Open Source Intelligence for organization's knowledge: the Italian context

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Introduction

Open Source Intelligence (OSINT) is the activity of discovering, discriminating, gathering, validating, analysing and distributing information. It refers to sources which are open, public, accessible and unclassified (Fleisher, 2008). The **OSINT analyst** is the professional figure for this activity.

OSINT could be determinant for organizations in order to create, manage and shape knowledge. OSINT and organizations get in touch adopting the approach of von Bertalanffy's General System Theory (GST) dated 1968 and applying the Butera's network organization model (1997), characterized by cooperation, communication, knowledge and community.

An organization is strictly connected to, and influenced by, the internal and external environment; an integrated intelligence system should be created, which includes the observing unit together with the observed one (Nacci, 2014).

Research questions

The prior aim of our study is to investigate the methods and strategies most frequently applied in the Italian OSINT context, to define requested skills and competencies and to highlight the critical aspects in OSINT field. We propose a job description associated to Holland's personality codes: as early as 1959 he stated that personality, values and abilities influence job vocational choices.

In 1999 Heuer (a CIA analyst) published the handbook of *Psychology of Intelligence analysis,* bringing to the intelligence field principles of cognitive psychology in order to integrate the training and to counter the analysis biases. Cannavicci (2006) showed the same interest in the link between intelligence and psychology, with particular regard to the lateral and inferential thinking.

We have found a gap in psychology literature on the training and recruiting aspects, our question is about this implementation: **can OSINT training and practical activities be supported by psychological theories?**

Method

Email interviews were conducted focusing on job definition, applied methodology, KSAs on a sample of 8 expert OSINT analysts, following Bowden (2015) suggestion to allow participants more time to reflect and provide thoughtful answers. For what concerns the exiguous number of participants it has to be noted the really hard availability of OSINT analysts.

Our research built on von Bertalanffy's GST linked to the importance of the informative outer explained by Butera.

A bottom-up qualitative analysis has been conducted, following a grounded theory's perspective, to broaden and enrich the driving systemic thoughts.

We have detected some key patterns frequently found in participants' comments and we have collected meaningful information able to identify the job characteristics.

Results

The OSINT analyst's work can be done in several fields, such as: political stability, counter terrorism, reputational risk, competitive intelligence and marketing.

There is a common attention for the application of tidy and logic methodology; critical issues concerns the analysis accuracy, information credibility and sources reliability that analysts tend to resolve adopting a systemic analysis approach, as explained in the example below:

> **Ex. 1**: «a *recursive* analysis is conducted following the *relationship chain*».
> The process is recursive and every new information added starts a new iteration, while it is important to maintain an overall view.

Both information and sources are processed with a systemic approach, as confirmed by the following examples:

> **Ex. 2**: «a significant aspect of methodology is the *information crossing*, to create integrated narrative elements».
> **Ex. 3**: «the customer is already a source».

Several opinions highlight the need for dynamic cognitive competencies: it is a very active work given its unpredictability and the variable time schedule; we match this competence with the Holland *enterprising* code, the following citation will explain our vision:

> **Ex. 4**: «the open source analyst has to be *liquid* in terms of competencies, flexible, open minded».
> The adjective *liquid* suggests that the job is dynamic, never the same and the analyst needs to possess adaptability.

Many others participants underline the importance of applying critical thinking, analytical and provisional capacity along with open attitudes:

> **Ex. 5**: «fundamental skills are mental openness, initiative attitude and curiosity».
> For these reasons we detect also a minor congruence with Holland's *artistic* code, it is a kind of job basically unconventional.

OSINT analysis are supported by specific and custom tools, mainly computer-based. The activity can also be driven by human operation, for example to expand or focus the research; for this purpose a correct analysis is fostered by cognitive abilities:

> **Ex. 7**: «an analytical competence in information processing and probing skill in choosing sources is needed».
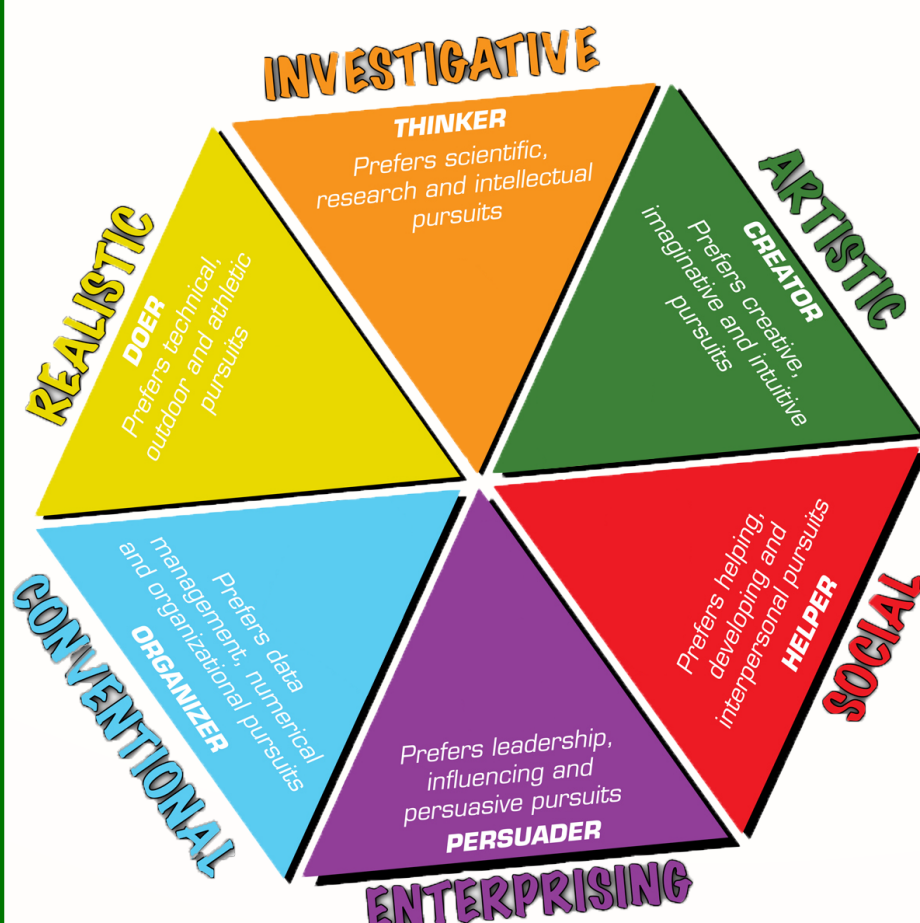
Several participants pointed out some general knowledge requested for this kind of job: there is a constant reference to a multidisciplinary approach, political sciences and international relations knowledge.

According to our transcription we can identify Holland' *investigative* type for both the prevalent analysts' attitude and the job environment, even though there is an inconsistency with the enterprising one; as someone affirms:

> **Ex. 8**: «the research extends over a long period of time, becomes almost *investigative*».

Conclusions and future perspectives

The outcome of our literature review highlights that there are no previous similar studies in the Italian context and our results could become the basis for a deeper future job analysis and training design. We are however aware of some limitation of the research: the small sample that has been considered and the impossibility to generalize our results, as it is a qualitative study.

Regarding our research question, we would affirm that a good training for OSINT analysts should include a psychological section, especially for a cognitive approach to the analysis, and to improve competencies with the intent of limiting critical drawbacks and expanding advantages.

In the next future in order to give relevance to the GST point of view we intend to investigate the organizational perspective about OSINT implementation.

According to several participants' opinion OSINT is being applied frequently to social network analysis, generating the so called SOCMINT (Social Media Intelligence; Omand, 2012) and opening a new link between Intelligence, Technology and Social Sciences.

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