

Glossary

Alerting services

Electronic (Web-based) services that keep a user informed about changes in the content of a specified part of the Internet.

Analysis

The stage of the intelligence cycle in which the strategic significance of environmental data is determined. In this stage, the intelligence is produced. During analysis, intelligence professionals may use different models and techniques to interpret and value environmental data (e.g., SWOT analysis, growth-share matrix or scenario analysis).

Benchmarking

A systematic process to evaluate products, services and processes of “outstanding” organizations with the aim to improve the own products, services and processes.

Blind spots

Problems or shortcomings in the organizational ability to observe the environment, due to which relevant data or developments are missed. Gilad (1996) discusses three blind spot categories: “unchallenged assumptions”, “corporate myths” and “corporate taboos”.

Bots

Bots (or agents or Web-robots) are “software programs that automatically traverse the hyperlink structure of the World Wide Web to locate and retrieve (user specified) information” (Tan & Kumar, 2002, p. 9).

Business intelligence

The term business intelligence is used in two ways. It is often used as a synonym for competitive intelligence. It is also used to indicate a specific set of ICT tools to support managerial decision-making. This set of tools often consists of a data warehouse and the tools to store, retrieve and present the information it contains (e.g., data mining software).

Business performance management

A process by means of which organizations can identify performance indicators and define and maintain an ICT, human resource and organizational infrastructure to manage their performance.

Causal loop diagram

A causal loop diagram visualizes the causal relations between several variables. A causal relation may either be positive or negative. A positive causal relation between two variables means that both change in the same direction (both increase or decrease). A negative relation means that the variables change in opposite directions. A causal loop diagram may be used in analysis and direction activities, because it can make causal relations between environmental and organizational variables explicit. An insight into these causal relations can support the task of determining relevant intelligence topics and it can support the analysis of the impact of specific (constellations of) values of environmental variables on organizational performance. Chapters VI and XII discuss the use of causal loop diagrams in intelligence activities.

CI

See competitive intelligence

CI cycle

See intelligence cycle

Collection

Stage of the intelligence cycle. In this stage sources regarding the required environmental data are located, accessed and the data are retrieved from them.

Competitive intelligence

In the literature, two definitions are used: a product definition and a process definition. In the product definition competitive intelligence is defined as information about the environment relevant for strategic purposes. The process definition highlights “producing and processing” this environmental information. Process definitions often refer to the intelligence cycle.

Competitive intelligence system (CIS)

A competitive intelligence system may refer to a set of ICT tools to support the intelligence activities, or to a set of infrastructural elements to manage, support and perform the intelligence activities. ICT tools may be a part of this infrastructure.

Competitor intelligence

Intelligence (both product and process) regarding competitors. This term is sometimes (incorrectly) used as a synonym for competitive intelligence

Corporate espionage

The unethical and illegal counterpart of competitive intelligence. Corporate espionage produces intelligence by illegal means (e.g., by hacking, eavesdropping, stealing information, deception, etc.). Competitive intelligence, by contrast, uses open, publicly available sources.

Counterintelligence

Process or activities aimed at protection of information against the intelligence activities of other organizations.

Critical success factors

Robson (1994) defines critical success factors as “those factors that must go well for an organization to flourish.” Critical success factors are often determined in order to derive the strategic information requirements.

Data

In the literature, many definitions are available. In Chapter I we defined data as signals external to an observer. These data need to be collected and interpreted before they may become information or intelligence.

Data mining

Set of techniques to discover trends and patterns in (a large set of) data. These techniques are often realized by means of advanced ICT tools (e.g., artificial intelligence applications).

Data warehouse

Inmon (1993) defines a data warehouse as “a subject oriented nonvolatile and time variant collection of data in support of management’s decisions.” A data warehouse is a large database in which data from various internal (and sometimes external) databases are integrated and reorganized into a format that enables easy and ready access. Most of the time, however, a data warehouse mainly contains internal data and its use for competitive intelligence purposes may therefore be limited (cf., Fuld et al., 2002).

Direction

Stage of the intelligence cycle. In the direction stage one determines the strategic (external) information requirements—i.e., one determines what environmental data should be collected. In this stage one has to identify about which environmental topics data should be gathered. A distinction can be made between a ‘rough’ data profile (indicating certain data*classes*, e.g., “we need to know something about the logistic capacity of competitor X and Y”) and an exact data profile (indicating the exact data within a certain data*class*, e.g., “we need to know the amount of trucks and their capacity”). These topics (both in their exact and rough version) are also known as Competitive Intelligence Needs (Fleisher, 2001), Key Intelligence Topics (Kahaner, 1996) or Essential Information Elements (Sammon, 1984).

Dissemination

Stage of the intelligence cycle. In this stage the intelligence produced in the analysis stage is presented and forwarded to strategic decision-makers.

Early warning system

A system to monitor the early warning variables. This system may refer to a set of ICT tools, or to a set of infrastructural elements to manage, support and perform these monitoring activities. ICT tools may be a part of this infrastructure.

Early warning variables

Variables that indicate the emergence of a trend or development in an early stage. Often these variables are derived from or determined in association with scenarios (see also Chapter XII).

Environment

Prior (1998, p. 67) defines the environment of an organization as that which “encompasses all those factors that affect a company’s operations and includes customers, competitors, stakeholders, suppliers, industry trends, regulations, other government activities, social and economic factors, and technological developments.” In the literature, several ways to decompose the organization’s environment can be discerned. One important decomposition is into a transactional environment (all those factors that directly affect the organization’s operations) and the contextual environment (forming the context for the transactional environment—consisting, for instance, of macro-economical factors or demographic developments).

Extranet

An Internet-like network (often an extension of the organization’s intranet) to which members of the organization and relevant parties from outside the organization (e.g., suppliers or selected customers) have access.

Game

See simulation game

Game building

Stage in gaming/simulation. During the building stage, game constructors make a model of the problem they want to incorporate in the game. Next, they transform the model into a specific game, and, finally, they define different scenarios that can be played during the game (see also Chapter XI for the use of games for intelligence purposes).

Game using

Stage in gaming/simulation. During the using stage, game facilitators make preparations for playing the game and participants actually play the game (given a certain scenario). (See also Chapter XI for the use of games for intelligence purposes.)

Gaming/simulation

The process of building and using simulation games as a means to deal with complex problems (see also simulation game).

Geographical Information Systems (GIS)

Information systems dedicated to processing, storing and visualizing spatial data. Geographical information systems can be used to support producing and processing intelligence with a spatial component (e.g., to analyze the demographic composition of a region, or to analyze the geographical dispersion of certain relevant variables). In Chapter IX, the use of GIS for competitive intelligence is discussed.

Groupware

Computer systems aimed at supporting communication and decision-making in groups. Most groupware applications include features that allow groups to perform particular “cognitive group tasks”, such as generating information (e.g., brainstorming), prioritizing, making a choice through voting and evaluating information (cf., McGrath, 1984).

Human resources infrastructure

The part of the intelligence infrastructure that refers to the human resources needed to manage, support and perform intelligence activities.

Humint

Contraction of *human* and *intelligence*. According to Kahaner (1996), humint is “what somebody tells you.” Humint is intelligence with a person as its source.

Hyperlinked communities

A group of Web users “organized” around a specific topic. These communities may be implicit or explicit. An implicit hyperlinked community is self-organized, not obvious (hidden), lacks definite membership, has spontaneously evolved, and has an implied social structure. The opposite of implicit communities are explicit hyperlinked communities such as users participating in listservs and newsgroups. Chapter III examines the possibility of mining implicit communities for competitive intelligence purposes.

ICT

Information and communication technology. ICT can be used to indicate the organization’s technological infrastructure (comprising of all hardware, soft-

ware and telecommunications technology) and to indicate one or more specific collections of hardware, software and telecommunications technology (i.e., one or more ICT applications).

ICT-driven approach

Approach to design and implement ICT tools for competitive intelligence in which the functionalities of the ICT tools are the starting point for building an intelligence infrastructure for supporting the intelligence activities. According to Philips (Chapter X) this approach may lead to several difficulties.

ICT selection criteria

Criteria to select ICT for competitive intelligence may refer (1) to the contribution of the ICT to the stages of the intelligence cycle, (2) to the contribution and/or impact of ICT on the intelligence infrastructure, and (3) to costs. See also Chapter I for a treatment of these criteria.

Information

Information can be defined as decoded, interpreted data that are new to an observer (see also Chapter I).

Information overload

The problem that occurs when an information processing system (e.g., a manager, a group, an organization) does not have enough capacity to process the amount of information presented to the system. This problem often occurs during competitive intelligence activities if the information requirements are poorly defined.

Infrastructural approach

Approach to designing and implementing ICT tools for competitive intelligence in which the goal of the CI process and its supportive infrastructure are the starting point for the design and implementation of ICT tools for CI. (See also Chapter X.)

Infrastructure

See intelligence infrastructure

Intelligence

Information relevant for strategic purposes. See Chapter I for a treatment of the concepts of intelligence, information and knowledge.

Intelligence cycle

Cycle of four stages (collections of intelligence activities). The stages are: direction (also referred to as planning), collection, analysis and dissemination.

Intelligence infrastructure

The intelligence infrastructure (or CI infrastructure) refers to the required technology, organizational structure in human resources for managing, supporting and performing the intelligence activities. It consists of three sub-infrastructures: the technological, the human resources infrastructure and the organizational infrastructure. The intelligence infrastructure is treated in Chapters I and X.

Intelligence requirements

See strategic information requirements

Internet

A world-wide network (of networks), linking millions of computers.

Intranet

An Internet-like network linking computers within a specific organization.

Knowledge

Many definitions are given in the literature. In Chapter I, knowledge is defined as “that which serves as a background for observation and action.”

Knowledge management

Knowledge management refers to (1) the identification of relevant knowledge for an organization and (2) building and maintaining an infrastructure to facilitate knowledge processes by means of which the relevant knowledge should be produced and processed. Competitive intelligence can be defined as a specific branch of knowledge management, i.e., as strategic knowledge management.

Knowledge processes

In the literature, one often finds four knowledge processes: (1) generation of knowledge, (2) sharing knowledge, (3) storing knowledge, and (4) applying knowledge. In Chapter IV, the knowledge processes for strategy formulation are examined.

Market intelligence

Relevant strategic information about the current or possible market(s) in which an organization operates.

Model of the organization in its environment

A model of the organization in its environment consists of the interrelated essential variables related to the viability of the organization and their organizational and environmental parameters. Without such a model, direction and analysis would be impossible. CI professionals use such models implicitly or try to make it explicit using techniques like SWOT analysis, scenario planning, or the BCG growth-share matrix. In Chapters VI, XI and XII we discuss some techniques to make this model explicit (and the ICT to support this process of explication).

Online databases

Databases that can be accessed from another computer (e.g., via the Internet) to retrieve specific information. A number of commercial online databases exist (e.g., Lexis-Nexis or Dowjones). Search items may be submitted to these databases and search results are returned.

Organizational infrastructure

Part of the competitive intelligence infrastructure, referring to the division of CI tasks and responsibilities.

Outsourcing intelligence activities

Having third parties carrying out a part of the intelligence activities. This can also be done electronically (e.g., by means of online databases, alerting services or Web robots).

PMT

Product market technology combination.

Scenario

A scenario is a description of a possible future.

Scenario analysis

In scenario analysis the effects of different possible futures (scenarios) on the performance of an organization (or on its immediate environment) are assessed. Chapter XII discusses the role of scenarios for competitive intelligence.

SCIP

Society of competitive intelligence professionals.

Search engine

Tool for locating data on the Internet. Common distinctions regarding search engines include general versus specific search engines (the latter focus on a specific topic or region) and search engines (performing a search based on their own “index”) and meta-search engines (using other search engines to conduct their search). URLs of well-known search engines are: www.lycos.com and www.altavista.com.

Simulation game

An organized procedure involving particular building blocks allowing participants to improve communication about complex problems by providing a safe and controlled environment to experiment with different interventions under varying circumstances by means of models representing these complex problems. Simulation games may be useful tools to support all the stages of the intelligence cycle. Chapter XI discusses the contribution of simulation games to competitive intelligence activities.

Source

Something or someone containing data and from which the data can be retrieved. Many distinctions regarding sources are given in the CI literature. For instance: open versus closed sources, primary versus secondary sources, internal versus external sources, and a distinction referring to the carrier of the data (human, electronic or paper).

Source identification

Identifying suitable sources (i.e., efficient and containing the relevant data) given a certain data need. See also *sourcemap*.

Sourcemap

A *sourcemap* is a matrix linking data classes to sources. In the cells of the matrix the sources are valued according to different criteria (e.g., accessibility, costs, timeliness of the data, etc.). A *sourcemap* can be used to determine which sources are available to retrieve certain data efficiently. It can also be used to evaluate the collection of sources an organization employs.

Strategic information requirements

The information needs for the process of strategy formulation. For competitive intelligence, the external strategic information requirements are important.

Strategy

In the literature, many definitions are given. A possible definition is the desired portfolio of product-market-technology combinations of an organization.

Strategy formulation

The process by means of which the desired portfolio of product-market-technology combinations is defined and updated.

System dynamics

System dynamics is a simulation methodology that deals with the dynamics of complex systems from a feedback perspective. System dynamics is specifically suited for understanding the dynamic behavior of systems as caused by their internal structure (cf., Vennix, 1996). System dynamics can be used to model the “internal structure” that is responsible for generating the behavior of an ‘organization in its environment’-system. Such a model can support both direction and analysis activities. Chapter VI explains how system dynamics may support these activities.

System dynamics software

Software tailored to analyzing the behavior of complex systems modeled according to the system dynamics approach.

Technological infrastructure

Part of the intelligence infrastructure consisting of the hardware, software and telecommunications technology and the associated ICT applications.

Technological intelligence

Intelligence regarding technological trends and developments.

Viability

Viability is the ability of a system “to maintain a separate existence.” (Most) organizations are continuously trying to maintain their viability. From the notion of viability the process of strategy formulation can be derived (see Chapter IV).

Viable system model

This model is developed by Beer (1979, 1981) and specifies the necessary and sufficient functions an organization should possess to maintain its viability. This model is used in Chapter IV to identify the process of strategy formulation and to derive the required knowledge for this process.

WWW

World Wide Web. A system by means of which information is organized on the Internet (using hypertext links).