

Labor History on the World Wide Web: Thoughts on Jumping onto a Moving Express Train

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The World Wide Web has undergone remarkable expansion of late and this growth poses challenges to all historians. In an article published recently in the *Journal of American History*, Roy Rosenzweig offered a variety of measures of that growth: the Online Computer Library Center, for instance, reported a fivefold increase in unique web sites between 1997 and 2000, estimating some 7.1 million sites in October 2000; the Search engine Google indexed some 1.3 billion web pages, a figure that now exceeds 1.6 billion as this article is being written (November–December 2001); and searchable databases on the World Wide Web, not accessible to conventional search engines, by some estimates total 550 billion web pages.¹ As historians we are all used to some version of the information explosion, but this is really too much! What sense can labor historians make of the vast new resources now accessible on the World Wide Web, and how can we best draw on these resources for our research and teaching? It is difficult to climb up on a moving train, but climb on this express we must. And while no one can claim to “keep up” with the rapidly changing state of the World Wide Web, it is important to take stock of some of the more important resources available on the Web and to consider strategies for keeping abreast of this information explosion.

In this article, I offer a sketch of resources currently on the World Wide Web that should be of interest to labor historians. As *Labor History* begins this issue with new editors and a new Mission Statement, it seems an opportune moment for this sort of stock-taking. That statement reflects the ways that the field of labor history has changed in the more than 40 years since this journal first appeared. Topics that play a larger role in labor history in 2002 than was the case in 1960 include the representation of work and an emphasis on labor systems. The expanding interest in issues of gender and the domestic sphere in the social reproduction of labor also might surprise the journal's founding generation. The Cultural Turn has had its impact on labor history, as in all fields, and so the cultural dimensions of class are increasingly a focus. And finally, the expansion of the geographical range of the journal to include Canadian and Latin American history reflects the increasing importance of global and comparative approaches within the historical discipline. In this survey of recent developments on the World Wide Web, I will try to cast my net as widely as the journal's new Mission Statement.

As a fast moving target, the web demands strategies to deal with its constant transformation. Consider the fate of a survey of the web published in this journal a little more than two years ago. John H. Summers wrote a fine essay exploring “American

¹Roy Rosenzweig, “The Road to Xanadu: Public and Private Pathways on the History Web,” *Journal of American History* 88 (2001), 550, 552.

labor history on the World Wide Web.” Still, of about 50 historical sites described in the article, a search in the early fall of 2001 found more than a third of the web links no longer reachable at the addresses given in the article’s notes.² Sites were temporarily down, had moved to new addresses, or had simply been discontinued in the intervening period. Given the fluidity of sites and the web’s continual growth, historians need to develop strategies to find sites that have moved or appeared since the publication of site reviews or review articles. Search strategies are particularly important tools in keeping abreast of the web’s dynamism.

Yet the commonly employed search engines can access only a tiny fraction of the resources contained on the web. In his recent article Rosenzweig made two distinctions which are important to keep in mind when navigating the World Wide Web. He noted the differences between the surface web and the deep web, and between the public and private webs.³ The distinctions are important ones, and historians will do well to think about their implications for their work. The distinction between surface and deep webs is largely the difference between web sites that consist of searchable pages that are indexed by public, automated search engines such as Google and Altavista and sites that consist of databases searchable only by internal search engines. For example, the *American Memory* project of the Library of Congress consists (as of November 2001) of more than 100 distinct collections and more than 7 million digitized items.⁴ To access the depths of these digitized collections, one needs to search through databases created by staff at the Library of Congress.

But beyond the surface and the deep webs, which together comprise the public web, there is also the private web. Resources on the private web are available to those who are willing and able to pay for access. Online journals are among the most important scholarly resources in the private web. Students and teachers at colleges and universities that subscribe to *JSTOR*, *ProQuest Direct*, or *Expanded Academic ASAP* have the capability of searching extensive runs of current and historical newspapers and periodicals.⁵ Recently, more focused research collections, such as the *Gerritsen Collection—Women’s History Online, 1543–1945* and *North American Women’s Letters and Diaries*, have appeared on the World Wide Web, offering students and faculty at subscribing colleges and universities remarkable opportunities to conduct full-text searches of an astonishing array of printed primary sources.⁶ The private web, according to Rosenzweig, now accounts for some 20% of content on the World Wide Web, and its share

²John H. Summers, “The Future of Labor’s Past: American Labor History on the World Wide Web,” *Labor History* 40 (1999), 69–79; for an earlier overview of American history on the web, see Michael O’Malley and Roy Rosenzweig, “Brave New World or Blind Alley? American History on the World Wide Web,” *Journal of American History* 83 (1997), 132–155.

³Rosenzweig, “Road to Xanadu,” 552.

⁴*American Memory: Historical Collections of the National Digital Library*, <http://lcweb2.loc.gov/ammem/ammemhome.html>. Following current practice, I italicize all names of web sites and use quotation marks for documents, articles or subsections on a web site—as one would do with articles in a journal or chapters within a published book.

⁵It is not possible to provide static web addresses (URLs) for these three resources. I have accessed all of them through the library web pages at the State University of New York at Binghamton and readers will need to access them through similar pages at academic institutions or libraries with which they are affiliated. Access to these private web sites is by institutional subscription only.

⁶Both of these databases are available by subscription only, but readers can find out more about their resources at the web pages of the companies that have developed and marketed them: ProQuest (<http://www.umi.com/products/pd-product-gerritsen.shtml>) and Alexander Street Press (<http://www.alexanderst.com/PSNAWLD.htm>).

is growing. Clearly, the ability to conduct pointed, effective searches in the deep web and the private web will be crucial for labor historians. After treating valuable sites for labor historians accessible on the public web, in the final section of this article I discuss strategies for accessing resources in the deep and private portions of the web.

One of the first ways to begin exploring labor history on the World Wide Web is to examine the extensive bibliographies of web sites that have emerged: webographies, in the new terminology. *History Matters*, a web site maintained jointly by the American Social History Project at City University of New York and the Center for History and New Media at George Mason University, is a particularly good place to begin.⁷ At this sprawling web site, the “WWW.History” section offers lists of annotated American history sites. More than 30 categories of sites—organized by time period, topical focus, and region—offer groupings of web resources. Employing the site’s full-search capability, under the heading “Labor & labor movements,” for instance, the webography lists 245 sites of possible interest. If we add “Women” to our search and limit the time period to 1890–1930, we find that the search returns 31 possible web sites. Among the more useful sites that come up in the comprehensive listing are the *American Memory* project of the Library of Congress, the *New Deal Network*, with its rich holdings of photographs and texts, and the *Dramas of Haymarket*, a Chicago Historical Society project exploring the Haymarket Affair of May 1886, its aftermath, and legacy.⁸ *History Matters* is ever expanding and is currently adding a series of online essays with interactive examples in a new section entitled “Making sense of evidence.” Learners’ guides will explore the use of photographs, oral history, and quantitative evidence, along with a variety of other kinds of evidence. The site also offers numerous sets of resources especially aimed at contributing to the teaching of history. The “Digital blackboard” provides teaching assignments that utilize the World Wide Web; “Students as teachers” offers examples of student work on the web; and “Syllabus central” presents syllabi for U.S. history or American studies survey courses. The searchability of the site makes it particularly valuable for teachers of labor history.

Another resource with broad coverage is the web site of the *Gilder Lehrman Institute of American History*. The resources section of this site includes annotated documents, links to audio and visual resources on the web, a search engine accessing a larger body of web sites, and an online textbook. The site also includes a link to the web site of the affiliated *Gilder Lehrman Center for the Study of Slavery, Resistance, and Abolition* at Yale University, which “is dedicated to the investigation and dissemination of information concerning all aspects of the Atlantic slave system and its destruction.” The slavery center site includes a collection of 200 documents with a searchable database, providing access to documents by author, date, subject, and document type. This web site provides extensive materials on the slave labor system of the Atlantic World.⁹

While the *History Matters* and *Gilder Lehrman Institute* web sites serve as gateways to American history and offer rich labor history-related materials as part of this function, sometimes more focused sites can serve similar purposes. Of a number of web sites

⁷*History Matters*, <http://historymatters.gmu.edu/>. Other valuable webographies, which will not be discussed in any detail, are available in a loose-knit collection of listings, the *WWW Virtual Library*, <http://vlib.org/>, which includes “Labour and business,” at <http://www.iisg.nl/~w3vl/>, and listings of links on “U.S. labor history,” at http://www.geocities.com/m_lause.geo/AmLabHist/VL.html.

⁸To reach these sites directly, go to the *New Deal Network* at <http://newdeal.feri.org> and *Dramas of Haymarket*, at <http://www.chicagohistory.org/dramas/overview/over.htm>.

⁹You can access the *Gilder Lehrman Institute* web site at <http://www.gliah.uh.edu/index.cfm> and the *Slavery Center* site at <http://www.yale.edu/glc/>.

created by Gerald Zahavi of the State University of New York at Albany, the most valuable for labor historians is an undergraduate course web site, *Workers and Work in America, 1600 to the Present: A Multimedia Course*. Providing a 25-page syllabus, brimming with references to World Wide Web sites and audio and video materials related to the course, the site gives an excellent view of labor history resources on the Web.¹⁰ Zahavi has also played a major role in the creation of the *U.S. Labor and Industrial History World Wide Web Audio Archive*, a web site developed in conjunction with *Talking History*, which includes an audio archive of radio programming focusing on historical themes.¹¹ For example, the *Labor Archive* includes audio of sessions at the Columbia University “Teach-in with the Labor Movement” in October 1996 and a variety of oral history interviews and recorded speeches, while *Talking History* offers four years of weekly radio programming, including discussions of child labor, labor day, civil rights, women’s rights, and immigrant women. Labor history appears frequently in the online journal that Zahavi co-edits, the *Journal for MultiMedia History*. There oral history and documentary photography are featured prominently in online articles exploring Harlan County, Kentucky and the anthracite region of northeastern Pennsylvania.¹² Finally, Zahavi has begun work on two projects that emerge out of his own research, *Life and Labor in a Corporate Community: An On-line History of the Endicott Johnson Corporation* and *The Glovers of Fulton County*.¹³ Whether teaching, editing others’ work, or publishing his own research online, Zahavi has an excellent feel for the use of multimedia resources and for ways to take advantage of the capabilities of electronic media.

Another excellent site providing documents and images of interest to labor historians is the New Deal Network web site, directed by Thomas Thurston.¹⁴ As of this writing, the ever-expanding site includes some 900 documents and 5000 images, indexed separately. Photos are accessible by a detailed subject index, documents by subject, date, and author. There are extensive, separately listed, writings by Franklin and Eleanor Roosevelt. Featured online projects focus on a variety of topics, including 1930s WPA narratives of former slaves, two projects on the Civilian Conservation Corps, and an archive of articles from the progressive journal of the period, *Survey Graphic*. “Labor in the 1930s bibliography” offers author and subject indexes to a listing of books related to the New Deal era, broadly conceived.¹⁵ Finally, an extensive classroom section offers lesson plans, examples of student work, curriculum projects, and additional resources for teaching about the Depression.

Moving beyond webographies and databases, historians will find more focused sites that explore specific topics or groups of topics germane to labor history in the western hemisphere. *The Dramas of Haymarket*, for instance, explores the origins of conflict that erupted in the Haymarket Affair in May 1886, the tragedy itself, and its aftermath and

¹⁰Gerald Zahavi, *Workers and Work in America*, at <http://www.albany.edu/history/history316/his316f2000.html>.

¹¹To access these two sites, see <http://www.albany.edu/history/LaborAudio/index.html> and <http://www.talkinghistory.org/>.

¹²See Charles Hardy III and Alessandro Portelli, “I Can almost See the Lights of Home—A Field Trip to Harlan County, Kentucky,” in volume 2 (1999) and Thomas Dublin and Melissa Doak, “Miner’s Son, Miners’ Photographer: The Life and Work of George Harvan,” in volume 3 (2000), both in *Journal for MultiMedia History*, at <http://www.albany.edu/jmmh>.

¹³*Endicott Johnson Corporation*, at <http://www.albany.edu/history/ej> and *The Glovers of Fulton County*, at <http://www.albany.edu/history/glovers>.

¹⁴*New Deal Network*, at <http://newdeal.feri.org>.

¹⁵The bibliography can be found at <http://newdeal.feri.org/laborbib/index.htm>.

consequences. Affiliated with this interpretive site is the *Haymarket Affair Digital Collection*, an online archive developed cooperatively by Northwestern University and the Chicago Historical Society. Digitized documents include more than 3000 pages of transcripts of testimony and cross-examinations at the ensuing Haymarket Trial, evidence books from the trial, and handwritten autobiographies of several defendants.¹⁶ The breadth and depth of primary sources included in these two sites will permit students and scholars alike to conduct significant long-distance research on the Haymarket Affair in the future.

The 1909–1910 Shirtwaist Strike in New York City is another labor conflict that can be extensively researched on the World Wide Web. A quick Google search of sites accessible on the public web (November 2001) revealed at least 1310 locations for relevant material. Foremost among these is a documentary project focusing on the “Relationship between workers and allies” in the strike, part of the extensive web site, *Women and Social Movements in the United States*, that I co-direct with Kathryn Kish Sklar.¹⁷ The Shirtwaist project includes 23 documents and nine images drawn from contemporary sources, including translations of Yiddish-language newspaper coverage of the strike. With an interpretive introduction, headnotes to individual documents, a bibliography of published sources, and a list of related World Wide Web links, the project is part of a larger collection of primary documents and supporting materials focusing on women and social movements in the U.S. Other labor-related projects on the site include treatments of the origins of International Women’s Day, factory inspection and labor legislation in Illinois in the 1890s, the 1912 Lawrence Strike, a 1934 garment workers strike in Mayaguez, Puerto Rico, and a 1938 pecan shellers strike in San Antonio. This example shows nicely how a search on one particular topic can lead seamlessly to other, related resources. Curious researchers finding the Shirtwaist Strike documents and images should explore the broader site of which those materials are part, and, in the process, discover rich resources on gender in the American labor movement.¹⁸

Another web site that has caught the attention of students and teachers is the site of the *Emma Goldman Papers* at University of California, Berkeley, developed in conjunction with the major editorial and microfilming project directed by Candace Falk.¹⁹ The site includes an extensive online guide to the life of Emma Goldman and documentary sources as well as electronic versions of a representative group of documents and writings by Goldman. There is also an online exhibition, and, most useful, a substantial curriculum for middle- and high-school students. Well before it was common for academic projects on the web, the organizers of the *Emma Goldman Papers* realized the educational value of their work and made a conscious effort to reach out beyond their college and university audience.

¹⁶To reach the *Digital Collection*, separately, go to <http://www.chicagohistory.org/hadc/index.html>.

¹⁷The “Shirtwaist Strike” editorial project is accessible at <http://womhist.binghamton.edu/shirt/doclist.htm>. For the broader *Women and Social Movements* web site, see <http://womhist.binghamton.edu>. This web site, developed at the State University of New York at Binghamton, is co-directed by Kathryn Kish Sklar and the author, who trusts readers will excuse him for directing them to an educational site he has had such a large role in developing. While focusing on women and social movements quite generally, the student-based projects include extensive primary documents related to issues of gender and class.

¹⁸Along these lines, readers may find it useful to explore the “Links” section of this site at <http://womhist.binghamton.edu/links/mainlink.htm>, which offers links to a variety of labor-related sites in a broader collection of more than 60 sites related to women and social movements.

¹⁹*Emma Goldman Papers*, <http://sunsite.berkeley.edu/Goldman/>.

Three other sites deserve mention and reflect the proliferation of excellent focused sites in American labor history. *Child Labor in America, 1908–1912: Photographs of Lewis W. Hine* provides a rich collection of images that Hine created while employed by the National Child Labor Committee. Part of *The History Place*, a private, commercial web site, the collection is short on documentation and interpretation, but the photographs are gripping.²⁰ *The Bisbee Deportation of 1917*, an online exhibit produced by the University of Arizona Library, provides reports, newspaper accounts, recollections, and photographs of this notorious event. Legal documents associated with subsequent, unsuccessful attempts to prosecute the organizers of the deportations include extensive correspondence associated with the deportations and IWW publications. Like the *Haymarket Affair* web site, the *Bisbee* online exhibit will permit serious long-distance research by labor history students and scholars. The site is a model of the means by which an archive can utilize the World Wide Web to reach out and tell an important story to a broad audience.²¹ Finally, *Like a Family* is a website focusing on the oral history of southern cotton textile mill communities, based on the prize-winning book of the same title.²² Drawing on photographs and audio clips of oral history interviews, the web site offers rare primary materials that high school and college students could use effectively to explore important elements of southern labor history. Teaching exercises invite comparisons with other material available on the World Wide Web. The online publication of the *Child Labor*, *Bisbee*, and *Like a Family* web sites makes a real contribution in bringing labor history sources to a broader audience than scholarly monographs and journals are ever likely to do.

While sites related to U.S. labor history predominate in general searches of the World Wide Web, one can easily widen the focus to labor in the Americas. A useful webography on Canadian labor history can be found at the web site of *Le Gauche Revue*. A few clicks lead one to a more focused listing of web sites related to the “1919 Winnipeg general strike.” Tracing the network of links from this site leads one to *Canada’s Digital Collections*, a federal project employing Canadian youth to digitize collections and assist cultural institutions in making their collections more accessible to a broad public.²³ “Labour” is a keyword on the site’s subject index and provides links to sites related to Canadian automobile workers, coal mining in Cape Breton, United

²⁰*Child Labor in America, 1908–1912*, at <http://www.historyplace.com/unitedstates/childlabor/index.html>. Labor historians may also want to examine the Dorothea Lange images of migrant workers, also published on this site at <http://www.historyplace.com/unitedstates/lange/index.html>.

²¹*The Bisbee Deportation of 1917*, at <http://digital.library.arizona.edu/bisbee/index.php>. The one component of the site not consistent with its generally high quality is the 12-minute video, which, in its effort to maintain a neutral tone, largely skirts the moral implications of the deportation and its aftermath, missing an opportunity to explore the meaning of events for an audience today. Examination of the video would provide teachers and students a thoughtful critical exercise, as it is riddled with fuzzy thinking and evasion that are worth exploring.

²²*Like a Family*, at <http://www.ibiblio.org/sohp/>, is based on the oral histories gathered in the process of researching Jacquelyn Dowd Hall, James Leloudis, Robert Korstad, Mary Murphy, Lu Ann Jones, and Christopher B. Daly, *Like a Family: The Making of a Southern Cotton Mill World* (Chapel Hill: University of North Carolina Press, 1987).

²³*Le Gauche Revue*, <http://www.geocities.com/CapitolHill/5202/labhistindex.htm>, brings one to the “Canadian labour history” webography on this larger site. For the links to web sites related to the 1919 General Strike in Canada and to general strikes in other times and places, see <http://www.geocities.com/CapitolHill/5202/GenStrike.htm>. For an excellent web site developed by James Gregory at the University of Washington, focusing on the *1919 Seattle General Strike* (and listed in this webography), see <http://faculty.washington.edu/gregoryj/strike/strikehome.htm>. Finally, for the web site for *Canada’s Digital Collections*, see <http://collections.ic.gc.ca/E/home.html>.

Steelworkers of America-Canada, and the Cradle of Collective Bargaining, among others.

For Latin American labor sites the labor webography of the Latin American Network Information Center (LANIC) at the University of Texas provides extensive lists of web sites in English, Spanish, and Portuguese.²⁴ The focus is not exclusively historical, but there are rich historical resources as well as web sites of contemporary Latin American labor organizations and sites focusing on Latin American labor issues. A sampling of linked sites may be useful for readers of this journal. A Haitian web site, *Batay Ouvriye* (Workers' Fight), offers an English-language version that reminds readers of the interconnections of social movements throughout the hemisphere, with links to such North American sites as *Sweatshop Watch*, the *National Labor Committee*, and *UNITE*. The Mexican section of the webography lists numerous English-language resources on labor issues of concern in both Mexico and the United States. *Los Braceros, 1942-1964*, for instance, provides a thoughtful, English-language treatment of the Bracero Program that supplied Mexican migrant farm labor in the U.S. West and Southwest for more than two decades. Finally, a section on regional labor resources provides links to the *Labor, Globalization and Human Rights Project* of the Resource Center of the Americas and to *SWEAT Labor Magazine*, with coverage of labor news and opinion in Canada, the U.S., and Mexico.²⁵

Working-class culture is another element of labor history that can be accessed well on the World Wide Web. Several academic centers provide useful resources, including the *Center for Working-class Studies* at Youngstown State University and the *Group for the Study of Working Class Life* at the State University of New York at Stony Brook.²⁶ The Youngstown site describes the university's innovative graduate certificate in working-class studies, and offers a rich exhibit of texts and images on Youngstown, and extensive links to web sites of labor museums and sites dealing with issues of working-class culture. The Stony Brook web site explores the "meaning of class in today's world" and offers a variety of ongoing projects, including a gallery of posters, photos, and murals of the working class today, video clips from a documentary, "Class counts," and study guides and questions geared for use with *The Working Class Majority: America's Best Kept Secret*, by the group's director, Stony Brook professor of economics, Michael Zweig.²⁷

The labor movement has generated web sites with rich resources on working-class culture. *Labor Arts* is an example of one such site, co-sponsored by Bread and Roses, a cultural project of New York's Health and Human Service Union 1199/SEIU, the Robert F. Wagner Labor Archives at New York University, and the Shelley and Donald Rubin Foundation.²⁸ The collections section offers graphic art focusing on various labor themes and periods of time. Links in this section take viewers to resources from

²⁴The webography for "Labor issues in Latin America" on the LANIC web site is found at <http://lanic.utexas.edu/la/region/labor>.

²⁵For *Batay Ouvriye*, see http://geocities.com/CapitolHill/2539/english/2_luttes/p12.htm. *Sweatshop Watch* can be found at <http://www.sweatshopwatch.org/swatch/industry>, with the *National Labor Committee* web site at <http://www.nlcnet.org/>, and *UNITE* at <http://www.uniteunion.org/>. *Los Braceros* is located at <http://www.farmworkers.org/benglish.html>, while the *Labor, Globalization and Human Rights Project* web site is at <http://www.americas.org/labor/index.htm>, and *SWEAT Labor Magazine* is at <http://www.sweatmag.org/>.

²⁶*Center for Working-class Studies* web site, <http://www.as.yzu.edu/~cwcs/>; *Group for the Study of Working Class Life*, <http://naples.cc.sunysb.edu/CAS/wcm.nsf>.

²⁷Michael Zweig, *The Working Class Majority: America's Best Kept Secret* (Ithaca: ILR Press, 2000).

²⁸*Labor Arts*, at <http://www.laborarts.org/>.

a variety of labor projects and archives. An exhibits section of the web site offers three distinct exhibits, one offering a “labor arts sampler,” examples of “artistic expressions of the labor movement that have moved working people to action,” the second, a sampling of photographs from the recently published book, *Ordinary People, Extraordinary Lives: A Pictorial History of Working People in New York City*, and the third, “Images of labor,” an extraordinary collection of labor posters.²⁹ *Labor Arts* is a sophisticated multimedia site that will appeal equally to students, faculty, and non-academic audiences.

The labor movement has also generated sites that speak to organizing efforts in the past and present. The George Meany Center for Labor Studies and UNITE have sites that will reward a visit. At the AFL-CIO’s labor education campus in Silver Spring, Maryland, the *George Meany Memorial Archives* is probably the resource that will be of most interest to labor historians.³⁰ A section on using the archives contains an extensive online guide to the collections, offering detailed descriptions of holdings focusing on the AFL-CIO. Collections from the civil rights and international departments speak to issues of increasing interest to labor historians, as also are the records of the American Federation of Women’s Auxiliaries of Labor. An online exhibit on A. Philip Randolph explores his work for the Brotherhood of Sleeping Car Porters and as a civil rights activist with documents and images that speak to the broad commitment for social justice that characterized Randolph’s life.³¹ The *UNITE* web site reflects the activist bent of this new voice for garment and textile workers.³² The Stop Sweatshops Campaign has a prominent place on the site with reports on initiatives undertaken by college and high-school students as well as legislative successes in New York City and Cleveland. An elaborate “Links and resources” section refers viewers to web sites reflecting a variety of national and international efforts to oppose child labor and superexploitation. The “Organize” section reports on organizing activities throughout North America. The “Member resources” section provides a good view of the range of activities and services this union offers its membership. Finally, a “Research and teaching” section offers a good dose of labor history, with a timeline that covers a century of union history, including the founding of the International Ladies Garment Workers Union, the Amalgamated Clothing Workers of America, and other unions that contributed to the emergence of UNITE in 1995.

Other institutions (like unions) that depend on public patronage have been among the pioneering developers of web sites in an effort to reach their target audiences. Archives and repositories in the labor history and labor studies fields have developed web sites to inform the public about their resources and to help users of their resources to work more effectively. Visiting the web sites of archives before making a research trip to the actual archives has become a crucial component of effective research in recent years. Even students and teachers not planning a research trip can benefit from exhibits posted by archives and repositories and increasingly they will find online electronic publications that provide access to resources formerly buried away in basement repositories. These are all resources that will reward the persistent traveler on the web’s information highway.

²⁹Debra E. Bernhardt and Rachel Bernstein, *Ordinary People, Extraordinary Lives: A Pictorial History of Working People in New York City* (New York: New York University Press, 2000).

³⁰*George Meany Memorial Archives*, at <http://www.georgemeany.org/home.html>.

³¹“A. Philip Randolph, 1889–1979,” at <http://www.georgemeany.org/apr.html>.

³²*UNITE* web site, at <http://www.uniteunion.org/>.

A useful example of an archival web site is that of the *Tamiment Institute Library and the Robert F. Wagner Labor Archives* at the Bobst Library at New York University.³³ Beginning with a brief history of the archives, the home pages for the site permit access to online finding aids, online “pathfinders”—annotated descriptions of materials in the collections—and online exhibits. The pathfinders are particularly useful for readers of this journal, providing, in turn, a guide to Yiddish labor and radical movements, reference sources in U.S. labor studies, and sources in U.S. women’s labor history. Each of these specific guides leads viewers, in turn, to links to additional resources, both print and electronic. The labor studies guide, for instance, has links to 15 labor-related web sites in Canada and the U.S. The women’s labor history guide notes more than 60 web sites of likely interest. Finally, online exhibits offer rich material for use in teaching. One exhibit explores “Labor and the Holocaust,” drawing principally on the massive archival collection for the Jewish Labor Committee. Another exhibit presents the work of the post-World War II labor photographer, Sam Reiss. Both exhibits introduce viewers to rich collections and will no doubt stimulate additional archival research in the original primary sources, but they also stand as valuable resources in their own right.

Other archives and centers provide equally good points of entry into the labor history and labor studies fields. The Kheel Center at the ILR School at Cornell, the Harry Bridges Center for Labor Studies at the University of Washington, and the Walter P. Reuther Library at Wayne State University each offers a web site that labor historians will want to explore.³⁴ The Kheel Center web pages describe its collections, which are particularly strong in materials on needle trades unions, labor arbitrators, New York City teachers’ unions, and industrial relations in the railroad industry. An excellent exhibit on the notorious “Triangle Shirtwaist fire” includes a narrative of events and numerous primary documents and images of the disaster, as well as a bibliography and tips for student projects. The *Center for Labor Studies* has two ongoing, online research projects that will be of interest to labor historians: an extensive treatment of the “1919 Seattle general strike,” including photographs and primary documents; and the “Labor Press Project,” with detailed reports on a great many Northwest labor and radical newspapers. The *Reuther Library* includes extensive documentation of its manuscript collections, serving as the library does as the official repository for records of the UAW, the UFW, the AFT, and the SEIU unions, among others. Urban Detroit has been another focus of collecting, and excellent online exhibits draw upon the strengths of the library’s collections.

Even more so than archives and repositories, museums depend on a broad, public audience. Most museums have been aware of the importance of publicizing their exhibits and programs, if only to attract their share of the museum-going public. Increasingly, though, museums have also been using the medium of the World Wide Web to disseminate exhibits beyond their own physical walls. Online exhibits thus become a valuable resource for labor historians, often a resource for research, but also a valuable addition in the classroom. Discussion of three recent labor history exhibits will offer a good sense of what is possible in the world of virtual exhibits.

The *Eugene V. Debs Foundation* provides an excellent introduction to an important

³³*Tamiment Institute Library and the Robert F. Wagner Labor Archives*, at <http://www.nyu.edu/library/bobst/research/tam/>.

³⁴*Kheel Center*, <http://www.ilr.cornell.edu/library/kheelcenter/>; *Bridges Center for Labor Studies*, http://depts.washington.edu/pcls/Center_for_labor_studies.htm; *Reuther Library*, <http://www.reuther.wayne.edu/>.

labor leader and activist for social justice.³⁵ A timeline provides a succinct summary of Debs's biography, while a substantial array of photographs further documents his life. Other sections of the site emphasize his roles as a labor leader and political activist. A section on social justice provides treatments of Debs's commitment to women's rights, children's rights, and pacifism. There is material providing a virtual tour of the Debs house in Terre Haute and a final section offering a select bibliography for further reading. The site is a modest one, but a particularly effective way to reach beyond the walls of the Debs house to a national audience.

The Canadian Museum of Civilization in Hull, Quebec, offers a much more extensive online exhibit exploring *Canadian Labour History, 1850–1999*.³⁶ This site is not as strong visually as most online exhibits, but has thoughtful one-page treatments of wide-ranging topics organized chronologically in major groupings from “Beginnings,” “Workers unite,” and “Labour’s revolt,” to “The dark years,” “Labour’s advance,” and “New directions.” It also offers audio clips associated with the historical overviews. A substantial bibliography directs readers to a wide range of secondary works that cover the breadth of Canadian labor history.

Finally, the Smithsonian Institution has made a contribution to American labor history with its online exhibit, *Between a Rock and a Hard Place: A History of American Sweatshops, 1820–Present*.³⁷ Organized in the way that one would proceed through the physical exhibit, this virtual treatment takes one past successive exhibit panels, culminating in the moving reconstruction of a sweatshop raided by California authorities in August 1995. In a section entitled “Dialogue,” six speakers address issues concerning current debates. Statements from Kathie Lee Gifford, the head of Levi Strauss, the chairman of K-Mart, an officer of the Department of Labor under Clinton, an anti-sweatshop activist, and Jay Mazur, President of UNITE, provide contrasting, but “official” statements on sweatshop issues.

All of the sites discussed so far can be found on what Roy Rosenzweig has called the surface web and the public web. Submit appropriate search terms on the leading web search engines, and you will find these web sites and the documents, images, and interpretations that they offer. One can certainly get a good education in labor history operating on this level, but what I gloss over here is how much amateurish and inaccurate material you will find conducting such searches. As mentioned above, a search for the 1909 Shirtwaist Strike yielded roughly 1300 possible sites. We all work hard, but none of us is likely to track down all of those sites to find the half-dozen best ones. Certainly such web searches are part of any research strategy, but we also need to take advantage of less accessible resources found in the deep web and the private web. Some examples should make clear the value of this broader approach.

The collections of the *American Memory* project of the Library of Congress and the National Archives provide some of the most accessible labor history resources on the deep web. Citations in the *History Matters* web site include brief descriptions of: *America from the Great Depression to World War II: Photographs from the FSA-OWI, 1935–1945*; *Voices from the Dust Bowl: The Charles L. Todd and Robert Sonkin Migrant Worker Collection, 1940–1941*; *A New Deal for the Arts*; and *American Life Histories: Manuscripts from the Federal Writers’ Project, 1936–1940*.³⁸ All four of these collections

³⁵Debs Foundation site, <http://www.eugenevdebs.com/index.htm>.

³⁶*Canadian Labour History, 1850–1999*, at <http://www.civilization.ca/hist/labour/lab01e.html>.

³⁷*Between a Rock and a Hard Place*, at <http://americanhistory.si.edu/sweatshops/>.

³⁸To reach these sites individually, go to: *America from the Great Depression to World War II: Photographs from the FSA-OWI, 1935–1945*, at <http://memory.loc.gov/ammem/fsowhome.html>; *Voices from the Dust*

have rich labor history resources, and the *American Life Histories* project will serve as a useful example of how one can tap the databases prepared by the Library of Congress as it digitized extensive collections for online use. From the home page of the *Federal Writers' Project* web site, one can choose to do a keyword search. Selecting, as an initial example, the terms "union" and "strike" returned 124 documents including both those terms in the text. The first document in the list, a typescript of a life history collected in Lynn, Massachusetts, in January 1939, is entitled "Unions and strikes." The five-page recollection describes strikes in Lynn's shoemaking industry in the 19th century, the ethnic composition of the Lynn shoe workforce, and relations on the shop floor. The second document, a 12-page transcript, focuses on organizing for the American Communications Association during the 1930s. Narrowing the search by adding "Lynn" to its terms reduces the life histories listed to 13, a nice number for an undergraduate term paper assignment. Substituting "French Canadian" as an additional term (rather than "Lynn") yields 13 different life histories for a possible paper topic, while substituting "North Carolina" as the additional term returns six life histories for analysis. As these examples suggest, the life histories provide a rich trove of primary documents for teaching and research purposes.

Extensive online collections of scholarly journals are becoming another resource that labor historians will need to explore for their research and teaching. JSTOR, for instance, is a non-profit, but subscription-based, database that provides lengthy runs of the *American Historical Review*, the *Journal of American History* (and its predecessor, the *Mississippi Valley Historical Review*), the *Journal of Negro History*, the *Journal of Southern History*, and the *William & Mary Quarterly*, among other journals.³⁹ While historians have been able to conduct online searches in *America: History and Life* for some time, JSTOR permits extensive searching in the full-text versions of scholarly articles. An example may illustrate the much greater possibilities of full-text searching.

Suppose you were beginning a project on some aspect of the work of John R. Commons, long a central figure in the labor history field. A common place to begin the work would be the online version of *America: History and Life*, where a quick subject search would reveal at least 36 articles since 1963 with substantial relation to Commons and his work.⁴⁰ If we next head into JSTOR, we find that in the full-text versions of history journals, there are 143 articles since the 1910s in which either "John Commons" or "John R. Commons" is mentioned. We can access the electronic versions of the individual articles and explore the specific places in the discussions in which Commons comes up. Moreover, if we broaden our search to include economics, history, and sociology journals, John R. Commons proves to be the author of 37 articles for which we have full-text versions in JSTOR. Moreover, we can follow up these references by

Footnote 38 continued

Bowl: The Charles L. Todd and Robert Sonkin Migrant Worker Collection, 1940–1941, at <http://memory.loc.gov/ammem/afctshhtml/tshome.html>; *A New Deal for the Arts*, at <http://www.nara.gov/exhall/newdeal/newdeal.html>; and *American Life Histories: Manuscripts from the Federal Writers Project, 1936–1940*, at <http://memory.loc.gov/ammem/wpaintro/wpahome.html>.

³⁹As with other subscription-based web resources, JSTOR does not have a static location on the web, but is accessible through library home pages of institutions that subscribe and thus make the search tools and electronic texts available to students, teachers, and staff at those institutions. You may also be able to access JSTOR at public research libraries that subscribe. JSTOR has received funding from the Andrew W. Mellon Foundation and is incorporated as a non-profit organization with trustees drawn from a mix of leaders of major academic institutions and the corporate and foundation worlds.

⁴⁰Again, *America: History and Life*, like JSTOR, is available through institutional subscription and is part of the private web.

conducting searches of the World Wide Web using a standard search engine such as Google. Through that means, we find about 1300 web pages with references to Commons. Exploring the first 100 of these links and tracking down some of the web pages noted there, we find at least two more online texts, a 1931 journal article, "Institutional economics," and Commons's 1934 autobiography, *Myself*.⁴¹ Between the public and private, the surface and the deep webs, there are clearly more than adequate sources to launch a serious exploration of the labor economist, John R. Commons.

In locating full-text resources for research and teaching there is one particularly valuable public web resource. The *On-line Books Page* is an excellent online, searchable index of books available free of charge on the World Wide Web.⁴² This web page is the work of John Mark Ockerbloom, a librarian at the University of Pennsylvania, who maintains the site with only limited institutional support. The site permits searching for books by author and/or title, including words found in the title. A quick title search for "labor," for instance, yielded 20 titles, including works by Caroline Wells Healey Dall, Helen Marot, and Karl Marx. Nine of the titles are found on the web site *Making of America*, an extensive online library of 19th-century books and articles that libraries at the University of Michigan and Cornell University are digitizing with support from the Andrew W. Mellon Foundation.⁴³ Additional sources of online electronic texts can be found at the University of Virginia, with more than 3600 titles in its *Modern English Collection* in its Electronic Text Center.⁴⁴ Readers who access any of these collections will find numerous links to additional full-text resources. While none of these archives specializes in digitizing books or articles in labor history, all will have online resources of interest to labor historians.

This discussion, of course, could continue indefinitely, because the list of online resources of interest to labor historians is almost limitless. Before concluding it may be helpful to illustrate the range of uses to which one can put the World Wide Web in one's research and teaching. Readers will no doubt know of many additional possibilities but these uses, drawn from my own work in recent months, will serve to illustrate the dramatic ways that the web can be of assistance to labor historians. Teaching is the first obvious place. Two years ago I taught the first half of U.S. history survey for my department when a colleague who teaches the course regularly was on leave with a fellowship. I was discontented with the relative lack of published primary documents for use in the class and so began a search of the web. Quite quickly I came up with an excellent array of free resources and added web-related assignments to the course

⁴¹John R. Commons, "Institutional Economics" (1931), at <http://www.ecn.bris.ac.uk/het/commons/institutional.txt>, and John R. Commons, *Myself* (1934), at the Library of Congress's *American Memory* site, "Pioneering the Upper Midwest: Books from Michigan, Minnesota, and Wisconsin, ca. 1820-1910," at <http://memory.loc.gov/ammem/umhtml/umhome.html>.

⁴²*On-line Books Page*, at <http://onlinebooks.library.upenn.edu/lists.html>. This web site has an extensive webography of online archives with additional listings of full-text books. See <http://onlinebooks.library.upenn.edu/archives.html>.

⁴³You can view the two halves of *Making of America*, at the respective Michigan and Cornell web sites, <http://moa.umdl.umich.edu/> and <http://moa.cit.cornell.edu/moa/>. As of this writing (December 2001) the University of Michigan home page for the project indicates that it consists of 8500 books and more than 50,000 articles with 19th-century dates of publication. The Cornell home page indicates that its portion consists of the texts of 267 books and 100,000 articles. Both sections of the project are expanding continuously.

⁴⁴For a description of the *Modern English Collection*, see <http://etext.lib.virginia.edu/eng-on.html>. The collection includes English books since 1500.

syllabus for eight of the 15 weeks of the semester.⁴⁵ This semester I have been doing an independent study with two graduate students based on a course I have taught periodically over the years, an examination of computers and quantitative methods for historians. The students discovered quite early in the course that they could go to the web, search for the names of some standard statistical procedures, and find excellent brief discussions of these tests that were often better than the ones available in the textbooks I assigned for the course. As I revise the course syllabus this summer, I'll be going more systematically to the web to find such supplementary readings for students.

This past week I have been reading grant applications as I prepare to serve on a panel for the National Endowment for the Humanities. I was struck by how many of the proposals made reference to World Wide Web sites that the applicants had developed or were in the process of developing that were closely related to the subject matter of the proposals. At least three of the applications included CD-ROMs in their packets which I accessed while reviewing the proposals and for a larger number my judgments were influenced in part by the quality of earlier work completed on accessible web sites.

Finally, I use the web every day in my ongoing research and writing. I am completing a joint book with Walter Licht of the University of Pennsylvania, *Facing Industrial Decline*, which explores the decline of the anthracite coal region of northeastern Pennsylvania in the 20th century. On the web several years ago I found a fascinating set of papers, "The economic war among the states," examining interstate competition to attract business investment and making a case for federal legislation to adopt tax policies that would undermine that sort of cut-throat competition.⁴⁶ As I explore Pennsylvania's efforts to reindustrialize in the face of the decline of coal mining, it proves extremely valuable to have online access to this broader national debate. I have also found rich quantitative data on the web, national public use samples of 20th-century federal censuses available from the Integrated Public Use Microdata Series at the Minnesota Population Center, University of Minnesota.⁴⁷ This online source provides 1% anonymous samples for the U.S. as a whole, including the counties that comprise the anthracite region of Pennsylvania, for most census years in the 20th century. I am able to examine the changing occupational structure of the regional economy, the composition of families in the region, and changing gender patterns of employment by drawing on samples from the federal decennial censuses for the period that we are studying. Years ago, this sort of data was available only on hard-to-access computer tapes from the Interuniversity Consortium on Political and Social Research at the University of Michigan; now the data are accessible on the web.

And, of course, for bibliographical work and fact-checking, the web is unmatched. I employ the online catalog of my university on a daily basis and find WorldCat, Research Libraries Information Network, and the Library of Congress catalogs

⁴⁵The syllabus and the web assignments for that course are at <http://bingweb.binghamton.edu/~hist103/>. I have developed a more extensive web site for an undergraduate course on U.S. immigration and ethnicity that I teach regularly. For the version of the syllabus being used in the spring term 2002, see <http://bingweb.binghamton.edu/~hist264a/>. For very useful examples of syllabi for the American history survey course, including faculty annotations of their syllabi, see the "Syllabus central" section of the *History Matters* site, at <http://chnm.gmu.edu/us/syll.taf>.

⁴⁶See the web site developed by Minnesota Public Radio, *The Economic War among the States*, at http://news.mpr.org/features/199605/01_wittl_econwar/. The Kennedy School of Government has developed a case study on the issue at <http://www.ksg.harvard.edu/battle/>. Economists at the Federal Reserve Bank in Minneapolis have taken a leading role in the debate on this issue. See <http://minneapolisfed.org/sylloge/econwar/>.

⁴⁷*IPUMS-USA*, at <http://www.ipums.org/usa/index.html>.

invaluable. The library at the State University of New York, Binghamton, permits me to order interlibrary loan books, recall books, or retrieve them from offsite storage, all on the web. After I purchased my first CD-ROM copy of the *Encyclopedia Britannica*, I discovered that our library subscribed to that resource for all its students and faculty, and the array of online journals and indexes available through the library is mind-boggling. For ordering hard-to-find out-of-print books for my research, I used to periodically visit booksellers or leave standing reminders of titles I was interested in. Now I go to *Bibliofind* or a similar website and I can find dozens of copies of such titles and note the prices for books in various conditions.⁴⁸ And, finally, the web provides me access to email back at my home institution when I am traveling on research trips (or even vacations), but perhaps I should view that as a burden as much as a blessing!

The World Wide Web has dramatically revolutionized publishing over the past decade and has made a new medium available to a remarkably broad and eclectic group of individuals and groups. Much of the material on the web is non-commercial and is available free to people who can find it. An increasing share of web resources is the product of either funded or commercial activity and access is available by individual or institutional subscription or individual purchase. Enterprising individuals, such as Gerald Zahavi and John Mark Ockerbloom, have created wonderful resources for the rest of us to enjoy. Major American corporations are producing extensive, for-profit collections of online journals, photographs, even archives. We will never grasp more than a tiny fraction of the available resources on the web, but by making the effort to learn about those resources relevant to our chosen fields and periods, we open ourselves and our students to remarkable new possibilities. In the process we may follow a historian's 21st-century version of the dictum of one 19th-century scholar who revolutionized the fields of economic and labor history: the point, after all, is not simply to interpret history but to change it.⁴⁹ At the very least we can change our own practice of history.

⁴⁸Now an Amazon partner, at <http://www.amazon.com/exec/obidos/subst/books/misc/bibliofind.html> 103-1864828-2327851.

⁴⁹Karl Marx, "Theses on Feuerbach," in *Marx and Engels: Basic Writings on Politics and Philosophy*, ed. Lewis S. Feuer (New York: Anchor Books, 1959), 245.

