



## SOURCES OF INFORMATION AND ANALYSIS POSSIBILITIES

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**Abstract** *We live in an era in which information is ubiquitous and can be found in various forms, whether we know or not know of its existence. Thus, in every area, but especially in business intelligence, information is paramount. The view that information is power remains as true today, but the importance of this power has grown thanks to technological developments and tools that can be used to manage the means of knowledge.*

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### 1. Introduction

Herbert E. Mayer defines business intelligence as "all operations of collecting, filtering, analysis and dissemination of data and information products, actionable intelligence value to meet the needs of a specific consumer" (Tanase, 2006).

The main information sources in the intelligence community are public sources and intelligence sources (Reuser, 2007).

### 2. Open source intelligence – description and main categories

The first big category, **public sources**, known in the field literature under the name of **OSINT** (Open Source Intelligence) are open and official source which is publicly available, they may be in electronic or hard copy transmitted via television, radio, newspapers, electronic databases etc. This information may be offered to the general public or to various specialists. The main categories of open source are (Sebe, n.d., curs online):

- *traditional media* – this category is the leading provider of information and it is represented by: television and radio, news agencies, various publications. In terms of the broadcast area, these sources can be: regional, local, national or international;
- *libraries* – are another category of open source information. → This information can be found in

books, specialty papers, theses etc. They may be spread by mail or computer;

- *Internet* → this open source has grown exponentially in the last decade, both the amount of information conveyed, and the number of users. Internet as an open source of information is extremely important, on the one hand, through the online communities, content generated by users, social networks, blogs, online libraries etc., and on the other hand, what new media call today. New media are moving in the classic online media, today we speak of televisions, radios, magazines, newspapers etc that conducts its business in the online environment. They create and conceal information in real time or near real audience in the online environment which is increasingly higher;
- *grey literature* - includes classified information aimed at a limited audience having limited access. Suppliers of this information can be corporations, governments, academia, research institutes and even political parties. These sources provide information that generally cannot be found in published sources, it is detailed, and as the online environment has developed, it is easy to obtain;
- *information in academia*. → this information is contained in various academic papers, articles and presented at conferences, symposia, round

tables, etc. Official figures have as sources: various government reports, demographic statistics, legislative debates, press conferences and information from professional and academic backgrounds;

- *individual or group data*, are represented by various handwritten data, painted, listed, such as graffiti, flyers, brochures, posters, photographs, so on.

The OSINT analysis is a critical strategic capacity for the decisional factors, by providing a general image of the context as well as warnings in terms of the major aspects of the security agenda, so that these decisional factors can set and, especially, implement policies designed to ensure long-term advantage over competitors (Romanian Intelligence Service, n.d., p.2).

The multitude of the opened sources make information circulates and spread rapidly. Under this context, a good information analyst of open sources has the mission to evaluate the media stream, thus building up the image of perspective through the connected events and through showing risks (Romanian Intelligence Service, n.d.).

### 3. Secret sources and ways of gathering intelligence information

From the second category, representing secret sources, one can find human and technical sources.

The human secret sources also called **HUMINT** (Human Intelligence) in the field literature represent a way to collect information from people, as well as a platform to gather data and information (Axente, 2005). One can say that HUMINT is a form of collecting information from human sources such as individuals who accept to look for and provide information by guaranteeing identity and secret on the link set with the information service (Troncota *et al.*, 2014).

In such category, information are collected through any of the five senses of the individual, by seeing, hearing, tasting, smelling, and touching. The human secret sources represent the most complex part of the activity of any information service. Behind the technological progress and the OSINT development (Open Source Intelligence), a human support is essential to collect and check national security information (Romanian Intelligence Service, n.d.).

The selection and training activity of officers who work as human resources is critically important, as they need to prove a high intelligence.

Technical secret sources are represented by integrated systems which are made of different technical means – optic, electronic, mechanic, audio-video, photo, physical and chemical – or of a combination of all these, used to intercept, capture or

process any information. These sources are: the operative supervision, radio electronic research, information investigations, secret assertion, operative report and exchange of information of similar structures of all allies. In general, they use such means of getting information exceptionally, only after exhaustion of all the other means and specific methods (Romanian Intelligence Service, n.d.).

In the literature field practice, the following names are used (Troncota *et al.*, 2014):

- **COLINT** (Cooperation Lison Intelligence) representing information gathered through connection and cooperation operations;
- **IMINT** (Imagery Intelligence) which is information gathered from sources specialised in proceeding image;
- **PHOTIN** (Photographic Intelligence) in which information is gathered based on photo, video supervision;
- **RADINT** (Radar Intelligence) in which information is gathered by means of radar;
- **SIGINT** (Signal Intelligence) in which information comes from sources in an electromagnetic spectrum;
- **COMINT** (Communication Intelligence) with information coming through interception of communication and data traffic;
- **ELINT** (Electronic Intelligence) with information coming through electromagnetic traffic not belonging to communication.

The mostly used ways to gather HUMINT information are:

- **Observation** which represents the direct supervision of the studied objective, either directly, or by means of some optic devices, both by day and night. This is a passive exploratory or descriptive method in which the observer does not interact directly with the observed factor (Cătoiu, 2002), he does not communicate directly with the latter, thus not implying special risks.
- **Listening** is a way to gather information through the direct use of the hearing organs or, directly, by means of the modern listening technology. The gathered information is varied, and the value is in direct ratio with the information value of the listened person.
- **Investigation** is the active way to gather information from persons who know or have access to data of interest based on well motivated discussions.

#### 4. Methods and techniques for intelligence analysis

The present concern in the field of systematization and theory of the activity of information analysis is focused on the idea that the intelligence analysis should avoid empiric approaches and should come back to the scientific approach to involve measuring, calculus, comparisons in terms of quantity and quality, explanations and anticipation, given the selected analytical matrix (Nițu, 2011, p.46).

The intelligence analysis also implies the use of both scientific methods and techniques which ensures a scientific aspect as well as imagination and intuition, elements which characterised the analyst, inborn features which can be obtained and trained in time.

Thus, we may say that the intelligence analysis activity is, on one side, a science, as it needs scientific methods and techniques of qualitative and quantitative nature, by applying and respecting certain stages and, on the other side, it is an art as it requires that the intelligence analyst should get a series of cognitive features which represents the bases to extract correct information for the decisional factors.

The analysis is a filter, connection and objective interpretation process of the data gathered from secret or open sources which is essential in any activity of any information service.

Below are presented the most important steps to be followed by the analyst of secret information in order to obtain information as it comes out from the specialism theory.

**Problem assertion** – it is the first and the most important step in the analysis of the intelligence data process, as it traces the limits of the domain given the topic relevance (selected by the analyst or required by the beneficiary), also the variables of the operational context and the objective limits to characterise both the gathered data and the initial approach of the beneficiary in terms of the chosen topic (Nițu, 2011, p.49).

During this step, it is critically important that the analyst should understand the expectation and needs of the beneficiary, so that there should be a permanent and direct communication at this stage, for the better orientation of the analytical procedures.

A correct and accurate definition of the matter generates the premises of initialising a valuable research and analysis, but an unclear presentation of the matter might tend to lead to numerous difficulties in supporting scientific hypotheses in sustaining factual elements which are relevant, or in extracting only those favorable arguments in sustaining some false hypotheses.

**Generating research hypotheses** – in the intelligence analysis, all the plausible hypotheses

should be taken in consideration in terms of a certain matter. In order to avoid any preconceptions of the analyst, alternative hypotheses could be used, such as:

- *Situational logics* through which an analysed situation is perceived like a unique configuration of facts, connections and factors which need a lot of understanding in the context of manifestation, thus trying the most exact identification of the ratio between cause and effect, or of the relation between means and goal when it refers to intentional subjective behaviour (Nițu, 2011, p.49). Thus, starting from a serious of already known elements about the analysed situation, the research officer should try to identify a series of antecedents and logical consequences of the case, by setting a scenario to explain both the analysed case origin as well as to anticipate some possible evolutions;
- *Applying the „acknowledged theory”*. This theory says that if a situation gets a certain sets of condition, it may develop, most probably, following a similar scenario to those already stated by the initial elements, of the same origin;
- *Comparison with antecedents* consists in considerations on a long term some situations and evaluations coming from the case history in order to fill up the gaps of the present.

**Selecting information** – At this stage, the analyst should select the gathered information taking into account the relevance and their evaluation in testing hypotheses. Moreover, the analyst should not limit himself only at the available data, he should intervene in directing information if this is imposed, just to be able to evaluate an ever larger number of possible hypotheses, including those from different regions the issuer did not consider.

**Evaluating hypotheses** – In practice, the rigorous selection of hypotheses is necessary to discourage the analyst's temptation to evaluate a „convenient” analysis by using empirical arguments or counterproductive strategies, among which (Nițu, 2011, p.51):

- *Satisfactory hypotheses* – selecting first hypothesis which seems to be „good enough”, in spite of examining all the possible variants in order to find out the optimal one, in a real way;
- *Superficial hypotheses temptation* – ignoring major hypotheses, really significant ones and concentrating on a restricting set of hypotheses regarding marginal issues of the analysed case;
- *Comfortable option* – assuming uncritically the considered hypotheses to have the largest support;

- *Avoiding arguments* – description of the topic is accompanied by the simple enumeration of the possible variants in explaining a phenomenon without exposing arguments justifying the choice and their differentiation in terms of the probability degree.

Generally, the most probable hypotheses is not the one funded on the most numerous arguments, but the variant with the least counterarguments, for which reason, while selecting hypotheses, the analyst should operate by eliminating the improbable or less probable ones more than trying to acknowledge the accuracy of the probable ones. A well conceived product enlists all the rational hypotheses, quotes arguments, supporting the conditions of the selection, ranks them using a scalar representation of incertitude and, at the same time, justifies synthetically the rejection of the less probable alternatives.

**The continuous monitoring** of the newly issued information – Inside and during the analyses, there may appear information and a series of new data which might change radically the matter parameters. To reduce the premises of a distorted perception, the intelligence analyst should pay a special attention to the way in which the new information interacts with the already obtained information, by noticing the changes that might appear.

### Conclusions

The presented data from this paper and others related could show that the intelligence activity is a complex, scientific activity based on data and information gathered in different forms and from different sources, which is analysed to the aim of obtaining a coherent, general image to set certain decisional matters.

The analysis activity is a refining, complex process equally involving intelligence, critical thinking and creativity of the information analyst, as well as good control of the analysed field.

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