

(Slide 1 - Environmental sciences libraries as a force for good in a world of skepticism and disillusion, Julia Demasi Zavala; Elvira Demasi Zavala)

Good morning to the IAMSLIC planning committee, national and international authorities, and attendees in person and online. It is an honor to represent the national librarians association here today with a presentation on a topic I find dear: libraries in history and today.

“Environmental sciences libraries as a force for good in a world of skepticism and disillusion” is not a presentation to convey information so the audience learns, but an essay supporting an hypothesis, to which you may agree or disagree. My hope, In any case, is that it will provide food for thought.

(Slide 2: The shape of a special subject library's heart)

Libraries, and scientific special subject libraries such as IAMSLIC's in particular, in their heart of hearts, belong with the late 19th century optimism. To the philosophical Positivism view that correlates, quite simply, information to ideas, and access to information to lifelong learning. It was also a time when natural resources seemed infinite and their management was rarely given a thought.

Times have changed but libraries' optimism has not.

In this presentation we will look into how Environmental Sciences libraries and librarians's roles have changed in a landscape of environmental challenges, science skepticism and political disillusion.

While libraries have a long and (mostly) illustrious participation in world's history, we argue that today's scientific special subject libraries owe their basic proposition to Paul Otlet and Henri La Fontaine's ideas, work, and times.

(Slide 3, Paul Otlet and Henri La Fontaine)

Both from Belgium, both lawyers, their paths crossed frequently and collaborated profusely and with enthusiasm, although with different purposes and views.

La Fontaine was a statesman: judge, professor, senator and head of the International Peace Bureau for many years, an internationalist and pacifist who saw, in his colleague's efforts, a key to achieve his goals. Together they founded the *Union des Associations Internationales* in 1907, still in existence, and whose work is a direct precursor to the Unesco and was granted consultative status in 1952.

(Slide 4, Institut International de Bibliographie)

On his part, Otlet's interests lay squarely in knowledge organization, devising sophisticated information systems and tools to manage them. He founded the IIB *Institut International de Bibliographie* in 1895 (which in 1937 was renamed FID *Fédération Internationale de Documentation*), with the ambitious goal to assemble a truly universal catalog of all knowledge.

(Slide 5, Traité de Documentation / CDU)

He also researched and theorized on information classification, publishing the *Classification Décimale Universelle* in 1905. Otlet's *opera magna* was published in 1934; his *Traité de Documentation* is a landmark work on information science long before it was recognized as such.

(Slide 6, Mundaneum)

The concretion of the IIB/FID vision was the Mundaneum, a colossal initiative aspiring to organize intellectual cooperation, and facilitate peace and human progress through the dissemination of knowledge. Otlet's early understanding of the necessity of collecting, organizing, making available and sharing information was framed by the Positivist philosophy of the era, but doesn't it sound familiar today?

Otlet and La Fontaine were the first to recognize the necessity for systematization of the vast amounts of up-to-date information produced by the new scientific institutions, researchers, publications and networks emerging during the second industrial revolution.

That era witnessed technological and scientific advancement at a breakneck pace in several areas improving the quality of life for everyday people. Such was the case, for example, of Louis Pasteur and Justus von Liebig, who were not friendly collaborators but their combined research in chemistry yielded impressive results in medicine, in nutrition and in agriculture.

Then, a heavy burden was lifted from humanity's shoulders and optimism was in the air. If crops were guaranteed to succeed, if diseases were defeated, if there could be food for everyone and nobody would ever get hungry or sick, surely, this would mean the end of wars... no?

(Slide 7, The twentieth century : not exactly what we had hoped for)

Henri La Fontaine was awarded the Nobel Peace Prize in 1913 but the early Pacifist Movement's dream was not to be realized, as he lived to see his homeland twice ravaged by belic conflicts of unprecedented proportions. Paul Otlet's Mundaneum was partially destroyed by the German occupation and was reopened, only recently, as a museum.

They realized that information plays a decisive role in human progress and that peace among nations needs communication and cooperation, but they failed to notice that these do not suffice and other factors needed to be taken into account.

(Slide 8, The context)

Firstly, the vision underestimated their privileged context: the infinite wealth of the epoch benefited only a few, a moneyed elite located in some towns in Europe and in North America, while colonial extractivist ties, wars for independence and among empires, industrialization exacerbated existing social inequality, and challenges to women's place in society to name a few, left too many feeling deprived and unhappy.

(Slide 9, Other technical developments)

This world order needed to be sustained and protected. Weaponry development was a promoter of the technological and scientific advances of the era, though hardly conducive to peace.

And finally, progress and scientific innovations often resulted in novel, unforeseen problems.

(Slide 10, Unexpected consequences)

Pasteur's research positively impacted public health and urban planning; but unwittingly, presented all bacteria as pathogens that had to be annihilated, at any cost. This mistake often resulted in pathogens adapting and becoming more resistant and dangerous.

Fertilizers such as Liebig's improved crop yielding (and their success helped establish the mainstream practice of applying chemicals to agriculture), but chemicals also alter ecosystems, pollute land and water bodies, and thus became an environmental problem in their own right.

(Slide 11, The environmental issue)

The *environmental issue* as such originated in the second half of the 20th century with the first rallies denouncing the existence of problems, but this is not to say that there weren't any previous environmental issues, or that there hadn't been any rallies championing the importance of the preservation of the environment .

(Slide 12, Hans Carl von Carlowitz)

More than 300 hundreds ago, in 1713, Hans Carl von Carlowitz published the first known treatise on forest management, clearly signaling that there has been a preoccupation with the interaction of humans and environment for a long while.

So, what changed?

Until the nineteen fifties, the consequences of human action on the environment were not understood as a direct threat to the continuing survival of the human species on the planet.

And since then, it does.

(Slide 13, triad of powers)

In modern societies, this period also witnessed the configuration of a triad of powers mutually dependent and intricately connected. In no particular order they are:

1. the political power: the decision maker and public policies creator;
2. the civil society: the elector of politicians and the actor who, according to its critical abilities, demands things from them;
3. and science: the provider of inputs for policies, decision making, and also for shaping demands.

At the heart of this triad stands scientific information, in all its shapes and presentations, as the means to record, communicate, educate and influence, and librarians and information specialists, who are the minds and hands keeping the flow alive.

A growing body of evidence available in the scientific literature points to the reality of the threat posed by the environment's declining health. Confronted with this situation, Environmental Sciences librarians, who have collected, organized, preserved and made available scientific publications on every imaginable area, may wonder, on occasion, if there might be other avenues of action.

(Slide 14: Librarians : not just working with information but also lobbying for it)

In september 2015 the United Nations summit unveiled the 2030 Agenda, composed by the Sustainable Development Goals (SDG). In the United Nations' own words, they are "a shared blueprint for peace and prosperity, for people and the planet".

(Slide 15: Sustainable Development Goals wheel)

The 17 goals and 169 targets were developed in conversation with organizations all over the world: librarians did participate in the SDGs writing, as IFLA, the international federation of library associations, lobbied for access to information to be included.

(Slide 16: Goal 16)

And it is, in Goal 16, "*Peace, Justice and Strong Institutions*", target 10: "*Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements*".

As IFLA's documents explain, "Just as this goal has long been at the heart of IFLA's SDG engagement, the mission it refers to is central to the mission of libraries in general.

Through providing information in whatever form or from whatever source is relevant, libraries help people to seize opportunities and make better decisions. This access is therefore a key part of a development framework focused on empowering individuals to make their own choices."

(Slide 17: IFLA Library map of the world)

The 2030 Agenda is not the first plan to tackle issues at planetary scale but it is the first time not just governments but everyone are welcome to contribute, and to record their contributions no matter how big or small. IFLA took an active role through its Global Vision and the International Advocacy Programme, and the Library Map of the world, two initiatives designed to help librarians identify and communicate experiences that work towards one or more goals.

While IFLA's mission focuses on goal 16, particular libraries may focus on special goals.

(Slide 18: IAMSILIC record at UIA)

IAMSILIC libraries and information centers naturally focus on goals 4, Quality Education, 6, Clean Water and Sanitation, and 14, Life Below Water, as recorded in the Union of International Associations database entry.

Thank you, Otlet!

The availability and use of information, however, hasn't always been for good.

(Slide 19: The ethical challenges of science skepticism and science denial)

Misinformation divulged with spurious ends is not a phenomenon exclusive to our age. Nearly two centuries ago, in 1835 the New York Sun established itself as the most profitable local newspaper after publishing there was an Alien civilization living on the moon, and outlandish claims exploiting the wonder of science have been used, ever since, with various purposes.

Scientific special subject librarians may experience, from time to time, the visit of science skeptic or science denial patrons; individuals who have searched and reviewed at least some of the available literature and have arrived to the conclusion that it is wrong.

Some even exhibit sophisticated information literacy skills, which is all the more disconcerting from our viewpoint and may raise some interesting questions.

In some cases it is authorities and policymakers the ones who exhibit some unhealthy levels of skepticism. In those cases we're likely to experience feelings a bit stronger than disconcertment. The interesting questions remain.

Are libraries and librarians somewhat responsible for the consequences of information availability? Is it to our merit when the information is used for good, or to our fault when it is for bad? Are we always supporting freedom of speech, society progress and personal growth, or are we sometimes giving fuel to forces opposite to our core beliefs? To what extent should we concern ourselves with general users, or should we focus on specific groups of users?

The critical skill for digital citizens to navigate this world of scientific information is called *science literacy*, and it's a concept in development that hopes to step in where information literacy leaves off.

All these questions, of profound ethical nature, pertain to Information Ethics, a field we should all become familiar with.

(Slide 20: Disillusionment: a conversation worth having)

However difficult science skepticism and science denial can be, political disillusionment is a harsher deal in today's world.

Librarians, we assume, are indomitable optimists. In the face of obstacles such as budget cuts, staffing shortages and institutional change that positions libraries in precarious situations, validation is never in question.

Librarians and their loyal patrons know their worth, and in spite of shrinking funding, changes in management priorities, rising costs of subscriptions and location facilities, they keep reinventing the library service and the librarian role to keep up with new demands.

But even the staunchest supporter of always looking on the bright side must admit, some things are not going too well. The SDG's, hoped to become a worldwide tool for social inclusion and development, suffered a setback with the COVID-19 pandemic and some actors are voicing apprehension regarding its completion.

These misgivings inevitably reflect on the institutions most invested in the programs. Some critics are only too willing to assign blame or to cry failure: of a particular government and the political party at its helm, of the international community organized and represented at the United Nations, or of librarians' organizations such as IFLA. Surely we have all stumbled upon some strong objections stemming perhaps from irreconcilable philosophical positions, but sometimes hitting close to home as it comes from ourselves. Our institutions are definitely imperfect.

But was perfection ever the aim? Or was it providing critical support to science advancement in the shape of information management - collection, organization, preservation, making it available through a real non-for-profit institution named *the library*? We have probably aced that test.

Does disillusionment equal defeat? Or is it perhaps a call to regroup, reinvent, redefine? We strongly believe it should be the latter.

(slide 21 Closing remarks)

Otlet and La Fontaine didn't know what was in store for their vision and today, neither do we.

But we do know libraries have always been players for development, for inclusion, for fairness and for making the most of all available resources. That we were, and still are, a force of good in whatever world we should live in.

(slide 22)

I wish to thank Aida Sogaray for the invitation today, to the audience for your time and attention, and to my sister and coauthor Elvira for her steady support, without which this presentation wouldn't exist.

Have a good day.