Abstract
The purpose of this communication is to highlight the singularities that permeate the ethical and legal dimensions of the use of information, revealing some disagreements between both in order to contribute to a critical view of the use of information. The study reveals how ethical and legal dimensions are often treated synonymously, taking as an example some dilemmas concerning the differences between property rights and moral rights to demonstrate how an ethical issue cannot be reduced to a legal issue. The conclusion of the research highlights the importance of the intervention of librarians to train users in the ethical use of information.

Introduction
Alexandra Elbakyan, a Russian neuroscientist from Kazakhstan, was only 20 years old in 2009, when she was writing her thesis on biometric scanning for consumer electronics. Like any other Master’s or PHD student, she needed access to other people’s research to finish her own, but the problem is that most of the world’s scientific knowledge is owned by online publishers such as Elsevier, Springer, Wiley-Blackwell, Sage and Taylor & Francis. Together, they publish around half of all scientific papers produced in universities around the world, and they do so by charging authors to publish their work and readers to read it.

When Elbakyan realized she had to spend around 30 dollars to have access to each paper – and she needed access to dozens of them – her decision was to go to the internet after pirated copies of those publications. Two years later, she used her computer skills to create Sci-Hub, a website that bypasses publisher paywalls by allowing access to scientific papers through educational institution proxies. The papers downloaded by Sci-Hub are stored both in its own repository and in Library Genesis (LibGen), making over 64 million academic papers and articles available for direct download without the need to pay for them.

The question we ask here is: can something illegal be considered ethically justified? On the other hand, is it possible that something that is acceptable according to the law is open to debate when it comes to its ethical validity? Thinking about these questions might lead us to the understanding that the ethical and legal uses of information do not always accord with each other.

In this paper, we intend to highlight the singularities that permeate the ethical and legal dimensions of the use of information, revealing some disagreements between both in order to contribute to a critical view of the use of information. The study reveals how
ethical and legal dimensions are often treated synonymously, as we see in the
documents concerning the definitions of information literacy published by The
Association of College and Research Libraries (ACRL) and used as reference by many
information researchers around the world.

Following that discussion, we take as an example the dilemmas concerning
copyright laws in digital networks to demonstrate how an ethical issue cannot be
reduced to a legal issue. Finally, we focus on the call for the intervention of librarians
to train users in the ethical use of information.

Ethics and the law: are they the same thing?
The concern that motivated this research, as mentioned above, came from a search
for the use of the "ethical" and "legal" predicates in the two main ACRL documents on
information literacy: Information Literacy Competency Standards for Higher
Education, published in 2000, and Framework for Information Literacy for Higher
Education, published in 2015. In both Standards and Framework, the term “ethics” is
used in only three passages (in the Framework there are four, but one passage is
repeated). In the first document, one reads that, among other attributes, an information-
literate individual is able to “understand the economic, legal, and social issues
surrounding the use of information, and access and use information ethically and
legally” (ACRL, 2000, online); in the second passage, the document repeats that the
information-literate student “accesses and uses information ethically and legally”,
attesting that this student “understands many of the ethical, legal and socio-economic
issues surrounding information and information technology” (ACRL, 2000, online).
We see that the legal and ethical dimensions always appear next to each other,
practically synonymously, without much of a conceptual distinction between them – or
even an explanation as to why they seem to be, basically, the same thing.

The Framework was published fifteen years later as a way of updating the old one,
in an attempt to incorporate the criticism held against the technicality of the previous
standards – now seen as a framework. In this new document, the old definition of
information literacy as a set of abilities requiring individuals to “recognize when
information is needed and have the ability to locate, evaluate, and use effectively the
needed information” (ACRL 2000, online) was updated to become “the set of integrated
abilities encompassing the reflective discovery of information, the understanding of
how information is produced and valued, and the use of information in creating new
knowledge and participating ethically in communities of learning” (ACRL 2015, p. 3).
In the Framework, the term ethical emerges as an adverb regarding the way people
participate in their “communities of learning”. But we still cannot grasp what kind of
participation would be considered “ethical”.

Throughout the document the term appears two more times: in the introduction, we
read that “students have a greater role and responsibility in creating new knowledge, in understanding the contours and the changing dynamics of the world of information, and in using information, data, and scholarship ethically”; finally, when the dispositions for “learners who are developing their information literate” are listed, it is written: “follow ethical and legal guidelines in gathering and using information” (ACRL 2015, p. 2). Thus, even though the document brings new and wider views about information literacy, it still attaches the idea of an ethical use of information to a legal use of it.

Copyright and piracy
With more than 400,000 articles published every year, Elsevier has a high profit margin in its business approaching nearly 40% - which amounted to more than US$2 billion in 2016. The company obviously got upset with Elbakyan’s initiative of giving free access to scientific papers. As a result of a lawsuit brought by the company, the New York district court awarded Elsevier US$15 million in damages for copyright infringement by Sci-Hub, the Library of Genesis (LibGen) project and related sites. Elbakyan defends herself by making reference to Article 27 of the United Nations Declaration of Human Rights: “everyone has the right to freely participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits”. According to structural biologist Stephen Curry at Imperial College London in the United Kingdom, “Sci-Hub is obviously illegal (...). But the fact that it is so immensely popular, inside and outside academia, is a symptom of many people’s frustration with the status quo in academic publishing”¹.

Sci-hub is described in its virtual page as “the first pirate website in the world to provide mass and public access to tens of millions of research papers”. The word “pirate” comes from the fact that the website violates copyright laws by providing free access to content that is typically charged by publishers. Copyright infringement, in this case, relates to property rights and not to moral rights: the latter are related to authorship, and differ from those for being "inalienable, which implies their characterization as personality rights, because they are inherent to the subject of law and immune to any transaction or subtraction" (Bezerra 2014, p. 102, our translation). Therefore, they do not involve the economic relationship established between the creator of the work and the company (in this case, the publisher) responsible for its commercial exploitation.

Although the violation of both property rights and moral rights ultimately characterizes a violation of copyright laws, it is possible to realize that the ethical assessment of both is not the same, and that the moral judgment of those who "pirate" a scientific article to expand access to the knowledge contained therein is distinct from

the judgment of someone who incurs plagiarism or false attribution of authorship to garner some kind of benefit.

**The role of librarians**

Since the turn of the century, problems with truth and fallacy on the internet have become a subject of debate. Forbes and Mintz (2002) state that the internet has become a dangerous sea to navigate because of the huge amount of false truths, misinformation, misleading or erroneous information, under a myriad of shapes and guises. Given internet users’ neglect, innocence or lack of preparation, the authors warn about the dangers that imprecise data may trigger, namely regarding their health, privacy, investments, business decisions, online shopping and legal matters. Mintz (2012) summed up the subject, stating that new lies and camouflages are being used to scam unsuspecting users, namely digital identity theft, appeals to hate and religious and racial intolerance, ecommerce frauds, information warfare and cybersecurity, political shenanigans, charity scams, and so on, referring that it is more and more important to adopt preventive behaviour in response to such risks.

In the academic environment, the search for information on the internet is an inescapable need, so a risky digital context is a particularly sensitive issue (Jasanoff 2016). At the same time, we are living in an era where any internet user can also produce contents and disseminate information. So the issues raised in educational institutions are very wide-ranging: people must be empowered to surf the internet safely, but it is also essential that they be taught to filter the contents that wish to use or post and make available to others. Digital autonomy and freedom on an individual level imply greater civic and social responsibility, elevating the importance of ethical and legal matters associated with searching, using and releasing information.

In an original study, Saraiva (2016) gives a detailed explanation of fraud and deceit in the academic context, suggesting a behavioural analysis together with a legal and economic perspective of the situation. Giving examples from the literary universe of Harry Potter, she shows how in several situations the academic context is a sanctuary for improper, immoral or illegal conduct. Based on an in-depth analysis, the author mentions that correcting this kind of behaviour (which crosscuts teachers, researchers and students) implies knowing what is behind it, and this involves identifying the costs and benefits underlying the deception and the risk taken, from an individual and collective perspective. Finally, as a solution she points to involving teaching institutions in the prevention and correction of such behaviour. For, as the author states, “as institutions serve as behavioural anchors, the readjustment of a new choice architecture implies, surely, its re-appreciation (at least in relative terms) and a re-equation of values, mainly academic integrity” (Saraiva 2016, p. 343). The main answer lies in pedagogical training for academic integrity. However, this should take into account that ethics is flexible and dynamic or, in other words, situational, leading to behaviours that
adapt, leading to different moral judgments in the face of similar dishonest behaviour. Hence the importance of the legal, fixed aspects becoming a deterrent, though they cannot be the only tool. Students’ proximity, trust, training in the right skills, a peaceful environment that supplies food for thought, all discourage cheating, because they help internalise academic rules, gain moral self-perception and promote a feeling of belonging. All these factors contribute to a framework that implicitly disciplines behaviour.

Regarding students’ behaviour towards information, Harris (2011) defends the importance of damage control with respect to the above mentioned risks. He suggests that in order to deal with discipline, a compromise of solutions from three approaches must be found: regulatory, technological and pedagogical. The first approach includes legal and regulatory issues. The second deals with computer security matters such as anti-virus, firewalls and other cyber-security tools. The pedagogical approach includes the proper use of information found on the internet, namely in content assessment with criteria such as purpose, authority, truth deconstruction techniques (fact verification) and education for the use of different analysis and evaluation tools: “The goal is to make thinking about evaluation automatic, a habit of mind that is deeply ingrained into the process of Information use in any context” (Harris 2011, p. 176).

Several authors consulted agree on one point: in a context where social and academic pressures on students call for better results and, at the same time, competitiveness, the need for lifelong learning and the requirements of multiple skills are evaluated, the support and guidance provided to students, specially concerning work in the library, must be a priority (Silva, Jambeiro, Lima and Brandão 2005; Harris 2005; McAdoo 2012; Heine and O’Connor 2013; Lopes, Sanches, Andrade, Antunes and Arévalo 2016; Ramírez Leyva 2017). Therefore, training in information literacy is particularly useful. As a direct consequence of the development of skills in searching, locating, selecting and using information, there are tangible benefits for students. Information literacy skills are an indispensable investment towards a future of participative citizenship.

The imperative to train students in these skills is illustrated in the Framework for Information Literacy for Higher Education (ACRL 2015). It stresses dynamism, flexibility, individual growth and community learning, organized around six key concepts, directed towards the understanding and application of information literacy: Authority Is Constructed and Contextual; Information Creation as a Process; Information Has Value; Research as Inquiry; Scholarship as Conversation; Searching as Strategic Exploration.

In particular, when information is referred to as a value, many of the ideas at stake regarding this topic emerge, in the expectation that information-literate students know how to (ACRL 2015, p.6) give credit to the original ideas of others through proper attribution and citation; understand issues like intellectual property, copyright, fair use,
open access, and public domain. The same document underlines that students who are developing information skills should (ACRL 2015, p.6): respect the original ideas of others; value the skills, time, and effort needed to produce knowledge; see themselves as contributors to the information marketplace rather than only consumers of it; are inclined to examine their own information privilege.

Allan (2010) stressed the importance of developing skills in information literacy in second and third cycle students of higher education, when the need to handle information is accentuated. At the beginning, a very basic range of sources of information and a simple internet search are used. However, in order to succeed, students need to develop advanced skills in searching and managing information. This is the phase when librarians should take action (Allan 2010, p. 97). Hence the importance of educational provision in matters regarding citations and references, taught by librarians. Lopes (2013, p. 23-24) underlines the importance of citations for the reader to confirm several situations: that the text was read, that the information obtained therein was incorporated in the construction of our knowledge and that there is an overall commitment to the contents and authors cited. Similarly, other authors (Burbules 2015; Alonso-Arévalo 2017) state that citations are not only a manner of sustaining the author’s opinion, but also a demonstration of the networks created among researchers, based on recognition and respect, and an important way of evaluating scientific production within a complex system that manages bibliometrics and impact factors. Librarians are parties involved in the ethical use of information. The fight against plagiarism and fraud should stem from an ethical culture, where respect, the establishment and transmission of principles regarding authorship, right to privacy, and social responsibility, among others, may be a meaningful way of changing students’ behaviour in this regard (Bodi 1998; Puga 2014).

**Conclusion**

We understand that ethical and legal dimensions are not the same thing; moreover, we see that much of the legal field is built around values and practices that a society develops within its culture (given all the power struggles that accompany this process). The conclusion of the research is that the moral judgment that permeates new cultural practices tends to be consolidated before being contemplated by the legal system, and that, therefore, the ethical use of information will not always be in agreement with its legal use.

In the digital environment, where many new practices and possibilities emerge very rapidly to be legally examined and contemplated, it is common for certain acts to be considered ethically positive (although some of them may be legally prohibited) as well as the opposite. For better or for worse, the legal system tends to act after certain social practices spread, so it is very important to act in the context in which these practices occur, namely in an academic environment, and discuss these practices in a way so as
to make the population familiar with the new regulations which, in the end, will shape their life practices.

In conclusion, we feel it is possible to infuse an ethical component into the teaching of information skills. The implementation of information literacy, considering the results presented, urges librarians to perform a more comprehensive task, raising students’ awareness about authorship possibilities without interfering in ethical matters. In this sense, our investigation has sought to contribute to the understanding of information literacy as a conceptual framework for shaping the experience of school work in academic libraries with the essential ethical component that students can develop in this context.

References


