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CTC and International Research and Information Systems

Ruth Bird, Penny A. Hazelton and Kyle Brown*

There is a long history of creating digital libraries of legal materials in general and of international legal materials in particular. This article highlights the history of several noteworthy examples of earlier digital libraries. It then describes the creation of the Cape Town Convention Academic Project digital library. Finally, the article applies lessons learned from the histories of the earlier libraries to analyse issues the Cape Town Convention library may face in the future.

A. Introduction

It is easy to imagine searching today through a comprehensive database of over 69,000 treaties and other international agreements for: (i) bilateral treaties between Canada and Uganda; (ii) all extradition treaties of the 20th century; (iii) multilateral treaties where the US, the UK, and Ireland are parties; or (iv) all treaties in effect between 1945 and 1955. But it is not 2014.

It is 1968. And you have asked the Treaty Research Center¹ at the University of Washington to perform a custom search of their databank of international treaties and other international agreements. Even in 1968, this databank is an index to thousands of treaties from around the world.

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¹ For additional information on the history of the World Treaty Index, please see Glenda Pearson, 'Rohn's World Treaty Index: Its Past and Future', (2001) 29 *International Journal of Legal Information* 543.

Now imagine that someone told you the existence of this databank was prompted by a student question in a political science class at the University of Washington over 50 years ago in 1963! And that this question encouraged political science Professor Peter Rohn, in partnership with his students, to begin the collection of information about registered and unregistered treaties. This data about treaties was put into machine-readable form, using computers and statistics to manipulate the dataset to create quantitative information about the treaties for analysis by international law scholars and practitioners.

This innovative work of a lifetime led to the creation, maintenance, and upgrading of the databank itself which now resides in a web-based form at <http://worldtreatyindex.com/history.html>. Over the past 50 years, Professor Rohn's 'experiment' to transform legal information into social science data led to the publication of two editions of the World Treaty Index² and dozens of academic papers and articles. In many ways the Treaty Research Project may be considered a prototype of modern digital libraries, repositories, and databases.

We will use the term digital library broadly in this paper as a way to refer to collections of digital works or information which may have the following attributes depending on the

² World Treaty Index, 1974 and 1984 editions.

purpose of the collection: (i) defined selection criteria; (ii) organizational structure; (iii) preservation; (iv) access and navigation; and (v) free or fee-based.

Regardless of what these collections are called – repositories, libraries, or databases – the purpose of the digital library will dictate the content of the collection and the extent to which the content is organized, preserved, easily accessed, and made free or is fee-based.

The World Treaty Index is a digital library under this definition even though it does not have the full-text of the treaties included and only includes treaties from the 20th century.³ Even without the full text of these agreements, the database is still useful today because it provides the most comprehensive access to 20th century treaties world-wide.

Part I of this article will describe various digital libraries and their attributes looking at both subscription-based libraries as well as free digital libraries. Part II details the creation of a modern digital library for the Cape Town Convention Academic Project, including the challenges and opportunities faced by this ambitious project. Part III analyses the elements of a sustainable digital library project with an eye to future developments.

B. Digital Collections

Examples of Digital Libraries

The Cape Town Convention Academic Project online collection provides access to a range of materials specifically related to the impact of the Cape Town Convention. There are several commercial and non-commercial databases that also take this approach. Their aim is to gather together on one site a cross referenced and specialised collection of all the related caselaw, legislation, and regulations irrespective of jurisdiction, that have a bearing on a specialised area of law, or an international agreement or treaty.

This section will review several of these sources and through an explanation of the

³ We can leave to others to fine-tune whether this database could also be called Big Data.

origin and purpose of these resources, provide a comparison for the Cape Town Convention Academic Project, and some considerations for the future.

a) Subscription resources

1. TradeLawGuide⁴

The origins of the platform used for TradeLawGuide ('TLG'), and then extended to Investor-State Law Guide ('ISLG'), date back to over a decade ago and a database project aimed at making World Trade Organization ('WTO') law more easily accessible. That project, headed by Ottawa-based lawyer Gregory Tereposky,⁵ culminated in the commercial launch of a database called 'TradeLawGuide'.

TradeLawGuide enables a methodical approach when researching WTO jurisprudence and provides an efficient means to improve the comprehensiveness of research. It comprises the following segments which reflect the structure of the ILSG. Created by a team of trade lawyers, researchers and legal knowledge engineers, WTO law could as a result be researched in a methodical, comprehensive and efficient manner. It allows rapid search through thousands of documents to zero in on the exact references that answer research queries. It claims that it establishes the standard for legal research in the area of WTO law.

Scope of the TLG collection. The collection covers annotated agreements and texts which link to citators, negotiating history and precursor agreements. The jurisprudence covers WTO, GATT 1947 and GATT Code. The citators cover articles and jurisprudence; there is also relevant treaty interpretation, definitions and terms and phrases. Documents include dispute documents, agreements and instruments, as well as Uruguay round negotiating documents.

⁴ <http://www.tradelawguide.com>, accessed 30 September 2014.

⁵ At that time a partner of Thomas & Partners and now a partner of Borden Ladner Gervais LLP.

2. Investor-State Law Guide⁶

The Investor-State Law Guide ('ISLG') is a commercial database that grew from one lawyer's passion for researching the WTO. It concentrates on Investment Treaty Arbitration Law. After the launch of TLG, the intellectual property associated with the relational database platform was transferred to a development company called Tologix Software. Tologix updated and rebuilt the platform in light of the lessons learned in building TLG. The design of ISLG was overseen by J Christopher Thomas QC.⁷ He sought to create a database that would dramatically increase the ease of researching the area of investment treaty law by knitting together all of the materials that counsel rely upon and permitting those materials to be searchable in a fast and granular way. The objective was to present the material in a way that was more intuitive, less dependent on algorithmic searches and would allow the researcher to easily browse from one topic to another.

After two years of development, ISLG was launched in 2011. ISLG and its former sister company TLG (TradeLawGuide), which is now under separate ownership, are unique in the way that they organize legal information. The cases, treaties, arbitral rules and other materials relevant to international investment treaty disputes are mapped and coded in a way that allow the researcher to search a topic from different entry points. This culminates in bringing the user directly to the passages in arbitral decisions where the issues in question are discussed by tribunals. It is their claim that this method of organizing information maximizes a researcher's ability to get results efficiently and comprehensively.

⁶ <http://www.investorstatelawguide.com/>, accessed 30 September 2014.

⁷ At that time a consultant to Borden Ladner Gervais LLP and now an arbitrator and Senior Principal Research Fellow at the National University of Singapore's Centre for International Law. Mr Thomas has over 25 years' experience as both counsel and arbitrator in the area of international disputes, specifically in the trade and investment treaty areas.

Scope of ISLG Document Collection. ISLG's document collection is divided into two parts: (1) dispute documents and (2) legal instruments.

(1) Dispute Documents: The scope of ISLG's dispute document collection includes all publicly available decisions, awards, procedural orders and pleadings where the subject of the claim is an alleged breach of an investment treaty obligation. The dispute document collection includes all NAFTA, ICSID and ad hoc disputes. This is distinct from disputes between a foreign investor and a State where the subject of the claim is a contract or domestic investment law legislation. There are tools that deal with such non-investment treaty cases (e.g., the Jurisprudence Citators), however full text versions of dispute documents are only available for investment treaty cases.

(2) Legal Instruments: The scope of ISLG's legal instrument collection includes all instruments that are relevant to investment treaty arbitration. But their collection of investment treaties does not include all investment treaties to which a particular State is a party. To ensure that the document collection is manageable, the collection of investment treaties is limited to all investment treaties that have been subject to arbitral consideration. In other words, if a treaty has been the subject of a dispute where a decision or award has been made publicly available or a treaty has been explicitly referred to by a tribunal in the context of a finding within any of such publicly available decisions or awards, the treaty will be incorporated into ISLG's document collection. As a result, the researcher is presented with a comprehensive collection of all investment treaties that have been interpreted or applied by investment tribunals.

3. Current Index to Legal Periodicals⁸

The first issue of what we now know as Current Index to Legal Periodicals ('CILP') was published in October 1936 and was published 'to aid the Faculty of the University

⁸ <http://lib.law.washington.edu/cilp/cilp.html>, accessed 30 September 2014.

Washington Law School in locating the leading Articles and Notes contained in the current legal periodicals received by the Law Library during the preceding week.⁹ This current awareness service was published as new US law review issues arrived in the law library and is now a regular weekly digital publication. As faculty moved to other schools, they were interested in continuing to receive this locally-created index. By 1950, the CILP was being sent on exchange to 27 law libraries, 18 members of university departments, and 13 law offices.¹⁰ Several of the law libraries required copies in sufficient number to supply each faculty member. All production and indexing were regular job duties for several members of the staff. This free print service became a commercial subscription in 1958, still produced by the staff of the Gallagher Law Library. Today, the CILP is prepared weekly and made accessible electronically to subscribers through a web portal and has also been licensed to Westlaw and HeinOnline. Subscribers can still purchase the weekly print index.

Scope of the collection. The Current Index to Legal Periodicals is different than the other digital libraries discussed in this section. There is no effort to create a cumulative, master index to US legal periodical literature as CILP was and still is primarily a current awareness service. Only the most recent six issues of the Index are posted on the website for subscribers. Subscribers to the electronic version are licensed to post, email, or transmit the Index within their institutions only. In addition, SmartCILP, a personalized periodical awareness tool for the legal researcher, comes with the annual electronic subscription. Up to 50 different profiles can be created for faculty, librarians, and staff at the subscriber's institution creating a customized weekly report of relevant periodical articles. All articles are linked to their full text on Westlaw, LexisNexis, and HeinOnline.

⁹ Susan Schroeter-Stokes, *History of the Current Index to Legal Periodicals, 1930-1998*, 17.

¹⁰ *Ibid* 28.

While CILP may not meet the strict definition of a digital library or collection, it is worth studying this publication because of the many innovations that have contributed to the longevity of the publication. Each of these changes and innovations kept the publication relevant and marketable: (i) free to fee-based; (ii) separate budget account; (iii) table of contents section added; (iii) print to electronic format; (iv) web-based; (v) licensed to third parties; (vi) SmartCILP created as a personalized current awareness service; and (vii) payment via credit card. However, new challenges abound.

Many US law reviews are not published only electronically and CILP's processes for the last 75 years rely on the receipt of a physical, print issue. International and foreign periodicals have never been included, and there is more interest in these materials by US academics. The Index must pay for itself, including a 17% indirect cost charge on every dollar of revenue.

While CILP revenues pay for the day-to-day cost of the people and operations creating CILP, innovation and major changes require the time and expertise of several other law library staff who are not paid from the CILP budget and who have other full time responsibilities. Without innovation, CILP will cease to exist. The sustainability of a digital project will be a major theme of this paper.

b) Free resources

1. RefWorld¹¹

Refworld contains over 11,000 cases and interventions from around the world, in full text, searchable by word or jurisdiction. It also has full text of all the relevant laws, both international, and national laws, all in full text, and up to date. In addition, country information, and policy documents are available. The website explains its purpose thus:¹²

¹¹ <http://www.refworld.org/cgi-bin/texis/vtx/rwmain>, accessed 30 September 2014.

¹² See <http://www.refworld.org/cgi-bin/texis/vtx/rwmain?page=category&category=LEGAL&publisher=&type=&coi=&docid=&skip=1421>, accessed 30 September 2014.

The Refworld legal collection has been designed primarily as a tool for disseminating and promoting (international) law relating to refugees, asylum seekers, stateless persons and other persons of concern to UNHCR.

UNHCR staff, refugee lawyers, all those involved with refugee-status determination within Governments, and others concerned with the rights of refugees and asylum seekers, can find a wealth of relevant documents in the collection. Included in the collection is a unique jurisprudence collection, covering more than 40 national jurisdictions, and a vast amount of international judgments and decisions from the United Nations, the European Court of Human Rights and other international and regional courts. A comprehensive collection of international instruments relating to refugees and human rights, with the most recent lists of States Parties to key conventions, is also available. The legislation collection, contains national and international legislation relevant in assessing asylum claims and is the largest collection of its kind. Finally, Refworld contains many special agreements, such as memoranda of understanding, host-country agreements and voluntary repatriation agreements.

This is an exemplar of free resources maintained by an organisation, but the main difference from the subscription resources is the lack of interconnectivity between the documents. There are no links, and no cross references provided, just the raw data.

2. WIPOLex¹³

The World Intellectual Property Organization ('WIPO') is a self-funding agency of the United Nations. WIPO Lex is a one-stop search facility for national laws and treaties on intellectual property ('IP') of WIPO, WTO and UN Members. It also features related information which elaborates, analyzes and interprets these laws and treaties. It provides streamlined access to reference material of key importance on the global IP System. Although featuring current legislation it also links to previous versions of acts. This free resource is maintained as a

¹³ <http://www.wipo.int/wipolex/en/index.jsp>, accessed 30 September 2014.

service by WIPO, as the body that regulates and manages IP. The legislation does not provide any hyperlinks. There is no case law coverage. Legislation is provided in PDF or HTML formats, and there is an automatic translation tool provided.

3. EUR-LEX¹⁴

Eur-Lex offers a set of legislative and case law resources that are core for many lawyers in the EU and beyond. The European Commission's project to bring together EU law into one comprehensive, free site has been publically available for some time now, and it seems timely to visit the site and summarise its features. For the infrequent user of EU resources it can appear overwhelming at first glance, but we believe it is both intuitive and user friendly. The types of documents included in the collection are: treaties, international agreements, legislation, complementary legislation, preparatory acts, jurisprudence, national implementing measures, national case law, parliamentary questions, consolidated documents, Official Journal, and EFTA documents.

The system uses a unique identifier for every document, called a CELEX number, regardless of language. It is made up of characters for the sector, digits for the year, characters for the document type, and digits for the document number. A document which explains this clearly is available on the site. This can be useful if you have a citation and do not know what sort of document it refers to. The numbering system appears complex to the novice until one investigates it, and sees that it is actually a cunningly constructed system that accounts for many of the variations of documents that arise in such a multi faceted organisation.

Searching the Eur-lex treasure trove is offered in two ways: (1) by a search widget on the home page, where you can enter a document number if you have one, or create a more advanced search, or (2) from the top right and bottom left hand sections of every page – simple, advanced or expert options

¹⁴ <http://eur-lex.europa.eu/homepage.html>, accessed 30 September 2014.

are provided, with extensive and useful help pages. For example, entering the number of a regulation – eg 70/2010 – as a simple search will retrieve all the amending regulations as well as the original. Results can be viewed in html, PDF format or the published OJ version (if applicable).

This resource will continue to be maintained and updated professionally by the EU as part of its responsibility to its citizens. It provides cases in several EU languages, a service not provided by any other free, nor commercial site, and also provides all amending and original legislation together, for easy cross referencing. The Official Journal is now officially the online version. This is a free service of inestimable value to practitioners in the area.

4. Washington State Constitution History¹⁵

Started as a project between the *Washington Law Review* and Professor Hugh Spitzer, an expert in Washington State constitutional law, this digital library is hosted by the Gallagher Law Library at the University of Washington School of Law and available at no charge. Envisioned as a one-stop shop for historical documents interpreting the Washington State Constitution, this digital collection is maintained by Reference librarians at the Gallagher Law Library and is used by judges, lawyers, scholars, law students, and others with an interest in the constitutional history of the Washington Constitution. All documents are posted in PDF format and are searchable.

Scope of the collection. Beginning with a digital copy of the essential book, *The Journal of the Washington State Constitutional Convention, 1889, with Analytical Index*, this digital library includes primary and secondary sources in full text when possible. Of particular interest are the contemporaneous newspaper articles printed during the constitutional convention in 1889. These are extremely important as the reporters at the convention were not paid and consequently did not publish their notes. Groundbreaking historical work published

¹⁵ <https://lib.law.washington.edu/content/guides/waconst>, accessed 30 September 2014.

in 1939 by Dr Arthur S Beardsley describing the sources of particular language in the Washington State Constitution is still included today in the *Legislative Manual* of the State of Washington. While many important resources have been located and digitized, this website is still a work in progress. Annual updating of the site is the norm. However, there are many more resources to identify and add, but additional funding for digital back files and staffing would be essential to move this project ahead.

The Gallagher Law Library is committed long-term to the annual updating of this important, one-of-a-kind library and to housing this collection. Whether the law library will be able to complete the content of this digital library is still an open question.

C. Creating The Cape Town Convention Digital Collection

1. Vision for the Project

The Cape Town Convention Academic Project (the ‘Project’) was created as a joint undertaking between the University of Washington School of Law and the University of Oxford Faculty of Law, with portions of the Project conducted under the joint auspices of UNIDROIT, in July of 2011. Although the Project’s scope has expanded over time, it was originally envisioned as the creation of a repository (the ‘Repository’), a journal to publish scholarly articles on the Convention, the creation of educational materials related to the Convention, hosting a series of academic conferences on the Convention, and an effort to assess rigorously the economic effects of the Convention.

The Repository aspect of the Project was originally intended to preserve—and make freely available—the international legislative history of the Convention on International Interests in Mobile Equipment (the Convention). This international legislative history was to be comprised of documents from the study period leading up to the diplomatic conference and the diplomatic conference itself.

As with many of the databases discussed above, the Cape Town Digital Collection started as a labour of love. Two of the Project's founders, Executive Director Jeffrey Wool and former Oxford Academic Lead Professor Sir Roy Goode, were intimately involved with the drafting of the Convention. They were aware that the international legislative history materials ranged from typewritten documents with handwritten marginalia to born digital documents in PDF and Microsoft Word format. Most of the materials were located in the UNIDROIT archives and some in various individual's filing cabinets; none of the documents were accessible to the public and most were disorganized.

2. Scope of the Digital Collection

Although they were had not been maintained in a way that made them accessible to the public, the documents were an invaluable historical and legal resource. The Convention had grown into one of the most successful transnational commercial law treaties of all time, and the international legislative history documents offered a window into the events leading up to its adoption and could be an important tool for judges and attorneys seeking to interpret the Convention. Thus the Project's founders thought them very important to preserve.

The number of international legislative history documents was relatively small, but preserving them and make them available to the public long term was still a major undertaking. Since the necessary infrastructure to preserve one collection of documents was already being set up, it was decided early on that the Repository should expand to include domestic legislative history materials, that is materials from the ratification process in each state that ratified or acceded to the Convention.

The domestic legislative history documents were just as important as the international legislative history in understanding how the Convention applied in a particular country, and they were equally difficult for the public to access. The documents were not gathered in any central location; rather most of them existed

only in the publications or computer systems of the state that had passed the legislation. Additionally there were language barriers, as most of the documents were written in the local language of the relevant state.

The domestic legislative history documents were as in need of a major compilation and organization effort as the international legislative history documents, but including them in the Repository dramatically increased the complexity of the Repository aspect of the Project. On the technology side, the Repository software system now needed to handle many different document types in multiple languages. On the human side, we needed researchers familiar with legal systems and able to conduct complex legal research in multiple languages.

Adding the staff necessary to design a system that met the Repository's growing technical and research needs would not have been feasible. It became important to work with outside commercial vendors and researchers willing to work pro bono. The Project decided to begin researching outside vendors that could provide the required software and design services. The Project's founders also began assembling a list of attorneys from countries that had ratified the Convention to assist with the domestic legislative history research.

i. Decision to include more evaluative materials

The database as initially envisioned included only primary materials, specifically the international legislative history. Even after the expansion to include domestic legislative histories, the database was to contain exclusively primary materials. The wide variety of languages and legal systems to be represented in the domestic legislative history materials drove a reconsideration of opening the Repository to other types of materials. The Repository's users would be from all over the world and may be interested in documents from countries whose legal systems and languages were unfamiliar. The Project decided that each country's materials should include a summary note. The summary note would serve as both explanatory

guide and finding tool. The summary note was to give a brief English-language description of each document and include a link to the related document, making it easier to access even for researchers unfamiliar with the legal system or language. This was also the first example of having documents prepared specifically for the Project.

The Repository later expanded to include other types of materials, including scholarly articles, administrative and judicial decisions, and materials designed to aid practitioners. It was also decided at this time that the Repository would also serve as the home page for the Project. This meant that the Repository needed a front page that described the Project. It also meant that the Repository would be the home of all documents created by the Project, including the instructional materials and economic assessment materials.

This growth in scope of the Repository presented two difficult issues that we have continued to contend with. The first of these is the distinction between scholarly articles and promotional materials. Many attorneys and law firms working in the field produce newsletters and white papers on various aspects of the Convention. Many of these commercially produced documents are high quality and make significant contributions to Convention literature; however, many others are thinly disguised promotional materials intended to drive business to the attorney or law firm. We initially took an exclusionary line and would only include materials that had been published in an academic journal. Given the scholarly nature of the Project, it seemed to make sense to err on the side of not preserving and republishing advertisements. As we continued to monitor materials coming out of law firms, however, we realized that we would miss much useful material by a strict rule to exclude all their materials. We struggled for a time to come up with a definition that excluded promotional materials but did not rely solely on the place of publication, but ultimately decided that it was not possible to have a single rule and have instead taken a case by case approach with

review by the Project's oversight committee in questionable cases.

The other on-going challenge deals with administrative reporting. We initially planned to collect documents issued by administrative agencies in connection with Cape Town related matters. Many legal systems, however, do not formally publish such administrative decisions or release limited information that may not be sufficient to describe what actually happened in the matter. To address this, the Project decided to create a form that parties or governments could fill out to provide additional information on administrative actions. This led to unanticipated confidentiality issues.

Although in the US and UK, the joint headquarters of the Project, the details of an administrative action would generally not be confidential, given the number of states documents may be coming from, we had to consider the possibility that some legal systems would not allow details of administrative actions to be published and the Project may be liable for breaching those states' confidentiality laws if it republished details about the action. The Project initially considered retaining legal counsel to analyse the issue, however since so many the laws of so many countries were involved and no single firm could analyse the issue in all countries, it was decided that retaining counsel to give a legal opinion on the issue was not practical. Instead, the Project is asking attorneys who participate in filling out the reporting form to alert us to any local laws that may prohibit distributing information regarding an administrative action.

Even with the legal issue addressed, we have faced resistance from commercial parties and attorneys who do not want to participate in the administrative reporting process due to business confidentiality and perhaps fear of accusing the government or opposing party of wrongdoing. The reporting form has already undergone several revisions and is continuing to be revised to address these issues. The form must capture enough information to provide useful insight into how administrative agencies are complying with the Convention, but be

objective and easy enough to complete so that parties and governments are willing to use it. The Project continues to work with a small group of law firms and commercial parties to come up with a viable reporting system for this important data.

3. Choosing the Platform

In addition to deciding on the scope of the documents that would be covered, the Project had to decide what type of system would be used to store, manage, and access the documents. There are a large number of products, both commercial and open source, intended for document management generally and management of library documents specifically. There were a variety of factors considered during the selection process.

First the Project needed a system that was relatively easy to use, but still offered some flexibility. Open source library options tended to be highly customizable but were difficult to set up and did not provide the built in support that a commercial vendor would. Non-library-specific open source options were also customizable and relatively easy to use but presented their own issues discussed in more detail below. Although some commercial library products offered very few customization options, we were able to find options that offered sufficient customizability while still being easy to use.

The other major considerations were standards compatibility and longevity of the product. Although compatibility with standards has immediate impact in that it allows the Repository to tie into both other library software and general search engines, the key connector between these considerations is forward looking: both are important to ensure that the Repository is able to survive long into the future. By choosing a company that has existed for a long time and is likely to persist, or alternatively an open source product with a strong community of developers who are likely to continue maintaining the product, it is less likely that the Project will not have to purchase another product or undergo an expensive process of recreating data and organizational

structures already in place. Similarly, standards compatibility ensures that if a new product is needed in the future, either because the current product goes off the market or no longer meets the Project's needs, the data in the Repository can be migrated to a new system with minimal difficulties and a low risk of losing data.

In seeking to balance customizability, ease of use, standards compliance and interoperability, and product longevity, the Project ultimately settled on a commercial library repository system from an established vendor.

4. Metadata Scheme and Controlled Vocabulary

Finally, with the collection defined and the repository system selected, work began on selecting a metadata schema, creating a controlled vocabulary of subject terms, and applying it to the documents. To preserve interoperability and transferability of the metadata, we selected a standards compliant metadata schema, Dublin Core. Dublin Core was flexible enough to adequately describe the documents in the Repository.

Although we briefly considered using an existing classification system for the subject terms, it was decided that none of them were specific enough for our purposes. Instead, we created our own controlled vocabulary. With assistance from subject matter experts, we carefully analysed the Convention and Protocols to ascertain what the core concepts being discussed in each section of the texts were and what the common terms for describing those concepts were. We then compiled a list of the most common term for each concept and a list of synonyms for that term. The most common term was made part of the controlled vocabulary and the synonyms were listed in a separate document for researchers to consult.

Finally with the metadata scheme chosen and the controlled vocabulary complete actual cataloguing of the materials could begin. Cataloguing of the documents required a careful review of each document to determine information including its title, creator, date of creation, and subject.

5. Interface Design

Choosing a content management system with customization options meant that rather than simply accepting the user interface provided by the vendor, we had to design our own interface. Although the content management system was designed to be easy to set up, the Project did not have personnel with the necessary design and development skills to take on the task. Instead an outside contractor was hired for the design and development work.

An iterative design process was used for the interface. The Project provided the contractor with an initial specification of the pages required and an outline of the content for each page. The designer then provided mock ups of the main pages based on the specification. The Project staff submitted an initial round of suggested changes, which were then incorporated into an functional prototype site. At this point a larger group became involved in the design process. The prototype pages were circulated to all of the partner organizations involved in the Project and Project sponsors for comment. These comments lead to another round of revisions to the site. Finally as many principals as possible were gathered in a room with the designer for a close review and another round of comments to largely finalize the design.

6. Launching the Website

With all the work of setting the scope for the Repository, choosing repository software, choosing a metadata scheme and controlled vocabulary and designing a user interface out of the way, the actual launching of the website was a rather simple affair. First there was an initial 'soft launch' where the site address was distributed to partners and those closely involved with its creation. They were encouraged to try using the site and to provide any comments they had. Several months later, we followed through with the 'hard launch' which included press releases announcing the availability of the site to a wider audience.

Work on the Repository has not ceased since the launch, however. New bugs have continued

to emerge and be addressed and documents are still being added as they become available.

D. The Future

a) Sustainability of Digital Projects

Digital projects are only as sustainable as the resources that are devoted to them. These resources are usually the leaders of the project, and their knowledge, interest and enthusiasm are the backbone of the initial work undertaken. But to be sustainable the project or collection needs to have secure funding and ongoing dedication by the inheritors of the project. Ideally this will have formed part of the initial planning by the proposers, but often this long term planning is, sadly, overlooked. It is thus important for ongoing responsibility for certain digital projects to be assigned in a consistent manner.

For example, the World Treaty Project was conceived and created by a professor of political science; once Professor Rohn retired, the project was looking for a home at the University of Washington and was picked up by a recently retired information school professor, Ed Mignon. When Professor Mignon fully retired, the project almost died but was rescued by librarian Glenda Pearson and the Human Rights Education and Research Network at the University of Washington. And Glenda was able to transition the library to three graduate students, two of whom are now college professors (1 in law and 1 in political science) and one who has a consulting business. The website was redesigned in 2010. But robust searching of the database is still using a 2010 beta version of the software. The rocky road of sustainability is well illustrated in the World Treaty Index history.

Suggested standards are indicated here.

b) Approaches to maintain ongoing ownership and currency of collections:

First, creating specialized collections with unique content and an eye to the user and their information needs is a service law libraries must offer, but they cannot offer these services

without a recognition of the resources required to do so. If the resources are to remain free to the end users, an ongoing investment is needed by relevant institutions to support the provision.

Second, in order for the ongoing relevance and currency of the information to be maintained as part of the legacy of the work in setting up the database or resource, the leaders must involve librarians as specialists, and the librarians need to partner with specialists.

Third, careful thought must be given to choosing software that is likely to continue to be supported and that makes it possible to transfer the database to new software in the future if necessary.

Forth, even when institutions support a project initially, the question of sustainability means the question of whether a resource is provided free or for a fee must be addressed. Maintaining databases and digitally based projects can be costly, and libraries are institutions that have an innate desire to provide information freely to users. However, as can be seen from some of the examples above, the nature of the information collected is such that it provides extraordinary value to commercial interests, such as law firms. The question of models that are fee based for commercial purposes, e.g. to law firms, yet charged at minimal rates or even free in academic institutions is a model that should be examined. Working out the pricing must be based on benchmarking similar resources.

The fiscal sustainability questions are easily demonstrated by using the World Treaty Index as an example. Essentially, adding content to the World Treaty Index seems to have stopped. Would the World Treaty Index search software be migrated from its current beta version if the database was fee-based? Would newer content be added? Would anyone be willing to pay for the analytics that can be obtained by searching this database? Does this depend on who will likely use this database the most? If the World Treaty Index is primarily used by academics, is a fee-based model really sustainable?

A law library that partners with faculty or others to create digital collections must assess the internal capabilities of the law library that

would be needed to support the project moving forward. In addition to whether the library has the subject matter expertise to continue to add to the digital library collection, the administrative tasks involved in a commitment to move the content to new platforms for more robust access and preservation must be considered.

Further, if the law library wants to move to a fee-based product, several other elements must be analysed. Administrative tasks to support a fee-based product include invoicing, receipt of payments by cheque or credit card, maintenance of a subscriber information database, marketing, and perhaps editing. All of these will require support by an IT department that also handles web services, as the web is a powerful platform for orders, payments, and the like. For example, perhaps the law library has in place a system for invoicing and receiving payments. Adding one more product or digital library subscription to this process may not be that time-consuming. Or the law library staff may have html or editing skills that could be used to support the digital product without a degradation of the productivity of the staff.

Fifth, when a resource is developed and becomes the key resource in a niche area for practitioners, a model such as the Investor-State Law Guide seems to be the ideal approach to be taken, because the data becomes essential for the practitioner to undertake the provision of the best advice possible to clients.

Sixth, synergy with other products is the final factor to be considered in maintaining the operation and currency of a digital collection.

c) The future of digital collections

A large number of institutions are currently focused on building digital collections. The digital library projects of the Library of Congress,¹⁶ HathiTrust,¹⁷ and Google Books¹⁸

¹⁶ <http://loc.gov/library/libarch-digital.html>, accessed 30 September 2014.

¹⁷ <http://www.hathitrust.org/>, accessed 30 September 2014.

¹⁸ <http://books.google.com/>, accessed 30 September 2014.

are well known. The Digital Public Library of America has an ambitious idea to join all the digital libraries into one national digital library collection.¹⁹ Since the copyrights management issues are so intertwined in the creation of many digital libraries, the DPLA has actually created some resources around best practices in this area.

The World Digital Library supported by UNESCO and its many country partners has created a collection of important source documents for countries around the world.²⁰ The Digital Library Federation, a US organization, helps develop standards for digital collections and projects and has many library partners in this effort.²¹ The Legal Information Preservation Alliance (LIPA) is a consortium of law libraries committed to the preservation and access to digital and print legal information.²² These and hundreds of other initiatives around the world are creating large and small digital libraries, and it is clear that building and maintaining digital collections will be an important aspect of law library work going forward.

E. Conclusion

The interest in devising a body of resources around an individual treaty or type of treaty action is growing, and scholars and interested parties are using the benefits of the internet to harvest these into organised collections which are continuously updated. The work involved is extensive, and for several of the resources listed the providers have created a subscription model to fund the ongoing comprehensiveness and flexibility of their initial model. It is through the use of proprietary software that allows the linking of documents to related items that sophisticated searching is possible; this is offered by subscription resources.

The NGOs and international organisations cited here who are creating these resources to cover their interests, and who are investing in the creation of focused sites, offer some unique services such as translation of cases and acts, amendments to legislation, documents related to many aspects of the topic at hand. But they do not offer the sophistication of the commercial databases for linking and cross referencing documents.

The Cape Town Convention Academic Project falls into the category of the existing free sites, providing a one stop website for practitioners to research, keep up to date, and share their expertise and the collected resources relevant to their interests.

To maintain the currency and relevancy of 'free' sites requires either an extensive network provided through an NGO (WIPO, UNHCR), or a multinational organisation (EurLex). A free site is unlikely to maintain its currency without some form of financial support. The lessons of TLG and ISLG is that a focussed collection serving a specialised segment needs to have a funding base to maintain its relevance and currency.

The CTC will need to plan its future model, to ensure sustainability. Without the passion of the initiators of the site, other means will need to be identified to ensure the ongoing currency and coverage that is provided now to users of the Cape Town Convention Digital Collection.

¹⁹ <http://dp.la/>, accessed 30 September 2014.

²⁰ <http://www.wdl.org/en/>, accessed 30 September 2014.

²¹ <http://www.diglib.org/>, accessed 30 September 2014.

²² <http://lipalliance.org/>, accessed 30 September 2014.