

## INFORMATION ANALYSIS, ESSENTIAL TOOL FOR BUSINESS GROWTH

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**Abstract:** *The business environment is based on a complex structure of internal and external processes through which all the activities used to generate services or products are integrated. Knowledge, analysis and management of useful information of these processes is a prerequisite for the development of any organization. In order to increase the performance indicators of an organization, it is necessary to apply the techniques of analysis, modeling, control and continuous optimization of internal processes. In an economic unit, internal processes, whether or not they involve a human operator, refer to the controlled movement of information in order to facilitate decision-making or to deliver goods or services to internal or external customers. Information analysis and business process information analysis techniques include identifying, decomposing, and modeling process flow, resulting in one or more process and subprocess diagrams down to activity and task level.*

**Keywords:** *information analysis, OSINT, management, analysis techniques, data flows and information.*

**JEL Classification:** *M1, M15, O11.*

### 1. Introduction

Modern analysis techniques are becoming more and more complex, the amount of information available at any given time is becoming very large. From a business perspective, the need for information is also on an upward trend. Until recently, the dominant idea in the business environment was that the one who has the most information is also the strongest. The enormous volume of data and information makes it necessary to clearly differentiate between useful and useless.

The efficient use of existing information sources in the online environment has become extremely important. One of the most important and frequently asked questions in the business environment is: how can we filter, analyze a volume of data in such a way that the company's information needs are met to the greatest extent possible, with the lowest possible costs?

Information analysis deals with a current problem of modern society, the need to obtain information that gives the ability to act, namely intelligence (intelligence is "the element that can be coded to be stored, processed or communicated; it is the product of collection, processing, integration, analysis, evaluation and interpretation of available data on areas of interest" (Nicolaescu and Simileanu, 2004)). The usefulness of this type of information is increasing with the evolution of technologies.

Information is an important factor in the production process, but increasing the amount of information leads to the concept of information analysis and intelligence creation, which will make the difference between two competitors who have similar economic activities (Fuld, 1995, pp.24-25).

Information analysis is an important tool to highlight the benefits and eliminate the risks, taking into account certain aspects / objectives:

- ✚ highlighting the characteristics of the concept of "intelligence" from an economic perspective and, in particular, so that it can be used properly within the company;
- ✚ highlighting an innovative method of qualitative analysis of information that can be used in the production cycle;
- ✚ adapting the Competitive Intelligence process to the specifics of Romanian companies and materializing the result in a guide to using the integrated analysis of information as part of the Competitive Intelligence process, in the strategic approach to obtaining sustainable competitive advantages by the company;
- ✚ supporting Romanian companies in order to increase competitiveness by using new means to obtain sustainable competitive advantages.

Marketing techniques, market research and analysis techniques and types (Big Data, Business Intelligence), and the analysis of information from the competitive environment can ensure the achievement of that degree of innovation necessary to obtain competitive advantages over economic competitors.

If the financial, quantitative analysis, and even the study of the facts in the competitive environment are known ways, used by most Romanian companies, combining them with qualitative methods specific to the analysis of information from the competitive environment will certainly bring innovation and added value.

The strong point is represented by the possibility to study new concepts presented in detail in the specialized literature abroad, but especially to transpose these concepts on the Romanian market, where innovation is necessary.

## **2. Collecting OSINT information and converting it into information**

Employees who specialize in collecting information from open sources must have skills in managing news and articles on the Internet, print or news agencies, audio-video material from TV stations, radio, and other types of material, such as documentaries, reports, analysis, statistics, including from open source databases. The rapid change in the open source table - especially the development of new media - and the transfer of most of the content of traditional sources in virtual space, along with trends in the evolution of the characteristics of the information provided, have significantly increased the complexity of search and processing skills their<sup>1</sup>.

"New media" does not have a generally accepted definition, being perceived differently by different categories of users, but the conceptual core of the notion indicates any digital media product that is interactive and distributed through computer networks, or all texts, sounds, images and graphics processed on the computer and gathered in databases.

The sheer amount of information - the huge number of corporate / personal websites, blogs, public forums, social networks that already account for hundreds of millions of accounts - the exponential growth of user-generated content and the diversity of languages / packages in which information is delivered are challenges which translate, from the perspective of the need to manage them, into distinct training objectives, such as:

- ✚ acquiring in-depth and specialized knowledge of surfing and operating the Internet;
- ✚ developing the skills to identify the best sources of information;
- ✚ acquiring skills regarding source validation;
- ✚ data search methods and techniques;
- ✚ acquiring skills for data validation and organization;
- ✚ development of processing techniques.

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<sup>1</sup> Information asymmetry theory is a concept introduced by the 2001 Nobel laureates in economics, George Akerlof, Michael Spence and Joseph Stiglitz, and is the study of transactional decisions in which one party has more information than the other.

### 3. Steps for the development of an analytical product using open sources of information

Finding and using data and information is a process during which one identifies, as completely and thoroughly as possible, what has been written about the subject before.

- *Identifying the data and information needed to document a particular topic can be seen as a process that begins with the preparation for the search for information and continues with the implementation of the search. After the search, the result is evaluated to decide on the relevance to the topic addressed and the efforts made to achieve the original objective.*
- *Finding data and information, collecting and converting it into information, starts with understanding the topic to be documented, and at the same time, determining the type of information to be found. Establishing, from the outset, the type of data and information to be identified, speeds up and at the same time facilitates the whole process.*
- *Familiarization with the terminology and concepts used in the field of documentation is also an important step in the process of searching for data and information. This is done through the initial search that allows you to identify other keywords that describe the topic, which will later be used for a systematic, more accurate search. If you use a string of keywords that describe the documented topic to search, it is recommended that you also perform a secondary search that uses alternative terms, synonyms, or similar concepts.*
- *The elaboration of the informative product is the stage that supposes the most complex and in-depth training of the worker in intelligence from open sources, fact for which the OSINT trainings focused on the analysis of the information are the most consistent, elaborated and extended.*

Continuous training and improvement of open source information analysts is essential to increase the quality of the information products they prepare, with training in this area having the role of specializing the worker on certain types of analysis (depending on the needs of the organization). as well as to ensure its constant maintenance in an area of knowledge of the elements specific to the main intelligence activities (knowing that the omission or ignorance of some important aspects of the analyzed situation may alter the usefulness of the product delivered to beneficiaries).

The complexity of the activity of elaborating an analytical information document dictates the careful structuring of the trainings in clearly delimited modules according to the proposed objectives.

Currently, the criteria for formulating these objectives are mainly set by:

- the type of analysis of the information for which the workers are trained;

Tactical, strategic analysis, trend analysis, risk analysis, predictive analysis - these are just a few examples of areas characterized by their own means and methodologies for creating materials in an integrated format.

- monitored spaces;

The oscillation of the poles of instability over certain periods of time and in different spaces determines the focus of OSINT analysts' attention on the respective regions / states, in order to inform the beneficiaries extensively and operatively, respectively to support as effectively as possible the decisions relevant for national security.

- the issues they are responsible for;

Treaties separately or interconnected from the perspective of the causality of certain developments, issues such as terrorism, proliferation of weapons of mass destruction, organized crime, economic security, frozen conflicts, extremism, radicalization and religious fundamentalism, etc. they imply specific methods of approach in the analytical

documents, especially from the point of view of their inclusion in certain types of analysis and of the resources used in the elaboration of the informative products.

#### **4. The use of social networks in Romania and the advantages of OSINT analysis**

The social media industry is constantly evolving to keep up with the trends and requirements of users, being almost impossible to predict how they will look in just a few years.

The fact that social media users are becoming more aware of how their data is being used creates problems of transparency and confidentiality, so that the social networks of the future place more emphasis on privacy.

Online social networks are of great importance, being important sources of information for various fields: social, political, economic, civic and educational. Social networks can provide considerable benefits in terms of communication and user relationships, as well as useful information for making predictions based on the analysis of the huge data flow they generate.

Online social networking platforms have evolved significantly in recent years and, in the context of the expansion of the Internet, have become useful economic tools in many countries, now helping governments to engage in dialogue. They understood that they could not isolate themselves and that they could provide better services when involving and consulting the citizen in the act of governing.

Thus, social media is one of the most commonly used ways to create online communities, based on common values and interests. Online communities can create, use, and share large volumes of data and information, lead to the creation and development of new social trends and behaviors, and determine their current and future evolution.

Appreciation: Social networks help build relationships, communicate with others at low cost, help with career opportunities, express thoughts and feelings, and play an important role in everyday entertainment. At the same time, they destroy the value and quality of real interpersonal relationships. It is a distraction from the important things in real life.

These online platforms come in several forms:

- ✓ Social news: dedicated websites where the user can read about various topics and can give feedback by voting or commenting on articles;
- ✓ Social networks: platforms that allow user interactions, publishing and recommending content based on personal accounts;
- ✓ Blogs / forums: this type of platform belongs to some people / communities that approach general or personalized content;
- ✓ Photo / video sharing: These types of platforms allow you to upload and publish content for sharing, sharing and receiving feedback from other users.

Social networks are in full virtual expansion and are the result of the increasing use of revolutionary technologies, which have led to a significant change in society:

- ✓ appeared as important means of communication;
- ✓ exchange of information regarding different social events, personalities or ideas;
- ✓ the development of technologies and the internet has led to an increase in the number of users;

The increasing percentage of people who use the Internet to access such virtual communities has led to the development of existing social media platforms and the emergence of other social networks.

- ✓ The activity, more and more increased, in the virtual environment was noticed by groups of people who have formed organizations, who saw in the online field a new way through which they can fulfill their goals and objectives;

## 5. OSINT analysis in intelligence information management

Perhaps the biggest challenge today, in terms of disseminating information, is connectivity. People are constantly connected to reality through social networks, where open sources are present, which have become almost perfect channels for disseminating information.

One of the biggest advantages offered by OSINT is the possibility to evaluate the way in which the information is received, the reactions of the readers on the public accounts of the media sources to the social and economic stimuli, to the political events. And here we are not talking about individual reactions, particular positions, but about currents of opinion, mass reactions, extremely important to identify in conducting evaluations and outlining future scenarios of evolution of certain situations or phenomena.

Given the fact that, over time, technology will evolve dramatically, but human nature is almost imperceptible, OSINT is the field of intelligence best prepared to meet this kind of challenge.

The OSINT<sup>1</sup> analyst thus becomes that "magician of information", with the role of seeing the big picture, of connecting the pieces of a puzzle, thus transforming the immense amount of information to which we have access into a knowledge of the present, but more chosen of the future.

*It can be concluded that through OSINT a large part of the information needs can be filled and thus a decongestion of the other collection resources is achieved, allowing the latter to concentrate the effort on other types of information. Open source is best suited to prevent other intelligence disciplines on topics of interest, especially given that freedom of movement has greatly increased media organizations' access to information.*

## 6. Conclusions

- Acquiring the theoretical knowledge necessary for orientation in the open source space, along with acquiring the skills / competencies required for the practical development of OSINT activity is an increasingly important segment in contemporary intelligence, given that recent paradigm shifts, weight reduction traditional models and the development of technology draw new conceptual and global action coordinates.
- The unclassified nature, the extremely generous volume of information, the quality and complexity of the resulting products, as well as the possibilities of worker interaction indicate open sources as the most environmentally friendly working environment in intelligence, mainly from the perspective of variety of sources and fields. decisively.
- The OSINT trainings currently carried out at the level of the most developed intelligence communities or in a collaborative, inter-institutional and inter-state format, manage to ensure, to a significant extent, the qualitative leap of human resources within the intelligence organizations. effectively prevent and combat new forms of security threats.

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<sup>1</sup> The analyst is limited in his activity by the horizons of his own knowledge, the result of a language barrier or the absence of knowledge in other fields than those traditionally associated with the environment in which he works.

- The GDP of the countries seems to be strongly correlated with the spread of the internet, the richest countries having a higher penetration of the internet and vice versa.
- Facebook and WhatsApp are the most commonly used messaging applications and are owned by the social media giant Facebook.
- The social networking platform Facebook will represent in the next period the most important communication channel, with potential not only for information and organization, but also for training and influencing the opinions, attitudes and behaviors of the population.

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