As recently as fifteen years ago, historians were trapped in what John McClymer calls a pedagogy of scarcity. With only so many historical sources available for students to work with; that is, those in print and those available at whatever archive or library might be close-by, the scope of our teaching about the past was limited to that which our students could reasonably study. In my own teaching on the history of Eastern Europe (from Poland south to Bulgaria), the scarcity of available sources was particularly acute because only a tiny fraction of my students could read any of the languages of the region, and East European history is such a small corner of the historical profession that only a few document readers were available that offered sources in translation. As a result, I had to design my teaching around what was available. I could talk about other topics, could refer students to the paragraph or two in a textbook that dealt with this or that issue, and could even assign a good monograph or two on just about any topic they were interested in. But my students could not do much, if any, real historical research on a topic in East European history unless that issue or event in some way included Americans or British citizens or interests, and so was therefore covered in the English-language press or government documents. Were it not for the heroic efforts of my dissertation advisor to have more than two dozen important documents from the history of East European nationalism translated into English, my options as a teacher and my students’ options as historians would have been even more limited than they were.
As anyone who has ever searched for historical information online knows, those days of scarcity are gone forever. Today, a student searching for information on any historical topic will find more primary sources than he or she can possibly cope with, and if this student waits a day or two, the volume of available primary source information will have increased significantly. As Roy Rosenzweig warned in 2003, “historians need to be thinking simultaneously about how to research, write, and teach in a world of unheard-of historical abundance.” The magnitude of that abundance is all around us online. The American Memory Project at the Library of Congress now offers more than 15 million primary sources for anyone to use in their research. The online image database Flickr contains more than 4.5 billion photographs, and the Library of Congress has announced that it will begin archiving everything posted to Twitter—approximately 50 million tweets per day (over 18 billion per year if the traffic on that website does not increase). These are but three examples of the almost unlimited supply of historical primary sources posted online. Are you interested in Karl Marx? The website Marxists.org offers virtually everything Karl Marx ever wrote, plus works from almost 600 other authors representing a total of more than 53,000 documents from the history of the political left. How about the history of consumer culture in the United States? The Ad*Access database at the Duke University Library offers high-resolution images of more than 7,000 print advertisements for everything from airlines to televisions. Do you need a high-quality image of a rare eighteenth- or nineteenth-century map? The David Rumsey Map Collection offers users access to more than 22,000 high-resolution scans of such maps—some of which are available online only at this website, and the Perry-Castañeda Library at the University of Texas offers an additional 11,000 map images on their website.

What does this incredible abundance mean for historical pedagogy? The most important result of the changes this abundance brings to the history classroom is that we can no longer control the information students have access to. Our students are no longer forced to rely on what we assign to them as the essential sources of information for the problems posed in a course. Instead, they wander off into the digital forest looking for additional information that may help them answer a question we pose, write a paper, come to class prepared to discuss a topic, or just pursue a line of personal inquiry suggested by something that came up in class. George Landow—one of the most prolific early adopters of digital media for his
courses in literature—says that when students pursue their own lines of inquiry, they embark on unmediated intellectual quests, free from the control of faculty, textbook publishers, or others who might have controlled their inquiries in prior years. This freedom to inquire turns the traditional relationship between student and teacher on its head, because with essentially unlimited access to historical information—for good or ill—students are no longer dependent upon their teachers for access to information that was once doled out to them. Even if we assume that in prior decades, students could go to the library and browse the stacks as a means to pursuing their own lines of inquiry, now, those libraries—where so many historians found a home in their own student years—could not rival the abundance now available on students’ computer screens. For example: a delimited Google search run on January 5, 2011, on the name “Abraham Lincoln” produced 7,540,000 websites; 1,670,000 images; 10,600 videos; 1,320,000 books; and 121,000 scholarly articles. A further search on Lincoln across the multiple databases of newspapers provided by ProQuest Historical Newspapers produces another 80,252 citations. Together these add up to 10,741,852 possible resources for a student interested in Lincoln, his life, and his career. By contrast, a similar search of the catalog of the Library of Congress produced 4,277 citations, and such a search in the catalog of my university’s fairly small library produced 871. Even allowing for significant duplication in the Google search returns, it is clear that there is just too much information online to work with in a practical way at this moment in the life of the Internet, and this problem of abundance gets worse with each passing day.

Clearly no one, not even the most experienced Lincoln scholars, can make sense of all those sources, and I am not suggesting that our students do anything like that. In fact, my own research on students’ use of the Internet indicates that most do not embark on anything so prosaic as an “intellectual quest” as Landow envisioned it. Instead, they are most likely to be quite instrumental in the ways that they search for, retrieve, and use historical information available online. Regardless of how deeply they delve into the digital archive, what is clear, however, is that with each passing year they rely less and less on conventional sources of information provided to them by their instructors (just ask your bookstore manager how many students bother to purchase a textbook), and more and more on readily available (and increasingly free) sources of information online. This removal of hierarchical controls over information in the digital realm
is called disintermediation, and it has profound implications for how we teach students about the past. A simple example of how disintermediation has transformed an industry is airline travel. Two decades ago a significant majority of airline travelers relied on professional travel agents to find and book flights for them. Recent research on the travel industry shows that almost 60 percent of all airline flights are booked online, and that traditional travel agencies have been relegated to niche players—booking complicated multi-destination trips; arranging group travel; or catering to wealthy, older, or very frequent flyers. Passengers booking straightforward trips, especially those who have grown up with the Internet, use traditional travel agencies less and less each year. While I do not expect the history teacher to go the way of the travel agent any time soon, disintermediation is now a reality in our industry, just as it is in the travel industry, and we cannot ignore it, no matter how much we might want to. Already, we see the results of our loss of control over the information our students use whenever one of our students turns in a paper citing sources that, upon closer inspection, make us wince and the student blush when we point out the deficiencies in those sources. Conversations about these “oops moments” abound at professional conferences and among colleagues over coffee, but only rarely do these conversations take into account the ways that disintermediation has already transformed our field.

Because we have largely left our students to their own devices when it comes to finding historical information online, they have had to draw their own conclusions about how to proceed. Along the way, and almost entirely on their own, they have learned some lessons.

Lesson 1—Google Makes College Easy

Several years ago, one of my responsibilities was to review the teaching of the postdoctoral fellows we had hired to help us deliver the introductory Western Civilization survey course. In this particular case, the subject for that day was the Holocaust in twentieth-century Europe. As the students drifted in and took their seats, a few acknowledged me, but most just ignored me. Back in the last few rows, near me, a young woman asked a young man sitting next to her what he had in the way of answers to the questions their professor had posed at the end of the previous class session. He reached into his backpack, pulled out a sheaf of papers with some highlighting on them, and said, “I’m all set.” He then ticked off a couple of rea-
sonable answers derived from the highlighted text on his papers. “Where did you get that?” the young woman asked him. With a big smile on his face, he said, “I typed some key words into Google, printed out a few of these, and I’m good to go.” She nodded with a look of commiseration, and what I took to be disappointment, that she had not taken such an obvious step to prepare for class.

Lesson 2—If It’s Not Digital, It Doesn’t Exist

Until a few years ago, before our program grew too large, each of our master’s students was required to enroll in at least one directed reading with a faculty member. We devised a reading list together, and then the students met with their professor throughout the semester to discuss those readings. During one of those sessions with a particularly bright student, I was surprised to find that he had not read two of the articles I had assigned. Up to that point he had been very diligent in his preparation for our sessions, and so when I asked him why he had not read the articles in question, he replied that he had not been able to locate them. This surprised me, so I asked where he had looked and he said, “JSTOR.” When I pointed out that while the journal the articles appeared in was not available in the JSTOR database, but they were available on a shelf in the university library, he looked up surprised and apologized, admitting that he had not thought to look for the “analog” version.

Lesson 3—If It Looks Reasonable, It’s Probably Fine

Production values matter when it comes to students’ decisions about web content. The more reasonable, or the more familiar, content appears to students, the more likely they are to use it. Thus, a website with good production values is more likely to draw students (and most web users) than one that looks like it was created in the days of Netscape Composer—offering black text on a gray screen, no margins, and no graphics. Similarly, a website that fulfills the user’s expectations in terms of its format or style, may well fool even the most sophisticated of web users, as was the case in 2008 when a faux student blog created by students in my course, Lying About the Past, tricked a number of history teachers and educational developers (discussed in detail in chapter 5).12
Finding
Lesson 4—All Content Online Is Fair Game

When we think about students’ search for information online, our focus is almost always on the things we know and are already familiar with—articles, books, images, documents, websites, and so on. Our students, however, live in a different digital universe than the one we most typically inhabit. They read comment fields on social networks such as Flickr or YouTube, where the insights one finds range from useful to ridiculous. They rely on content they find on Facebook. Blog posts are fair game for almost any use—unattributed facts or opinions become evidence to support factual claims without much critical reflection. Papers or projects posted online by students taking similar courses elsewhere are increasingly popular sources—of late, students have been asking me more and more often how to cite such papers in their own work. All too often, their first source of information is Wikipedia. Despite the well-intentioned, but almost surely failed, attempts of various history departments or individual faculty members to require their students to stay well away from all such “unreliable” sources, I think it is fair to say that students are probably largely unaffected by these prohibitions. Moreover, it seems to me to be a professional conceit to say that unless historical content was created by or curated by professional scholars, it should not be used. Certainly our students tend to agree with this position.

Each of these four lessons that students have taught themselves about online historical content will be very familiar to anyone who has taught in the past decade. All point to some of the most significant problems we face as teachers trying to help our students develop sophisticated skills in our discipline. We already know that when students search for information, an Internet search engine is their default choice for locating information they seek, and that within the world of search engines, a significant majority of students use the one of the major ones such as Google, Yahoo, or Bing. Only a small fraction of students begin their search elsewhere—a library catalog, a printed index, a research database, etc. Instead, they fire up their browser, type some likely key words into the search box, and begin scanning the results for something that seems useful. But not all the news is bad. For one thing, our students are very teachable. They want to know how to find the best resources they can to complete the work we are requiring of them, and only default to the most basic searching strategies
when we have not taught them better ways to do their work. Moreover, as dependent as students are on web browsers to search for historical information, the good news is that these browsers increasingly link students to new sources of historical information—supermassive databases of images, such as Flickr; of genealogical data, such as Ancestry.com (which is not free); or videos, such as YouTube—as well as the legacy institutions such as the Library of Congress and National Archives. Even the external links on many *Wikipedia* entries often point students to useful resources for their research. These websites, all of which are “open archives”—meaning their content is not curated by professional archivists, but by the users themselves—offer students of history not only an even greater wealth of historical content, but also access to content created by those outside the small circle of professional scholars.

After all, students will do as they will, no matter what we say, and regardless of what one might think of open archive websites, major cultural players such as the Library of Congress and the National Archives have begun forays onto this playing field. As part of their participation in the Flickr Commons project, librarians at the Library of Congress analyzed what had happened to the images they had added from their collection to the Flickr database, and found that users of the website were interacting with Library of Congress content in a very active manner. In October 2008, more than 4,600 images had been tagged slightly more than 67,000 times—of which 14,472 were judged to be “unique tags,” that is, not duplicating a version of one already there—by 2,518 individual users. More than 2,500 individuals had added just over 7,000 comments to 2,873 images posted to the website by the library’s staff. The judgment of the authors of the library’s report is that Flickr members substantially improved the metadata on the images and generally took their work seriously—that is, there were few off-color or inappropriate tags or comments on the images. As more and more of the “legacy institutions” such as the Library of Congress or the National Archives move their content into spaces where users can add tags and comments, it will become even more important for students to learn how to work with these add-ons to traditional historical content. For example, many in the older generation of historians (of which I am a charter member) were taught to use the Library of Congress subject headings as the quickest and best way to sort through any library’s card catalog. In an era of keyword searching, the Library of Congress subject classifications are but one of many ways to dig around in databases, and so it is now already high time to teach history students about metadata—
what it is, how it works, how it governs searching, what the Dublin Core is, and so on. To date, historians have not been good about training students to use, find, and make use of historical content found online. In fact, some of the advice found in popular guides to success in history courses offer advice that borders on quaint in light of what we know about how students search for historical information when planning a research paper, or simply trying to prepare for tomorrow’s class discussion. For instance, *Doing History: Research and Writing in the Digital Age* by Michael Galgano, J. Chris Arndt, and Raymond Hyser offers the following advice to history students as they begin a research project: “commence with a close review of a published guide. Currently, the standard is... *Reference Sources in History: An Introductory Guide.*” Students are then advised to consult printed bibliographies such as Robert Balay’s *Guide to Reference Books,* or the *Bibliographic Index: An Cumulative Bibliography of Bibliographies.* As worthy as this advice is, I think it is fair to say that very few of today’s students are going to slog through a bibliography of bibliographies when Google and Yahoo are singing their song of immediate gratification. That siren song is both more attractive, and more comforting. As Steve Ramsey points out, “Google might seem something else entirely, but it shares the basic premise of those quaint guides of yore, and of all guides to knowledge. The point is not to return the over three million pages that relate in some way to Frank Zappa. The point is to say, ‘Relax. Here is where you start. Look at this. Then look at that.’” Moreover, because the Google interface is the one so many students use to find other things on the Internet, it is doubly comforting to use when they need a historical source, or three.

Other popular guides to success in the college history class are a bit more in tune with student research practices, but even these display a relatively restricted vision of what can and cannot be done online, limiting their advice to urging students to be cautious when using online sources, but offer little or no practical advice when it comes to assessing the reliability of information they find online. Moreover, because most prescriptive guides aimed at students urge their audience to stick to websites with .edu addresses, or that are associated with institutions such as major research libraries, museums, and archives, these guides all but shut out the possibility that quality historical content can be found elsewhere. For instance, a student who followed this advice about limited searching would miss out on worthy sites such as one offering an exhibition of the photography of Li Zhensheng (Red-ColorNewsSoldier.com), or a playful
website offering up hundreds of primary sources from the life of Marshall Tito of Yugoslavia (Titoville.com). Each of these .com websites provides visitors with very worthy historical resources, and so provides convincing proof of why students should not limit themselves to a small subset of the websites available to them. Moreover, the advice to stick to known, reliable websites is focused almost entirely on the Web 1.0 version of what online historical content was; that is, websites containing collections of historical sources. A student will be hard-pressed to find any advice on what to make of historical content found on blogs, open archives, social networking websites, video sharing websites, or Twitter. For instance, as part of its commemoration of the 150th anniversary of the Civil War, the Washington Post has decided to “Tweet the Civil War” with “commentary from experts, sesquicentennial news and an updating event calendar” on a special Twitter feed. What is an enterprising history student to do with tweets like this one?

CivilWarwp To Lt Slemmer: [Gen Scott] directs that u take measures 2 . . . prevent the seizure of the forts in Pensacola Harbor by surprise or assault. 9:50 PM Jan 3rd via HootSuite.

Similarly, an enterprising student will certainly find no help in these prescriptive guides when it comes to deciding whether or not to use and if so, how to use, content such as Errol Morris’s excellent blog series on Roger Fenton’s faked photographs from the Crimean War (mentioned in the introduction). Even a guide to world history online, which I wrote with my colleagues Kelly Schrum and Kristin Lehner, limits its discussion of online historical content to Web 1.0 websites.

Given that students receive so little advice on how to find and assess historical content online, a brief case study seems to be in order. This case study deals with a conventional website, rather than one that is interactive. Teaching students to make effective use of (and create) historical content found in the new types of websites that have begun to appear in what we like to call the Web 2.0 world is dealt with in more detail in subsequent chapters.

A Case Study in Historical Searching

At the top of the pyramid of how students find historical content sits the search engine. What happens when a student doing a keyword search in
a search engine finds themselves confronted with hundreds of thousands, or even millions, of possible search results? Or, what happens when the results that come up early in a search are of dubious quality? In the earlier example of our student who was looking for a few good sources about the Holocaust, what if, as part of his search, he had typed “Adolf Hitler” into his Google search box? On April 26, 2010, that search would have returned the result as shown in figure 2.

The second half of the screen shown in figure 3 includes a website—the Adolf Hitler Historical Museum—as one of the top results. Google is not alone in pushing the Hitler Historical Museum toward the top of its search returns. In addition to a Google search, a student doing research on Hitler might find this website as an external link on Wikimedia’s page of Hitler quotations. A Yahoo search on the delimited term “Adolf Hitler” places the Hitler Historical Museum third overall in the list of suggested websites, and the Yahoo directory search places it second. In fact, every other search engine (Bing, AltaVista, Dogpile, etc.) I tested in April 2010 returned the Hitler Historical Museum on the first page of search results. As a result, a
student trying to do some web research on Adolf Hitler is all but doomed to find his or her way to this website.  

The practical experience of teachers and the findings of researchers indicate that a typical student is very likely to click on the museum website simply because it shows up on the first page of search results. This path of least resistance approach to searching—exemplified by the student in Lesson 1 (Google Makes College Easy)—would almost certainly take a student researcher to the website shown in figure 4.

The website helpfully offers that it “is a non-biased, non-profit museum devoted to the study and preservation of the world history [sic] related to Adolf Hitler and the National Socialist Party. True to its role as an educational museum, these exhibits allow for visitors to understand and examine
historical documents and information for themselves.” At some point in their education, most students have been taught that they should search for information from “non-biased” sources, such as this website claims to be, because then they can decide for themselves what the information means, free from any bias of the website’s creator(s). To make sure that visitors to the site get this point, the website continues.

The Museum’s chief concern is to provide documents and information that shed light on Adolf Hitler and the National Socialist Party. Because of the numerous contradicting, disjoint [sic], biased, confused, and deficient interpretations that exist, few scholars are able to gather the facts and to understand and explain them coherently. Whether this failure is from a lack of information, scholarship ability, or honesty is
unimportant. What is important is that historical information be made freely available and gathered into exhibits that allow researchers to derive independent conclusions from the relatively well preserved writings of this time period.27

Despite the two typographical errors in this paragraph, I think it is safe to say that many students visiting the site would find this line of argument compelling. After all, the site must be good, because it appears on the first page of Google results, and it is simply offering facts (non-biased facts) in a way that will allow the user to draw his or her own conclusions. It is not just students who do not look carefully at websites before including them in their work. A search of college library websites turned up a number that provide their students with unannotated links to the website of the Hitler Historical Museum.28 Similarly, Random House offers a similarly unannotated link to the website from their page promoting sales of a children’s book on the Holocaust.29 Even college faculty members provide their students with helpful links to this site.30 And mainstream news media such as Newsweek (perhaps unwittingly) provide links to the site on their own website.31 These various links compete with links to websites offering seemingly excellent term papers about Adolf Hitler for sale at attractive prices, and links to other neo-Nazi websites such as Stormfront.org (purveyors of the similarly problematic websites such as martinlutherking.org).

When I was a college freshman in the 1970s, one of my history professors took those of us in his course on European diplomatic history to the main university library to teach us how to use a research library—as opposed to our high school or local public library. He introduced us to cutting-edge information resources such as the Reader’s Guide to Periodical Literature, gave us a brief primer on using Library of Congress subject headings in the card catalog—which stretched on as far as we could see—and took us into the stacks to show us how serendipity could also play a role in finding a good book to use for a paper. By the end of the hour, I was overloaded with information, but I also had acquired the most basic level of what we now call “information literacy,” and so could begin to try to find what I needed in a more organized, and at least a slightly sophisticated way. What information literacy skills do we teach our students today that might help them avoid websites like the Hitler Historical Museum? The answer, unfortunately, is that most of us do not teach such skills. It could be that we make the mistake of assuming that because our students are
adept users of technology, they are therefore adept learners with technology. Or it could be that we ourselves do not know much about how to drill down into websites to learn more about the website itself. If the problem is the former, then it is high time to stop assuming that students know what they are doing when they search for information online. If the problem is the latter, then the example of the Hitler Historical Museum will help demonstrate just what it is students need to know when they venture onto the Internet in search of historical content.

The Adolf Hitler Historical Museum

We have already seen that anyone searching for historical information about Adolf Hitler is being prompted by various search engines and by other resources to visit the Adolf Hitler Historical Museum. We have also seen that the website claims to be an unbiased source for information about Hitler, and we have seen that the front page of the website includes some spelling and syntactical errors—an early clue that we ought to be suspicious of the content on the site. After all, if the creators of a website cannot be bothered to make sure their home page is free from such errors, can we trust them to make sure that the rest of the site is similarly free from errors—errors such as the proper citation of sources, and other similar things historians care about? What follows is a step-by-step approach to learning more about the Hitler Historical Museum’s website. This same approach can be used with any website with varying degrees of success, depending on how transparent the website’s creators/owners are, and whether organizations such as the Internet Archive have collected copies of older versions of the website.

Step 1—Who Owns the Website?

Whenever we assign a book, an article, or a primary source to students, one of the first things we ask them to take note of is who the author is. Sometimes that information is easily available, sometimes it is difficult or impossible to discern, but we always ask them to try to find the author and, if possible, to learn something about the author or creator. After all, if you know something about the author, you may gain some insight into what he or she has written or created. Students visiting websites should not be given a pass on finding out who the author/creator of the website
(or a portion of the site) might be. The simplest way to find out something about who made a website is to look for a link to an “About” page. “About” pages vary in quality and in the amount of information they disclose about the author(s) of the website—ranging from a full-disclosure page, such as the one we created at the Center for History and New Media for the website Making the History of 1989—and the Hitler Historical Museum, which offers no such information to visitors. When teaching my students how to work with websites, I tell them that the lack of an “About” page is often (but not always) a telling clue. Why would the website’s creator(s) not take credit for the work they have done? The reason is not always sinister, but it could be that the site’s creator(s) have deliberately chosen to keep their role in the site obscure. At a minimum, the lack of an “About” page should make one curious to know more.

But how can we find out more about a website’s creators if they do not offer such information? Too often we assume that such information is not available when it often is. For instance, the website WhoIs.com offers users the opportunity to examine the registration information of many websites. Website owners can keep this information private in certain circumstances, but often they do not, either because they do not mind the world having access to such information, or simply because they do not realize that the registration information for their website is being published. In the case of the Hitler Historical Museum, a “WhoIs” search tells us that on April 26, 2010, the domain hitler.org was owned by an entity named “United . Thought.” The domain was created on March 12, 1998, and the current registration will expire on March 11, 2017. United . Thought lists an address of 527 3rd Street, San Francisco, CA 94107, and a telephone number of 415-367-3800. The email contact information in the record is accounts@utindustries.com (fig. 5).

A simple web search on the information made available through WhoIs.com does not reveal very much. The website utindustries.com was not active on May 3, 2010, and a check of the telephone number in the Internet White Pages revealed only that the number is for an unpublished listing for a landline telephone in Sausalito, California. A quick check of Google Maps and using the Street View feature reveals a picture of the address, but no further information. The owner(s) of the domain occupy one of the residential units above the diner and coffee shop on the street level of this building. Beyond that, we cannot learn anything else about the owners from these simple search queries. But what if we dig a little deeper into the morass of information that is the Internet?
Fig. 5. Screenshot of Google Maps, with A marking 527 3rd Street, San Francisco, CA 94107.
A simple question to ask about the owner of any Internet domain is what other domains that person or organization also owns. Digging further into the domain registration and address data provided by the simple WhoIs search, we find that United Thought had an earlier address in Herndon, Virginia—an address that turns out to be a postal box at a store in a strip mall. We also learn that this same organization owns several domains that are devoted to Nazism and current National Socialist politics, including siegheil.org and nazi.org. The latter website is the home of the Libertarian National Socialist Green Party (a neo-Nazi organization). This educated poking around online resulted in a picture of the Hitler Historical Museum as part of a network of websites devoted to current neo-Nazi politics in North America, and owned by a person or an organization in San Francisco. Finding out more about the site’s owner would require, among other things, traveling to San Francisco or hiring a private investigator—both clearly beyond the pale of any basic information literacy lesson. But simply knowing the owner(s) of the Hitler.org website also own a series of neo-Nazi websites calls into question the website’s claim to be unbiased in its presentation of information about Hitler and his career.

Step 2—What Metadata Does the Website Use to Attract Visitors?

Commercial websites pay a great deal of attention to what is known in the industry as “search engine optimization”—a term that means using tricks of the trade to maximize the likelihood that one’s website will show up early in the results of a query typed into a search engine. Among the many strategies used to improve a website’s position in the search rankings is to include various keywords in the metadata of the website’s home or index page. Metadata—quite literally “data about data”—sits out of sight in the HTML code that describes the website, and can only be seen by viewing the website’s source data through options available on various web browsers. Website creators include likely keywords in that metadata so that when search engines index their website, those keywords are picked up in the indexing process. When search engine users type in the same keywords, they are more likely to be routed directly to that page than if the metadata did not include those terms. For this reason, examining the metadata a website’s creator(s) insert can offer useful clues to what sorts of search traf-
Finding

The Hitler Historical Museum home page includes the following metadata:

```
<meta name="description" content="The Hitler Historical Museum is a non-biased, non-profit museum devoted to the study and preservation of the world history related to Adolf Hitler and the National Socialist Party."/>

<meta name="keywords" content="Hitler, Adolf, Adolf Hitler, National Socialism, Nazi, Nazis, History, World War Two, Jews, Jewry, Jewish, Hindenburg">
```

What do we learn from these metadata? The “description” is what shows up in a search engine under the link to the website. From the keywords used on this website we can see what the website’s creator(s) believed were the terms most likely to animate a search for content on their website. Search companies such as Google and Yahoo keep the specifics of their algorithms secret, but the degree to which a website rises or falls in the results from a keyword search is a function of a variety of factors—including how often the website is linked to from other websites, the keywords in the metadata, the appearance of keywords on individual web pages, and the frequency of the appearance of those keywords—just to name a few of the important factors. A quick test of the Hitler Museum’s website using each of the keywords in the site’s metadata demonstrates that keywords alone are not enough to push a site up in the search returns. While the terms “Hitler,” “Adolf,” “Adolf Hitler” all showed up on the first page of a Google search on May 4, 2010, other terms such as “National Socialism” did not bring up the museum’s website until the twenty-fifth page of the search results, and the rest required even more scrolling through results. It is probably safe to say that the average student is not going to keep searching beyond the first few pages of search results.

**Step 3—What Is the History of the Website?**

As historians, we believe that the history of a thing, an event, or a person is worthy of careful study. Fortunately, the history of most websites can now be studied in much the same way that we study other things. There is even an archive where we can conduct our research—the Internet Ar-
The Internet Archive offers users access to billions of web pages, most of which are archived copies of websites collected by web crawlers since 1996. In the case of the Hitler Historical Museum, 692 versions of the website were collected and archived between December 5, 1998, and May 3, 2010. The original version of the Hitler Historical Museum’s website is not so helpful in our historical investigation, largely because it doesn’t say much more than what the current version of the website tells us. But historians know that thorough historical research means

Fig. 6. Screenshot of an earlier version of the Adolf Hitler Historical Museum, April 20, 2011. Courtesy of the Internet Archive.
looking at all of the available evidence, not merely the first and last versions of an artifact like a website.

The original Internet Archive (IA) interface made it easy for users to decide which of the 692 website captures to view, because there was an asterisk next to each new version of the site the IA web crawler found. Thus, the version of the site found on April 20, 2001 (fig. 6), offers clear evidence to even the most skeptical visitor that this website—despite its claims to being “non-biased,” is actually a pro-Nazi website. Any website offering up a birthday cake and birthday greetings for one of the world’s worst dictators is probably not quite as unbiased as it might claim to be. Unfortunately, the current version (in late 2011) of the Internet Archive’s display of its web captures no longer includes the update asterisks, so users must now click through the various versions of a site held in the archive to find changes or updates. Nevertheless, the archive remains a powerful tool for locating and analyzing website content from the past.

**Step 4—Search for the Reviews of the Website**

When we select a book that we might use in our own scholarly work, one of the first things we do is check the various historical journals to see if any reviews of the book have been written. At this writing, there were no scholarly reviews of the Hitler Museum website that could be located either online or in my university’s library. Despite the lack of scholarly reviews of this particular website, there are often reviews available for websites containing historical content, whether through organizations such as the Roy Rosenzweig Center for History and New Media (where I work); or in historical journals; on the websites of historical organizations; or in the blogs written by historians, both in and outside of academia. Students should always be encouraged to seek out such reviews if they intend to use material from a website, just in case they find themselves at a location like Hitler.org.

It is worth noting here that it is not only students who use information found online in uncritical ways. For instance, the recently published book *Hitler’s Engineers: Fritz Todt and Albert Speer—Master Builders of the Third Reich* by Blaine Taylor (Casemate Publishers, 2010) cites the Hitler Historical Museum as an authoritative source on page 56. Even more egregious is the case of the publisher of a recent fourth grade history textbook approved for adoption by the Virginia State Board of Education, which
makes the false claim that thousands of slaves fought willingly on the side of the Confederacy during the Civil War. When pressed to explain where she found evidence for this howler, the author, Joy Masoff, explained that she found this information through online searches. If professional authors and editors cannot be bothered to check the veracity of evidence they find online, it is no surprise that students are also loath to do so. It is unlikely that they will go to all the trouble I have laid out above with my case study of Hitler.org, but exposing them to these steps is akin to the tour of the university library my professor gave me so long ago. If they know how to work with websites, they can do so when the need arises. When I walk my own students through the Hitler Historical Museum exercise, their eyes are opened not only to the need for more careful thinking about the websites they use in their research, but also to the need to better understand the ways historians can investigate the background of the sources they find online. After this exercise, I find that they are much more careful consumers of online historical content.

Teaching our students how to search is as important today as it was forty years ago when searching meant making sense of the card catalog in a library, or finding aids in an archive. Students have access to so many more information resources that it can be bewildering to think about the many ways they access that information. One important reason why students often turn to the information resources they already know is that the important legacy institutions often make it quite difficult to find what you want on their websites. The typical web user has grown accustomed to the spare search page of Google, or the slightly busier interface of Yahoo, or one of the other search engines. For all of their problems discussed earlier, the search companies have mastered the art of the clean delivery of information to searchers. At the other end of the spectrum are the big institutions such as the Library of Congress, the National Archives, or the British Museum. These institutions built their search interfaces a long time ago in Internet years, and for a variety of reasons—some good, some not so good—have stuck with their existing systems for finding information. Students used to the clean lines of the search engine pages and the simple system of typing in some likely keywords often throw up their hands in despair when confronted by the more complex systems of the legacy institutions. Thus, if we want them to use these resources, rather than relying on basic searches with search engines, or on social networks, we have to
teach them how to slog their way through these difficult and often bewildering interfaces.

For example, one of the largest repositories of online historical primary sources—the American Memory project of the Library of Congress—first takes a visitor to a browse page that offers the opportunity to browse the collection by topic from a list selected by the librarians, or if one looks carefully in the upper right-hand corner of the screen, a search box is also available for those likely keywords students have come to love. If one were looking for a map of the Chesapeake Bay in the late nineteenth century, here is what would happen. Click on the “maps” link and a new browse page appears, offering the opportunity to search across eleven different collections: everything from Civil War maps, to maps of the national parks, to maps of Liberia. A search across all of the eleven collections on the keywords “Chesapeake Bay” turns up thirty-nine images of maps, which can be seen in thumbnail form if one notices the small option for “Gallery View.” If thirty-nine maps seems like too many, given that we are only interested in the nineteenth century, selecting only the “Maps and Cartographic items” collection yields the same thirty-nine maps. If, however, you persist and click on the link that says “Map Collections,” you will be taken to another page altogether that gives you the chance to search the library’s map collections in a different (and even older) way. If one clicks on the Geographic Location Index, what one finds is a list of Library of Congress subject headings by geographic location. A Chesapeake Bay map might reasonably be found in either Virginia or Maryland. And sure enough, there is a subject heading called “United States—Maryland—Chesapeake Bay.” Clicking on this link yields six maps, none from the late nineteenth century. What about Virginia? There are two Library of Congress subject headings for Virginia and the Chesapeake Bay: “United States—Virginia—Chesapeake Bay” and “United States—Virginia—Chesapeake Bay Region.” Clicking on the first of these offers up five of the six maps you found by trying the Maryland links. Clicking on the second produces the missing sixth map. Can you imagine a typical student persisting any further in his or her search of the Library of Congress website? Probably not. Unless, that is, we teach our typical student easier ways into the databases of the large institutions like the Library of Congress and show him or her just how rich those information resources are.

For example, a Google search proves to be more helpful in a roundabout
way. Searching on “historical maps of Virginia” turns up some interesting options on the first search return page, including a link to the Library of Virginia (http://lva.virginia.gov), which has a reasonably significant number of maps posted online. A visit to the Digital Collections portions of their website, and from there to the Alan M. Voorhees Map Collection, turns up some possible candidates for a student’s research project. Probably the best—despite the fact that it is dated 1849, and therefore is outside the desired time frame—is “A new map of Maryland and Delaware: with their canals, roads & distances.” This map, available as a ten-megabyte download, provides a great deal of detail on the Maryland and Virginia portions of the upper bay—that is, everything north of Tangier Island—and was much easier to locate than maps in the American Memory Project files. The search facility on the Library of Virginia’s website is much more intuitive than the one on the Library of Congress’s site, and is not at all dependent on students knowing how to work with Library of Congress subject headings.

By contrast, if our student had been searching for a copy of Lincoln’s Gettysburg Address in his own handwriting, a simple search at the American Memory Project website would have turned up several excellent options on the first keyword search. Similarly, a search on “George Washington, March 15, 1783,” would quickly and easily turn up images of General Washington’s speech at Newburgh, New York, that effectively ended a brewing rebellion of Continental Army officers. The lesson here is that the more famous and/or heavily used a document is, the more easily it is found in systems like the one at the Library of Congress. Because students are often searching for historical sources that are more obscure, it is incumbent on us to teach our students (a) how to work with multiple finding tools, and (b) how to get beyond any frustration they might have with search engines that are not as seemingly simple as Google or Yahoo. Just as my history professors could not and did not assume that I knew how to work in a university research library, we must make the same assumptions of our students. They need concrete examples of how to find and analyze content they find online—especially more obscure content that would not show up on the first few pages of a Google search. Prescriptive advice to “be careful about what you find online” teaches them nothing, and is counter-productive at best.

In addition to using search engines or the websites of the large cultural institutions to search for historical content, students can—and do—
approach the task of finding historical information in a variety of ways. One that is becoming increasingly common might be called “social searching.” Because social networks such as Facebook are so important in students’ lives, it should be no surprise that they often turn to these networks for help in finding information they need to complete assignments. Imagine for a moment you are a university student sitting in the student union, your apartment, the local coffee shop, or wherever you get a wireless signal, and you need to come up with some information for a history paper due two days from now. You have put off the thing for a while, but now you really need to get started. Sure, your professor suggested some good possible sources for the paper, but this is, after all, the age of just-in-time delivery of everything from flowers, to books, to information. So you stare at your screen for inspiration and see several windows open—Facebook, iTunes, YouTube, and several small IM conversation windows. What to do? What to do? Imagine further that your paper is for a class on the civil rights movement. A quick Google search turns up just over 73 million hits, so you enclose your search in quotation marks—a nifty move that cuts down on the number of possible websites to just over 164,000. That will not do, will it? Hmm. Facebook? A search of Facebook turns up the “community page” for the civil rights movement.

But only nineteen people “like” this page—not much of a community—and the only information on the page is the Wikipedia entry that came up first in your Google search. But at least there are some faces you remember from slides your professor showed in class—Martin Luther King Jr., Rosa Parks, Malcolm X, and W.E.B. DuBois. Maybe they have their own community pages—and sure enough, they do. The community page for Martin Luther King Jr. has almost 3,000 fans, and the “Global Related Posts” being fed onto the page by the Facebook information engine includes several quotations that might just be the starting point for a paper.

“The time is always right to do what is right.”

“Everything that is done in the world is done by hope.”

If you are lucky, you choose the first quotation, because it is indeed by Martin Luther King Jr., and your paper focuses on King’s ideas of timely action in the face of opposition. If you are unlucky, you choose the second, because even though it seems like a nice echo of the 2008 campaign slogan of President Barack Obama, it is not a quotation from Martin Luther
King, but rather from the Reverend Martin Luther. Even though you can buy a Martin Luther King Jr. button with this quotation on it (fig. 7), the original comes from the sixteenth-century German theologian, and has been misattributed to the civil rights campaigner for a long time—especially online (or at least so it says in Wikiquotes under “MLK”).

What about a search of YouTube? A quick search on Martin Luther King Jr. turns up the full broadcast of King’s famous “I Have a Dream” speech as the first hit, the last minute of his final speech in Memphis as the second, and in fourth position, an edited version of the CBS News broadcast in which Walter Cronkite announces King’s death. Watching these videos, viewed by others a total of over 11,500,000 times in May 2010, gives you that final kick in the pants you need to get moving on the paper—after all, King’s quotation about the timing being right echoes in your ear and off you go.

This brief example demonstrates that students can use social media such as Facebook for historical research for good or ill. If, as our student, you chose the first example, you would have found inspiration for your paper—an organizing principle around which the rest of your research could revolve—from what random people around the world posted on their Facebook pages about Martin Luther King Jr. You could gain further inspiration from the historical videos you watch, and perhaps think up some other promising avenues of research. If, however, you chose the second quotation, you might have found yourself in hot water with your professor if he or she knew that this particular quotation was a misattribution. Is it better or worse for our student to begin searching for information on the civil rights movement on Facebook—where he or she is led to one web page—or in Google, where tens of thousands of possible
results pop up on the computer screen? The answer, of course, is both and neither at the same time. Instead of railing against students’ use of social media, we need to meet them where they live and teach them—just as in the example of the Hitler Historical Museum—how to make the most of and avoid the pitfalls of these sorts of information resources. For example, given their powerful dependence on Wikipedia as a go-to source about the past, a productive fifteen minutes can be spent in any history class showing students the “history” tab on any Wikipedia entry and how, if one scrolls back through earlier versions of an entry, it is possible to chart the ebb and flow of that entry’s content over time. In my own experience, this brief exercise is often an eye-opener for most of my students who are used to looking at Wikipedia as simply another online encyclopedia, not as a living archive of public debate over how information in that encyclopedia ought to be presented to the public. Once they understand that the history of a Wikipedia entry is both accessible and has something to teach us about the construction of knowledge in public space through the use of social media, their go-to source suddenly becomes much more interesting as a historical resource.

For all of the ways that social media such as Facebook, YouTube, and Wikipedia capture students’ attention while linking them to one another in new and interesting ways, the use of a computer to find and analyze historical content remains a potentially isolating practice. Confronted with a class assignment, too often students sit down at their computer, work their way through various searching and analytical strategies, and do the best they can on their own. They might send an instant message or a text message to a friend seeking help, or they might post a plea for assistance on Facebook, but more often than not, they simply try to tough it out on their own without recourse to the sorts of collaborative opportunities the technology now provides. To address this issue, I have designed a number of assignments over the years that force students together around the finding and analysis of online sources. One of the most successful of these falls into the category of “online scavenger hunts,” in which I give the students meeting in a computer lab a selection of ten images from the past and tell them that as soon as they can tell me what each image is and how it relates to our course, they receive their grade for the day and can leave. All of the images are downloaded from the Internet and each has been renamed so that the file name is not searchable. The first few are always easy for the students to identify, but as they work their way down the list, the images
become more and more difficult to identify. At first, they try to complete the assignment on their own. As the minutes pass, the students begin to talk to one another about what they are or are not finding. By the time they get to the last two images (both of which are quite difficult to puzzle out) most, if not all, of the students have gotten up from their seats and they are clustered around one computer offering suggestions and discussing search strategies. When they finally puzzle out the last item, I make them all stop and point out that as the assignment became more difficult, they began to rely on one another more and more. Then I point out that historians do the same thing when we are doing our own work—we rely on the help of archivists, librarians, and colleagues to help us puzzle out the most difficult sources we find. The lesson I drive home in this exercise is that they should not allow the computer to isolate them from one another, and that by collaborating they get their work done more rapidly, and at a higher level of quality.

Digital media also make it possible now for our students to build complex and very user-friendly databases of references to the sources they find in their searching online and in the analog world. Reference management software packages, some of which now run as part of a student’s web browser, make it possible for students not only to quickly and easily build databases of their sources, but also to annotate those sources, mark them up with keywords of their own devising, and share these sources with others, either as part of a group working on a particular project, or to simply share them with the entire world. Among the most popular of the reference management packages are Zotero (developed by the Center for History and New Media), Mendeley, and Connotea.42 In the pre-digital age, students collected their resources for a history project—likely on three-by-five cards, or in a notebook—they would then would write their paper or complete the project in some other form, and then would either file those sources away, or throw them away as no longer useful. Even if they filed their sources away, accessing them again for a new project proved difficult. In the digital world, students using these reference management packages can now keep the results of their research in an easily accessible database that, if it is web based, they can access from anywhere at any time, and that they can continue to improve and add to throughout their academic careers. However, as user-friendly as these packages are, there is a learning curve that still requires history instructors to teach their students both how to use the packages and what the value of using such tools over time can
be. In my experience, once students crest this not-very-steep curve, they wonder how it is they made it through school up to that point without using a reference manager of some sort.

A more recent problem that students (and we) face when it comes to using search engines to help us locate historical information is a shift by the major search companies, led by Google, toward personalized search results. No longer are the results of a search the same for all users everywhere. Instead, since late 2009, Google has changed the process by which it returns information to a user, customizing those results based upon a whole series of factors, including the user’s location and prior search history. What this means is that two students in the same class at the same university may well get wildly different search results from the same query, or that the same student (if he or she is not logged into the search engine’s service when searching) may get two different sets of results, if one search is conducted in her apartment and the other from a computer on campus. I think it is fair to say, based upon my informal polling of my students, that they have no idea that their searching is being “managed” for them in this way by the search engine companies. In particular, they are surprised to find that significant amounts of historical information that they might find useful never makes its way to their desktop because whatever social search algorithm the company is using deems that information irrelevant to them. A simple way to drive this lesson home is to have all students in a course execute the same search at approximately the same time, from wherever they happen to be at that moment, and then compare their results when they return to class. Invariably they find that their favorite search engines return different information and must then try to understand how to find the things they want rather than the things that the search company thinks they want.

Exercises such as the group scavenger hunt make it much easier to emphasize a final piece of advice that I give my students over, and over, and over—namely, that the best way to begin their historical research is to go to the campus library and chat with a librarian—preferably the liaison librarian for the history department. Over the years I have found that this particular piece of advice has to be repeated several times before it finally takes. After all, if you can call up ten million possible sources on Abraham Lincoln, who needs to talk to anyone? However, it is the overwhelming nature of that abundance of resources that often convinces my students that such a chat might actually be helpful. I point out to them that where
once upon a time librarians were known as librarians, these days they are much better known as information specialists. Because they are trained not only to find useful information, but also how to teach others to find that information, a half hour spent with a librarian is often the difference between an “A” or a “B” on an assignment. Do they follow my advice? Only rarely. But the ones who do then come back to class and report to others that they saved themselves a tremendous amount of time and effort just by meeting with someone in the library. This particular insight is one that is not new in the digital age we live in. When I first started teaching at the college level, the Internet was in its infancy and so the help librarians gave in those days was focused largely on the card catalog and printed indices. Today, their skills as information specialists are even more important to our students. But whether students choose to visit the library or not, it remains essential for historians to teach them how to find the information they need, which means we need to engage much more actively with the methods our students use to find such information. If we do not, we are leaving it to them to puzzle out just what to do with ten million sources.