

Writing cases as a knowledge capture process in a competitive intelligence program

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Abstract

Students in Competitive Intelligence (CI) programs submit a report following their internship in an organisation. It is proposed that the result of their experiences be shared with their peers, in the form of cases written for in-class analysis. A knowledge base is thus created, which gradually becomes the program's memory and, by its constant renewal and connection with the reality, the most useful teaching tool for the professor.

Keywords: Case study, CI program, guide, knowledge base, writing case study

1 Introduction

In 1996, the Institut de la Communication et des Technologies Numériques (the Communication and Digital Technologies Institute - ICOMTEC) of the University of Poitiers created the first French *Competitive Intelligence* (CI) postgraduate program. Previously structured as a one year training program, it was expanded into a two-year professional training program. For twelve years now, one initial batch of students followed by two subsequent others, have annually realized their internship in CI and have elaborated their master's thesis on the basis of this informational raw material.

The first step in capitalizing existing knowledge contained in these theses has been achieved through the development of a database readily accessible by all students. Invited to consult this collection, a journalist from the daily newspaper *La Tribune* has written an article noting the richness and value of this first "real life" test in CI, where organizations are seen from the inside, beyond

statements of principles and synthetic essays. Consulting documents in their integrality within this large collection, however, can be a trying exercise, lacking in a user-friendly, attractive dimension, hence, limiting the pedagogical utility to the individual effort.

Casting dissertation abstracts online was not deemed conclusive: most organizations proved unfavorable to having either internship-related work-content or even the topics of the assigned missions showcased on the web. It was therefore no longer possible to make the diversity of this work available outside the Institute.

The attempts to circumvent the obstacles challenging the previous experiment gradually articulated themselves around a logic of case writing as the single best tool of knowledge capitalization, insofar as the designing process around which it is built observes strict and rigorous scientific parameters.

2 Problem

Standing at the confluence of such scientific fields as information sciences, communication, management, economics and information technologies, the CI [Bloch 1999; Martinet and Marti 2001; Marcon and Moinet 2006], as an academic program at ICOMTEC, whilst certainly benefitting from classical teaching methods seeking to enhance acquisition of theoretical knowledge through lectures, case studies, readings, evaluations, etc., must pay special attention to *learning by doing*, taking the form of either internships that students are called to undertake at the end of each academic year or sponsored professional projects or contributions to Junior Enterprise. Internships, usually varying between sixteen to twenty-four weeks, are mandatory and lead to the drafting of the master's thesis, whose objective is to bring students to elaborate upon the mission they were assigned and the solution they were called to design, in order for them to further address topical problems experienced during the internship and integrate these to the CI model, in an exercise of placing into perspective the specific knowledge of the profession.

Despite the richness and abundance of specialized literature examining different angles of CI – background, concepts, methods, tools, perspectives, etc. – the relative youthfulness of this academic field can partly explain the absence of a true fundamental manual in CI, which can be testified by the narrowness of the collection of pedagogical texts available to students during their training. Most authors, indeed, write either deliberately for practitioners in the field, with the concern of presenting them with “good practices” in CI, or, ever so rarely, for academics, in order to evidence the possibility for the CI to become a real discipline, subject to fundamental research.

Given this current general status of literary production, the necessity springs for enriching the specialized corpus of texts in CI, especially in terms of real, field experience, for professors and students to have access to teaching material reflecting the subject matter taught in class, as well as the multiple and concrete applications within the organization. Between the highly specialized topics examined by researchers in CI and the unavailability of the practitioners to write articles describing their professional reality, the students' experiences may very well represent an important reservoir of evidence to be recorded under the form of cases, as valuable contributions to the literature fund with a vocation towards training. Through the case-writing process, student-trainees are able to report their professional experience, deliver learning material to their peers and contribute to the creation of knowledge base of specialized cases in CI.

In an era of changing paradigms, the transmission of this knowledge could represent a

very important leverage factor in preparing the students towards achieving their internship and towards eventually integrating the labor market, in this highly complex profession.

3 Review of literature

3.1 The tacit knowledge

The contemporary organization, in its corporate, institutional or associative form, faces a crisis whose facets are multiple : economic, financial, energetic, managerial, to name only some of the areas facing increasing turmoil. It is necessary to add to these factors the current declining demographic trend which constitutes a crucial issue for several countries, considering planning with regards to emerging workers and the need to secure transmission of the organization's immaterial capital, such as acquired knowledge and the know-how [Blair 2002; Bourhis et al. 2004]. This know-how or knowledge is defined as “...the information that has been comprehended and evaluated in the light of experience, and incorporated into the knower's intellectual understanding of its subject...”[ODLIS 2007] and it has a high impact on the enterprise's competitiveness [Davenport and Prusak 2003; Nonaka and Takeuchi 1995].

This very context accounts for the interest that knowledge management has been arousing for some time amongst management specialists and from specialists of other fields as well [Moldovan 2005].

The authors insist on the difference between *knowledge* and *information* : when it is interpreted, utilized in action or in a process, the information becomes knowledge, which divides into *tacit knowledge*, on one hand, or the know-how, not expressed in words, represented by reflexes, automatism, gestures and difficult to transfer because of its subjective, informal, contextualized and experiential character.

On the other hand, the *explicit knowledge* represents the knowledge expressed in words, formal, easily transferable orally or in writing, because objective, formalized, observable, conceptual and operational [Le Coadic 1997; Prax 2003]. Through using organizational knowledge (tacit and explicit) existing in structures and in processes, one either becomes competent or a holder of knowledge-to-act and able to solve problems, make decisions, act.

Managing knowledge, throughout the *knowledge life cycle* (process of creation, capture, formalization and capitalization of knowledge), gives the organization the possibility to build its *capital of knowledge*, composed of the experiences of the persons who work or who have worked there.

Nonaka [1994] analyzed the dynamics of the knowledge creation process: the *socialization* enables the traditional transfer of the know-how to someone else, the *externalization* covers the attempts to explain to someone the knowledge and the know-how. He adds to these mechanisms the *internalization*, which allows for the explicit knowledge to be internalized or embodied and for the *combination* or connecting of the explicit knowledge in order to generate new knowledge.

Prax [2003] and Dalkir [2005], among others, identify several methods of tracking or capture and capitalization of the tacit knowledge, methods that hold our attention because of their relevance to our aim, which is to find a manner to facilitate the transfer of the experience acquired by the trainees during their internships and the utilization of these texts in the analysis exercises in class.

From all the tacit knowledge tracking and capture methods identified by these authors – *storytelling, imitation of gesture, apprenticeship, brainstorming, mind mapping, role-playing games, metaphor, images, drawings and videos*, we can retain the method of the *storytelling of a real-life situation*, which is closest to the presentation of a professional experience through the technique of *case-writing*, and the method of the *corporate memory* or *corporate repository*. These two methods will be adopted in order to launch the project of conception of a *knowledge base* dedicated specifically to the case study in CI, a first of its kind in France.

The narration may be written (tale, drama, novel) or oral (description of an event, anecdote, etc.). The knowledge management is interested in the storytelling because it can transfer tacit knowledge. It is difficult, however, to extract the sense which contains the most important elements for the organization.

The extraction of the hidden sense contained in a narration demands an analysis of this narration, especially of the following components: context of the action described; the plot of the story (the events described in their causal and temporal structure, the actors, the interaction); the steps of the problem solving (plan, sequence, etc.). The relevance of the narrative depends on its proximity (temporal, spatial, cognitive, emotional, of action and of interest) with the receivers (other members of the professional community or the staff of the organization).

The formalization of knowledge through the corporate repository method is highly effective in building knowledge bases wherein content can range from *generic knowledge*, acquired through education, to *contextualized knowledge*, acquired as a result of the study of a problem, a file, or a topic. These knowledge bases can take many forms: *references, case or project repositories, economic and professional information, patents, records of*

experience, glossaries, directories, repositories, visual documents, technical reports, best practices, cases, procedures, guides, manuals, etc. In setting up these knowledge bases, certain criteria must be taken into consideration, such as the features of the target audience, the value of information, the goals, the codification and validation level, the editorial board, etc.

It is therefore from within the category of tacit knowledge that we must take the CI professional experience of students into account. Hence, the usefulness of capturing this knowledge under case form, thus, facilitating its transfer, on one hand, while enabling this knowledge, on the other hand, to become the organized content of the knowledge base: the “accumulating sum of knowledge on which the advance of a particular industrial sector relies, including not just codified knowledge but also tacit knowledge and knowledge embedded in plant and equipment” [Grand dictionnaire terminologique 2009]. The main objective of this case study base is to serve as a repository of formative experiences in CI, but also as a reference and a training tool for the members of the CI professional community.

3.2 The case method

Inspired by English common law to which concepts of jurisprudence and judicial precedent are central, the case study was first introduced at the Harvard School of Business in the early XXth century as a tool designed to train specialized practitioners in fields as varied as law, medicine or management. In opposition to discursive pedagogy, the case study method emphasizes learning through the concrete, through the action (learning by doing) and could therefore be qualified as “active and experiential” [Arrow 1962; Anzai and Simon 1979].

The case study method has been developed for adult learners [Bédard et al. 1991, 2005; Hammond 1976; Hlady Rispal 2002; Leclerc et al. 1996; Pagès 2008], leading the student or the group to analyze, discuss and resolve a case, which, for all intents and purposes, consists of a problematic situation based on real life or fiction. According to the situations they describe, cases fall into three categories: *real cases* (natural or selected), *typical cases* (constructed or built) and *natural typical cases* (built from data collected in organizations or Harvard-type cases). The case study method has been successfully adopted and applied in most law, medicine and management schools around the world. It allows for contact with a multitude of debatable situations, while helping improve effective argumentation, problem solving and analytical skills. Authors have been singling out, however, the challenges raised by the scarcity of real cases [Armisted 1984; Ross and Wright 2000], which alone reflect the complexity of real

situations; the relatively long delay of preparation, evaluation and publication that are specific to the regular process of case study writing; and, last but not least, the cost of consulting the cases repositories online. One way to respond to these critiques is by involving students in the activity of writing cases arising from their own professional experience, as means to vary the training strategies and to « integrate experience, theory and reflection » [Gosling and Mintzberg 2004], in order to better prepare the next generation of CI professionals to assume positions of responsibility or positions very close to the decision centers.

4 Methodology

4.1 Writing cases

Having noted the need experienced by professional training programs for relevant learning material, reflective of the social-economic reality, and conclusive to the review of literature focussing on knowledge management, on appropriate methods for knowledge transfer, and on case learning strategies designed to implement real case writing by CI students-trainees, we hereby examine the methodological benchmarks to be applied in launching the pilot project of the case study base (knowledge base).

Under the conventional approach to the case study writing technique, it is the professor (or his research assistant) who assumes this task, in the following sequence of steps :

- identify the need to exemplify a concept or a situation,
- choice of the environment / organization which illustrates the concept or the situation,
- relevant data and facts collection,
- conduction of interviews,
- drafting of the first version,
- verification / test in class (case study)
- rectifications,
- preservation of the organization's anonymity,
- permission to use the case provided by the organization,
- utilization and publication.

In synthesizing this process, we obtain the following methodological cycle: “need – current situation – data collection – text drafting – test – text review – permission to use – official use”.

The suggested alternative approach to the classical model is the “internship conclusion approach” [Moldovan 2008]. According to this new model, the student-trainee assumes the task of writing the case study, based on his knowledge of the organization where he where he served as an intern. Written at the end of the internship, as a

complement to the master's thesis, the case study represents a formal opportunity for the student to elaborate on his internship and defend his thesis, as a means to demonstrate his experience and conclude his training.

In utilizing the “internship conclusion approach”, the case study serves to illustrate in a practical form both the concepts covered during the training and their appropriation by the learner. The environment within which the case is situated corresponds to the organization where the internship takes place, and the collection of data and the recording of interviews is achieved throughout the internship, in consistency with the assigned activities and the research through the complementary sources of information (economic newspapers, data bases, etc.). The aim is to continue with the selection, the analysis and the further elaboration of the case study, while observing the methodology and the ethics of the profession.

4.2 Methodological benchmarks

The end-product product, the « real case – internship conclusion », lays out the problematic situation at the core of the internship, within a document of varying length (from few pages to dozens of pages). This document is precise, clear, logical, written objectively, and based on the study of the organization. The first draft is validated by the internship tutor, adjusted in accordance with his comments and disguised in order to respect the confidentiality requirements of the organization.

The case must remain narrative, journalistic, logical, technical in style. The writer combines real and fictional characters, information pieces and useful data, some less significant, even contradictory. The case becomes then a history, as in “real life”; it describes events, introduces participants, and suggests the study of a problematic situation which requires a solution. Different possible approaches that can be identified may include presenting the decision that was made and the discussions it may have generated, confronting with a series of several options, or a situation scenario where the problem or its nature are not explicit.

Without being binding, the structure of the document should be articulated around the following:

- introductory paragraph, giving the reader the possibility to locate the action;
- history of the organization, creation date, evolution;
- highlighting the problem and the participants, the core of the case study – key dates, facts, figures;
- conclusion of the case study, including a several possibilites: a presentation of the

decision to be taken, which the reader has to justify during the in-class discussion; the decision already made, which the reader will be invited to discuss; confrontation with a series of options which the reader has to select and justify; situation scenario where the problem or its nature are not explicit;

- bibliography,
- annexes and tables related to the problem,
- note on the industry or the technology.

The case the student must write does not necessarily disclose the real solution that was retained, nor does it have to produce a fictitious one, if that corresponds to the wishes of the organization or the student himself.

After it is written and made anonymous, the case is evaluated by the internship tutor and the professor, and placed in the knowledge base, whose design must factor in the following non-exhaustive elements: objectives, audience, the value of the information, degree of codification, degree of validation, editorial board, etc.

The projected database should be a function of the following parameters:

- raison d'être (the reason for being) of the knowledge base: the need to access case studies that are closest to the reality of the CI assignments in the organizations;
- participants who contribute to the life cycle of the base: producers, users;
- audience: members of the community of practice (professors, students, CI professionals);
- value of the information: period of validity: long; scope: informative document;
- aim: training;
- degree of codification: documentary structure: bibliographic data base / full text, controlled indexing;
- degree of validation: personal story, with respect to the consigned elements;
- editorial board: contributions placed in the base after the professor's evaluation, frequency, etc.

5 Results

The establishment of a CI case study base at ICOMTEC is at its inception; the experiment was started in the course of summer 2008. The project is also being conducted within the second training-track of the institute, the professional master "Strategy and Communication Management" with the goal to examine, following a three-year-pilot, the educational benefits generated in both fields. Despite this short interval, it is possible for us to remark that the students adopted the process with interest and that they are comfortable with the

framework of the project and its leading parameters.

On a comprehensive cohort of approximately thirty students which have realized their internship and submitted their cases, we selected the top twenty texts, in order to be placed in the case data base. For a first experiment, the proportion is quite satisfactory. Some of the non-selected texts reflect general difficulties in writing which are not related to the very logic of the case; some others have failed to comply with the instructions, particularly with regard to the anonymity of the organization. Some of the cases have not been successfully concluded or were in such instances where they were deemed inexhaustible for our current purposes, either due to the contradictory instructions given by the organizations or because of the obligation to abide by confidentiality requirements.

Ultimately, at this point of the project, we consider that the novelty of the experiences described in these cases, the proximity between authors-students and their colleagues, the shortness of the cases and their conciseness reflect the high diversity of work situations and represent a strong argument in favor of the creation and utilization project of a CI case base, for the training of students enrolled in the programs of the Institut de la Communication et des Technologies Numériques (ICOMTEC).

10 References

- Anzai Y and Simon HA (1979) The theory of learning by doing, *Psychological Review*, **86**(2)
- Armisted C (1984) How useful are case studies? *Training and Development Journal*, **38**(2)
- Arrow KJ (1962) The economic implications of learning by doing, *The Review of Economic Studies*, **29**(3)
- Bedard MG, Dell'Aniello P and Desbiens D (1991) *La méthode des cas*, Gaëtan Morin, Montréal
- Bedard MG, Dell'Aniello P and Desbiens D (2005) *La méthode des cas : guide orienté vers le développement des compétences*, Gaëtan Morin Éditeur, Montréal
- Blair D (2002) Knowledge management : hype, hope or help? *Journal of the American Society for Information Science and Technology*, **53**(2)
- Bloch A (1999) *L'intelligence économique*, Economica, Paris
- Bourhis A, Dubé L and Jacob R (2004) La contribution des connaissances à la gestion de la relève : le cas Hydro-Québec, *Gestion*, **3**(29)
- Centrale de cas et de médias pédagogiques*, <http://www.ccmp.cqip.fr>

- Centre de cas de la Faculté d'administration,
Université de Sherbrooke,
<http://www.adm.usherbrooke.ca/admweb/centredecas/>
- Dalkir K (2005) *Knowledge management in theory and practice*, Elsevier Burlington, MA
- Davenport T and Prusak L (2003) *What's the big idea? Creating and capitalizing on the best management thinking*, Harvard Business Scholl Press, Boston
- Gosling J and Mintzberg H (2004) The education of practicing managers, *MIT Sloan Management Review*, **45**(4)
- Grand dictionnaire terminologique,
<http://w3.granddictionnaire.com>
- Hammond JS (1976) *Learning by the case method*, Harvard Business School, Boston, MA
- Hlady Rispal M (2002) *La méthode des cas : application à la recherche en gestion*, De Boeck Université, Paris
- L'Art du management de l'information* (2000)
Financial Times Limited, Éditions Village Mondial, Paris
- Le Coadic YF (1997) *La science de l'information*, Presses Universitaires de France, Paris
- Leclerc JM, Lapierre L and Reboh-Razan A (1996) *La méthode des cas : guide d'accompagnement*, École des Hautes Études Commerciales, Montréal
- Levet JL (2002) *Les pratiques de l'intelligence économique : huit cas d'entreprises*, Economica, Paris
- Marcon C (2008) *Réussir son stage et son mémoire*, ICOMTEC, Université de Poitiers
- Marcon C and Moinet N (2006) *L'intelligence économique*, Dunod, Paris
- Martinet B and Marti YM (2001) *L'intelligence économique : comment donner de la valeur concurrentielle à l'information*, Éditions d'Organisation, Paris
- Moldovan M (2005) Gestion des connaissances : préambule à un portrait, *Revue de l'Université de Moncton*, **36**(2)
- Moldovan M (2008) *La rédaction de cas en intelligence économique : repères méthodologiques*, Université de Moncton, Campus de Shippagan, Nouveau-Brunswick
- Nonaka I (1994) A Dynamic Theory of Organizational Knowledge Creation, *Organisation Science*, **5**(1)
- Nonaka I and Takeuchi H (1995) *The knowledge-creating company*, Oxford University Press, Oxford-New York
- Pagès R *La méthode des cas*, Encyclopaedia Universalis, <http://www.universalis.fr>
- Prax JY (2003) *Le manuel du Knowledge Management : une approche de 2^e génération*, Dunod, Paris
- Reitz J *ODLIS – Online Dictionary for Library and Information Science*,
http://lu.com/odlis/odlis_k.cfm
- Ross JW and Wright L (2000) Participant-created case studies in professional training, *The Journal of Workplace Learning*, **12**(1)