Training to Become a CI Professional

Rainer Michaeli

Director
GICI Institute for Competitive Intelligence GmbH
Korngasse 9
35510 Butzbach
Germany
www.competitive-intelligence.com

May 2010

Content

1. Introduction

The ultimate goal of professional competitive intelligence (CI) is the generation of insight ("intelligence") into competitors' intentions. This knowledge enables decision makers to make sound decisions. In order to achieve this, companies set up internal processes to help them understand their intelligence needs, support data collection and incorporate the processing/analysis of the retrieved information. Once conducted on an ongoing base, this process is usually referred to as a Competitive Intelligence Cycle.

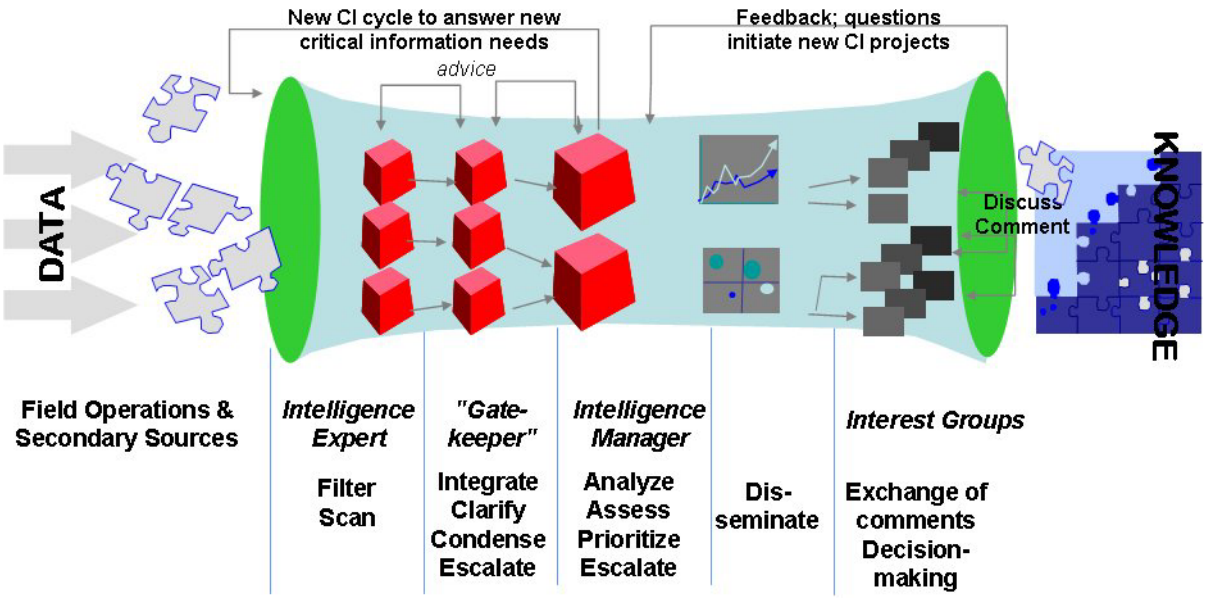


Figure 1 The Competitive Intelligence Cycle (Michaeli 2005)

All the steps within this cycle of course require specific skills from the executor, as well as appropriate tools and techniques. As many - even large - corporations assign just one employee[1] (Fehringer 2006, SCIP 2003-2005) to this central intelligence function, this very person has to build up all the skills required to perform the whole cycle, which is a truly challenging task. Moreover, given that the future success of any company depends directly on a profound intelligence function, one could describe this as an elite job.

For practitioners of competitive intelligence, there are three fundamental questions:

1) In which subject areas does a CI professional need to build up competencies?
2) What skills and capabilities does he/she need to develop?
3) How can one train to develop into a CI professional?

In order to answer these questions, the first chapter of this article reviews the competencies and skills required by CI professionals, followed by a quick overview of generic CI education alternatives.

[1] This CI manager is usually supported by colleagues on a part-time basis: Acting as "sensors", in the field, for example, or contributing to the analysis of competitive information using technical expertise ("gatekeepers")

The following chapter summarizes potential approaches to CI education and describes levels of proficiency, and concludes with a case study about the Institute for Competitive Intelligence.

The lessons learned from this article could very well be utilized by corporations eager to set up their own in-house CI training programs or by individuals seeking to build a professional career in competitive intelligence.

2. Competencies and Skills for CI Professionals

2.1 Competencies for CI Professionals

Usually professional bodies define the knowledge domains and skills that are required of each of their members in order to be granted the status of a "professional". Examples include somewhat similar disciplines such as "Project Management", Business Intelligence Professionals, Special Librarian Association or Information Professionals. Certification of these professionals is then authorized by either a professional association or even a governmental institution, whether through university diplomas (as in the case of physicians) or proof of practical abilities (as in the case of plumbers). Obviously, if these prerequisites are given, then it becomes straightforward to define knowledge domains and (education) curricula for the future professionals of the discipline.

In terms of competitive intelligence however, there are still ongoing discussions as to whether this is rather a profession, a discipline or a trade. (Wagner 2006, Fleisher 2003).

This is somewhat unexpected, as the concept of competitive intelligence can be traced back to ancient times. Still, within modern management science Michael Porter's classic books (Porter 1985, 1998) are usually referred to as the origin of the necessity and importance of what he referred to as "Competitor Intelligence". Various articles and books have since been written and numerous presentations have been held at conferences with the aim of trying to define what CI is and what it is not. Terms such as business intelligence, market intelligence, (customer) insight or decision intelligence etc emerged and are used almost synonymously with competitive intelligence in various contexts and perspectives.

Another source of uncertainty for the definition of the field of CI stems from the fact that some professional associations incorporate subject areas that overlap with the concept of competitive intelligence, notably knowledge management, information management as well as national intelligence and its various derivatives.

All in all in the world of societies and sciences, competitive intelligence remains very much only defined by its objectives. No standards for CI education have been established, so several authors have approached the subject (e.g. Cline 1992, Shelfer 2003, McGonagle 2003). Consequently neither a generally accepted CI curriculum nor a methodology tool box exists, that could guide beginners to learn the trade.

Nor has a certification process been established that would form the basis for the recognition of individuals as CI professionals. Only in 2009 was the notion of knowledge domains (i.e. a Body of Knowledge) formally established (see next chapter).

2.1.1 SCIP's Body of Knowledge (BOK)

SCIP, the Society of Competitive Intelligence Professionals, was founded in 1986 as a not-for-profit organization. One of the objectives of its founding members was the

definition of the field of competitive intelligence. SCIP finally published a "Body of Knowledge (BOK)"[2] in early 2009 (Prescott 2009).

The goal of this BOK initiative was to develop a **holistic** body of knowledge (BOK) defined as a compendium of (1) proven, well-established, (2) state-of–the art, and (3) innovative, unproven theories, knowledge and practices for the field of competitive intelligence (SCIP 2008). The BOK consists of 86 competencies (see appendix 5.2) categorized into 7 competency domains:

Managing the CI Function
1) Design & Manage the CI Function
2) Promote & Incorporate CI throughout the Organization
3) Advance the Evolution of the CI Function, CI Skill Sets and the CI Profession

Implementing CI Tasks
4) Implement Needs Assessment & Manage Client Relationships
5) Manage CI Projects
6) Conduct Intelligence Collection & Manage Information Resources
7) Conduct Intelligence Analysis and Delivery Processes

As in the example of the competency domain "analysis" (See Appendix 5.3), the BOK does not recommend any actual tools or techniques (such as SWOT analysis or Porter's 5 forces industry structure analysis) that should be used to fulfill a given analysis assignment. Rather it is left to the CI professional to identify and then master any analytical tools and techniques that will enable the CI professional to achieve his/her objectives (see e.g. Appendix 5.2 for an overview of potential analytical tools and techniques).

As such SCIP's BOK provides a comprehensive overview of competencies (e.g. "synthesize information") as well as activities for CI professionals. CI practitioners can discover any gaps in their knowledge base. The actual identification of appropriate tools and techniques (e.g. how to synthesize information) still needs to be discovered and of course just by knowing what is available does not necessarily mean that one can apply a technique appropriately. Or as the saying goes, if all you have is a hammer, you may be led to believe that every problem is a nail.

No reference is made – nor expected of the BOK - towards the process of learning competitive intelligence.

2.1.2 Soft Skills for the CI Professional

SCIP's BOK does not look at the soft skills and personal traits required by CI professionals. Since there are so many CI functions, environments and cultures it is difficult to define an exhaustive list. As a common denominator one might argue that the following soft skills for information professionals (Euroguide LIS 2004) apply to competitive intelligence professionals as well.

[2] In 2006 SCIP published "Curriculum Modules for Educational Programs in Competitive Intelligence for use by Professional Trainers and Academics" (SCIP 2006), which to some extent already defined a BOK.

Personal Relations
- Autonomy
- Communication skills
- Availability
- Empathy
- Team spirit
- Sense for negotiation
- Teaching skills

Research
- An enquiring mind

Analysis
- Analytical ability
- Critical ability
- Ability to synthesize
- Communication
- Discretion
- Resourcefulness
- Managing
- Perseverance
- Rigor

Organization
- Adaptability
- Foresight
- Decisiveness
- Initiative
- Sense of organization

2.2 Status Quo of CI Education

As a number of surveys (e.g. SCIP 2003-2005) indicate, most individuals entering into a CI function are trained “on the job”, i.e. if they are lucky a senior colleague will introduce them to his/her world of CI. Additional know-how can then be acquired through literature studies or attending conferences and workshops.

There is very little formal CI education available (SCIP 2009). With the exception of France (Smith 2008), undergraduate or graduate university degrees in competitive intelligence are not widespread. However, this later fact is understandable as most CI practitioners first build up their work and industry experience before they can contribute to a competitive intelligence function.

Vocational CI education is limited to few offerings (SCIP 2009) in the form of interactive online courses, workshops and dedicated CI conferences.

Another important characteristic of the CI profession is that CI practitioners often remain in a corporate CI function for only two to four years (Fehringer 2006, SCIP 2003-2005). Individuals then move on to new functions, usually well prepared for a corporate career by having gained a lot of industry and organizational insight. How-

ever, in terms of CI professionalism this fluctuation can mean that a great deal of valuable CI know-how dwindles away or is lost.

As a bottom line result, CI activities in an organization can result in rather unstructured, unsophisticated practices.

Furthermore “Competitive Intelligence” still remains an “unknown” discipline within many corporate HR departments that are usually responsible for employee training (Fleisher 2003).

All in all, this status quo is to some extent based on the fact that formal competitive intelligence education is not established, as subsequently very few standards or best practice guidelines have been developed. This presents a vicious cycle resulting in moderate recognition of the CI function.

3. Training Approaches and Expertise Levels for CI Professionals

While SCIP's BOK defines the competencies of CI professionals, the question remains as to how one can acquire and apply the necessary skills. First of all, it is important to describe the learning environment followed by the actual process of learning and experience levels.

3.1 CI Training Approaches

An appropriate learning environment is fundamental for effective CI training. Learning environment in this sense refers to the delivery format, instructional approach, learning incentives and monitoring of the participants' learning achievements. Practical and hands-on delivery of the concepts is key to success, especially as the field of CI is more art than science. The following (non-exhaustive) list provides insight into potential forms of CI education implementation.

	Appropriateness rating for CI training
Delivery formats	
Classroom teaching	Medium
Individual teaching	High
Passive consumption of know-how from literature (books and articles) and presentations (events)	Low
E-learning and distance learning (to some extent interactive; mainly PC-based learning, sometimes with paper workbooks or watching videos/DVDs)	Low
Discussions in peer groups	High
Autodidactic build up of know-how based on own experience	Medium
Team member in real-life projects	High
Instructional approaches	
Teaching with case studies	High
Slide presentations (lectures) with explanations	Low
Interactive group exercises (workshops)	Medium
Practical field exercises	High
On-the-job coaching (mentoring)	High
Exchange of best practice processes within a community	Medium
Learning incentives and monitoring the achievement of goals	
Feedback from trainers	Medium
Feedback from peers	Medium
Passing of (final) exams with either written and/or oral parts	High
Evaluation of practical work (papers, articles, case studies, homework etc)	Medium
Simulation of real life cases with performance feedback	High

On their own, none of the above-listed methodologies can be considered the ultima ratio of CI training. A carefully selected blend of these methodologies should provide the right motivation for students of the CI art. As desirable individual monitoring and real life projects might be, both are extremely costly and risky, hence are not feasible for corporate CI education.

To build up know-how, a consistent concept must be designed incorporating several of these elements.

3.2 The chess analogy – what does it really take?

An analogy that has proven to be useful in the development of training concepts for CI education is the analogy of the field of intelligence with the game of chess. After all, the skills that a chess player needs to develop are similar to the skills required by a CI professional.

Chess is a board game with a very limited number of "rules". Not only is the overall set-up constrained, with its fields and chess pieces and their respective movements, but, the overall process of playing is as simple as one can imagine. Both opponents play in turns until one side is beaten or a stalemate reached. It should take an average gifted individual only a few hours to learn the rules of chess and develop an understanding of the general evolution of a chess game. Still, despite this straightforward framework, chess games can develop into highly complex affairs. As the potential number of variations, i.e. moves and counter moves, resulting in unique situations is incredible high[3], it is almost impossible to predict an opponent's behavior over several rounds.

3.2.1 The difference between a successful and a mediocre chess player

While the straightforward rules and their application have no doubt triggered the huge popularity of the game of chess, obviously not everybody who plays chess is necessarily good at it.

Scientists who have been analyzing various chess players and their respective intellectual and cognitive capabilities, confirm that the art of chess translates into the ability to identify virtually thousands of patterns in any given chess game (Mero 2002). Through this ability, advanced chess players can easily outperform even the smartest, however inexperienced, opponents. Knowing what a given situation is all about (i.e. memory) and knowing how each player can evolve out of such a situation (i.e. memory of the dynamics of potential engagements based on such a situation) beats the mere number-crunching power of analyzing a chess situation. Chess computers do exactly the latter, as they calculate step-by-step endless variations of potential moves[4].

---

[3] The total number of different chess positions is estimated to be 2.28×10^{46}. After two moves 72,084 different positions are possible.

[4] In 1996 IBM's "Deep Blue" was the first chess-playing computer to beat the chess world champion Garri Kasparow in a regular chess tournament.

For chess players as well as for professionals of any discipline, one can define levels of expertise: beginner, advanced, expert/master and grand master. Table 1 summarizes this notion by allocating the number of "patterns[5]" and related indicators to the level of expertise one has achieved.

Level	Beginner	Advanced	Expert/Master	Grand Master
# of cognitive schemes	Several tens	Several hundreds	Several thousands	Several tens of thousands
Problem-solving approach	Complex, inappropriate	Straightforward, appropriate, insufficient	Complex, appropriate, professional	Complex analogies
Quality of professional communication	Unprofessional, day-to-day logic	Tight, unsteady level	Correct content, formal	Intuitive, informal, comprehensive
Special terminology	Avoidance	Tries to …	Standard, expressive	Self-explanatory, descriptive
Thinking approach	Intuitive	Mixed, hence often illogic	Rational	Intuitive
Consciousness level	Does not know what is unknown	Knows what is unknown	Knows what is known and knows the sources of knowledge	Knows what is appropriate, but not the source of knowledge
Prerequisite	Interest, some activities	Continuous study	Education, examination	Talent
Years to reach level		A few years	Approx. 5 years	At least 10 years

Table 1 Expertise levels and cognitive patterns (Mero 2002)

3.2.2 Expertise levels: From beginner to grand master

For a chess player at beginner's level, few patterns are known. Grand masters have several tens of thousands of patterns at their disposal for analyzing situations.

In a more general sense of academic achievements, an "advanced level" of expertise usually refers to a first academic degree, i.e. a Bachelor or Masters. For graduates of Business Administration, for example, this might mean that they are able to solve straightforward problems and they can express themselves in a meaningful, yet sometimes inappropriate way. Special terminology, such as "discounted cash flow

[5] A pattern in the sense of a chess game could be a "Sicilian opening", used to describe a certain way that the initial moves are carried out. Once opponents have identified this pattern it becomes obvious how to defend and attack based on the strengths and weaknesses of the evolving situation. Whenever an opponent wants to deviate from this "pattern", additional variations are introduced.

analysis" is known, but they might not have the relevant *experience* to apply this methodology properly. MBA graduates should at least be aware of the fact that they do not have the knowledge to carry out a meaningful discounted cash flow analysis.

Several more years of specialization and/or experience in a given field are required to reach expert/master level. In an academic environment this might relate to a PhD specialization. For an MBA graduate this might mean further studies in the field of marketing. Consequently the number of cognitive marketing/business administration schemes a PhD student will have encountered will increase to several thousands. Based on this pool of cases and know-how, the student's problem-solving approach becomes more complex, appropriate and professional. A level of expertise is reached that enables PhD students to express themselves efficiently and appropriately within their knowledge domain. In a scientific field, papers can now be published reaching the state-of-the-art knowledge level of the discipline. Teaching students as a part of their academic career starts (adjunct professors, lecturers), especially since the quality of communication has reached the appropriate advanced level of an expert. Know-how can be conveyed together with the appropriate sources of their wisdom.

If a further specialization is reached within a field or the scientific research is continued, then grand master level can be achieved. In academia this level might be equivalent to a Professor function, clearly denoting competence and experience at the highest achievable level of a particular discipline. Given the huge number of cognitive schemes available and the related application know-how, education of students and PhD students is a privilege for grand masters. Usually, the communication style of grand masters can be very intuitive and informal, yet comprehensive. The general public appreciates the clarity of thought projected by grand masters on talk shows and in articles, as opposed to the sometimes highly-cryptic statements made by experts/masters within their knowledge domains. At least at the grand master level of a discipline, a level of "thought leadership" should be reached – publications, presentations and assessments should be clear milestones in the advancement of the discipline. New tools and techniques should be developed by grand masters – reflecting both the insider know-how for problem solving as well as the understanding of what is needed to advance the field.

3.3 Learning to become a CI Professional

In the context of competitive intelligence, one can observe that the experience level also correlates with the notion of patterns, e.g. competitive situations. A case study in this sense consists of several competitive activities, i.e. moves and countermoves. As the whole competitive environment is constantly changing, each point in time describes a unique set of parameters under which decisions have to be taken; patterns in the sense of unique competitive situations need to be analyzed. "Pattern recognition" relates to the situational awareness of the competitive landscape and any potential activities that competitors could launch.

The potential number of "patterns" for a competitive intelligence situation can be extremely high: micro and macro economic parameters, company specific factors and others all define a unique competitive situation.

Obviously not all theoretically possible activities are likely to emerge out of a specific competitive situation. It is more reasonable to assume that competitors follow a more or less educated assessment of activities and consequently they tend to follow certain patterns of behavior, whereby they follow rules and have to respect constraints such as limited resources and objectives[6]. Several competitive intelligence analysis techniques are specifically applied to better understand the intentions, motivations and capabilities of competitors (such as competitor profiling, distant profiling of top managers, 4-corner-analysis) in order to limit potential activities. By applying these approaches, analysts can better predict actions and reactions in an ongoing competitive encounter.

Expertise levels within the CI field consequently refer to the quality and quantity of competitive pattern recognition and their analysis of competitive situations. This requires both experience and profound analytical know-how.

CI beginners mostly focus upon compiling newsletters for general internal circulation and providing corporate platforms for colleagues to exchange competitive information. They lack the know-how to create advanced analytical reports.

CI practitioners at an advanced experience level usually offer further deliverables through standard reports such as competitive landscapes, SWOT analyses and specifically requested intelligence reports. The analytical tool kit incorporates a sound portfolio of basic business and industry-related analysis techniques. Nevertheless, most of the work is either protocol-driven or in response to colleagues' demands. CI practitioners will grow their reputation within a company and develop crucial networks to help colleagues who are not aware of even the basic competitive issues in order to cope with their requests on an ad-hoc base.

Once the master/expert level is reached, CI practitioners and their work are more formally appreciated, and they act as the corporate memory of competitive situations. They evolve as authorities in conducting advanced CI analysis projects (war games, scenario planning, early warning etc). If justifiable, a formal CI unit is set up with specialist individuals supporting the work of the CI expert.

Increasingly complex CI projects are tackled with a CI Manager acting as the driving force behind it. While straightforward reports and analyses are optimized, advanced concepts such as the "Psychology of Intelligence Analysis" (Heuer 1999) are usually implemented to push the performance envelope of the CI unit even further.

CI Managers will develop a "sixth sense" in assessing existing and upcoming threats, opportunities and abnormalities. For this task a quick comparison with past competitive activities is performed and any deviations are analyzed; a gift highly appreciated by peers and colleagues, as it avoids lengthy formal assessments. Senior managers of corporations will start using the CI Managers as sparring partners for strategy development issues, valuing communication skills as well as clarity of thought while also benefiting from their extensive industry-related know-how.

---

[6] In a very interesting survey the strategy consultancy McKinsey (The McKinsey Quarterly 2008) has shown that many companies follow rather dumb tit-for-tat moves. Lack of early warning functionalities and lack of appropriate assessment of one's tactical portfolio lead to the most obvious, so rather short-sighted retaliation – copy the move that a competitor has just made.

Some experts start teaching competitive intelligence at universities, publish papers or books and contribute towards CI communities. The latter activity usually follows the logic that in order to advance his/her own development, then feedback, inspiration and motivation need to be generated through company external contacts – there are simply no experts available within one's own work environment to increase levels of know-how. If required, know-how is imported from other fields, such as knowledge management, national intelligence or business intelligence.

Once the expert/master level of CI is reached, students need to become more and more active in developing their own CI master pieces – these will serve as building blocks for their further development. However, formal education alone is not enough for a student to progress to this level of expertise. By adding more and more creativity and their own intellectual contributions to their work, CI professionals will virtually grow out of their teachers' knowledge base and establish their own domain expertise. They will develop their own "style" of conducting CI and in some cases they might even set up their own "school of thought". For CI experts who continue to develop the CI field they will start to develop new analytical techniques, processes, research opportunities etc. With an ever-growing pool of cognitive schemes, the grand master level is finally reached and authoritative thought-leadership is acknowledged by peers.

SCIP's BOK refers to the later competence stage as advancing the evolution of the CI function, CI skill sets and the CI profession.

3.4 Conclusion

SCIP's BOK provides a basis for education as it defines competency areas. It is however left to the practitioner to develop his/her own tools and techniques as well as the related application skills. Five experience levels have been defined reflecting growing proficiency. "Learning" the profession can only be achieved by building up experience from the analysis of countless competitive intelligence engagements.

Following the notion that building up competitive intelligence expertise correlates with a growing number of cognitive patterns, it becomes obvious that CI professionalism requires exposure to a huge variety of competitive situations. Teaching with case studies is the preferred and economical feasible way to capture the complexity of competitive situations. The learning environment must allow students to interact with trainers as well as with peers in order to optimize the knowledge exchange. The instructional approach has to stimulate the creativity of students to develop their individual competitive intelligence tool set. Intellectual challenges as well as a diverse setting allow for high motivation and consequently an efficient learning process.

The building-up of know-how must follow a step-by-step approach from straightforward to complex business situations. Otherwise the student might be overwhelmed with too many perspectives of a case, thereby missing the actual competitive lessons to be learned.

Beyond formal education, the following (non-exhaustive) list of possible activities can serve as a starting point to enhance one's level of CI expertise:

1) Make sure you are continuously exposed to CI case studies. It should become the second nature of students to continuously collect, analyze and archive cases from various industries and competitive situations. Sources for such case studies could be as diverse as your company's environment, business articles, conversations with friends and colleagues, presentations at conferences, scientific articles, TV documentaries, and of course case studies written for academic teaching purposes. Whenever information about a competitive situation is received, students should switch their CI minds on and start segregating the news at hand. Quick background checks through secondary research could be conducted to broaden the information base. Then students should seek to analyze the case at hand and try to understand the motivation and capabilities of the companies involved. Prediction of further competitive moves should follow as an exercise to hone one's skills. Regular, formal hindsight reviews of these cases should quickly drive practitioners along the learning curve. In such a review, former predictions, main assumptions and recommendations are to be verified against the status quo. If there are major discrepancies then a root analysis should be conducted to find out the reasons for deviation. If indeed there have not been any major deviations then projects should be documented as best practice cases.

2) Make sure you learn the basic and advanced analytical tools and methods to analyze industries, competitors and individuals. Sticking to a few known tools might limit the effectiveness and insight into competitive situations. As a result this prohibits learning.

3) Read new mind-challenging articles and reports (books, magazines, etc). Try to follow developments in related areas such as knowledge management, national intelligence or market research. These may offer valuable contributions to the day-to-day operations of CI professionals.

4) Develop your own analytical approaches and tools. Quite often practitioners need to adopt more general concepts to specific tasks. By developing and honing these approaches, practitioners can build up their own set of analysis techniques or process steps, for example.

5) Try to communicate with other CI professionals as often as possible. Network and even create communities of practice across industries and functions. Learn from others and adapt this know-how towards your own world. Typical communication platforms can include conferences of societies or commercial conference organizers, associations and social platforms.

4. A Case Study for a CI Education Provider

4.1 The Institute for Competitive Intelligence

The Institute for Competitive Intelligence was established in 2004. Over the years its teaching methods and content have been developed and refined. The ICI provides a modular curriculum, which consists of 22 workshop modules (with 28 workshop days in total, see appendix 5.3 with an overview of the ICI's workshops and certificates).

Based on these workshops, participants can obtain seven certificates. A formal final written exam is required for all certificates. In the case of ICI's flagship certificate, the CPCI™ (Certificate of Proficiency in Competitive Intelligence), an additional oral exam and the write-up of a case study is required[7].

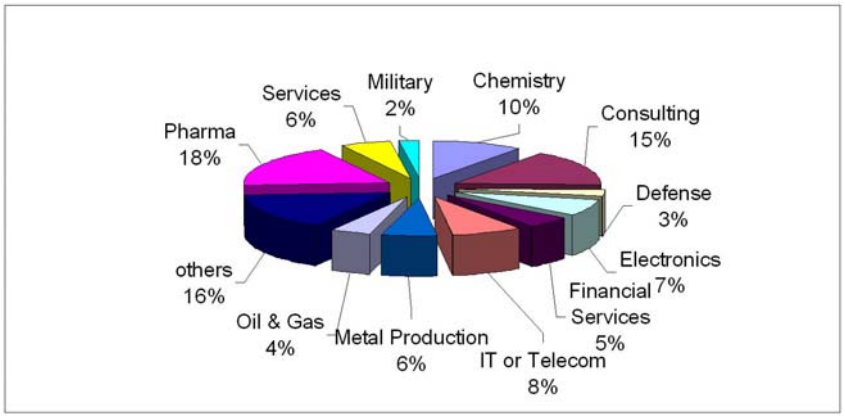
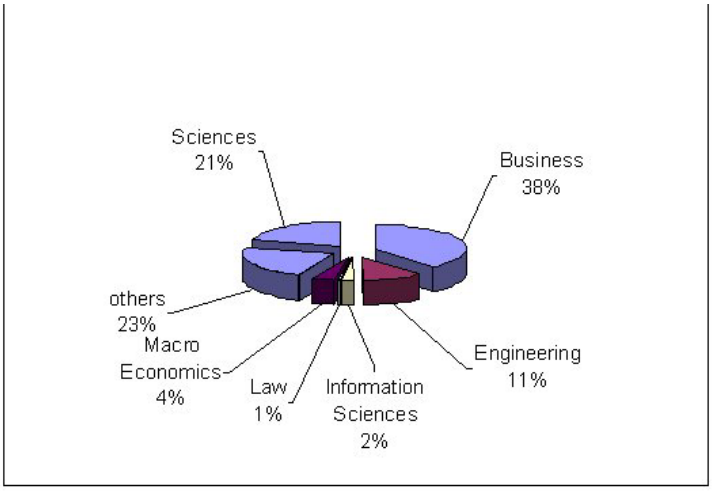


Figure 2: Industry backgrounds of ICI workshop participants

The majority of ICI's attendees are either new to the intelligence field (although they possess a significant amount of work-life experience) or they are already seasoned CI professionals looking for special training courses to hone their skills and broaden their portfolio of analytical techniques. Most of them are already highly qualified, experienced professionals in their fields.



[7] See www.competitive-intelligence.com for details.

Figure 3: Previous education of ICI workshop participants

Figures 2 to 4 include statistics relating to the ICI's participants' profiles. As these statistics indicate, the participants on the ICI's workshops have very diverse educational backgrounds, industry experience and age structure. In general participants from R&D intensive industry (Pharma, Chemistry, hi-tech) with some 5-10 years work experience are overrepresented. Due to the truly international scope of ICI, some of the workshop contents are adapted to specific regions and business cultures.

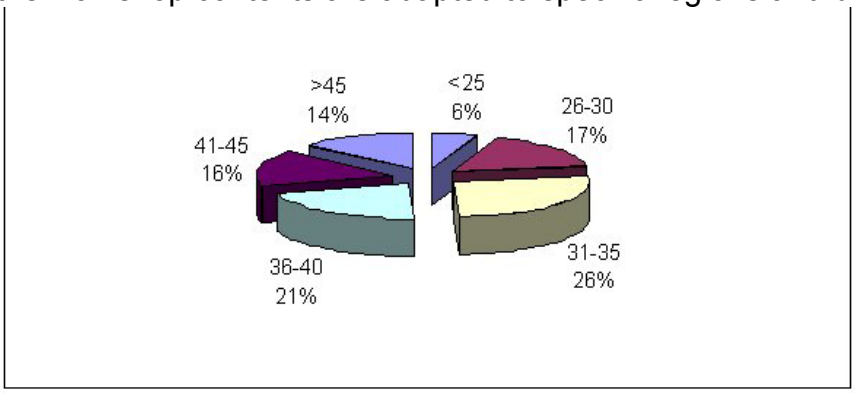


Figure 4: Age structure of ICI workshop participants

4.1.1 ICI's curriculum

Historically the ICI's curriculum was developed prior to SCIP's BOK. However, when comparing the ICI's offering to the BOK competency domains, one can conclude that ICI's workshops (see appendix 5.3) clearly comply with the BOK definitions. In fact ICI's curriculum is far superior to the requirements of the BOK in several subject areas (such as information warfare, digital intelligence, war gaming, early warning systems, competitive technical intelligence etc).

Within the "Analysis" competency domain 7" (see appendix 5.2.7) in particular, the ICI offers an extensive repository of workshops covering tools and techniques.

Note that the ICI's workshops do not incorporate basic soft skill training such as presentation techniques, rhetoric, time management or project management. Plenty of training opportunities covering these skills are available elsewhere. Neither does the ICI offer industry-specific workshops – these are only available as in-house training courses.

4.1.2 ICI's learning environment

The ICI has designed its offering around the notion of hands-on, interactive workshops[8]. Almost all its workshops are offered in small groups, with less than 15 participants, sometimes fewer than 10. Faculty members encourage discussions in class allowing participants to exchange experience among themselves as well as entering into a dialogue with the lecturer, addressing specific issues.

[8] Only one workshop is predominantly designed as a field exercise: ICI-5 Primary Research with human sources requires participants to train in the field.

All the ICI's workshops are designed to be non-industry specific. For most of the workshops, participants receive a briefing package with a case study, background information on the workshop topic and instructions on preparing for the workshop.

To enhance peer-to-peer discussions as well as networking opportunities, the ICI operates an exclusive social platform under www.linkedin.com. Here alumni can share experience, discuss issues or simply stay in touch.

4.1.3 Use of case studies at the ICI

A candidate on the Certificate of Proficiency in Competitive Intelligence program will consequently work through some 40 real-life case studies during the 28 workshop days. Real-life case studies are used to convey this content and provide an intellectually challenging learning environment. The main case studies are distributed prior to the workshops together with briefing instructions on preparing for the workshop. Having worked through the case study all participants share a common ground for in-class discussion. The case study can serve as a common denominator and as a thread throughout the workshop.

The difficulty level of case studies increases throughout the series of workshops that the candidate must follow as part of the certificate program.

Each case study represents a "typical" competitive situation. Soon candidates will build up a repository of competitive patterns. Once this awareness is raised, candidates will almost subconsciously apply this skill set of pattern identification and memorization on a daily basis.

Through this exposure to ever-changing industries and company situations, participants develop an in-depth understanding of "intelligence at work". Through additional discussions among participants about their day-to-day intelligence work, multiple layers of hands-on intelligence experience are created.

All CPCI candidates must write up case studies as part of their program requirements. These case studies can be used within the ICI's workshops or could form the basis for final exam questions.

4.1.4 ICI's faculty

Obviously the faculty plays a vital role in any educational environment. Each of the 23 ICI faculty members represents an area of expertise that is based on practical experience. Furthermore, each faculty member is inspiring and offers an appropriate teaching style. Typical participants on the ICI's workshops can include rather shrewd practitioners who know what they want to achieve from the workshops, and who provide direct and honest feedback on both the instructor and the workshop content. It is therefore imperative that the workshops are delivered to the highest standard in terms of content and instructional style.

Consequently ICI's faculty is a highly diversified group of experts – whose expertise however is not necessarily limited to CI. They represent different professions, academic credentials and industry experience. As a common denominator, instructional literacy and passion for vocational training are guaranteed.

As each faculty member's performance is constantly monitored through participant feedback evaluations, one can conclude that the participants' overall satisfaction with the ICI workshops has remained at a very high level for many years.

4.1.5 ICI's incentives and control of learning achievements

In order to certify the ICI's students, candidates on the certificate program must prove their expertise through a written and an oral exam. In the closed book exams candidates are asked to analyze and comment on specific competitive situations. All written exams are challenging in a sense that they require the candidate to work under time pressure on a variety of complex questions and case studies.

For CPCI candidates, an additional oral exam is mandatory. In this exam candidates play the role of a CI manager who is exposed to a specific competitive situation. After one hour of preparation the candidate faces a jury and has to present his/her case.

CPCI candidates are also requested to submit a case study that will demonstrate the skilful application of a specific competitive case.

Additional control of the learning achievements is provided throughout the workshops, as ICI's certificate candidates can work through former exam questions after attending the related workshops. The ICI faculty will correct their answers and provide feedback about their current level of subject matter expertise.

Once all exams and other requirements have been successfully passed, CPCI candidates should have reached the "mastery" level of CI, as defined in Table 1.

It should be noted that ICI's participants are encouraged to fill out detailed evaluation forms after each workshop. Feedback on the faculty as well as content and administration is analyzed and fed back into the daily operations of the ICI[9].

4.2 Summary ICI Case Study

Ultimately the ICI's range of training opportunities is designed to generate "intelligence minds" – professionals who find it as natural to live intelligence as they breathe air. Participants will develop their own style of conducting intelligence. The ICI's curriculum (28 workshop days) has been verified against SCIP's BOK competency domains. Throughout the ICI workshops participants are exposed to a number of case studies – each of them used to build up multiple cognitive patterns of competitive engagements. By adding more and more patterns, a participant's expertise and proficiency will grow from a beginner's level to an advanced stage.

Based on participant feedback and the overall demand for the ICI's offering, one can conclude that with the ICI has established itself as a successful training organization and can hence be used as a reference model of "teaching competitive intelligence".

[9] The ICI's processes are certified by the German state of Hesse as a quality education provider.

5. Appendix

5.1 Overview of Analytical Tools and Techniques for Competitive Intelligence

The following table describes one tool set that a CI professional should be aware of. As indicated by the shaded cells, the approaches can be used for multiple CI tasks. A given task can be approached by applying various methodologies. Part of the role as a CI professional is to identify and apply the optimum analysis technique for a given problem.

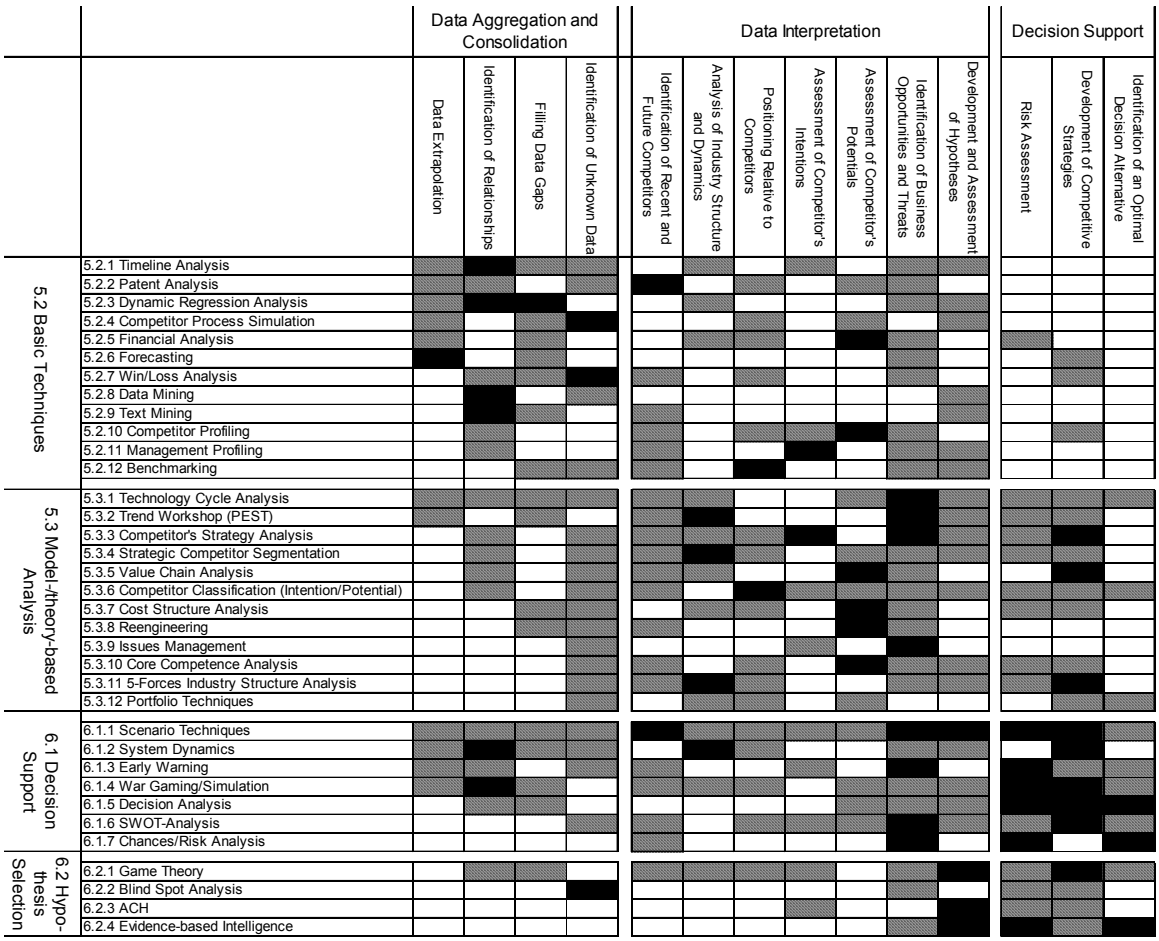


Table 2: CI Tools and techniques by CI tasks (Michaeli 2005)

Additional tools and techniques are described in literature (e.g. Fleisher 2002; Heuer 1999; Tradecraft Review 2005).

5.2 SCIP's Body of Knowledge (BOK), 2008

The following tables are results of the final project documentation of the Body of Knowledge Project (SCIP 2008, Prescott 2009)

5.2.1 Competency Domain 1: Design and Manage the Competitive Intelligence (CI) Function

Working Definition:
Competencies associated with designing, implementing and enhancing a CI function within an organization.
Competencies:
1A. Administration and Structure
1. Conduct needs assessment to define the role of CI, reporting relationships and revisit as CI role changes or organization needs change
2. Define and articulate the vision and/or mission of CI in the organization consistent with organization's vision and/or mission
3. Secure and manage adequate CI budgets
4. Develop and leverage an intelligence culture throughout the organization
5. Promote the ethical and legal practice of CI across the organization
6. Manage and coordinate CI projects with other parts of the organization
7. Develop and leverage a CI community of practice within the organization
8. Assess and establish counterintelligence practices
1B. Design and Enhance Core CI Work Processes
9. Establish a request handling and priority setting CI process
10. Coordinate strategic and tactical intelligence
11. Leverage and build on the organization's information technology infrastructure (For example, work flow management tools, search and collection, consolidation, filtering and packaging of information, accessible storage and dissemination) as appropriate
12. Establish and manage vendor and/or third-party relationships
13. Develop and utilize internal and external knowledge networks
14. Develop and adjust work processes for varying country-specific business practices and cultural environments
15. Establish a formalized process and metrics to assess the value and contribution of CI to the organization (For example, value impact, Return on Investment, quantitative and qualitative metrics)
16. Develop a CI product and service portfolio (For example, analytical alerts, newsletters, profiles)
1C. Personnel
17. Identify skills sets and position titles for CI personnel
18. Identify and develop CI talent and skills

5.2.2 Competency Domain 2: Promote and Incorporate CI throughout the Organization

Working Definition:

Competencies associated with describing, promoting, implementing and institutionalizing the role, value and limitations of competitive intelligence and the intelligence profession.

Competencies:

1. Gain commitment to CI from senior management
2. Develop and implement a promotional plan for CI
3. Demonstrate the value of CI throughout the organization using both quantitative and qualitative performance indicators
4. Mentor/model CI concepts and skills to all divisions, functional and service areas in the organization
5. Train CI and non-CI personnel in CI-related skills
6. Ensure that the organization adopts an external perspective to complement its internal perspective
7. Develop and implement a culture of formal and informal information sharing
8. Promote and foster the profession and practice of competitive intelligence

5.2.3 Competency Domain 3: Advance the Evolution of the CI Function, CI Skill Sets, and the CI Profession

Working Definition:

Competencies associated with developing thought leadership, new CI-related skills and knowledge, and how emerging business trends impact the evolution of the CI profession and discipline.

Competencies:

3A. Evolution of the CI function

1. Apply program evaluation techniques to identify new roles for the CI function as organizational needs evolve
2. Develop CI skills of individuals in cross-functional roles to increase CI visibility, effectiveness and credibility within the organization

3B. Evolution of CI-Related Skills

3. Evaluate and incorporate proven and new management practices, IT applications and thought leadership concepts that will positively impact CI-related skills
4. Continuously learn and apply new CI skills, techniques, and resources
5. Use best available evidence-based management in CI projects and processes

3C. Evolution of the CI Profession
6. Promote and transfer CI skill sets to other professions while in turn learning and adapting other professions' best practices to foster continuous learning
7. Contribute to CI professional associations to assist in the professionalization of the discipline
8. Engage, recruit and develop inter-generational CI professionals into leadership roles to sustain dynamic growth of the profession

5.2.4 Competency Domain 4: Implement Needs Assessment and Manage Client Relationships

Working Definition:
Competencies associated with conducting client need assessment as well as developing, maintaining and enhancing credibility and trust-based working relationships, CI clients and stakeholders associated with CI activities.
Competencies:
4A. Manage Needs Assessment
1. Manage and adapt the needs assessment process to organization's decision making processes and external conditions to accurately define key intelligence needs (For example , key intelligence topics (KITs), new opportunities and threats)
2. Proactively challenge intelligence users' assumptions
3. Assess and appraise one's own industry, competitors, technologies, value chains, processes, internal and external alliances, etc. so as to have insights into managers' current and potential needs across levels of the organization
4. Define and frame problem statements and decision requirements with clients based on a clear understanding of client needs and priorities
5. Prioritize projects and activities to successfully meet client and project goals
6. Identify and address client and organizational biases
4B. Manage Relationships
7. Manage client expectations regarding the use, limitations and value of CI
8. Assess, build and maintain relationships with clients, vendors and third parties
9. Support and facilitate organizational team building and participation in the CI process
10. Serve in a consultative role with clients to ensure outcomes consistent with organizational goals, strategies and tactics
11. Build trust and develop credibility in working relationships

5.2.5 Competency Domain 5: Manage CI Projects

Working Definition:

Competencies associated with initiating, planning, implementing, monitoring and evaluating CI projects of various types and scope ranging from ad hoc to ongoing and strategic to tactical.

Competencies:

5A. CI Project Management

1. Manage the planning, prioritization, executing, monitoring, control, and closing for *multiple* CI projects
2. Form, establish, and manage appropriate teams and/or individuals for CI projects
3. Apply time management skills across CI projects

5B. Perform CI Project (For example, intelligence request, collection, analysis, dissemination, evaluation)

4. Identify need and prepare scope of work for the CI project
5. Determine resource requirements for the project and assist in securing them as appropriate (For example, personnel, budget)
6. Identify and manage appropriate information sources (For example, secondary, primary, internal, human, external service providers and vendors)
7. Produce analysis that is actionable (For example, timely, plausible and reliable) for decision making, including making recommendations, as appropriate
8. Customize and communicate deliverables as appropriate for clients
9. Conduct and use feedback provided by internal and external clients
10. Work with departments across the organization to facilitate integration of CI results into planning, strategies, and operations
11. Determine the need to deliver ongoing post-project support including assisting in the implementation of strategy and tactics

5.2.6 Competency Domain 6: Conduct Intelligence Collection and Manage Information Resources

Working Definition:

Competencies involving expertise in the collection, application, compilation and management of information resources and associated technologies conducted in an ethical and lawful manner.

Competencies:

6A. Manage Information

1. Apply knowledge management techniques and information technology (IT) to support CI activities (work flow management tools, search and collection, consolidation, filtering and packaging of information, accessible storage and dissemination)
2. Apply knowledge of database management tools
3. Procure and develop CI-related IT assets
4. Collaborate with knowledge management professionals to support CI
5. Understand and comply with intellectual property requirements, laws and country-specific practices (For example, patents, trademarks, copyrights, trade secrets)

6B. Conduct Information Collection

6. Design and implement appropriate search strategies for intelligence projects and information requests
7. Use ethical and legal information collection standards
8. Locate and use appropriate secondary information and content collection techniques (For example, open sources, databases, grey literature, Google)
9. Specify, structure and/or use proprietary internal databases
10. Use appropriate primary collection techniques (For example, interviewing, surveys, elicitation, observation, social networking, trade show intelligence, unobtrusive techniques)
11. Develop and manage internal and external resources and networks for information collection
12. Evaluate sources for their credibility, plausibility, accuracy, corroboration, trustworthiness, timeliness and reliability
13. Filter, compile and store information into accessible and useable format

5.2.7 Competency Domain 7: Conduct Intelligence Analysis and Delivery Processes

Working Definition:

Competencies associated with the manipulation of data to produce actionable intelligence and its delivery to CI clients at all levels of the organization

Competencies:

7A. Conducting Analysis

1. Use ethical and lawful standards in the application and interpretation of analytical methods, results and delivery processes
2. Structure and frame analytical intelligence assignments using appropriate frameworks and models
3. Adopt and use a multidisciplinary analytical approach as appropriate
4. Select and apply the most appropriate analytical techniques and methods based on project requirements, available resources and constraints
5. Develop and/or participate on analytic teams
6. Collaborate with experts inside and outside the organization to analyze and interpret CI results
7. Organize information
8. Synthesize information
9. Use contextual thinking (For example, industry structure, strategy, structure, processes, regulatory climate) in analysis and interpretation
10. Acknowledge the psychology of intelligence analysis (biases and blindspots) in interpretations, conclusions and recommendations
11. Translate analytic results into insightful and actionable intelligence (For example, timely, plausible and reliable) with the objective of influencing decision making

7B Delivering Analysis

12. Use the most appropriate communication formats, mediums and techniques based on the project requirements, audience, and security requirements
13. Use a variety of writing techniques- (description, explanation, interpretation, etc.) to effectively communicate the results, significance and implications of analyses and outcomes
14. Produce visual representations of intelligence conclusions and results
15. Prepare oral presentations of project results
16. Provide an unbiased view of analyses to clients
17. Use CI project results, recommendations and outcomes to identify new CI-related questions

5.3 Certificates and Curriculum of the Institute for Competitive Intelligence GmbH

This overview illustrates ICI's curriculum and related certificates per May 2010 (see www.competitive–intelligence.com).

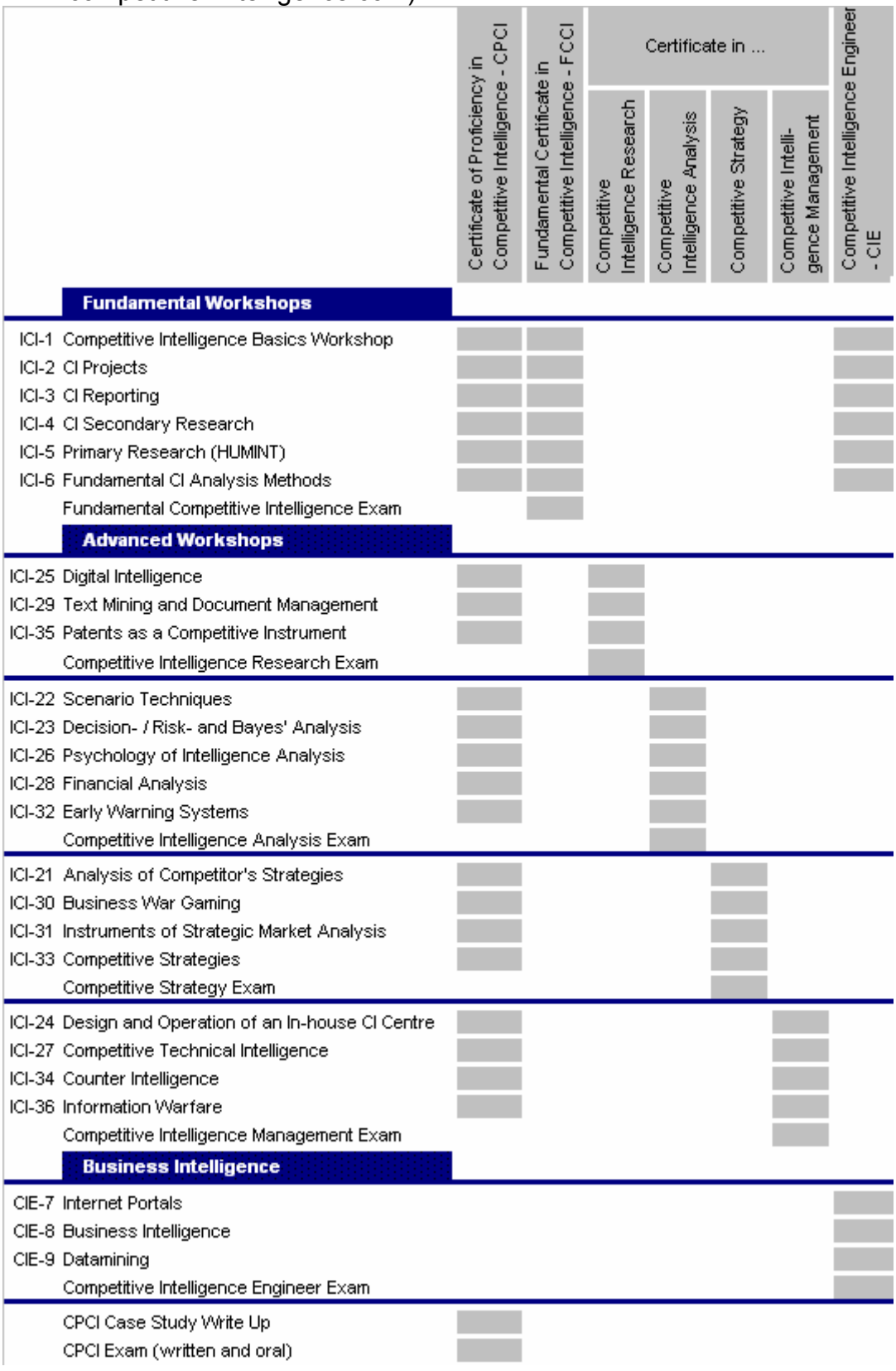


Table 3: Overview ICI curriculum and certificates

6. Literature and Internet Resources

Cline, R. (1992) “Teaching Intelligence”; Competitive Intelligence Review, 3(2) p.55

Euroguide LIS (2004) Volume 1 Competencies and aptitudes for European information professionals, Second entirely revised edition; European Council of Information Associations (ECIA)

Fehringer, D.; Hohhof, B; Johnson, T. eds. (2006) State of the Art: Competitive Intelligence; A Competitive Intelligence Foundation Research Report 2005-2006

Fleisher C, Bensoussan BE (2002) Strategic and Competitive Analysis: Methods and Techniques for Analyzing Business Competition. Prentice Hall, Upper Saddle River, NJ

Fleisher, C.; Blenkhorn, D. (2003) “Are Competitive Intelligence Practitioners Professionals?” in *Controversies in Competitive Intelligence: The Enduring Issues*, eds C.S. Fleisher and D.L. Blenkhorn, Greenwood Pub Group Inc 2003; ISBN-13: 978-1567205602;

Heuer JJr (1999) Psychology of Intelligence Analysis. Center for the Study of Intelligence, CIA, Washington

McGonagle JJ, Vella CM (2003) The Manager's Guide to Competitive Intelligence. Praeger, Westport, CT

Mero, L. (2002) Die Grenzen der Vernunft: Kognition, Intuition und komplexes Denken; Rowohlt Verlag

Michaeli, R (2005) “Competitive Intelligence - Strategische Wettbewerbsvorteile erzielen durch systematische Konkurrenz-, Markt- und Technologieanalysen“ Springer Verlag 2005; ISBN: 3540030816. (English version forthcoming)

Porter M (1985) Competitive Advantage. The Free Press, New York

Porter M (1998) Competitive Strategy. The Free Press, New York

Prescott, J. (2009) The Competitive Intelligence Professional’s Competency Framework; SCIP Competitive Intelligence Magazine, Vol 12, Number 1, Jan/Feb 2009

SCIP Society of Competitive Intelligence Professionals (2003-2005), www.scip.org Several unpublished SCIP membership surveys

SCIP Society of Competitive Intelligence Professionals (1996) “Curriculum Modules for Educational Programs in Competitive Intelligence for use by Professional Trainers and Academics”, Created by Society of Competitive Intelligence Professional Education Committee, 1994 through 1996, chaired by Jerry Miller, PhD.

Society of Competitive Intelligence Professionals' Body of Knowledge Project: Conceptual Framework and Seven Competitive Intelligence (CI) Competency Domains (2008); John E. Prescott, Ph.D., Chair - BOK Task Force; September 19, 2008

SCIP Society of Competitive Intelligence Professionals (2009)
"Competitive Intelligence Education - Educational Institutions"
Updated September 2009
http://scip.cms-plus.com/files/openBH/EducationList_2009Sept20.pdf

Shelfer, K. (2003) "CI Education that Advances CI Practice"; Competitive Intelligence Magazine, Volume 6, Number 4; July-August 2003

Smith, J; Kossou, L. (2008) "The Emergence and Uniqueness of Competitive Intelligence in France" Journal of Competitive Intelligence and Management, Volume 4, Number 3, 2008

The McKinsey Quarterly (2008), How companies respond to competitors, A McKinsey Global Survey

Tradecraft Review (2005), A Tradecraft Primer: Structured Analytical Techniques for Improving Intelligence Analysis", CIA, Sherman Kent School, Volume 2, Number 2, June 2005

Wagner R. (2006) "Competitor Analysis: Craft, Art or Science?" Keynote DCIF Annual Conference, Dresden

Internet Resources

DCIF e.V. (Deutsches Competitive Intelligence Forum e.V.) www.dcif.de

SCIP, Society of Competitive Intelligence Professionals www.scip.org

CBIP, Certified Business Intelligence Professionals, www.cbipro.com

PMI, Project Management Institute, www.pmi.org

SLA, Special Librarian Association, www.sla.org
www.sla.org

ICI, Institute for Competitive Intelligence, www.competitive-intelligence.com

MRIA (Marketing Research and Intelligence Association (MRIA), Canada, www.mria-arim.ca