Introduction

On May 19, 2010, a headline in the San Jose Mercury announced “Stanford University prepares for an amazing bookless library.” Beneath these words one could read the specifics. It did not mean “no” books, it meant “less” books. And what it demonstrated is that Stanford University libraries are adding more digital content to their holdings at a very rapid rate as well as the technology to access and use it. This phenomenon reflects a revolution in scholarly communications and learning, a massive migration to a digital and virtually connected world. These columns have been looking at the impact of electronic information resources and technologies on Jewish Studies for seven years. Within the cross-disciplinary arena of Jewish Studies, alongside the traditional print journals, conference proceedings, and academic presses are appearing new forms of digital scholarship, discourse, and output that are challenging our scholars to reorient the way they think about and conduct their work. Going beyond the massive and proprietary digitization projects, digital reformatting, and new digital editions of print and analog works (the website for the 2008 edition YIVO Encyclopedia of Jews in Eastern Europe is a notable example), or simultaneous publication of digital and print materials, this includes work and methods of communication that have been “born digitally” (slide 2). In other words, scholarly and creative output and methods of discourse that have been generated entirely digitally and do not, or cannot have a print or analog version. Some of them may have even have been initiated outside of the academy or by students.

Most of the “born digital” material in Jewish Studies takes the form of personal, community, government, institutional, and research center websites and databases, some of which offer a tremendous wealth of "born-digital" grey literature. These are usually working documents, pre-prints, research papers, or statistical documents. They are too numerous to delineate here and have been described extensively.

Born-digital E-books

Among the spate of e-book offerings available via commercial publishers, university and academic presses, scholarly societies, or aggregators that package e-book content from different publishers is a relatively new phenomenon, one in which a title comes first in digital form and then—if at all—in physical form. One of the early experiments was the American Council of
Learned Societies History E-Book Project (now known as the ACLS Humanities E-Book project) (slide 3) which began in 1999 with the aim of publishing a combination of classic history texts and new, more experimental titles via digital platforms that can go beyond the boundaries of print and offer scholars cutting-edge technology with which to present their scholarship. These can include audio and video files, interactive maps, and links to databases, related scholarship, and archival materials, as well as 24 hour accessibility from a computer or e-book reader.

A search via Library of Congress Subject headings within the collection did not reveal any born digital titles that fall within the scope of “Jewish Studies” but as this project moves into its second decade, new titles and areas of study are entering the collection. Fortified with this knowledge, the Association of Jewish Studies (a member of ACLS since 1985) along with librarians responsible for Jewish Studies collections in academic libraries can encourage Jewish Studies scholars to explore this viable alternative to more traditional and static methods of scholarly monographic publishing.

**Online Journals**

Online journals in Jewish Studies generally follow the same types of editorial principles that ensure compliance with scholarly standards as other academic journals that have either have moved to digital platforms; simultaneously publish in print and digital formats; or were “born digital” (slide 4). Some of these are embracing new technologies and publishing paradigms: they adhere to the open access model, provide quicker access to new work, are easily searchable, provide multi-media features, promote interactive participation such as online and community discussions, and include options to comment on articles. Among the most recent born-digital scholarly journals in Jewish Studies are (slide 5) *Quntres: An Online Journal for the History, Culture, and Art of the Jewish Book*; (slide 6) *Quest: Issues in Contemporary Jewish history*; (slide 7) *Perush: Online Journal of Jewish Scholarship and Interpretation* and (slide 8) the *Journal of Inter-religious Dialogue*. These journals were conceived with the vision that the future is digital, and with a desire to stimulate and encourage dialogue and debate among researchers, academics as well as the general public. (slide 9) This last journal provides opportunities at its website for reader comments, input and feedback.

**Reviews (slide 10)**
There has been much frustration on the part of scholars over the lag time between the publication of a book and the appearance of reviews. Recently, some scholars have begun to challenge the traditional venues of peer review and are exploring the use of digital alternatives to discuss and examine the quality of scholarly output in a much timelier manner. They are also opening their doors to a broader community enabling a new kind of interactivity as reviewers, authors, and readers can engage in discussions of the reviews online.

(slide 11) H-Net Reviews in the Humanities and Social Sciences was one of the pioneers of online reviews, going back to 1993. This resource gathers together and archives all the reviews that have been contributed from the separate H-NET discussion into one list. A search at the website by keyword “Jews, Judaism or Jewish” publishing list in the year 2011 for H-Judaic retrieved over 65 reviews. A scholar looking for reviews for these recent scholarly works in Jewish Studies in conventional resources such as Book Review Digest or Academic OneFile would most likely not be able to locate very many reviews for these books. Subscribers to H-Net Reviews receive all of the book reviews published by H-Net regardless of the list on which the review originated. H-Net is effective not only in providing timely access to these reviews but also in stimulating response and discussion via their discussion networks, where each review is also published. Because of the multi-disciplinary nature of Jewish Studies, reviews are distributed throughout a variety of the H-NET discussion lists.

(slide 12) Another place online reviews can be found is in blogs. Blogs by their nature can engage a much wider community in the discursive process. Jewish Studies is a discipline for which there is much expertise outside the academy. At the Seforim blogsite, 95 posts were recently listed under the “label” book reviews. These “open” reviews are often provocative and can take the form of essays, and encourage responses and comments from within and beyond the academy invoking threads of discussion that can expand the original review.

Geographic Tools (slide 13)

Geographic Information Systems (GIS) are computer-based tools that allow mapping and spatial analysis of the earth’s features and events. Scholars in humanities and social sciences are collaborating with experts in GIS and using a variety of freely available tools such as Google Maps and Google Earth to create resources that bring together maps, photographs and artifacts.
These cartographic tools help scholars map things such as linguistic, ethnic and cultural traits; analyze the spatial distribution of material culture and information in historical records, images and maps; and present information in interactive database or maps.

The Digital Archaeological Atlas of the Holy Land is a collaborative project involving archaeologists and GIS experts who together have created the first online digital atlas of the region. The database contains site maps, photos and artifact and covers all periods of the region’s history and prehistory. In addition to searching spatially with a Google Maps interface, users can search the database by site name, time period, site type, and site conditions.

HyperCities is a collaborative project and website developed by UCLA, USC and CUNY. This work-in-progress takes a spatial approach to history and uses the Google Earth platform to explore the historical layers of urban spaces such as Tel Aviv in an interactive, hypermedia environment. What is interesting about the project is that it enables researchers from a variety of disciplines to study the history of city spaces, urban planning, neighborhood composition, and demographics in new and innovative ways.

An innovative artistic experiment to use GIS to codify Jewish spatial practices was undertaken in 2005 with eRuv: A Street History in Semacode, a digital graffiti project installed along the route of the former Third Avenue elevated train line in lower Manhattan. Lodged in the heart of the urban New York space, the train line historically had served as part of an eruv for a Hasidic community on the old Lower East Side. The community is now gone, but using camera phones with a protocol that brings together the Internet and physical space, interested parties can gain access to this piece of history.

Born-Digital Literature and the Arts

The Internet has encouraged the development of new modalities of literary and artistic expression. The examination and study of these phenomena has already made its way into the academy with many universities housing or offering programs for the study of digital media.

Born-digital poetry on the Internet consists of literary works that have been created and disseminated on the web. Publication of poetry in print has been moved more and more into small-run and boutique journals and monographs. As a platform, the web has enabled the publishing of poetry to move from high cultural echelons into a popular creative realm. In Israel, poets have been using the web for years. Bama Hadasah began under the initiative of
Boaz Rimmer in 1998 as a free online archive of original Israeli prose, poetry, music and art. The site includes over 200,000 poetic works, and hundreds of thousands of works of art. While the site does not have a formal “literary editor”, the editors maintain some editorial control.

Digital art incorporates many strategies. Some digital projects are predicated on the subversion or augmentation of reality which are both easily accomplished through digital manipulation. Israelis have developed many digital art projects within and beyond Israel.

(slide 19) The Israeli Center for Digital Art in Holon supports an archive for video and digital art. The site contains more than 1,750 works. The archive is intended primarily to represent local contemporary artistic practice and includes video art, sound art, film, and documentation of performances and installations that have been exhibited at the center, as well as other works by leading Israeli artists in the field of media art. There is thematic commonality among many of the works which reflect questions of identity, nationalism, reactions to militarism and other social and political issues facing the country. One of the recent projects archived there is “Sing Me Your Song and Tell Me Your Story” (slide 20). This project is a result of collaboration between Israeli artist Dana Levy and the American artist Mark Lafier. The project addresses the topic of wandering, which they believe is “one of the more meaningful ramifications of technological advance.” Over 50 people from 35 countries currently living in Tel Aviv were invited to sing a song from their homeland for the video camera. The result is a computer controlled multilingual collage of scraps of songs and reflections on the emotions they transport, on the singers' homelands and their experience with migration.

(slide 21) Worldofawe.net, the Traveler's Journal is a New Media art website created by Yael Kanarek. Within it she tries to explore the shift from “Modernism to Networked Society. This project focuses on storytelling and narrative via the idea of the journal. The viewer is placed in an interface similar to a computer's desktop, where hidden in the desktop icons and menu bar are links to journal entries, stories, images, and interactive pages where the user has to figure out a puzzle to get the next piece in the narration. The premise of the website is that you have found a laptop computer, belonging to an anonymous journeyer in a desert land called Sunrise/Sunset, and the files in the laptop allow the viewer to explore the electronic thoughts and love letters of this lost person. In the background, a loop of blowing wind is played. The artist is trying to explore elements of identity between cultures, languages and body languages. It is her belief that the “future citizen of the Network Society is inevitably post-national.” This project is very
reflexive, the viewer is placed in a layout that mimics a computer desktop, and is then explored in desktop icons and the menu bar, just as you would explore your own computer. The interactivity of the user with the site is what creates the narrative in this project.

Web2 (slide 22)

Although academics are just touching the surface of social media use, a recent report in Wired Campus (blog of the Chronicle of Higher Education) noted that 80 percent of professors use some sort of social media such as blogs, wikis, Twitter, YouTube and social networks like Facebook as venues for discourse and discussions, teaching and learning. Publishers and hosts of more traditional discussion forums such as listservs and e-mail lists are taking note that the content of these services are more and more becoming limited to job announcements, conference announcements, and book reviews because they lack the dynamic nature and immediacy of these other newer platforms. Significant to note is that the H-Judaic and Hasafran listservs still serve as primary focal points for research queries in Jewish studies.

(slide 23) More and more scholars within Jewish Studies post to blogs of Jewish content whose comments, reviews, and arguments mingle with those of graduate students, rabbis, and knowledgeable people outside of the academy and seminary. Dr. Noam Pianko, Professor of Jewish Studies at the University of Washington publishes a blog that offers personal and professional insights to a variety of issues within Jewish Studies mixed with aspects of his own life as a professor, father and urban resident.

(slide 24) Others, finding the amount of time it takes to post to blogs cumbersome, take advantage of the immediacy and brevity of Twitter, a sort of mini-blogging service. Schools such as Spertus Institute, Siegel College and Ohio State’s Jewish Studies programs use Twitter to send out announcements and disseminate information on a variety of topics or track a conference.

(slide 25) Academia.edu is a fairly new social networking tool similar in format to Facebook that helps people in the academic world locate individuals with similar research interests and keep up to date with their work. A recent search under Jewish Studies brought up 99 people, 100 papers, 100 research interests, 12 universities, 100 departments and 19 journals.

More and more conferences, interviews and lecture series are using freely-available web-based audio and visual technologies such as YouTube, podcasts, and Slideshow, along with PowerPoint presentations and pdfs, to “publish” their conference proceedings and lectures.
online. Whereas in the past scholars often had to wait years for conference proceedings to become available, now the web allows almost instantaneous availability. (slide 26) In April 2010, the Lilith website published via podcast, lectures presented at the archives of the American Jewish Historical Society by the noted scholars Dr. Annie Polland, Prof. Hasia Diner and Prof. Deborah Dash Moore. (slide 27) The proceedings of the Jan. 2010 conference “Archéologie du judaïsme en France et en Europe” are available in video format publicly on the web.

(slide 28) New Books in History is a podcast lecture series in which historian Marshall Poe (University of Iowa) conducts in-depth (usually an hour or so) discussions with other historians about their recent books. One of the unique aspects about each podcast is that the author is invited to give a brief precis of their education and intellectual history. The series is organized by discipline and currently 10 works are highlighted under Jewish Studies.

Although still open to controversy in some circles, Wikipedia has become a first stopping point for many across the academic landscape as well as the general populace. Encyclopedias are never scholarly resources in and of themselves but for research in Jewish Studies they are useful repositories of information. Wikipedia and its Hebrew language sibling Ṭikṣipedyah are some of the most complete and useful sources of contemporary information. The Library of Congress authority file, one of the most widely used thesauri for providing standardized forms of names and headings for catalogs and databases of all types of media, is expanding their list of authorized resources to be consulted when considering forms of Hebraica names to include “modern references sources .... (e.g., Wikipedia, Facebook, Linkedin).”

Second Life (slide 29)

Academic forays into a virtual 3-dimensional world range from none or tentative, to the vigorous. Second Life is a “virtual world” created in 2003 by Linden Lab that simulates life through technology. As with other “social networking” tools Second Life transcends geographical borders as users send messages and chat, the difference being that this takes place in a three-dimensional world, complete with animation, sound and video. What is interesting about Second Life is that the users create all the content and experiences that take place within it, and manufacture a “hyper-reality” in which anything is possible, including flying and changing one’s own appearance. Although not designed specifically as an educational or research tool, Second Life is another interesting experiment that academics and libraries are trying out.
Stanford University Libraries and Academic Information Services (SULAIR) is looking at ways to bring more visibility to its holdings, archives, and collections and has its own island (or private region) in Second Life, and staff members active in Second Life who maintain it. The island includes several exhibits. (slide 30) In April 2009, SULAIR mounted an exhibition celebrating Tel Aviv’s centennial highlighting its holdings related to the founding and early years of Tel Aviv. In conjunction with the exhibition, Stanford also hosted a one-day symposium synchronized to the exhibition. In order to expand the outreach of the celebration and the exhibit to other scholars and the broader public, the library staff decided to “recreate” the symposium and exhibit in Second Life. Between the dates of Nov. 10, 2010 – April 27, 2011, 550 unique visitors made 641 visits to the exhibit location on the Stanford Island.

**Born-Digital Information Management**

Research organizations, museums, archives and libraries are digitizing millions of cultural objects and information and publishing them on the web. This has usually been done independently and without synchrony, forcing researchers to try numerous manual search strategies to get to what they are looking for. Right now a great deal of research is going on by both computer scientists and scholars on how this information can be made more accessible for the end-user and help researchers find relevant materials as precisely as possible.

Developments in the area of the semantic web are aimed at improving the usability and accessibility of data. The idea of the semantic web also allows links to be created between data from heterogeneous sources, leading in turn to the establishment of new services. As a result of the linked-data movement, many providers (mostly non-profit organizations, universities or public institutions) are already offering their data in a form which is semantic-web-compatible. Above all, this includes data which is of general use within the public domain. Examples include geographical information, thesauri, and encyclopedias as well as bibliographic and authority data.

Libraries, too, have recognized the great potential offered by this form of data publication. The first institutions are already actively offering their information as linked data, or are planning to do so. Institutions and projects such as the Virtual International Authority File, the Library of Congress subject headings file, Stanford University Libraries and Academic Information Resources, the Hungarian National Library, and the German National Library are
committed to making a significant contribution to ensuring the stability and reliability of the "linked-data-cloud" by providing data which has largely been generated and maintained by trained indexing and cataloging professionals.

(slide 31) Frank Schloeffel, a scholar affiliated with the “Ismar Elbogen Netzwerk für jüdische Kulturgeschichte” and a group of colleagues have gotten together to develop a prototype of a virtual space, “JewLib Digital Archive-Library” utilizing these technologies. Their goal is to provide researchers with an online source of facts and information on primary resources for the study of Jewish history and cultures.

The project "Jewlib" developed from the idea of creating a central access point from which academics, researchers and independent scholars could get an overview of archival and library collections worldwide. The concept for the project grew out of experiences that Mr. Schloeffel and other academics had while working on their MA-theses or doctoral dissertations in Jewish Studies. A common problem was trying to determine at what specific libraries and repositories relevant material for particular projects were based.

The basic premise underlying Jew-Lib is not to list archival or library collections, but to cross-link and tag or create metadata on the specific holdings and provide more detailed information on them (i.e. on the holding institutions, originators of collections etc.), the way that library and archival catalogs do. The supporting technology organizes “knowledge” into topics variously also called entities or resources. These can be “persons”, “countries”, “books” and so on. These topics are then described through types which might be “person”, or “deceased person”. In Jew-Lib one of the types is “Personal Papers.” (slide 32) If we go into the view “Personal Papers” and click on Albert Einstein, we will not only get information on the various details of Einstein’s papers but also his life. For example, the topic “Albert Einstein” shows that he was influenced (slide 33) by Mahatma Gandhi, Baruch Spinoza, Isaac Newton, and Paul Valéry. We also learn that he was a vegan (slide 34). If we want to know other personages who are vegans we can click on that link and we see that among this community of diet followers are Alanis Morissette, Alicia Silverstone, Anoushka Shankar and Adam Yauch (slide 35).

Similar in concept to Wikipedia, the responsibility for adding or modifying information relies on the community with the ability to work in the database open to anyone after registering.

Over the past few months the addition of new metadata has significantly slowed. The project has been run on a volunteer basis and the core group of developers has had to work on
other projects. The project would like to find some sponsors to provide funding so that they can employ some interns to increase development.

What is truly exciting about this project is that a new and young generation of Jewish Studies scholars is becoming familiar enough with digital tools and practices, and an understanding of the vitality of community driven endeavors to develop resources useful for scholarly pursuits.

Conclusion

The ways of teaching, learning and scholarship are radically changing and the Internet is becoming the primary medium for publishing and creating new content. The web is breaking down geographic and social barriers as scholars discover and forge new relationships, and new ways of thinking and communicating. Jewish Studies scholars, like all academics, need to be familiar and conversant with the tools and structure of this new digital environment just as they maneuvered in a print and analog world.