

IT AND TRANSFORMATIONS IN LEGAL PRACTICE AND EDUCATION IN JAPAN AND AUSTRALIA

Makoto Ibusuki and Luke Nottage*

Abstract

This paper sets out preliminary findings from an empirical research project into the impact of information technology (IT) on legal practice and education in Japan, inviting comparisons with Australia. It focuses on data from surveys administered last year to Japanese law firms, corporate legal departments, law faculties, professors and students, including some follow-up interviews; and introduces some similar research now underway in Australia. Central concerns are whether legal practice in these technologically sophisticated democracies is moving towards “proactive legal information engineering”, as predicted by Richard Susskind and others, and whether legal education is rising to this and other major challenges of our IT era.

Introduction

In the mid-1990s, Richard Susskind (1996) argued compellingly that contemporary legal systems have faced serious problems caused by an increasingly hyper-regulated society, yet inadequate promulgation of law; and a “technology lag”, whereby huge advances in “data processing” since the 1960s were not matched by sufficient “knowledge processing”—transforming data into more manageable forms. Yet he suggested that new developments in IT during the 1980s and 1990s would help overcome this lag by around 2020, with the “future of law” lying in a pervasive reorientation from reactive lawyering towards proactive “legal

* Makoto Ibusuki is Professor of Law, Ritsumeikan University, makoto.ibusuki@nifty.ne.jp. Luke Nottage is Senior Lecturer in Law, University of Sydney, and Barrister of the Supreme Court of New South Wales: luken@law.usyd.edu.au.

information engineering” (see also Susskind 2001, and his columns recently at <http://www.thetimes.co.uk/>). One of the present authors argued in 1998 that these arguments also had profound implications for legal education, and that they were highly relevant to Japan (Nottage 1998). They now appear all the more relevant in light of:

- escalating growth in Japan’s internet usage, and improvements (especially from April this year) in online access to legal information (compare Ibusuki 2000 with <http://www.japaneselawlinks.info/>);
- major improvements in the regulatory environment for the telecommunications industry (Wolff 2002);
- broader changes in corporate governance in the wake of Japan’s economic recession over the 1990s and the fallout from the Asian economic crisis, possibly related to more open and transparent information flows now promoted more generally by the Official Information Disclosure Act of 1999 (Nottage 2001a);
- proposals from a blue ribbon Deliberative Council for further increases in numbers permitted to pass the national bar examination each year, and broader changes throughout the civil justice system (Nottage 2001b); and
- related moves to inaugurate postgraduate “law schools” from 2004, on top of undergraduate law programmes (Nottage 2001c; Kashiwagi 2001).

However, even now there has been little comparative empirical research to determine systematically the impact of IT on legal practice and legal education (compare eg Nottage 2000a, Pt 2). In late 1999, the private International Communications Foundation based in Tokyo (<http://www.icf.or.jp>) awarded a grant to a group of researchers based primarily in Japan, including the present authors, to begin filling this gap (<http://juria.law.kyushu-u.ac.jp/~itlepp/>: the project has been dubbed “ITLEPP”—IT in Legal Education, Practice and Politics). This paper summarises some results from the survey research conducted so far in Japan, examining developments in corporate legal departments and firms of practising lawyers or *bengoshi*, and law faculties. Overall, it appears that a significant portion of Japan’s corporate sector has boosted IT capabilities generally, improving the roles of legal departments within companies and encouraging law firms (albeit perhaps to a lesser extent) to develop their own capabilities. However, the potential for IT to revitalise legal education remains relatively unexploited, suggesting deeper problems in Japanese law

faculties (Ibusuki 2001b). The paper concludes by outlining steps taken so far to implement similar surveys in Australia.

Corporate Legal Departments and Lawyers in Japan

The legal professionals in contemporary Japan who best fit the profile of “legal information engineers” are probably the legal department staff in larger Japanese companies, rather than the approximately 20,000 practising lawyers or *bengoshi* who still specialise more in court-related legal work (making them similar to barristers in Australia). For many decades, as Japanese corporations began expanding export markets and then investing overseas, legal departments have seconded their staff overseas to obtain postgraduate law degrees, especially to the US, where they often qualify as lawyers even though not *bengoshi* in Japan (Kitagawa and Nottage 1998). These staff members then tend to remain in legal departments, rather than being transferred regularly among different parts of the companies like other employees. Such departments have gradually built up their ability to influence activities of other business departments and senior executives, especially as legal risk has grown in Japan’s deregulating environment since the 1980s, although periodic lawsuits and scandals suggest ongoing tensions within the organisations (see eg Nottage 2000b). Corporate legal staff in larger companies are also the prime points of contact with outside lawyers. So far, the latter have been engaged mostly to assist with court-related work. However, the recent calls to boost the number permitted to pass the bar exam have come primarily from the corporate sector, especially the larger companies already exposed to legal risks abroad, and now keen to respond to the new domestic environment by expanding access to outside lawyers and even bringing them into the companies as in-house counsel (as in the US or Australia). Accordingly, this research project first undertook a survey of the impact of IT in such legal departments, to test whether they were taking advantage of IT to expand activities as proactive legal information engineers, and whether this might be pushing lawyers in Japan to develop similar capabilities.

A questionnaire was sent by mail to 50 legal departments in May 2000. By the end of June, twenty had responded out of 48 (two surveys were returned as incorrectly addressed), a very good 42 per cent response rate. Almost all were large companies (excluding two with employees numbering over 60,000, the average number of

employees was around 10,000), with most having or expecting to develop IT-related business, although their main or original activities were varied. Most had legal departments established in the 1970s or 1980s, with specialist (manager-track) staff averaging seven members (but some with only a few, and some with more than twenty) in their mid-40s, almost all with undergraduate law degrees from Japanese universities. These patterns are fairly typical of large Japanese companies, but the set of responses cannot claim to be representative of the entire corporate sector.

In addition, at the end of May 2000, 270 questionnaires were sent to lawyers around Japan: 45 *bengoshi* in Tokyo; 30 foreign law solicitors (out of about 130 presently registered) plus fifteen *bengoshi* known to be active in transnational legal affairs, also in Tokyo; 45 *bengoshi* in Osaka (the city with the second highest density of lawyers); 45 from Fukuoka and nearby Kitakyushu cities (representing a provincial centre); 45 from Toyama prefecture (almost all in that remote area, with very low *bengoshi* density); and 45 from Okinawa (known for promoting IT recently). Unfortunately, the response rate was much lower: only 23 valid replies (8.5 per cent), with considerable geographical dispersion—five from Tokyo (two being foreign law firms), eight from Osaka, four from Fukuoka, five from Toyama, and one unclear. Further, ten out of these 23 came from firms established since 1990, several had a preponderance of younger lawyers, and many had or wanted to move into business involving IT or transborder transactions. For these reasons it is risky to generalise from this group of responses, and the rest of this paper accordingly focuses mainly on responses from the company survey.

Among corporate legal department respondents, the most frequently cited stimulus for IT development was “other departments within the company” (fifteen out of twenty respondents; three others listed this as second most important), followed by “subsidiary or affiliated companies” (top listed by three other companies; listed second by two others), with five out of twelve listing second “trading partners”. By contrast, only one (a broadcaster) listed “outside lawyers” as the top impetus, although six out of fourteen listed them second (one remarking that it had been a US law firm), and other outside legal professionals were generally perceived as even less of an impetus. These patterns also held, generally, when asked about future expected sources of impetus for developing IT capabilities. Correspondingly,

most respondents to the lawyer survey (ten out of the twelve who responded to this question) listed corporate clients as the top impetus for improving their IT, with individual clients and other lawyer or professionals trailing significantly. This indicates that it is indeed the corporate sector which is pushing lawyers to upgrade IT capabilities, rather than vice versa, even though some large law firms (by Japanese standards) have apparently achieved very high degrees of IT usage. This was also borne out by follow-up interviews with a large firm, one of the largest in Osaka (with over a dozen *bengoshi*), which had extensively boosted its IT capabilities—partly as a strategic measure to maintain its leading position in an increasingly competitive market for legal services—but was adamant that it should not embarrass even larger corporate clients by suggesting that they should use more IT in dealings with the firm.

Pressure from large corporate players on *bengoshi* is also apparent from responses concerning email usage. Seven out of the 19 corporate legal departments who replied to this question mentioned that they used email “frequently” with outside lawyers, eleven used it “sometimes”, and only one (in the food industry) did not use email. Fifteen out of the nineteen wanted to use email more with outside lawyers, while only four did not. Conversely, six of the 21 lawyer respondents used email frequently with corporate clients, and eleven used it sometimes; but only two did so frequently with individual clients, and thirteen used email only sometimes with them. The explanation for such differences may lie simply in the fact that individuals have less access to email to use with lawyers. But follow-up interviews with some lawyers indicated concern about being bothered by email from individual clients, whom they could more afford to stop dealing with, compared to corporate clients (who often retain lawyers for a flat monthly fee for general advice up to a certain level). Follow-up interviews with two corporate law department respondents also revealed concern about lawyers (even outside Japan) tending to respond to emails by fax or printed media.

Generally, the IT hardware in Japanese legal departments was good, with around one computer per member of staff (including non-managerial track staff). The same was true of law firm respondents. Somewhat surprisingly, however, there appeared to be little formal ongoing training in IT, and almost all of this (even regarding legal issues arising from IT) is conducted outside the legal department.

Further, only three companies had dedicated IT support staff within the legal department, with one more having some outside IT staff who worked only for the department. While this may enhance cost efficiencies, it can impede the effective development of more advanced IT systems attuned to complex legal issues, as well as slowing down response time in the event of major technical problems within the legal department. It seems that developing IT usage is seen primarily as a matter of individual responsibility, on the part of legal department staff as well as employees generally. This attitude is also reflected in rules on private use of the internet in the workplace. Four out of eighteen companies reported no rules at all. Of the others, two indicated that there was no sanction for breach of company guidelines, another mentioned a loose standard (“within proper limits”), two others mentioned simply that circular letters came occasionally from the Information Department within the company, and so on.

Corporate legal department respondents mentioned that their firms had inaugurated external websites (almost all simultaneously in English as well as Japanese) over 1995-1997, with intranets coming online mostly around 1997. Individual IT applications are quite extensively used, as shown in Appendix A (column 3). Not surprisingly, usage is stronger than in a survey of law firms in Norway (Gottschalk 1999: column 1 of Appendix A), especially in what he terms the more advanced “knowledge management” applications. More interestingly, the *bengoshi* respondents compare favourably (column 2), falling closer to the subset of IT-intensive Norwegian law firms, although ignorance of IT developments was revealed by many “don’t know” responses and the quite high average scores recorded by remaining responses may have reflected the unrepresentative nature of the sample generated by the present survey. Overall, Japanese corporate legal department and *bengoshi* respondents reported strong usage not only in word processing but also email communications, research using external websites, intranet access (for corporate legal departments), and accounting systems (for *bengoshi*). Shared expectations for future growth included email correspondence outside firms, research using external websites, and document assembly applications. Respondents for both surveys also largely agreed that top concerns so far in practice have been, and are likely to be, related to privacy or security (although corporate respondents saw these issues as likely to become somewhat less problematic), and consumer contracts (no

doubt reflecting the prominence of this issue in recent years, resulting in enactment of the Consumer Contracts Act 2000: Nottage 2000). The least important concerns in practice were reportedly jurisdictional issues, despite the tendency for specialists in private international law to make much of these.

Finally, respondents reported overall effects of IT as set out in Appendix B. Generally, corporate legal department staff perceived more positive benefits, such faster, better and cheaper communications, information gathering and administration. However, *bengoshi* also noted these advantages, to lesser degrees, while finding fewer negative effects such as increased stress from time pressures and concerns about security. Probably this simply reflects less pervasive IT penetration, meaning “less risk, less gain”. One of the significantly greater advantages reported by corporate legal departments is the greater ability to influence decision makers in other parts of the organisation, reinforcing the point made at the start of this section above. Indeed, one follow-up interviewee stressed how IT (especially email) made it easier for younger staff in other departments to approach him in the legal department with particular problems, such as some misleading comments by other senior colleagues. Raising such delicate matters is rendered easier by the relative anonymity of email correspondence within this large company, which can also begin storing responses on its intranet for the benefit of many others within the organisation, without directly causing loss of face or reputation to senior colleagues.

On the other hand, despite these many advantages, both corporate legal departments and law firms agreed that overall cost savings were not a very important result of more IT usage. Further, many respondents were uncertain about responses to many of the factors listed. Those who did venture a response to the question of whether this was generating fewer disputes indicated that there was little evidence of this. Since this prognosis was related to Susskind’s thesis about the “future of law”, it seems that Japan—like many other industrialised democracies—may yet experience some major transformations to its legal system. Already, however, the impact of IT on at least large corporations in Japan is unmistakable, and this seems to be encouraging *bengoshi* to improve their own capabilities, thus moving closer to the paradigm of proactive legal information engineering.

IT in Japanese Legal Education

By contrast, Japanese law faculties appear to be lagging behind these transformations in legal practice, as revealed by the following results from surveys of heads of law faculties, academic staff, and students. Arguably, these tensions reflect broader problems in Japanese legal education, which may not be resolved by the present proposals to “reform” the system by adding postgraduate law schools—focused on producing more practitioners in a narrow sense—on top of existing undergraduate programmes (Kashiwagi 2001). What is needed now is a clearly articulated vision of how Japan’s legal education system can be reshaped from the bottom up, and investment in infrastructure to train all sorts of “legal information engineers” to become familiar with present and foreseeable developments in IT.

Law Faculties Generally

In late April 2000, surveys were sent to the heads of law faculties or departments in 114 institutions around the country. Fifty-two replied (an excellent 46 per cent response), with over half being private institutions (58 per cent; 38 per cent were national institutions, the rest were state- or city-run institutions). Responses came from as far north as Hokkaido (three institutions) and as far south as Kyushu (five), although mostly from the Kanto region around Tokyo (22 institutions).

General access to PCs, despite the relative strength of hardware over software in Japan’s IT industry, seems quite poor. Around half (54 per cent) reported having dedicated IT facilities within the institution, but the rest had to rely on facilities within the university as a whole. Most (40 per cent) reported that students had access to fewer than ten PCs within their institution, and 23 of the 52 institutions had five or less PCs per 1000 students (three others had five to nine PCs per 1000, while eighteen had one to four per 100 students).

Exactly half of all respondents had access to legal databases through a CD-ROM server, while 60 per cent (31 institutions) had stand alone access. Only three institutions had no courses whatsoever on information processing, but only 21 per cent (eleven) made such a course compulsory (73 per cent or 38 institutions reported electives). Further, almost all of these courses were generic courses, taught as part of general education (typically in the first few years of the undergraduate programme). Despite being taught by law faculty staff almost no courses were focused on *law* and IT, such as courses on legal infor-

matics, computers and law, cyberlaw, and statistical analysis in law and economics or in politics (law faculties in Japan, as in France, typically also teach political science).

By contrast, homepages were quite extensively used. The most common usage was to introduce the institution (48, or 92 per cent). Usage for individual faculty member homepages was also very common (41 institutions or 79 per cent had such homepages), but very few institutions have introductory material on *all* their academic staff, and only a small minority of individual staff members add their own homepage material. The third most common usage involved seminar or small group homepages (35 or 67 per cent of institutions had some such homepages), reflecting the educational—and social—significance of such seminars, which provide a welcome contrast to often very large groups for lecture-based courses. Exactly half (26 or 50 per cent of institutions) also reported usage for both student homepages (although, again, only a minority of students seem to take advantage of this facility), and educational support (lecture notes etc). Other usages included syllabus disclosure (40 per cent), internal administration (35 per cent), timetables (19 per cent), and alumni associations (29 per cent: such associations have long been faculty-based in Japan, and are important—especially at elite institutions—for forging personal contacts which may be helpful in later careers). However, respondents reported different emphases regarding future usages for homepages. Most (45 or 87 per cent) wanted to develop more usage for educational support, with 40 per cent reporting this as a top priority, perhaps reflecting the increasing pressures on Japanese law faculties to improve their pedagogy rather than remaining aloof from the real world and focused on research, mostly individual research. However, 62 per cent (32 institutions) also wanted to use homepages for research support, while 60 per cent wanted to use them for imparting information.

Perceived obstacles to activating IT capabilities can be grouped as follows:

- on the part of students, low levels of IT literacy and ownership of PCs;
- on the part of faculty members, lack of IT support and back-up, such as dedicated IT staff (a problem noted in the previous section above); lack of appreciation among all staff about the implications of IT; and poor systems for purchasing IT equipment—in many

faculties, for example, academic staff are allotted an annual budget which they can use for such purchases, but this can lead to duplication or uninformed decisions, and they are often also responsible for using such a budget to purchase books in their fields for the faculty;

- in terms of facilities, poor arrangements for IT usage in classrooms, and the low levels of PCs per student (described above);
- network concerns, such as protection of privacy and security; and
- lack of financial resources provided by universities.

Academic Staff

Two hundred people were selected at random from Japan's "Common Registry of Eight Law-Related Academic Associations", and 76 valid responses were received (a good 38 per cent response rate). A third were in their fifties, 29 per cent in their forties, and 25 per cent in their sixties. It is difficult to determine whether this spread is representative compared the total number of those belonging to these main associations, and the total number of responses is small compared to the total population of legal academics in Japan (almost 3000). The following results therefore need to be treated with care, especially because research in other fields shows significantly greater penetration of IT usage among younger people. Nonetheless, older academics play important roles in law faculty management—almost all committee positions are occupied by full professors, who usually only get promoted to this level around 40 years of age, and deans are usually elected for a two year term in their fifties—so the patterns identified here probably relate to present and foreseeable developments at faculty level (described above).

Of the 76 respondents, 42 per cent "owned" one desktop PC (meaning they had purchased one, or perhaps been allocated one, with institutional funds); 37 per cent owned a laptop (possibly in addition); 29 per cent had instead two or more desktops; and 13 per cent had two or more laptops. Because of the high quality and product turnover in the Japanese PC market, these figures suggest quite a favourable situation compared to countries like Australia, but present a sharp contrast with student access to PCs. By contrast, only 42 per cent of the respondents owned mobile terminals (notably, mobile phones).

Almost all (95 per cent) reported an institutional Local Area Network (LAN), underpinning accessibility to the internet from staff offices. Further, the most frequently mentioned initial impetus for

using the internet was “for research” (57 per cent). “Exchange of opinions among researchers” came a distant second (19 per cent). This may reflect the quite individualist styles of legal research and writing in Japanese legal academia: it is rare to co-author works, for instance, despite extensive reunions by way of conferences and seminars. Overwhelmingly, moreover, the strongest effect from using IT was said to be “promotion of information gathering”; improvement in “exchanging opinions” came third, behind “efficiency gains in administrative tasks”. “Improvement in quality of research” was only given as the fourth most important effect of IT usage, on average, suggesting that legal academics are finding it difficult to filter out irrelevant information or to access good resources, compared to legal department staff in larger companies (see above).

The leading disadvantage perceived in IT was “increase in financial burden”, followed by “reduction in time for reading written material”, then “complications in information-gathering activities”, and fourthly “complication of administrative tasks”. Other factors often mentioned included:

- a tendency towards information overkill;
- the need for skills in organisation and analysis;
- changes in the quality of information in academic circles;
- changes in the content of academic research; and
- changes in writing styles and formats.

Conservative tendencies are also reflected in the fact that 70 per cent of respondents still used paper-based resources for 60 per cent or more of their information needs. Indeed, 19 reportedly used such resources for 80–89 per cent of their needs, sixteen for 70–79 per cent, and nine respondents for 60–69 per cent. Conversely, almost 60 per cent used digital resources for less than 20 per cent of their information needs: 23 respondents used it for only 10–19 per cent, thirteen for 9 per cent or less. However, this exceeded a total of 46 per cent of respondents who reportedly relied on personal relations (eg extensive exchanges of offprints or books among authors, as well as numerous academic societies and study groups): 25 used such sources, but only for 10–19 per cent of their information needs, with another four using them for 9 per cent or less. Thus, digital information sources appear to be gaining ground.

Further, reflecting and reinforcing the patterns identified above, 95 per cent of respondents used email, but less than half (47 per cent) used IT to support their teaching. Similarly, only 25 per cent listed

educational support as a means of using IT in the future. Instead, the most frequently cited means was as a research or survey tool (57 per cent), followed by exchange of opinions through academic associations or groups (50 per cent), then intra-university communication (36 per cent), and fourthly “exchange of opinions with colleagues overseas” (33 per cent).

Future obstacles to IT usage promotion came under three main categories: (i) circumstances faced by students, (ii) infrastructure and incapacities of academic colleagues, and (iii) the mentality engendered by various institutions. The first included the low extent to which IT has spread among students, including their holdings of PCs; but the fact that if IT is made a condition of participation in certain courses, these may attract geeks (*otaku gakusei*) and possibly worsen overall interest in IT. In the second category, respondents complained about the lack of support staff for expanding usage of IT for educational purposes, inadequate knowledge among academic staff (reflecting a lack of “on the job” training generally in Japanese universities, for example in teaching methods), and lack of time for preparation. Thirdly, respondents criticised an “allergy” to IT equipment, especially among older colleagues, along with considerable variance in knowledge among academic staff, and the poor state of administrative institutions within universities.

In sum, Japanese law faculties appear to have quite good systems in place in terms of LAN and webpage facilities, and individual academic staff members use IT quite extensively: as well as 94 per cent using email, 97 per cent use word processors and 90 per cent use the worldwide web. This contrasts with results from a nation-wide survey conducted by the Kagoshima University Legal Information Study Group in 1995, the year in which the Japanese version of Windows came onto the market: at that time, only around 20 per cent of legal academics used the internet (Ibusuki 1996). From this low base, IT usage has improved dramatically, also generating significant positive effects in terms of research quality and communication among colleagues. However, much more could be achieved in the latter fields, and especially in using the IT for pedagogical purposes (compare the experiments around the world, including sporadically in Japan, described in Nottage 2001d). Overall, moreover, there remains a distinct lack of will to promote comprehensive reforms.

Students

Over April-May 2000, a total of 532 responses were received from surveys administered to students in Hokkaido University and Kyushu University, large national universities in the far north and far south of Japan, as well as two smaller private universities (Sapporo Gakuin University and Gakushuin University) from rural and urban areas, respectively. These samples are even less likely to be representative of the entire population of law students in Japan (over 100,000). But they offer the only reasonably systematic empirical evidence so far into the impact and problems of IT in Japanese legal education, from the perspective of the students themselves.

Only about half of the respondents owned their own PC (57 per cent) or had email accounts (49 per cent). However, 86 per cent owned mobile terminals (mobile phones). This reflects the boom in popularity in these devices since the mid-1990s, with most allowing exchanges of short text messages (and now photos and music). Not surprisingly, the most frequently reported impetus for IT usage was “communication with friends” (116 out of 532 respondents); another 69 mentioned “hobby”. “Information collection” was listed by 110, but only 50 mentioned “lecture or seminar requirements”.

Although less traditional than academic staff (see above), a total of 229 student respondents (43 per cent) still relied on paper-based sources for more than 30 percent of their information requirements: 79 relied on these for 50-59 per cent of their needs, 68 for 40-49 per cent, and 62 for 30-39 per cent. Conversely, 60 relied on digital resources for 30-39 per cent of their information needs; 69 for 20-29 per cent; and 102 respondents for 10-19 per cent. Further, quite a large proportion (22 per cent) reported that their seminar had a homepage, with 28 per cent of seminar participants using email among themselves, and 24 per cent reporting email correspondence between students and academic staff leading the seminars (in which, typically, the students present reports on chosen or assigned topics). Only around one third (35 per cent) used the web for legal research. On the other hand, when asked the extent to which instructors promoted in lectures the use of IT, almost half (48 per cent) replied that there was no suggestion either way and an alarming 12 per cent reported that there was “no promotion whatsoever”, whereas 37 per cent actively promoted IT usage to various degrees. When asked about the reasons for IT usage given by instructors, 208 students listed “necessary skills for students”, 197

mentioned “finding jobs” (upon graduation, having long been the main concern for university students in Japan), and 164 mentioned “seminar and lecture requirements” (multiple answers possible).

Despite such varied suggestions from academic staff, the overwhelmingly most frequently cited expected usages for IT were “collecting information” (180 respondents) and “contacting friends” (158). Perceived future obstacles included, first and foremost, economic factors (no doubt exacerbated by Japan’s ongoing recession). Many remarked that they couldn’t “afford a PC” or that “telephone as well as connection fees are charged for internet usage”. In particular, many comments were made about high telephone charges, as a problem of social infrastructure. It remains to be seen whether Japan’s cost structure will decline in the wake of current regulatory shifts and growing foreign investment in the telecommunications sector. A second category of obstacles perceived by student respondents included technical or system issues concerning IT, or challenges to their abilities as users. Concerns about using the internet included privacy and security, with Japan only having recently unveiled anti-hacking and digital signatures legislation. Other frequently cited problems included the lack of explanation about PC functions, and other obstacles to gaining basic skills. These two broad categories covered an overwhelming proportion of perceived obstacles to IT usage.

In sum, student ownership of PCs and especially mobile phones advances the impact of IT in Japanese law faculties. However, the forms in which IT is used and student motivation more generally remain disappointing, with a gap appearing in relation to the practices and expectations of academic staff and policy makers. As email accounts become more common (already used by half of students), and IT is used more for seminars and even lectures, problems also emerge in regard to financial burdens on students. Such problems could be overcome if addressed as matter of priority by investments from Japanese law faculties—and universities, and the Education Ministry—but there has been a conspicuous silence from key players, making it likely that Japan is now lagging behind other major industrialised democracies.

Comparing Australia

The data emerging from the surveys in Japan, and some follow-up interviews of corporate legal departments and *bengoshi*, goes beyond anecdotal evidence, although it cannot claim to be representative of

legal practice and legal education overall in that country. Work has now begun on a more comprehensive survey of counterpart individuals and institutions in Australia. The ITLEPP project includes a member from the US, but that country is rather unique in IT (especially internet) development as well as its legal and educational systems. Australia promises a more interesting comparison with Japan.

In September, survey forms for law students, academic staff and heads of law departments were translated into English, requiring some adjustments in view of different educational environments in Japan and Australia. In early October, a pilot study was implemented among 60 Sydney University Law Faculty undergraduate students. As well as providing hints for improving the English-language version of the survey, results indicate significantly better IT capabilities than among Japanese counterparts, seemingly related to the development of resources like AustLII. The present authors would now like to invite cooperation from colleagues in institutions comparable to those who provided the students surveyed in Japan. Ideally, the authors would like to obtain about 500 responses from students from law faculties in two larger universities in major urban centres (such as the University of Melbourne), and in two smaller universities in rural and urban areas.

Questionnaires were sent in late 2001, to all heads of law faculties or departments in Australia. Fourteen replies were received. A questionnaire similar to the draft attached as Appendix C was also sent in April 2002 to over 400 legal academics in such departments, eliciting 83 responses. Quantitative data analysis is now underway, and there is considerable potential for qualitative research by way of follow-up interviews (Ibusuki and Nottage, 2002).

Survey research into the impact of IT on legal practice in Australia is also being planned. Shortened versions of questionnaires administered to *bengoshi* should be sent to a subset of around 2000 practising barristers in New South Wales. Barristers form the closest functional equivalents to *bengoshi*, but the authors would also like to interview medium-sized or larger firms of solicitors to test for alternative perspectives on IT. In addition, questionnaires based on the corporate legal department survey in Japan should be sent to 100 hundred large companies in Australia, or companies known to be interested in IT business. To maximise response rate, cooperation may be sought from organisations like the Australian Corporate Lawyers' Association (<<http://www.acla.com.au/>>).

Conclusions

The ITLEPP project has generated a wealth of empirical data on transformations in legal practice and education, mainly in Japan. The authors hope to enhance this with comparative data from Australia. Hopefully, others will join in this endeavour, no doubt providing further confirmation of the significance of IT developments, a gradual move towards more proactive “legal information engineering”, and the challenges these transformations pose particularly for legal education.

Bibliography

- Makoto Ibusuki (1996), “Hougaku Kenkyusha ni okeru internet Riyo ni kansuru Anketo Chosa Kekka Hokoku” [Report on Results from a Survey on Internet Diffusion among Legal Researchers], *Kagoshima University Law Review* 31(2): 118
- Makoto Ibusuki (2000), “Japanese Law on the Internet: Its Realities and Possibilities”, *The Journal of Information, Law and Technology (JILT)* (1): <<http://www.law.warwick.ac.uk/jilt/00-1/ibusuki.html>>
- Makoto Ibusuki (2001), “When I Grow Too Old to Dream: What Can We Expect of IT in Our Future Educational System”, in *The Multiple Worlds of Japanese Law: Disjunctions and Conjunctions*, ed. T. Ginsburg, L. Nottage and H. Sono, Victoria BC, UVic Centre for Asia-Pacific Initiatives and Centre for Asian and Pacific Law in the University of Sydney: 187
- Makoto Ibusuki and Luke Nottage (2002), “Hogakukei Kyoikukikan ni okeru IT Fukyu: Nichigo Hikaku (Kyoinhen)” [IT Penetration in Law Department: Australia-Japan Comparisons (Legal Academics).]
- Noboru Kashiwagi (2001), “New Graduate Law Schools in Japan and Practical Legal Education”, in *The Multiple Worlds of Japanese Law: Disjunctions and Conjunctions* ed. T. Ginsburg, L. Nottage and H. Sono, Victoria BC, UVic Centre for Asia-Pacific Initiatives and Centre for Asian and Pacific Law in the University of Sydney: 158
- Toshimitsu Kitagawa and Luke Nottage (1998), “Globalization of Japanese Corporations and the Development of Corporate Legal Departments: Problems and Prospects”, paper read at “The Emergence of an Indigenous Legal Profession in the Pacific Basin” at Harvard Law School, 11-14 December 1998; forthcoming in W. Alford and G. Chin ed. *From “Litigation Cudgels” to “Doctors for People’s Social Lives”? The Changing Place of Lawyers in East*

Asia, Harvard University Press

- Luke Nottage (1998), “Cyberspace and the Future of Law, Legal Education and Practice”, *Web Journal of Current Legal Issues* 1998(5): <<http://webjcli.ncl.ac.uk/1998/issue5/nottage5.html>>
- Luke Nottage (2000a), “IT and the Vicissitudes of Legal Practice: Preliminary Empirical Investigations in Japan”, paper read at Main Symposium, Kyushu Law Conference at Kyushu International University, 10 June 2000, <<http://juria.law.kyushu-u.ac.jp/~itlepp/lukeyympo2.html>>
- Luke Nottage (2000b), “Bridging the Gaps in Japan’s Regulatory Framework”, *CCH Asiawatch* 42: 5
- Luke Nottage (2000b), “New Concerns and Challenges for Product Safety in Japan”, *Australian Product Liability Reporter* 11(8):100
- Luke Nottage (2001a), “Japanese Corporate Governance at a Crossroads: Variation in ‘Varieties of Capitalism?’” *EUI Working Papers in Law* 2001(8), European University Institute, Florence, <<http://www.iue.it/law/>>
- Luke Nottage (2001b), “Japan’s Impending Reforms of the Administration of Justice: Far From Final”, *CCH Asiawatch* 48: 6
- Luke Nottage (2001c), “Reformist Conservatism and Failures of Imagination in Japanese Legal Education”, *Asian-Pacific Law and Policy Journal* 2: 28 <<http://www.hawaii.edu/aplpj/2/16.html>>
- Luke Nottage (2001d), “Digitalising Japanese Legal Education: Japan and the World(s)”, in *The Multiple Worlds of Japanese Law: Disjunctions and Conjunctions*, ed. T. Ginsburg, L. Nottage and H. Sono, Victoria BC, UVic Centre for Asia-Pacific Initiatives and Centre for Asian and Pacific Law in the University of Sydney: 167
- Dan Rosen (2001), “Will the Creation of American-Style Law Schools Bring American-Style On-Line Legal Education to Japan?”, in *The Multiple Worlds of Japanese Law: Disjunctions and Conjunctions* ed. T. Ginsburg, L. Nottage and H. Sono, Victoria BC, UVic Centre for Asia-Pacific Initiatives and Centre for Asian and Pacific Law in the University of Sydney: 164
- Richard Susskind (1996), *The Future of Law*, Oxford, Oxford University Press
- Richard Susskind (2000), *Transforming the Law*, Oxford, Oxford University Press
- Leon Wolff (2002), “deregulation: Japan’s New Telecom Imperative”, *CCH Asiawatch* 53:1

Appendix A

A.5 How does your legal department/firm **presently use IT?** (Please circle a number on a scale from one (lowest use) to six (highest use), or “Don’t know”):

	Norwegian law firms (IT-intensive)	<i>Bengoshi</i>	Cos
(a) Word Processing	5 (5.5)	5.4	5.6
(b) <i>Presentations</i> (eg Powerpoint)	2 (3)	1.5	<u>2.85</u>
(c) Electronic Calendars/timetables	n/a	2.4	2.9
(d) <i>In-house Electronic Mail</i>		2.5	<u>5.5</u>
(e) <i>External Electronic Mail</i>	3.8 (5.8)	4.1	4.75
(f) Webphone, Video-conferencing	n/a	<u>2.6</u>	1.8
(g) Accounting Systems	2 (2.5)	<u>4.1</u>	2.9
(h) Document assembly systems	1.4 (1.5)	3.0	3.7
(i) <i>Expert systems</i> (eg Artificial Intelligence)	1.3 (1.7)	1.7	2.0
(j) <i>Groupware</i>	1.9 (3.8)	2.1	<u>3.8</u>
(k) In-house Databases (eg library catalogue)	3 (4.5)	3.9	3.7
(l) <i>External Legal Databases</i> (online, or CD-ROMs)	3.4 (4.3)	3.5	4.3
(m) Full in-house <i>Intranet</i>	1.5 (2.5)	2.4	<u>5.0</u>
(n) <i>Research using external websites</i>	2 (3)	3.7	4.45
(o) <i>Research using external newsgroups,</i> <i>mailing lists, etc</i>	n/a	2.9	2.9
(p) <i>Maintaining own website</i>	1.9 (3.7)	1.9	2.9

(Items in *italics* represent more advanced “knowledge management” applications, according to the categorisation used by Gottschalk 1999.)

Appendix B

A.8 Overall, what effects have IT developments had on your department? (Please circle a number on a scale from one (very little effect) to six (very great effect), or “Don’t know”):

	Cos	Bengoshi
Means of Communication:		
(a) <i>Faster communication</i>	5.6	4.1
(b) Cheaper communication	4.6	3.6
(c) Better communication generally	4.4	3.4
(d) Strengthened personal relationships with own company colleagues	3.1	1.9
(e) Strengthened personal relationships with outside clients, professionals, etc	3.4	2.8
Means of Information-gathering:		
(f) <i>Faster information-gathering</i>	5.35	4.6
(g) Cheaper information-gathering	4.9	3.7
(h) More focused information-gathering	4.6	3.3
Effects on Administration/Management:		
(i) <i>Faster administration</i>	4.7	3.8
(j) Cheaper administration	4.1	3.6
(k) Simplified administration	4.6	4
(l) More flexibility in hours or days worked	3.2	2.7
(m) More stress from time pressure	3.2	2.8
(n) Physical health problems	3	2.1
(o) Tensions between younger and older department/firm members	3.1	1.8
(p) Problems with staff using IT for private use in the office	2.6	1.5
(q) More problems with maintaining security	3.5	2.1
(r) Discouraging experimentation	1.7	2.2
(s) Downplaying thinking and reasoning	1.8	1.8
(t) Overall cost savings to your department/firm	2.8	2.6
<i>(u) More involvement of your departmen/firm in other departments'/firms' planning and implementing of transactions</i>	3.8	2.4
Legal System Effects:		
(v) Fewer disputes	1.9	1.4
(w) Smoother resolution of disputes	3	2.1
<i>(x) Better understanding of general legal principles, from applying them to IT related issues</i>	4.3	3.1

Appendix C: Draft ITLEPP Questionnaire for Australian Legal Academics

PART ONE: GENERAL

1. What is your age?
2. How many years have you been an academic?
3. What is your area of study?
4. Which institution or university do you currently work for?
5. What is your name? (Participants may remain anonymous if they wish.)
6. May we cite your name in publications regarding this research?
Yes or no
7. Please provide your email address if you permit us to contact you in the future.
8. Do you use a computer? Yes or no
9. What kind of computer do you use? Please indicate the number in the box corresponding to your answers.

Desktop	
Laptop (B5 size or larger)	
Mobile (B5 size or smaller)	
Other (Please Specify)	

10. Do you own a mobile terminal (eg mobile phone)? Yes or no
11. Does your institution have a LAN network? Yes or no
12. How many email accounts do you have (including private accounts)?

PART TWO:**INFORMATION TECHNOLOGY**

13. Do you use IT (information technology)?

14. Why did you start to use IT? Please choose one answer and mark "X" in the corresponding box.

For communication amongst researchers	
To gather research material and information	
Because of the digitalisation of administration	
It has become necessary in education	
I have an interest in it	
Other (please specify)	

15. What results did you obtain from using IT? Please answer ranking your top three by marking "1", "2" and "3" in the corresponding boxes.

Contents, level and speed of research have improved	
Quality and substance of research have changed	
Information collection has become easier	
Publication and dissemination of information have been improved	
Administrative work has become more efficient	
There were changes in pedagogy	
Communication with students has improved	
Communication with colleagues has improved	
Other (please specify)	

16. What are the demerits of the use of IT? Please rank your top three by marking “1”, “2” and “3” in the boxes corresponding to your answers.

Reduction of reading time	
Physical discomfort	
Increase in financial burden	
Obstacles in the accomplishment of research	
Information gathering has become more complex	
Administrative work has become more complicated	
Communication with students has been reduced	
Communication with colleagues has been reduced	
Other (please specify)	

17. What is your overall opinion of IT in view of all the experiences and changes since its introduction?

18. What are the sources of information for your research? Please indicate percentage, totalling 100 per cent.

Printed material (eg newspapers, magazines, books etc)	
Digital media (eg WWW, mailing lists etc)	
People (eg colleagues, academic societies, personal communications etc)	
Other (Please Specify)	

19. What IT skills do you use? Please answer “Yes” or “No” in the boxes corresponding to the questions.

Use of word processor (eg composing everyday documents)	
Sending and receiving email (eg for everyday communication)	
Terminal operation (eg CD-ROM or library catalogue searches)	
Use of the world-wide-web (WWW) (eg as a means of accessing news or legal information)	
Educational support (eg use for course or seminar homepages, mailing lists)	

20. How many email messages do you receive approximately each day? (If you have multiple accounts, please indicate the total number of messages received.)

21. How many mailing lists do you subscribe to and for what purposes? If you do not subscribe to any please indicate “0” in all boxes.

Mostly for research purposes	
Mostly hobby	
Mostly for communications with friends etc	
Other (Please Specify)	

22. How many mail news and mail magazines do you subscribe to and for what purposes? This includes news and magazines that are free of charge. If you do not subscribe to any please answer “0” in all boxes.

Mostly for research purposes	
Mostly as a hobby	
Mostly for communications with friends etc	
Other (please specify)	

23. How do you obtain IT support (in case of trouble or questions)? Please rank your top two.

Ask support staff (specialists)	
Ask colleagues	
Ask graduate or undergraduate students	
Ask a vendor	
Other (please specify)	

24. How do you think you will use IT in the future? Please rank your top three.

For the management of my institution	
For communications within the university	
As a means of communication with academic societies and research projects	
As a means of communication with overseas	
As a means of publishing and disseminating theses and research papers (setting up a home page)	
For the support of educational activities	
As a tool of research	
Other (please specify)	

25. What kind of obstacles can occur when putting the above into practice?