One Giant Leap — The Ultimate Legislation System, Available Now[1]

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Abstract: Laws are in many ways the most important products of governments, and yet until recently governments did relatively little to make their laws easily accessible to those who would like to consult them. Today, the technology exists to do this, and to do it very well, via the ultimate legislation system outlined in this presentation. The benefits that flow from providing world-class access to the laws of a jurisdiction are understandable and meaningful to legislators and other high-level decision makers whose support is needed.

Introduction

The presentation by Jeremy Wainwright[3] highlighted some of the things that, from a simplified technological perspective, can be done in a legislative drafting office in order to improve the efficiency of the drafting and publishing processes. I think it is reasonable to call this the "small steps" approach to improving these processes. While I fully agree that this approach is far better than doing nothing, it would indeed be a long and winding road to ever reach the destination that I think those involved in the legislative process would like to arrive at. I know because I walked that road with Justice Canada for many years — but I also led them on a different road.

This presentation is from the other end of the spectrum. Instead of small steps, it is now possible to make one giant leap — to go from wherever your legislation system is now to the ultimate legislation system. And to do so in an economically viable way.

Think of these two possible courses as two ways to get from Ottawa to Nairobi. You can take small steps, using primarily boats and trains, and reach your destination in roughly 2 weeks (barring mischances along the way). Or you can take one giant leap (OK, 2 with the stopover in London!) and fly to your destination in less than 24 hours. And you will quickly realize which one is not only more efficient but also less expensive and much less tiring.

Let's also put the choices in the context of building a house. You can do it yourself, with a sketchy half-baked plan and a little help from your (former?) friends — but beware of the morass of building requirements created by legislative counsel! Or you can hire a professional with the right experience and avoid most of the pains you would otherwise incur (and keep your friends!). Again, you will quickly realize which one is not only more efficient but also ultimately less expensive and much less tiring — and it also gives you a more valuable and satisfying result.

Whether travelling, building a house or building a legislation system, you need 3 things: a good

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plan, sufficient money and the right professionals to assist you. A good plan requires knowing your goal — what you want to achieve at the end of your work. All that I can do in this presentation is give you a brief overview of what the goal of an ultimate legislation system is by highlighting its main attributes.[4] I will then briefly discuss the other two important needs, sufficient money and the right professionals.

The ultimate legislation system has the following primary components[5]:

- drafting system
- consolidation system
- publishing system (paper and website)

Nothing new so far. Your office already has a drafting system and a paper publishing system, even if it's only out-of-the-box Microsoft Word. That, combined with an intelligent operator, may also constitute your "consolidation system" (if you make consolidations, which some jurisdictions call "restatements" or "reprints"). You may also have an electronic publishing system that is as simple as posting Word documents (or PDF versions of them) on a website. This would constitute a "minimalist" legislation information management system, or LIMS.

So what more do you need? Well, at the least you need to adopt Jeremy's approach and make your drafting more efficient using styles and other built-in functions of your word processor. The next step would be to use the programming capabilities of your word processor to automate more functions in the drafting and paper publishing processes.[6] Then set up a website and post your laws in word processor or PDF format, managing all the files manually. Then add a search engine that will allow users to search those files. Then start to make your website look more professional. Then try to make your website actually work better so that you (and your government and public users) don't waste so much time with an underperforming site.[7] Then upgrade your word processor to a new version and deal with all the problems resulting from that. And you still will be far away from the ultimate legislation system.

But guess what? You will have spent more time, money, energy and frustration than you would if you just took the giant leap to the ultimate legislation system.

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4   In July 2007, The Law Reform Commission of Ireland published a Consultation Paper on Statute Law Restatement (see http://www.lawreform.ie/Restatement%20CP%20Final%20Printer%20Version.pdf). If you are interested in my topic, you should read this paper because it provides some good background information. (I think they should have given more attention to the XML-based point-in-time systems developed in Canada, but unfortunately they only mention them in passing.) While they couch their recommendations in careful terms, it seems to be clear where they think Ireland should go, and it is to the ultimate legislation system.

5   If the legislative counsel office also has responsibilities respecting the legislature or the Gazette, some other components such as a document tracking system or a Gazette publication system may be desired. My experience suggests that this is rare, but in any case these components could be readily added.

6   Between 1993 and 1998, I developed two such systems on private contracts for Canadian provinces, and participated in a third for Canada, but I always knew there was a better way!

7   In the mid-1990s, I also lead all this sort of development for Justice Canada, starting with Folio Views and then through several versions of HTML-based websites. These were all rather frustrating "small steps" because it took many years to finally get the funding to build the ultimate legislation system that Justice Canada now has.

The goal

So what more do you find in the ultimate legislation system? Here is a starter list:

1. Non-proprietary data markup[8] using international standards to ensure data intelligence, independence and longevity (primarily this means using XML)

2. Automated insertion and formatting of legislative provisions (section, paragraph, etc.), including numbering (with insertion numbering used between existing items of the same structural level)

3. Automated promote, demote and adopt functions (for example, promote a subsection to a section, demote a paragraph to a subparagraph, adopt a section into the preceding section, all with related structural and numbering changes done automatically)

4. User-controlled automated renumbering of legislative provisions, including cross-references in the text (that is, renumber only when you want to, and only within the scope you specify, such as paragraphs within a section)

5. Fully-formatted copying from the database to the drafting application with no need to modify markup

6. Templates and samples to make common or complex drafting needs easy for legislative counsel (for example, schedules, tables with header rows, various types of orders and notices)

7. Automated table of contents creation (if a table of contents is wanted)

8. Ability to deliver your data in different fashions from a single source, with no changes to the markup and no human intervention (for example, <MarginalNote> may be rendered in the margin on paper, but above its section on the website)

9. Very powerful yet easy browsing, including an active table of contents (for example, a hyperlinked table of contents for a statute on the left of your screen, with the text shown on the right; click on a heading in the table of contents and get just the text that belongs under that heading shown on the right)

10. Regulations grouped under their authorizing statutes

11. Comprehensive search engine with high precision (for example, when searching for two or more words, find them only when they are in the same section)

12. Point-in-time search and delivery (search the law as it existed on a particular date, and deliver the whole document as of that date)

13. Standardized formatting for different print environments (for example, automated cover page changes for different stages of legislative consideration)

14. Automated creation of many hyperlinks

15. Annual "volumes" for both statutes and regulations (that is, legislation as passed, organized on a chronological basis within each year)

16. Automated creation of annual volumes and the legislative portions of Gazettes

17. Stable hyperlinks from other sites to arbitrary and precise legislative chunks (for example, a link from a departmental site to section 35 of the *XYZ Act* as it read on a specified date)

18. Ability to incorporate references outwards to other sites, or to documents not available on the Web (for example, a link from a provision of the *Copyright Act* to an explanation

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[8] If you are unfamiliar with the term "markup", it means the tags or codes that occur in textual documents to identify different features of the document.

of it on the site of the department responsible for it, or to a court decision that interprets it)

19. Ability for the master database to become a corporate memory system (an extension of references to include information known by specialists that could serve highly important corporate memory purposes and save much research time)

20. Ability to easily superimpose any number of organizational structures on the legislation for both browsing and searching purposes (for example, one structure that provides an organization by Minister or Department responsible, another that provides an organization by topic such as banking, land use, motor vehicles, etc.)

21. User option for keyword-in-context (KWIC) search results

22. An assisted consolidation system with audit trails, providing fast updates that remain under human control (in some jurisdictions, "consolidation" is called "restatement" or "reprint"); note that the consolidation system is the key to point-in-time delivery of legislation

23. Access to "related provisions" (for example, what some jurisdictions call "non-textual amendments", or amendments that do not directly change the text of the law that they affect)

24. Access to not-yet-in-force (NYIF) provisions for each piece of legislation (NYIF provisions are generated as part of the consolidation system; where and when NYIF provisions are displayed is customizable)

25. Extensive features to support the needs of jurisdictions with bilingual legislation (for example, fully-automated side-by-side printing of legislation according to the alignment rules of the jurisdiction; hyperlinking between language versions; user interfaces in both languages)

I would like to highlight one aspect in particular of the ultimate legislation system — its point-in-time capabilities. Point-in-time refers to the ability to consult the legislative database as of a specified date. Thus, you can search the laws as they existed on a specified date in the past (back to as far as the relevant data was put into the system). This provides an archival search facility that a current consolidation system cannot provide, as well as an automated archival data source. Once implemented, its value will continue to increase, and users of the system will benefit more and more as years go by.

There are many other features of the ultimate legislation system, but the above should give you a flavour for how much more extensive its capabilities are than any other legislation system you are likely aware of.

Obviously, part of the goal of the ultimate legislation system is to provide great drafting and paper publishing tools. However, I would say that the major goal of the ultimate legislation system is to provide top-quality access to the law. ***Laws are in many ways the most important products of governments***, and yet until recently governments did relatively little to make their laws easily accessible to those who would like to consult them. There was almost a paranoia against making them more accessible (particularly copyright issues, which have not entirely disappeared), and certainly little realisation that anyone other than lawyers would actually consult them. How wrong those ideas have been proven! The laws website of Justice Canada gets more hits than almost any other site in the Government of Canada! The experience in many other jurisdictions seems to be similar.

This is an appropriate point at which to turn the spotlight on Lionel Levert, the President of CALC and formerly my Chief Legislative Counsel at Justice Canada. In 1995, Lionel had the vision to recognize

that access to the law, and specifically legislation, is not only highly important, but is properly within the mandate of the Chief Legislative Counsel. While he didn't understand the technical aspects of the ultimate legislation system that I proposed to go forward with, he didn't need to — he understood the primary goal of it, which was to improve access to the law. It is very largely due to Lionel's vision in this regard that Justice Canada now has an ultimate legislation system, and he deserves thanks for the support he gave to making it happen.

Let's now turn to the other 2 needs — sufficient money and the right professionals.

Sufficient money

In terms of sufficient money, one might first ask "How much does the ultimate legislation system cost?" My response is, that's not the appropriate question; instead, you should ask "Is the ultimate legislation system worth what it costs?" And my answer is framed in another bunch of questions such as the following:

- How much do you value the time that it will save for all the users of the system?
- How much will the point-in-time aspect be worth to users in 10 years and beyond?
- How much is it worth to the image of your government at home and internationally?
- How much is it worth to the economy of your jurisdiction?

The worth of the ultimate legislation system is as difficult to precisely evaluate as are the answers to these questions — but there is no doubt that it has a worth in all of these ways, and more. One method of finding sufficient money to acquire the ultimate legislation system is to develop some rational answers to these sorts of questions, and put them before the legislators and high-level decision makers who can appreciate them. These answers are much more important, and focus on much better sources of potential savings, than any pittance you might find in your paltry legislative counsel office budget!

Another method is to be creative in how you implement the ultimate legislation system. While there is a definite synergy amongst the components of the ultimate legislation system, it is feasible to implement them over several years, starting with drafting and paper publishing — at least you would be building the right base for the future. Another method is to use different forms of financial structures, such as software rental or "rent-to-own". Yet another is to contract out some of the operations, such as consolidation or website operation — that way, you avoid the up-front costs of the most expensive parts of the ultimate legislation system. You may also be able to negotiate payment for some of these options on a form of annual per-user basis, such as $X per legislative counsel for the drafting software.

Creative thinking combined with flexibility on behalf of legislative counsel and the ultimate legislation system contractor can go a long way to resolving the issue of sufficient money.

The right professionals

Penultimately, a few words about the right professionals.

It should be obvious that, at each step throughout the process, the right professionals are the key. The right professionals are almost always ones with experience — ones who have already done the type of job you want done, ones who know as much as possible about your type of project, ones with whom you feel comfortable because of their knowledge of your type of environment. You don't have to spend a lot of time and money teaching them about these things — in fact, with their experience, they can often make highly useful suggestions to you

for improving your environment.

The only substitute for past experience is future experience — at your expense. And at contracting rates of US $1,000 to $2000 or more a day per person, future experience adds up quickly!

Data conversion

Finally, there is one other thing that needs mention — data conversion. Conversion from your data's current format to XML must be done to implement the ultimate legislation system. Conversion is not really part of the ultimate legislation system, but it is a necessary prelude to it.[9] Depending on the current state of your data and your approach to verification of the conversion, this can be a large expense and a long process. Typically, there is very little difficulty with regular legislative text — headings, sections, paragraphs, etc. It's a situation where roughly 90% of the problems come from 10% of the data — principally tables, images and other non-standard data.

Here in particular the need for the right professionals is paramount. A lot of time and money can be saved by taking the right approach to conversion. That includes the right approach on your part as legislative counsel. I recommend that you recognize that the precise formatting of your data very rarely has anything to do with data validity or with the quality of your product from the perspective of 99% of the users of your data. Accept some legally insignificant formatting "problems" — if you ever deal with them, make it a long-term low-priority project for "down-times". Be insistent about validity, be flexible about formatting.

To borrow the Nike slogan, "Just do it".

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[9]   If drafting is decentralized and not all done with the ultimate legislation system drafting software, conversion would be an ongoing need and in that way might become part of the ultimate legislation system.