The Straight Download | Episode 20

Innovation and discovery for tomorrow

Most libraries have built strong digital collections, but a collection patrons can't find isn't really a collection yet. It's just inventory. As content and technology keep evolving, discovery has become one of the most important, and most overlooked, parts of the library experience. Nate Curulla, co-founder, co-owner, and chief revenue officer of ByWater Solutions, and Jarrod Wilson, head of technology services at Kalamazoo Public Library, join hosts Ann Ford and Jeff Jankowski to discuss how libraries can keep innovating without leaving anyone behind, and what real discovery looks like for the patron on the other side of the screen.

Episode summary

Episode 20 of *The Straight Download* features hosts Ann Ford, Vice President of Library Partnerships at Hoopla, and Jeff Jankowski, Hoopla's founder and president, in conversation with two guests who approach discovery from opposite ends of the same problem. Nate co-founded ByWater Solutions in 2009, and for 17 years his team has built and supported open source library platforms, including the Koha ILS and Aspen Discovery, for library systems across the country. Jarrod brings more than 30 years of technology experience across nonprofits, government, and libraries, and speaks regularly on the conference circuit about AI, privacy, and the real cost of innovation.

The conversation brings together the people who build library systems and the people who make them work for patrons every day. Nate and Jarrod discuss why so much library technology has settled into the same few models, how open source software and open APIs give libraries more control over discovery, and why the digital collection now deserves the same attention as any physical branch. The discussion then turns to the forces reshaping the field, from AI bots overwhelming library servers to patrons who may soon send AI agents to borrow on their behalf.

At its core, the conversation asks: how can libraries make every part of their collection discoverable, stay open to new technology, and still keep people at the center of the service they provide?

Key themes and insights

Breaking out of a broken ecosystem

Nate said ByWater began after his business partner, CEO Brendan Gallagher, described a vendor relationship in which a simple support question could take weeks to answer, for an annual fee that made Nate's jaw drop. Coming from frontline retail, Nate saw an opportunity to treat libraries as a resource to be protected, not exploited. Jarrod agreed that the experience is common. He noted that libraries rely heavily on their vendors and often run variations of the same technology, which creates single points of failure and leads many libraries to accept the status quo rather than demand more.

Key takeaway: Libraries have more leverage than they may think and should expect real innovation and responsiveness from their technology partners.

Building discovery without boundaries

Jeff recalled that when Hoopla launched, libraries treated it like a subscription database and didn't load its records into their catalogs. Jarrod described how Kalamazoo Public Library took a different path about six or seven years ago, building its own discovery layer with a custom WordPress plugin connected to vendor APIs, including Hoopla's. A search for a book about Abraham Lincoln now also surfaces movies, events, and programs on the same subject, no matter which platform holds them. The library also made its records discoverable through Google, something its catalog couldn't do at the time.

Key takeaway: Patrons shouldn't need to know which vendor holds a title. Unified, web-searchable discovery helps them find everything the library offers.

Open source keeps discovery agnostic

Because ByWater builds on open source software, a feature one library helps fund benefits every library that uses the product. When ByWater built its Hoopla integration, every Koha and Aspen library gained it, whether or not it was a ByWater customer. Nate warned that agnostic discovery is becoming rare. Apart from Aspen, BiblioCommons, and, in the academic market, VuFind, most discovery platforms are owned by large companies that also sell content, and their shareholders want that content ranked first. He encouraged libraries not to put all their eggs in one basket, even when writing one check is easier than writing ten.

Key takeaway: Libraries should keep their options open and think carefully before letting a single content vendor control how patrons discover materials.

The digital library is your busiest branch

When Jarrod started in libraries about 10 years ago, digital materials made up about 10% of circulation. Today, Kalamazoo circulates more digital materials than physical ones, a shift he hears about from libraries across the country. That makes the digital library Kalamazoo's busiest branch, and Jarrod said it deserves strong collections, featured content, services, and possibly even a dedicated digital branch manager. With more than 5 million titles in the catalog, and only about 500,000 of them traditionally cataloged, librarians need new tools to curate a collection that can feel like drinking from a firehose.

> Key takeaway: Treat the digital collection like a physical branch, with the same level of care, curation, and staffing.

Discovery that works the way patrons search

Nate said patrons don't care where content comes from; they want one place to find it. Aspen groups search results the way Amazon does, returning a single result for a title with every format listed underneath, instead of separate results for large print, hardcover, eBook, and audio. Aspen can also connect to the library's event calendar, so a patron searching for knitting books sees a banner promoting the library's upcoming knitting workshop. Jarrod added that patrons search in plain language, as they would on Google, rather than with Boolean operators.

> Key takeaway: Discovery should match how people actually search and should promote the library's programs and services, not just its materials.

Metadata gaps and the digital divide

Jarrod said thin vendor metadata remains a real obstacle to discovery. Fully cataloged records often sit alongside vendor records that include little more than a title and an author, which limits search facets and can produce some odd pairings in results. He also stressed that the digital divide hasn't gone away. As more patrons experience the library online, in-person services such as help with passports and faxing become even more important for those who aren't part of that shift.

> Key takeaway: Strong metadata powers good discovery, and a growing digital collection makes in-person service more important, not less.

Openness builds better partnerships

Asked how Hoopla can better support libraries, Nate's answer was simple: openness. Vendors that share APIs freely, without restrictive agreements, make tighter integrations possible. Jarrod shared examples of Hoopla adding API endpoints and changing its data feeds at the library's request. Nate noted that APIs also save libraries money by eliminating the staff time, fees, and server space needed to load millions of nearly empty catalog records that only linked out to a vendor's website and often went stale. Jeff added that Hoopla has a team of more than 50 people improving metadata so titles are more usable in library catalogs.

Key takeaway: Open APIs and responsive partners deliver better discovery, real-time availability, and lower costs for libraries.

When the patron is an AI agent

Jarrod said libraries face something of an identity crisis as agentic AI arrives. A patron might give an AI assistant their library card and PIN and ask it to borrow a book as soon as it becomes available. While many libraries see AI scraping as a threat, Jarrod argued that blocking it can also block patrons who now use AI tools to search the web. He also highlighted the value of in-house developers and technologists, roles he believes will become increasingly important in libraries.

Key takeaway: Libraries need to learn to tell helpful AI traffic from harmful traffic, because behind some bots is a real patron.

Bots are an industry-wide problem

Nate said AI bots have hit library systems hard, causing slowdowns and crashes. In one 30-day period, ByWater received 5 billion requests and had to block 3.5 billion of them. ByWater absorbed the significant cost of bot-mitigation tools and additional server capacity rather than passing it on to customers. Jarrod shared that Cloudflare is moving toward a three-tier approach that separates AI training, discovery, and search traffic, so libraries can prioritize legitimate searches. He added that libraries should want authoritative content, such as local history, available to AI models so that AI tools deliver accurate information about their communities. Jeff noted that AI optimization is becoming as important as search engine optimization once was.

Key takeaway: No vendor or library is immune to bot traffic. The goal is to welcome responsible access while protecting systems and keeping costs in check.

Preparing libraries for the intelligence age

Jarrod, who serves on an ALA Core technology committee developing baseline digital competencies, said a skills gap has emerged in libraries. He believes even librarians who oppose AI should understand it well enough to help patrons recognize deepfakes, fraud, and phishing. He sees change management as the real challenge ahead. Ann described this moment as the start of the intelligence age, saying libraries have a responsibility to ensure equitable access to AI, just as they have with digital access. Jeff added that while AI can make misinformation easier to spread, it can also help fight it.

Key takeaway: Libraries can help close a growing intelligence gap by building staff skills and helping communities understand the AI tools that touch their lives.

Keeping humans in the loop

Nate said ByWater asks two questions before adding AI to any product: do our users want it, and do we need it? His biggest concern is oversight, since AI-driven results can be steered without anyone being able to check. With open source, anyone can review the code. AI is also lowering the barrier for librarians to contribute features to open source projects, though ByWater requires that a person review anything AI produces. Jeff and Nate agreed that as technology grows more powerful, human connection and self-directed discovery make the library more relevant, not less.

Key takeaway: Responsible AI in libraries depends on transparency, human review, and keeping people at the center of service.

Final thought

Nate and Jarrod come at discovery from opposite sides, one building the systems and the other making them work for patrons, but they reach the same conclusion: discovery works best when it is open, agnostic, and built around how people actually search. As digital collections become the library's busiest branch, and as AI changes who (and what) is doing the searching, libraries can't afford to settle for the way things have always been done. The libraries that thrive will be the ones that expect openness from their partners, invest in the skills to manage change, and make sure every part of their collection, and every service they offer, can be found. For vendors, the message is equally clear: the strongest partnerships come from sharing control, not holding on to it.

What we're reading, watching & listening to

Jarrod | Listening

Inferno by Boards of Canada

The first album in 13 years from the Scottish electronic duo, released in May 2026. After a long stretch of audiobooks, Jarrod has come back to music, and he noted that for a band that releases an album roughly once a decade, a new record is a major event for fans.

Nate | Reading

Dark Age by Pierce Brown

The fifth book in Brown's Red Rising space opera series. A lifelong Tolkien fan whose company takes its name from *The Lord of the Rings*, Nate enjoys the many nods to Tolkien in Brown's writing. He rereads the entire series each time a new book comes out, and he also recommended James S. A. Corey's The Expanse series.

Jeff | Watching

The Gentlemen and *MobLand* from Guy Ritchie

Guy Ritchie, Jeff's favorite director and producer, has second seasons out for two series: *The Gentlemen* on Netflix and *MobLand* on Paramount+. Jeff called both a little violent but exceptionally well written, and jokingly recommended them to Nate as a way to work off his frustration with bots.

Ann | Reading

Verity by Colleen Hoover

Ann is between books at the moment and admitted she has never read anything by Colleen Hoover, but the promotion for the film adaptation piqued her interest. She has downloaded *Verity* and plans to read it this month to see what all the hype is about. She's also looking forward to season two of *MobLand*.