# An Update and Reconsideration of Chrissy Burns' 'Online Legal Services-A Revolution that Failed?'

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## Abstract

This article provides a review and update of the ideas contained in a PhD dissertation that was authored by Australian lawyer Christine Burns in 2007, entitled 'Online Legal Services-A Revolution that Failed?' It explores several themes that are found in her work: the knowledge acquisition bottleneck, combining people and software, combining different technology paradigms, and combining people from different backgrounds. The article finishes by critiquing Burns' position that Clayton Christensen's theory of disruptive innovations does not apply to online legal knowledge products.

## 1. Introduction

'Online Legal Services-A Revolution that Failed?' is a little-known but important PhD dissertation that was authored by Australian lawyer Chrissy Burns in 2007. In 729 pages, Burns manages to provide practical, sober second thought to the predictions of legal technology evangelists (myself included) that law practice is evolving from an advisory service into an information service.

Chrissy Burns is the Director of IT and Knowledge Management at Australian law firm Blake Dawson. She was inspired in her choice of thesis topic by online legal knowledge products she had helped to develop that didn't realise their potential. She set out to answer the following questions (2007, p.223):

> "The literature, legal practitioner press and empirical work conducted for this dissertation all point in the same direction-online legal knowledge products have not lived up to their promise. The contrast of the disappointing reality with the bright expectations begs the question: Why? What went wrong? Is it possible to build successful online legal knowledge products?"

Burns (2007, p.188) defines online legal knowledge products as 'products and services delivered using Internet protocols and which use technology to package and apply legal knowledge.' She creates a framework that comprises a number of tiers. Ideas or issues can be mapped onto the framework to see how they operate. The focus of her thesis is the mechanism layer, which consists of five key paradigms: artificial intelligence, computer-assisted instruction, document assembly, text retrieval, and hypertext. Burns also reports on empirical research that she conducted with Australian in-house legal teams to see what online legal knowledge products they were using. She found that take-up of these services was not marked. Free legal primary source material had the highest usage rate at 93 percent (2007, p.379). This category includes legal information services such as AustLII and illustrates the power of a zero price as described in Chris Anderson's book, Free: the future of a radical price (Anderson, C, 2009).

She also found moderate use of document assembly, computer-based legal training, and government decision support systems.

# 2. Knowledge acquisition bottleneck

From her literature review, Burns (2007, p.286) identifies the knowledge acquisition bottleneck as the major impediment to developing online legal knowledge products. The knowledge acquisition bottleneck refers to the dilemma created by the 'difficulty, time and expense involved in incorporating the knowledge of an expert in the knowledge base for an expert system.' In other words, online legal knowledge products are much harder to build than it would appear at first glance. Because of the small size of the industry, people appear to be learning this lesson over and over.

Even well-known legal futurist Richard Susskind had early experience with the knowledge acquisition bottleneck. His 1988 PhD thesis involved creating an expert system in latent damage law. This system operated in a very complex area of law and its main purpose was to determine limitation periods for causes of action in latent damage cases. The resulting decision tree had over two million branches (Susskind, R, 1996, p.199). This nicely illustrates the challenges of building online legal knowledge services and shows how narrow their scope often is.

Document assembly authoring is another example of the knowledge acquisition bottleneck. Since most lawyers are not willing to use document assembly authoring tools, knowledge acquisition often requires the interaction of lawyers and programmers. Automating a legal template is, like Susskind says, much harder than drafting one instance of that document for a client because you have to account for all possibilities. In my experience, it is exponentially more difficult to automate a 10-page will than a 1-page power of attorney. It is the size of the decision tree that matters more than the number of pages in the template. There is an anecdotal story about a US lawyer who almost bankrupted himself by trying to create a will that he wouldn't have to touch after the first draft.

Based on her survey results and real world examples that she has encountered, Burns offers four solutions to the knowledge acquisition bottleneck: automation, collaboration, phasing, and simple solutions:

- First, you can replace some aspects of the knowledge acquisition process with automated processes. For example, AustLII automates the creation of hypertext links (Burns, C, 2007, p.400). Several document assembly software engines contain parsers that automate the early stages of template authoring (marking up a document so that it can be completed using an automated interview).
- Second is collaboration: for example, spreading the risk by forming consortia. This is becoming increasingly easier with all the social networking capabilities that exist on the Internet. One form of collaboration is to amortise the cost of knowledge acquisition over many users, taking advantage of the reach of the Internet. For example, WealthCounsel has developed a package of automated estate planning templates for lawyers across the United States. DirectLaw has created libraries of templates for small law firms as part of its virtual law firm platform.
- Third is phased development-codifying knowledge for later incorporation into an online legal knowledge product by creating guidelines or checklists. In a new book called The Checklist Manifesto: How to Get Things Right, a surgeon named Atul Gawande discusses how checklists can be used to greatly reduce problems of ineptitude, or failure to apply the knowledge that we have. [2]
- Finally, companies use simple solutions. For example, in document assembly authoring, it is creating the conditions that requires the most time of the expert. It is sometimes more efficient to do a partial automation of names and dates and let the lawyer finish the job than to automate all the conditions within the document. Some companies achieve this result by using word processing macros to create a rudimentary document assembly system (Burns, C, 2007, p.344).

I think the problems of knowledge acquisition will be solved piecemeal through use of better business models that give it a high priority and allocate proper resources. One theme that arises consistently in the thesis is that of blending people and software in different combinations to achieve maximum effect. Burns advocates combining people and software, combining different technology paradigms, and combining people from different backgrounds into multidisciplinary teams.

# 3. Combining People and Software

Burns discusses the different strengths of computers and human beings and how it is important that there be a handoff of tasks between the two, where appropriate. Law has an open texture (Burns, C, 2007, p.354). It is not like a game of Chess, with fixed rules and finite boundaries, and it may not be possible to program every relevant legal issue for a particular circumstance into a decision tree. [3]

Burns points out that computers are good at logical intricacy (for example, matching facts with the requirements of a rule)(2007, p.464) but they do not know what they do not know (2007, p.290). Humans are good at exercising judgment and interpreting difficult fact situations (2007, p.284).There is a quote attributed to Einstein that sums up this idea succinctly: 'Computers are incredibly fast, accurate, and stupid; humans are incredibly slow, inaccurate and brilliant; together they are powerful beyond imagination.' The pairing of humans and computers works very well in government decision support systems where decisions are complex but not discretionary (Burns, C, 2007, pp.465-466).

Virtual law practice is an emerging application where a handoff between humans and machines also works well. Virtual law practice is 'a professional law practice that exists securely online, is accessible to the legal professional and his or her clients, and provides an environment where the client can purchase and access legal services securely online.' [4] Virtual lawyering creates a system that combines the strengths of traditional lawyering and online legal knowledge products. A software-generated questionnaire with built-in checklists takes care of logical intricacy. It doesn't forget to ask questions like 'Are you an American citizen?' and 'Do you have a marriage agreement?'

Meanwhile, the lawyer takes a big picture approach to the fact situation and can verify whether there are any legal issues that were missed by the decision tree. For example, it takes a lawyer asking open-ended questions to discover that the testator will, in fact, be moving permanently outside the jurisdiction next month. This is an important reminder that there are limits to what technology can achieve, at least at its current state of development. The best solutions are often those that combine people and software, whether the people are lawyers, paralegals, or outsourced personnel.

I used to think that eventually it would be possible to disrupt lawyers in certain situations by combining self-serve document assembly and insurance against the possibility of something going wrong with a particular document (Author, 2007, p.183). After reading this dissertation, I have changed my mind on this point. You can never be confident that the decision tree you have created captures all relevant facts.

# 4. Combining technology paradigms

Online legal knowledge products tend to be built using a single paradigm. Burns (2007, p.409) suggests that combining different technology paradigms would allow one paradigm to compensate for the weaknesses of another. This is a good suggestion and it would probably work with document assembly.

Some lawyers worry that they do not work as productively inside the closed system of a document assembly questionnaire and they need to see extensive guidance notes in order to make the correct

choices. One solution would be to provide hypertext links to extensive guidance and even to external statutes. The result would combine document assembly, hyperlinks, and text retrieval.

# 5. Combining People from Different Backgrounds

Burns recommends more cross-pollination between people building practical systems and artificial intelligence academics. [5] Also, any group attempting to create and market an online legal knowledge product must assemble a diverse skill set of people who can create content, establish business processes, develop software, sell, and publish. Companies are often missing key talent in certain areas (Burns, C, 2007, p.503).

# 6. Does Disruption theory apply to online legal knowledge products?

The points of Burns' paper that I disagree with are those that deal with disruption.

Burns (2007, p.128) states that Christensen's theory of disruptive innovations doesn't apply to online legal knowledge products. First, she questions whether a latent legal market (comprised of people with unmet legal needs) even exists. She does not think (2007, p.53) that 'there are numerous commercial organisations that are prepared to run the risk of leaving non trivial needs unmet.' In my view, by deliberately taking a large firm perspective, she does not adequately address the consumer market, which is where most disruption is taking place.

She states (2007, p.61) that 'the majority of online legal knowledge products have been developed by large established law firms for their existing clients.' This ignores the proliferation of online legal knowledge products at the consumer end of the market. LegalZoom, an online document preparation service, has been used by more than 700,000 people and is planning to establish a facility in Austin, Texas that will create 600 jobs over the next five years (<http://www.setexasrecord.com/news/225060-legalzoom-announces-plan-to-move-regional-center-to-austin >). Epoq US and Epoq UK have generated US$28 million in combined revenues during the past nine years through various business models, including websites such as mylawyer.com that run document assembly technologies behind the scenes. [6]

Although by definition it is not possible to quantify the size of the latent legal market, there are many examples of unmet needs at the consumer end of the market. Ron Staudt (2009, p.1140), who has worked for many years with document assembly in the legal aid arena, says that demand for legal aid is 'essentially unlimited, as current resources are only able to address approximately 20 percent of the legal needs of the underprivileged.'

A 2006 survey of disadvantaged areas by the Law and Justice Foundation of New South Wales found that only about 50 percent of people confronted with a legal problem sought assistance and, of that 50 percent, only 12 percent sought assistance from traditional legal advisers (Comarelos, W and Zhou, AH, 2006, p.93). A similar survey conducted in Canada found that 7 in 10 British Columbians facing a serious legal issue preferred to "go it alone" rather than seek legal advice (Ipsos-Reid, 2009, p. 4).

Second, citing a paper by John Hokkanen and Marc Lauritsen, Burns (2007, p.61) says that a disruptive technology must necessarily remove previous value propositions. Since law firms aren't being replaced, there must necessarily be no disruption occurring.

This is an incorrect reading of Christensen. A disruptive technology doesn't necessarily remove previous value propositions-it marginalises them. Perhaps Christensen's most relevant example is the disruption of heart surgeons doing cardiac bypass surgery by cardiologists doing angioplasty (Christensen, C and Raynor, M, 2003, p.109). It took eleven years for angioplasty to overtake bypass surgery in terms of number of procedures. The gulf between the number of angioplasties and

the number of bypass surgeries performed continues to widen, but heart surgeons have not disappeared. They are simply becoming increasingly marginalised, and in the US as of 2004 they were back to doing the same number of coronary bypasses as they had been doing in the mid-1980s (Kahn, J, 2007, p.55). This example may be a prototype for legal disruption of the future: perhaps one day a tax lawyer or tax accountant will be disrupted by a less qualified expert working with a suite of online legal knowledge products.

Finally, Burns (2007, p.61) says that online legal knowledge products are not on a trajectory of performance improvement that would lead them to ultimately intersect with what the market needs, which is one of the hallmarks of disruptive innovations. I would argue that they are on such a trajectory, except that the effect isn't seen immediately because we are doubling tiny numbers. As futurist Ray Kurzweil puts it, exponentially is not the same as instantly (<http://www.youtube.com/watch?v=43zo82W7aPI>, 52-minute mark of video). For example, the dot-com crash took place when the much-hyped change didn't seem to be occurring. However, in the 10 years that have passed since the height of the dot-com boom, E-commerce sales have gone from US$19.5B to US$156B (Honan, M and Leckart, S, 2010, p.91). If we accept that the Internet provides a new platform for the delivery of online legal knowledge products, the underlying technologies such as processor power, speed of connection, and storage costs are improving at an exponential rate as predicted by Moore's Law.

I don't think there is anything special about the practice of law that makes it different from any other field, apart from the regulatory 'brakes' on disruption that are unique to the profession. In the US and Canada, law firms are not permitted to raise outside capital from non-lawyers. Jurisdictional barriers prevent a single lawyer from practising easily in more than one US state, fragmenting the market and forcing a virtual law practice to recruit lawyers from across the country (< http://www.legalrebels.com/posts/bob_ambrogi_state_bar_admission_is_irrelevant/ >). Other barriers include the 'bona fide' office rule that says you must have a physical office in the state (New Jersey)(<http://www.judiciary.state.nj.us/notices/2010/n100326a.pdf >), client verification rules that make it more difficult to act virtually on behalf of a client in relation to a financial transaction (Canada), [7] and Crown copyright in statutory forms (Britain, Canada, and other Commonwealth countries) (Tjaden TJ, 2005, p.113). I should note that I disagree with the argument expressed by Paul Kirgis at 9-11 that the legal protections protecting the guilds of lawyers will not be changed and that, for example, automated programs will have to have lawyers standing behind them and meet state licensing requirements. As we've seen recently in Australia and the UK, the rules governing the practice of law can be changed dramatically.

# 7. Conclusion

Has the revolution failed? The legal marketplace has continued to evolve since Burns finished writing in 2007. On the retail side of law practice, the revolution is very much alive and people are beginning to resolve legal problems solely through the use of online legal knowledge products.

At the large firm end of the spectrum, legal problems are 'sufficiently complex that they may be less amenable to knowledge product creation and packaging than the utilization in consumer markets.' [8] Online legal knowledge products are probably too time-consuming to develop and too narrow in scope to achieve a revolution in themselves. It has become evident since the beginning of the Great Financial Crisis that a revolution of some sort is brewing. Jordan Furlong, a consultant with Edge International, makes the following observation (< http://www.law21.ca/2010/03/17/the-platform-is-changing/>):

> "The traditional platform for legal service delivery is giving way, overburdened by its own inefficiencies, inflexibility, and market-unfriendliness. In its place is emerging a new platform - the internet. And on that platform is springing up a multitude of new models by which clients can purchase the legal services they want, whether through

> virtual or distributed law firms with minimal overhead, advanced software for the completion of simple documents or the facilitation of basic transactions, process-savvy lawyers in other countries or quasi-lawyers in our own jurisdictions, and other platforms yet to emerge that we can't currently envision. The common thread is client customization: the type, quality, and timeliness of service you want at the price you're prepared to pay. Law firms will emerge and compete on these bases as well, but they'll be far from the only game in town...When the platform changes, outsiders replace insiders and opportunities abound. Get ready."

Soon deregulation in the UK will allow non-lawyers to invest in law firms for the first time. Furlong does not think the new players will be investing in incumbent law firms (< http://www.slaw.ca/2010/04/03/the-blind-side/>).

> "Put all that together, and this scenario emerges: private equity enters the legal marketplace in England & Wales, but it pays just glancing attention to traditional law firms, deciding that it doesn't need the headaches that come with trying to manage lawyers and reinvent law firms built around the billable hour. Instead, most of the money heads for efficient, accessible, predictable, process-driven operations that are aligned more closely with how modern businesses operate, including LPOs, online and virtual service providers, and streamlined, fixed-fee lawyer boutiques."

This example brings home two points: first, the disruption of large law firms will not occur until innovative business models that leverage technology are allowed to flourish. Second, online legal knowledge products are but one weapon in the arsenal of the disruptors. [9] This revolution will combine computers and people.

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[2] Gawande, 2009, p.65. There are two types of checklists: those that ensure day-to-day tasks get performed and those that ensure communication takes place among relevant experts to handle complex problems. Many of the cultural issues that cause people to resist the implementation of checklists appear to be similar to those that cause people to resist the implementation of legal technology, e.g. 'the right stuff' mentality.

[3] For an example of how risks can lie outside the boundaries of mathematical models, see The Black Swan: The Impact of the Highly Improbable. At 130, author Nicholas Taleb describes how he visited a casino that controlled the risks of losses resulting from cheaters or extremely lucky gamblers but succumbed to risks outside the scope of the mathematical models, namely the maiming by a tiger of an irreplaceable performer, an employee who inexplicably refrained from sending important tax documents to the Internal Revenue Service, and an executive who used casino money to pay a ransom for his kidnapped daughter. For another example, think of the Icelandic volcano that halted European air travel for several days in April, 2010. How many businesses had prepared for that risk?

[4] Personal e-mail from Richard Granat, 21 September 2009.

[5] Burns C, 2007, p.298. See also Lauritsen, 2010, p. 64.

[6] Personal e-mail from Richard Granat, 6 June 2010.

[7] See, for example, the requirements of the Law Society of British Columbia client verification checklist at < http://www.lawsociety.bc.ca/practice_support/checklists/docs/A-1.pdf >, which would

make it difficult to operate a virtual conveyancing practice such as Australia's < http://www.ozpropertylaw.com> in BC.

[8] Personal e-mail from Richard Granat, 21 April 2010.

[9] As Christensen noted when he changed the terminology from 'disruptive technology' to 'disruptive innovation', disruption is a relative term and it is the business model that is ultimately disruptive and not the technology. See Christensen and Raynor, 2003, p.193.