Video Kiosk as Hype Cycle

Abstract

This chapter maps the progression of the kiosk project over the library hype cycle, from planning to implementation to cessation.

Chapters 1 and 2 outlined the types and technical details of VoIP, and chapters 3 and 4 examined how they have been applied in libraries. In the next few chapters, I map my mixed experience as an early adopter of video reference across the hype cycle. To recap the rise and fall of the hype cycle, consider the example of Second Life: in its early days (technology trigger), SL was hailed as a revolution in Web ecology (peak of inflated expectations) but is now characterized by some as a "cringe-inducing technological wasteland" (trough of disillusionment).[1] In spite of limited popular adoption (slope of enlightenment), a dedicated community of educators and librarians still thrive there, engaging in professional development and teaching even if their virtual service desks and buildings remain almost totally unused (plateau of productivity).[2]

As I have noted, there were two components to Skype services at the Ohio University Libraries—a now-discontinued video help kiosk, and a still-active Skype a Librarian call-in reference program. In this chapter I focus on the video kiosk, a more experimental service that underwent a fairly constant process of rapid prototyping over its lifespan. By critically examining an on-the-ground pilot from beginning to end, I will attempt to draw transferable lessons about what it means to innovate or fail when working with emerging tools, and what this implies about library users and their communication preferences.

Technology Trigger

The kiosk project, which operated between 2007 and 2009, was inspired by a member of the OU Libraries' Systems Department who had seen a video help kiosk at a museum. Intrigued, he preliminarily investigated options before raising the idea with the Reference and Instruction Technology Team. Interested but daunted by the $3,500 price tag of a formal videoscreen kiosk, we decided to test the feasibility of more makeshift virtual face-to-face services in high-need areas that lacked adequate reference staffing. Our technology trigger was therefore simple: inspired by the success of local IM reference and other 2.0 initiatives, we were curious whether we could use webcams to create virtual "desks" in places we could not extend ourselves physically. In this way, one digital reference staffer could provide simultaneous assistance at multiple locations via voice, text chat, and video.

At its Athens campus, the OU Libraries serve 20,000 students from Alden Library, a large centralized facility relatively unique in that it has two entrances separated by several floors. This has the effect of distancing the main reference point in the second floor Learning Commons from the main circulation point on the fourth floor (figure 19). Cramped, difficult to navigate upper stacks floors created a service problem: patrons frequently travel two floors down to ask for help only to be referred an additional two floors down to reference staff.

The kiosk was tested in these two high-need locations; first on the sixth floor in the library's stacks, later on the fourth floor opposite the main entrance.[3] In addition, a long-range goal was to design kiosks that could be placed in other campus buildings to provide an inexpensive and convenient remote library presence. The first
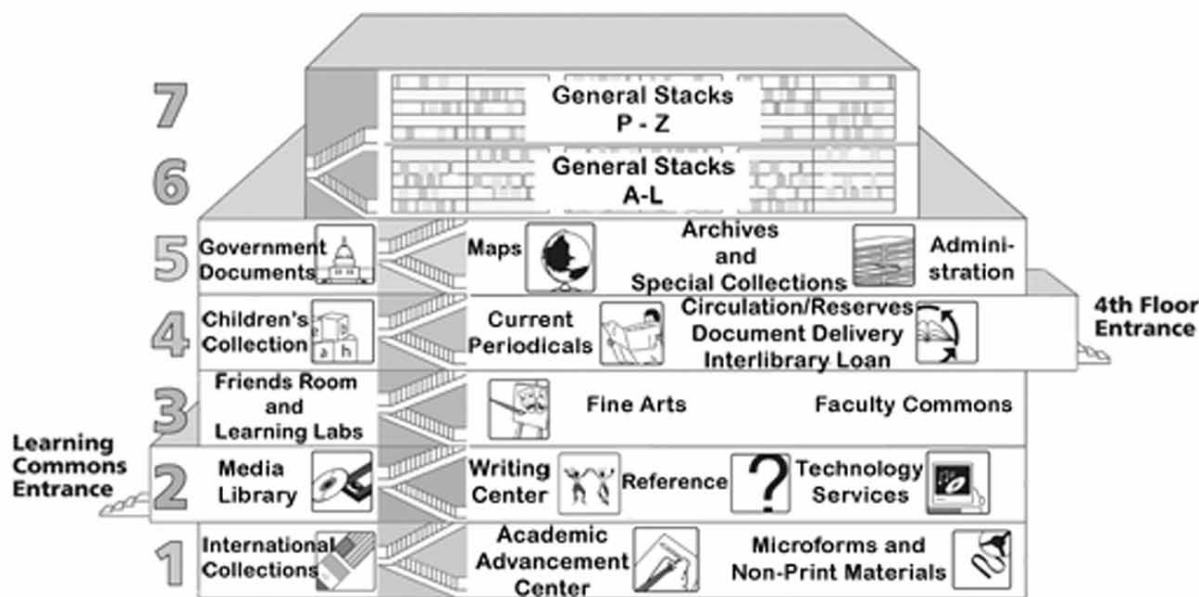
Figure 19
Alden Library cross-section.

Figure 20
First kiosk configuration.

Figure 21
Kiosk staffing configuration.

(stacks) version of the kiosk was a PC with a webcam, speakers, two Windows Live Messenger accounts, and a small sign publicizing our "VideoIM" help station (figure 20). To replicate the experience of a face-to-face interaction in the virtual environment, we opted for a video chat window that displayed our faces live on screen between 9:00 and 5:00 (which became known alternatively as the "librarian in the box" or "Max Librarian Headroom").

This model involved a librarian monitoring IM and chat reference and the video kiosk from an office cubicle outfitted with a dedicated webcam laptop and IM desktop (figure 21), eventually option for rotating shifts from our personal computers for the sake of convenience. In its prototype

deployment, we oriented ourselves and about 10 participating coworkers to the user interaction protocol and issue triage strategies, resolved a number of technical kinks, such as choosing Skype over our initial choice of Windows Live Messenger. This decision was based on video quality and Skype's superior ability to troubleshoot dropped calls, which required running up stairs with Windows Live Messenger—Skype mercifully has an auto-answer setting.

We received very little traffic on the initial kiosk—a few walk-ups and a number of patron referrals from stacks staff. In each case, a "video interaction log" kept by the kiosk staffer indicated moderately successful interactions using voice, video, and text chat to send URLs and call

numbers in response to research help and item location inquiries. After a number of months, we examined our initial service model and determined that its configuration and placement created unanticipated problems. The webcam peered out over a bank of computers, which gave some users the sensation of being watched as they worked (see figure 1 in chapter 1). The kiosk itself was not particularly identifiable—it too closely resembled other stacks PCs, which masked its intended use as a service point and caused some patrons to, for example, quit Skype entirely in order to open a browser.

Peak of Inflated Expectations

After the stacks prototype, we decided to redesign and reconceive the kiosk for what we expected to be a bigger, better implementation in a more heavily trafficked location, directly opposite the main library entrance. In this iteration the kiosk was more formal looking, albeit somewhat cobbled together from surplus parts—a webcam affixed to a flatscreen monitor secured to a podium with PC tower hidden beneath, all promoted with more visible signage (figure 22). Hopes for this version remained high, and based on its success we intended to again evaluate purchasing a more formal kiosk for use elsewhere on campus.

To address the issue of patrons closing down the video call or quitting Skype to use the kiosk for personal work, our redesign removed the external keyboard and opted to make only a mouse available for navigation. This intentionally scaled down the research help focus of the initial design in order to test a model oriented towards walk-up directional interactions. Around this time, I wrote a short blurb about the kiosk for OU's quarterly library publication:

> The Alden Library Reference Department recently added an innovative new component to its virtual reference services—video chat. This pilot program uses rapidly improving internet video communication technology to provide a face-to-face virtual connection with users both inside and outside of the Libraries. While undeniably effective, other types of virtual reference service types such as IM and email reference can create something of a digital divide between librarians and users. Few other libraries have experimented with video call technology in this way, and our pilot seeks to test whether video services can provide an additional and more personal means of virtual research help to our patrons...The project will continue with a new kiosk on the 4th floor opposite the main entrance doors, which will hopefully attract increased traffic and give the service a more public face. We will also allow users to call in from outside
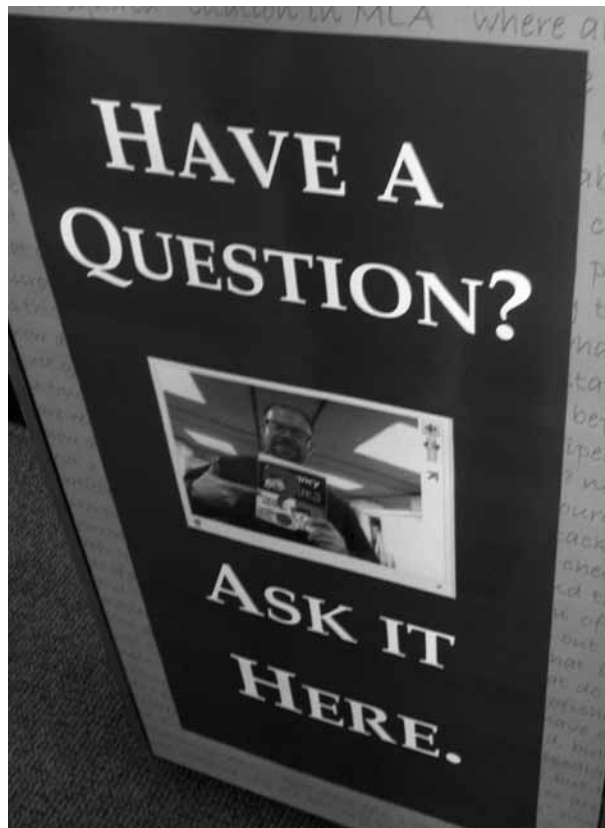

Figure 22
Kiosk redesign.

the library using Skype as a component of our Ask a Librarian service, and hope in the future to secure a campus location for a remote library kiosk.[4]

My inflated expectations are undeniably evident in this description as well as in my first professional presentation, nerve-wracking 20-minute affair at the 2007 ACRL Conference Cyber Zed Shed. My basic message was that voice and video over IP was the next big thing in virtual reference; I remember describing video as capable of bridging the digital gap that many staffers felt in chat and IM interactions. This optimism was based on little more than the fact that we had build a technically sound virtual service point, and the sky's-the-limit technology ethic of the time.

According to OU Technology Team leader Chad Boeninger, this was "the era of reference innovation—chat, text, then . . . Skype was next."[5] Our work involved a full-speed-ahead determinism that seemed to anticipate no outright failure. While this might seem misguided in retrospect and likely caused the project to endure for too long, it was also rooted in the enthusiasm and creativity that motivated us to discover hacks and solutions to each new issue that occurred (which is lucky, because issues kept occurring).

Trough of Disillusionment

If putting a "public face" on digital reference was one of our main motivations, it also became our most persistent frustration. We experienced unexpected headaches from wireless interference to webcam tampering to staff irritation to a mysterious blue line that appeared in the middle of the video window for an entire month. From the public side, the librarian-in-the-box was sometimes seen as novel, sometimes useful, and often plainly disturbing. When interactions occurred, they sometimes involved answering honest-to-god directional reference questions—between 5 percent and 12 percent of all of our overall virtual transactions in one closely tracked six-month period. More often, we engaged in "what is this thing?" explanations, waved at campus tours, watched student antics and pantomime shows, or stared at an empty lobby when no one was around. In this sense the kiosk was an excellent temporary outreach tool, but public interest waned over the months.

After the constant video connection proved technically possible and unsuccessful from the standpoint of patrons and staff, in department discussions we determined that simply took too much staff effort and discomfort was required operate the constant call kiosk. Curious about finding a different configuration that might prove useful, the Technology Team decided to redesign the kiosk interface so it resembled something more along the lines of a touchscreen display (for mouse operation—a "clickscreen"). This new model was more explicitly directional and allowed users to select one of four options—hours, building map, ask a librarian (which placed an auto video call via Skype), or contact information (figure 23).

Slope of Enlightenment

The clickscreen introduced a first-pass element of choice that allowed a patron to direct the interaction. It also changed the way we fielded questions; instead of being referred to a kiosk-specific account, calls were now directed to the Ask a Librarian account staffed at the reference desk. To better manage the kiosk remotely, I installed desktop control software that allowed me to monitor and triage most issues from my own computer. These changes drastically reduced staff dissatisfaction

Welcome to Alden Library

Figure 23
Interface redesign.

with the librarian-in-the-box model, which had proven itself cumbersome, uncomfortable, and not at all akin to the desk experience. It also resulted in far fewer walk-up reference interactions, indicating that, however problematic it might have been, the constant-call method with the more formal kiosk was indeed eye-catching and understood by many as a digital service point.

After we moved to the makeshift touchscreen, were also able to gauge kiosk use with Web analytics—each time a user clicked an option, it was tracked as a page hit. This confirmed that while the map, contacts, and hours functions were used with regularity, few patrons clicked the "Ask a Librarian" link (which we already knew through low question volume). It had become apparent that we had mis-assessed popular Skype use as well as the desire for library services via VoIP. When I reflect on the hard-knock learning aspects of the kiosk experience, the most important element of our enlightenment slope was in recognizing the critical necessity of researching the habits and preferences of our users prior to creating new technology initiatives. In order to better anticipate the reception of the services we designed, we needed to understand (a) what social media and other tools our students were actually using, and (b) if they would use those tools in educational library, or research contexts.

In response to this need we conducted a large-scale technology and library environmental scan in early 2008 (I describe our research approach and findings in *Informing Innovation: Tracking Student Interest in Emerging Library Technologies at Ohio University*).[6] In regards to VoIP, the results were clear: some students

used Skype for personal reasons and indicated that they might contact a librarian for information help, but not to the extent that we had originally expected.[7] A few other campuses have conducted scans based on the template *Informing Innovation* survey instrument since 2009, and report similarly modest interest in Skype services. Ann Roselle, a librarian at Phoenix College, notes that 81 percent of 444 students surveyed reported never using Web calling applications, and among those who did, about 30 percent indicated they would be likely to contact a librarian for assistance.[8] Ellie Collier, Reference Librarian at Austin Community College, at conducted a similar survey among their campuses and found that only 16 percent of student respondents (N = 1000) used Skype on a weekly basis, and only 4 percent indicated that they would be interested in contacting the library (compared to 24 percent of Facebook users).[9]

Plateau of Productivity

The kiosk remained in operation largely to support its other on-screen functions, but Skype call volume never became scalable after the constant call method was abandoned. After I left OU in late 2008, the Technology Team put the kiosk through one more signage and interface change to increase interest, profiled in a video post on Chad's blog, Library Voice.[10] They considered transitioning to text chat instead of Skype in the Ask a Librarian area as a final mitigation measure, but due to continued wireless issues and stretched resources the project had created a scenario of diminishing returns. Chad, who continues to do innovative work with video for outreach, and instruction, sounded the kiosk's 2009 death knell:

> We've been using Skype as a reference option for quite some time. At one point in time, people in library land were really hot about what we were doing with the service. It had great potential, was free, and was easy enough for anyone to set up. . . . We almost never got questions with our Skype Kiosk, even after trying several different staffing models and user interfaces. This past fall, we pulled the plug on our Skype Reference Kiosk, although we still offer Skype as an option for our general Ask-a-Librarian service.[11]

The video kiosk proof of concept was there, but its proof of context was not. Video is a communication medium highly subject to preferential adoption: in our case (and perhaps most point-of-need digital reference contexts) it simply did not enhance the quality of service. Skype's multiple communication affordances (e.g., text, video, voice) make it a powerfully flexible public service tool, which has proven far more useful in Skype a Librarian call-in interactions. This is the value of

experimental projects: we only gathered this insight by testing a concept and learning from our mistakes.

Chad and I discussed what we gained from the project overall, and we agreed that it was a unique proof-of-concept team project in a risk-positive environment that rolled consistently with the punches until it proved itself unnecessary. Staff, although incredibly good-natured about the project, were taxed by its demands and were relieved when we moved to the touchscreen configuration. While patrons used directional elements modestly and had engaged in a number of meaningful interactions during the constant call phase, its core functionality went underutilized at a realistic level of staffing.

If the only measurement of the kiosk was its viability as a digital stand-in for a face-to-face service point, it was an unmitigated failure. If its other achievements are taken into consideration, such as the proven success of rapid team prototyping in a library environment, the value of testing experimental uses of emerging technologies, the importance of cross-departmental collaboration, the insight gained into staff desires, patron needs, and virtual service models, not to mention the wealth of experience team members have shared with the library community, then it was a resoundingly *successful* failure.

Notes

1. Mitch Betts, "Second Life: How to Move from a Cringe-Inducing Wasteland to Real Business Value," Computerworld, Dec. 3, 2007, http://blogs.computerworld.com/second_life_from_cringe_inducing_technological_toddlerhood_to_high_def_simulations (accessed Jan. 15, 2010).
2. Christopher Guder, "Second Life as Innovation," *Public Services Quarterly.* 5, no. 4 (2009): 282–288; Joe Sanchez and Jane D. Stimpson, 2009. "Implementing Second Life: Ideas, Challenges, and Innovations," *Library Technology Reports,* 45, no. 2 (2009).
3. For more details on our planning and testing processes, staffing models, and technical configurations as well as an in-depth discussion of user reactions while the kiosk was operational, see Char Booth, "Developing Skype-Based Reference Services," *Internet Reference Services Quarterly* 13, no. 2–3 (2008): 147–165 and Char Booth, "Video Reference and the Library Kiosk: Experimentation and Evaluation," *Journal of Access Services* 5, no. 1/2 (2007): 47–53.
4. Booth, Char. 2007. "Hi-tech Reference." Gatherings. Ohio University Library, Summer 2007. Accessed 20 January 2010 http://www.library.ohiou.edu/friends/gatherings/2007-summer.pdf p 5
5. Chad Boeninger, chat message to the author, Jan. 19, 2010.
6. Char Booth, *Informing Innovation: Tracking Student Interest in Emerging Technologies at Ohio University* (Chicago: ACRL Press, 2009), available at http://tinyurl

.com/ii-booth.

7. Ibid.

8. Ann Roselle, e-mail message to the author, March 29, 2010.

9. Ellie Collier, e-mail message to the author, April 16, 2010.

10. Chad Boeninger, "Monday Night Update: Episode 5," Library Voice, March 3, 2009, http://libraryvoice.com/general/monday-night-update-episode-5 (accessed May 25, 2010).

11. Chad Boeninger, "So Maybe This Is Why No One Uses Our Skype Reference Service," Library Voice, Jan. 12, 2010, http://libraryvoice.com/technology/so-maybe-this-is-why-no-one-uses-our-skype-reference-service (accessed May 25, 2010).