

From SOCMINT to Digital Humint:

re-frame the use of social media within the Intelligence Cycle

Marco LOMBARDI¹, Todd ROSENBLUM², Alessandro BURATO³

Introduction

Since their first appearance as medium of mass interaction, in the early 2000s, social media have rapidly become a precious source of information to researchers of different fields. People spends an increasing amount of their daily time on social platforms such as Facebook, Twitter, Instagram and so on. Through those social media, the web became a space within which users may represent themselves, interacting in different ways, and produce and consume information constantly.

Different are the aspects that simultaneously intervene to make the argument valuable to be deepen, in terms of possible use from the intelligence side. The first and fundamental element concerns the modern understanding of real and virtual identities (Tosoni, 2004; Grimmelmann, 2006; Peachey and Childs, 2011), and more recently by Daniel Byman and Jeremy Shapiro (2014) which are not to be seen as separated and independent from each other but, quite the opposite, as

¹ Professor, Università Cattolica del Sacro Cuore. ITSTIME Italian Team for Security, Terroristic Issues & Managing Emergencies E-mail address: marco.lombardi@unicatt.it

² Nonresident Senior Fellow at The Atlantic Council

E-mail address: Toddrosenblum64@gmail.com

³ Senior researcher, ITSTIME Italian Team for Security, Terroristic Issues & Managing Emergencies

E-mail address: alessandro.burato@itstime.it

extremely interdependent and able to influence relations, motivations and individual actions, equally, within the real and the virtual space.

This relation, that remains to be fully explored in relation to its security aspects, still presents important lacks in legislative terms⁴ in many nations around the world. Besides, although the need to renovate the intelligence system is strong (Tomes, 2015, 2003; US Defence 2009), still there is a kind of reluctance to integrate social sciences and particularly Human Dynamics within the analysis of the information gathered through social media and, in general, from other sources of data collection. These dynamics are increasingly based on systems of interactions that are activated on the web 2.0, as well as artificial intelligence and machine learning nowadays are, a crucial element to develop an effective comprehension and prevention of new and constantly evolving threats.

This change of approach and perspective on the use modes and data interpretation that get picked up from social media, is in fact necessary to adapt security and defence concepts and practices to the new challenges posed by organized crime, large and small terror cells, as well as Hybrid Warfare, a diffused warfare, pervasive and de-localised, that is the mark of the new generation of conflicts. They overcome the classic and geographically defined engagement of rival armies, integrating an extreme liquidity to the presence of new actors and innovative battlefield

«a sophisticated campaign that combine low-level conventional and special operations; offensive cyber and space actions; and psychological operations that use social and traditional media to influence popular perceptions and international opinions» (Hunter e Pernik, 2015).

From the intelligence perspective, social media have then the potential to be highly important: the more our lives connect to the web, the more our real and virtual identities merge up, the more relevant information get shared and, so, the more they become traceable and available to elaborate as the most complete analysis as possible.

Social media intelligence (SOCMINT, Omand et al., 2012), is the youngest component of the intelligence cycle, that is focused on the collection and analysis of information produced and exchanged through social media. However, despite SOCMINT value is recognised, analysts quite often criticise the lack of a strategy, a doctrine or best practices on the use of this specific instrument.

The dynamic change of the environment characterising the social media domain, makes necessary a flexible approach, that is able to adapt to technological changes, law, and their utilisation culture as well. It is in fact shared the position according to which a defined prototype

⁴ These lacks refer to judicial processes brought about in Germany, Italy, the Netherlands and other national realities, that caused the release of Islamic extremists because the processes of radicalisation via web, defined as mere support, and the relative evidences gathered from their cyber activity, do not constitute any offence within the underlined legal frameworks

of the use of this discipline does not exist, it needs, instead, to be asked the following questions: Which is the platform supporting the conversation? Which is the nature of the interaction? What is the research object? Demands that, thanks to their answers, define the instrumental nature of the subject, that may not avoid a wider vision, integrating the process of developing a detailed analysis of the information gathered with a sociological framing, through a synthetic effort that we define as DIGITAL HUMINT, fruitful union between the HUMINT practice, primary constituent, since its very origin, of the intelligence cycle and the approach connected to social media sources. In other words, evaluating social media increases the accuracy of appropriate counter-terrorism investigations.

Within this note, some peculiarities related to both of the domains will be discussed, with the aim of underlining the choice's motivation, and the usefulness of adopting a holistic vision of formerly independent instruments within a new framework, DIGITAL HUMINT again.

1. Real world vs Digital world?

Does it truly exist a clash between digital and real world? If this is the case, reasonably, the SOCMINT and HUMINT tools should be considered as declined, the first to deal with the digital world, with its rules and specificities, and the second to the true intelligence business, the one that deals with people and hence leads to more authoritative pieces of information, more easily processable via known channels and information services.

Aspects, definable as social, such as self representation, community and interaction are classical of real life, common to everyone, even though (and the literature is sure about it) they also deeply define the online behaviour of the same people whom equally feel the necessity to create a self representation in the world the live in (real or virtual), to build up ties with who is around (real or virtual subjects) and to interact with the people sharing common experiences.

1.1 The representation: Are you actually the person you want to make us believe to be?

Given that in the virtual world the achievement of complete anonymity is pretty difficult (Lapidot-Lefler and Barak, 2012), the self representation comes in two different moments: when a profile is opened up (static representation) and through the progressive construction of the contents featuring that very profile (dynamic representation).

The analysis of the two representations, especially about their inner discrepancies, is able to provide interesting elements to the elaboration of an outlook that takes into account the psychological aspects as well, and not merely the aggregate data related to the account settings or the preferences manifested by the user.

As effectively demonstrated by some researches, there exist different domains where the deducible inferences, from the simple statistical analysis do not demonstrate to be fully reliable: Kosinski, Stillwell and Graepelb (2013) analysed the Facebook likes of about 58.000 volunteers, attempting to understand the typology of information that may be extracted from that analysis and the inferences that may be done from the gathered data. Gathering an average of 170 like for each of the participants to the research, the study demonstrated an accuracy in the inference, for example, of the ethnicity (Afro/Caucasian), the gender (Man/Woman), even though denoting a weakness in inferencing over the abuse of alcohol or drugs from the users (behaviours that are strongly dependent on a social dimension).

Another highly significant instrument to self representation is the use and choice of the language: as for the real world, the also online sharing of a communication code is a valuable indicator of the belonging to a certain group. All this, is supported by the results of a number of researches that proved how the use of specific words is able to tell quite much about a user personality, surely a lot more than how much he may personally imagine (Summer et al., 2012).

1.2 Communities: create and re-create our groups

Human beings are "social animal", and because of that they continuously look for connections to other individuals. The literature concerning the definition of "virtual community" still argues on the kind of discriminants under which a group may define itself as such. To our purpose is sufficient to recognise that, in order, for the community, to exist, its members must interact to each other following shared norms, a common digital culture or other relevant features. This also includes individuals that spend time moving in and out of the "open" internet and "closed" forum of interest to law enforcement and counterterrorism officials.

It results evident how aspects as the modalities of online community creation, their relations system and their typology may be different from the ones defining traditional groups or communities. The virtual communities analysis, when devoted to the understanding of the belonging of their single individuals, may not forget considerations related to those aspects. For example, it is necessary to specify and be conscious of the existence of social media that are thought precisely to re-create a copy of a certain real community (Facebook, Twitter) and others, instead, that create groups having only a minimum degree of transposition into the real world. It is right the study of these virtual communities, sometimes strongly united and featured by a high level of identification, spirit of belonging and goals sharing between their members, one of the

most complex element to be faced but, at the same time, extremely significant and that must be reconsidered by the SOCMINT analysis (Benthall, 2012).

1.3 The interaction

If, with the term interaction it is intended everything allowing users to get in contact with each other, sharing information or connecting in some way, when people decide to get in contact with other individuals in the offline world, there exists limited possibilities of choice regarding the tools to do it: calling, mailing, self introduction and so on. In the online world, tools such as retweet, likes and shares have been adapted to facilitate a complex system of indirect methods to get in touch with the other.

Boyd, Goldern and Lotan (2010) conducted a study on the motivations behind the users adoption of those instruments:

- to amplify or diffuse the message to the public
- to entertain or inform a specific audience
- to comment a tweet, re-posting it and adding new contents
- to demonstrate the presence as listener
- to publicly demonstrate consensus
- to validate the other's reasoning
- to demonstrate fidelity and friendship re-calling the attention, often asking to re-post
- to give more visibility to people or contents that are hardly visible
- to increase the number of contacts from a more visible user

From the intelligence process point of view, referring to the analysis of individual profiles, it results to be very interesting the demonstration of friendship/fidelity theme. Users whom want to make the influence that others have on them public, whom want to demonstrate their respect to the individual of which they share contents, often re-post those contents to demonstrate their appreciation indirectly. This relationship, that does not foresee a direct contact, encourages users to use the sharing or re-tweet tools freed from the embarrassment sentiment: sharing, in fact, represents a low risk option to interact with another user, with whom another kind of interaction would have otherwise been impossible.

Two distinct theories are the drivers of such behaviours: the observation effect and the disinibition effect. The first, also known as the observer paradox, materialise when the events of a given situation, that needs to be detected, suffer from the observer presence. Social media users, when they perceive to be observed, may react changing their behaviour online or hiding interesting information to the scope of the analysis (Heppner et al., 2007). The second, instead, concerns the behavioural change assumed online by users that, having the anonymity perception and not having

to interact face to face with the receiver of their communicative action, tend to interact more and more heartedly than if they would have faced the same situation in the offline world (Lapidot-Lefler and Barak, 2012).

2. Conclusion

The considerations reported within this article are only some of these necessary to allow the SOCMINT tool, already effective in terms of methodology and gathering of "intelligence pieces" from the virtual world, to be re-framed within a wider discipline better contextualising, both in terms of effectiveness and comprehensibility, its own potential.

The identification of the areas of interest over which to focus the research, reached thanks to SOCMINT, must be enriched with the consciousness regarding the fact that a neat distinction between real and virtual world, in terms of self representation and belonging, does not exist.

Integrating SOCMINT and HUMINT is essential for identifying, interdicting and preventing terrorism threats. The role of technology is vital for aggregating, correlating, and predicting behaviours of concern. This technology is still maturing, and it is only as good as system programmers and curators are in their understanding of how computers assist in research and discovery.

SOCMINT and HUMINT need to be fused, facilitating the birth of their very synthesis: the discipline of DIGITAL HUMINT.

References

Benthall, S. (2012)"*Weird Twitter*" art experiment method notes and observations. *Digifesto*, [Online]. Available at: http://digifesto.com/2012/10/18/weird-twitter-art-experimentmethod-notes-and-observations/ [verified 30 September 2015].

Boyd, D., Golder, S. e Lotan, G. (2010) *Tweet, Tweet, Retweet: Conversational Aspects of Retweeting on Twitter*. Proceedings of the 43rd Hawaii International Conference on System Science, January 6.

Byman, D. and Shapiro, J. (2014) *Homeward Bound? Don't Hype the Threat of Returning Jihadists* [Online]. Available at: https://www.foreignaffairs.com/articles/syria/2014-10-01/homeward-bound [verified 12 October 2015].

Flynn, M.T., Pottinger, M. and Batchelor P.D. (2010) *Fixing Intel: a Blueprint for Making Intelligence Relevant in Afghanistan*, Voices from the Field, Centre for a New American Security.

Grimmelmann, J. (2006) *Virtual Borders: The Interdependence of Real and Virtual Worlds*, Peer-Reviewed Journal on the Internet.

Heppner, P.P., Wampold, B. E. e Kivlighan, D.M. (2007) *Research Design in Counselling*, Belmont: Thomson Higher Education.

Hunter, E. and Pernik, P. (2015) *The Challenges of Hybrid Warfare*, International Centre for Defence and Security, Tallin.

Kosinski, M., Stillwell, D. e Graepel, T. (2013) *Private Traits and attributes are predictable from digital records of human behaviour*. Proceedings of the National Academy of Sciences of the United States of America, 110(15).

Lapidot-Lefler, N. e Barak, A. (2012) *Effects of anonymity, invisibility, and lack of eye*contact on toxic online disinhibition. Computers in Human Behaviour, 28(2).

Omand, D., Bartlett, J. e Miller, C. (2012) *Introducing Social Media Intelligence* (*SOCMINT*). Intelligence and National Security, 7(6), 801-823.

Peachey, A. and Childs, M. (2011) Reviewing Ourselves: Contemporary Concepts of Identity in Virtual Worlds, Springer 2011

Sumner, C., Byers, A., Boochever, R. e Park, G.J. (2012) *Predicting Dark Triad Personality Traits from Twitter usage and a linguistic analysis of Tweets*, Proceedings of the IEEE 11th International Conference on Machine Learning and Applications ICMLA 2012.

Tomes, R.R. (2003), Informing US National Security Transformation Discussions: an Argument for Balanced Intelligence, Surveillance and Reconnaissance, Defence Studies, 3(2).

Tomes, R.R. (2015) *Toward a Smarter Military, Socio-Cultural Intelligence and National Security*, The US Army War College Quarterly Parameters, Contemporary Strategy and Landpower, 45(2).

Tosoni, S. (2004) Identità Virtuali: Comunicazione mediata da computer e processi di costruzione dell'identità personale, Franco Angeli, Milano.

US Defence Science Board Task Force (2009) Understanding Human Dynamics, Office of the Under Secretary of Defence for Acquisition, Technology and Logistic, Washington DC.

The **De Gasperi Foundation** is an Italian nonprofit cultural institution created in 1982 and chaired by Angelino Alfano. From the outset it became a political and cultural point of reference for those who identify with the original European spirit of De Gasperi.

http://www.fondazionedegasperi.org/

The Atlantic Council promotes constructive leadership and engagement in international affairs based on the Atlantic Community's central role in meeting global challenges. The Council provides an essential forum for navigating the dramatic economic and political changes defining the twenty-first century by informing and galvanizing its uniquely influential network of global leaders.

http://www.atlanticcouncil.org/

The research centre **C.E.T.RA** (Counter Extremism Terrorism Radicalization) established in 2015 by the De Gasperi Foundation proposes to be a place to meet and discuss ideas in order to provide cognitive instruments that are necessary to comprehend and take on the next challenges set by terrorism on the theme of security.

http://www.fondazionedegasperi.org/c-e-t-ra/

The **Wilfried Martens Centre for European Studies** is the official think tank of the European People's Party. It has four main goals: advancing centre-right thought, contributing for the formulation of EU and national policies, serving as framework for national political foundations and academics and stimulating public debate about EU.

http://www.martenscentre.eu/