# Evolution to Revolution to Chaos? Reference in

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*Many years ago, the esteemed Barbara Quint offered an estimate that Google answered as many reference queries in half an hour as all the reference librarians in the world did in 7 years.*

**I suspect that ratio is quite different now — worse, from this old reference librarian's perspective!** Reference is the place to watch for change and innovation in libraries. Indeed, all this 2.0 talk is all about the real nature of the customer relationship — in person *and* virtual. The IT and metadata types were dealing well with a fairly predictable future — one driven by the consumer space and reaction-driven, one with standards and rules and not as influenced by messy human behaviors. You can almost see that train heading down the track and just hop on and enjoy the ride.

# Transition

I t cannot be denied that our reference stats are down, though this is not the case with our research requests, training activities, and one-on-one contact with clients. Public library circulation is way up. Website hits — from nearly any measurement data point — are up. Even gate count is up in most libraries. In public libraries, life is proceeding very well. In the academic and college space, change is moving apace with elearning and learning commons initiatives growing and major technologies expanding, such as OpenURL, federated search, portals and portlets, APIs, and more innovation in user experiences aimed at learning and research missions — and not centered on libraries alone.

Reference and research services, the front line of library service, are dealing with a far-less-predictable future. The asynchronous, asymmetrical threats facing us are very real hydra monsters challenging our roles in many ways, all having some truth. The fate of reference has come into clearer focus in Web 2.0/Library 2.0 discussions and debates. The emphasis has moved from understanding and learning the technology to

understanding end-user behaviors in context. Policies have moved from serving library management needs and library workers' preferences to where end-user needs trump librarian insights and personal search preferences. If this attitude hadn't changed, we'd be in real trouble now — although, admittedly, you still occasionally encounter dinosaur tracks and hear the roar of distant mastodons. A plethora of new end-user research — from usability through personas and from hit analyses to ethnographic and behavioral studies — focus on workplace needs, scholarly behavior, learning styles, and entertainment and demonstrate a material shift in the library user firmament.

After more than 20 years of primarily working on the infrastructure of libraries — servers, websites, wireless, electronic content licensing, broadband, access, security, viruses, etc. — we have reached a real tipping point. In 2008 we are seeing the real action in our world of libraries move from the back office to the front desk. We're moving from a technology-centric strategy to one in which the real needs of our clients must predominate. Aligning technology with user behavior no longer suffices to ensure success. We need to understand, and understand deeply, the role of the library in our end-users' lives, work, research, and play. This is critical to our long-term success, and failure is not an option.

## Bricks, Clicks, and Tricks

To capture market share and, more importantly, mindshare, we must now prioritize our long-term and short-term strategies around serving the real customer (and not just the internal needs of library workers). For instance, the OPAC and ILS systems don't suck for library workers. They were built to meet our specific needs — library management, transaction processing, inventory systems, etc. When we moved an internally oriented tool out of the backroom to make it accessible to the "public," we did a good thing. The unintended consequence of public OPACs, however, has been to teach us that end users have different needs and processes for discovery and navigation than library workers — especially in the virtual digital world. Rats! It would have been so much easier if it had worked out differently. We shouldn't feel too badly. Retail operations such as Amazon learned very quickly that people behave differently online than they do in physical stores; online learning is different than in physical classrooms; and online communication, in all its formats, is different than simple telephone or in-person conversations. How many of us

really want to use Wal-Mart's warehouse systems or our mall's backroom tools to replace the shopping experience? A small minority, I'll wager.

We have adapted well to so many recent changes. Our "bricks" have been renovated to within an inch of their lives into commons, research, community, teen, and scholarly spaces where information, databases, books, and serials are placed in the context of their host institutions and communities. We have adapted well to "clicks" strategies and have built websites, elearning objects, and licensing for more content than individual libraries ever dreamed of having in the past!

Now we're challenged with moving our "tricks" into the new spaces. This is definitely a bigger challenge. For this challenge, we have to change our own personal behaviors and styles to adapt and reach beyond merely adding websites, technologies, and content to our toolkits. For this change, we have to place ourselves in all of the spaces inhabited by our users. We have to introduce complementary in-person and virtual contact. We have to be everywhere they are, since that's the user expectation, and adapt to the tools that match their needs — IM, texting, smartphones, social networks, and the rest. And we're seeing strong resistance from many of our colleagues. Can we do it? Remember, the dinosaurs didn't go extinct because the climate changed. They disappeared because they couldn't adapt quickly enough to the changes happening around them!

### What does all this mean?

We have a new suite of 2.0 tools focused on human needs and relationships that are changing the dynamics of the entire marketplace — not just libraries. User expectations are changing, permanently. This is a good thing, since libraries have always been about service and personal relationships with our users. The technology is just catching up with our service ethic! Now we just have to reintroduce ourselves into every aspect of the virtual world. That means focusing our staffing balance from the backroom to the front room; investing our technology decisions in ones which meet the needs of the end user; and retraining an entire segment of our library workers to adapt to a fundamental new reality.
**Simple really — groan!**

# A Baker's Dozen of Scenarios

**What are the possible scenarios for the future of reference? Let's explore a few possible scenarios.**
*(Note: The scenarios are not mutually exclusive. A hybrid future is likely to be even more of a mosaic than it is now.)*
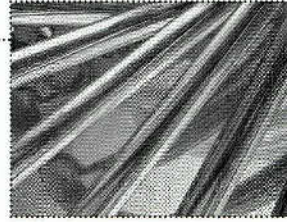
## 1. Status Quo: A Recipe for Fossilization

This is the disaster scenario — at least for our profession. Suppose we don't evolve fast enough. Most of us know the story of the frog in the boiling water. Will we be blind to the overall changes and allow ad-driven search results to dominate the important *question* space? Worse still, will we fall into the trap of demanding a Google-like experience? Will there be no event, no transformational experience that shocks us out of complacency? Will we ignore the Web 2.0 opportunity to revitalize distance user relationships? Isn't every user not in a face-to-face moment with us a distance user? Consider a scenario where we continue to service a shrinking but needy market. I know that they continued to deliver coal, milk, and ice in my neighborhood well into the 1960s. There was a demand and visible proof that it was still needed. Nevertheless, despite visible evidence to the contrary, these services were still heading for extinction.

As David Penniman said, "In order for librarianship to remain what it is, it must change; if it doesn't change, it cannot remain what it is."

## 2. Information Commons

In this scenario, we find the energy and insight to blend our bricks, clicks, and tricks strategies. We combine the in-person and facility strengths of the library experience with a seamless and balanced image for our contribution to the improvement of questions and research results. Can we partner with all providers in the information space to create a one-stop solution? Will we offer a one-stop solution of computing help, training, social interaction, circulation, education, and research in the reference space? Can we attain this goal for critically important segments of library users, such as R&D staff or higher-education students? Can we elegantly blend the physical commons with the virtual commons?

Don Beagle's book, *The Information Commons Handbook* (Neal-Schuman Publishers, 2006, ISBN: 978-1555705626), offers a fine survey of the emerging opportunities with this strategy. It seems to align very well with the simplifying of reference and research relationships and alignment with our host institutions' funding strategies and visions.

## 3. Learning Commons

Elearning is the major trend in the corporate and academic spaces. In this environment learners have their major relationship with the learning space at the lesson level. Most libraries are organized at the enterprise or *institutional level*. In the past, we have made progress on relationships at the *program level* with collection development foci or at the *course level* with coursepacks/e-coursepacks and reserve or e-reserve collections. There's a vast distance between the library and the learner if we don't put reference and research support services at the *lesson level* in such systems as Blackboard. If learners are not on-site and they never darken our doors or campuses, how do we make them better "graduates" through library services? Can we partner with the elearning developers and offer context-sensitive help in such courses? For this scenario to shine, we must develop strategic relationships and deep partnerships with elearning developers and department heads and deans. We must understand lesson level development, pedagogy, and the emerging dominant technologies, such as Blackboard, OpenID, Athens, Shibboleth, Android, OpenSocial, federated identity management, IM/Meebo, and more. It's exciting to make learning objects that match the learners' needs. For example, there's a real learning distinction between showing in-context scientific notation OR Chicago Manual of Style and pointing users to a huge collection of every type of footnote or citation standard! One style is more helpful and has greater impact on the end user.

## 4. Embedded Librarians

In this scenario, we find ourselves at the table. We go on rounds at hospitals, visit the labs, attend major unit and departmental meetings — both virtually and physically. We are truly partners and valued members of each critical team in our organization. We not only design intranets that mirror each team's needs but offer personalized service customized to each team member.

We are strategically focused on both long-term assignments aligned with the organization's major goals as well as becoming key professional resources for special projects as team members. We contribute to the quality of decision making through excellent understanding and development of the enterprise's systems, such as intranets. We comprehend the real work of our organization and align our entire operation with that mission.

## 5. Partners in Action

This one involves schools and developing learners to be ready for the world that they will encounter — at work, in our communities, and in higher education. It focuses on the platforms that will create great citizens, mainly in the K–12 and undergraduate experience. What is the team here? Who are the partners? In this case, everyone involved in learner development partners in a trans-organizational kind of way. The team would include school/media specialists, teachers, public librarians, admin types, academics, academic librarians, pedagogists, technolo-

gists, and more — anyone who has something to add. Just look at the success of simple partnerships in which standardized tests prove the role of teacher/librarian partnerships in raising scores. Check out simple strategies where instant messaging is used, not to answer student questions right away, but to transfer key information literacy skills first. When good people focus on the goal and everyone plays their part, great things happen. A talented, engaged, and information-literate student as an output of our education system will beat a merely well-run school any day.

## 6. The Remote Librarian: Tweet Tweet?

This scenario depends on understanding the potential in personal devices — laptops, smartphones, PDAs — to dominate as *the* device. When this happens (if it doesn't already in your environment), every user becomes a distance user and every user should potentially have all the information and help they may require in their pocket. Can we be there too? Such emerging serv-

ice technologies such as micro-blogging, Twitter, text messaging, social networking, tagging, and digital phones with advanced web features offer great opportunities for us to be at the point of every user's need. Check out the Seattle Public Library's beam-me-up devices! Special librarians, in particular, can stand, figuratively, at their users' side wherever the point of need.

## 7. Team Players (Death of the Reference Cowboy)

The day of individual contributors has ended. Real reference and research support is a team activity. The librarian-and-beyond team connects users to expert discussions, conversations, and communities of practice. It participates there to improve the quality of questions and interactions with the information space. If librarians begin to get great at using and developing advanced social networks to enterprise advantage, then our relevance will be assured. This will require all reference librarians to decloak. That is to say, that as professionals they will give their names — real names. They will have pictures of themselves on their pages. And, most importantly, they will have the confidence to state clearly the nature of their expertise. No more will libraries promote the generic, unnamed librarian as all for one and one for all — vanilla fla-

vor only. If someone is the best in the system at genealogy, then find them — the same for storytelling, local history, business reference, and more. We then place ourselves in the spaces where our users are — the intranet, websites, SEOed on Google, Facebook, MySpace, Bebo, Ning, and more. And we connect to other experts such as consumer health hotlines or poison control!

How many other professions hide behind their institutional identities without balancing it with individual professional and personal positioning? I can't think of a single other profession that doesn't invest heavily in the personal positioning of experts in addition to the professional branding. For us to succeed in the world of socially networked users, we must adapt to this new reality.

## 8. The Retail Librarian: Nordstrom, The Gap, or Land's End

What is the future of public library reference and potentially other library environments? Our profession resounds with debate about the advisability of being "too" retail. Retail library organizational models, roaming librarians, and the removal of reference desks have all engendered much angst. However, at its most fundamental point, being retail just means providing service where the customers are and when needs become evident. This seems totally aligned with our mission as librarians. What's not to like other than it takes a while to get comfortable with this shift? (Disclosure: I started my career in retail and I am an extreme extrovert so ...)

Anyway, it seems that the future holds a lot of the "Get out there" strategies necessary for success. I am not saying that we must emulate slavishly the models from Borders or Barnes & Noble, Disney, Nordstrom's, Wal-Mart, or Sears. But these institutions have a lot to teach us. How will the public library of the future add value to their customer relationships? How will we seek and engage our customers? I think that we will become much more proactive in energy and implementation and create a service model where the customer will describe the interaction in complimentary terminology, emphasizing the transformational aspects, rather than more modest, "efficient and courteous" service expectation. Just think how rare it is to find a hotel front desk that has a counter behind the receptionists. That was the only way they could ensure everyone faced out to the customers as they arrived. Now think if you've ever seen a library front counter reception that didn't have a workspace behind the staff. Now count how many times you see the back of staff as you enter the library. Inviting? Welcoming? NOT!

## 9. Shoulder to Shoulder: Personal Skills Training

We have to acknowledge the librarian's role in passing on information literacy skills as a key focus of reference work. Whether in classrooms, individually given, or online, we make a difference in every reference interview transaction by passing on skills, resources, and knowledge. Will the day emerge when this is our primary role? In an information economy or knowledge economy, who holds the keys to this essential activity?

This is an immersion environment for which librarians are eminently qualified. If we focus on preparing our users and helping them to acquire and improve these skills and competencies, then we will be highly valued. We have not defined this skill well enough yet. We also have a tendency to try to repair our users instead of building on the skills they have already acquired. But, when the world is primarily about your users' network of colleagues and access to huge electronic information vaults, it's not a stretch to see that the role of people who improve users' skills in asking questions and absorbing information is key and valuable.

## 10. Meet My Avatar

Gartner Group announced that 80% of internet users will be using an avatar as part of their web presence by 2012. I don't know if I agree with this timeline, but I do agree that such virtual worlds as There.com, Second Life, and Active Worlds are fascinating to explore and learn from. Somewhere in these worlds are insights about what our future will look like. With millions of users and 80 hours of reference desk staffing in the Second Life InfoIsland already, some are already learning what this scenario might evolve into. The trick is knowing the difference between gaming and virtual worlds.

The Second Life Library and Teen Library (Alliance Library System, Public Library of Charlotte & Mecklenberg County, libraries worldwide, as well as some academic libraries such as McMaster University and San Jose State University SLIS) are exploring this space as a library and educational space. Eastern University in Pennsylvania has been working on an Active Worlds implementation for academic libraries. Each of these efforts hints at an information world that goes beyond the web and into browserless worlds, where interaction and context become highly personal and less deterministic.

## 11. Virtual Librarian 2.0

Can library reference services go completely virtual? I doubt it personally, but it's an interesting concept. Can we imagine the Librarian 2.0 of 2020 as the guru of the information age? Librarian 2.0 strives to understand the power of Web 2.0 opportunities and has learned the major tools. S/he combines e-resources,

## 11. Virtual Librarian 2.0 *(continued from page 47)*

visual media, and print formats and is container- and format-agnostic. S/he is device independent and uses and delivers relevant results to everything from laptops to smartphones and iPods. S/he combines nontraditional and traditional tools invisibly and seamlessly in the interests of clients. Connecting people, technology, and information in context, s/he leverages the long tail and the miscellaneous. S/he is an integral part of client in-person and virtual social networks, touching everyone with the communication mode of their choice — telephone, Skype, IM, SMS, email, virtual reference, and more.

Librarian 2.0 understands users at a deep level. Librarian 2.0 understands end users in terms of their goals and aspirations, workflows, social and content needs, and more. Librarian 2.0 is where the user is, when the user is there.

## 12. Extreme Reference: Emergency Librarian

I love this scenario since it acknowledges that librarians make a difference. We have librarians researching IEDs and saving the lives of soldiers; we have proof of medical librarians in hospitals who answer lifesaving questions every day; librarians involved in disaster recovery — oil spills, drugs, hurricanes, avian flu, killer bees, honeybee die-offs, and global warming. How do we highlight a librarian-as-rescuer scenario as critically important to the world's survival and success?

Is there a viable scenario where we can see librarians offering 911 services for important crisis situations?

## 13. Wisdom of Crowds: Advice and Recommendations

I often describe Librarian 2.0 as one who understands the wisdom of crowds and the real roles and impacts of the blogosphere, web syndicasphere, and wikisphere. Librarian 2.0 understands that the magic sauce of Amazon lies in its recommendations and the social interactions of readers — not the sales transactions. This is an exciting development in the world of readers. I believe — and some evidence supports it — that the things people read as library users differ significantly from the things retail bookstore customers buy.

In the future, libraries must be able to aggregate their user experiences — web hits, circulation, user comments, and more. We must mine these behavioral touchstones to determine how best to predict user needs, as well as to allow end users and card-holders to share their experiences and patterns (with the appropriate privacy policies). Such grand, library-oriented experiments and pilots as LibraryThing and BiblioCommons hint at a socially driven world of book recommendations (and beyond).

Another "wisdom of crowds" involves OCLC's WorldCat. Since OpenWorldCat was launched, the ability to integrate the assembled, uniform collections of a huge number of the world's libraries into a useful tool has become possible. OCLC has licensed this data to Google, Yahoo!, Microsoft, Ask, and Amazon, among others. This allows for an endless group of mashups with an infinite number of imaginative applications. The future potential is huge if we allow the genie to escape the bottle. I am always surprised at the cognitive and value disconnect when some libraries continue to limit innovation by declaring copyright on their catalogs!

## 14: All of the Above

None of the above scenarios will come into being on their own, but they could form the basis for a continuing debate in our world of libraries. Don't expect to see only one "right" scenario emerging in the world of discovery, invention, and learning. The good news is that we have options! The great news is that there is no single scenario that can or will work for everyone or every specialized type of library work. Our profession is complex. Our markets are complex. and our users are infinitely complex. We have a window of opportunity for exponential and fundamental success and growth right now. We don't know how long this window will remain open. Those of us who prepare for an emerging new world balance of personal service — virtual, in-person, and computer-mediated — will be better prepared than those who wait and see. It's a new Renaissance in libraries. Hurray!

The most exciting scenario for the future is all of the above! I don't want an eight crayon box future. I want the whole 128 crayon box with all the colors and the sharpener in the big carousel! If we put our minds to it, we can have the whole cake and meet the needs of everyone — just as we have always dreamed of doing.

Are there other scenarios? We have letters to the editor. I, and bq, have email. Write. Blog.

*The best way to discover our future is to invent it ourselves.* ∎