identity.

A person can identify himself or herself with different social groups. He or she can be a businessperson or a family person, as well as being a scholar or a scientist etc. The problem of identification and identity is always linked with the problem of the possibility of existence of one continuous human being, combining various Self-images. This problem can be global or local. To take another example, one can consider the creation of party brands, of a party image. Graham Wallas, a British political technologist, used the term “political image” for the first time in the early 1900-s. (Wallas, [1908]1981). Often the concept of political image is equated with that of the image of the political party leader.

For example, under the conditions of the economic crisis and unemployment in 2008 and the war in Iraq, the United States population was predominantly inclined to protest against various issues, whereby this disposition of dissatisfaction with the current state of affairs was intertwined with expectations of something new, of searching for a personality that would radically differ from that of President Bush. Barack Obama’s presidency delivered the desired modification, and the promise of change became the feature of his party’s communicative technology. The extensive usage of social media became the main tool of Obama’s election campaign.

Generally, social media can be considered one of the most effective resources amongst IoT. G. Orlova (2001) offers a thorough analysis of the dynamics of V. V. Putin’s election campaign. As Foucault (1975) notes, a political body consists of material components and techniques as well as communication channels and reference points for realizing the relation between power and knowledge. Orlova (2001) observes the effectiveness of emphasising Putin’s health, youthfulness and sportiness, and transmitting them into the political sphere, which proved to be an effective strategy, as Putin’s physical might was contrasted with Yeltsin’s illness and Zyuganov and Yavlinsky’s attempts at dancing.

4. Specific characteristics of IoT as a new resource of power

The non-materiality of IoT is its key distinctive characteristic setting IoT aside from traditional forms of symbolic power. Traditionally, the symbolic capital of power has existed and continues to exist encoded in the symbols of power demonstrating the belonging of their bearer to the domain of power and authority. These include for example, special badges (such as Duma deputy badge), one’s own and family privileges etc. IoT is a non-material resource, forcing the symbolic capital of power to be realised in the mechanisms of action. These are public organisations and public servants’ websites, blogs, news reels, forums, television debates etc. The resources of power are usually understood as the entirety of means of influencing the object of power in accordance with the subject’s aims. Nevertheless the mechanisms of such a resource of influence affecting people’s minds remains symbolic, as with previous forms of resources of power. This unites traditional and new instruments of the formation of the symbolic capital of power.

What are those mechanisms? They are revealed via the symbolic functions of human activity. The symbolic function is one of the primary functions of human activity, similar to consuming food, space orientation, and movement. This function is a fundamental and persistent process of the human brain.

There are two strategies of formation of the symbolic capital of power. These strategies are communication strategies, and are the same whether we refer to traditional resources used to create the symbolic capital of power or to the new resources such as IoT. Below there is their brief description. They are described in greater detail in Lukyanova’s monograph (Lukianova, 2010). Susanne Langer’s term “discursive symbolism” can be conditionally used to name the first communication strategy. (Langer, 1954)

This term reflects the key characteristics of communication, which is a human being's ability to verbalise meaning. The discursive symbolism strategy is closely linked with language. Discursiveness here amounts to the capacity of organising information and ideas into arrays, chains, lines using linguistic means. In the case of IoT, discursiveness entails symbols presentation sequencing, as in the news reels, for instance.

Another strategy is founded on the irrationality of our consciousness. Langer, following Whitehead's theory of perception ("Presentational immediacy" and "causal efficacy"), described this type of symbolism as "non-discursive", or "presentational symbolism" (Langer, 1954).

In the "discursive symbolism" strategy, new meanings are comprehended as contextualised by other meanings, the former being embedded into the previously existing logical structures gradually. This constitutes the main difference between the ways in which these two different technologies function as in the mechanism of "presentational symbolism" irrational mechanisms of understanding reality prevail over rational ones. An example of this can be the transmission of political shows, when the focus is on vivid imagery demonstrating the tragic character of a given situation, whilst the logical side of the reported events can be diminished or ignored.

The two strategies can exist simultaneously as irrational reasoning exists alongside logic and rational reasoning, and this is the most important way in which humans comprehend the world. The mechanism of presentative symbolism can be compared to the expression "to jump at conclusions" i.e. arriving at conclusions without reasoning.

In the communication strategy of presentational symbolism, the idea is presented momentarily, as a pictorial image. Presentational symbols of this kind cannot be transformed into a discourse. Such symbols are nowadays the main product of mass communication. Their usage constitutes the main strategy of implementing IoT as a resource of symbolic capital of power. IoT as a non-material resource of the symbolic capital of power can function in the communication strategy of discursive and/ or presentational symbolism.

Hereby we would like to give an example of the functioning of IoT in the strategy of discursive symbolism. Any new invention that has received support from authorities becomes integrated in the strategy of discursive symbolism. Thus Prime Minister Medvedev's image includes his usage of new gadgets. (http://www.truehd.ru/page_70.htm). Medvedev holding various gadgets during public engagements has become a recognizable feature of his public imagery in the same way as Churchill smoking a cigar was part of the latter's image in the pre-IoT era. Medvedev's iPad is included in his image as a symbolic resource integrated in his symbolic capital. Having said that, physical objects like cigars has been generally replaced by politicians' forums and blogs.

On the other hand, the strategy of representational symbolism can accommodate independently functioning imagery of Internet resources belonging to the authorities. A member of the public, interacting with such resources, e.g. personal websites and blogs of acting politicians and other high profile individuals, may treat them as if they were produced and maintained by particular individuals. Despite not being created by the people that they represent, these blogs and websites create politicians' images, create their mythology.

5. Conclusion

We would like to conclude that, taking into account the above investigation, IoT as a symbolic resource of power should be considered not only as a means of people's liberation and a tool that empowers their creativity (e.g. new technology that facilitates child development and education), but also as a means to manipulate people, to enslave them. This latter function can include changing or creating public opinion, influencing political events, interfering with the balance of political powers in the world.

References

- Berger, P. L. and Luckmann, T. (1966) *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*, Garden City, New York: Anchor Books.
- Appiah KA, Gates HL Jr. (1995). Editors introduction: multiplying identities. In *Identities*, ed. KA Appiah, HL Gates Jr, Chicago, IL: Univ. Chicago Press, pp. 1–6
- Bourdieu, P. (1998) *Practical Reason: On the Theory of Action*, Stanford University Press.
- Chernyak, L. (2013) "The internet of things: new challenges and new technologies", *Open systems*, No 04.
- Ely, J.D. (1997) Community and the politics of identity: Toward the genealogy of a nation-state concept. *Stanford humanities review*, Vol. 5, No. 2, pp. 70-95
- Foucault, M. (1975) *Surveiller et punir. Naissance de la prison*, Paris: Éditions Gallimard, 1975, 318 pp.
- Graham, W. (1981) *Human Nature in Politics*. New Brunswick: Transaction Books.

- Gubbi, J., Buyya R., Marusic S., Palaniswami M. (2013) Internet of Things (IoT): A Vision, Architectural Elements, and Future Directions, *Future Gener. Comput. Syst.* 29 (7), pp. 1645-1660
- Langer, S. (1954) *Philosophy in a New Key. A Study in the Symbolism of Reason, Rite, and Art.* The New American Library.
- Lukyanova N.A. (2010) *From Sign to Semiotic Constructs of the Communicative Space.* Tomsk, TPU.
- Osoyanu, N.G. (2013) "The concept of identity and effective forms of protection of human rights", RSUH Vestnik, Politology and Social and Communication Sciences series, No 1 (102), 242 pp.
- Orlova, G. (2001) The political body of the President, *Kritika I Semiotika*, Novosibirsk, vol. 3-4, pp. 67-77.
- Trufanova, E.O. (2010) Person in the labyrinth of identities. *Voprosy Filosofii*, No 2. pp. 13–22.
- RIA News. The head of United Russia central executive committee is conducting a deep reload. Available at <http://ria.ru/interview/20131225/986349893.html>.
- <http://relax.ru/post/74447/interesnye-fakty-ob-angele-merkel.html>
- David Cameron joined Twitter. Gadget Blog: <http://hi-tech-gadget.ru/david-cameron.html> (accessed on 04.09.2014)
- <http://www.gadgetblog.ru/9011/> (accessed on 04.09.2014)
- <http://www.rb.ru/article/gadjety-politikov-i-biznesmenov-foto/6761437.html> (accessed 04.09.2014)
- <http://www.rb.ru/article/gadjety-politikov-i-biznesmenov-foto/6761437.html> (accessed 04.09.2014)
- http://www.mohamedrabea.com/books/book1_10586.pdf
- <http://philosophy.ru/library/langer/index.html> (accessed on 04.09.2014)
- http://www.truehd.ru/page_70.htm accessed on 04.09.2014