

Information Literacy (IL) in the Academic Context: Is There a Gap Between Employability Competencies and Student Information Literacy Skills?

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Abstract. This paper first presents the information literacy competencies in both public universities and institutions of applied learning in Switzerland. Based on the project “Information Literacy at Swiss Universities” launched in 2011, it shows how the Swiss Standards of Information Literacy were designed and applied. These six standards have since been supplemented by related learning objectives. In the second part, the author will answer the question formulated in the title in order to understand if those standards reflect the reality of the job market and the workplace. Two case studies, one at the University of Geneva and the other at Ecole hôtelière de Lausanne in Switzerland (where the author is presently working) are given. In conclusion, he analyses the reasons behind such a gap and proposes several solutions to bridge the gap. Solutions do exist and information professionals hold the key to unlocking information literacy.

Keywords: Information literacy · Standards · Student · University Case studies · University of Geneva · Ecole hoteliere de Lausanne Switzerland

1 Methodology and Overall Approach

This article is a personal reflection, a theoretical approach to the concept of information literacy as applied in Switzerland, and an illustration of the way in which information literacy is applied in both a university setting (at the University of Geneva) and an academic setting (at the Ecole hôtelière de Lausanne) including their strengths and weaknesses.

The methodology consists in comparing and contrasting theory and practice to reach a general conclusion that could be useful for other areas. The result is a set of recommendations regarding what could be done to facilitate students’ access to the job market. However, contradictions do exist and it is critical to identify and understand them.

At once a partial study of the literature on a few specific points of interest, the article is also an observation of two distinct academic settings. Observations are very much first person because the author was and is in direct contact with these groups of students and professors, amid a daily environment that sheds light on the value of these six standards

and how they are actually applied. Alongside relevant stakeholders (usually the faculty), the author lays down a group of criteria and discusses how to go about implementing them. Based on these observations, conclusions are drawn and findings reported.

2 The Creation of the Six Swiss Standards of Information Literacy

A now widely accepted definition of information literacy, formulated by UNESCO, is: “Information Literacy is the capacity of people to recognize their information needs, locate and evaluate the quality of information, store and retrieve information, make effective and ethical use of information and apply information to create and communicate knowledge.” [1].

This definition by UNESCO and the standards of the Australian and New Zealand Information Literacy Framework of the Australian and New Zealand Institute for Information Literacy ANZIL [2] and the internationally established Information Literacy Competency Standards for Higher Education of the American Association of College and Research Libraries [3] formed the basis for the development of the Swiss Standards of Information Literacy. A reformulation of the standards was necessary as these had to be adapted to the cultural content of the Swiss target audience. In so doing it was ensured that the contents of all three linguistic cultural regions (German, French, Italian) were fulfilled.

The six Swiss standards in Information Literacy¹ are listed below and each one followed by a short explanation:

1. *The information literate person recognises the **need for information** and determines the nature and extent of the information needed.*

The information literate person:

- defines and articulates the information need referring to a defined purpose;
- understands the purpose, scope, and appropriateness of a variety of information sources;
- selects and uses diverse sources of information to inform decisions

2. *The information literate person **finds** needed information effectively and efficiently.*

The information literate person:

- selects efficient methods or tools for finding information
- constructs and implements effective search strategies
- obtains information using appropriate methods

3. *The information literate person critically **evaluates** information and the information seeking process.*

The information literate person:

- defines and applies criteria for evaluating information

¹ See: <http://www.informationskompetenz.ch/en/about-il/swiss-standards>.

- assesses the usefulness of the information obtained
- re-evaluates the nature and extent of the information need
- reflects on the information seeking process and revises search strategies as necessary

4. *The information literate person manages and shares information collected or generated.*

The information literate person:

- records information selected and its sources
- organises, classifies, and stores information using appropriate methods
- shares information with others
- keeps up to date with information sources, information technologies, and investigative methods

5. *The information literate person applies prior and new information to accomplish a specific purpose.*

The information literate person:

- applies new and prior information to the creation of new knowledge or a particular product
- communicates the new knowledge or product effectively to others
- revises the creation and communication process of knowledge or product

6. *The information literate person acts as a responsible member of the information society*

The information literate person:

- acknowledges cultural, ethical, and socioeconomic issues related to the use of information
- conforms with conventions and etiquette related to the use of information
- legally obtains, stores, and disseminates all kinds of information (Fig. 1).

Swiss Information Literacy Standards

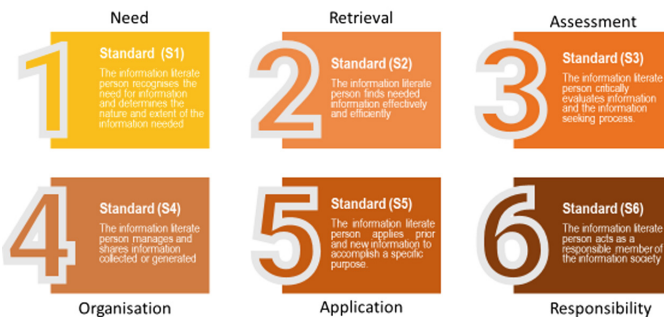


Fig. 1. The 6 Swiss Information Literacy Standards (Source: Christine Walker, Information Specialist at EHL)

These six standards outline the steps required to make sense of information today. The individual plays a central role in our information society. He or she participates concretely in sharing the information that has been gathered and is autonomous in his or her research and decision-making.

These standards can apply to any individual and all stages of his or her personal and professional development. In the two case studies presented today, two student populations – one in a university and scientific setting and the other in an academic and applied sciences setting - will be compared and contrasted as pertains to these six criteria.

3 1st Case Study: Being a Student at the Faculty of Sciences of the University of Geneva

Enrolment at the Faculty of Science of the University of Geneva (UNIGE) was 2,500 students in 2016² - including the doctoral programme, and the school recruits professors who are well known in their field, some are even Nobel Prize laureates (maths, physics, for example). UNIGE is ranked 53rd in the Shanghai ranking, which is 5 spots higher than last year. It is second, behind the Ecole polytechnique fédérale de Zürich (EPFZ), among Switzerland's top schools, which are known as Hautes Ecoles Suisses.

UNIGE's library of sciences³ dates back, in its current configuration, to the 1980s but underwent substantial renovation in 2013 thanks to the generosity of various backers⁴. It covers physics, mathematics, biology and pharmaceutical sciences, among other fields of study, yet some topics are, for historical reasons, housed off-site in and around Geneva (e.g., the life sciences, information technology and astronomy). A few libraries in certain fields have existed since the 18th century. In terms of information literacy, UNIGE's library of sciences is one of the pioneers. Two information officers are in charge of organising classes and regular sessions across all levels of the various academic programmes. Within the library, a specific room is used exclusively for training purposes where demonstrations and classes can be held. Attendance is mandatory, and students must complete a number of exercises online, for which they receive academic credit pursuant to the Bologna Process.

3.1 Applying Information Literacy Criteria at the University of Geneva (UNIGE)

A “training workgroup” was created at the highest ranks of UNIGE in the aim of developing the school's informational culture and:

² According to official data from the University of Geneva: <https://www.unige.ch/stat/fr/statistiques/chiffresetudiants/>.

³ <http://www.unige.ch/biblio/fr/infos/sites/sciences/>.

⁴ The Schmidheiny Foundation funded these renovations: <http://www.fondation-schmidheiny.ch/lafondation.html>.

- Creating content for training courses on information skills;
- Leading workshops and courses to improve information literacy;
- Organising training sessions for librarians who are themselves in charge of training students

As part of this workgroup, a cross-discipline “information culture” group at UNIGE’s library⁵ was created and now manages several projects:

- The autonomous training programme *InfoTrack*⁶;
- The organisation of various activities across all campuses;

In 2015, 266 training sessions were held totalling 322 h involving 4,585 participants. The Faculty of Science has the highest participation rates: 103 sessions, 143 h and 1,610 participants. Some 44% of these activities involved the bachelor programme and they were integrated into the university curriculums, 16% at the Master’s degree level, 4% doctoral, 5% ongoing education and 31% for other levels.

3.2 Observing UNIGE Students’ Information Uptake

For the 4,585 students participating in the information literacy programmes, their knowledge and their understanding of information is substantial, although no studies have been conducted on the Department of Scientific Information, which oversees the university’s library⁷. These programmes teach students about plagiarism and how to use software related to bibliographies and referencing. With these skills in hand, UNIGE students are among the Switzerland’s best trained in information literacy and with regards to the six previously-mentioned criteria.

4 2nd Case Study: Studying at the Ecole hôtelière de Lausanne (EHL)

Enrolment EHL stands at 2,745 students from 114 countries including 58% women⁸. EHL is an international private school specialised in applied education and will be celebrating its 125th anniversary in 2018. It trains, primarily, the future managers of the hospitality management industry and features a bachelor, master and EMBA programme. It is ranked number one in the world for hospitality management, according to specific criteria⁹. Most of the applicants tend to be in secondary school but sometimes have work experience. In any case, they must express an interest in working in the hospitality field if they want to be accepted. They tend to be so-called Millennials, and

⁵ “The Library of the UNIGE” is the entity that covers eight specialised libraries under the authority of the Department of Scientific Information (DIS). It contains multiple sites throughout Geneva.

⁶ <https://infotrack.unige.ch/>.

⁷ <http://www.unige.ch/dis/>.

⁸ <http://www.ehl.edu/fr/a-propos/centre-analyses-institutionnelles>.

⁹ These criteria are set by the US organisation NEASC (New England Association of Schools Accreditation): <https://www.neasc.org/>.

the average age of first-year EHL students is 21. Social aspects and networking are strongly encouraged with a plethora of sporting, cultural and musical events being held every year along with parties and other festivities. This component is important at EHL and is very popular – understandably – with students. Classes are taught in English or French, and a wide range of information is only available on the Intranet. Consequently, students are connected all the time to the web and social networks. Projects include market analyses and cross-country comparisons requiring data and statistics. Group work, oral presentations, role playing and quizzes form an integral part of the learning experience and are used successfully to bolster the management theory students learn in classroom settings. This kind of teaching method is specific to schools focused on the applied sciences and is quite different from a university setting where more emphasis is put on theory (Fig. 2).

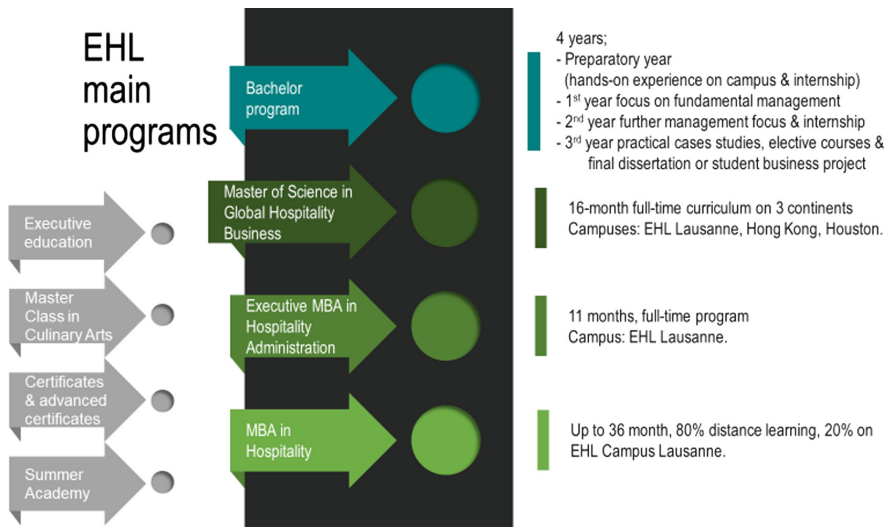


Fig. 2. The main programmes at Ecole hoteliere de Lausanne. (Source: Christine Walker, Information Specialist at EHL)

The EHL library, created 25 years ago, is a traditional academic library, with 35,000 print materials, and a member of the HES network of libraries¹⁰ and NEBIS¹¹, network of Swiss libraries. Digital resources are no less plentiful with access to over 200 databases and several thousand e-books and online reviews. All resources are available free of charge. Hotel management, finance, business administration, but also gastronomy, tourism and travel, architecture and design or languages are just some of the topics covered. The library easily meets its information needs (half of EHL students have a library card) but it is not used to the maximum of its capacities for several reasons: insufficient work space, a small support team consisting of five staff members

¹⁰ <https://www.hes-so.ch/fr/bibliotheques-hes-so-187.html>.

¹¹ <http://www.nebis.ch>.

with just one documentation specialist who handles information literacy questions among other tasks, the faculty's sometimes flagging interest in the library. Information culture is not one of the school's strong suits (it has others) and could be improved. For the majority of students, print books or a bricks-and-mortar library are a foreign concept. EHL students are thoroughly digital and sometimes lack general cultural knowledge (although some improve while at EHL). This adds to disparities between the various nationalities represented on-campus in terms of educational and cultural background. The EHL library works to bridge the information culture gap by:

- Welcoming new students during Intro-week or when they return from their internships (the “Welcome Back” period) with a general presentation of the digital resources available to them at the school.
- Organising occasional training sessions on preparing a literature review, parsing sources of information, researching hotel-related data, etc.
- Providing supplemental coaching services for certain classes or projects.
- Holding an annual workshop for new faculty members and academic assistants;
- Providing an ‘Introduction to Databases’ workshop for BOSC 3 students (3rd year students) and individual marketing projects for MGH students (Master of Science in Global Hospitality Business)
- Publishing demographic and economic data research tips for EMBA students;
- Organising ‘Digital Tuesdays’, i.e., weekly office hours for all students (Fig. 3).

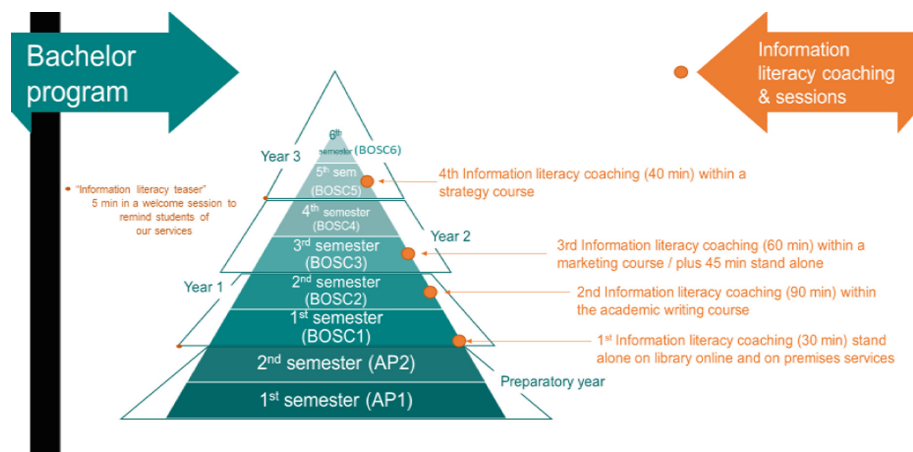


Fig. 3. The bachelor program and information literacy. (Source: Christine Walker, Information Officer at EHL)

4.1 Observing EHL Students' Information Uptake

EHL has an “information training” strategy, which remains largely dormant, geared to students at different stages of their academic experience. Although it is a priority of the dean's office, it is mainly reliant on the prerogative of certain professors who might be willing to clear time for it during their course. The strategy is not implemented

school-wide, despite the sizeable financial resources invested in access to databases. One of the knock-on effects is that the six Swiss criteria described above are not applied. Information literacy is therefore uneven across all levels of studies. Many students only become interested in information searches and data research in the final year of their studies. And yet, it does not seem to affect their exam grades, perhaps because more emphasis is put on group versus individual knowledge. Yearlong group work partially compensates for the non-application of the Swiss criteria.

5 What Is to Make of These Observations?

Between these two settings there is a world of difference...and therein lies a certain contradiction. On the Swiss and global job market, EHL graduates are very likely, given EHL's reputation, to find a job in the area of business or hospitality management – despite not really have much in the way of informational literacy skills. EHL alumni generally need these skills at some point in their career and, in response, the library has set up a specific, yet somewhat informal programme whereby they can access the databases. This is a fee-based programme so obviously not all alumni use it. The EHL library thus meets this kind of information need from alumni.

The students of the University of Geneva have real information literacy skills that will serve them well throughout their career. The majority of alumni, however, do not go on to be managers or businessmen, unlike their EHL counterparts. Therefore, the question that arises is the following: are information literacy skills really a prerequisite for professional success? How important are they really? How much value do they have in employers' eyes as the hiring process unfolds?

Let's consider what goes on in a company. An employee's information literacy skills are not recognized in his or her contract and are not mentioned as such in the want ads (we're not talking about job ads for librarians or documentation specialists, obviously). This oversight or misunderstanding on the part of decision-makers leads to an inefficient use of time when it comes to information management. Recent studies show that employees spend over eight hours per week looking for information they need¹². The waste of time and energy is considerable without the right skills.

¹² Cited in: <https://fr.linkedin.com/pulse/combien-de-temps-perdu-%C3%A0-la-recherche-dinformation-c%C3%A9ric-frickert>, published 15 May 2017 by Cédric Frickert: "According to a report published by McKinsey, employees spend 1.8 h per day, 9.3 h per week, on average, searching for and gathering information." "Source: Time Searching for Information". Other sources:

- 19.8% of the time of the activity – the equivalent of one day per week of work – is wasted by employees by employees in search of information to do their jobs efficiently; 1/5 of business time is lost looking for information. "Source: Interact".
- A recent webinar provided an interesting statistic by Outsell: the time spent by a manager in search of information has increased 28% since 2002. "Source: IHS Knowledge Collections".
- A new poll revealed that workers needed eight searches to find the right document and information. "Source: SearchYourCloud".
- IDC data shows that "workers spend around 2.5 h every day, or about 30% of the work day, looking for information... 60% of corporate managers estimated that time constraints and incompetence in searching for information prevented their employees from finding the info they need. "Source: Information: The Lifeblood of the Enterprise".

Information literacy skills enable individuals to improve their capacities and general skills and make them more adept at handling related tasks at work, home and socially. This observation is corroborated at the university level where, once the skills have been acquired, they remain an integral part of an individual's skill set, making it easier for them to seek out information, usually without the help of the library (Fig. 4).

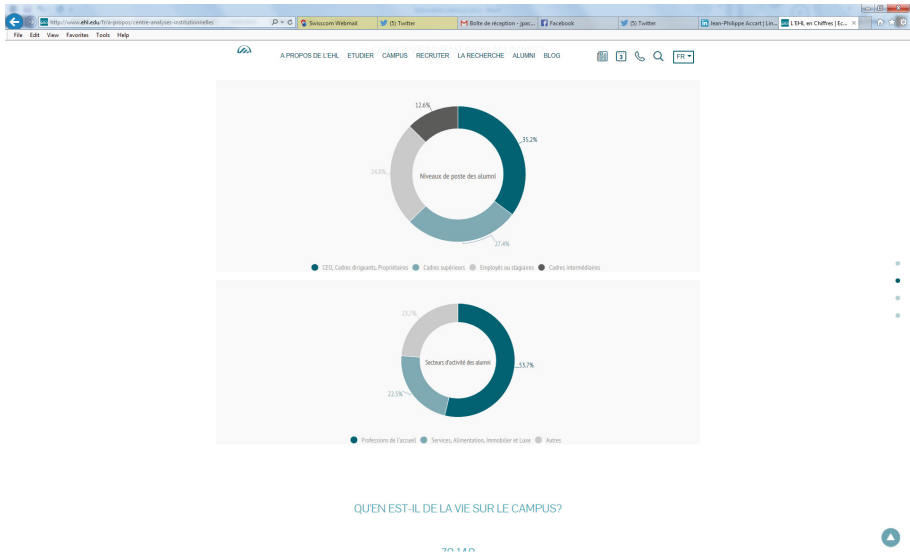


Fig. 4. EHL website: EHL key figures: <http://www.ehl.edu/fr/a-propos/centre-analyses-institutionnelles>

EHL students usually acquire these skills but there is room for improvement. For some, the problem is a question of age, education or cultural background while for others the problem is attention deficit disorder (ADHD)¹³, a seemingly-ubiquitous affliction nowadays. Students are constantly interrupted by their cell phones or social networks, making it very difficult to concentrate. The idea of reading a book or even a long document is now a feat of almost Herculean proportions.

There are solutions, in both cases, to make up for these shortcomings, including psychological and organisational ones.

6 Conclusion: A Few Recommendations for Both Cases

Multiple causes, multiple solutions: One recommendation is clearly to develop information and digital literacy skills among young students or working adults as early as possible, skills which can be reinforced while at university, regardless of the

¹³ <http://www.douglas.qc.ca/info/trouble-deficit-attention>.

curriculum or type of academic programme. A common information literacy baseline should be established and relevant exams should be required at various stages of students' academic careers.

Being able to search for and critically evaluate all types of information on one's own should be a basic principle of any learning society. The principle of autonomy and access to information in general should be universal across all levels of schooling and in the workplace.

The tools used to seek out information are highly advanced, including search engines that use algorithms and artificial intelligence. These solutions offer good results and are opening up new unexplored areas and allowing us to tap into big data. Data curation and data monitoring are increasingly sophisticated and could help companies, institutions and their employees to access the information they need in less time.

For all the questions aroused briefly mentioned in this article, information professionals have a key role to play in providing support and assistance, and that is the note on which I would like to finish. This role can be played at different levels:

- Using technology and the content creation: we can also leverage technology (creating tutorials and digital services) to create content (either face-to-face or online courses and exercises);
- Supporting and teaching students how to use information: while our pedagogical skills need to improve markedly so we can enable service users to become as independent as possible, and help students search for and understand information.

I firmly believe that informational professionals are capable of rising to this challenge.

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References

1. Catts, R., Lau, J.: Towards Information Literacy Indicators. UNESCO, Paris (2008). http://www.uis.unesco.org/Library/Documents/wp08_InfoLit_en.pdf
2. Bundy, A.: Australian and New Zealand Information Literacy Framework. Australian and New Zealand Institute for Information Literacy (ANZIIL), Adelaide (2004)
3. Association of College and Research Libraries (ACRL): Information Literacy Competency Standards for Higher Education. Association of College and Research Libraries, Chicago (2000)