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The Path to a Carbon-Neutral Library

MANDY HENK

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After her first day dusting copies of the Science Citation Index as a student assistant at Clark University (Worcester, Massachusetts) Science Library, **Mandy Henk** knew she had found her calling. A graduate of Simmons College School of Library Science and currently the Access Services Librarian at DePauw University in Greencastle, Indiana, Mandy devotes her time to activism, motherhood, writing, and librarianship. She was a 2011 Library Journal Mover and Shaker and one of the early guerrilla librarians of the People's Library at Occupy Wall Street. She rides an Xtracycle Radish and lives with her two children, husband, four cats, two frogs, and a dog.

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For Elliott and Hazel

and

In memory of Aaron Swartz

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PART I

Transitioning to Sustainability in the Library

1
Librarianship and the Three Es

When I was a girl, there was a small creek that ran near my home. It wasn't really a creek, it was a drainage ditch designed to catch runoff from the houses around it and send the water into the sewage system. But its whole length was surrounded by trees and honeysuckle bushes, so it felt very much like a natural creek to me, especially since it usually had a small amount of water in it. Enough so that I and the other neighborhood children could pretend it was a creek and get good and muddy in it. When it rained hard, the ditch filled to the very brim and we could pretend it was a river. It never got too big to jump over though, and at the height of some summers it even dried up.

On May 3, 2010, I glanced at the news online from my office in Indiana and was startled to learn that my hometown of Nashville, Tennessee, was flooding. I watched in shock as pictures came over the web. Pictures of places I have known my whole life, now submerged under massive amounts of water. Places that I had never imagined flooding—nor had anyone else. The torrential rains only lasted for two days, but they brought almost 20 inches of rain and cost 31 lives. In Nashville, the amount of rain doubled the previous record for a two-day event. The Cumberland River crested at 51 feet, a level not seen

since flood control measures were implemented in the 1960s. At the end of it, Nashville suffered an estimated $1.5 billion in damage. The symphony hall had sustained serious instrument loss, including two grand pianos and an organ. The Opry Mills mall, an important tourist destination, was destroyed by 10 feet of water—and did not reopen until 2012.[1]

The thing that really brought home the destruction, though, was the creek. The little drainage ditch that I had played in as child transformed into a raging river. It overran its concrete banks, knocked down honeysuckle bushes and young trees, and spilled out into the backyards and basements of families up and down the whole street. The little trickle of water, so small it dried up completely on occasion, had managed to bring mud and chaos to the bucolic street I called home for so many years.

For me, the flooding of Nashville brought home the need to take climate seriously and begin making changes in my life and in my work. For others, it may be the floods in Australia, Pakistan, Thailand, or Colombia;[2] it may be the droughts and wildfires in Colorado, Utah, Texas, Russia, France, and China;[3] it may be the anomalous tornado season of 2011[4] or the melting of the Arctic.[5] The thing about climate change is that it is global in scope and no one will escape its impact. In an interview with climate blogger Joe Romm, climatologist Kevin Trenberth, head of the Climate Analysis Section at the National Center for Atmospheric Research, said, "I find [the impact of global warming] systematically tends to get underplayed and it often gets underplayed by my fellow scientists. . . . it's unfortunate that the public is not associating these [weather events] with the fact that this is one manifestation of climate change. And the prospects are that these kinds of things will only get bigger and worse in the future."[6]

The scientific literature shows that the need to develop carbon neutral economies and societies has become even more urgent in recent years. The very best guidance produced by scientists is that we must reduce the carbon in our atmosphere to below 350 parts per million (ppm) and hold it there.[7] It might well need to be lower than that, but at the moment 350 ppm is the number believed to be the maximum amount of carbon in the atmosphere conducive to having a planet similar to the one onto which we were all born. Currently, our atmosphere is at 402 ppm and rising.[8] Even if we manage to accomplish the necessary reduction, a by no means certain accomplishment, it appears increasingly likely that some of the worst impacts predicted by the United Nation (UN) Intergovernmental Panel on Climate Change will not be prevented and must be mitigated against.[9]

What does all this mean to librarians? And what do we need to do to prepare our libraries for the world we have created—the world Bill McKibben has named Eaarth?[10] McKibben writes, "We've changed the planet, changed it in large and fundamental ways. And these changes are far, far more evident

in the toughest parts of the globe, where climate change is already wrecking thousands of lives daily." He goes on to say, "We can't simply keep stacking boulders against the change that's coming on every front; we'll need to figure out what parts of our lives and our ideologies we must abandon so that we can protect the core of our societies and civilizations."[11] Climate change presents a very real threat to the world we have built and the world in which our libraries and the institutions they serve have thrived. The realities of climate change—both the already increased dangers we face and the urgent need to drastically reduce the amount of carbon we release into the atmosphere—require librarians to develop new practices in our collection building and programming as well as a new understanding of the natural world and our relationship to it. If we fail to make this transition, we risk being left behind in the scrap bin of history as a relic of the Carbon Age. If we succeed in this transition, we can help lead our communities and institutions forward into a new sustainable future, one with healthy libraries and a healthy ecosystem.

Sustainability, as an idea, grew out of the international development sphere. Development specialists understood that building economies that respected the natural environment was crucial if the populations supported by those economies were going to be self-supporting.[12] They also understood that a healthy economy is one that distributes its benefits throughout society. Because of this, sustainability is often thought of in terms of the three Es: ecology, equity, and the economy. Because human society and our interactions with the ecosystem are so complex, sustainability advocates argue that addressing challenges in these areas in a complementary fashion is necessary to prevent the solution to one problem from becoming a problem in another area. In other words, by considering both problems and solutions broadly, we can make decisions whose impacts are understood across multiple dimensions and reduce the possibly of unfortunate surprises down the road.

James Speth, the former dean of the Yale School of Forestry and Environmental Studies, in his book *The Bridge at the End of the World: Capitalism, the Environment, and Crossing from Crisis to Sustainability* identifies seven reactions that people commonly have to our current sustainability predicament:[13]

Resignation: All is lost.

Divine Providence: It's in God's hands.

Denial: What problem?

Paralysis: It's too overwhelming.

Muddling Through: It's going to be alright, somehow.

Deflection: It's not my problem.

Solutionist: Answers can and must be found.

Librarians need to take it upon ourselves to be Solutionists, both in our local communities and in our information system. We are living in a new and different world now than we were at the beginning of the information revolution, but mostly we haven't recognized the change yet. Libraries have a vitally important role going forward. To tackle the global threats we are facing as a society, we're going to need all the information literacy and lifelong learning we can muster and we're going to need it widely available. Librarians are responsible for protecting the public's right to information. If we are to enable our students, scholars, and citizens to counter the lies and propaganda about climate change coming from powerful and entrenched fossil fuel industries, we need to ensure their access to peer-reviewed science and authentic analysis, access that, as it stands now, lives far too often behind the expensive barrier of the corporate-owned and controlled scientific databases. We need to have citizens who are educated to carefully evaluate sources and who can distinguish between the emotional appeal of the propagandist and the objective data analysis of the scientist—a process that requires libraries staffed with well-trained librarians who have access to high-quality collections. In short, we need to create libraries of unparalleled excellence in both service and collections.

And yet, as enduring and as important as libraries should be, this is also a time when libraries are more vulnerable than ever to both external and internal shocks. Few libraries stand on their own; instead we are part of larger institutions—universities and colleges and cities and counties. As our home institutions thrive, we thrive, and when our home institutions suffer, so do we. Our budgets, our facilities, our staff, each of these is vulnerable to external shocks. The Great Recession that began in 2008 has been particularly harmful to library budgets. In 2009, *American Libraries Online* detailed tens of millions of dollars worth of budget cuts to academic libraries across the country.[14] In an Association of College & Research Libraries (ACRL) survey, librarians "overwhelmingly indicated" that "funding constraints, budget cutbacks, and declining support for and increasing costs of academic/research libraries are the most challenging issues" their libraries face.[15] Public libraries too are suffering from cutbacks. The state of California cut in half state funding for public libraries while also passing a trigger clause that could eliminate it completely.[16] Texas has eliminated its direct grant program to public libraries and also reduced funding for its state library programs by 88 percent.[17] My home state of Indiana has passed a constitutional property tax cap that all but ensures libraries will suffer serious cuts in the near future.[18]

But budget cuts are only one of the threats libraries are facing. We have also created an ecologically unsustainable dependence for ourselves and our users on a technological infrastructure that is gravely damaging to the environment. The servers and computers we and our users rely upon to deliver the

content we have purchased are part of the carbon problem.[19] The combination of damage from energy use, mining of materials for electronic devices, and the damage caused from improper disposal of these devices is staggering. If we want to maintain the digital library that we have spent the last 20 years building, we need to find a way to transition to a technology that can be built and maintained without environmental destruction and without creating significant waste streams.

The technology we have grown so dependent on also rests upon a viciously exploitative labor system. And the abuses of this system are largely hidden from us and our users by a globalized production chain. Libraries are not unique in this respect—the globalization of production that took place in the past 30 years hid much labor abuse from consumers. The time to allow ourselves to overlook this abuse has passed. None of us would willingly purchase something we knew had been created under brutal management, but we have allowed ourselves the comfort of ignorance. When workers are literally killing themselves, dying from poison on the production line, and doing everything they can to improve their own lot, it behooves us to help them.[20] And that means using our power as institutional consumers to find alternatives.

The information revolution has another dark side as well—the consolidation of the publishing industry and the enclosure of the information commons. Both academic and general publishers have spent the past two decades engaged in a race to be the biggest company left standing.[21] The result of this race is a publishing industry dominated by large multinational corporations that are able to wield their considerable economic power for political gain. The book, magazine, and newspaper industry, dominated by Newscorp (owner of HarperCollins and FoxNews), McGraw-Hill, and Reed Elsevier spent almost $22 million in the last presidential election cycle. The industry spent an additional $12 million on lobbying in 2010.[22] These giants of the industry have one goal that unites them—protecting and extending copyright law and the continued erosion of fair use and the right of first sale. They wield their power not only in the halls of Congress, but also through the courts. The recent copyright case against Georgia State University for their e-reserves is an example of this abuse.[23] Outside of industry players, almost everyone agrees that the copyright law and fair use need to be updated to reflect technological changes and to respect the rights of the public, who in the case of academic publishing, are often the ones who funded the research anyway.[24]

Clearly, we have made a wrong turn. Overcoming the challenges we are facing requires us to look beyond practicality and to reexamine who we are and what we do as librarians. We are facing existential crises on multiple fronts: climate change and the immediate need to decarbonize our economy; the defunding and rapid "dismantling of the public sphere" and its attendant corporatization; the need to develop a technological infrastructure that is not

based on the social and ecological exploitation that has been a core feature of globalization; and the enclosure of the information commons that has come silently with the information revolution.[25] Librarians are not unique in having to face multiple converging crises as we move through the 21st century, but we have been slow to recognize the building crisis. When we have advocated for change, we have been reformists and incrementalists, but the time for a slow agenda has passed. Earth's climate will not wait, and our obligation to the future is pressing. Just the like the information revolution rapidly swept through libraries, the sustainability revolution must sweep through faster than we think we can stand.

Transitioning to sustainability requires more than just measuring and reducing environmental impact. That tactic has been tried without success for many years. The time has come to try a new approach—recommitting to our fundamental values and reviewing our operations to ensure that they match those values. This is already well under way outside of the library. Paul Hawken has documented thousands and thousands of organizations building what he calls the "largest movement in the world."[26] Hawken describes this movement as "a collection of small pieces, loosely joined. It forms, dissipates, and then regathers quickly, without central leadership, command, or control."[27] He writes of the movement, "It will soon suffuse most institutions, but before then, it will change a sufficient number of people so as to begin the reversal of centuries of frenzied self-destructive behavior."[28] It is time to begin turning around the library we have built and aligning it with the future—with the movement to build a healthy and just world.

Reimagining the ethos and practice of librarianship to ensure that sustainability is brought to the forefront is a monumental task, and it is one that we need to undertake as a group, with voices from across the profession. Voices from small libraries and large, rich libraries and poor, and experienced librarians and newcomers to the profession, all have a stake in this conversation and all need to work together to guide the development of the future of librarianship. The task in front of us is nothing less than the matter of how we ensure that the accumulated knowledge of the world is preserved and made available to all the people of future generations, not only a small, privileged elite.

NOTES

1. "Epic Flood Event of May 2010," National Weather Service Weather Forecast Office, Nashville, TN, February 22, 2011, www.srh.noaa.gov/news/display_cmsstory.php?wfo=ohx&storyid=51780&source=0.; Michell, Lori and Heather Jensen, "Opry Mills Mall Reopens after 2 Years," WKRN, March 28, 2012, www.wkrn.com/story/17279361/opry-mills-mall-reopens-thursday.
2. David Fogarty, "Scientists See Climate Change Link to Australian Floods," *Reuters*, January 12, 2011, www.reuters.com/article/2011/01/12/

us-climate-australia-floods-idUSTRE70B1XF20110112; Nathaniel Gronewold, "Is the Flooding in Pakistan a Climate Change Disaster?" Climatewire, *Scientific American*, August 18, 2010, www.scientificamerican.com/article.cfm?id=is-the-flooding-in-pakist; "Climate Change Blamed for Thai Floods as UN Climate Talks Open," *Environment News Service*, April 6, 2011, www.ens-newswire.com/ens/apr2011/2011-04-06-02.html; Autumn Spanne, "Colombia's Cities Risk Deluge from Changes in Andes Climate," *The Daily Climate*, December 3, 2012, www.dailyclimate.org/tdc-newsroom/2012/12/colombia-andes-flooding.

3. Michael Finneran, "Wildfires: A Symptom of Climate Change," NASA, September 24, 2010, www.nasa.gov/topics/earth/features/wildfires.html.
4. Martin Hoerling, "Preliminary Assessment of Climate Factors Contributing to the Extreme 2011 Tornadoes" (draft research assessment), Physical Sciences Division, Earth System Research Laboratory, National Oceanic and Atmospheric Administration, updated July 8, 2011).
5. "Global Warming Puts the Arctic on Thin Ice," Natural Resources Defense Council, last modified November 22, 2005, www.nrdc.org/globalwarming/qthinice.asp.
6. Joe Romm, "Exclusive Interview: NCAR's Trenberth on the Link between Global Warming and Extreme Deluges," *Climate Progress*, accessed October 22, 2013, http://thinkprogress.org/climate/2010/06/14/206133/ncar-trenberth-global-warming-extreme-weather-rain-deluge.
7. James Hansen et al., "Target Atmospheric CO_2: Where Should Humanity Aim?" *Open Atmospheric Science Journal* 2, no. 1 (2008): 217–31.
8. "Trends in Carbon Dioxide," Global Monitoring Division, Earth System Research Laboratory, National Oceanic and Atmospheric Administration, May 6, 2013, www.esrl.noaa.gov/gmd/ccgg/trends.
9. A. P. Sokolov et al., "Probabilistic Forecast for Twenty-First-Century Climate Based on Uncertainties in Emissions (without Policy) and Climate Parameters," *Journal of Climate* 22, no. 19 (2009): 5175–204; Laura E. Coristine and Jeremy T. Kerr, "Habitat Loss, Climate Change, and Emerging Conservation Challenges in Canada," *Canadian Journal of Zoology* 89, no. 5 (2011): 435–51.
10. Bill McKibben, *Eaarth: Making a Life on a Tough New Planet*, (New York: Times Books, 2010).
11. Ibid., xiii.
12. "Our Common Future," United Nations, World Commission on Environment and Development (1987).
13. James Gustave Speth, *The Bridge at the End of the World: Capitalism, the Environment, and Crossing from Crisis to Sustainability* (New Haven, CT: Yale University Press, 2008), 42.
14. Leonard Kniffel, "Cuts, Freezes Widespread in Academic Libraries," *American Libraries* 40, no. 67 (2009): 28.

15. Ibid.
16. Michael Kelley, "In California, All State Funding for Public Libraries Remains in Jeopardy," *Library Journal* (July 5, 2011), http://lj.libraryjournal.com/2011/07/budgets-funding/in-california-all-state-funding-for-public-libraries-remains-in-jeopardy.
17. Michael Kelley, "Texas Governor Signs Budget Cutting State Funding for Library Services by 88%," *Library Journal* (July 29, 2011), http://lj.libraryjournal.com/2011/07/budgets-funding/texas-governor-signs-budget-cutting-state-funding-for-library-services-by-88-percent/#_.
18. Maureen Hayden, "Opponents of Amendment to Put Tax Caps in Constitution Face Uphill Battle," *Herald Bulletin*, October 6, 2010.
19. David L. Gard and Gregory A. Keoleian, "Digital Versus Print: Energy Performance in the Selection and Use of Scholarly Journals," *Journal of Industrial Ecology* 6, no. 2 (2003): 115–32.
20. "iPhone Workers Say 'Meaningless' Life Sparks Suicides," *Bloomberg News*, June 2, 2010, www.bloomberg.com/news/2010-06-02/foxconn-workers-in-china-say-meaningless-life-monotony-spark-suicides.html; Jeffrey Kaye, "In China, Factory Workers Allege Poisoning from iPhone Production," *PBS NewsHour* video, 7:25, April 13, 2011, www.pbs.org/newshour/bb/world/jan-june11/china_04-13.html; David Barboza and Keith Bradsher, "In China, a Labor Movement Aided by Modern Technology," *New York Times*, June 16, 2010.
21. "Hot Topics: Publisher Mergers," UC Berkeley Libraries, November 8, 2011, www.lib.berkeley.edu/scholarlycommunication/publisher_mergers.html.
22. "Books, Magazines, and Newspaper Industries," Center for Responsive Politics, www.opensecrets.org. accessed April 26, 2014.
23. Andrew Richard Albanese, "A Failure to Communicate," *Publishers Weekly*, June 4, 2010, www.publishersweekly.com/pw/by-topic/industry-news/publisher-news/article/43500-a-failure-to-communicate.html.
24. For example, see Siva Vaidhyanathan, *The Anarchist in the Library: How the Clash between Freedom and Control Is Hacking the Real World and Crashing the System* (New York: Basic Books, 2004).
25. John Buschmann, *Dismantling the Public Sphere: Situating and Sustaining Librarianship in the Age of the New Public Philosophy* (Westport, CN: Libraries Unlimited, 2003).
26. Paul Hawken, *Blessed Unrest: How the Largest Movement in the World Came into Being, and Why No One Saw It Coming* (New York: Viking, 2007).
27. Ibid., 12.
28. Ibid., 189.

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