

# Lions and Librarians: a Plea for the Intelligent Conservation of an Unnecessarily Endangered Species

**Abstract:** The role of the law librarian or legal information professional is thought by some to have been diminished significantly by technological advances which provide instant access to an enormous range of materials direct to individual users at their desks. The reality is that the wide range of instantly accessible materials makes the experience and knowledge of the information professional more important, not less; and imminently expected advances in machine learning and artificial intelligence are likely to confirm the vital importance of the legal information professional at the centre of legal services.

**Keywords:** law librarianship; law librarians

The law librarian is an endangered species and is likely to become extinct, or confined to a small number of privileged reserves, if nothing can be done to raise awareness of its vital place in the legal ecology, before environmental and economic pressures reduce its population below a sustainable level.

The law librarian has been well-used to economic pressure for most of the history of its species: in each of the organisational habitats of the law library, every few years an attempt is made to reduce the overall budgetary pressures on the organisation and the law librarian is always an easy target, likely to fall prey to the first few predatory attacks on budgetary demands. As a necessary evolutionary tactic of survival, the law librarian gives gracefully to each wave of budgetary pressures, reducing costs and services, and relying on slow but reasonably sure incremental recovery during the gaps between each new budgetary attack. Indeed, so adroit has the species become at predicting and surviving wave upon wave of budgetary austerity, that in some habitats it has even managed to sustain growth decade-on-decade despite the inevitable intermittent privations and retrenchments.

So economic factors alone do not adequately explain the potential imminent demise of this species. For the real danger one needs to look to the environmental issues that have threatened to overwhelm the legal library landscape over the last two or three decades.

Around thirty years ago, the primary feature of the legal knowledge landscape was books. Books of all ages and sizes. Books in their thousands and tens of thousands requiring constant marshalling (including collecting from all over the office or institution and putting back on shelves), and requiring hard-won expert knowledge to navigate collections and deploy them effectively. Maintenance of the legal landscape was demanding, but in

a mostly menial way: somebody had to maintain in good order the never-ending series of law reports and journals; and as the loose-leaf encyclopaedia emerged as the last triumphant but short-lived manifestation of an already moribund technology, simply keeping a grip on the updating task required many librarian-days in each law library.

But it was not that work that gave law librarians their primacy in the jungle of legal knowledge: it was their expertise, both in the content and methodology of the legal information systems of the time, that made them a literally indispensable amanuensis for the legal profession.

The first port of call in relation to any new research task was the library and its librarians: a good relationship with the law librarian would not just diminish by many hours the challenge of a complicated piece of legal research, but it would enable the lawyer to extend the breadth of the research well beyond anything that could be achieved without the librarians' special skills. As a result, a good librarian was a key business asset to every set of barristers' chambers, to every law firm beyond the most parochial, and to every legal academic institution throughout the United Kingdom.

The reality of that has changed not at all: but the perception has, wrongly, altered beyond recognition as a result of the habitat-decimation brought about by the emergence of electronic technology.

To begin with, it looked as though the changes brought about would be relatively limited and that the ever-versatile librarian species would be able to adapt yet again to emerge pre-eminent, and as necessary as ever, in the jungle of legal knowledge. Early electronic emanations, notably the compact disc, even seemed to add to the importance of and need for traditional librarian tasks and expertise: in essence they were merely "super books" that expanded the horizons of the libraries,

enabled them to house ever greater sets of journals and reports, and therefore expanded the necessities and potentials of the tasks that could not be performed without the legal librarians' assistance. They were, in fact, merely a more efficient form of the microfiche technology that had permitted electronic storage of large quantities of information some decades previously.

The meteor which devastated the landscape and led to the present threat of extinction for the legal librarian was the Internet. Almost overnight, the legal library ceased to be an actual physical jungle of books and papers requiring to be navigated, and became a virtual reality beamed onto the desk of every single legal researcher in the country. The simply physical and locational aspects of this change should not be underestimated: were a librarian to be standing behind every legal researcher as she or he logged onto the Internet, they would doubtless be as grateful for the librarian's advice, and as reliant on them, as ever before. But with the disappearance of the need to walk physically into the librarians' realm, they became instantly less visible and therefore instantly more apparently dispensable.

When I can scan and search 100,000 series of law reports and journals worldwide without leaving my desk, what need is there to go into the library and seek out a librarian to help me to navigate the legal information environment?

For a while, researchers had to continue to attend the library physically to access one of the computer terminals found there with access to online resources: but the nature of the visit had changed: this was no longer the neophyte attending the temple in search of the guidance of the priest, but a mere predatory raid by the office-dweller to serve a magical new electronic deity which for want of a more convenient home had been shoehorned into the previous temple building.

Gradually, managing partners and legal administrators began to draw the obvious (and wrong) conclusion from the fact that research started at the lawyer's own desk and very often finished there as well. The downsizing of the library and the diminution of legal information professional resources became a rapidly self-fulfilling prophecy. Apart from anything else, it is very easy to prove in three easy steps that technology has supplanted the role of the expert law librarian. Step One: in order to meet the next wave of budgetary pressures, reduce the number and expertise of the law librarians in your library. Step Two: monitor the number of visits and calls to the library and note that it reduces (of course it does – if you limit the number and experience of the librarians so that they are no longer able to answer my questions with the expertise of their predecessors, I stop asking questions). Step Three: triumphantly prove that demand for library services is therefore diminishing, therefore reduce the expertise and number of librarians further, and repeat this perpetual cycle that heralds the inevitable doom of this previously essential species.

Survival of the species requires two things: it requires evolutionary adaptation, the will and ability to adapt the nature of the beast to reflect new conditions and challenges and to exploit new opportunities. But in today's world it also requires appreciation: without external appreciation of the ecological role played by a species, it is powerless to ensure its own survival. Habitat destruction is the inevitable result of a world in which every resource is at an increasing premium, and only those species whose importance in the ecological system is appreciated by its other parts, will be permitted to display their evolutionary tactics in order to remain relevant. Only when the conservationist community is fully aware of the potential for a species to contribute in the changing environment of the modern world is its future secure. Just as the natural world abounds with areas that have been rendered arid and uninhabitable before the value of the ecological components that kept them alive has been discovered and appreciated by science, so too in the legal environment the danger is that librarians will have been allowed to become extinct before the business and market forces that should be insisting on keeping them alive have understood and appreciated their potential not as a relic of a bygone era of information but as an indispensable aid to navigating, harnessing and deploying the developing world of information technology.

In order to begin to achieve that, the legal information technology expert community needs to continue to demonstrate to individual practitioners and other lawyers their own (the practitioners' and other lawyers') inadequacies in the developing environment. People need to be brought to see, painfully and pragmatically, the depth of the reality that their informational self-sufficiency as a product of modern technology is completely illusory.

The first component in demonstrating the illusory nature of modern information self-sufficiency can be summarised in the mantra "less is more". It is true that by the use of one simple search term I can conjure up, literally, several million results in a wide variety of subscription and open-access resources within a fraction of a second. Which is, of course, about as much use as finding myself in a gigantic warehouse full of legal encyclopaedias, reports and journals in the 1950s. But whereas the legal researcher would walk around the warehouse disconsolately knowing that she or he was wasting their time until rescued by a librarian, the modern super-surfer happily wastes large dollops of potentially chargeable time trawling through vast swathes of electronic material and convinces themselves that this is a sensible use of their time and demonstrates the potential of modern technology for research self-sufficiency. Much more than the visitor to a physical library fifty years ago needed a librarian to take them by the hand and lead them through the aisles on the most efficient route to the volume that would help them the most, the legal researcher today requires to be taken by the electronic hand and taught how to navigate an efficient and effective passage through

the sea of information so that the million vaguely relevant or apparently superficially relevant items of material, become the three or four nuggets of gold that lead to an efficient and effective provision of legal services to the client.

This is partly simply about expertise in search technology, since, perhaps surprisingly, rudimentary relevance-ranking remains the main tool of legal search technology and still responds to relatively crude prompts of keywords and the like that require an understanding of the sensitivities of the research environment. Little has changed since librarians first taught themselves Boolean technology in order to narrow a search in a subscription database; and it is those skills applied several times a day that continue to differentiate the expert legal information professional from the practitioner, who may spend all her or his life on the Internet but cannot hope to match the precision and creativity of those for whom searching for information is the essence of their expertise. The mere fact that it is now possible to access millions of resources in a second, should accentuate the importance of nurturing professionals who are able to develop expertise in narrowing the range to a manageable and relevant set of results. And again, the fact that an institution is no longer restricted to the thirty or forty journals it might expect to subscribe to individually but has access to pretty much any series, volume or journal that is being or has been produced anywhere around the world, increases the premium to be put on acquiring knowledge of what is available and translating that into knowledge of what is useful.

But the real challenge and opportunity for the legal information profession has yet to explode, although it is going to do so any year or month now. The application of machine learning and artificial intelligence to legal research and to legal services generally will very soon, as prototypes merge into working models that rapidly test and improve themselves, transform beyond recognition the entire legal landscape. Automated judges are already a practical possibility (being developed in Estonia, for example): if a website can already predict with complete accuracy the parameters of what will happen to me in relation to a particular traffic law infringement and set out the criteria to be used in determining the application of the field of discretion between the parameters, we may as well minimise the opportunities for human error and bias, “cut out the middle judge” and move straight to automated justice. And if anybody thinks that is somehow a radical concept or engages fundamental rights or natural justice, it is basically what we did already in relation to civil penalties being administered by non-judicial traffic wardens and the like, with the necessary safeguard of an appeal (at an actual or potential cost) to a “real” judge.

The automation of legal services is such a proximate reality that it is no longer the province of experimental computer science laboratories, but is being harnessed within mainstream large law businesses who see the need

to turn a potential threat into a transformative opportunity, and have the vision, and money, to do so.

So will robotic databases be the final nail in the coffin of the legal information professional? Of course not, and anyone who has even dabbled at the edges of artificial intelligence in the law will see that the use of machine learning is actually the single factor that, properly appreciated and managed, will ensure the continued centrality of importance of legal information professionals. In the same way that the bigger the database the more navigational assistance is required and therefore the greater opportunities for legal information expertise to show its worth, so too, but to an infinitely greater degree, machine learning will always require to be applied and directed by those who are able to interpret the results and to collaborate effectively with the computer to achieve a useful outcome.

In principle at least, database navigation and search knowledge could be acquired by any administrative professional, with or without knowledge of the legal context; some inkling of the purpose for which the knowledge is required is helpful, but arguably not essential. In the realm of artificial intelligence, however, the erstwhile database is making assumptions all the time about its own performance and changing its nature and function as it goes along based on those assumptions. The possibility of fatal error if the machine is left entirely to its own devices to test its results based on its own assumptions is enormous: equally, the potential for the machine to falsify previous assumptions made by those with a merely human brain, and to realign and redirect our thinking is unlimited.

Having participated in an early legislative prediction collaboration between computer scientists and legal information professionals<sup>1</sup>, I have seen that the future lies in a more powerful series of collaborations and co-operations between humans and computers than I could have dreamt of when I first started using primitive electronic databases thirty years ago, but which the computer scientists had already predicted at that time. In the same way that I am unable to familiarise myself with the contents of 50,000 series of legal reports and journals and require a dedicated legal information professional to do that for me and then make her or his expertise available to me, so too if artificial intelligence-led legal research is not to become another illusionary and distracting development wasting time in creating false expectations, like many large electronic databases, I require a professional who is capable of spanning the fields of database management, application of computer intelligence, interpretation of results and verification and modification of assumptions, within the context of legal services.

That is the legal information professional of the future: a cyber-practitioner of even greater primacy of importance within the delivery of legal services than the librarian has ever been.

When computers began to be used by legal practitioners on their desks day-to-day, there were two kinds

of reaction from librarians and other complementary professionals, and they were the two kinds of reaction to technological advance that have been seen since the industrial revolution and, presumably, since the beginning of time. There were the Luddites who protested that lawyers had no business using computers: data should continue to be managed exclusively by librarians, word-processing should continue to be carried out exclusively by secretaries and administrators, and the complementary legal industries should resist the invasion of their provinces by lawyers who ought to spend their time, as traditionally, asking questions and assigning tasks, and transmitting the resulting product to their clients. As with the Luddite over the centuries, those professionals were rapidly doomed to fall prey to their own self-fulfilling fears of redundancy of purpose, and they were gradually swept from the field embittered and useless. But their colleagues who embraced the revolution, and stayed ahead of the crest of the wave by rapid re-training and adroit demonstration of how new skills transformed and increased the value of old services, expanded their own horizons

professionally and personally and became more trusted and more relied upon than ever before. That needs to be the reaction of the profession to the massive habitat transformation that is already beginning to be observed, and which will in the next few months or years amount to as great a social, professional and economic transformation as the introduction of mass-use computers itself.

Every pendulum has its natural swing: and the law librarian will not be the only species that has to fight an uncertain battle for survival before discovering for certain whether the species remains in sustainable quantity and quality by the time the return of the pendulum restores a sustainable and inhabitable environment. For the sake of the nature of legal services that we provide to our clients, I hope that legal information professionals exploit, and their users appreciate, the enormously exciting potential of the artificial intelligence revolution; and that the entire legal profession emerges transfigured and improved in the widest possible variety of ways, to the incalculable benefit of the users of legal services and the rule of law as a whole.

## Footnote

<sup>1</sup> Daniel Greenberg et al, 'Explanations by arbitrated argumentative dispute' (2019) 127 *Expert Systems with Applications* 141–156, Elsevier, Online 6 March 2019 <https://authors.elsevier.com/c/1Yipj3PiGTBUcm>.

## Biography

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