

Using social media: Online social networks - A new security challenge¹

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Abstract

In recent years, innovatory digital forms and the interactions between technology and people were expanded. Online social networks provide an opportunity for intelligence analysts to study how users interact on this area.

There are many challenges of using online social networks, both for users and for intelligence services. This paper shows the new challenges of online social networks for intelligence services and for users. We find there are conflicts between some actual practices and the traditional goals of online networks, such as communication, sharing and sociability.

Keywords: Social Media, Online Social Networks, challenges, national security.

Introduction

The purpose of this paper is to underline the idea that there are a number of challenges for national security due online social networks. Social networks and social network analysis represent a security challenge, both for individuals and intelligence agencies. The activity of many social networks may affect the national security. Actually, this is more likely to happen, taking into account that we face a great development of the online area. Online social networks are visible in the virtual field due to the social

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media. Nowadays it is obvious that social media is everywhere. More than that, social media components are in a constant development, due to the technological advances. Also, there is no age, occupation or social statute limit for users. Anyone who wants can use social media components in their work or in other activities.

Actually, social media components, especially the online social networks have extended in the business field. More companies and individuals use them as a framework to develop their work.

Last but not least, social media became accessible especially for travelers. Furthermore, free WIFI offered at almost every public place makes social media reachable.

Basically, when you operate the social media components (websites, online social networks, blogs, social platforms, etc.), people associate meanings and symbols, such as: speed, accessibility, transparency, choice, risk and vulnerability, so there are a lot of challenges for using social media, both for users and intelligence agencies who try to maintain national security.

Online Social Networks (OSN) – a component of the Social Media

Social media include: websites, wikis enciclopedies, blogs, e-mail, podcasts, online social networks or online platforms (for example Twitter, My Space, Facebook, Kickstarter, WikiLeaks, Skype, YouTube, Flickr, Rollyo, Dapper, etc), podcasts, interactive television and even virtual worlds (such as "Second life"). All these are intended to provide information through data sharing.²

“OSNs are popular infrastructures for information sharing, communication and interaction on the Internet. With over half a billion users, OSNs are nowadays a mainstream research topic of interest for computer



² POP Marta, „Serviciile de informa number 12, September 2008.

Figure no. 1
Online Social Networks
<http://socialwebthing.com/2014/05/tech-products-social-media/>

scientists, economists, sociologists. Specifically, an OSN consists of users who communicate with each other in an online setting in diverse ways. Nowadays, we have been witnessing the rise of a variety of OSN sites, which publish user-generated or aggregated content, allow users to annotate published content with tags, reviews, comments and recommendations, and provide mechanisms that enable the establishment of user communities based on shared interests".³

Due to the large number of users worldwide, online social networks have become relevant to intelligence communication strategies.

Their communication with civil society through socialization is only for information, prevention and improving the relationship between institutions and citizens. It also helps to strengthen cooperation between agencies and with the private sector and the academic one. Also, "the rapid proliferation of Online Social Network sites has made a profound impact on the www, which tends to reshape its structure, design, and utility. Industry experts believe that OSNs create a potentially transformational change in consumer behavior and will bring a far-reaching impact on traditional industries of content, media, and communications".⁴

Technological products that completed the Social Media

According to Ben Cotton, in an article published on his personal blog, named Social Web Thing, smartphones, tablets and ultrabooks are some new tech products that complete the social media field. In the author's opinion, these new gadgets are now used frequently in our activity.

Regarding the smartphones category, "social media has experienced a massive rise in popularity due to the smartphone boom, with more and more people using their mobile devices to access their favorite social media sites. Low-cost data charges also mean that smartphones today often have a constant connection, even when there's no WIFI available in the near vicinity. Moreover, all the major social networking sites have their own mobile apps that make accessing them from a smartphone even easier".⁵

³ PALLIS George, DEMETRIOS Zeinalipour-Yazti and DIKAIKOS Marios D., *Online Social Networks: Status and Trends*, accessed 27 August 2014 at <http://www.cs.ucy.ac.cy/mdd/docs/2011-SpringerBook-OSN.pdf>

⁴ *Ibidem*.

⁵ COTTON Ben, "Tech Products that Have Fuelled the Social Media Phenomenon", in *Web Social Thing*, accessed 25 August 2014 at <http://socialwebthing.com/2014/05/tech->



Figure no. 2
Technological products that completed the Social
Media
<http://www.anandtech.com/show/5294/why->

Since 2013, when smartphones have hit the maximum level, we see them everywhere because they have become a part of our daily routine. Actually, they keep us permanently connected with the rest of the world.

Very similar to smartphones, we find tablets anywhere around us, which make the access to the internet, including the access to the social media very convenient. In the acceptance of the author, "smartphones and tablets

offer the same application choices, so social network fans can access their profiles directly from an application, rather than having to navigate the mobile website offering".⁶

The third category is represented by ultrabooks, that are "one of the best options for people who want the power of a traditional high-end laptop and the portability of a netbook. This class of laptop offers a sleek chassis without compromising performance or battery life. They feature hi-resolution screens, a range of connectivity options and are very portable and stylish, also are perfect for people who want to be able to multi-task while on the go".

Overall, the convenience that mobile devices like laptops, smartphones and tablets afford has meant that social media is now more accessible.

Challenges for users of using online social networks

Information like biographical data, concerns, interests, hobbies, media affiliation, degree of social integration, position in frame structure etc., that are obtained from social networks help some criminal

products-social-media/.

⁶ *Ibidem.*

organizations or some offenders to trick users and to gain their trust and then to transform them into victims. For that reason, the social media users have to be very careful and to set a minimum of security settings on their online profiles.

All these risks can occur because of elements such as the large area investigated, unconsciousness or lack of public education on the provision of personal data and privacy details, poor protection of the personal computer and using public terminals to access important personal accounts, lack of discipline policy on Internet use in public places.

Social media components, including also the online social networks, have the power to influence the behavior of individuals by the mere possibility of being observed. Susan Barnes (2006) observed the paradox of living in a society in which individuals disclose personal information online under the impression that they remain private, while government agencies and companies or even criminal organizations collect data about users.

The most common challenges that internet users face on social media products are: spam, scams, phishing, clickjacking, malicious applications etc.

Characteristics of social networks that make them interesting from the point of view of the information available about users are: the persistence (what you post remains available), the ability to search (you can relatively easily find someone), replicability of digital content (pictures can be given away, shown, reposted) and invisible audience. For these reasons, users tend to adjust messages and behavior in accordance with rules of conduct perceived as acceptable / desirable (Boyd and Heer 2006).

Given the risks of disclosure of personal information in the online environment, users are generally cautious in disclosure of data. Miller Maier, Goya-Martinez and Schuler (2008) found that users are generally careful about posting personal information, a few posting information such as telephone numbers and addresses, although younger users (18-19 years) reveal more than adults.

Summarizing, the big social media challenges that users (even individuals or companies) face represent the answers to the next questions:⁷

⁷ ***<http://www.slideshare.net/randfish/the-10-big-social-media-challenges-and-how-to-solve-them> accessed at 29 August 2014.

With whom should I interact? – sorting information by social authority can help ID influential accounts that may not have huge follower counts;

What should I share? – it is recommended not to share personal information with strange persons, just with real “friends”;

When should I share? – when user’s audience is online and more than once when users want to share information that they really want to be noticed;

How do users get more people to see their shares? – Information that no one has seen before have a great impact;

Which Network are right for each user? – The response is where their audience’s influencers are most active and receptive;

How can users increase the number of followers on Social? – By sharing great, useful and interesting things that get amplified, by creating a conversion point from other trafficked channels, getting influential accounts to mention them and participating in events;

What formats should they use for sharing? – Users have to test and see what works better for them (first they look at the quantity – the number of different post types on online social networks and second, they look at the quality of the posts (by Engagement Rate));

How much time do they need to commit to social sharing and engaging? – Actually, quantity matters less than consistency. They can share intermittently, replying and engaging on social media while they are catching up on their daily reading and email;

How should they track success in social media? – Rand Fishkin, on his presentation on Slideshare platform, presents which metrics are worth tracking, so he compares the online social platforms Facebook, Twitter and Google + taking into account the audience, conversation, amplification, applause and traffic in the form of the table below:

Social Media Metrics					
	Audience	Conversation	Amplification	Applause	Traffic
facebook	Page likes	Comments	Shares	Likes	Visits from Facebook
twitter	Followers	@ replies	Retweets @ mentions Brand/site mentions	Favorites	Visits from Twitter
Google+	Have You in Circles	Comments	Shares Brand mentions Name mentions	+1s	Visits from Google+

Figure no. 3
Social Media Metrics
<http://www.slideshare.net/randfish/the-10-big-social-media-challenges-and-how-to-solve-them> slide no. 36

Challenges for intelligence agencies

The evolution and dynamic nature of contemporary society have influenced the work of intelligence agencies. The development and the increasing use of social media have developed two directions: to support on the one hand, and to threat and challenge on the other hand. In the intelligence community, the development and the increasing use of social media components produced major changes also in the methods of collection and analysis steps.

Some intelligence services have created their own closed circuit networks as to facilitate communication between their agents worldwide. Social networks can also be used by intelligence services in order to recruit potential agents. They offer candidates the opportunity to become familiar with the work of



the organization.

Social media components provide some opportunities, but also many challenges for the intelligence agencies that led to the idea that these can threaten national security. Therefore, the most common challenges posed by technological developments of the social media elements, including online social networks, that have led to uncertainty in the intelligence community are: organized crime networks, criminal networks, cyberterrorism, facilitating the leaks (by posting photos, videos, presence in some places), recruitment, promotion and indoctrination of ideologies that threaten the national security, collection of personal information about potential victims, viruses infiltrated through online applications.

Figure no. 4
Collaboration in social media
<http://www.smedio.com/7-social-media-challenges-you-will-have-to-overcome/>

The main problem in the analysis of online social networks is collecting posts that may be used later for content analysis. Thus, those who penetrate the existing networks need to have access to the content information. Then, the role of crawler type programs, or those devoted to content analysis, is crucial, as they can determine the presence of potentially suspicious messages with high repeatability, and the intensity of ties between individuals.

Also, referring to companies, and their relation with social media, it can be said that "once considered taboo by organizations, social media is now a key component for the development of products for collecting feedback and interaction with customers. However, many companies do not have a coordinated approach to use social media in their organization".⁸

Social media has reinvented the relationship between organizations, customers, employees, suppliers and regulators. Along with the many opportunities that social media generates, there are also other challenges, such as security, privacy issues, regulatory requirements and compliance aspects of time use by employees and business tools to manage social media.⁹

⁸ CRĂCIUN Marian, *Social media: o provocare ce nu mai poate fi ignorată*, accessed 26 August at <http://gadgetrends.ro/2013/04/12/social-media-o-provocare-ce-nu-mai-poate-fi-ignorata/>.

⁹ Idem.

Conclusions

Today, a lot of things are about social media. Many authors and specialists on the field think that if you are not active in this area, you are not part of cyberspace anymore. The concept of Social Media is top of the agenda for many business executives today. Decision makers, as well as consultants, try to identify ways in which firms can make profitable use of applications such as Wikipedia, YouTube, Facebook, Second Life, and Twitter.¹⁰

Social networking activity has become most popular in today's Internet world, with billions of people across the world using this media to meet old friends, make new friends, to collect and share information. Social networking while being a popular media has several disadvantages associated with it. These sites can be trapped by scammers or hackers leading to loss of confidentiality and identity thefts, of the users.¹¹

Among the challenges faced by communication on social media specialists currently include: understanding how different social media websites work. In the USA, there is a list of books dedicated to this topic: establish communication opportunities, the challenges and risk communication through social media platforms type; differentiating social networks, strengths and their weaknesses, especially to compare Facebook to MySpace, Facebook and Twitter, Facebook and Tumblr; it tries to determine "rules of behavior" in the online environment and the difference between traditional PR and online PR; analysis of trends in social networks - applications emerging, new methods of use; identify the best tactics for promoting organizations through social media. Chad Norman, the specialist in online communication (2009) proposes a list of tactics to promote an NGO. It recommended the P.O.S.T. method for developing a social media program; measuring the effectiveness of communication in social networks.¹²

An actual trend for social media is represented by a new technical evolution, namely mobile social media. This is laying the groundwork for

¹⁰ KAPLAN *Andreas M., HAENLEIN Michael, *Users of the world, unite! The challenges and opportunities of Social Media*, Accessed 26 August at <http://michaelhaenlein.com/Publications/Kaplan,%20Andreas%20%20Users%20of%20the%20world,%20unite.pdf>.

¹¹ *Social Networking Risks and Challenges* accessed 29 August at <http://infosecawareness.in/students/social-networking-risks-and-challenges>.

¹² ***<http://www.informatiiprofesionale.ro/marketing/social-media-e2-80-93-o-noua-provocare>.

moving social media applications away from desktop PCs and laptops toward mobile devices. Referring to that, according to specialists, the market for mobile web 2.0 evolutions will keep growing.¹³

A Ernst & Young study shows that 38% of organizations have a coordinated approach to the use social media in their organization. The result is an overall increase in risk and a limited ability to fully exploit social media channels in the future; Organizations with a formal approach in using social media often choose to mitigate risks by limiting or banning access to social media sites (45%), adjustment policies (45%) and implementing outreach programs (40%).¹⁴

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