NICK TANZI: THE AGE OF AI ENHANCES LIBRARIES' VALUE

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The interview presents the attitudes and visions of nationally recognized library technology consultant Nick Tanzi working at the South Huntington Public Library in New York. The expert, whose work has been published in several internationally well-known periodicals, reveals how he came to work in the library, describes the changes in the adoption and use of digital technologies in American libraries, as well as the problems and challenges associated with it. In addition, he provides advice related to the adoption of artificial intelligence tools in libraries which can be applied to the European context as well.

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Nick Tanzi is a nationally recognized library technology consultant and assistant director at South Huntington Public Library in New York. He is the author of Making the Most of Digital Collections Through Training and Outreach (2016) and Best Technologies for Public Libraries: Policies, Programs, and Services (2020). His work has been published in periodicals including Public Libraries Magazine, Computers in Libraries, Library Journal, and Marketing Library Services as well as on his blog The Digital Librarian.

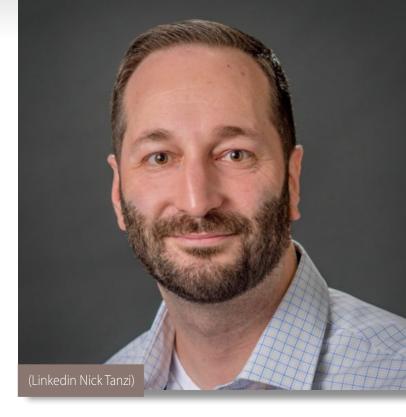
How did you end up working as a library technology consultant? Was it a coincidence or have you been inclined towards this field for a longer time?

I started working in libraries while I was still in high school. During my career, I've worked in different departments as a library page, clerk, librarian, and administrator; a position that I currently hold is the Assistant Director of the South Huntington Public Library. I have always enjoyed the variety that a career in libraries offers.

To that end, I began looking for new creative outlets at the intersection of libraries and technology where I could share my thoughts on our field. That has led me to authorship; I've written articles, two books, served as a column editor for *Public Libraries Magazine*, and launched the blog *The Digital Librarian*. Next came joining the speaker circuit, where I run professional development workshops and provide keynotes to libraries of all types. There's a saying "On a good day I teach, and on a great day, I learn". My time as a consultant has afforded me the opportunity not only to share my knowledge with others, but to connect with other library professionals and gain from their unique experiences.

As a library technology consultant you are dealing with the implementation of digital technologies in libraries. In these terms, in which areas of library work do you see the biggest changes over the last ten years? Are there areas that can be considered relatively stable?

There has been a continued shift towards digital collections, which have grown in size and diversity. Libraries now offer large collections of ebooks, e-audiobooks, digital newspapers and magazines,



and increasingly, streaming movies and music. For many libraries, the circulation of digital content has surpassed print or analogue media. Ebook growth has largely stabilized, while audiobooks continue to experience strong demand.

In a similar fashion, library worskpaces have been virtualized, particularly post-pandemic. A lot of library work now takes place within virtual collaborative work environments such as Google Worskpace, Microsoft 365, Canva, and other platforms. The modern workspace is now one without walls.

Libraries have traditionally invested in providing access to desktop computers; that need has seemingly plateaued. Instead, users seek access to high-speed, library-provided Wi-Fi and quiet meeting space, now that smartphones are nearly omnipresent, with more focus on laptop and Chromebook in-library lending for web-browsing purposes.

In one of your articles you stated that you "have found that the perfect time to adopt a technology is when it is prohibitively expensive for the individual, but affordable for our organizations" (Tanzi 2023). In Slovakia, libraries have been financially undersized for a long time, which is also reflected in the slow implementation of new technologies, and therefore in the limited ability of librarians to use them effectively. How can we combat this?

It is always important to recognize that *expensive* and *affordable* are relative terms, and will mean di-

fferent things in different situations. If an organization's budget is particularly limited, they'll need to employ some creativity. Often within an expensive technology, there is an inexpensive entry point. By way of example: an Apple Vision Pro augmented reality (AR) headset costs roughly \$3,500! At the same time, an iPad is an AR capable device, can be had for a fraction of the cost, and in many cases, is already present within a library. By repurposing the device, one can still introduce AR to library users.

Sometimes, a technology is deemed expensive not because of its overall cost, but because its shelf life may be short. A batch photo scanner may cost a few hundred dollars, and can digitize hundreds of photos in an afternoon. After that, it is of no use to an individual user. That short-term use case makes it unlikely an average user would make that purchase. For a library, that is a relatively small investment, and by making the scanner available to the public, it yields an incredible return on investment. Small, thoughtful purchases can still be highly impactful.

What is the situation in the U. S.? Are there areas in which American libraries excel or lag behind?

There are over 17,000 public libraries within the U. S., with wide variances in size, funding, and community needs. One space where there is consistent excellent work taking place is within area of digital equity. Libraries in the U. S. often fill in gaps within the social safety net. In the digital age, that has meant providing critical broadband access within our buildings and out into library grounds and the greater community. It has meant providing wireless hotspots and associated devices. Rural libraries, in particular, have invested in telehealth services, providing space, devices, and partnerships with healthcare facilities.

At the same time, many of our library facilities are in desperate need of modernization. We have 750 libraries that were built by the industrialist Andrew Carnegie that are still in operation. The last of these was built in 1929 – obviously pre-internet! Community needs in the digital age have changed, and retrofitting these buildings can be quite expensive.

What are the possibilities of using artificial intelligence in library environment? Is it utilizable across different departments and within specific library work?

I think that artificial intelligence (AI) is best used to augment our skilled labor (work that requires critical thinking, creativity) and to automate repetitive tasks. AI is adaptable to many situations and use cases; generative AI is being built into Windows 11, Google Workspace, and other collaborative work environments which cut across department silos. It can be used to summarize documents, and as a writing assistant. It is changing the nature of the web search, with Microsot Copilot and Google Gemini offering a more conversational approach, with limited memory and the ability for follow up questions.

More specific to libraries, AI will impact collection development; generating richer metadata for our catalogs, performing collection audits, and creating more accessible catalogs. Library databases will employ generative AI, and chatbots may help answer frequently asked questions (FAQs) and perform simply wayfinding on our websites. AI can help break down language barriers with universal translation tools – especially important as we engage in virtual programs and services.

At this stage of the technology, one of our most important responsibilities is to teach information and media literacy in the age of AI. We will need to learn how to identify deepfakes and AI generated content, how to prompt effectively to minimize AI hallucinations¹, and to manage our digital footprint. We will then need to turn these skills outward, and teach our users, who are confused by this disruptive technology.

At the South Huntington Public Library you have created a user group focused specifically on AI. What activities are carried out within it?

Our user group is composed of part-time and full-time staff, representing different areas of library operation (youth services, reference services, computer services, circulation, and administration). A library staff member (typically an emerging technologies librarian) demonstrates a particular AI tool, explaining how it works, some of the ethical concerns, and its potential application within libraries. We give broad, open-ended exercises to staff, such as "use ChatGPT to help you craft an employee memo", that are flexible enough for use by all user group participants. At a follow up meeting, we go around the room, and each participant discusses their experience, sharing what worked, what didn't, and any questions or concerns they may have. We then move on to a new tool or platform.

Have you achieved the desired results by creating the group (in terms of a price versus performance comparison)?

Our short-term goal is to demystify the technology for staff. We have focused on broad types of AI functionality, such as conversational search, large language models (LLMs), and text-to-image generators. Bi-weekly, hour long meetings have gone a long way to making staff aware of what's out there, how it works, and most importantly how to use it safely within the library. With training occurring on staff time, and with the instruction being staff-led, we have kept costs low. Thus far, it has been higly effective, and relatively inexpensive.

Our longer term goals are to help compose effective policy and conduct a policy review to ensure we are prepared for the age of AI. We also want members of the user group to act as instructors for patron-facing classes, and to act as trainers when we next engage in formal, library-wide staff training.



How would you propose to proceed with the implementation of AI in libraries so that the potential subjective barriers of employees are also taken into account? Is it even possible to effectively eliminate them, at least to a certain extent?

There are several key components to successful AI implementation in libraries. We should identify how AI aligns with the library's mission, and communicate this to staff. Another foundational element is relevant policy. Policy can create some certainty in this uncertain environment, setting guardrails and defining appropriate use cases for AI within the library.

It is essential that staff have a good understanding of AI technology – one that is based on actual experience, rather than their individual expectations and imagination. Getting hands-on with different tools in an environment of safe experimentation is key. AI is a swiss army knife technology, with so many different potential applications, that it can be difficult to anticipate an individual's use.

Earlier, I spoke about our use of an AI user group at South Huntington Public Library. Since this group is comprised of staff from many different departments, their experimentation gives us a more comprehensive understanding of the many ways the technology may be employed, along with what use cases to avoid. It is also a forum for staff to express their hopes and concerns. This, in turn, allows us to craft formal training for staff that is far more relevant, since it can be tailored to specific departments and job titles. When the adoption of a new technology seems arbitrary and disconnected from the library's mission, the seeds of staff resistance are planted. The rollout I described aims to avoid this scenario by involving staff from the outset.

People tend to fear the unknown. While there is no perfect way to turn all staff into ethusiastic adopters of new technologies, we should ensure that their concerns are heard, that our use of AI is appropriate and ethical, and that we provide training that matches out our expectations of them.

What would you recommend to library management and staff in terms of overcoming the continuous lag caused by the slow adoption of digital skills? Is it possibe to overcome this problem even if there is a lack of funds?

Trying to keep up with technological change is a struggle for libraries of all sizes and budgets. We know

that training is the remedy, but training is time-intensive. A few broad approaches that can be helpful:

- Don't hire based on familiarity with a particular technology, rather, hire people with the capacity for self-directed learning and the ability to teach others. Too often, we hire based on the current in-demand skill, be it social media marketing, extended reality, and now artificial reality intelligence.
- ► Hiring adaptable, lifelong learners results in more resilient organizations. Employees who are effective trainers can make a greater impact, by lifting up their colleagues.
- ► Ensure that training is relevant to the individual and his position. Different employees will interact with a technology differently in their day-to-day work. Don't waste their time on training for cases that are outliers.
- ► Train the trainer that can help your organization keep up just ensure that your trainers are enthusiastic teachers.
- ► Give individuals training opportunities in a variety of formats. *Petting zoos*² that encourage hands-on play and learning and asynchronous *learn-at-your-own-pace* are often effective replacements for formal sit-down classes.
- ► Encourage experimentation. Staff interactions with new technologies will birth new potential programs and services that you may not have considered.

What are the biggest risks of implementing AI in the library environment? To what extent can its underestimation affect the users?

Limited memory of AI collects human and environmental input as data. This poses a risk to user privacy, and can dissuade free inquiry. Within the U. S., library records are generally considered confidential as a matter of law, so we will need to carefully inspect the terms of use of the tools and platforms we use, and ensure we are not compromising patron confidentiality.

AI is best viewed as a tool, rather than a source. We need to ensure we are using effective prompts, and are evaluating outputs critically, so that we can continue to provide accurate information to our communities. Recently, an attorney in New York was sanctioned for using made up case law in a legal filing, which was generated by ChatGPT. Overconfidence in systems which are fallible can have terrible real-world consequences.

As I already indicated, in Slovakia, librarians are largely perceived as the part of society with a low degree of flexibility in adopting new technologies into work processes. Despite this, there is a widespread opinion about their irreplaceable role in information literacy and critical thinking education. From the position of librarian, is it even possible to maintain this status in a constantly changing digital environment?

In the age of AI, I am finding that a lot of libraries are experiencing a moment of doubt regarding their ability to navigate technological change. I remind them that we navigated rise of the internet – the world wide web was 1993! That technology impacted our organizations in ways that seem similar: it changed how we interacted with information and in what format, it required us to develop new information literacy skills, it automated many of our processes. We successfully navigated that substantial change to our business model.

In the age of AI, accurate information from authoritative sources is more important than ever. Aside from our past history of adapting to technological change, we also have our communties' trust. The U. S. polls from Pew Research Center consistently show that the public trusts libraries more than nearly any other institution. Despite AI complicating the information landscape, traditional media literacy skills remain highly effective in identifying trustworthy information. While there are AI problems, the solutions remain rooted in people.

What is the potential of digital education of users in libraries in terms of their success in society and on the labor market?

Libraries have a long history of helping people to upskill. Teaching digital literacy is especially important during a period of rapid change – 2024 and AI is similar to 1994 and the internet. Plenty of people will need to understand an impactful technology outside of a classroom setting. That's where the library comes in. AI will disrupt the marketplace, and being able to understand and effectively use generative AI will become a necessary skill for many jobs.

The ethical concerns of AI are also poorly understood by the general public. Providing the public with an understanding of algorithmic bias, environmental impact, intellectual property concerns,

and privacy issues will allow them to be informed citizens making informed decisions. Right now, AI is widely accessible, but poorly understood – and that's a dangerous combination for society!

In your opinion, in what way will AI contribute to the transformation of libraries in the coming years?

I think that AI will initially present a communication challenge for libraries. At various points in our history, individuals, politicians, and other stakeholders have misread technological change as a time of obsolecense for libraries. In truth, the age of AI enhances our value.

In the coming years, libraries will present an ethical vision of AI. We will offer access to LLMs that are transparent – glass box AI, where the provenance of information is clearer. We will balance privacy and convenience so that users can have more customizable experiences, but without having their personally identifiable information shared without their consent. AI will allow library workers to shed monotonous, unsatisfying work and instead focus on valuable, time-consuming labor. We will engage in more outreach and in-person programming: things we'd love to do more of, if we only had the time.

NOTES

- ¹ AI-generated responses that contain false or misleading information presented as fact.
- ² "Petting zoos" allow users to get acquainted with new technologies to everyday service delivery.

REFERENCES

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In his blog, Nick Tanzi publishes articles on the implementation of digital technologies in libraries, in which he also provides valuable tips and recommendations for library management and staff.

The blog is available at https://the-digital-librarian.com/.

