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# Digital Discipleship: Using the Internet for the Teaching of Jewish Thought

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The Internet has acquired a very bad reputation among scholars and teachers. Amid the multitude of Internet sites devoted to commerce, entertainment or outright triviality, it is easy to forget that the computer network was originally created for scholars and scientists. This has been true of the Internet's antecedents since the 1960's, such as the ARPANET, CSNET, BITNET and USENET, whose participation was confined overwhelmingly to American universities, with some participation by the government and military.<sup>1</sup>

This was also true, for the most part, of the World Wide Web, when it was first conceived and developed in 1991 by Tim Berners-Lee for the CERN physics research institute in Geneva, Switzerland. In its earliest iteration, the Hypertext Markup Language (HTML) that defined the Web's document format paid careful attention to expressing the logical structures and relationships between items of information. Those of us who learned HTML in those days may still feel twinges of guilt whenever we designate text styles, as distinct from '*logical tags*.' Thus, a well-written Web document ought to be describing a portion of text not by its typographic appearance as '**old**' or '*talic*', but by its logical function, as '*emphasis*' or '**emphasis**'.<sup>2</sup>

Another significant indication of the scientific orientation of HTML was the attention that was paid to hierarchical structures for designating multiple levels of title headings and lists. The flexible options provided made it easy to generate ordered or unordered lists, with up to six levels of nesting. These resources were convenient for creating the

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1 Barry M. Leiner and others, *A Brief History of the Internet*, 3 32 [Web site], 2003; available from <http://www.isoc.org/internet/history/brief.shtml>.

2 Tim Berners-Lee and D. Connolly, *Hypertext Markup Language - 2.0* [Web page], 1995; available from <http://ftp.ics.uci.edu/pub/ietf/html/rfc1866.txt>.

kinds of logical outlines that are so dear to the hearts of educators.<sup>3</sup> These pedagogic strengths were later compromised, as the United States government withdrew from the Internet in the mid 1990's, abandoning it to the vagaries of the proliferating 'dot.com's. The commercial developers of the enhanced web browsers (Netscape and then Microsoft) directed their main efforts to visual enhancements; introducing greater control over typography, extensive uses of color, backgrounds, animations, and the like.

The current revision of the HTML protocol, version #4, has tried to reassert the original scientific values of the World Wide Web. By relegating the visual and decorative formatting to separate style sheets, it allows authors to focus on the content, and to utilize the HTML tags for their original purposes of organizing the data according to orderly, logical criteria.<sup>4</sup> Contrary to the claims of some university administrators, the Web is not ready to supplant the teacher-student interaction of the traditional classroom or assigned readings. It can, however, serve as an excellent complement to the conventional lecture or textbook, whether by enhancing the classroom presentation or by providing supplementary activities for the student.

What I would like to do in this presentation is to demonstrate how I was able to incorporate some of the distinctive features of HTML into my own teaching of topics in Jewish Thought. I should make it clear at the outset that I have no formal training in computer programming. Nevertheless, the preparation and posting of a web page are relatively simple processes that should not frighten a humanities-trained educator. Although some authors (like myself) prefer to deal directly with the HTML code, there is no shortage of software applications that will mediate the process by enabling people to compose their pages without having to deal at all with the mechanics of the mark-up language. In fact, most word processors allow you to save a document as a web page that reproduces all the visual features of the word-processing document. However, a text document, even one with sophisticated formatting and graphics, cannot exploit all the distinctive

3 Ibid.

4 Bryan Pfaffenberger, *Discovering HTML 4.0*, San Diego 1998, pp. 21-22.

strengths of HTML, such as dynamic linking, layering and animation. At any rate, the publication of web pages should be seen as a creative activity, or even an art form, analogous to the preparation of word processing documents, and no more difficult or complex than using a normal word processor.

### The Image Map

Arguably, the most prominent features that account for the uniqueness of the World Wide Web are:

1. The capability of dynamic linking.
2. The mixing of text and graphics in a single document.
3. The standardization of the format across diverse platforms (Macintosh, Windows, UNIX and more).

At its most fundamental level, 'dynamic linking' is equivalent to 'hypertext'. That is to say, passages of a text document are marked off so that, if they are clicked with a mouse (or similar pointing device), the user will be transferred to another passage, which could be located on the same web site, elsewhere in the same document, or anywhere on the Internet. The cross-reference need not be anchored to a text; a graphic image can serve the same purpose.

A very useful extension of these capabilities is the imagemap. This refers to a single graphic in which several regions have been defined individually as hyperlinks; i.e., clicking within different sections of the image will transfer the user to different targets. In the earliest versions of HTML, the creation of 'server-side' imagemaps was a cumbersome process, requiring access to the server, some competence in CGI scripting, and juggling of competing formats (CERN or NCSA). The current versions of HTML support 'client-side' imagemaps that can be created through a straightforward set of standardized tags. There are numerous software applications that simplify the process by providing graphical interfaces for mapping the coordinates and setting them out in the proper syntax.<sup>5</sup>

Neither hypertext nor imagemaps are exclusive or original to the World Wide Web. What the Web creators did was to adopt existing

5 Ibid., pp. 310-315.

technologies and broaden their boundaries. Unlike conventional programs, which can communicate only with other data or files situated on the same computer, the Web does not differentiate between items located in the same document or computer, and those that are dispersed in the farthest reaches of cyberspace. I believe that the first computer application to introduce imagemaps was a program called 'Filevision' created in 1984 by Telos Software Products. Filevision was a graphical data-base package designed for the Macintosh computer. It allowed the user to organize data around a picture or diagram. It thus encouraged the user to organize data by means of graphic displays; e.g., regional sales figures could be accessed by clicking on the relevant sections of a geographical map.

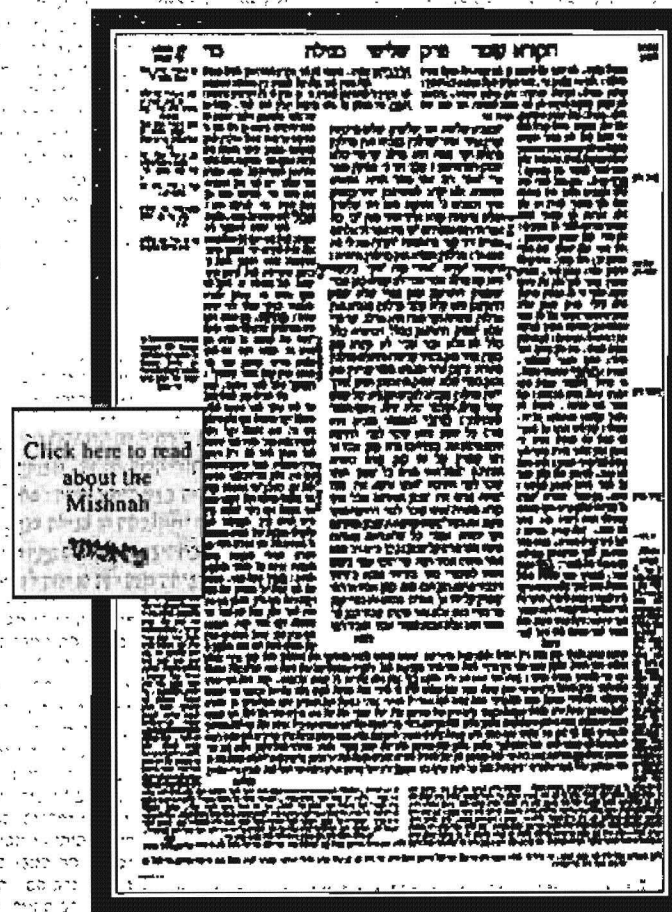
Some of these capabilities were later incorporated into Hypercard, a free application created by Bill Atkinson that was included with every Apple Macintosh computer from 1987. This wonderful program combined features of a database, graphics editor, hypertext capability and a scripting language, in a manner that was simple for non-specialists. Hypercard 'stacks' were freely distributed among the Macintosh community. Unfortunately, Apple halted promotion of Hypercard before it was allowed to realize its potential as a full-fledged classroom presentation medium.

And then came the World Wide Web in the early 1990's. It took several years for HTML and the dominant Web browsers to evolve the capabilities that would turn them into a viable medium for conveying educational materials. While the most useful factor for my immediate purposes was probably the development of client-side imagemap formats, other helpful advances included: improved handling of color, text styles and graphics placement; scripting capabilities (JavaScript); and layers, including the possibility of hiding and revealing blocks of content.

From a pedagogic standpoint, I would argue that almost any information that lends itself to schematic presentation or summarization as a diagram is a likely candidate for an imagemap format. In the following sections, I shall describe some examples of imagemap Web pages that I have incorporated into my own teaching activities, as the Judaism specialist in a Department of Religious Studies. I will

demonstrate one example from each of three historical eras: ancient, medieval and modern.

**A. Ancient: A Page of Talmud<sup>6</sup>**

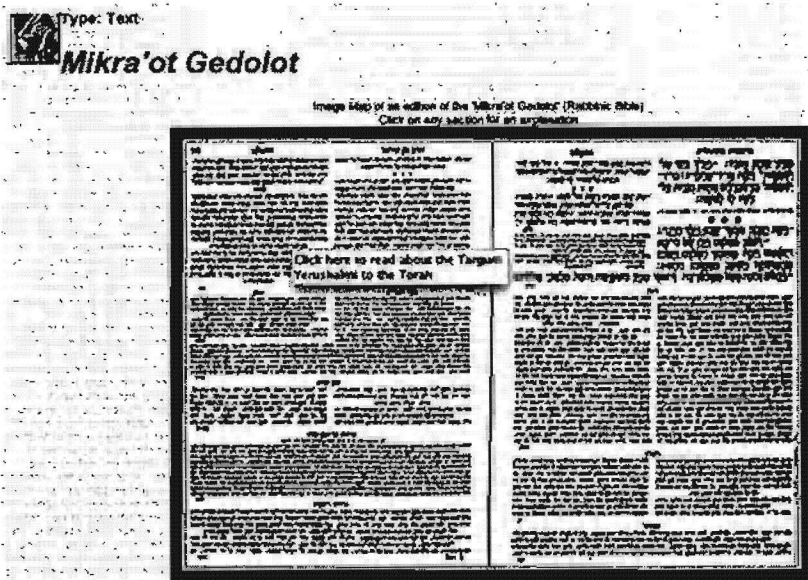


The accompanying illustration reproduced here shows the main section of the web site titled 'A Page from the Babylonian Talmud'. Basically,

6 E. Segal, *A Page from the Babylonian Talmud* [Web site], 1995; available from <http://www.ucalgary.ca/~elsegal/TalmudPage.html>.

it consists of a scanned page from the Babylonian Talmud. In choosing this image for the page, a number of tacit editorial and pedagogic decisions were being made. For example:

1. The size of the image was reduced so that it could fit onto a normal computer monitor (the dimensions of 'normal' tend to expand every few years).
2. The reproduction is displayed in a relatively low resolution, so as to deliberately obscure the text. In this way, it is hoped that the content will not distract from the external form, which is the main focus of the presentation. The site deals only with the visual form of the printed page; it is not an actual hypertext edition of the Talmud, as claimed by some.<sup>7</sup>
3. The decision to use the Vilna edition of the Talmud rather than one of the earlier printings (e.g., Venice) or a manuscript was dictated by the fact that it has the largest quantity of commentaries on the page. This is consistent with the main goal of the web page: to serve as a channel to information about commentaries. Similar considerations had to be applied for analogous pages that I composed for other works, especially the *Mikra'ot Gedolot*.



7 Edward Rothstein, 'Latest Internet Religious Offering Is High Holy Days Services', *New York Times*, September 16 1996.

While there are probably some other pedagogic objectives for which a graphic of this sort could be utilized, the most obvious route that suggested itself to me was as a portal to a bibliographic overview.

For me, the most powerful impression that is suggested by the traditional printed Talmud page relates to the immense range of Jewish history and geography that are packed into that page, whether in the texts themselves or in the cross-references and navigational aids, such as the *Ein Mishpat-Ner Mizvah*, that link the Talmud to the major medieval halakhic codes. The totality of this picture serves to underscore the centrality of Talmud study to numerous Jewish communities in diverse eras and localities; as well as the pivotal role of the Talmud in filtering to later generations the teachings of the Bible and early sages. Thus, the study of the Talmud with its commentators encompasses an immense slice of Jewish life, thought and literature. With these ideas in mind, I linked each item in the graphic to a page that provided basic information about the respective works, according to a relatively uniform set of categories, such as: genre ('Type'), Author, Dates, Place and Description.

Following the same pattern, it was a simple matter to design similar pages for other classic texts that have been published in the same format, of text surrounded by commentaries: The Rabbinic Bible (*Mikra'ot Gedolot*),<sup>8</sup> the Mishnah,<sup>9</sup> and the standard codes of Jewish law.<sup>10</sup>

8 E. Segal, *Mikra'ot Gedolot* [Web site], 1998; available from <http://www.acs.ualgary.ca/~elsegal/TalmudMap/MG.html>.

9 E. Segal, *Mishnah* [Web site], 1998; available from <http://www.acs.ualgary.ca/~elsegal/TalmudMap/Mishnah.html>.

10 E. Segal, *Arba'ah Turim* [Web site], 1998; available from <http://www.acs.ualgary.ca/~elsegal/TalmudMap/Tur.html>; idem, *The Mishneh Torah* [Web site], 1998; available from <http://www.acs.ualgary.ca/~elsegal/TalmudMap/Maimonides.html>; idem, *The Shulhan Arukh* [Web site], 1998; available from <http://www.acs.ualgary.ca/~elsegal/TalmudMap/ShA.html>.

Type: Commentary

**Sefer ha-Mafteah** (=“unlocking the secrets of the Talmud”):

**Author**

Rabbi Nissim [ben Jacob]

**Dates**

Died c. 1062

**Place**

Kairouan, Tunisia

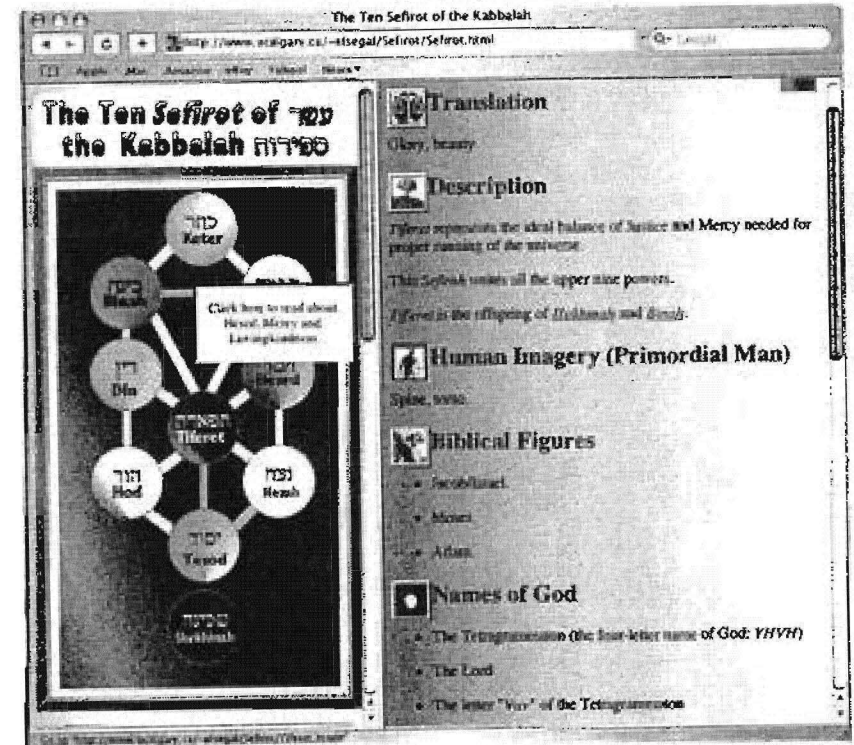
**Description**

Identifies obscure allusions to other places in Talmudic literature.

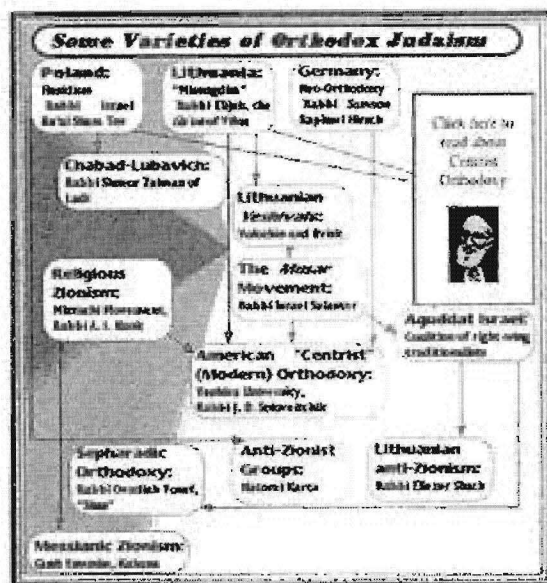
**B. Medieval: The Ten Sefirot of the Kabbalah**<sup>11</sup>

Another realm of Jewish thought that lends itself naturally to pictorial presentation is the Kabbalah. Noting that it is virtually impossible to explain kabbalistic texts or doctrines without continually referring to the diagram of the ten Sefirot arranged as a ‘tree of life,’ it was an easy step to designing an image-map web site built on that premise.

<sup>11</sup> E. Segal, *The Ten Sefirot of the Kabbalah* [Web site], 1995; available from <http://www.ucalgary.ca/~elsegal/Sefirot/Sefirot.html>.



For all its simplicity, the concept does, I believe, produce an effective aid to the teaching of Kabbalistic texts. By clicking on the appropriate region of the image-map, the student is linked to an explanation of the Sefirah in question, along with a listing of its main symbolic equivalents, classified according to the most prominent categories: divine names, limbs of a mythic body, Biblical personalities, colors, etc. I make no claims for the originality of the content. I assembled the terms from standard introductory and reference works by G. Scholem, F. Lechower and I. Tishby, and D. Matt; and I made generous use of Gikatlia's *Shf'arei Orah*. Aside from whatever assistance such a collection might furnish to a novice student trying to unravel a passage from the *Zohar*, the purpose of this Web site has more to do with the general impressions that it inspires, of the immense richness and complexity of the kabbalistic symbolism, and the varied ways in which that symbolic structure bridges between sacred Scriptures and the doctrine of the ten Sefirot.

C. Modern: Orthodoxy<sup>12</sup>

The term "Orthodoxy" is applied to Jewish traditionalist movements that have consciously resisted the influences of modernization that arose in response to the European Emancipation and Enlightenment movements. It is not usually

Unlike the previous examples of the traditional printed page and the Sephirotic tree of life, this last topic did not provide me with a ready-made graphic model. Quite the contrary: The visual image emerged from my own difficulties at imposing order on the confusing spectrum of religious outlooks and lifestyles that are classified as 'Orthodox' in post-Emancipation Judaism.

The diagram that I created for this purpose is rooted in the premise (which may or may not be correct) that the diversity of contemporary Orthodoxy can be traced back to three basic responses to modernity that arose in Europe in the eighteenth and nineteenth centuries: the Hasidic, Mitnaged and Neo-Orthodox movements. Through a series of internal developments or mutations, responses to historical circumstances or external stimuli, and mutual influences, these three

prototypes proliferated into the dizzying chaos of the contemporary scene - or, at least, of the mid 1990's when I designed the site.

Unlike the earlier examples, the content of the 'chapters' (i.e., the descriptions of the various movements) are not classified under standardized categories, but instead, take the form of conventional prose essays. On reflection, I suppose that a schematic presentation under fixed headings would also have been possible here, and such a presentation could even make a pedagogic contribution by highlighting the crucial issues on which the movements align or differ. In that spirit, it would have been conceivable to include most of the same data according to such headings as: Time / place of origin; leading figures and literature; ethnic constituency, attitudes towards Zionism or statehood; receptiveness to secular culture; cooperation with non-Orthodox streams; mystical or rationalist tendencies; etc.

## Some General Pedagogic Considerations

The obvious advantages of these presentations over, say, a conventional textbook, lie in such features as the following:

1. Hopefully, the graphic portal through which the data is accessed is an accurate indicator of the conceptual relationships between the various items. If that is truly the case, then the visual principle of organization will improve the student's internalization of the material.
2. The ability of the students to interact with the material in a game-like environment makes for an increased likelihood of their retaining the content. One hopes that esthetic factors like graphics, pop-ups and animations function as enhancements to the learning experience, and not as distractions.
3. As a low-cost medium for self-publication, material posted on the Internet is immediately available, not only to every student in a class who has access to a networked computer, but also (unless one explicitly restricts access to a designated group) to the world at large.<sup>13</sup> As teachers, we should be very gratified by the opportunity

<sup>12</sup> E. Segal, *Varieties of Orthodox Judaism* [Web site], 1996; available from [http://www.ucalgary.ca/~elsegal/363\\_Transp/08\\_Orthodoxy.html](http://www.ucalgary.ca/~elsegal/363_Transp/08_Orthodoxy.html).

<sup>13</sup> This factor has been crucial in my personal circumstances, situated as I am in a city far removed from any major center of Jewish scholarship. The scholarly columns that I have contributed over the years to the Calgary Jewish newspapers

to disseminate our wisdom to such a vast virtual classroom. From my own experiences, I have come to appreciate many unforeseen advantages of this openness. It provides me with an international team of proof-readers who are quick to inform me about factual or typographical errors, or even technical bugs, such as dead links or scripts that do not function properly. Insofar as my respondents take issue with my opinions, their responses can open productive dialogues. If they are representatives of the movements and ideologies that are the subjects of my pages, then I might even incorporate their views into my presentation. My Web presence has led dozens of Internet users to turn to me on diverse questions about Jewish history, belief or law; to the point where I probably spend an average of an hour each working day answering questions from strangers in cyberspace.

4. A web-site can be freely and immediately improved or corrected by the author, in ways that would be inconceivable for a printed document.
5. In a classroom equipped with the necessary technological facilities, the computer display can be projected onto a screen. If necessary, the web site can be stored on disk, so that access is possible even if the computer is not currently hooked up to the network. In many respects, a Web browser is a more flexible and serviceable presentation medium than dedicated applications like PowerPoint™. This is definitely true with respect to imagemap capability. Another helpful advantage of Web browsers is the ease with which text and tables may be resized spontaneously. Even if one is not projecting directly from the computer (which can, admittedly, be an extremely expensive proposition), transparency overheads based on printouts from Web browsers are a very convenient alternative.

On the other hand, some important limitations that must be borne in mind include:

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would otherwise have had no impact beyond the few dozen local readers who would have perused them, and then discarded their copies. By posting the articles on my web site, I was able to give them some permanence and, more importantly, to attract the attention of publishers who deemed them worthy to assemble into printed collections.

1. Not all students or institutions have access to computers or networks. Where necessary, they should be provided with alternative means of accessing the material, probably through paper print-outs.
2. By allowing students to navigate through the material according to their own interests and curiosity, there is also an inherent danger, even likelihood, that they might inadvertently bypass information that the instructor considers essential. At the very least, the graphic key must be supplemented by a more conventional listing of pages that enumerates the required reading assignments.

**If your browser cannot read Image Maps, you may access the files via the following menu:**

- [Eln Sof, the Unknowable Infinite](#)
- [Keter, the Divine Crown](#)
- [Hokhmah, Wisdom](#)
- [Binah, Understanding](#)
- [Hesed, Mercy](#)
- [Din, Justice](#)
- [Tiferet, Beauty](#)
- [Nezah, Eternity](#)
- [Hod, Glory](#)
- [Yesod, Foundation](#)
- [Shekhinah, The Shekhinah, God's Presence in the World](#)
- [The Right Side](#)
- [The Left Side](#)
- [The Middle Column](#)

3. A computer screen is not designed for extended reading. If the material contained on a digital page is not already concise, or does not lend itself to shortening or division into segments, then the students will likely print it out, which undermines some of the advantages of the medium.

At any rate, it should go without saying that Web sites of the kinds that I have been describing cannot serve as substitutes for these familiar

modes of instruction. They are no more than supplements to lectures and textbooks. No amount of ingenious packaging can cover up content that is fundamentally shoddy or flawed. Furthermore, as many administrators of web-based distance courses have come to realize, when it comes to evaluating their progress in a course, there is often no effective substitute to placing a student in a supervised classroom, where a human observer can make certain that s/he is in fact doing independent work and not copying material from elsewhere.

#### Where to Go from Here?

1. When I prepared the sites that were demonstrated here, I considered it impractical to produce a Hebrew version, even though it was obvious to me that there was an audience for such a translation and I have received numerous requests for it. Nevertheless, the authoring of right-to-left text in HTML was a very complex process, and there was no guarantee that the results could be read by all browsers. The matter was further complicated by the proliferation of multiple protocols for the rendering of Hebrew. In recent years, this situation has been vastly improved with the development of the Unicode standard for rendering non-Roman languages. Although one still encounters variant formats - and, not surprisingly, Microsoft seems determined to promote a non-standard format - the major browsers and computer platforms all include acceptable support for the Unicode standard.<sup>14</sup>
2. The information related to each item in the Page of Talmud and Ten Sefirot sites was organized in a kind of pseudo-database; i.e., it was classified according to a fixed set of fields. The capabilities of present-day Web browsers make it possible to evolve that presentation into an actual database. XML (Extendable Markup Language) allows the free assignment of data types to tags, in such a way that they can be read and searched as full-fledged data fields. Not very long ago, such capabilities were restricted to a very small number of advanced browsers, not available on all platforms.

Data that has been formatted according to this standard can be searched like a standard database. For example, a student would easily be able to produce a list of halakhic codes produced in North Africa between the 13<sup>th</sup> and 15<sup>th</sup> centuries, or Italian commentators from the 16<sup>th</sup> century.

The preceding demonstration confined itself to uses of a single feature of web technologies, the hyperlinked imagemap. The knowledgeable and imaginative teacher should have no difficulty with additional topics in Jewish intellectual history that lend themselves to this kind of presentation. The Web incorporates dozens of additional technologies that can be of immense assistance for the conveying of scholarly information, including several that were shown or mentioned in passing here; such as frames, tables and hidden or animated layers. Any of them could easily have provided enough material for a separate paper.

Because they are so flexible and easy for non-specialists to produce, and are in turn accessible to students whether they are located in the same room or across an ocean, and on virtually any model of personal computer, these tools - when integrated with mastery of the content and conventional modes of delivery - provide the teacher of Jewish Thought with unprecedented creative potential for enhancing the learning experience of our students.

<sup>14</sup> Unicode Consortium, *What Is Unicode?* [Web page], 1991; available from <http://www.unicode.org/standard/WhatIsUnicode.html>.