Article

#AGIREINFORMATI. Learning Information Literacy by social network

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> *You can't not believe everything you read*
>
> **D. Gilbert**

Abstract. The paper describes the experience of the library project #AGIREINFORMATI, (https://twitter.com/i/events/917401122171772928) created in favor of the diffusion of Information Literacy, both in the specialist field of bio-medical sciences, but also suitable for general users. It is a multimedia training product, structured according to the informal logic of micro-learning and therefore suitable for distribution on all social networks. It responds to the requests of the European institutions in favor of lifelong learning and the dissemination of training tools apt for individual and collective cultural growth, especially in the digital field. The project is based on the idea that no one can live in the Third Millennium without mastering digital and telematic tools, without knowing how to expertly retrieve, evaluate and adequately use information and network resources. These objectives can also be achieved thanks to the information services of libraries, especially academic libraries, which are now able to reach the desired information in real time, wherever it is located and on whatever medium it is produced, while at the same time educating users to exercise critical thinking, to efficiently satisfy their own information needs and to effectively meet those of the user community.

Keywords: #Agireinformati, Academic Library, Information Literacy, Health Information Literacy, Lifelong Learning, Micro-learning, Informal learning, Learning Object, Social Network, Soft Skills, Digital Resources, Open Access, Open Data, Open Science, Citizen Science.

Background

The idea of experimenting with the use of social networks to develop the information competence of users of an academic library stems from a reflection on the role that such powerful communication tools can play in the university's documentary structures.

Academic libraries, in fact, more than other educational institutions, have shown that they are able to adapt to the needs of the knowledge age of our Third Millennium, which has as its fundamental characteristic an enormous availability of information on the web that needs to be managed correctly. For this reason, university libraries have gradually acquired new functions, becoming learning and teaching libraries, i.e. expanding their traditional role of information mediation in support of research and teaching into that of organizations providing access to information and knowledge. A "Copernican revolution" that has transformed them from physical places, where documentation is stored while waiting for a possible request from users, according to the just-in-case model, to physical, electronic, virtual and digital places for the dissemination of information and knowledge wherever it is located and accessible in real time, at the request of the user, according to the just-in-time logic. This new paradigm has given rise to innovative services, which add to the typical servant function of academic libraries regarding teaching and research, a further function that makes them learning centres, suitable for satisfying the right of citizenship to lifelong learning enjoyed by every European citizen. In other words, this is the transition from the information mediation activity of the analogue era to a dimension that, in the digital context, favors individual and collaborative learning, to know not only where to find information, but also when and why one needs it, how to evaluate it and how to use and communicate it ethically. The soft skills needed for this purpose are the subject of information literacy, which is often practiced in libraries as an additional specialist service to the traditional reference. As a result of this development, university libraries have expanded their vocation to user training; they often promote ad hoc courses aimed at developing information literacy, with the aim of making research activities more efficient by educating users to document themselves, i.e. to select information sources according to objectives, to expertly interrogate network resources, to evaluate research results and to transform these results into a shareable wealth of knowledge.

The process of conversion of libraries from "showcases" to dynamic information services also passes through the evolution towards a participatory model, not yet fully realized, which foresees the centrality of the users: according to this paradigm, they are no longer considered only as "passive" recipients of old and new services, but assume an active role that potentially sees them as protagonists up to the eventual co-production of contents, through IT platforms thanks to which they could collaborate (2).

This perspective also fits into the more general paradigm of open science, which involves not only the forms of dissemination, but also those of science production. Thanks to the Internet and Web 2.0, an era has opened in which knowledge can circulate freely. This practice, which is strongly supported by institutions and concrete European and international policies (https://ec.europa.eu/info/research-and-innovation/strategy/goals-research-and-innovation-poli cy/open-science_en), envisages the open dissemination of data (open data) and scientific publications (open access) resulting from publicly funded research, and openness across the

entire research cycle. Open science, in fact, implies the sharing of every step of the research process, from data, to protocols, to software, to results it is a continuum of practices that can start even by sharing only laboratory notes. University libraries, for their part, can encourage this process by making their information resources available, as openly as possible, facilitating the dissemination of research results (8) and taking an audience development perspective, i.e. developing the number of users and their active role.

Moreover, the assumption of the change just described is implicit in the cultural and social policy initiatives aimed at the information literacy of citizens, indispensable for the spread of digital culture and data sharing, which have seen the European Union and the United States of America playing a leading role.

In this direction, for instance, is the resolution of former President Obama, who proclaimed October 2009 as the month of information literacy, recalling how the ability to manage information correctly, without being overwhelmed by information overload, represented since then an unavoidable condition to escape the risk of social exclusion and marginalization, and therefore promoted its diffusion among the American people. The European Union, not to be outdone, published already in 2006, the "Recommendation of the European Parliament and of the Council on key competences for lifelong learning " (https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32006H0962&from=IT),

which prescribed the need to possess a digital competence that, in turn, presupposed the ability to know how to manage information correctly. This document has recently been updated with the publication in May 2018 of a new 'Council Recommendation on key competences for lifelong learning' (https://data.consilium.europa.eu/doc/document/ST-9009-2018-INIT/en/pdf) which, compared to its predecessor, gives a strong boost to the acquisition of resilience and critical thinking skills by European citizens and updates the eight competences "enabling full participation in society".

Among these key competences is digital literacy, which includes 'computer and digital literacy, communication and collaboration, media literacy, digital content creation (including programming), security (including being comfortable in the digital world and having cybersecurity skills), intellectual property issues, problem solving and critical thinking'.

In the same document, with a view to a massive dissemination of these skills and contents among European citizens, the Council of the European Union recommends that educational organizations adopt different and more innovative forms of education, fostering not only formal, but also non-formal and informal learning, in support of personal fulfilment, health, employability and social inclusion, in an increasingly mobile and digital society.

Most of the skills indicated by the European Union today, in Italy, can also be acquired in the Information Literacy programs offered in many academic libraries, which are the appropriate places to foster the development of information culture. Considering these indications, it has become very important, for the purposes of synergy between society and university, also the need to foster a two-way relationship between the library and its recipients, to implement its ability to "tell its story", to create an effective storytelling, which exerts on users a growing informative and educational influence and which involves them in the creation and dissemination of content, transforming them into an active community. In the learning society,

places such as academic libraries promote the cultural exchange and development of individuals, support their resilience, and support the building of a sense of community, which are indispensable factors for the growth of human capital and, therefore, for overall socio-economic progress. The use of social networks in an educational context can foster both these processes and the conversion of libraries into social libraries, i.e. structures designed to strengthen the social purpose of scientific research and to satisfy with their services also the institutional objectives of the university, such as the Third Mission. The latter, which refers to the initiatives undertaken by universities to enhance the socio-economic dimension of the knowledge produced, to positively influence the general growth of the whole society, also concerns libraries when, for example, they deal with intellectual property or when they are dedicated to adult education, lifelong learning or training.

Moreover, academic libraries, which due to their specialized nature are traditionally intended to meet disciplinary information needs, when they take on this active, educational and dissemination function they create a virtuous circle that involves the whole of society. Achieving the objective of raising the level of information culture of users, even for specialist purposes, contributes in any case to combating socially pervasive phenomena such as functional and digital illiteracy. This means that the action of libraries can achieve the objective of forming information literate persons, i.e. individuals who can use the information tools of the network in a knowledgeable and expert manner, and thus create a barrier of competence, rationality and critical sense, in a society like ours overwhelmed by the spread of information. The new definition of information literacy released by the professional association of British librarians in April 2018 goes precisely in this direction: "Information literacy is the ability to think critically and make balanced judgements about any information we find and use. It empowers us as citizens to reach and express informed views and to engage fully with society" (https://infolit.org.uk/ILdefinitionCILIP2018.pdf). This definition fits in well with the actions recommended by the European Union against the spread of fake news, in what is defined as the era of the "post-truth", where the emotional aspect of facts seems to have more importance and greater effect than the facts themselves.

Methods

To interpret as efficiently as possible, the institutional aims and the cultural and technical stimuli briefly outlined above, the #AGIREINFORMATI project was experimented, a multimedia training product designed to disseminate the culture of information and structured in video tweets, according to the informal logic of micro-learning.
In this regard, one of the starting points for the definition of learning methods remains the "Memorandum on Lifelong Learning " (https://arhiv.acs.si/dokumenti/Memorandum_on_Lifelong_Learning.pdf), a document produced by the Commission of the European Communities in 2000, in which the strategies for the diffusion in Europe of a culture of lifelong learning were outlined, recognizing first the practices of life-wide learning, that is, of "horizontal" learning, capable of embracing all aspects of an individual's life. The Memorandum - the result, together with other documents, of a political and cultural debate at European level, due to the transition towards a knowledge-based

economy and society - defined and legitimized educational methods other than the formal ones, to stimulate an ever-wider demand for training. Formal learning, which presupposes the full intentionality of the learner, is adopted by training and education institutions, has as its method structured courses in a physical or virtual classroom, planned at every stage and, as an outcome, certified and recognized qualifications. Non-formal learning, on the other hand, does not involve certification, but is intentional on the part of learners who benefit from training offered in a structured way by any organization pursuing educational and training objectives, for example in the workplace, in businesses or in civil society; together with informal learning, which is not intentional and is experiential and occasional in nature, it is fully part of that strategy of widespread education, stimulated by the European institutions, which satisfies the need to broaden the range of training on offer. It is thus affirmed that, from the perspective of lifelong learning, learning methods are complementary and that personal life experiences can also represent an important reservoir of knowledge.

Therefore, at the time when the question was posed as to whether and how it was possible to experiment in the library with a new educational approach for the training of users, it seemed logical and interesting to combine the communicative, "viral" pervasiveness of telematic social tools with the "informal" educational vocation of a university library. The university library appears to be the ideal place for such experiments, since it is the seat of the development of disciplinary and specialized knowledge and, at the same time, a suitable environment for the maturation of community processes of resilience: the progressive disintermediation, due to the galloping growth of new technologies, has made academic libraries organizations capable of effectively equipping themselves to face the challenges of change, becoming part of the multiple training opportunities offered to individuals and suitable places for the expansion of active and shared forms of learning.

More in detail, it is worth remembering that, as far as research is concerned, academic libraries have traditionally had the task of coordinating the development and bibliographic control of paper and digital collections, allowing access to them from catalogues and subject databases; of carrying out document exchange activities, with document delivery and interlibrary loan services; of activating personalized bibliographic services, such as the reference service, designed to assist individual users to satisfy their specific information needs. But now they are also involved in some aspects of research evaluation, often being responsible for the management of the catalogue of research products, the validation of its data, the creation of guidelines for the correct management of metadata; they are involved in the perspective of scientific communication (5), when they deal with bibliometric issues or promote actions for open access; they participate in the internationalization policies of universities, following the impulse and the adhesion to European programs of staff mobility and international collaboration in research projects.

About teaching, the university libraries, in addition to the bibliographical management of the documents needed for students to pass their exams and for institutional teaching by lecturers, provide basic services involving the consultation and loan of documents. But, as already mentioned, they are now also in charge of training, promoting courses on information literacy, delivered in praesentia and remotely from e-learning platforms or through MOOCs. In addition

to these activities and many other services, such as the provision of collaborative study spaces for thesis writers, doctoral and postgraduate students and all those who are required to carry out disciplinary problem-solving activities, socio-cultural functions are now added. These include the creation of social circles for the exchange of knowledge de visu; for the promotion of cultural events that can also involve the local population, as well as scholars and experts; for any training and communication initiative that promotes the dissemination of culture and information.

This organization favors a practice of participation on the part of the users which is gradually being extended. The constructivist perspective, which underlies the concept of a participatory library, envisages the need to place the learner at the center of the learning process, making him or her an active protagonist in the acquisition of knowledge, through interpersonal communication and social collaboration. Social networks are therefore particularly suitable tools to meet the aims of this logic: they are potentially a tool for informal learning and a method of sharing knowledge based on new technologies; they can convey micro learning objects, including multimedia, which respond well to the need to implement innovative services and methods of self-education, for a free, accessible, and correct sharing of information data. In other words, they are functional tools for rapid and targeted knowledge, according to a granular learning method, which facilitates concentration on the focus of the topics.

Results

Inspired by this logic, #AGIREINFORMATI has been launched, a multimedia project that has three canonical objectives for an academic library structure: to orient, inform and train, and it does so through various media. In other words, it makes use of a text-audio-visual flow of information, intended for methodological documentary orientation, information on general and disciplinary documentary tools, and self-training to encourage the definition of research hypotheses. These objectives, which are released in the specific form of micro-learning, contribute to achieving the mission that each university library shares with its own university: learning, teaching and research.

Thus, video tweets were born. Twitter, chosen for its communicative characteristics and identified as the first dissemination tool, enables the creation of text messages and status updates thanks to its tweets, which are intended to be included in potentially unlimited information flows. The use of tweets and the use of strategic hashtags, which can recreate and repropose a constant lexical and conceptual itinerary within one's own profile, seemed particularly suitable for the realization of the project's multimedia system: it was important to ensure that micro learning objects of an audio-video-textual nature could convey educational content, which could be used regardless of the place and time in which they are intercepted by users. In particular, the tweets were associated with the #AGIREINFORMATI "moment" (https://twitter.com/i/events/917401122171772928), which is the technical trick offered by the social network to create a thematic sequence of tweets, uniform by topic, because they are aggregated by the significant words chosen as hashtags. The 'moments' thus favor the creation of 'stories' and are therefore useful for presenting the evolution of content and its updates to the user. In this way it is possible to reduce the fragmentary nature of the use, to the benefit of the reconstruction of a chronological and thematic sequence, which facilitates the user's modular

retrieval of information. The tweets thus conceived are part of the communication flows defined by their own hashtags and by the constant hashtags of the "moment" to which they are linked; they also lend themselves to "dialogue" with other social networks, such as the library's Facebook (https://www.facebook.com/BIBLIOSAIMLAL/) or Twitter (https://twitter.com/bibliolab1) and Instagram (https://www.instagram.com/bibliosaimlal/) pages, which act as a useful sounding board for the contents, which are amplified thanks to the network of links. A virtuous circle is thus created, which renews the attention paid to the topics dealt with, with the publication of posts and 'statuses' that present the user with developments and updates on the chosen topics: communication is more immediate and attractive, concise but dense, and preserves the topics from the risk of trivialization. Of course, even those who do not have an account on these social networks can partially benefit from the video-tweets, simply by connecting to the YouTube channel #AGIREINFORMATI (https://www.youtube.com/playlist?list=PLzZXjXBiSqnGn518ckt0zjM2VIS1OWpPs), where it is possible to access the full version of all the videos made, of which Twitter offers a 0.45" preview.

Finally, it should be noted that an ad hoc logo has been created for #AGIREINFORMATI and the project contents are protected by a Creative Commons BY NC SA license.

Currently, the #AGIREINFORMATI frame contains the contents of various initiatives promoted by the library, all inspired by information literacy, in which medical students who have won grants and civil volunteers, recruited on ad hoc projects of the University, have participated. Videos of lectures given to doctoral students in the bio-medical area on general and professional network resources and their expert use, entitled "Ricerca documentaria specialistica", and videos of presentations on the subject of intellectual property, copyright and authors' rights, made on the Prezi platform, were broadcast. Several periodical columns were then activated, of images and texts, such as '#DizionarioBibliografico', '#Bibliosity' (curiosities on the world of books and libraries), '#MedicineOnScreen' (reviews of films, TV series and documentaries on medical topics). Also, in relation to the dissemination of certified information (and against fake news), the students involved have disseminated, through medical-scientific articles, answers to the most common questions among the population on the infection by SARS-CoV-2 (#AgireinformatiAi TempiDelCoronavirus"). Then they have compiled and shared, always through the social circuit of the library, a series of updated reviews on the subject of the pandemic in progress (#Agireinformaticoronavirusreview). Finally, the in-depth study of the pandemic virus and its consequences was enriched by two surveys, one on the scientific contribution made by Italian researchers (#ItaliaControIlCovid) and another on the treatment of one year's news on the corona virus by the Italian press (#UnAnAnnoDiCovid).

This experimentation, intended for the entire academic target group, although detached from the traditional didactic environment, can fully participate in the aim of acquiring the necessary tools for training and consolidating disciplinary and methodological skills, both as a support to researchers and as a means of combating student drop-out, dispersion and failure. Moreover, this does not exclude that contents conceived in this way, "floating" in the magnum sea of the net, can intercept interests and curiosity from a wider and undifferentiated, less specialized, and motivated public. The most basic aspects of information competence, as already mentioned, are in line with the social aims of literacy for citizenship in the third millennium, which cannot

disregard the knowledge of telematic tools to live in a conscious and participated way in contemporary society. Topics such as verification of information sources, re-use of contents and protection of intellectual property, plagiarism risks, confidentiality, correct dissemination of information, the open dimension of knowledge, and open dissemination of data are, however, suitable for any kind of information competence, whether general or specialized. Tweets conveying text, images and videos, Facebook statuses with links to audio-video-textual content, and the sequence of images on Instagram and the Youtube channels represent the social network that contributes to the dissemination and learning of information literacy.

Conclusion

In this initiative, which is still in an experimental phase, because data on its use is still being collected, various issues converge that are widely debated and widely present in the specialized literature. The first of these is the one concerning the use of social networks in libraries, which exploded in the professional debate a few years ago.
Once the need for libraries to be present on the web with a social profile was established, courses and conferences on the effective management of these profiles multiplied, to improve the communication activities of libraries, exploiting the relational mediation function performed by the most popular social networks. Even today, the university libraries' Facebook pages or their Instagram profiles are used to disseminate useful information in real time, such as publicizing cultural events promoted by the libraries themselves, providing information on their services and closing times, and disseminating news of a documentary nature. The promotion of interactions, through the feedback of likes, comments, shares or the number of people reached, is aimed at favoring the progressive improvement of the communication offer and the construction of a recognizable identity, to facilitate an increasingly direct relationship with its target, stimulating their participation. From this point of view, #AGIREINFORMATI wants to represent a sort of "evolution of the species", framing the right theme of library communication in a broader and more complex dissemination and collaboration framework, aimed at enhancing the role of the academic library as a "learning laboratory". This progress towards the learning library can make use of micro-learning as a tool for self-education, in line with the more general process of disintermediation of our age, while at the same time favoring a participatory dimension which, in this historical moment, goes as far as the manifestation of macroscopic phenomena such as citizen science.

Finally, since the process of knowledge system building, as we have seen, can also take place informally, it is interesting to test the effectiveness of this methodology also for health sciences students: this is an issue addressed by e-Health Literacy, a relatively new specialty in the field of library and information science. It stems from the realization that "With the increasing amount of obtainable health-related information including scientific literature on the Internet, it is significantly crucial that health sciences students possess the required skill-set necessary to utilize health information effectively for their educational needs "(9). Therefore, having acknowledged the importance of HIL-Health Information Literacy already in 2003 by the MLA-Medical Library Association, this project, which originated in a medical-scientific documentary environment, can be considered a useful tool to equip health sciences students

with the essential skills for the identification and proper management of health information on the Internet.

Conflict of interest

None

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