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### Extending and Customizing Content Discovery for the Legal Academic Community with Innovative Interfaces' Pathfinder Pro: The Pence Law Library Approach

Sima Mirkin <sup>a</sup>

<sup>a</sup> Pence Law Library , American University Washington College of Law , Washington , DC , USA

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# **Extending and Customizing Content Discovery for the Legal Academic Community with Innovative Interfaces' Pathfinder Pro: The Pence Law Library Approach**

SIMA MIRKIN

*Pence Law Library, American University Washington College of Law,  
Washington, DC, USA*

*Incorporation of technological tools into teaching methodology is an ongoing process. Using graphic illustrations with explanations, this article will demonstrate the functionality of one such tool, Innovative Interfaces' Pathfinder Pro, a context-sensitive linking mechanism, in conjunction with the Pence Law Library online catalogue. The article also discusses the benefits of using this tool in legal research instructions and distance learning programs.*

*KEYWORDS context-sensitive linking, Pathfinder Pro, Innovative Interfaces, customizing content discovery, semantic search, digital discovery, academic libraries, instructional technology in teaching legal research, embedded librarians, distance learning tools, innovative technology*

## INTRODUCTION

The Innovative Interfaces Inc. (III) Pathfinder Pro is a context-sensitive linking mechanism. Using the library's online catalogue's records, Pathfinder Pro provides dynamic smart suggestions in the form of hyperlinks to the digital resources preselected by the library, based on either patron query or search results. From the user's standpoint, the process appears similar to how Amazon suggests books/products. However, Amazon uses a customer-specific "recommender" technology based on past queries/purchases by the

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Address correspondence to Sima Mirkin, Pence Law Library, American University Washington College of Law, 4801 Massachusetts Ave., Washington, DC 20016-8180. E-mail: smirkin@wcl.american.edu

customer,<sup>1</sup> whereas Pathfinder Pro uses unique Smart Linking technology,<sup>2</sup> a trademark of III.

This article lays out the basis of how innovative technology fits into the pedagogical framework of legal research instruction and provides justification for the incorporation of this customized discovery tool in teaching legal research. Pathfinder Pro's unique sensitive linking functionality in conjunction with the Pence Law Library's catalogue is described, illustrated, and explained.

## PEDAGOGICAL APPLICATION OF CONTENT DISCOVERY TOOLS FOR LEGAL RESEARCH INSTRUCTIONS

Incorporating discovery tools in the instructional process can be characterized as a teaching technique. "A [teaching] technique is a particular trick, stratagem, or contrivance used to accomplish an immediate objective. Techniques must be consistent with a [pedagogical] method."<sup>3</sup> A pedagogical method is "an overall plan for the orderly presentation of [educational] materials. A method is procedural"<sup>4</sup> and employs various implementation techniques. Each engaged method should be beneficial to the achievement of educational objectives defined by the pedagogical theory, which is characterized by C. M. Reigeluth as "a theory that offers explicit guidance on how to better help people learn and develop."<sup>5</sup>

The "signature pedagogy" theory applicable to legal research education is defined in the *Boulder Statement on Legal Research Education: Signature Pedagogy Statement*.<sup>6</sup>

Prior credible reports and documents served as a path for the development of the Signature Pedagogy Statement, the most notable of them being the MacCrate Report, Carnegie Report, the Boulder Statement on Legal Research Education, and the American Bar Association Standards.<sup>7</sup> "The ABA Standards [Standard 302(a)(2) & Interpretation 302-2] and the MacCrate and Carnegie Reports call for . . . law schools to employ creative techniques and tools to prepare law students for the practice of law. . . . These reports challenge law schools to use new teaching strategies and new technologies for legal research instructions."<sup>8</sup>

Innovative discovery tools fit well with the "students of the Millennium Generation, [who] were born between 1982 and 2000. They are . . . current and future law students . . . Understanding how Millennial students learn, how they use technology, and how they communicate"<sup>9</sup> is important when choosing methodology for teaching legal instructions in today's technology-driven world. Millennials "grew up using computers and relating to [the] world through technology."<sup>10</sup> Incorporating technological tools into legal research instructions creates teaching techniques that "will excite and encourage Millennial students."<sup>11</sup>

## THE INNOVATIVE INTERFACES INC. DISCOVERY PRODUCTS SUITE

The III Discovery Products Suite is composed of Encore Synergy, a next-generation discovery tool; Research Pro, a federated search application; and Pathfinder Pro, a contextual linking tool.<sup>12</sup>

**Encore** is a new-generation library catalogue's interface, which represents a dynamic discovery services platform. It works with the existing integrated library system (ILS) and data to create an entirely new user experience in catalogue searching. Encore takes searching the catalogue and finding materials to a whole new level by using Web 2.0 technologies and practices, and it presents catalogue search results with all manner of discovery tools, including faceted search results, a tag cloud, advanced relevance ranking, social features, and much more.<sup>13</sup>

**Encore Synergy** adds next-generation article discovery with the Encore product. With the Encore Synergy single search-box model, the users can seamlessly transition between article and local catalogue searching modes.<sup>14</sup>

**Research Pro** represents a federated search technology that provides simultaneous searching across multiple databases allowing library patrons to retrieve information through one search from disparate systems—external databases, journal aggregators, specialized digital collections, institutional repositories, etc.

Federated search technology is an integral component of an Information Portal, which provides the interface to diverse information resources. Once the user enters his or her search query in the search box of the Information Portal, the system uses federated search technology to send the search string to each resource that is incorporated into the Portal. The individual information resources then send the Information Portal a list of results from the search query. Users can view the number of documents retrieved in each resource and link directly to each search result.<sup>15</sup>

**Pathfinder Pro** offers a smart-linking capability in the Web Online Public Access Catalog (OPAC) to guide users to external resources. It also can pass through patrons' search terms or metadata from the record as queries to the defined digital resources.

Pathfinder Pro's contextual linking is somewhat unique in the OpenURL link resolver world. While traditional OpenURL link resolvers are based on the concept of starting at an external origin (e.g., EBSCOhost) to determine full-text results, Pathfinder Pro originates from metadata contained in the bibliographic record (e.g., title, subject, author name) to target results (resources) defined by the library.<sup>16</sup>

Pence Law Library has implemented Pathfinder Pro and Encore Synergy 4.2. These tools bring all of the library's resources together in one place—Encore's catalogue interface. Encore Synergy's article mode provides

a platform that streams in real time full texts of articles from journal aggregators configured as portfolios in Encore Synergy by the library. Pathfinder Pro fully integrates with the Encore catalogue's interface, and provides dynamic links to other relevant external e-materials.

Pathfinder Pro gives law libraries more flexibility in highlighting their subject-specific electronic resources in comparison with the Research Pro tool. To include a resource in the Research Pro configuration, libraries have to match it in the III "Resource Profile" file, which lists Resources that III negotiated for possible inclusion in the federated search engine. By contrast, Pathfinder Pro allows independent configuration of any resource from the library's collection. This flexibility gave Pence Law Library an opportunity to direct patrons from the catalogue to law research guides (internal and external), government Web sites, commercial and free legal databases and portals, such as the Max Planck Encyclopedia of Public International Law, LAW360, Homeland Security Digital Library, Military Commission Reporter, Afghanistan Documentation Project, Globalex (NYU portal), Kluwer Arbitration, U.N. Treaty Collection, Criminal Law Forum, AudioCaseFiles, and China Westlaw—to name just a very few, which would otherwise be hidden in the depths of the A–Z lists.

#### WHY IS PATHFINDER PRO AN ATTRACTIVE RESEARCH TOOL FOR LIBRARIES TO IMPLEMENT?

To answer this question, it is helpful first to define the role of academic libraries in the future of the educational process. There is no lack of opinions on this subject—the most recent skirmish between Brian Sullivan and Patricia Tully was published in the *Chronicle of Higher Education*. In his article, "Academic Library Autopsy Report, 2050"<sup>17</sup> Brian Sullivan has promulgated the death of the academic library, whereas Patricia Tully, in her response entitled "The Library End? A Long Way Off,"<sup>18</sup> took the opposite view. Brian Sullivan came up with six arguments in support of his point of view, and Patricia Tully rebuffed all six in hers. See Table 1 for a list of their corresponding arguments. Patricia Tully's argument—that the libraries of the future will provide customized discovery and help finding online content—seems to be directly descriptive of Pathfinder Pro functionality: "In 2050, a variety of systems provide users with focused, relevant content. As the amount and kinds of content increase, the number of systems to access specialized content increases as well. Librarians evaluate these systems to determine which are best for their users, and explore how systems can be linked to one another . . . to provide a seamless search experience for users."<sup>19</sup>

The key phrases here are: "provide users with focused relevant content" and "provide a seamless search experience for users." They describe exactly what Pathfinder Pro does—it provides users with focused, relevant content in a seamless search environment. For example, if a patron searches

**TABLE 1** B. Sullivan's and P. Tully's Corresponding Arguments

Sullivan's Autopsy Report's Points	Tully's Alternative Vision
1. Book collections became obsolete.	Book collections in the cloud.
2. Library instruction was no longer necessary.	Customized discovery (help finding online content).
3. Information literacy was fully integrated into the curriculum.	Online research literacy.
4. Libraries and librarians were subsumed by information-technology departments.	Library-IT-faculty-student collaboration continues.
5. Reference services disappeared.	Seamless help services.
6. Economics trumped quality.	Commitment to high-quality, fiscally responsible service.

for materials about the "U.S. Supreme Court," and another patron searches about "Internet Access Control," Pathfinder Pro will direct each patron to the resources relevant to their specific topics.

Libraries' digital resources are playing a more and more central role in providing information for users in the academic environment. Digital materials include e-books, e-journals, e-articles, Web sites, databases, etc. Academic libraries are building up their collections of e-resources, which in many cases number in the hundreds and sometimes thousands in the libraries' A-Z lists. Finding the right e-resources is becoming an increasingly difficult task for users. Through Smart Linking technology, Pathfinder Pro eases this task by presenting e-resources selected and purchased by the library in the form of intelligent suggestions pertinent to users' searches. Functioning in conjunction with the catalogue, Pathfinder Pro gives libraries the perfect opportunities for extending their discovery platforms as well as for marketing their online resources.

In the law library setting, Pathfinder Pro does not teach critical legal research and lawyering skills. Rather, it contributes to the "bibliographic method of teaching legal research"<sup>20</sup> because students learn about legal resources by developing an understanding of the structure of bibliographical descriptions, the semantic connection of this description to other materials, and the concept of controlled vocabulary.

Feliú and Frazer, in their paper "Embedded Librarians: Teaching Legal Research as a Lawyering Skill,"<sup>21</sup> focus on "an experiment conducted at the University of the District of Columbia David A. Clarke School of Law (UDC-DCSL) of embedding law librarians in the [school's] legal clinics."<sup>22</sup> Feliú and Frazer assert that the "UDC-DCSL embedded librarians experiment embodies the 2009 Boulder Statement on Legal Research Education's recommendation that 'students will experience a cognitive apprenticeship . . . [so as to] synthesize information about legal systems and resources to identify the best research plan for a given question.'<sup>23</sup> The argument can be made that Pathfinder Pro plays the role of a virtual embedded librarian providing

a structure and expert guidance to the process of selecting digital Resources. Pathfinder Pro does this by giving a team of professional librarians the opportunity to preselect and categorize external Resources, and then delivers their professional suggestions when the patrons ask for them, thus enhancing the online learning experience for students.

Tools like Pathfinder Pro, which provide 24/7 online reference assistance, become all the more topical with the current development of online distance education in many law schools—for example, there are plans to create a special online certificate program on International Commercial Arbitration in the Washington College of Law. The context-sensitive linking tool, configured by librarians, can become part of an innovative learning solution in teaching law courses online by extending the reach of librarians' expertise to the participants of distance learning programs.

A researcher activates the Pathfinder Pro software from the catalogue's pages with nothing more than a click on the "Similar Resources" button. The database suggestions then can be viewed on the Pathfinder Pro panel. Even if students do not have time to research each database, simple habitual browsing of the Pathfinder Pro database suggestions for different subjects enhances students' knowledge about various topical legal resources, thus becoming a "learning activity of a first-order educational objective: acquiring knowledge"<sup>24</sup>—called REMEMBERING in Callister's adaption of Bloom's Taxonomy for legal research skills.

Pathfinder Pro can be employed in the pedagogical process in a variety of creative ways. Any resource or a group of resources (e.g., research guides, online tutorials, journal articles, chapters of e-books, etc.) can be featured in Pathfinder Pro as needed for curriculum purposes to make these resources more visible to students.

Using Pathfinder Pro in teaching legal research makes it easy for reference librarians to direct students to the right external resources when giving reference instructions at the reference desk. It is impossible to remember the names of all databases and their affiliation with various subjects. A click on the Pathfinder Pro button might be, in many cases, the most efficient way to bring out the relevant resources and provide immediate access to them from the catalogue. Screenshot examples in the following section illustrate this point.

#### PATHFINDER PRO ON THE WEB OPAC'S PAGES: SCREEN-SHOT EXAMPLES FROM THE PENCE LAW LIBRARY CATALOG

Figure 1 illustrates the steps for activating Pathfinder Pro software from the online catalogue pages and viewing the resource suggestions on the panel.

**Walker & Walker's English legal system / Richard Ward, Amanda Akhtar**

Print  
Ward, Richard, LL B  
Oxford : New York : Oxford University Press, c2011  
11th ed  
KD7100 .W3 2011

**Items**

LOCATION	Call No.	Status
2nd Floor - General Collection	KD7100 .W3 2011	DUE 07-31-13

**Details**

Descript: lxviii, 732 p. ; 25 cm  
Subject: Procedure (Law) -- Great Britain  
Courts -- Great Britain  
Law -- Great Britain  
Note: Includes bibliographical references and index  
Alt Author: Wragg, Amanda  
Walker, Ronald Jack. Walker & Walker's Eng  
Alt Title: English legal system  
Walker and Walker's English legal system  
ISBN/ISSN: 9780199588107 (pbk. : alk. paper)  
0199588104 (pbk. : alk. paper)

**Table**

1.	The English Legal System--An Overview Introduction
	Table of Cases
	Table of Statutes
	Table of Statutory Instruments
	Table of EU Legislation
	Table of Treaties and Conventions

**Search Results**

Next result:  
The presidencies of George Herbert Walker Bush and George ...

**Other Sources**

- Leagle Classic
- Similar resources

**1. Click on Pathfinder Pro button**

**2. Pathfinder Pro Panel appears**

**3. Resources are grouped by categories on the panel**

PENCE LAW LIBRARY - WASHINGTON COLLEGE OF LAW - Mozilla Firefox  
leagle.wcl.american.edu/webbridge\*eng/panel?returnurl=http%3A%2F%2Fencore.wcl.american.edu%2F%2F...  
Similar resources  
The following resources may provide additional information about  
**Walker & Walker's English legal system**  
**Research Guides**  
[Search Foreign Law Research Guides from Institute of Advanced Legal Studies](#)  
**Foreign & International Law**  
[Search Foreign Law Guide](#)  
[Search GlobalLex - Intl & Foreign Law Research portal, NYU](#)  
[Search LLRX.com - Comparative and Foreign Law](#)  
**Case Law**  
[Search Justis - EU, UK & Irish Case Law & Legislation](#)  
**General Legal Databases**  
[Search vLEX - Law Portal \(Foreign & U.S.\)](#)  
[Search WestLaw](#)

**FIGURE 1** Steps for activating and viewing the Pathfinder Pro panel from the catalogue pages (color figure available online).

Pathfinder Pro software is activated by clicking on the Pathfinder Pro button, which is present on every bibliographical record's page (Step 1 in Figure 1). A software enhancement request has been made to make this button available under each brief citation in the browse (search results) display. Pence Law library has customized this button. It reads "Similar Resources."<sup>25</sup> After a click, the Pathfinder Pro panel appears (Step 2 in Figure 1).

Each resource is assigned to a category; thus, links to the resources are grouped by categories on the panel (Step 3 in Figure 1). Categories include: "Research Guides," "Foreign and International Law," "Case Law" (configured as dynamic), and "General Legal Databases" (configured as constant).

### "Dynamic" Categories

In the Pence Law Library Pathfinder Pro configuration, categories such as Topical Legal Databases, Government Sources, Foreign and International Law, and others represent dynamic categories because the resource suggestions in these categories are dynamic. The Pathfinder Pro software triggers





**FIGURE 2** The Pathfinder Pro software triggers a listing of the “CQ Congressional Staff Directory” database (follow curved arrow) because of this database’s semantic connection to the value in the author field. Links to the “national security” databases appear on the Pathfinder Pro panel because of their relevancy to the subjects in the record (color figure available online).

appearance of resources in these categories based on their relevancy to the data in the bibliographical record.

Figures 2 through 6 demonstrate examples of dynamic resource appearances in these categories. On these pictures, the graphics and captions provide detailed explanations of the semantic connection between the data in the bibliographical records and the resource offerings on the Pathfinder Pro panel.

### “Constant” Categories

Categories such as “General Legal Databases,” “Encyclopedias,” and “Indexes and Abstracts” offer constant listings of multisubject resources (see Figure 7). These categories serve as promoters and reminders for these resources as well as provide immediate access to them from the catalogue’s pages.

## DETERMINING A RESOURCE’S RELEVANCY IN THE PATHFINDER PRO CONFIGURATION

The Pathfinder Pro software determines whether to display a link to a resource from the originating bibliographical record based on a library-defined

California evidence : examples & explanations / Chris Chambers Goodman

Goodman, Chris Chambers, 1966-  
Austin [Tex.] : Wolter Kluwer Law & Business ; New York : Aspen Publishers, 2011  
KFC1030 G66 2011

Print

Items

LOCATION	Call No.	Status
Reserve	KFC1030 G66 2011	AVAILABLE
Reserve	KFC1030 G66 2011 c 2	AVAILABLE

Details

Descript xxvi, 471 p. ; ill. ; 26 cm

Series Examples & explanations series

Subject Evidence (Law) California

Contents Introduction to evidence, relevance, and prejudice -- The character evidence -- The character of the witness -- The character of the party -- The character of the act -- Other policy exclusions for relevant evidence -- The character of the act -- Other hearsay exceptions triggered by the character of the act -- Statements of witnesses -- Other hearsay exceptions -- Witness testimony -- Opinion testimony -- The burden of proof, preponderance of the evidence -- Authentication and the secondary evidence rule -- Introduction of evidence -- Professional relationship privileges -- Personal, relationship, counseling, and other privileges -- Opinion testimony : lay and expert

Note Includes bibliographical references and index

ISBN/ISSN 9780735584952 (alk. paper)  
0735584958 (alk. paper)

Search Results

Similar resources

The following resources may provide additional information about California evidence : examples & explanations

Topical Legal Databases

- Find at BNA's Digital Discovery & e-Evidence
- Find at BNA's Expert Evidence Report

Legislation

- Search State Session Laws & Federal Public Laws - HeinOnline
- Search State Legislatures, State Laws, and State Regulations

General Legal Databases

- Search vLEX - Law Portal (Foreign & U.S.)
- Search WestLaw
- Search Bloomberg Law
- Search FindLaw
- Search LexisNexis Congressional
- Search Bloomberg Law Reports
- Search LexisNexis

**FIGURE 3** The topical term in the subject of this record triggers the appearance of the relevant resources in the “Topical Legal Databases” category on the Pathfinder Pro panel. The geographical term “California” in combination with the topical term “law” in the subject evokes the appearance of the “Legislation” category with links to the “State Legislature” databases (color figure available online).

relevancy criterion. In the Pence Law Library configuration, the criterion in most cases is expressed by the data tests, which contain rules for testing fields in a bibliographic record. The Pathfinder Pro software checks selected fields against these rules, and if the actual data in the record match the rule applied to a resource, this resource will be displayed on the Pathfinder Pro panel (see an explanatory scheme in Figure 8).

Selecting resources for inclusion in Pathfinder Pro’s configuration and developing a relevancy criterion for each resource are a collaborative process involving metadata, electronic resources, and reference librarians (subject specialists) working together. The goal here is to guarantee a listing on the Pathfinder Pro panel of resources that are relevant to the patron’s search terms. This means that the rules assigned to a resource should derive from the metadata relevant to this resource—pertinent subjects (designated by the subject specialist for each resource), call numbers, names, location, or any other data. In general, any field in the bibliographical database that contains relevant data can be included in the rule.

For the Pathfinder Pro software to understand a rule, all the rule’s components should be expressed in “bool query” format data tests.<sup>26</sup>

**Internet child abuse : current research and policy / edited by Julia Davidson and Petter Gottschalk**

New York : Routledge, 2011  
K5189 .I59 2011

LOCATION	Call No.	Status
2nd Floor - General Collection	K5189 .I59 2011	AVAILABLE

**Details**

Descript xi, 197 p. : 25 cm

Subject Child sexual abuse -- Prevention  
Child sexual abuse -- Psychological aspects  
Online sexual predators -- Psychology  
Child molesters -- Psychology  
Child pornography -- Law and legislation  
Internet and children

Note Includes bibliographical references and index

Alt Author Davidson, Julia C  
Gottschalk, Petter, 1950-

ISBN/ISSN 9780415559805  
0415559804

**Search Results**

**Foreign & International Law**

Search [GloboLex - Intl & Foreign Law Research portal, NYU](#)

**Topical Legal Databases**

Search [PolicyMap - provides indicators related to demographics, crime, home sales, income, education, health, energy, taxes across U.S.](#)

Search [Criminal Law forum](#)

Search [International Encyclopaedia of Laws, Criminal law](#)

Search [BNA's Internet Law Resource Center](#)

Search [BNA's World Communications Regulation Report](#)

Search [International Encyclopaedia of Laws, Cyber Law](#)

**Government Sources**

Search [U.S. Federal Communications Commission \(FCC\) website](#)

**FIGURE 4** 1) Class “K” Call No. evokes a listing of an international law research portal “GloboLex” in the Foreign & International Law Category. 2) The record’s subjects pertaining to criminal law trigger appearance of the databases on the “criminal law” in the “Topical Legal Databases” category (first three listings). 3) The “Internet-” related databases appear on the Pathfinder Pro panel in two categories—Topical Legal Databases and Government Sources—in relevancy to the subject “Internet and children” assigned to this publication (color figure available online).

**Constitutional law in contemporary America / David Schultz, John R. Vile, Michelle D. Deardorff**

New York : Oxford University Press, 2011.  
KF4550 Z9 S365 2011

LOCATION	Call No.	Status
2nd Floor - General Collection	KF4550 Z9 S365 2011 v.1	AVAILABLE

**Details**

Descript v. <1 > : 26 cm

Subject Constitutional law -- United States

Contents v. 1. Institutions, politics, and process. Foundation, interpretation, and Constitution ; Nature of the federal union ; Legislative powers over corresponding ; Congress and the President ; Property rights and substance ; Property rights and eminent domain ; State authority in a federal system ; foreign affairs ; The citizen and the political process

Note Includes bibliographical references and index

Alt Author Vile, John R  
Deardorff, Michelle D

**Search Results**

**Topical Legal Databases**

Search [World Constitutions Illustrated](#)

Search [International Encyclopaedia of Laws, Constitutional Law](#)

Search [Stat Pack : SCOTUSblog - Supreme Court Statistics](#)

Search [Constitutions of the Countries of the World & Dependencies and Territories & United States: National & State](#)

**Case Law**

Search [U.S. Supreme Court Library - HeinOnline](#)

Search [Supreme Court Database](#)

Search [U.S. Supreme Court Record & Briefs, 1832-1978](#)

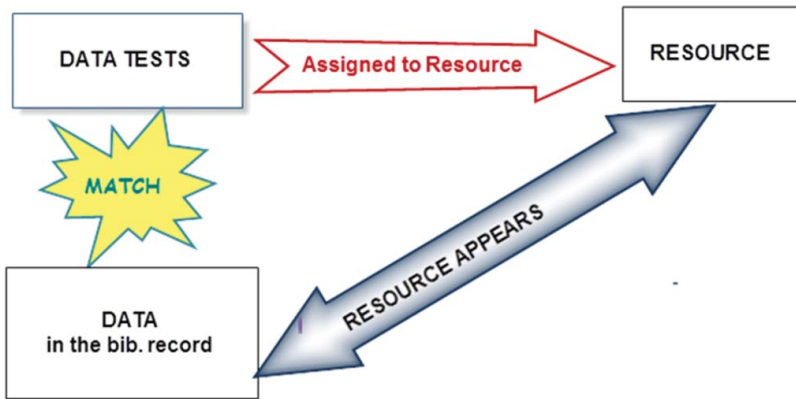
**FIGURE 5** The combination of the subject’s topical (“constitutional law”) and geographical (“United States”) terms evokes the appearance of relevant resources in the “Topical Legal Databases” and “Case Law” categories (color figure available online).



**FIGURE 6** List of resources evoked by the subject “international law” (color figure available online).



**FIGURE 7** “Constant” categories provide immediate links to the general legal resources (color figure available online).



**FIGURE 8** How a resource gets listed on the panel (color figure available online).

### Example of a Relevancy Criterion

The following is a relevancy criterion applied to the Resource “U.S. Supreme Court Library–Hein Online” as it was set up in the Pence Law Library configuration:

Resource “U.S. Supreme Court Library–Hein Online” to be displayed on the Pathfinder Pro panel **IF** the following two Rules **are true** (in other words match to the metadata in a record):

**Rule 1.** The value in any “subject” field is either:

*Appellate Procedure*

*Civil procedure*

*Criminal procedure*

*Constitutional law*

*Habeas Corpus*

*Civil rights*

*United States. |bSupreme Court*

**OR**

The value in the “author” field is:

*United States. |bSupreme Court*

**OR**

The value in the “alt. author” field is:

*United States. |bSupreme Court*

**Rule 2.** The value in MARC 043 field (Geographic Area Code) is defined as either United States or any of 51 States.

### PENCE LAW LIBRARY EXPERIENCE

Pathfinder Pro can be installed on systems running Innovative’s Millennium ILS Release 2009B, as well as on the Integrated sierra Platform system. A

number of libraries have already implemented this tool but with different degrees of configuration. Pence Law Library came up with a rather elaborate setup by configuring more than 180 resources with more than 500 data tests applied to them. The basic implementation was conducted in 2009 in the course of two summer months. In this work, the library relied on III Guide & Reference,<sup>27</sup> as well as on various documentation and training materials supplied by III, which are now available on their CSDirect Web site. III provides an online configuration and training service, which is very helpful.

The tasks of defining relevancy criterion and constructing bool query data tests were the most challenging in the configuration process. The targeted metadata in the data tests was mostly formulated in compact regular expressions language<sup>28</sup> patterns—utilizing syntax presented at the Innovative Users Group meeting by Richard V. Jackson from Huntington Library, San Marino, CA.<sup>29</sup> Regular expressions language provides for creation of precise and comprehensive data tests. Precision and comprehensiveness of the data tests are the factors that make Pathfinder Pro really function as a customized discovery tool.

It is worth mentioning in this article that in terms of creating rules and data tests, each library does not have to reinvent the wheel. Data tests can be created in a sharable way—the same way libraries share catalogue records because data tests are based on Machine-Readable Cataloging (MARC) records' data, which are universal across libraries' catalogues. Thus, data tests can be used reciprocally by libraries.

## Maintenance

Once configured, maintenance of Pathfinder Pro is required as needed. Maintenance includes configuration of new resources, changing resources' URLs, honing data tests, reconfiguring resources for reflecting their content changes, deleting resources from the configuration in case of unsubscribing, or others. For example, after the inclusion of journal aggregators as portfolios in the Pence Law Library Encore Synergy setting, links to them from the Pathfinder Pro panel became redundant, so resource records for journal aggregators were subsequently deleted from the configuration. Should the resource itself undergo changes, particularly in a way that eliminates or adds some topics, then the rules should be updated to reflect this. The metadata librarian is responsible for the maintenance of Pathfinder Pro at the Pence Law Library.

To have a complete picture of an institution's Pathfinder Pro configuration, an Excel spreadsheet of all the resources with data tests assigned to them can be created. Figure 9 shows a fragment of the Excel spreadsheet maintained by the Pence Law Library.



	DATA TESTS NAMES	DATA TESTS IN BOOL QUERY FORMAT	RESOURCES THE TEST IS ASSIGNED TO
1	043 Latin America 1	v,b,y,,043,r,^(7)n[^-].*S,,v,b,y,,043,r,^(16)n[^-].*S,,q,b,y,,043,r,^(25)n[^-].*S,,	Latin American Intelligence Service Justia.com
2	043 Latin America 2	v,b,y,,043,r,^(7)s.*S,,v,b,y,,043,r,^(16)s.*S,,q,b,y,,043,r,^(25)s.*S,,	Latin American Intelligence Service Justia.com
3	043 Africa	q,b,y,,043,r,[af,*_]	Legalbrief Africa
4	043 not US (works!)	v,b,y,,043,r,^[9][^u].*S,,v,b,y,,043,r,^[18][^u].*S,,v,b,y,,043,r,^[27][^u].*S,,q,b,d,,r,*[our][gij][td][a][in][dn],*,	Foreign Law Guide Foreign Law Research Guides from Institute of Advanced Legal Studies vLex
5	043 Great Britain, EU, England, N. Ireland, Scotland, Wales, Ireland	q,b,y,,043;a,r,e[-ui][-ek][-eswn][-itn],,	Justice - with topical tests
6	043 States only	q,b,y,,043;a,r,n-us[-a-z][a-z],,	State Legislatures, State Laws, and State Regulations
7	043 US	q,b,y,,043;a,r,*n-us---*,	Administrative Law and Government Information Research Guide Congressional Record & Predecessors - HeinOnline LexisNexis Congressional United States Code - HeinOnline vLex
8	043 n-us-??(States & US)	q,b,y,,043;a,r,n-us[-a-z][a-z],,	AudioCaseFiles BNA's BioTech Watch BNA's Criminal Law Reporter BNA's Directory of States & Federal Courts, Judges & Clerks BNA's Health Care Fraud Report Century of Lawmaking for a New Nation: U.S. Congressional Documents and Debates Code of Federal Regulations - GPO Access Federal Register and Code of Federal Regulations - HeinOnline LexisNexis LexisNexis Congressional LLMC Digital Law Library LLRX Court Rules, Forms and Dockets LLRX.com - Comparative and Foreign Law National Drug Court Institute Review Regulations.gov

FIGURE 9 Fragment of the Excel spreadsheet maintained by the Pence Law Library (color figure available online).

## MARKETING ISSUES

The Pathfinder Pro tool is a good example of the need to market emerging information technologies for the academic community. Designed to be a marketing tool for digital resources, Pathfinder Pro definitely requires marketing and promotion to various groups of the academic library’s patrons, as a discovery tool—not everybody immediately knows what the context-sensitive linking mechanism is, and what it can do.

Library technological tools follow the general “technology adoption life cycle, [which is] a model for understanding the acceptance of new products.”<sup>30</sup> This model describes the market penetration of any new technology product in terms of a progression in the types of consumers it attracts throughout its useful life. The logic of the technology adoption life cycle is that technology is absorbed into any given community in stages corresponding to the psychological and social profiles of various segments within that community.<sup>31</sup> Thus, libraries not only have to be innovators and early adopters of new technological tools, but they also have to educate their patrons about these tools, and do it in a convincing manner, so that the patrons will adopt the new technology too.

At the Pence Law Library, we created an online tutorial and did live demonstrations of the Pathfinder Pro’s context-sensitive linking functionality

for both library and law teaching faculty. However, more work can be done in this direction.

## CONCLUSION

“Our jobs are shifting from doing what we’ve done very well to always being on the lookout for new opportunities to advance teaching, learning, service, and research.”<sup>32</sup>

Supporting and enhancing the educational and research processes have been the primary goals of an academic library. Fulfilling these goals has made libraries reliable sources of information for the academic community for centuries. These days, to retain their status as trusted information centers, libraries have to emulate the content discovery and delivery capabilities of the Internet and databases’ search mechanisms. The fast-paced and ever-evolving world of information technology has drawn libraries into competition with other players in this field. Being dedicated collectors and purchasers of content, libraries are well equipped to successfully compete in the “content quality” aspect of this contest, but they have to do more to develop and implement efficient content discovery and delivery tools for highlighting their collections.

Pathfinder Pro brings a customized content delivery technology to the library’s catalogue in the form of an easy and fun-to-use smart-linking and marketing tool, which adds to the depth and discovery aspects of the catalogue. This tool blends technology with the unique expertise of library professionals. It allows library professionals to guide the task of choosing an electronic resource by patrons from behind the scenes.

It is obvious that there will be more and more new systems and technologies developed in the future for use in the pedagogical and content-discovery processes. Although there is no status quo in the world of technology, and today’s cutting-edge tools can become outdated tomorrow, more often than not, every newer technology is based on the foregoing one. By recognizing, developing, and implementing new tools, libraries can hone their technical expertise, boost access to their collections, and establish themselves at the forefront of the information providers’ field.

## NOTES

1. Richard MacManus, *A Guide to Recommender Systems*, readwrite, available at [http://www.readwriteweb.com/archives/recommender\\_systems.php](http://www.readwriteweb.com/archives/recommender_systems.php) (Jan. 25, 2009).

2. Innovative Interfaces, Inc., *Discovery—Pathfinder Pro*, Products, available at [http://www.iii.com/products/pathfinder\\_pro.shtml](http://www.iii.com/products/pathfinder_pro.shtml) (2012).

3. Edward M. Anthony, *Approach, Method, and Technique*, 17 *ELT J.* 62, 66 (1963).

4. *Id.* at 65.



5. C. M. Reigeluth, *What Is Instructional Design Theory?* in *Instructional-Design Theories and Models: A New Paradigm of Instructional Theory* vol. 2, 5–29 (C. M. Reigeluth ed., Lawrence Erlbaum Associates 1999).

6. *The Boulder Statement on Legal Research Education: Signature Pedagogy Statement* (2010) is an outcome of the 2010 Conference on Legal Information: Scholarship and Teaching, available at [http://www.utexas.edu/law/faculty/pubs/bb26663\\_pub.pdf](http://www.utexas.edu/law/faculty/pubs/bb26663_pub.pdf)

7. See Aliza B. Kaplan & Kathleen N. Darvil, *Think [And Practice] Like a Lawyer: Legal Research for the New Millennials*, 8 *Legal Communication & Rhetoric: JALWD* 153, 168–173 (2011).

8. *Id.* at 173.

9. *Id.* at 174.

10. *Id.* at 175.

11. *Id.* at 176.

12. See Innovative Interfaces, Inc., *Discovery*, Products, available at <http://www.iii.com/products/discovery.shtml> (2012).

13. See *id.*

14. See *id.*

15. Extensity Library Solutions, *What Is Federated Search?* available at [http://www.library.extensity.com/page/FedSearch\\_LIB.html](http://www.library.extensity.com/page/FedSearch_LIB.html) (2006).

16. E-mail from Bob McQuillan, Senior Project Manager, Innovative Interfaces, Inc., to author (Aug. 22, 2012, 3:32 pm).

17. Brian T. Sullivan, *Academic Library Autopsy Report, 2050*, *The Chronicle*, available at <http://chronicle.com/article/Academic-Library-Autopsy/125767> (Jan. 2, 2011)

18. Patricia A. Tully, *The Library End? A Long Way Off*, *The Chronicle*, available at <http://chronicle.com/article/The-Librarys-End-A-Long-Way/126018> (Jan. 23, 2011).

19. See Tully, *supra* n. 18.

20. V. Feliú & H. Frazer, *Embedded Librarians: Teaching Legal Research as a Lawyering Skill* 1, 11 (unpublished ms., 2010) (available at [http://works.bepress.com/vicenc\\_feliu/2](http://works.bepress.com/vicenc_feliu/2)).

21. *Id.*

22. *Id.* at 2.

23. *Id.* at 4.

24. Paul D. Callister, *Time to Blossom: An Inquiry into Bloom's Taxonomy as a Means to Ordered Legal Research Skills*, 102 *L. Lib. J.* 191, 198 (2010).

25. The Encore interface default button reads “Explore.”

26. Innovative Interfaces, Inc., *Pathfinder Pro*, Innovative Millennium Guide & Reference, available at <http://csdirect.iii.com/manual> The latest manual is in Sierra Documentation at <http://csdirect.iii.com/sierrahelp/Default.htm> Username and password are required to access both documents.

27. *Id.*

28. Regular expression is “a language for specifying patterns that match a sequence of characters. Regular expressions consist of normal characters, which match the same character in the input; character classes, which match any single character in the class; and other characters, which specify the way that parts of the expression are to be matched against the input.” O'Reilly Media, *Glossary: Regular Expression*, available at <http://oreilly.com/linux/excerpts/9780596155971/glossary.html>

29. Richard V. Jackson, *Playing with Matches* (Innovative Users Group Conferences, Anaheim, Cal., 2009, May 17–20), available at <http://innovativeusers.org/iug-past-conferences> Username and password are required for access.

30. Geoffrey A. Moore, *Crossing the Chasm* (Collins Business Essentials 2006).

31. See *id.* at 9–13.

32. Brian Mathews, *Think Like a Startup: A White Paper to Inspire Library Entrepreneurialism*, available at <http://hdl.handle.net/10919/18649> (Apr. 2012).