

How to define the discipline of intelligence?

No better way to learn a subject than to promise others to teach about it

Once I worked for a company of which the organization was highly decentralized. Management teams of individual business units had a relatively high degree of autonomy. Their charters were broadly financial. As a result, the teams running the individual business units each more resembled the executive board of an independent medium-size company than interconnected teams within a larger holding. In that organizational framework I operated as an internal strategy consultant. To further improve the quality of our strategic plans and the related subsequent business execution I observed a clear need for improving the quality of strategic analysis underpinning such plans. As I aimed to implement this quality improvement change program across several business units, I decided to develop an in-company training on strategic analysis that I could roll-out across the various units. For the training I had set two aims:

- to build the capability of strategic analysis across the units of the company
- to define what content topics strategic analysis should cover in the upcoming year

I scheduled the training just before the start of the next year's budget cycle in the units, to ensure that any budget requirements for strategic analysis in the next year would find their way into the budgets of the units. Doing so at least secured that when work needed to be done, resources would be available to do it.

In doing so I discovered the First Law of Learning: the best way to learn about a topic is to force yourself to teach others about it. Given my commitment to train our units' management teams and their staff on strategic analysis, I now first needed to order all the thoughts on this subject that I already had accumulated in my mind upon practicing strategic analysis myself. Doing so, significant gaps in my knowledge emerged. It is striking that as a practitioner a lot of work assignments sort of intuitively proceed well, even when you don't really have a solid theoretical framework to fall back upon. Once, however, you must explain or teach others, lacking such framework becomes a major nuisance.

In search for a framework, I started researching the world of strategic analysis for business. Rapidly it became clear that in the military world, extensive research on strategic analysis methodologies had been declassified. It was just there, out in the open. Moreover, when I read through these methodologies, most of it, with some inevitable adaptation, looked to be useful in a business context as well. Forcing myself to deliver a three-hour in-company training I had serendipitously discovered a treasure trove of insights. The insights ranged from organizational and individual psychology affecting data processing to schemes describing how to classify data. During this research I inevitably often came across a word that is a bit elusive and yet is being used frequently: (market or competitive or strategic) intelligence.

Attributes provide insights where all-encompassing definitions are hard to find

Firstly, I discovered that in the various sources only some authors had attempted to define the whole beast of intelligence¹, whereas most others had been more limited in their ambition. The latter authors had simply listed an attribute or feature of intelligence. In another article I wrote on defining strategy I had struggled with this same challenge². Like strategy, intelligence has so many attributes that striving to come up with that single bullet-proof definition of intelligence may well be less useful than providing an image of the phenomenon of intelligence based on a description of its various attributes.

Thinking in attributes rather than in definitions was not new: Henry Mintzberg had fruitfully used this approach in one of his books on strategy³. I now gratefully applied his line of thinking to my drive to better understand the phenomenon called intelligence.

Not being a professional in psychology, I came across a line of thinking that to my untrained eye looked like additional support for the attributes' approach I had planned to use. In his book *'The undoing project'*, author Michael Lewis describes the psychologist Amos Tversky's thinking on 'Features of similarity'⁴:

*"He [Tversky] argued that when people compared two things, and judged their similarity, they were essentially making a list of features. These features are simply **what they notice** about the objects [...] The more they [i.e. the objects] share, the more similar they are, the less they share the more dissimilar they are."*

This implies that the absence of a feature is also a feature:

"Similarity increases with the addition of common features and/or deletion of distinctive features"

Tversky's description of how humans view objects - even abstract objects such as distance or intelligence or strategy - intuitively hit home. Hence, humans unconsciously define objects as the sum of their features or attributes - with the absence of features of an object also being weighed in. This was exactly what I had observed in my sources when they wrote about the phenomenon of intelligence. When this is how humans build their understanding of objects in general, why not apply it to the object of intelligence?

As a structuring step I had already a decade ago decided to list the definitions and attributes on intelligence when I came across one. Whenever I discovered a noteworthy new definition or attribute, I had recorded it. By now, I believe I have collected enough definitions from a sufficiently wide range of sources to start analyzing and sharing. I thus decided to:

- share all the raw material I had collected (see the appendix below).
- synthesize in a meta-analysis what looked like pervasive attributes of intelligence.
- write out those attributes to better understand the elusive phenomenon of intelligence.

Hence, my objective in writing this essay is to share what appears to be the key attributes of intelligence.

Intelligence as a term has several meanings

The first thing that comes to mind when considering the word intelligence is that it has several meanings. I have come across at least six meanings:

- .1. intellect, as in: she uses her intelligence to solve this puzzle.
- .2. outputs or products of strategic analysis.
- .3. the process of collecting, analyzing and reporting data.
- .4. the process of collecting data from a particular type of source, as in: OSINT or Open Source Intelligence, but also in business intelligence (data originating from within a company and related only to the company that assigns the work) or in market intelligence (data originating from and related to the environment outside a company that assigns the work).
- .5. the process of collecting, analyzing and reporting data focused on a particular target topic or target customer, as in: military intelligence, focused on solving military puzzles or competitor intelligence, focused on analyzing competitors or competitive intelligence, usually aiming to deliver input for a company's competitive strategy.
- .6. the process of covert action executed by a Government to secretly influence situations in foreign countries.

The first and the last meaning of intelligence are irrelevant in a business context and thus out of scope of this essay. If you think the above six meanings are already plentiful, I am delighted to refer you to a source that lists 88 different INTs⁵. In this essay I stick to the four meanings already mentioned and the definitions and attributes that I collected. Analyzing the various attributes and definitions that I listed in the appendix, the following insights have been synthesized.

Insight one: intelligence describes the discipline, the agency and the outputs

No matter how many INTs are described in literature, the word intelligence describes both the output and the process of creating the output. In addition, a (market) intelligence department is the organization that is tasked with the process of intelligence to produce intelligence outputs. In this aspect intelligence seems to resemble painting. The word painting also means both the tangible product as well as the art of producing a painting (as a form of the verb *to paint*), with the painter being the one who does the painting. Occasionally one indeed comes across the word intelligencer, but more commonly the individuals involved in intelligence are referred to as collector or as analyst. In business collection is comparatively simple – being normally mainly focused on Open Sources – so the word analyst generally covers all market intelligence tasks. Like painting, intelligence as a process is also more an art form than a science, as it rests on heuristics and sometimes even on the various tastes of the decision-maker that the intelligence is to serve. The role of the decision-maker's taste in the style and shape of an effective intelligence deliverable has been elegantly if somewhat uncritically been described in an analysis of how US Presidents wanted their daily intelligence brief⁸.

Insight two: intelligence is a craft not a science

Intelligence (products) are rarely free of ambiguity or reproducible. They describe possible futures in terms of probabilities rather than in certainties. All the above shows that intelligence as process and as product – even in times of big data – remains more of a craft than of a science, notwithstanding the fact that extensive scientific methods are used in the intelligence collection and analysis process.

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Insight three: intelligence relates to competences and intents of other parties

In almost all definitions, intelligence covers a discipline that is focused on understanding the outside world in which an entity operates. For a country, the outside world may consist of foreign countries or of non-government actors like NGOs. For a company, the outside world consists of suppliers, competitors, customers, but also of NGOs, political decision-makers and possibly many other relevant external actors.

For these actors, intelligence covers two distinctly different topics; it is focused both on other actors' competences and intents. Competences are what an actor can do (competences and capabilities may be used as synonyms in this context).

Intent is what the other party wants to do. In competitor intelligence, a competitor competence for example can be the maximum output capacity of their plants for producing a product. Intent captures in what geo-market and or in what channel the competitor aims to sell that product. As a rule, finding details on competitor competences is much easier than truly grasping a competitor's intent.

One of the many reasons for this is that competitors sometimes themselves also do not have a fixed intent: they for example may define strategy as serving the market in which most cash can be earned at any given moment in time.

Insight four: intelligence is always about the future

No matter how relevant the study of history may at times be to understand today and to be better informed about what may happen in the future, intelligence always is focused on being better informed about the future. Predictive intelligence would thus be a pleonasm.

Insight five: intelligence delivers input to decision-makers

The above insights together assist in positioning intelligence in business and concerned with the business environment of a company, so market intelligence, foremost as a functional business discipline. This discipline is typically tasked by management to solve business puzzles that require collecting and analyzing data. Once data have been collected and analyzed, the function is requested to deliver tangible intelligence outputs as input to management decision-making. As a sideline: to stay out of the intelligence cauldron of definition confusion I usually refer to strategic analysis when I could have written market intelligence or competitive intelligence.

Insight six: intelligence needs time to be digested

The shortest and a bit provocative summary of military historian John Keegan's book "Intelligence in War" is that intelligence in a shooting war is mostly useless. If ever, however, there was a war in which intelligence has been acclaimed to have been highly relevant it was the Cold War⁶. For intelligence to be used and useful, time must be available to digest what the intelligence means and how new facts and insights will affect a gradually changing picture of for example an adversary. Most strategic challenges that businesses face more resemble the Cold War than a shooting war, so investing in intelligence capabilities for a business – when done smartly – likely will pay off.

Insight seven: intelligence is a multi-disciplinary, holistic activity

Enabling the customer of intelligence to take better decisions is the hallmark of good intelligence. The implication of this is that intelligence is not a tool in search for a fitting problem, like a hammer looking for nails, but a toolkit suitable for any construction activity the customer may request. As a result of intelligence being customer-centered, intelligence thus by definition must be holistic in nature. It may have to apply tools of multiple separate scientific disciplines and integrate the outcomes of the various functional analyses into a balanced overall analysis. As intent tends to be harder to assess than competences, one may for example find anthropologists in intelligence synthesis roles, being for example supported by engineering subject matter experts that assess competences of the same object of study.

Insight eight: intelligence consists of a workaday routine. It is a job

In fiction - think James Bond - intelligence is a glamorous business. I can't speak for the military or security intelligence sector but in business not even a glimpse of this romantic image resembles the truth. Market intelligence is a business functional discipline just like for example research & development. The practitioners probably will likely have an above-average affection for solving puzzles and they may tend to prefer a specialist role to a manager's role compared to other company staff. Along other measures, however, they probably not really differ from their colleagues in other departments.

Insight nine: secrecy is an intrinsic attribute of intelligence

Intelligence always relates to assessing our environment of the future and the possible plans and actions of certain actors in the future. As we saw above, the actions depend on an actor's intents. An actor's intent tends to be volatile in the best of cases. Assessing another actor's intent is difficult enough when the other actor doesn't know we are looking at them. However, an actor that is aware of being monitored may reciprocate and start to assess the intent of the observer. This may lead to the actor adapting his intent and his actions to what the actor believes is the likely intent of the observer.

The incorrect mirroring of intents that started with a lack of secrecy may lead to problems that escalate. To mention one example: a mutual misinterpretation of intents triggered the first World War to break out. Russia ordered a full mobilization after misinterpreting German military preparations, with Germany subsequently misinterpreting Russian intentions and thus pre-empted being surprised by launching a surprise attack⁷. In other words, it is better to assess the capabilities and intents of other actors in secrecy and never ever to reveal what you are looking at as intelligence staff and why.

Insight ten: there is no room for compromise: a cat is dead or is not dead

The previous insight automatically leads to the last insight of this essay. Intelligence loses its value when others know what we know and why we want to know it, as the latter enables them to predict and pre-empt our actions. This makes me think of the Austrian scientist and Nobel prize laureate Erwin Schrödinger. Schrödinger is probably best known for his cat, which I will introduce to you now, modifying his original narrative a bit to keep things simple.

Consider a box. Inside the box is a cat. The box is locked, and it is sound and lightproof. When the box was locked the cat was alive. When unlocking the box, a poison capsule will automatically be broken that will instantly kill the cat but that leaves no traces.

Schrödinger now postulates that it is fundamentally impossible to assess whether the cat, once the box has been closed, is alive or dead. The only feasible experiment to check it requires the fatal move (from the cat's perspective) of opening the box and thus triggering the poison capsule to break and instantly kill the cat. We will never be able to tell whether the cat had already died of a natural cause prior to opening the box or whether the poison killed it. In more abstract terms: the measurement fatally affects the phenomenon to be measured. In such case, the objective state of the phenomenon is not measurable.

The same applies to intelligence. Intelligence collection must be carried out in such a way as not to affect the actor under study. In business this is normally not a big issue, as most collection is focused on open sources. Checking out open sources (except for company websites or specific databases) is impossible to monitor for other companies.

The conclusion therefore is that in market intelligence everyone may know that you are looking but nobody may know what you are looking at. It is this conclusion that enables me to write openly about market intelligence or strategic analysis. Everybody may know that I ethically and fully legally compliant work on strategic analysis. Nobody for whom it is not need-to-know will, however, ever know what topics I work on and why.

Notes:

- .1. Graaff, B. de [2017], Zo'n gadget hebben we nog niet – de toekomst van inlichtingen(geschiedenis), Valedictory lecture at Netherlands Defense Academy, Faculty of Military Sciences, Nov. 2, 2017.
- .2. Elgersma, E. [2017], What is strategy? <http://dialoguereview.com/define-strategy/> visited Jan. 27, 2018.
- .3. Mintzberg, H., Ahlstrand, B., Lampel, J. [1998], Strategy safari – a guided tour through the wilds of strategic management, Free Press, New York.
- .4. Lewis, M. [2017], The undoing project – a true story, Penguin Books, London, pp. 111-112.
- .5. Bakker, J. [2012], De definitie van inlichtingen – positionering van een eeuwenoude maar nog steeds cruciale functie in een moderne omgeving (in Dutch), www.nisa-intelligence.nl, visited February 11, 2017.
- .6. Barrass, G.S., [2009], The great cold war – a journey through the hall of mirrors, Stanford Security Studies / Stanford University Press, Stanford, CA, p. 389.
- .7. Clark, C. [2013], The sleepwalkers; how Europe went to war in 1914, Penguin books, London, UK.
- .8. Priess, D. [2016], The president's book of secrets – the untold story of intelligence briefings to America's presidents, Public Affairs/Perseus Books, Philadelphia, PA.

Appendix Definitions and attributes of intelligence

Definition or attribute

The essence of intelligence is secrecy^{1,2}.

Intelligence consists mainly of workaday routine and, with luck, rare successes³.

Reduced to its simplest terms, intelligence is knowledge and foreknowledge of the world around us – the prelude to decision and action by US policymakers^{4,5}.

[Intelligence is] Information and knowledge about an adversary obtained through observation, investigation, analysis or understanding.

Intelligence is the product resulting from the processing of information concerning foreign nations, hostile or potentially hostile forces or elements, or areas of actual or potential operations. The term is also applied to the activity that results in the product and to the organizations engaged in such activity^{6,7}.

The work of an intelligence service consists of creating giant mosaics on the basis of the most futile elements, each of which may by itself be trivial but in combination with thousands of other fragments get a meaning⁸.

Stubbornly persevered, tedious routine work is the basis of all intelligence work we were looking for a needle in a haystack and thus we collected haystacks^{9,10}.

Vast stretches of this [intelligence] work were very boring¹¹.

In intelligence, you must take bits and pieces and analyze them in the context of the pressures and constraints the various actors face. You know what you don't know, but you still must build a picture of the world based on incomplete data. At a certain point, you become confident in your intelligence and analysis and lock it into [...] a net assessment^{12,13}.

Intelligence is of little use, unless it leads to action¹⁴.

Intelligence allows to read tomorrow's papers today¹⁵.

Military Intelligence is not, in fact, the spectacular service of the common imagining, but a much more prosaic affair, dependent on an efficient machinery for collecting and evaluating every sort of item of information – machinery that extends from the frontline right back to Supreme Headquarters. When the mass of information has been collected, the art is to sift the wheat from the chaff, and then to lay before the Commander a short clear statement^{16,17}.

Intelligence is secret state activity to understand or influence foreign or domestic entities^{18,19}.

Intelligence is a profession of cognition²⁰.

[Intelligence has as] purpose to inform and narrow the range of uncertainty within which a decision must be made... and keep policy within reasonable bounds^{21,22}.

Definition or attribute

All intelligence about the enemy, whether collected by secret means or by open field intelligence, should be based on the old dictum that "Intelligence is the mainspring of Action"^{23,24}.

[The work of an intelligence agent is] on the whole extremely monotonous, [much of it being] uncommonly useless^{25,26}.

Intelligence is only as good as the use to which it is put^{27,28}.

Intelligence is knowledge and foreknowledge of the world around us that allows civilian leaders and military commanders to consider alternative options and outcomes in making decisions^{29,30}.

Intelligence deals with all the things which should be known in advance of initiating a course of action^{29,31}.

Intelligence wins wars³².

The professional skill of intelligence is the exploitation of human weakness³³.

Intelligence is a service³⁴.

Intelligence is knowledge that is deemed critical for most decision-making both in the nation-state and in business^{35,36}.

Intelligence is the result of a rigorous process that provides the decision-maker in all domains with knowledge and foreknowledge on priority issues³⁶.

If it were a fact, it wouldn't be intelligence^{37,38}.

Good intelligence is usually the product of multiple streams of information³⁹.

Good intelligence is like a tapestry with multiple threads woven into a beautiful whole⁴⁰.

Intelligence is sometimes described as putting the pieces of a jigsaw puzzle together, except that we hardly ever get to see the picture on the top of the puzzle box⁴¹.

Intelligence is all about the future and is designed to enable action in the face of continuing doubt⁴².

All intelligence advantage is transient⁴³.

Intelligence operations are always a battle of wits, wills and spirits⁴⁴.

Great intelligence rarely comes neatly packaged with a clear explanation of its significance⁴⁵.

Intelligence is the organization of classified activities aimed to create an information advantage in support of better decision-making, either by reducing the uncertainty for the own party or by increasing the uncertainty for the counterparty, executed in an environment that intentionally aims to frustrate obtaining such an information advantage⁴⁶ [translated by this author from a Dutch original text].

Intelligence is about people, and the study of people. To understand an enemy you must first understand his motivations, his aspirations and his beliefs. Or even if he has no beliefs⁴⁷.

In the [...] world of intelligence [...], breakthroughs are the result of patient and resolute work, the slow accumulation of facts, each of which may seem ambiguous but that collectively add up to a hypothesis⁴⁸.

Definition or attribute

Intelligence [...] is a field where, theoretically, dissent and independent analysis are essential⁴⁹.

Intelligence [...] is to tell them [i.e. decision-makers] what they need to hear when they want to hear it⁵⁰.

The function of intelligence is to ascertain what our enemies and even our friends are going to do, not only what they can or might do⁵¹.

Intelligence is easier to be kept pure when it is irrelevant⁵².

While hard slog and dogged persistence are crucial to intelligence work, a little luck never hurts⁵³.

Notes

- .1. Victor Cherkashin was the Soviet handler of key US-based USSR spies Robert Hanssen and Aldrich Ames. His memoirs *Spy Handler* feature this definition in the preface.
- .2. Cherkashin, V. [2005a] with Feifer, G., *Spy Handler – memoir of a KGB officer, The true story of the man who recruited Robert Hanssen and Aldrich Ames*, Basic Books, New York, NY p. IX.
- .3. Cherkashin, V. [2005b], *ibid*, p. X.
- .4. Baylis' definitions find their origins in the US Central Intelligence Agency.
- .5. Baylis, J., Wirte, J., Gray, C. [2010], *Strategy in the contemporary world 3rd Ed.* Chapter 8 by George, R.Z. "Intelligence and Strategy", Oxford University Press, Oxford p. 163.
- .6. Canadian Land Forces [2001a] *Land force information operations, field manual intelligence*, <http://armyapp.forces.gc.ca/ael/pubs/B-GL-357-001-FP-001.pdf>, website visited Feb. 12, 2011, p. 4.
- .7. This definition originates from the Northern Atlantic Treaty Organisation.
- .8. This description originates from the exceptional novel "The kindly ones": Littell, J. [2010], *The kindly ones* (translated from French); Harper Perennial paperback edition (Feb. 2), New York p. 193.
- .9. Engelen, D. [2007], *Frontdienst, de BVD in de koude oorlog*, Boom, Amsterdam, 179.
- .10. Engelen is the historian who got exclusive access to the archives of the Dutch Internal Security Service. Quotes were translated from the Dutch original by the author:

"stug volgehouden taai routinewerk [is] de basis van alle inlichtingenwerk."

"we zochten naar een naald in een hooiberg. Dus verzamelden we hooibergen."
- .11. Wolf, M. [1998], with McElvoy, A., *Memoirs of a spymaster – the man who waged a secret war against the west*, Pimlico, London.
- .12. Geopolitical analyst and writer George Friedman is founder and CEO of private intelligence firm Stratfor.
- .13. Friedman, G. [2009], *Strategic Calculus and the Afghan War*, www.stratfor.com, geopolitics column, July 13, 2009.
- .14. Jones, R.V. [1978] *Most secret war – British scientific intelligence 1939-1945*; edition used: Penguin books, London 2009. p. 4.
- .15. Jones, R.V. [1978] *ibid*, p. 204.
- .16. This quote has been ascribed to British WW II leader Earl Alexander of Tunis
- .17. Canadian Land Forces [2001] *ibid*, p. 111.
- .18. This quote, from a Government intelligence source, shows a part of Government intelligence work that is not part of market intelligence: the covert actions aimed to influence domestic or foreign entities. Market Intelligence focuses on understanding other actors but not on influencing them.
- .19. Warner, M. [2002], *Wanted: a definition of intelligence*, *Studies in Intelligence* Vol. 46, no. 3, pp. 15-22.
- .20. Bruce, J.B., George, R.Z. [2008a], *Intelligence analysis – the emergence of a discipline*, In: R.Z. George, J.B. Bruce (Editors), *Analyzing Intelligence – origins, obstacles, and innovations*, Georgetown University Press, Washington DC, pp. 1-17.
- .21. R.J. Kerr quotes Brent Scowcroft, a principal intelligence customer and a former US National Security Advisor
- .22. Kerr, R.J. [2008a], *The Track Record: CIA analysis from 1950 to 2000* In: R.Z. George, J.B. Bruce (Editors), *Analyzing Intelligence – origins, obstacles, and innovations*, Georgetown University Press, Washington DC, p. 41.
- .23. K. Jeffery quotes an internal memo from MI 6 chief or 'C' mr. Stewart Menzies, dating back to 1942
- .24. Jeffery, K., [2011], *MI 6 The history of the Secret Intelligence Service 1909 – 1949*, Bloomsbury, London, p. 369.

- .25. K. Jeffery quotes from "Ashenden, or the British Agent". This work of fiction was written by the author Somerset Maugham in 1928, based predominantly on the latter's experiences in SIS the predecessor to MI 6
- .26. Jeffery, K. [2011], *ibid*, p. 237.
- .27. This phrase which is very truth is almost literally equal to the statement "intelligence is only as good as the use made of it" coined by John Keegan (Keegan, J. [2003], *Intelligence in war: knowledge of the enemy from Napoleon to Al-Qaeda*, A.A. Knopf – Random House, New York p. 183.) As Keegan's statement is older and may have inspired Jeffery, I considered that reference had to be made here to Keegan's statement.
- .28. Jeffery, K. [2011], *ibid*, p. 85.
- .29. Bruce, J.B. [2008], *Making analysis more reliable: why epistemology matters in intelligence*, In: R.Z. George, J.B. Bruce (Editors), *Analyzing Intelligence – origins, obstacles, and innovations*, Georgetown University Press, Washington DC, pp. 171-190.
- .30. J.B. Bruce quotes a definition from the Director of National Intelligence in the US (www.dni.gov).
- .31. J.B. Bruce quotes Allen Dulles (former director Central Intelligence Agency) 1955.
- .32. Gerstner, L.V. Jr. [2003], *Who says elephants can't dance? Inside IBM's historic turnaround*, HarperCollins Publishers, London p. 224.
- .33. Corera, G. [2012], *MI 6 - Life and death in the British secret service*, Phoenix – Orion books, London p. 30.
- .34. Lowenthal, M.M. [2011], *Intelligence analysis guide to its study*, *Intelligence: journal of US intelligence studies*, Summer/Fall 2011 pp. 61-64.
- .35. M.A. Duvenage quotes Edward Waltz.
- .36. Duvenage, M.A. [2010], *Intelligence analysis in the knowledge age*, M.Sc. thesis, Stellenbosch University, pp. 14 and 16.
- .37. Woodward, B. [2004], *Plan of Attack*, Simon & Schuster, New York, p. 132.
- .38. Bob Woodward quotes former Director CIA Michael Hayden.
- .39. Hayden, M.V. [2016], *Playing to the edge – American intelligence in the age of terror*, Penguin books, p. 83.
- .40. Hayden, M.V. [2016], *ibid*, p. 101.
- .41. Hayden, M.V. [2016], *ibid*, p. 228.
- .42. Hayden, M.V. [2016], *ibid*, p. 232.
- .43. Hayden, M.V. [2016], *ibid*, p. 421.
- .44. Kalugin, O.D. [2009], *Spymaster – my thirty-two years in intelligence and espionage against the West*, Basic Books, New York, p. 447.
- .45. Barrass, G.S. [2009], *The great cold war – a journey through the hall of mirrors*, Stanford Security Studies / Stanford University Press, Stanford, CA, p. 381.
- .46. Graaff, B. de [2017], *Zo'n gadget hebben we nog niet – de toekomst van inlichtingen(geschiedenis)*, Valedictory lecture at Netherlands Defense Academy, Faculty of Military Sciences, Nov. 2, 2017.
- .47. Pearce, M. [2017], *Spymaster – the life of Britain's most decorated cold war spy and head of MI6, Sir Maurice Oldfield*, Corgi books, Penguin Random House, London, UK, p. 158.
- .48. Panetta, L., Newton, J. [2014], *Worthy fights – a memoir of leadership in war and peace*, Penguin Random House, New York, US, p. 293.
- .49. Hersh, S.M. (1986), *The target is destroyed*, Random House, New York, p. 76.

- .50. Hersh, S.M. (1986), *ibid*, p. 77.
- .51. Grabo, C.M. (2002), *Anticipating Surprise – Analysis for Strategic Warning*, Center for Strategic Intelligence Research, Joint Military Intelligence College, ISBN 0-9656195-6-7, p. 18.
- .52. Attributed to Robert Jervis
- .53. Devlin, L. (2007), *Chief of Station, Congo – fighting the Cold War in a Hot Zone*, Public Affairs (Perseus Books Group), New York, p. 30.