The OpenAIRE Perspective

Yannis Ioannidis

Video link: https://www.youtube.com/watch?v=w6WwGfuJF_E&t=18m53s

Some facts and key points evident from the papers in Part I (not in any particular order):

- The library model is changing. The transition from 'classical to proactive' library (see fig. 2, p. 39) successfully covers several key drivers for the emerging changes. Common across all types of libraries, the new goal is a people-centric library model, while maintaining all functionalities that serve the fundamental library objectives of institutional / national / cultural memory.

- Libraries need to address both physical and digital aspects. In trying to do so, they seem to be uncertain about how to maintain the right balance, that is, where their primary focus should be and, consequently, about the most appropriate resource allocation (particularly in challenging financial periods). Needless to say, digital services can go hand in hand with physical spaces and complement their utilisation, often by realising innovative and creative means of interaction.

- Users avail themselves of increasingly more advanced digital services. It is therefore imperative that libraries employ skilled personnel, 1) to serve the existing needs of their customers, but also 2) to be on the lookout for new trends and technologies that may be adapted to the emerging user behaviours. In short, libraries need to setup a form of an R&D division, which will be able to engage in new trends, making them truly proactive and on the forefront of technological and social developments.

- All types of libraries under consideration have more or less the same type of users: the public (communities, including schools), researchers, industry and government. Each of these groups uses the library services (especially the digital services) for slightly different purposes, but in the end they all seek to extract and absorb new knowledge, to support their research endeavours and to entertain themselves. Furthermore, the approaches may differ in scale (from a municipality to the global audience), in theme (arts and humanities, culture, science or all of the above) and in target audience (gender, age, etc.)

- Libraries offer quite a diverse typology of content (textual, audio, video, datasets, lectures, etc.). In many cases this is placed in distinct library departments or digital collections, with no semantic interconnection. This effectively forms digital silos and prohibits a more holistic view of the library material. This setback is in fact multiplied when we look into collections across libraries, of the same or different type. To overcome this, libraries must invest in effective curation and documentation practices for recording their metadata, which in turn requires the employment of skilled personnel that is continuously training. Collaboration is key to long-term viability of libraries, which should actually interact extensively with several *communities of practice* that are emerging at the regional (e.g. EU) or global level.

- The use, reuse and distribution of digital material face many legal challenges. Emerging text and data mining practices are good examples of technological developments that have exposed the current legal framework limitations around IP, copyright agreements, bilateral contracts and so on. It is desirable for libraries to provide legal advice to their users, especially regarding research practices that are emerging from Open Science policies.

- Libraries are tightly linked to education. What is not clear yet is how emerging learning approaches that involve personalised or collaborative mechanisms and (digital) entertainment characteristics (edutainment) can be fully embraced by a library, either within or outside its physical setting. On location, where they have direct access to and contact with their users, libraries need to foster creative learning processes via physical installations that mix traditional aspects with technological ones. Digital libraries need to move beyond static collections, open up to innovative ideas and present their content in engaging and flexible ways. Personalised and collaborative learning mechanisms and attitudes, as well as exploitation of user-generated content, should have a protagonistic role in future library development strategies.

- In general, libraries are, or seem to be, introvert organisations, which makes it hard for them to evolve quickly towards innovative concepts, falling behind society in general, which adopts them quite readily. Following the example of how Open Science and Open Innovation currently shape academic libraries and push them to be an integral part of a global and diverse research ecosystem, all types of libraries must follow suit and adopt similar models of openness. In particular, opening up to collaborations and synergies with major pertinent overarching initiatives (e.g. OpenAIRE and Europeana, in Europe) as well as industry (including start-ups and SMEs) will expedite their adoption of innovative ideas and shape up their operations accordingly.

- Libraries are considered part of the infrastructure of their immediate and general environment (organisation, municipality, region, country). As with all types of infrastructure, library services 'are usually invisible and we only notice them when something goes wrong',[1] a fact that is also very relevant to their financing. It is often the case that new or innovative operations that enhance an existing infrastructure are low in the priority lists of decision-makers. Therefore, it is crucial that any proposed services are aligned with the broader ecosystem (general public, researchers, peers), have clear objectives and are accompanied by some basic *exploitation plan*.

Insights for Common Ground Approaches and Potential Synergies

Libraries are living organisations reflecting our social views and values. With the speed in which technological and social change is occurring, it would be utopian to hope for **a single** ideal library model that encompasses all desirable features. Instead we can aspire to common approaches and exchange of best practices that will help us adapt to specific needs and conditions. The following sections try to capture possible cooperation and potential synergies on specific topics among libraries of different categories / models.

Skills

 'The Library is not only a collector, curator and cataloguer of knowledge; it is now a creator of knowledge.' To fully embrace this, libraries need to address **jointly** the need for a skilled workforce and agree upon its characteristics, including several new job profiles:

---

1. Geoffrey Bilder, 'The Enclosure of Scholarly Infrastructure', at OpenCon2015, https://www.youtube.com/watch?v=oWPZkZ180Ho&feature=youtu.be&t=245

- **Data librarians:** Need to identify the necessary skills, see how these fit into current and emerging roles and responsibilities within the library and look out for synergies with local, national or regional data initiatives for outsourcing (e.g. university or national data centres).

- **Creative learning experts:** Need to describe the goals (what, for whom, what types of experiences) and identify the skills and roles needed for the design, implementation and assessment of creative learning mechanisms.

Collaborations and Standards

Libraries are becoming hubs in the global information network. Participation in the global ecosystem requires a convergence between *system* and *content*. Libraries address the latter adequately within their local domain but often lack expertise and infrastructure to address the former (at any level of abstraction, e.g. IaaS, PaaS, SaaS).

- **System:** In the new digital era, libraries must support complex, big and linked data. They need to identify the best models for operation and collaboration with data services, as well as to draw upon the relevant data science and data centre expertise.

- **Content:** Openness and (technical and legal) interoperability is a key prerequisite for content exchange and participation in the global knowledge ecosystem. Clearly, synergies are a priority for the identification and use of common protocols, formats and standards. These must take the form of **active**, bidirectional and **committed** participation in national, regional and global open initiatives that lead some of the developments in these areas, such as OpenAIRE.

Innovation and Financing Models

Libraries are the first and primary examples of a sharing economy. Coming to new sharing economy models, that is, participatory with no boundaries, libraries need to think beyond the traditional sharing of content / information / knowledge and adapt their financing models accordingly. They need to answer collaboratively the following questions: What types of innovative services would help them reach a people-centric model? What processes and procedures are needed? How can these services be cocreated with others (including the public)? How can these services be shared and operated to achieve economies of scale?