LINKING LAW

PRACTICAL GUIDELINES FOR DELIVERING LAW TO RURAL VICTORIA USING E-LEARNING TECHNOLOGIES

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Acknowledgements

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List of acronyms

ABS: Australian Bureau of Statistics

ACMA: Australian Communications and Media Authority

ACOSS: Australian Council of Social Services

CLC: community legal centre

CPD: continuing professional development

CRRLJ: Centre for Rural Regional Law & Justice (Deakin University)

FCLC: Federation of Community Legal Centres (Victorian body)

ILO: intended learning outcome

ISDN: Integrated Services Digital Network

LCCLC: Loddon Campaspe Community Legal Centre

LIV: Law Institute of Victoria

NACLC: National Association of Community Legal Centres

NCYLC: National Children's and Youth Law Centre

NDIS: National Disability Insurance Scheme

NFP Law: Not-for-profit Law

RRR: remote, rural and regional

VLA: Victoria Legal Aid

VLAF: Victoria Legal Assistance Forum

VLF: Victoria Law Foundation

Glossary of terms

Asynchronous communication: communication in which exchanges are not immediate, as in real-time conversations, but messages are left for viewing later, eg email or text discussion forums

Instructional design: the systematic design of instructional experiences, informed by learning theory

Pedagogy: the art and science of teaching and learning

Synchronous communication: communication in which exchanges are immediate, eg via telephone or video link

Videoconference: real-time audio and video communication over internet or phone-based systems between multiple centres (traditionally, using specialist, networked hardware and software)

Webinar: online meetings in which participants interact by audio, video and text, usually from their personal computers or mobile devices

Wiki: a web application that enables people to create, add, modify or delete content online, in collaboration with others

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1. Introduction

These guidelines provide information, analysis and practical tips for organisations seeking to use digital technologies to enhance general and professional legal education for people living in remote, rural and regional (RRR) Victoria. Given the difficulties people living in RRR areas still face in having to take time away from work and home and travel long distances to attend many legal educational events, it makes sense to explore these options. However, it can be particularly difficult for organisations seeking to engage with RRR people to choose between educational technologies and techniques, given the considerable hype and movement in the field at present. Options are plentiful and complex, with multiple practical and organisational considerations attached to each, and the situation changes frequently as technologies improve. The increasing reach of high-speed internet and mobile networks is creating opportunities for different and more engaging educational methods to be used in most regional and rural areas, but fast internet is not the be-all and end-all. There is much that can be achieved with intelligent use of a range of lower-tech options including low-speed internet, phone, DVD and regional site-based educational technologies.

These guidelines aim to identify a range of practical, digitally based options that are available for different educational purposes, and provide sets of protocols for implementing these options so that RRR people can gain maximum educational benefit and organisations can access guidance on best practice. In many cases, standard good practice in the use of these technologies is all that is needed to include people living in RRR areas effectively in community and professional education. Many metropolitan participants can also benefit from the availability of low-bandwidth options, recordings, provision for individual online access to videoconferenced events and so on.

This document begins with an overview of the landscape for digitally based legal community and professional education in RRR Victoria. The requirements of RRR people for legal information and assistance have been described well in recent publications.[1] There is no doubt that digital technologies can help address some of these needs, but technical and non-technical barriers exist, and section 3, 'Needs, capabilities and barriers in the legal digital education landscape', sets out briefly what the relevant capabilities and barriers are for RRR people in Victoria.

The major part of this document contains guidelines for choosing and implementing a wide range of digitally based education options. The guidelines highlight a range of factors reflecting important practical and pedagogical concerns, including access, cost, need for specialist IT support, cohort size, and ability to support particular learning designs and types of communication. A planning framework focusing on educational approaches is provided as a starting point in section 4, 'Planning for learning using digital technologies'.

Table 4.2 sets out the ways in which legal organisations in Victoria are already using digital technologies to provide community and professional legal education in RRR areas. Organisations seeking to expand or enhance their educational programs may benefit from partnering with others with similar aims, methods and learner bases.

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1   In particular, see Coumarelos *et al.* 2012.

Section 5, 'Technology groups', is divided between commonly used synchronous digital learning technology options, with real-time audio, video or text interaction (ie videoconferencing and webinars), and asynchronous options that are made available for people to access when they wish, with responses either automated or delayed (including websites, DVDs, online learning modules and smartphone apps). Different types of social media can fit in either of these categories and have particular considerations attached, so these have been grouped separately.

Just as there is no one best way to teach any particular group of people, readers will find that many of the digital options described could suit their needs. There are numerous useful free or low-cost technologies, and many flexible applications that can be employed in different ways to deliver targeted education in specialised areas. Most organisations working in community and professional education find a combination of media and techniques works best, but that should not imply 'anything goes'. Better outcomes will result from using basic instructional design processes to clearly identify educational needs and learner characteristics, carefully designing learning activities and materials to meet these needs, implementing programs with the learner's experience at front and centre, and then evaluating the methods and outcomes in an iterative cycle.

The guidelines have arisen from a research project funded by the Telematics Trust and completed by the Centre for Rural Regional Law and Justice (CRRLJ), in the Deakin University School of Law.

2. Methods, assumptions and definitions

Research methods

The research project that has informed these guidelines took place over 2013–14. It involved mixed research methods: 33 semi-structured interviews, a literature review, and three trial educational events, each with participant surveys. Further information about the research questions and methods, including interview questions and surveys, is in the Appendix.

Interviewees included eight participants in the trial events and twenty-five people with expert knowledge of various kinds that was relevant to the research. These included staff in peak legal organisations involved in delivering community or professional legal education in RRR areas in Victoria, experts in rural-regional issues, law academics, senior staff in non-legal organisations (particularly health) involved in community or professional education in RRR areas in Victoria, experts in e-learning technologies and experts in use of social media for education. The interviews took place between March and July 2014 and were conducted in person or by telephone. Each was audio-recorded and transcribed.

The trials took place in three webinar-based educational forums hosted by the Centre for Rural Regional Law and Justice between March and June 2014. These were on legal or rural-regional topics, each with a combination of community and legal-professional attendees. The events trialled different webinar applications (GoToWebinar and Microsoft Lync) and different formats (all-online and combined online–face-to-face cohorts). The research was also informed by the Centre's experience of delivering regular educational events via videoconference to up to fifteen regional Victorian locations during 2013–14. These videoconferences used the Deakin University Cisco system linked with the VLA Scopia system, with individuals attending remotely online via the Scopia software. Jabber, Twitter and Skype have been trialled as means to connect to the events.

Very little literature was found on the particular research questions within the Victorian context, however, several recent key studies into legal need in Victoria, legal need in RRR areas, and use of technologies in the legal sector proved useful in helping to lay foundations for the study. Literature on e-learning and distance education was much more abundant, and provided useful frameworks to guide the planning and learning design sections of the guidelines. Online sources including webinar / videoconference product websites and product reviews provided technical information on the various applications.

The qualitative research application NVivo was used to categorise and collate data. The methods were approved by the Deakin University Human Research Ethics Committee (Approval Number BC-EC 18-13). The project was overseen by a small reference group representing the project team and individuals from the legal and higher education sectors in Victoria.

Assumptions and definitions

As stated above, the aim of these guidelines is to provide information, analysis and practical tips for organisations seeking to use digital technologies to enhance general and professional legal

education for people living in RRR Victoria. This is a broad aim, and in order to make the task manageable several important assumptions have been made:

- The primary audience envisaged for the guidelines is people and organisations seeking to enhance their skills in delivering legal information or education to people in RRR areas, and seeking guidance on how to use contemporary digital technologies to do so. The aim is to provide a *practical* resource to assist decision-making, planning and design of digital-based learning in this context, rather than a formal research report.

- Every effort has been made to ensure the information in these guidelines is current as at mid-2014, but with rapid changes in technologies, infrastructure and legal organisations' policies and procedures the situation is changing rapidly. Therefore, organisations or people making decisions in this area should also refer to more current information as it arises.

- The terms *remote*, *rural* and *regional* are defined loosely, according to population numbers and density in broad geographical areas. Different research bodies categorise population density across the country in a range of different ways and for the purposes of this project it is not necessary to enter debates on these. In these guidelines, *regional* implies non-capital cities, *rural* implies smaller rural communities, and *remote* implies remote locations with low populations. Thus, the combined remote, rural and regional (RRR) category only excludes people living in capital cities.

- Two broad types of education are addressed under the heading of 'digital legal education'. *Community* or *general legal education* is a broad concept that includes one-way information provision such as through websites as well as interactive, group-based methods such as webinars. Although boundaries are difficult to draw between various types of information provision and education, I have not included one-to-one legal counselling under this heading, and have focused more on group-based, interactive approaches than information provision—a VLAF working group have recently addressed issues of online legal information provision.[2]

- The implied *general / community* audience is anyone who is *not* a legal professional, and includes professionals in fields such as youth workers, health workers and so on as well as people with a general interest in a legal issue. However, educational events for legal professionals are often of interest to general audiences as well.

- *Professional legal education* includes both formal continuing professional development studies required by the Law Institute and informal development activities such as networking and mentoring.

- Other types of legal education such as school-based and university-based education courses have many separate characteristics and are not covered by these guidelines.

- The main technology groups discussed in the guidelines have been chosen following consultations and interviews with key people in the Victorian legal education context. These people expressed considerable interest around webinars, videoconferences and combined face-to-face–online events in particular, as well as anxieties around use of social media

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2   http://www.vlaf.org.au/cb_pages/vlaf_online_information_wg.php (accessed 27 August 2014).

for education, so these digitally based methods have been explored in some depth. Many other technologies can be employed in legal education for RRR people. The newer ones that show considerable promise but are not yet in widespread use in this sector, such as learning management systems and smartphone apps, have been mentioned as sub-groups of the 'asynchronous' technologies in section 5, 'Technology groups'. Ubiquitous technologies such as telephones, DVDs, email, word processing, spreadsheet and presentation applications are also important but have not been discussed separately as they are already widely used for educational purposes.

3. Needs, capabilities and barriers in the legal digital education landscape

Current RRR digital legal education offerings

Most peak legal organisations in Victoria are currently using digital technologies in one way or another to provide community or professional legal education in RRR areas. Some are undertaking innovative education and training projects using relatively new technologies. Table 3.1 outlines the broad approaches that many key organisations in this area were taking, and some of the main technologies they were using, during early 2014, with information taken from interviews in this period. The table has been included both to describe briefly the setting in broad terms, and to provide information on 'who is doing what' for groups wishing to learn from or perhaps partner with organisations with similar educational aims and learner bases.

Table 3.1: Current digital legal education offerings for RRR Victorians

Organisation	Areas of interest in RRR legal education	Digital communication / collaboration systems used
Law Institute of Victoria	– Continuing professional development for lawyers and specialists – Fostering social contact and professional networks for lawyers	– Face-to-face lectures in Melbourne and some regional centres that may be accessed via broadcast using WebEx, and recorded onto DVDs – Online modules prepared by a contract e-learning organisation (under review) – Facilitation of formal networking circles
Victoria Legal Aid	– Professional development for legal aid and private lawyers	– Videoconferencing (infrastructure provided in regional centres, using Avaya Scopia system) – Moodle learning management system for administration and delivering integrated online learning modules – Exploring webinars (Lync to be taken up) – All VLA frontline lawyers have iPads for online learning as well as other uses.
	– Community legal education targeting priority areas such as youth, prisoners, people with disabilities, Aborigines	– Website with interactive web resources – Smartphone apps – YouTube channel (using digital stories, narrative-based approaches) – Info kits containing DVDs, printed fact sheets

Organisation	Areas of interest in RRR legal education	Digital communication / collaboration systems used
Federation of Community Legal Centres	– Professional development for CLC lawyers	– Meetings using WebEx (mainly telephone conference mode) – Virtual community for community legal education workers on Facebook – Most CLC lawyers use laptops for mobile computing needs (including professional development) – Online modules (under review)
	– Community legal education	– Individual CLCs develop resources in a variety of platforms and formats to meet their particular audience needs. These include websites with audio / visual materials, fact sheets, Twitter and Facebook presence.
National Association of Community Legal Centres	– Professional development and supervision for lawyers, including recent graduates in RRR areas	– Telephone conferences and webinars using WebEx – CLEAR database: a national online database of community legal education and law reform projects – RRR virtual network (Facebook group) – Online repository of professional development resources
Justice Connect's Not-for-profit Law service	– Community legal education for not-for-profit organisations	– Not-for-profit information hub website, using an interactive decision-tree approach – Online legal fact sheets, guides and precedents – Webinars (using GoToWebinar) – Videos – Face-to-face workshops (both city and regional based) – Monthly legal update podcast – Social media and monthly email update
Victoria Legal Assistance Forum	Professional development	– In the past VLAF have run forums, some videoconferenced through Victoria Legal Aid network, and recorded onto DVD. Now VLAF coordinates working groups in priority areas instead of running forums.

Organisation	Areas of interest in RRR legal education	Digital communication / collaboration systems used
Victoria Law Foundation	Schools-based legal education	– Law talks: face-to-face two-day roadshows to VCE legal students in two rural-regional centres each year – 'Classroom law', single school visits for rural-regional schools (face-to-face) – Schools legal hub website
	Community legal education	– Everyday-law website – Law week face-to-face sessions in regional centres, starting to use webinars
Youthlaw Victoria	Community legal education for youth, client consultations	– Short YouTube video vignettes on aspects of the law using story format – Consultations using Skype, Facebook
National Children's and Youth Law Centre (UNSW)	Community (young people's) legal education through online tools	– Lawstuff website for children and young people – Lawmail: free legal advice for under-eighteens via email
Fitzroy Legal Centre	Community legal education	– The law handbook website
Centre for Rural Regional Law and Justice	Community legal education and professional development combined	– Videoconferences (Deakin at your doorstep regional network + Victoria Legal Aid regional network); remote linkages via Scopia – Have trialled webinars using GoToWebinar and Lync, and an event with combined face-to-face and online participants using Lync

Legal education needs in RRR Victoria

Community needs

Despite the best efforts of the peak legal organisations, the need for community education on legal issues in RRR Victoria has been described as 'vast' and 'often urgent' by a leading rural legal issues observer.[3] While important gaps in people's understanding of legal matters exist throughout the community, the gaps tend to be greater in places where there are fewer legal services and staff, and fewer services generally, such as in rural and remote areas.[4] In addition, disadvantaged or socially excluded groups of people tend to have more legal problems;[5] and people in remote areas in Australia tend to be the most disadvantaged.[6] To complicate things, needs often vary from location to location in RRR areas. For example, rural areas with high numbers of refugees may

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3   Interviewee comment.
4   Interviewee comment.
5   Coumarelos *et al.* 2012.
6   National Rural Health Alliance 2013, p. 3.

have some different legal education needs to rural areas with high numbers of Aborigines, or rural areas experiencing severe drug problems.[7] Further, not-for-profit groups and small businesses in RRR areas have problems recognising legal issues and then accessing appropriate assistance.

Identifying community legal education needs

The first step in addressing RRR people's needs for legal education should be to clarify what and where they are. The following sources may be useful:

- Staff in legal organisations' regional offices often have a good understanding of information needs from their contact with clients.

- Significant amounts of data on client interactions are continuously collected by many legal services, and this could be mined and analysed.

- Partner organisations delivering health, financial, youth and aged services, and so on, are a vital source of information, as clients often consult these service providers on legal matters.

- Local councils generally have good insight into local needs.

- Government or community-sourced reports can also provide insights into particular kinds of information needs and how they might be addressed.

Surveying, analysing existing data, interviewing and casual networking conversations are all practical methods to gather this kind of information, but needs analysis should not be a once-only activity. Needs can change rapidly as particular issues arise in particular locations, so any organisation involved in regularly providing legal education to RRR people and organisations needs a frequent, methodical information-gathering approach. Legal needs are often more complex in more remote areas because, due to lack of legal education and services, many people do not realise they should seek legal advice on an issue, and over time the issue worsens and affects other aspects of their lives.[8]

Targeting community legal education and information to meet legal needs

Most people do not have a good understanding of legal services, and do not seek information on legal issues until they become urgent,[9] so the distinction between providing advice and providing information or education frequently does not exist. However, it is costly and can be logistically difficult in RRR areas to provide personalised, just-in-time legal advice—and it is inefficient use of resources to provide personalised advice when self-help educational methods can provide all the information some people need.

A report following a comprehensive 2012 survey into legal need in Australia and Victoria[10] recommended a holistic approach to address the significant amount of unmet legal need. Part

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7   Interviewee comment.
8   Interviewee comment, Coumarelos *et al.* 2012, pp. xv, xvi.
9   Coumarelos et al. 2012, p. xxi.
10   Coumarelos *et al.* 2012.

of this was a tailored approach to providing information and education that was focused on the needs of different demographic groups, for example people at particular life stages. The report noted that groups less likely to take action on legal problems included males, younger people, older people, people with low education levels, unemployed people and people whose main language was not English. It found that self-help strategies (such as websites) were useful if they were aimed at demographic groups with high levels of legal knowledge and capability. However, many people were likely to need *personal* legal assistance, and could benefit from well-targeted information and education campaigns to help them identify their legal problems and find appropriate support services. Another of the report's recommendations was for integrated service delivery across legal and non-legal services, particularly for more disadvantaged groups. This involves educating non-legal professionals to help their clients identify and deal with their legal problems. In later sections of these guidelines we will outline a variety of ways in which digital technologies may be used to help implement these approaches to meeting legal need through community education and information provision.

Professional needs

Legal professionals in RRR areas have arguably greater needs for continuing professional development (CPD), including formal and informal education, networking and support, than those in urban areas. However, their access to opportunities to meet these needs is limited. Particularly where legal professionals are working in relative isolation, for example in a country practice with few staff, they need a broad and strong knowledge of the law to be able to advise clients on a wide range of issues. It has been found that greater isolation in more remote communities results in a lack of the collegiality that is necessary for maintaining a rigorous approach. Lawyers also need to know to whom they should refer clients who need specialist legal or other types of advice, or where conflicts of interest arise. [11] In addition, they have a particular need to be able to use whatever information and communication technologies are available, such as relevant websites, videoconferencing / webinar technologies, phone conferencing systems, mobile devices and in some cases social media, to be able to find the information they need and manage communications between clients and distant specialists or pro bono lawyers. At the same time, the profile of legal practitioners in RRR Victoria is aging, and they are increasingly constrained by the pressures of being short-staffed. Furthermore, increasing disadvantage in many RRR areas is increasing the complexity and urgency of client legal issues. Therefore, professionals' need for networking and social support is high.

Formal CPD requirements

All practising lawyers in Victoria are required to complete ten hours of CPD activities each year. This must include at least one hour of CPD activity for each of the four fields of ethics and professional responsibility, professional skills, substantive law, and practice management and business skills.[12] Many of these requirements may be met via formal educational methods such

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11   These issues are covered at greater length in Kyle, Coverdale & Powers 2014.

12   Law Institute 2008.

as seminars, webinars, workshops, videoconferences or professional development modules (eg those administered by LIV, VLA and FCLC)—though in many cases RRR lawyers have needed to travel long distances to Melbourne, or at least to large regional centres, to complete these requirements satisfactorily.[13]

In section 4, 'Planning for learning using digital technologies', a framework sets out the kinds of activities that are most likely to elicit various kinds of learning outcomes. Substantive law and other knowledge-based subjects may arguably be taught adequately through lectures, reading and other simple ways of providing information. However, according to educational research, providing a means of interaction so learners can ask questions, and check and refine their understanding of key issues with peers, can help make their learning more personally meaningful. Subjects involving iterative skill development and learning outcomes such as people management skills have been found to be more effectively learnt through interaction with other learners and teachers, using reflection, discussion, and practice with feedback. These kinds of activities are relatively simple to implement when learners can gather in one place: role-plays, supervised practice and small group discussions of many types can be set up and run with minimal preparation. Online technologies such as webinars, videoconferences and text discussion forums are making it increasingly viable to teach these kinds of skills remotely, but there is no doubt that implementing e-learning techniques such as these requires additional considerations and capabilities.

Informal requirements

In addition to their formal CPD requirements, legal professionals need to maintain and broaden their networks. Major organisations such as VLA and FCLC promote networking and supervision of recent graduates within their own communities of practice, using everyday communication systems such as phones and email, but legal practitioners operating outside of these organisations can find networking difficult and supervision poor.[14] Legal work with individuals can involve exposure to client trauma, and being able to talk at length with peers and more experienced practitioners can provide coping and client-management strategies as well as emotional support. Again, social contact to meet these needs may be difficult to arrange in RRR areas where practitioners may be working in relative isolation. Legal practitioners working in more remote areas where access to a range of related services, such as health, financial, consumer, environmental and aged services, can be poor also need to actively forge and maintain links with a range of non-legal service providers, in order to help integrate services for individual clients or organisations with more complex needs.[15]

The technologies listed above can all be employed to create a virtual space for social interaction. However, as people frequently need social support at odd times, rather than during scheduled CPD sessions or meetings, email, phone, online forums and social media platforms such as closed Facebook or LinkedIn groups and private Twitter conversations can be more useful in terms of providing fast responses. Recent statistics show that many people in RRR areas are already using

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13   Interviewee comment.
14   Interviewee comment, Kyle, Coverdale & Powers 2014.
15   Interviewee comments.

technologies such as these to meet their communication and information needs, although in significantly lower proportions than in metropolitan areas.[16] The technical and non-technical barriers RRR people face in terms of using digital technologies for legal education, and the factors that are supporting their capabilities to connect in these ways, will be discussed next.

Capabilities for and barriers to using digital technologies in RRR areas

Technical capabilities and barriers

The internet is increasingly popular as a platform for education, and provides people who have fixed-line or mobile access in RRR areas with richer forms of information delivery as well as more ways of interacting with teachers, experts and peers, and using digital tools for learning than they have ever had before—all generally at relatively low cost to themselves. As the National Broadband Network increases its reach, fixed-line and satellite internet and mobile networks improve, and mobile tablet and smartphone use continue their upward trajectory, this trend will no doubt continue. However, the internet is not the only digital technology that is useful for education. At the time of writing, not all people in RRR areas had good fixed-line or mobile internet access. Telephone networks are generally able to fill gaps where internet access is not good, and phone communication has advantages of its own. There are also advantages in more remotely located people travelling to regional centres where they can access videoconferences or webinars and learn with and from other learners.

The internet

The internet is increasingly the platform of choice for communication, information, business, government and entertainment as well as education. Many people in RRR areas are taking advantage of the unprecedented access the internet provides to possibilities for connections and information to support almost every aspect of their lives: numbers of Australians in non-urban locations with broadband connections at home increased from 52% in 2009 to 72% in December 2013. However, it should be remembered that this figure is lower than the proportion of major city dwellers with a broadband connection at home (84%); and the quality of these connections tends to be lower for RRR people.[17]

For several decades the internet, whether via fixed line, satellite or mobile networks, has been the site of major innovation, and education providers have benefited from the creativity and product development that has taken place across many sectors. With a computer or internet-enabled mobile device and reasonable access to the internet—a minimum of either an ADSL fixed-line internet connection or access to a 3G or 4G mobile network delivering data at greater than 6 Mbps[18]—people can take part in educational events with experts and peers in real time, sharing streaming video, talking, doing small group work, collaborating on projects, exploring websites together, delivering audio-visual presentations themselves, completing assessments and so on, no matter where they are.

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16   ACMA 2014, Figure 6.
17   ACMA 2014, Figure 1.
18   Interviewee comment.

However, without a good internet connection, both learners and facilitators can experience considerable frustration as many of the activities listed above do consume large amounts of bandwidth. Video that is blurry or stalled with frequent 'buffering' time; audio that is delayed, making conversations stilted; and web pages taking a long time to download can all make learners lose interest and feel isolated from others. Lost connections can be permanent. From the facilitator's point of view, it is difficult to predict the quality of learners' experiences, such is the variability in different users' connections when they are joining from RRR locations, which also can vary from day to day.

Figure 3.1 illustrates the varying average bandwidth availability per capita for fixed or mobile broadband that existed in 2011. With the continuing extension of the National Broadband Network and other broadband networks, access to the internet at sufficient speeds to allow the kinds of educational interactions listed above will have improved, and will continue to improve. The map shows that even in 2011, most Victorians should have had reasonable internet speeds for educational purposes (ie above 6 Mbps). However, some people in rural and remote areas were then (and possibly still are) prone to coverage gaps or relatively slow speeds.
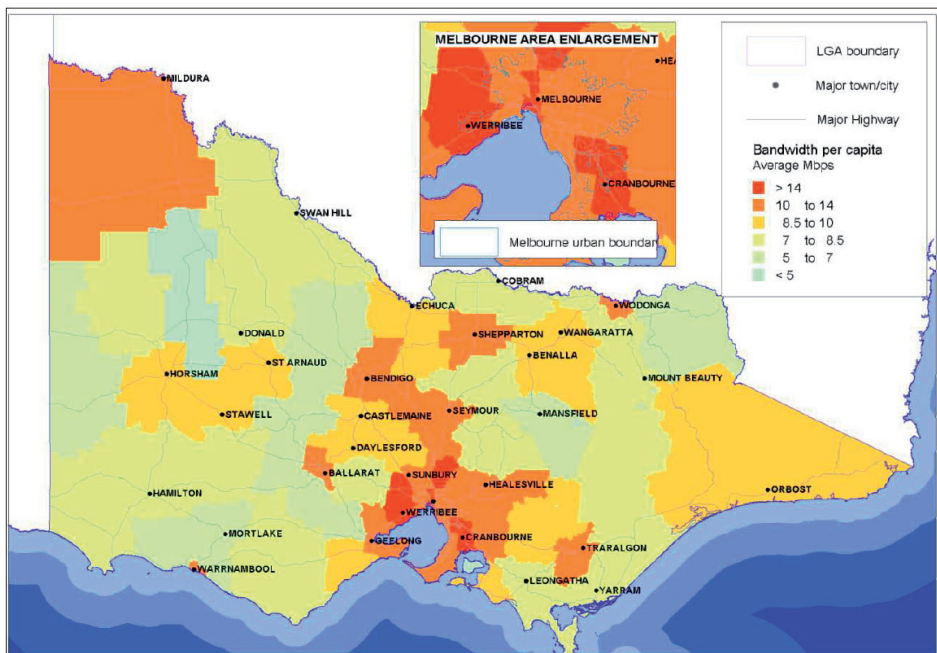
Figure 3.1: Average maximum bandwidth per capita, October 2011[19]

Mobile internet access

The trend to use mobile devices, tablets or smartphones to access the internet is increasing. This is occurring in RRR as well as urban areas. In 2014, 54% of Australian adults owned a smartphone, and 37% owned a tablet (70% owned either one or the other).[20] Figure 3.2 shows the relative percentages of Australians using various kinds of internet connection between 2008 and June 2013, and in particular the rapid relative growth of mobile device use for this purpose.

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19   Map source: Victorian Government 2011, p. 25.
20   Deepend 2014, p. 10.

Legend: Use the internet via a mobile phone* — Home broadband connection — Home internet connection

Y-axis: % of people aged 18 years and over

Home internet connection: Jun-08: 71, Jun-09: 75, Jun-10: 77, Jun-11: 79, Jun-12: 80, Jun-13: 80

Home broadband connection: Jun-08: 56, Jun-09: 63, Jun-10: 66, Jun-11: 69, Jun-12: 70, Jun-13: 74

Use the internet via a mobile phone*: Jun-08: 8, Jun-09: 9, Jun-10: 13, Jun-11: 21, Jun-12: 32, Jun-13: 42

*Relates to use of the internet via a mobile phone handset during the month of June. Source: Roy Morgan Single Source.

Figure 3.2: Changes in access to the internet, 2008–13[21]

Telstra claims its mobile telephone network extends to 99% of people living in Australia.[22] However, this figure relates to population coverage rather than geographic coverage, and as most mobile device users find when they travel in RRR Victoria, even if they signed up to the Telstra network, signal strength in many places is not strong enough to enable continuous telephone (voice) access between towns, let alone data downloads fast enough to deliver streaming video. Subscribers to other mobile networks in Australia generally fare worse in more remote areas. Due to topographical factors there are even black spots in some metropolitan areas. Figure 3.3 illustrates the variations in mobile data download speeds throughout the Victorian Telstra network in 2014.

Rates of connection to the internet via a mobile device are proportionately lower in RRR areas than capital cities, but numbers in RRR areas are increasing rapidly: where in 2009 just 5% of non-urban residents connected via a mobile device, the proportion in December 2013 had risen to 32% (albeit against 49% of major city dwellers connecting this way in 2013).[23]

A December 2013 survey showed that Australians are using the internet for more and more activities.[24] RRR people are fast catching up to metropolitan users in the *variety* of ways in which they use the internet. However, the poorer quality mobile signals in non-urban areas are a likely cause for the lower rates of internet users accessing *streamed* content, such as video, on mobile devices in these areas.[25] Educational providers should also remember that relying on mobile devices for data can be expensive. Data plans for tablets are generally cheaper than data plans for phones, but heavy data users need to keep track of their usage, as over-spending on a plan can be costly.

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21   Graph source: Australian Communications and Media Authority 2013, p. 110, Copyright Commonwealth of Australia (ACMA) 2013.
22   http://www.mobilenetworkguide.com.au/telstra_network_information.html (accessed 18 August 2014).
23   ACMA 2014, Figure 1.
24   ACMA 2014, Figure 7.
25   ACMA 2014, Figure 5.
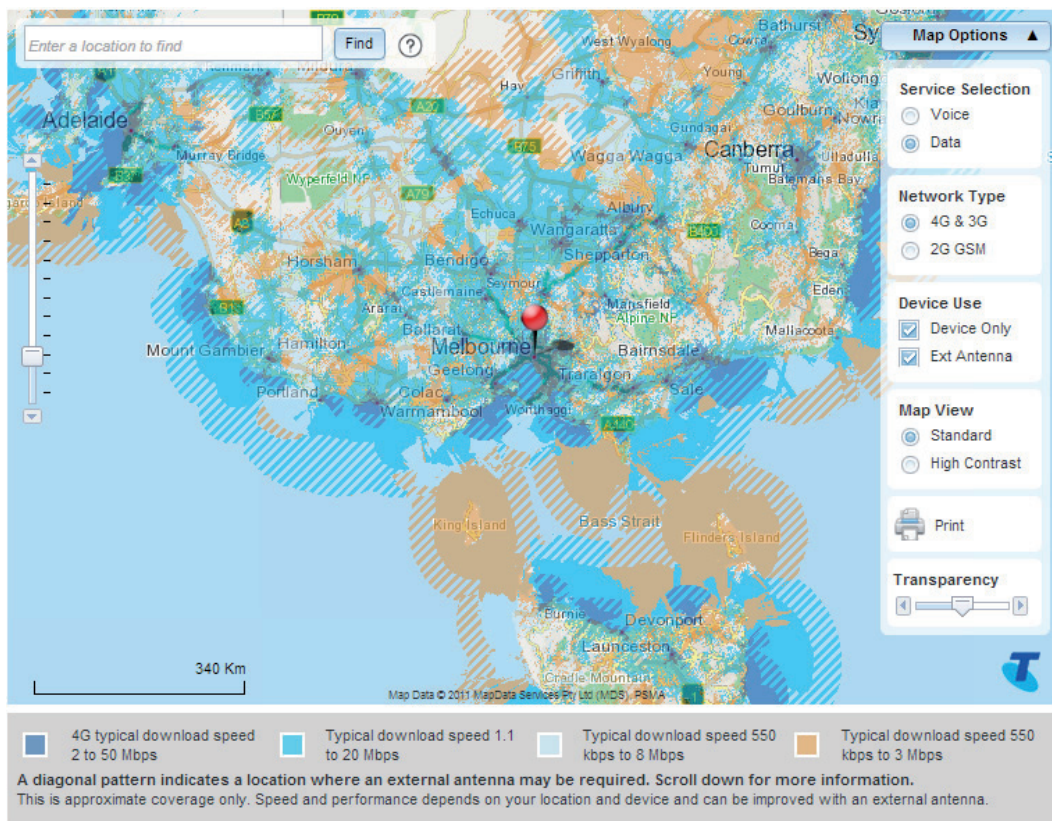
Figure 3.3: Telstra mobile data network coverage and approximate speeds[26]

Videoconferences in regional locations

For those people without a reasonable internet connection at home or work, or strong mobile signals in their area (which may be in some pockets of metropolitan areas in Victoria as well as in rural and remote locations), there are often facilities with cabled or enhanced internet connections in not-too-distant health centres, libraries, local council centres, legal aid offices, community legal centres, TAFE or higher education centres in regional communities. Many of these facilities are available to public users, or can be made available for educational events through partnership agreements. Some facilities have videoconferencing infrastructure, and it may often be possible (with IT support) to arrange linkages between the systems in these centres and the system being used by the organisation hosting such an event. For example, the Centre for Rural Regional Law and Justice delivers its regular videoconference events to up to fifteen regional Victorian locations by broadcasting via the Deakin University Cisco videoconferencing system to TAFE regional centres, and linking with regional VLA offices using the Scopia system. Deakin is also exploring applications that can provide bridges between several other videoconferencing systems and allow remote users to connect individually to the Deakin system. For people in more remote areas, joining a group of people in a regional centre that is not too many kilometres away for an educational videoconference could bring a number of advantages, including opportunities for networking / mentoring / social support and the possibility of taking part in facilitated face-to-face learning activities. Advantages, disadvantages and other issues associated with videoconferences are discussed more fully in section 5, under the heading 'Videoconferences'.

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26   Map source: Telstra 2014.

Telephone

Fixed-line telephones or simple mobile phones can also be used for educational purposes in RRR areas, especially if call costs can be directed to central host organisations with phone plans providing cheap long-distance calls. People in quite remote areas can use a telephone connection to take part in one-to-one and conference-call conversations for purposes of mentoring, supervision, social contact, peer-to-peer learning and emotional support. Professionals working in RRR areas frequently resort to phone contact when more sophisticated technologies fail, but the telephone can also be the technology of choice for some conversations—'sitting back' to talk can be more relaxing and conducive to candid conversation than 'sitting forward' at a computer and typing or speaking via webcam. People living or working in locations without good internet connections can also in many cases use telephone networks to dial in to webinars and videoconferences (or be dialled in at no cost to themselves), depending on the webinar or videoconference application and arrangements with the host organisation. While these participants may not have access to the visual components of the event in real time (eg text conversations, webcam views, presentations and website views), they may be able to contribute via voice, and may be able to access a recording via DVD afterwards. If they at least have access to email, they may be able to receive the presentation slides beforehand and follow much of the presentation offline on their own computer while they listen in by phone, and they may be able to email questions and comments during the event to a facilitator.

As with any educational event, it may take a little imagination, flexibility and skill, but a facilitator who is prepared to use whatever means are possible to give all learners the richest, most participatory experience possible can achieve a great deal with limited technology. The differences between learning outcomes when using digital technology and not using technology, all other things being equal, have often been shown to be slim.[27] The suggested protocols for using various types of technology provided in the later sections of these guidelines should provide some ideas on how to maximise the effectiveness of these events for more remote participants.

Technological complexity and continual changes

An important aspect of using digital technologies is the complexity of the experience, particularly if technical support is not readily available for both learners and facilitators. Ideally, using these technologies should be 'as simple as turning on a light':[28] the technology should present no barrier at all to the learning experience. Clearly, for most people and most technologies, we have not yet reached this stage. To have to travel to a specially equipped videoconference venue, or download specialist software, or manage compatibility issues between software and systems, or learn how to use a new interface, are all potential barriers for learners (and facilitators) to taking part in a learning experience. Even some large law organisations and firms with staff located in RRR areas have few or no in-house IT support staff. In these cases, educators seeking to use a new technology may be obliged to explore possibilities and choose between many similar products,

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27   Russell 2001.
28   Interviewee comment.

learn applications and trial approaches to use in their context in their own time.[29] Educational technologies such as webinars and learning management systems have become much easier to use in recent years, in terms of both navigability and streamlining of back-end functions. However, a common complaint from both educators and learners in many sectors is that products and systems are frequently changing, and each change takes time to learn. Decision-makers should be wary of updating technologies and changing applications too often.

In summary, technical barriers to using digital technologies for legal education in RRR areas are reducing markedly as people's ability to connect to the internet improves. The reach and quality of broadband fixed-line and mobile networks is a very important factor, as real-time educational experiences and video streaming can be bandwidth-hungry. Large proportions of RRR people are taking advantage of opportunities to connect and use the internet for more and more purposes. Alternatives such as telephone conversations, DVDs and travelling to not-too-distant regional centres for videoconferenced events can also support effective learning in a number of ways. However, technical factors are not the only issues when choosing whether to use technology-mediated platforms for community and professional legal education in Victoria.

Non-technical capabilities and barriers

All peak legal organisations involved in education in Victoria still use non-digital methods, particularly face-to-face, for at least some of their educational events, despite the flexibility and advantages of using appropriate digital technologies for community and professional education. There appear to be several reasons for this.

City-centric decision-making

The first reason could be that decision-makers in metropolitan-based services don't adequately appreciate the difficulties RRR people face in accessing traditional metropolitan-based, face-to-face forms of legal education, which have been prevalent in Victoria. Difficulties include travel and accommodation costs, and time away from work and home when legal and non-legal RRR professionals are already frequently under-staffed and over-stretched. As a result of these difficulties, RRR people are often under-represented in city-based events. Also, they often have little opportunity to contribute their perspectives during these events, due to technical and time constraints and / or non-inclusive facilitation practices.[30] Therefore, it is understandable that legal services weighing difficult decisions about costs, organisational readiness and choice of technologies against the needs and preferences of RRR people may tend to make decisions that favour the urban majority.

Preference for face-to-face

Sound educational reasons are also given for continuing to provide face-to-face educational events, where funding allows, rather than changing to digital platforms.

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29   Interviewee comments.
30   Interviewee comments.

Face-to-face events with a legal expert can offer an 'organic' learning conversation in which the expert can respond to local interests and issues in personal ways, with stories and answers to general questions as well as targeted technical information.[31] Community education providers frequently find that learners mainly want advice on their personal legal problems,[32] and thus facilitators need to be able to provide for this as far as possible. Although some people find it easier to ask questions of a private nature in a cohort of online strangers than in a face-to-face setting, others may not; and it may be easier to set up a private conversation with an expert during a coffee break in a face-to-face session than arrange an online exchange with a distant speaker in a videoconference or webinar. There are many examples of legal organisations in RRR areas successfully using a videoconference or webinar-type technology, even a simple technology such as Skype, to host individual legal advice conversations,[33] but it requires special skills and practice for an expert to use these technologies to establish rapport with larger audiences, and have the time and skill to respond to individual needs and interests.[34]

In addition, as noted above, legal organisations providing CPD for legal professionals also find that face-to-face contact, where possible, is easier for teaching some subjects, and for providing valuable opportunities for networking, mentoring or social support.[35] In a 2008 survey of Victorian primary producers, rural financial counsellors and agribusiness service staff, these RRR people indicated a preference for face-to-face methods of legal education, such as attending events in person rather than learning online, at least partly so they could socialise and have learning conversations with other community members as well as experts.[36]

Ability and confidence to use technology

As noted above, there is evidence that Australians generally, including non-urban residents, are using the internet for an increasing number of day-to-day activities.[37] However, staff in both legal and health organisations report that many people still prefer to use phone or face-to-face contact when seeking information, even though there are digital alternatives such as websites,[38] indicating that although most people may technically have access to information and educational resources, not everyone is comfortable using digital technologies for learning.

Due to the cost and logistical difficulty of meeting people's legal needs through more personalised means, many peak legal bodies have concentrated on making self-help legal information easily accessible on websites, and are starting to use smartphone apps for the same purpose. Staff in both legal and health organisations are reporting that over the past five years their websites are being accessed more frequently, and note that with the advent of easier-

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31   Interviewee comment.
32   National Pro Bono Resource Centre 2013.
33   Interviewee comment, National Pro Bono Resource Centre 2013, Commonwealth of Australia 2012.
34   Interviewee comments.
35   Interviewee comments, Coverdale 2011.
36   Coverdale 2009, p. 64.
37   ACMA 2014, Figure 7.
38   Interviewee comments.

to-use tablets, older people in particular are more prepared to seek information on the web.[39] Phone services for major public legal organisations increasingly direct callers to their website as part of the advice they provide, in order to educate them to use this generally cheaper, faster, and always-available source of information.[40] However, staff of several legal organisations in Victoria report that some sectors of the community continue to access their phone services, despite lengthy wait times, while their online communication options, such as web forms to request free text-based legal advice, have been used very little.[41] These appear to be further indications supporting findings of a 2012 report[42] that while self-help education strategies can strengthen *some* people's capability to research and resolve their own legal problems, self-help is not an appropriate solution for all. People who do not have high 'legal capability', including older people, people with low education levels and people whose main language is not English, frequently need support in using self-help resources such as websites.[43] People with sight impairment, people who do not have ready access to and facility with a computer, tablet or smartphone, people with low motivation to solve their legal problems, and similar groups, are all less likely to use self-help online or mobile resources without personal help. Legal staff interviewed for these guidelines reported that people frequently need help to define their legal needs before they can research them on websites—and they also frequently need guidance to find the best websites and resources for their needs because simple methods such as a Google search may take them to the wrong jurisdiction or to out-of-date information. Even if they find an appropriate website, they may struggle to navigate through what to them is an arcane cultural space, with language, customs and organisational structures that can be difficult for the novice to understand.[44] Trusted existing intermediaries such as health, youth, financial and aged services workers have been found to be vital links in the process of connecting many people with the information they need via websites. In particular, intermediaries are necessary for people with low literacy or digital literacy skills, or disabilities that may affect their ability to access websites, or those disinclined to conduct web searches in order to solve a legal problem. These intermediaries may also be able to help set up a video or audio link between their client and a legal expert, whether this is via Skype on a mobile device, or whatever other videoconferencing / webinar infrastructure they have.[45]

Costs

Another important aspect of using digital technologies for education is that, although costs to learners may be relatively low—especially in comparison to having to travel long distances for face-to-face events—there can be significant costs for host organisations. These include the cost of hardware

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39   Interviewee comments.
40   Interviewee comments.
41   Interviewee comments.
42   Coumarelos *et al.* 2012.
43   Coumarelos *et al.* 2012, p. 235. Lawler, Giddings & Robertson 2012 also explore the difficulties of 'self-helpers' in accessing legal resources, and the resulting limitations in providing legal information in this way.
44   Interviewee comments.
45   Interviewee comment.

(including computers, networking, screens, speakers, headsets and microphones); software (including updates); specialist IT staff to install and maintain systems, and train and support users; and providing time for facilitators to train, experiment and design learning activities. Organisations also often have costly pre-existing systems in place, and there can be pressure to continue to use less effective technologies indefinitely rather than carry the costs and endure the upheaval of changing to better ones. When developing educational resources for access at any time, such as websites, smartphone apps, videos and DVDs, costs include specialist design, development, content creation, and film / sound capture services that may need to be outsourced or developed in-house. Needs analysis and rigorous evaluation costs should also be built into budgets. Not-for-profit legal organisations do not have large budgets for community and professional education, and such costs need to be carefully identified and balanced against hoped-for benefits. Not surprisingly, of the many factors organisations need to take into account when committing to using technologies for education, those that figure high are costs and organisational readiness for changes to educational practices.[46] However, for organisations that have robust, current IT infrastructure in place and staff who are confident educators and technology users, using the increasing range of low-cost or free educational technologies to change from a purely face-to-face delivery model can bring significant savings on travel and venue costs.[47] These issues are discussed further in later sections of these guidelines.

Need for an inclusive approach in combined online face-to-face events

RRR people will frequently opt for remote participation in educational events and meetings via phone or online applications such as webinars in preference to spending many hours travelling to a metropolitan venue, but they will often weigh the benefits against the risks carefully.[48]

For RRR people to choose to participate in an event via a technologically mediated platform such as a videoconference or webinar can be risky if the event is important to them and the technological platform is not reliable, or the facilitators are not adept in using it inclusively. This is especially so if there is no provision for an event to be recorded or for a low-tech, reliable back-up alternative such as phone-in access with emailed presentation slides, as they may miss the event completely. However, such are the advantages to many RRR people of not having to travel to be included in important events that organisers of digitally mediated educational events have found them to be humblingly tolerant of more minor technical glitches, provided these do not compromise their learning opportunity completely.[49]

Remote participants in educational events run from a central venue via videoconference or webinar may be prepared to put up with less-than-perfect technical performance for the sake of saving themselves the inconvenience and time of having to travel, but that does not mean they are uncritical consumers. A common complaint is that facilitators frequently allow people in the central venue to dominate and seem to forget remote participants are there. This not only increases their feelings of isolation, it denies all participants the opportunity for a richer learning conversation

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46   Bates 2005, Macpherson *et al*. 2004.
47   Interviewee comment.
48   Interviewee comments.
49   Webinar and videoconference participant survey results and interviews, Bower *et al*. 2014.

that includes the different perspectives RRR people can bring.[50] It takes special technical, teaching and communication skills, and practice, to run inclusive educational events with virtual and on-site cohorts. These requirements are also discussed further in later sections of these guidelines.

Most of the non-technical barriers and capabilities outlined above are not specific to people living in RRR areas. However, RRR people do present a special case in the argument *for* furthering the reach and quality of internet services and *for* developing effective learning techniques and materials that are accessible to people who cannot attend events in person. As a group, RRR people have shown they are willing to adopt internet-based technologies and services when they are given access. They also are often keen to take part in educational events remotely, when given the opportunity, despite conditions for learning that are less than ideal. Perhaps their greatest need is to be recognised as a group of people who *are* present in the digital learning landscape, via one platform or another, and *can* be included in learning initiatives with thoughtful planning, flexible learning design and some (but not an inordinate amount of) support. The next section will present planning and learning design issues relevant for legal community and professional education for RRR people in more detail.

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50   Interviewee comments, Bower *et al*. 2014.

4. Planning for learning using digital technologies

Research into the adoption of educational technologies has shown that organisations rarely use rational needs-based, step-by-step decision-making processes when deciding on technologies.[51] Pragmatic factors such as cost, availability of a partner organisation to share costs and infrastructure, organisational readiness, strategic and marketing imperatives, familiarity of implementers with the technology, the presence of a product champion and other operational matters often dominate decision-making. Often an educational technology is adopted before its potential for meeting learning needs is properly explored. At the same time, professional and general educational resources and events are commonly provided with less-than-comprehensive investigations into the need for these particular interventions. Neither are benefits after they are deployed often systematically evaluated. This occurs in many fields, including the legal sector. However, there are significant advantages in spending some time and effort in analysing needs, planning intended learning outcomes, and designing events and resources accordingly. An understanding that social factors are crucial to the success of learning should underlie these decisions. There are many advantages in basing educational interventions in existing communities of practice such as legal organisations or community interest groups. These communities have shared purposes and often a good understanding of members' individual learning needs. In many cases, those with more expertise in the community can work as mentors, models, mediators and collaborators. Adopting an approach based on a community of practice can thus streamline planning, design, learning and evaluation processes, as well as providing learners with emotional support and access to tacit knowledge and culture.[52]

A systematic design approach

Investigations

A rational approach[53] would start with an investigation into the nature of a purported need for an educational 'solution'—including whether a non-educational solution might be more effective, and whether an educational solution would need to be technically complex or could in fact be quite simple. Needless to say, this preliminary investigation can save designers, implementers and learners a lot of time. Surveying not only the target learners' need for knowledge and skill in a particular area but also the quality of their internet / mobile access, literacy levels, digital literacy levels, preferred ways of learning, prior knowledge, regional interests, contextual factors and any other relevant characteristics should help refine the issues and suggest appropriate design and delivery methods.

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51   Tony Bates has several publications in this area: http://www.tonybates.ca/tonys-publications/books/ (accessed 7 August 2014). See also Macpherson *et al*. 2004.

52   A good resource on many aspects of educational design for e-learning, including working within communities of practice, is Beetham & Sharpe 2007.

53   The investigation, planning and design procedure outlined below is based on the instructional systems design model (Dick & Carey 1996), which is widely used by educational designers.

Intended learning outcomes

The next step is to clarify and write down the intended learning outcomes (ILOs), based on the identified learning needs and learner characteristics. ILOs provide the goals and parameters for an educational resource or event, and hence a reference point for all decisions surrounding the types of learning activities, learning materials, technologies, assessments (if relevant), and evaluation of the education. They are best expressed using *active* verbs to describe concisely what *the learner will be able to do* afterwards, for example, 'advise clients on recent changes to legislation relating to enduring powers of attorney in Victoria'.

Learning activities

Different types of learning outcome require different types of learning activity: lectures and reading may not be the most effective way of helping a young person learn ways to manage sexual harassment; nor may they be the most effective methods for helping a lawyer learn how to manage conflicts of interest. Educational researchers have proposed classifications of learning outcomes that can help teachers and educational designers identify the types of learning activity that would be most effective to develop particular types of learning outcome. Perhaps the most widely used classification is Bloom's taxonomy or its revised version.[54] This taxonomy categorises learning outcomes into hierarchies of cognitive (thinking), affective (emotional and attitudinal) and psychomotor (physical) skills—the cognitive and affective hierarchies are the most relevant ones for learning aspects of law. While lower-level cognitive skills such as remembering factual information can be relatively straightforward, achievement of higher-level outcomes such as evaluating and creating involves combinations of lower- and higher-level skills and knowledge that contribute to these more complex thinking processes. The hierarchy and some suggested applications are set out in Table 4.1.

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54 A revised version of Bloom's 1956 taxonomy is described in Anderson *et al.* 2001, *A taxonomy for learning, teaching, and assessing*, Longman, New York. A useful explanation of this taxonomy and similar ones is available at: http://www.nwlink.com/~donclark/hrd/bloom.html (accessed 11 August 2014).

Table 4.1: Bloom's revised hierarchy of cognitive skills with some matching learning activities and technologies

Cognitive skill	Active verbs	Suggested learning activities	Some supporting technologies / techniques
Remember (recall information)	identify, define, describe, recall	find information on a subject, read, watch, listen, list, memorise	website / blog / wiki, downloadable text (fact sheet, journal article), graphics, audio, video, videoconference, webinar, smart phone app designed to provide information, word-processing application
Understand (construct ideas or concepts)	classify, interpret, discuss, explain	discuss, retell, reflect on, summarise, create a mindmap or diagram	videoconference / webinar with a question and answer / group discussion session, phone conference, asynchronous online text discussion, blog eg Word Press, wiki, word processing application, email, Google Docs to create and share documents, mindmapping applications (eg Inspiration), image scanner
Apply (use information or a procedure in another situation)	apply, demonstrate, use, employ, operate	apply a theory in a particular context, use a simulation, follow a format, role-play stakeholders' perspectives in a situation	asynchronous online text discussion, group discussion via videoconference / webinar, supervision of practice via videoconference / webinar (with room camera to capture client interactions), role-playing application, simulation
Analyse (break information into parts to explore relationships)	calculate, compare, determine, differentiate	design / use a questionnaire, conduct interviews, report, conduct action research	survey applications, eg Google forms, Survey Monkey, spreadsheet application, smartphone app with calculating and / or recording functions, other recording device, word processing application
Evaluate (make judgements based on criteria)	assess, critique, debate, select, judge	debate, essay, role-play, letter / blog post	asynchronous online text discussion, group discussion via videoconference / webinar, role-playing application, blog
Create (put elements together into a coherent whole)	Design, propose, compile, construct, improve, prepare	presentation, plan, proposal, prepare client brief	asynchronous online text discussion, presentation via videoconference / webinar, word-processing application with annotation feature for feedback, email, Google Docs to collaboratively create documents

If educators can identify a type and level of cognitive skill in the learning outcomes they are seeking to develop, they can then plan activities that are able to elicit that particular type of cognitive activity, and lastly choose technologies that are suited to supporting the activity. For example:

- A learning outcome such as to 'advise clients on recent changes to legislation relating to enduring powers of attorney in Victoria' would be categorised as *applying*.

According to the taxonomy, activities to achieve this outcome would involve *remembering* and *understanding* as well as *applying*, so in this case one could design activities such as to read or listen to relevant information, and to check, refine and reinforce one's recall, understanding and ability to apply this information in particular situations by discussing relevant issues with experts and peers.

Technologies to support information provision include downloadable text and / or live or recorded audio or video, with multimedia to enrich and enliven the delivery. A two-way learning conversation can be supported via a question-and-answer session in a videoconference or webinar, via a phone conference or via asynchronous text. (*Asynchronous* conversations have non-instantaneous exchanges, as in a discussion forum such as a closed Facebook group.)

- A more complex learning outcome such as to 'prepare a succession plan for a farm with multiple family members' would be categorised as *creating*. It would involve not only *remembering*, *understanding* and being able to *apply* relevant legislation, but also higher-level activities of *analysing* and *evaluating* competing family members' claims and needs, and *constructing* proposals. A number of *affective* skills such as an ability to listen, respond appropriately, act ethically and so on may also need to be developed. A further learning activity would be to write up a succession plan, either alone or in collaboration with others, and receive feedback on the plan from an expert.

  These activities would require information-provision technologies and those supporting a two-way learning conversation, as in the first example. To foster the higher-level skills of analysis and evaluation, learners could benefit from an activity such as role-playing or debating, which should help them to develop empathy for stakeholders and better appreciate the impact of particular proposals. Such activities can also be supported through asynchronous online text discussion (such as in a learning management system discussion forum). However, a simpler option may be to conduct role-plays or debates in face-to-face sessions in rural centres, with on-site facilitation and reporting back to a central facilitator-expert via videoconference or webinar technologies.[55] The activity of writing up a succession plan would require technologies such as email, word-processing applications with an annotation function, or Google Docs. Webinar technologies with a document-sharing feature could also support this activity.

These examples demonstrate that planning activities to develop particular learning outcomes is sometimes not straightforward, and choosing technologies can also be complicated. Although Bloom's taxonomy can suggest broad types of learning activity, often a variety of options can be used to achieve similar ends, and some technologies can be more efficient than others in supporting them. At the same time, some technologies can be applied quite well for multiple types of learning activities. For example, while webinar technologies are generally used to support learning conversations, those applications with document-sharing features can also support

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55   For information on online role-playing as learning activity, see the website EnRole (Encouraging role based online learning environments) or Wills, Leigh & Ip 2011.

collaborative creative work. Simpler technologies such as phone conversations and email can often be adequate to support a learning activity, although more advanced technologies may offer richer features and be more pleasant to use. Also, skilful designers can use one activity to develop a range of learning outcomes. For example, using a role-play to develop the skills required for succession planning could involve a first step of requiring learners to research the relevant legislation on the web as a task before playing their roles. This would mean the one, multifaceted activity could elicit and develop remembering, understanding and applying skills as well as higher analysis and evaluation, and affective skills.

Legal skills and knowledge

Categories of continuing professional development (CPD), knowledge and skills for legal professionals include substantive knowledge of the law, ethics and professional responsibility, professional skills, and practice-management and business skills.[56] Practising lawyers are required to complete professional development activities in each of these categories each year. Although lawyers' education may traditionally have been delivered largely via lectures and reading,[57] these CPD areas encapsulate different types of cognitive and affective knowledge and skill. Therefore, it stands to reason that differing types of learning activity should be more effective for some types of professional development. To be able to apply new complex knowledge and skills to a professional standard often involves more than simply learning *about* them: it is necessary for a learner to negotiate the new knowledge and skill in terms of her or his own experience and context, and practise applying them in relatively safe contexts first, such as through problem-based learning activities, supervised practice and action research.

Legal peak bodies in Victoria use CPD activities and technologies with varying levels of complexity. VLA provides videoconferenced workshops with a range of activities designed to meet carefully identified staff needs across the four CPD areas. VLA also provides online learning modules with learning activities designed to meet a spectrum of learning objectives, accessed via a Moodle learning management system that integrates text, audio and video delivery as well as discussion forums.[58] The Law Institute offers face-to-face lectures that are broadcast using the WebEx webinar system to people in regional centres. Recordings are available on DVD. These lectures are designed to meet practitioners' needs for substantive legal information such as updates on legislation and explanation of key cases. The Institute also provides face-to-face sessions involving small group discussion to develop ethics skills, sessions that are broadcast to RRR lawyers with some capacity for interaction via the WebEx webinar application.[59] NACLC helps meet its practitioners' needs for legal information by providing access to a vast online repository of text resources, and uses phone-based supervision of rural and remote graduate practitioners.

Ongoing professional education for law professionals overlaps to some extent with general community education in legal issues. As noted in section 3, 'Needs, capabilities and barriers in

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56   Law Institute 2008.
57   Interviewee comments.
58   Interviewee comment.
59   Interviewee comment.

the legal digital education landscape', many groups in RRR Victoria need to be kept up to date with changes in legislation and opinion on legal and justice issues that affect them. While peak law organisations may focus primarily on meeting the professional development needs of their staff, some also invite people from non-legal organisations who are working in relevant areas and a general audience to certain events. These events are predominantly lectures, designed to deliver factual legal information rather than more complex learning outcomes. For example, in the past, VLAF has hosted a lecture providing information on legal issues for unaccompanied minor refugees, and received interest from translators, the Adult Migrant Education Service, and the Ethnic Communities Council of Victoria, as well as lawyers.[60] VLA also makes their videoconferencing facilities in regional centres available to local private lawyers and the general public when legal professional development events are being delivered.[61] Similarly, the Centre for Rural Regional Law and Justice (CRRLJ) provides regular videoconferenced educational events for mixed professional legal and non-legal audiences through the VLA facilities and Deakin University 'Deakin at your doorstep' regional videoconference venues.

Supporting social aspects of learning and communities of practice

As mentioned above, legal professionals in RRR areas require not only formal professional development in the four CPD areas, but informal social support, peer learning, mentoring and networking opportunities.[62] In addition, surveys of non-legal professionals in RRR areas indicate a preference for learning about legal issues in a social environment.[63] While the informational characteristics of a learning resource or event are very important, there are also emotional aspects to learning that are shaped by social forces, including motivation and development of a positive sense of shared and personal identity. In professional learning and some community groups, a 'community of practice', in which members share common interests, culture and values through joint engagement in practices,[64] can provide a context and network for this kind of social support. Certain types of activities and technologies can provide a structure for not only simple social interactions, but for supporting the development of communities of practice themselves.

Supportive social interactions such as group discussions in which peers share their opinions and provide feedback on one another's ideas can be achieved using a range of digital technologies even in one-off educational events where communities of practice do not exist. As a rule, learning conversations such as these are more conducive to learning if they can be conducted in small, private forums, so that learners feel relatively safe to reflect, experiment and make mistakes. For example, videoconferences with facilitated regional small group discussions, webinars with opportunities for participants to contribute meaningfully to the conversation (especially if the webinar application has breakout rooms), phone conferences, and asynchronous text exchanges via discussion forums, blog posts and email will all enable supportive social exchanges. However, webinars involving strangers are a relatively public forum, in which participants are often loath to

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60   Interviewee comment.
61   Coverdale 2011, p. 90.
62   Interviewee comments, Coverdale 2011, p. 91, Kyle, Coverdale & Powers 2014, p. 14.
63   Coverdale 2009, pp. 64–5, Interviewee comment.
64   Lave & Wenger 1991, Wenger 1998.

have extended personal conversations. Similarly, asynchronous text discussion forums between strangers are relatively public, even in 'closed' groups if members do not know each other, and the permanency of text communications can make people even more reticent. While a sense of relative anonymity in a digital forum such as an asynchronous text conversation between strangers can sometimes provide a liberating opportunity for self-disclosure and experimentation with identities, participants in these forums often tend to lack the personal commitment to each other to provide ongoing emotional support and mentoring.[65]

On the other hand, if an educational event such as a webinar or asynchronous text discussion is hosted within an existing community of practice, such as a legal organisation or group of community members with a shared interest in particular legal issues, the existing linkages between members mean learning activities using any of the technologies mentioned above are likely to be more effective in fostering ongoing mentoring, networking and emotional support for all participants.

Further advantages to be gained from basing educational events within existing communities of practice are that learning activities can draw on cases, tools, artefacts, standards, supports, 'war stories' and so on that are authentic to the community of practice. In addition, learners may have opportunities to work directly with others with more expert knowledge, or at least observe their practice, and peers may be able to negotiate meanings and perspectives together. Furthermore, learners are more likely to learn informally, gain tacit knowledge such as cues to appropriate behaviour, and develop the values shared by the group.

Many communities of practice do not share a physical location, but make use of whatever technologies are available to support communication and resource sharing. Hence, the model can work for remote, rural and regional members as well as those who are more centrally located, as the same technologies can also frequently be used for educational purposes, whether they are phones, videoconferencing or webinar technologies, email, shared files, wikis, or websites. Technologies such as learning management systems and websites that incorporate access to shared documents of historical or cultural importance to a community of practice, practice tools such as templates, and means of communication such as private and public discussion forums and wikis are able to provide considerable support for individual members and a community of practice as a whole.

Technology options at a glance

The discussion above has focused on pedagogical reasons for using various types of technologies, assuming other factors are equal. However, this is clearly a faulty assumption, as some pragmatic concerns such as cost and the ability of RRR learners to access events and resources in some technological platforms can be deciding factors. Table 4.2 provides a broad overview of strengths and weaknesses of six groups of technologies that are most likely to be used for teaching and learning in RRR areas in Victoria, for legal professionals and general community members seeking to learn about legal issues.

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65   Turkle 1995.

The table is 'heat coded', so where a cell is an intense colour it means that the technology group is well able to support that feature. Where the colour is medium strength, there may be considerable variation between products in that technology group in terms of their ability to support that feature. Where the colour is light, the technology group generally isn't strong in that area. For example, if an organisation wishes to access people in low-bandwidth areas, a webinar may be suitable, as long as the application is chosen and tested carefully, but it would be wise to provide back-up technologies such as a website, phone and email as well. Another example is if the organisation wishes to provide a highly interactive learning experience, then the bottom two rows will show which major groups of technologies are most likely to support these capabilities.

Often, a combination of technologies is needed to access a wide variety of learners with different characteristics and preferences. Technologies can also be used in complementary ways, for example, a webinar in which people indicate a need for individual support or information can be followed up with an email or phone call or both. Of course, this table presents a very broad summary and should be used with caution, as there will be special circumstances that impact on a technology's suitability for a particular purpose. Also, there is variability between products in each of these technology groups. Some of the main considerations for choosing a technology are noted within each cell.

Advantages, disadvantages, complexities and protocols associated with using each of the newer groups of technologies are discussed in greater detail in the following sections.

Table 4.2: Technology options at a glance

Key:

	The technology is well able to support the feature
	The technology is less able to support the feature, or there is significant variability between products in this respect
	The technology generally is not able to support the feature well

Consideration	Webinar (web / desktop conference)	Videoconference (traditionally to regional centres)	Website (asynchronous communication)	Smartphone app	Email	Phone
Accessibility for remote, low bandwidth and poor mobile network locations	Recent applications can operate on low bandwidth, and provide an option to phone in.	Traditionally only usable at networked regional centres but now participants may be able to connect online or by phone, depending on the product.	Well-designed websites will load quickly, have minimal video / graphics, and work on low bandwidth connections.	Images may be unreliable on low bandwidth, though audio may work.	Very reliable.	Landlines are very reliable.
Cost	Variable, depending on product and level of IT support needed.	Hardware, networking and support costs are high for traditional systems, but now simpler webinar-style systems can be used.	Initial design / development costs may be high; ongoing maintenance must be factored in.	Initially may be costly; ongoing maintenance must be factored in.	Very low cost.	Dial participants to reduce their bills.
Specialist IT skill required	IT support is an advantage when learning and setting up a system, and with large numbers of participants.	Specialist IT support is needed to set up and maintain systems.	Depends on complexity of website functions.	Requires IT specialist to create and maintain.	System is generally already set up.	System is generally already set up.

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Consideration	Webinar (web / desktop conference)	Videoconference (traditionally to regional centres)	Website (asynchronous communication)	Smartphone app	Email	Phone
Cohort size	Most can accommodate hundreds, but more participants will limit interaction.	Large regional audiences can attend, with interaction managed locally.	Very large numbers catered for.	Very large numbers catered for.	Email lists can be large, but many-to-many interaction is awkward.	Having large numbers of participants causes confusion.
Flexibility for different learning designs	Many possible learning designs supported, but teaching well in this mode takes skill and practice.	If facilitators are available in regional centres, flexibility is high, but often only lectures are provided. Involving remote participants takes special skill.	Mostly used for information provision; more interactive. Options require monitoring or specialist design.	Depends very much on the app.	Useful to support most learning designs.	Useful to support one-to-one and small group discussions, but labour-intensive with large groups.
Support for social contact	Requires active facilitation.	Excellent opportunities for regional centre attendees, but more remote participants need special arrangements.	Best managed with links to social media sites, which are actively managed.	Depends very much on the app.	Individual and group emails can provide considerable opportunities.	Supports individual and small group contact extremely well.
Live audio interaction	All products provide audio option (and ability to mute all).	Generally awkward, and audience noise can be a major problem.	Extremely rare.	Depends very much on the app.	Sending audio files via email is awkward and file sizes can be large.	The easiest option for small numbers.

Consideration	Webinar (web / desktop conference)	Videoconference (traditionally to regional centres)	Website (asynchronous communication)	Smartphone app	Email	Phone
Text interaction	Most products provide a text field.	Generally requires separate Twitter feed / phone SMS / Votapedia polling system.	Generally requires a blog feature or at least email address.	Depends very much on the app.	The easiest, most reliable option, though large files can create problems.	Landlines have no text channel, though SMS via mobiles can be an option for short conversations.
Quality of video	Some products offer HD video but often low definition is adequate. Low bandwidth will impact on quality.	Can be very high, depending on system and network.	Can be high, but quality is related to download time. Links to streaming video via a YouTube channel may be preferable.	Depends very much on the app.	Best delivered via a link to a host website or YouTube streaming video, as video file sizes are large.	Video not available on landlines; may be an option with some mobile phone applications.
Recordable / constantly available content	All products provide a recording option.	All provide a recording option.	Constantly available content.	Constantly available content.	Constantly available content.	Recording possible but can be awkward for most users.

5. Technology groups

In 2014 a wide range of educational technologies were available in Victoria, but some lent themselves better than others to addressing the needs for legal education in RRR areas, as outlined in section 3, 'Needs, capabilities and barriers in the legal digital education landscape'. In particular, peak legal organisations were exploring (or already using) webinars, videoconferences and combined face-to-face–online events as means to address the 'tyranny of distance' in their education programs. At the same time, there was some inadequate understanding and anxiety surrounding the use of social media for education. As these guidelines have a practical aim—to assist decision-making around use of digital technologies for education—each of these technology groups are explored at some length in the sections below. Newer technologies that show considerable promise but are not yet in widespread use in this sector, such as learning management systems and smartphone apps, are discussed as sub-groups of the diverse 'asynchronous' technologies grouping. Ubiquitous technologies such as telephones, DVDs, email, word processing, spreadsheet and presentation applications are already in widespread use so are not discussed separately, but their uses are noted where relevant.

Videoconferences

In the last five years, the ability to videoconference has greatly increased communication among legal professionals and the community in regional and rural areas. Professional development, meetings, case consultations, community education and supervision are now commonly supported with real-time audio and video communication over internet or phone-based systems between multiple regional centres. As internet infrastructure and mobile networks improve, people's capacity for this kind of high-bandwidth communication will improve significantly.

Traditional videoconferencing systems are very expensive and require skilled technical support, and their audiences have until recently been limited to those who could travel to specially equipped videoconferencing rooms in regional centres. These regional facilities have large screens, cameras, microphones and speakers, and are connected to each other via phone, satellite or the internet (nowadays mostly the internet). In many cases, live video of each location is shown simultaneously on the main screen along with slide presentations.

Figure 5.1: Viewing a videoconference from a regional location

A major advantage of these systems is that they enable large groups gathered in different locations to share common presentations, and speak with each other in real time, to some extent. However, a range of far simpler, cheaper and more flexible systems also now exist. These operate over ordinary internet connections and can be accessed from more remote locations as well as individual homes and offices, and are covered in more detail under the next heading, 'Webinars'. Events using these systems can also be viewed by large groups in rooms in regional centres, using much the same hardware as is used for traditional webinar systems.

Given the costly infrastructure and technical support required for traditional videoconferencing systems, a cost-effective solution for many peak, metro-based and rural-regional organisations wishing to videoconference with distant participants may be to collaborate with health, higher education, TAFE or local government organisations that already have the infrastructure in place in many rural and regional locations.

VLA has used a dedicated, networked videoconferencing system for several years. This runs mostly over the ISDN network and requires specialist IT support to set up and maintain. More remote individuals and groups are now able to connect to videoconferences by phone or online via a 'gateway' VLA has created between the ISDN network and the internet. Online / mobile users access the videoconference via a URL and the Avaya Scopia web-conferencing system interface, which provides the kinds of interactive options described under 'Webinars'. These include two-way audio participation and video streaming of the videoconference presentations and participant cameras, and also a field for text communication, plus recording ability and sharing of computer screens.

CLCs Australia-wide currently use an internet-based system named WebEx for their videoconferencing requirements. WebEx is also a webinar-type technology. Using this system, individuals can access a live audio and video-streamed event anywhere there is a reasonable internet connection,[66] using ordinary personal computers or mobile devices. Larger audiences in

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66   Around 6 Mbps, whether via a fixed-line or mobile network.

regional centres can be catered for with the connection of projectors, room cameras, individual webcams, microphones and speakers. WebEx also provides users with interactive features including two-way audio, text communication, polling, screen sharing and document sharing.

The main suppliers of videoconferencing products in Australia are [Cisco Systems](#), [Polycom](#) and [Lifesize](#). Other videoconferencing products are listed at: [http://en.wikipedia.org/wiki/List_of_video_telecommunication_services_and_product_brands](#).

Why videoconference?

There are good reasons to use videoconferences to engage with RRR people. Videoconferences reduce the distances that people have to travel for education, while providing various types of two-way audio-visual interaction (depending on the system used and whether participants are taking part in person at a centre or remotely). Traditional-style videoconference events hosted in regional centres provide opportunities for rural and regional staff to not only learn from a geographically distant presenter, but also to gather in a room, to network, mentor and do a wide range of learning activities together. The video presentation can be recorded for future reference. In many larger organisations with regional centres, networked videoconferencing infrastructure is already installed and key staff have mastered its use, so only a small number of regional staff need to know how to operate the controls and most attendees will need no technical expertise to participate. Advantages and disadvantages are explained further in Table 5.1.

Table 5.1: Possible advantages, disadvantages and considerations associated with videoconferencing[67]

Consideration	Possible advantages	Disadvantages / considerations
Access	– Where people access videoconferences from regional centres, they have opportunities for networking, face-to-face activities and deep discussion of regional-specific issues. – As long as one person in each location can operate the system, most participants will not need to worry about technical aspects. – Many systems now enable remote access by telephone or internet connection with minimal downloads required.	– Remote participants still need to travel to centres with videoconference infrastructure if they cannot connect online or by phone. – If discussions are not carefully facilitated, participants who are not physically present are frequently overlooked, and miss out on incidental benefits of face-to-face contact.

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67   See Forrester 2012 for further advantages and disadvantages.

Consideration	Possible advantages	Disadvantages / considerations
Cost	– Rooms equipped for videoconferencing can also be used for local training and meetings, and loaned / hired to community users. – The cost of videoconferencing hardware has decreased dramatically in recent years.[68] The move to internet-based systems from ISDN phone networks reduces costs.	– Setting up, maintaining and supporting videoconferencing systems with screens, microphones, speakers, computers and networking in each centre can be extremely expensive, and should be costed against the number of uses to ascertain whether it is cost effective.[69] – Hardware often has a life of only three to five years before obsolescence.[70] – Developing a collaborative relationship with another organisation that already has videoconferencing infrastructure may make this a more viable option. – Webinar-style systems require less hardware and expert support.[71]
Specialist IT support required	– As long as someone in each centre in the network has the skill to operate the system, most audience members require no IT skill. – Once the infrastructure is set up and regional staff have mastered the booking interface, scheduling events requires no specialist skill. – A managed IT support service may be more cost-effective than developing in-house expertise.	– Technical difficulties such as centres dropping out or audio or video failing have been common in the past,[72] though this is improving.[73] – Specialist IT skill is needed to set up and maintain the infrastructure in each location.[74] Networks can be subject to power surges, outages and user error in each centre, and skill is required to recognise and manage these faults. – Thorough testing prior to each event, involving all locations and formats to be used, is required to maintain consistent audio / visual settings across locations. – IT staff are also required to train new users and sometimes solve technical problems on the spot during events.

68 For example, a personal Cisco videoconferencing unit that cost $13,000 just a few years ago can now be bought for less than $3000 (Interviewee comment).
69 Forell, Laufer & Digiusto 2011, pp. 2, 12.
70 Interviewee comment.
71 Interviewee comment.
72 Interviewee comments, Forell, Laufer & Digiusto 2011, pp. 11-12.
73 Interviewee comment.
74 See Forrester 2013, p. 3.

Consideration	Possible advantages	Disadvantages / considerations
Cohort size	– Videoconferencing-equipped rooms in regional centres can potentially accommodate large distributed audiences, and remote access options can increase the audience further. – Systems can also be used for 1:1 case consultations and small inter-centre meetings.	– Larger audiences will limit the amount of interactivity possible between centres within the allocated time, though this can be managed in regional centres with facilitated small group work.
Flexibility for different learning designs	– The most common format used in videoconferencing is lecture-style delivery from an expert in the field. This is often seen as an efficient way for people to learn technical law content. [75] – Delivery can be varied with multiple presenters, dialogue / debate versus presentation styles, and use of video and web pages. – Possibilities exist to include audience interaction, eg using mobile devices to submit questions via SMS, or polling responses via Votapedia or a similar application. – Being able to supplement a lecture with face-to-face interaction in regional centres can provide the 'best of both worlds', supporting nuanced learning conversations and a social aspect. – Facilitated groups in regional centres can use many different learning designs, eg role-plays, mentoring, brainstorming, etc.	– The most commonly used simple lecture format with limited regional centre input is not always the most effective format, and can be particularly unengaging for remote participants. [76] On-site facilitators in each location are generally needed to run more interactive learning activities and ensure social engagement occurs. – Coordinating multi-centre and remote participation takes time and patience for all participants. – Special efforts need to be made to include remote participants (via phone or online) in regional centre discussions, or at least provide them with a facility to communicate online / by phone amongst themselves during the event. – Video or web-page presentations may be problematic for low-bandwidth participants.
Support for social contact	– Gathering rural-regional staff in regional centres provides valuable opportunities for networking, mentoring and discussing regional issues, while a videoconferenced presentation can also provide access to expertise from distant locations.	– More remote staff may not be able to afford the time to travel to regional centres, and special arrangements will be needed to include them in networking, mentoring and regional-interest discussions (eg via phone or online). – If regional centre interaction is not well facilitated, little connection may occur between participants.

75   Interviewee comments, multiple webinar participant interviews.
76   Interviewee comments.

Consideration	Possible advantages	Disadvantages / considerations
Live audio interaction	– Audio transmission is generally reliable and needs comparatively little bandwidth. – The ability for people in each centre to contribute to a learning conversation using live audio and video enables some sharing of ideas, perspectives and questions. However, this needs to be managed skilfully as participants frequently feel self-conscious with a large, invisible audience, and it can take time to gather and respond to contributions from all centres.	– Loud or distorted sounds coming from any venue on the network that has not muted its microphone is a common and extremely annoying problem. The only sure way to avoid this is to have staff available at each centre during videoconferences to mute room microphones. – Short delays in audio signals (latency) make conversations disjointed, but regular users become accustomed to this. – Participants in multi-centre events have a very limited view of each other and, with the slight audio delay in this public forum, person-to-person conversation can be awkward. Visual displays should be set to include as much of the audience as possible, and people should be encouraged to sit close to the room camera, so viewers can see body language, etc.
Text interaction	– A Twitter feed can be displayed on the presentation screen. – Quantitative audience polling results using Votapedia or a similar application can also be displayed via a website on the presentation screen. – Participants can SMS or email messages to a facilitator to share.	– In traditional, regional-centre videoconferencing a text channel generally is not available. A Twitter feed can provide one. – Webinar-style systems generally do provide for text interaction, but participants need to have a laptop or mobile device with them to type into.
Quality of video	– Depending on camera, system and network capacity, high definition video is possible for high bandwidth / 4G mobile network locations, using 'telepresence' hardware. The health sector has high-definition video networks to support remote medicine.	– Participants with lower bandwidth and less than 4G mobile network locations will experience poor video transmission. However, often only a 'talking head' with basic quality video is needed, so options with very small webcam images requiring low bandwidth are sufficient. – High-definition telepresence hardware is very expensive.[77]
Recordable / constantly available content	– Events can be recorded and links made available for streaming via YouTube, download from websites or distribution via DVD.	

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77   Units can cost more than $100,000 (Interviewee comment).

Videoconference protocols

Technical protocols

- Videoconferencing systems consist of many different components that need to operate compatibly. These include audio and visual systems in each location, networks, videoconference management systems, web scheduling systems, gateways and so on. It is sometimes possible to link some systems together to enlarge an audience. However, not surprisingly, interoperability issues often occur, and these require specialist technical skill to manage.[78] Organisations needing to bridge videoconferencing systems, or enable remote individuals to connect to a videoconferencing system via URL or a mobile app, could explore a new range of applications that offer this facility, such as Blue Jeans.

- Room set-up can influence the quality of an event considerably:

  - A large room requires a high-capacity audio-visual system while a small room needs a small system.

  - Room microphones need to be positioned effectively to capture sound.

  - Avoid rooms where air conditioning is noisy or there is other ambient noise.

  - Tables should be positioned so all participants can see and be seen by room cameras.

- Use a web scheduling tool to automate connection to the videoconference and enable each location to connect independently.

Event design

- Arrange for an event champion / facilitator at each centre, with responsibility for local promotion, venue / IT set-up and facilitation of activities on-site.

- Plan for audience interaction, but be aware that this can be difficult to manage across locations, so (ideally) brief regional centre facilitators on key questions and / or activities, timing and ways to communicate with the main group.

- Watching a screen with distant views of speakers and having stilted conversations over the system due to audio delays is tiring, so aim for a one-hour limit.

- For community legal education, vary presentation style by having multiple speakers or introducing dialogue / debate between two speakers. Avoid a monologue with one speaker and numerous text-heavy slides!

- For professional legal education, weigh the need for variety and change of pace against the need for adequate coverage of complex technical detail in the time available.

- If the videoconference is to be recorded, ensure permission is gained in advance from the presenter(s).

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78 See Forrester 2012, p. 3 for technical optimisation tips.

- Minimise use of high-bandwidth media such as video and multiple web pages in presentations. Be aware that audio from web sources may be problematic.

Invitations and instructions

- Actively promote events in each of the regional centres, through local facilitators, with posters, flyers and newspaper advertisements as well as email lists, social media and websites.

- Use an automated event management system such as Eventbrite to streamline management.

- In the registration questions, ask participants which centre they will be attending or whether they will participate online or by phone.

- Email instructions / reminders a week, a day and an hour before the event, including:

    o locations of videoconference centres and links to maps

    o the URL to take part and phone dial-in instructions

    o extremely clear instructions on how to connect, online and by phone, and a recommendation to connect fifteen minutes before the start time

    o an email address for queries, and for phone users to use to ask questions during the event

    o further information on troubleshooting in the form of a PDF or link to a web page

    o opportunity for online attendees to take part in a pre-event trial meeting using the software, to test their connection, audio and video capability (these are frequently problematic and can cause attendees to miss all or most of the event if not tackled beforehand)

    o an alert that the event will be recorded and the recording will be publicly available.

- In the reminder emailed just before the event, include a PDF of slides, URLs for web pages and any other content to be viewed in the event, for participants who have trouble viewing visuals or who will be connecting via phone.

- Common problems to address in troubleshooting before and during the event include:

    o administrator firewalls not allowing participants to download the necessary plug-in (workarounds are to enter as a 'guest', or use a non-networked laptop or mobile device)

    o participants having inadequate software, such as old operating systems, old browsers

    o participants not having their speakers selected in their audio settings.

Videoconference set-up

- Ensure the presenter(s) have their microphones set up effectively and can operate the presentation system with ease.

- Communicate with facilitators at each centre to ensure they have turned the system on well before the start time, have checked that audio and video are working, and have muted the room microphones.

- Load a 'welcome' slide, both to test the presentation view in each centre and to welcome participants.

- Set up a phone / iPad / laptop to receive SMS messages and Votapedia (or similar application) audience polling results.

Facilitation

- Take a mobile phone to the venue, with mobile numbers for regional centre facilitators, to enable communication if technology fails. Mute phones during the event.

- If enabling online access, have someone with a strong IT background monitoring the email address provided for the event and ensuring the software is working.

- Start on time and remember to click the record button (with a warning to participants that the session is being recorded and will be made publicly available).

- Manage timing assiduously to ensure sufficient time for all speakers and activities, and allow for questions / comments.

- Be aware that participant interaction takes time and patience. To minimise delays:

  - if using SMS for relaying audience questions, give the audience plenty of warning and provide the number on a presentation slide

  - if using a mobile response system such as Votapedia for polling, provide the phone numbers on a presentation slide and allow sufficient time for responses and subsequent discussion

  - be aware that inviting each centre to ask questions / comment takes time and attendees are frequently reluctant to participate, so give plenty of warning for participants to prepare themselves at the microphone and don't expect every centre to speak.

Follow-up

- Survey participants can use an online survey (eg Survey Monkey) to gather feedback on technicalities, administration and learning outcomes.

- Upload the recording of the event to a website such as YouTube and send a link to the recording to all participants.

- Create DVDs of recordings and send to participants if required.

Case study: [CRRLJ videoconferences](#)

Since 2013 the Centre for Rural Regional Law and Justice (CRRLJ) has run at least six videoconferenced events each year on aspects of the law, for professional legal and general audiences. Up to fifteen regional centres are used, including the Deakin University 'Deakin at your doorstep' venues and VLA centres. Online or phone attendance is supported via the VLA [Avaya Scopia](#) system, and soon will also be supported via the Deakin system using [Microsoft Lync](#).

An average of eighty people participate in these events, which are hosted from Deakin's Melbourne City Campus, generally with a panel of speakers and lasting one and a half hours. Post-event surveys for each event indicate that most find the events very useful, whether they come for professional development or out of personal interest. On average, recordings of the events are downloaded eighty times from the Centre website.

Audio problems due to some centres failing to mute their microphones have provided the main source of complaint. Survey respondents have been comfortable with the lecture-style delivery but some have said they would have liked more time for questions. (Audience members send questions via phone and SMS messaging to the main event facilitator, who relays them to presenters.) A weakness in the model is that not all regional centres have local facilitators, and no organised interaction between audience members occurs, hence, opportunities are missed for networking and contextually based discussion of the content.

A frequent comment from those accessing the videoconferences online, via Scopia, is that they appreciate the opportunity to view the conference without having to travel. Some participants set up their own group-viewing event in a local meeting room with a large screen on which to project the videoconference image. They take advantage of the opportunity to network and discuss local application of the event content. However, these participants have noted that the video image has not been clear enough to read some of the slides, so it is important that the slides are emailed to participants as well.

Trials of connecting to the videoconference system online via [Jabber](#) during 2013 were less successful. Deakin was not hosting the full version of Jabber and users frequently dropped out and had to reconnect, causing noise and annoyance to other participants. A trial using a Twitter feed to enable text communication amongst attendees was also unsuccessful as very few took the opportunity to communicate in this way. Surveys of event attendees regularly indicate that only a small minority of attendees are Twitter users.

Webinars (web / desktop conferencing, webcasting)

An increasingly popular technique for engaging with RRR people involves an online 'meeting' which includes a presentation using audio and images, and some interactivity via text or audio. This design has many different names and a range of possible elements. A common name is 'webinar', which derives from 'seminar', implying mainly one-way communication, but these events can also be highly interactive. Another common name is 'desktop conferencing', implying that participants take part in isolation, using their personal computer—but the interface may

easily be projected onto a screen for viewing by any number of people. It is also known as 'web conferencing', but increasingly people can participate using mobile devices or ordinary telephones. Another similar term, 'webcasting', implies a one-way broadcast using the web, and may be pre-recorded or live.
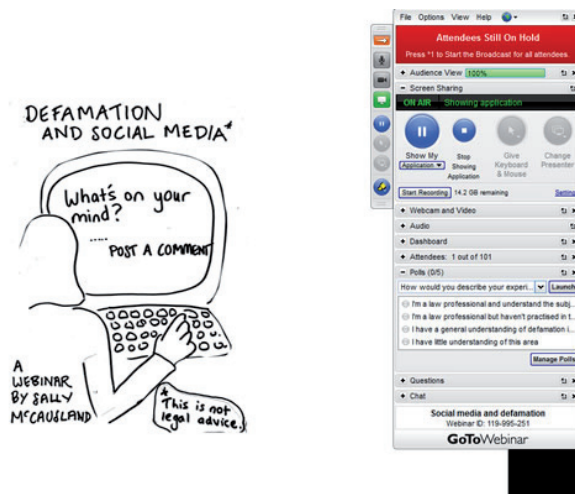
Figure 5.2: A webinar interface using GoToWebinar

Applications that can be used for these purposes range from simple, free products such as Skype and Google Hangouts, through commercial online collaboration and webinar products such as Microsoft Lync, GoToWebinar, Adobe Connect and WebEx, to expensive, custom-built communication solutions by companies such as VioCorp. Applications are not standardised, so are not inter-operable, but in most cases participants can access an event by clicking on a URL they have been sent and downloading a small amount of software, or providing their telephone number to the facilitator. (Facilitators do, however, need to download a full program.)

Elements provided by popular applications can include real-time audio interaction with multiple talking participants, slideshows, polling, multiple webcam views, high-definition streaming video, recording, whiteboard sharing, screen / application sharing, breakout rooms (private spaces for group work), document sharing and telephone access. A matrix setting out which of these elements are provided by the most popular applications in the Victorian context has been included below as Table 5.3.

Why run a webinar?

There are good reasons to use webinars to engage with RRR people. They can reach anyone with a reasonable internet connection and computer, or good mobile access and a smartphone; the software and hosting expenses can be very low; and the format offers flexibility for a range of learning designs from lecture format to group discussions, participant presentations and text-based role-plays. Audiences can be large or small, events can be recorded, and generally facilitators are less limited by the technology than by their ability to use the options and their webinar time effectively.

Table 5.2: Possible advantages, disadvantages and considerations associated with webinars

Consideration	Possible advantages	Disadvantages / considerations
Access	– RRR people can participate from anywhere with a reasonable internet connection—the majority won't have to travel. Many newer applications work on low bandwidth and 3G mobile networks.[79] – People who do not have reasonable quality internet / mobile coverage are often able to phone in or be dialled in by the host organisation, with newer webinar applications.	– People who do not have a computer / mobile device, have a disability such as sight impairment, or who have low digital literacy or confidence with IT may be unable to take part unless they can share another user's interface (eg in a centre equipped with projection screen and speakers). – Downloading even small plug-ins can be confusing for people with little IT expertise—very clear instructions are necessary. – Many workplaces do not allow staff to download software unless they have 'administrator' status. These people may need to use a 'guest' login and / or a mobile device to take part. – Participants should be encouraged strongly to test their hardware, software and connection well before the event to allow time for alternative arrangements if necessary (eg phoning in, travelling).
Cost	– Webinars can be cost-effective for RRR people as they eliminate travel costs and time. – For organisers, software licensing costs can be low, depending on the application. – Hardware, networking and IT support costs are much lower than for traditionally networked videoconference systems.	– With some applications, hosts and participants may need to upgrade their hardware / software to take part. – Applications need to be chosen carefully as licensing costs vary. – If using regional centres for group access, projectors, screens, room microphones and cameras are needed, and IT support may be necessary to set them up.

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79   A 'reasonable' internet speed for taking part in most webinars is 6 Mbps, whether via a fixed-line broad-band or mobile network.

Consideration	Possible advantages	Disadvantages / considerations
Need for specialist IT support	– Once a facilitator has learnt how to set up and use the webinar application, IT support generally is not needed. – Full IT support for webinars can be outsourced to companies such as [Redback]().	– Webinar applications can take some time to choose and some take time to learn, which can be problematic if IT support is not available. – Expertise with troubleshooting can take time to develop. – If webinar interfaces are projected onto a screen in a regional centre, IT support may be needed to manage hardware connections. – Hosts need to be prepared for numbers of people to experience connection and technical difficulties on the day, as few tend to test their connection well beforehand.
Cohort size	– Many webinar applications can accommodate several hundred participants without additional costs. – Free applications frequently have limited user numbers.	– Larger cohorts will limit the amount of interactivity that can be practically managed within the allocated time. – Larger cohorts will also require additional staff to manage participant technical issues and questions / comments.

Consideration	Possible advantages	Disadvantages / considerations
Flexibility for different learning designs	– Webinars can be in lecture mode with little participant interaction, or highly interactive conversations using text and audio, depending on the skill of facilitators and the number of participants. – Quick webinars can be called to follow up after another event, to fill in details or provide customised content for particular audiences. – Participant activities such as polls, open questions, short web-based activities and group activities in virtual breakout rooms can be used. – Delivery can be varied with multiple presenters, dialogue / debate, and use of video and web pages.	– As participants are on their computer, and are invisible, they can easily feel tempted to multi-task (eg catch up with emails while listening to the webinar), and disengage. A varied, interesting presentation with some audience involvement (eg through polls, short activities, asking open questions) can reduce this temptation.[78] – Teaching a virtual audience, with or without webcam video, and running activities with text-based or delayed audio responses, requires considerable preparation. Practice is necessary to overcome feelings of strangeness, learn to present in an appealing manner and work out effective teaching strategies in this format.[79] – Expertise in designing webinar interactions and presenting in this mode can take time to develop so presenters tend to rely on lecture-style communication rather than two-way learning conversations and more risky designs. – Video or web-page presentations may be problematic for low-bandwidth participants.
Support for social contact	– Networking and informal conversations can be facilitated by providing participant lists and email addresses (with consent), and actively encouraging participants to introduce themselves and share their experiences via text or audio.	– Unless networking is actively facilitated, it is unlikely to occur in a webinar in which participants do not know each other. – If RRR people rely exclusively on web-based communication methods they can miss out on many serendipitous advantages and networking / mentoring opportunities to be gained through face-to-face interaction.
Live audio interaction	– All webinar applications offer live audio interaction among participants. Most allow the facilitator to mute and unmute participant microphones, minimising unintentional participant noises and distortion.	– Participant audio interaction takes time so needs to be managed carefully. – Participant audio quality can be poor—if audio participation is planned for, encourage participants to acquire good quality headsets with built-in microphones to minimise feedback. – Participants attending from open-plan workplaces may feel awkward speaking.

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80   For tips on maximising engagement in webinars, see Molay 2010 or Bayne 2013.

81   Again, see Molay 2010 for presentation tips and strategies.

Consideration	Possible advantages	Disadvantages / considerations
Text interaction	– Most webinar applications offer text interaction among participants within the interface.	– Keeping track of questions and comments in the text field while presenting can be difficult and a second facilitator to manage this is a great advantage. – Some text, eg seeking help with technical problems, is distracting for most participants and should be minimised by using a private messaging function, if one is available in the interface. (Contact details for technical problems should be made clear at the start of the event.)
Quality of video	– Some products offer high definition video but video quality will depend greatly on camera quality, application, and internet / mobile network capacity.	– Participants with lower bandwidth and less than 4G mobile network locations can experience poor video transmission, though audio will generally work on poorer connections. Therefore, use of video and multiple web pages should be minimised. – Often only a 'talking head' with basic quality video is needed, so options with very small webcam images requiring low bandwidth, or no video images at all, are sufficient.
Recordable / constantly available content	– Webinars can be recorded with a click of a button, and links can then be made available for streaming via YouTube, download from websites or creating DVDs.	

Webinar protocols

Technical protocols

- Each webinar application vendor supplies recommended technical protocols to maximise the effective use of their product.

- Webinar facilitation is noisy and should be run from a quiet room where other staff will not be disturbed.

- All presenters should use a cabled internet connection for best presentation quality.

- Ensure all presentation computers are running requisite software for the webinar application, and all other applications such as email and instant messaging are turned off.

- Ensure all presenters use a good quality headset with microphone, and do an audio check to ensure their headset is connected and selected, and volume levels are good.

- Ensure webcams for presenters' computers are working, and all mobile phones are muted.

- Pre-load all presentations and polls into the webinar interface, and open web pages that will be used in the background.

- Ensure participants' microphones are muted and webcams are disabled on entry. Unintentional noises from participants who fail to mute their own microphones can ruin the event for all, and participants who forget their webcam is on can unintentionally broadcast embarrassing or at least distracting images.

- Load an orientation screen for participants to see when they enter the interface. Include a welcome message indicating the title of the event, graphics or instructions to explain that participants' microphones are muted and how to find the text field, and an invitation to introduce themselves in a few sentences via the text field.

- In the fifteen minutes before the presentation starts, set quiet music to play into a presenter's microphone and leave this unmuted so participants can check that their audio is working. Periodically welcome them using audio and text and tell them how long it will be before the presentation will begin.

Event design

- Online participation can be tiring, so aim for a one-hour limit.

- Timing is critical: a lunchtime webinar can be attended easily by office workers from their desks; early evening (around 8.00 pm) can also be a popular time for people who work all day.

- Use periodic quick polls to gather information on participants' background, major areas of interest and opinion on key issues; and then adapt the presentation according to the results. Do not poll for the sake of it, but ensure questions are important, and incorporate the results into the presentation. Also poll participants at the end to gather feedback on learning design, administration and technology performance.

- Actively seek and acknowledge participants' contributions via the text field, to increase their sense of being able to participate in the learning discussion. Allow sufficient time for this—up to half the allotted time may be reasonable for some subjects and cohorts. If time permits, include prepared questions requiring short text answers (and possibly individual audio responses).

- Vary presentation style by having multiple speakers or introducing dialogue / debate between two speakers. Avoid a monologue with one speaker and numerous text-heavy slides!

- Minimise use of high-bandwidth media such as video and multiple web pages in presentations.

- In addition to the presenter(s), it is an advantage to have a technically skilled facilitator present to manage IT issues and keep track of questions / comments, particularly if numbers are large.

- Aim to practise the entire session, with all presenters using the software, well before the event. If presenters are unable to take part in a practice session, at least provide a set of protocols for good presentation and explain key aspects.[82] Presenters new to the application may need more than one practice session, and presenters who are not used to speaking to an invisible, muted audience will certainly need to practise their delivery. If the session is to be recorded, ensure their permission is gained for this.

Invitations and instructions

- Use an automated event management system such as Eventbrite to streamline management, if your webinar application does not have a comprehensive built-in management system.

- In the registration form, include a question asking participants if they agree to sharing their name and organisation on a participant list, to aid with networking during and after the event.

- Email instructions / reminders a week, a day and an hour before the event, including:

  o   the URL to take part and phone dial-in instructions

  o   clear instructions on how to connect, online and by phone, and a recommendation to connect fifteen minutes before the start time

  o   an email address for queries, and for phone users to use to ask questions during the event

  o   further information on troubleshooting in the form of a PDF or link to a web page

  o   opportunity to take part in a pre-event trial meeting in the online interface to test their connection, audio and video capability (these are frequently problematic and can cause attendees to miss all or most of the event if not tackled beforehand)

  o   an alert that the event will be recorded and the recording will be publicly available.

- In the reminder emailed just before the event, include the list of participants who have agreed to share their name and organisation, a PDF of slides, URLs for web pages and any other content to be viewed in the event, for participants who have trouble viewing visuals or who will be connecting via phone.

- Common problems to address in troubleshooting before and during the event include:

  o   administrator firewalls not allowing participants to download the necessary plug-in (solutions are to enter as a 'guest', or use a non-networked laptop or mobile device)

  o   participants having inadequate software, such as old operating systems, old browsers

  o   participants not having their speakers selected in their audio settings.

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82   Molay 2010 provides many useful tips; a summary of the most relevant ones for the particular type of presentation may suffice.

Facilitation

- Have a co-facilitator with a strong IT background present as an administrator in the webinar, especially in the fifteen minutes before the event starts, to:

    o help participants with connection, audio and video problems (if quick troubleshooting instructions do not solve participants' problems, offer to connect participants who have audio problems by phone)

    o monitor the presentation to ensure visuals and audio work properly

    o respond to comments / questions in the text field or prompt the presenter to address these using audio

    o manage audio and other privileges for participants who become presenters or are invited to speak (keep everyone muted except for the people presenting at any time)

    o monitor the facilitator's email account to check for questions coming in via email from phone attendees, and relay these to the presenter.

- Start on time and remember to click the record button (with a warning to participants that the session is being recorded and will be made publicly available).

- Actively encourage the virtual attendees to communicate via the text field. This includes asking them to introduce themselves and engage via text on key questions as they arise, with the presenter and each other. Call specifically for questions at the end of each major section.

- Very early, poll the audience to gauge their prior knowledge and areas of interest, and adapt the presentation accordingly. Enable participants to see the results, and repeat the results using audio for phone participants. Break up the presentation with periodic polls or open questions to gather contributions from the audience.

- Remember phone participants cannot see the video images and text field (though they should be able to follow the slides and web pages as these should have been emailed to them before the event). Ensure presenters read out comments and questions in the text field as they address them.

- Minimise use of video and multiple web pages as these are often problematic for low-bandwidth participants. Provide links in the text field for participants to open pages in their own browser.

- Keep an eye on time and be firm with speakers or participants who go over time. Minimise delays between speakers as the sense of time being wasted is particularly acute in online events.

- Finish on time, thank participants and presenters, and say the link to the recording will be emailed in the next few days, along with links to further reading and a survey for feedback. If possible, give details of how participants can continue the conversation using specific social media platforms.

Follow-up

- Survey participants using an online survey (eg Survey Monkey), to gather feedback on technicalities, administration and learning outcomes.

- Upload the recording of the event to a website such as YouTube and send a link to the recording to all participants, along with a short list of recommended reading on the subject.

Comparison of technologies

The range of products that can be used for webinar-type activities is wide and increasing. There is a good deal of convergence as vendors seek to incorporate important advances in technology into their products. At the same time, many vendors seek to differentiate their products with special features or particular ways of doing things. Table 5.3 provides a summary of features that are particularly desirable for educators, matched against their availability in a selection of popular applications in the Victorian context.

Note: this table covers only selected popular applications in the general Victorian context. See http://en.wikipedia.org/wiki/Comparison_of_web_conferencing_software for a more extensive comparison of web conferencing products on a wider range of factors.

Table 5.3: Characteristics of selected videoconferencing / webinar technologies[83]

Features	Cisco video conferencing via virtual meeting points	Blackboard Collaborate	Go To Webinar (Citrix)	Adobe Connect for Webinars	WebEx (Cisco)	Scopia (Avaya)	Lync	Skype	Google hangout	Join me, other new free apps[84]	Viostream customised video conferencing solutions
Users	Many universities	Many universities	Popular commercial use	Popular commercial use; some universities	Popular commercial use; CLC network	VLA network	Very popular in corporate world, increasing in university sector	Most popular general use product for small participant numbers	Popular general use	Small but increasing general / commercial use	DEEWR (used for NDIS launch & communications)
Cost	Several hundred thousand dollars, including hardware, networking, software.	30-day free trial; enterprise pricing $20,000+ per year for hundreds to thousands of users, fully supported (eg cost to Deakin is $180,000 per year)	30-day free trial; $130 per month (account can be suspended when no activity)	30-day free trial; full licence $2000+ per year for fully supported system	14-day free trial; $65 per month	Part of an expensive multifunctional system used by Victoria Legal Aid for many communication purposes	Generally licensed to an organisation as part of its MS Office suite, so 'low cost'	Free for up to 10 participants	Free	Free, open source	$2500–$4500 per month for fully supported enterprise licence, based on number of webcasts
Phone connection	√	√ (depending on organisation)	√	√	√	√	Users can phone in or be phoned into the meeting by facilitator	√	√		√

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83 Note that costs and features are changing constantly—information was gained from trials and publically available product information as at June 2014. Do not rely on this information but check current costs, features and compatibility before making decisions regarding these technologies.

84 For a discussion of free options, see: http://venturebeat.com/2013/08/27/lets-dump-webex-and-gotomeeting-for-hosting-web-conferences/ (accessed 29 July 2014).

Features	Cisco video conferencing via virtual meeting points	Blackboard Collaborate	Go To Webinar (Citrix)	Adobe Connect for Webinars	WebEx (Cisco)	Scopia (Avaya)	Lync	Skype	Google hangout	Join me, other new free apps[84]	Viostream customised video conferencing solutions
Low bandwidth functionality	Networked centres have good bandwidth. Experience of individual users connecting via an enabled application depends on the application	Low bandwidth connections catered for with audio catch-up feature	Low bandwidth connections tend to have audio fades and lag, video issues	Low bandwidth connections tend to have audio fades and lag, video issues—need to minimise use of webcams	✓	✓	✓	Can use audio only option to save bandwidth	✓	✓	✓
Participant numbers[85]	Limited only by size of venue. Number of individual connections depend on application.	100+, depending on enterprise licence	Up to 1000	1000+	1000+	Depends on licence—'webcast' mode may be unlimited, interactive 'join meeting' mode may be limited	Up to 1000	Up to 10	Up to 10	Depends on app	1000+
Access[86]	Requires videoconferencing system installed, and each centre dialling into the videoconferencing network. It may be possible to connect via URL if the VC system is set up to support this with a compatible desktop conferencing application.	Access via URL, plug-in takes seconds to download.	Access via URL, plug-in takes seconds to download. Mobile app is very user-friendly.	Access via URL, plug-in takes seconds to download.	Access via URL, plug-in takes seconds to download.	Access via URL, plug-in takes seconds to download, but requires latest Quicktime, which may need to be downloaded as well.	Access via URL, plug-in takes seconds to download, but sometimes browser settings cause download problems and repeated tries are needed.	Requires software download. Need to accept an invitation to join a conversation.	Requires Gmail account. Need to accept an invitation to join a conversation.	Access via URL, generally no plug-ins to download	Access via URL, no plug-ins required

85 Numbers of participants can be limited more by host's server capability than the platform.

86 Downloads can be problematic if users don't have 'administrator' access to their computers, eg at work. Note that plug-ins will be less necessary soon—more browsers will be able to support the video requirements of these platforms.

Features	Cisco video conferencing via virtual meeting points	Blackboard Collaborate	Go To Webinar (Citrix)	Adobe Connect for Webinars	WebEx (Cisco)	Scopia (Avaya)	Lync	Skype	Google hangout	Join me, other new free apps[84]	Viostream customised video conferencing solutions
Text channel	No, but can add a Twitter feed or have SMS questions relayed to presenters by a third party	✓	No—Q&A function instead	Has full-screen text option. Can also integrate Twitter feed	✓	✓	✓	✓	✓	✓	✓
Audio interaction	✓ Yes, but cannot remotely control mics of users, resulting in frequent significant audio issues	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
High definition video	Can be problematic—dropping in and out	A range of video formats are supported but they rely on the participants' computers having appropriate players (easier to load the video into YouTube and provide the link for participants to open in a different window)	HD video of up to 6 presenters (via webcam) + presentation screen. Need to play video from file saved on hard drive.	Upload MP4 files to play rather than use YouTube online	HD video	Basic video quality	HD video	Basic video quality	Basic video quality	Depends on app	HD video
Polling	No	✓	✓	✓	✓	No	Multiple choice options only	No	No	Depends on app	

	Features	Special features	Disadvantages
Cisco video conferencing via virtual meeting points	Technical issues are more predictable as related to the system rather than individual users. Most participants do not need technical expertise and computers.		Cost could be a factor. Not possible to mute mics remotely which causes frequent major problems. Audience participation is awkward. Default setting is to see all conference rooms, which can be distracting and leaves little room for presentation when only one screen is available.
Blackboard Collaborate	Has been a market leader for educational institutions, so many users are familiar with it. Offers breakout rooms.		Cost could be a factor. Can have heavy bandwidth demand. Troubleshooting can be complex.
Go To Webinar (Citrix)	Works comparatively well across platforms, good video-based and live support for learning the system; long free trial period.	HD video of up to 6 presenters. Includes optional registration form, analytics, feedback survey.	Screen-sharing with PowerPoint files can be problematic, though issues are not difficult to resolve.
Adobe Connect for Webinars	Highly customisable interface. Full screen text option. Analytics. Compatible with Lync.		
WebEx (Cisco)	NACLC use WebEx.		
Scopia (Avaya)	Dual webcast and basic collaborative meeting modes. VLA video-conferencing network with remote access via URL.		Basic functionality.
Lync	Well integrated with Microsoft Outlook. Clear, flexible interface. Improving rapidly. Will soon be interoperable with Skype.		Plug-in downloads can be unreliable. Requires recent supporting software on participants' computers. Can be complex for facilitators to learn.
Skype	Widespread use. Simple operation. Requires no supporting software.		Restricted numbers of users. Limited functionality for webinars.
Google hangout	Free, simple way to share video and text with a small group.		Max 10 participants. Basic functionality.
Join me, other new free apps[84]	Free, easy to access.		Depends on app.
Viostream customised video conferencing solutions	Excellent for remote access. High quality video. Flexible range of features. Fully customisable, supported service.		Cost could be a factor.

Case study: [CRRLJ trial webinars](#)

The Centre for Rural Regional Law and Justice held two trial webinars in March and May 2014. The first was on the subject of 'Social media and defamation' and was run using [GoToWebinar](#), with thirty-six attendees who were a mix of law professionals and general public, from rural and urban locations around Australia. The second was on the subject of 'Enduring powers of attorney' and was run in [Microsoft Lync](#), with seventy attendees who were also a mix of law professionals and others from rural and urban locations. Both had single speakers and lasted for one hour, with slide presentations, three polls and text-only interaction (participants were muted throughout to minimise audio issues).

Both webinars were very well received by participants who responded to the follow-up surveys. (Numbers of respondents are included in the Appendix.) A common theme was that they appreciated just having the opportunity to take part in a webinar delivered by a speaker with considerable expertise in the field, without having to travel. The simple lecture-style format was chosen as neither of the presenters had presented in webinars before, and the facilitator had only just learnt to use the webinar applications. However, a large majority of survey respondents for both webinars indicated they were satisfied with the learning experience. Online attendance did not decrease during either webinar and there were many relevant questions throughout both webinars, indicating good levels of engagement.

Only a small minority of participants in either webinar experienced technical difficulty, and many praised the simplicity and function of the applications. Only four participants in the GoToWebinar event experienced difficulty connecting, two using iPads and two using Macs; and a small number complained of slight echo in the audio (the presenter was using her laptop microphone rather than a headset). No IT expert was called on to help facilitate this webinar. A greater proportion (11 / 70) of participants in the Lync webinar experienced difficulty connecting or hearing audio. This was mainly due to the plug-in downloading incorrectly or video not working properly on iPads in less than 4G network areas, but in some cases it was due to their organisation's internet administration blocking the download, or their computers having old software that did not meet the webinar application's system requirements. The IT expert supporting this webinar was able to connect most of the participants experiencing problems to the webinar by phone.

Combining virtual and face-to-face cohorts

Given the distances people living in RRR areas might have to travel to take part in face-to-face legal education events, and given the advantages of running face-to-face events for those who are practically able to attend, it makes sense to use webinar technology to enable both virtual and face-to-face participation in a live event.

These have been termed 'hybrid events'[87] and can take many forms, depending on the types of interaction desired and software / hardware available. Virtually any webinar application can be used in a combined audience event; and a no-frills but effective result can be achieved with basic

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87   Wikipedia 2014, http://en.wikipedia.org/wiki/Hybrid_event (accessed 29 August 2014).

face-to-face conference infrastructure including a large projection screen and projector, lectern with microphone and a laptop with a built-in webcam to sit on the lectern. However, the addition of a multi-direction room camera and a powerful room microphone will create a richer learning experience for virtual participants.

For some time, several legal organisations in Victoria have been using videoconferencing or webinar applications to combine audiences for educational events from regional centres, or as individuals via telephone or online connection. However, a common complaint when face-to-face and virtual audiences are combined is that the main face-to-face group is privileged and the virtual audience (whether in regional groups or participating online individually) is marginalised.[88] Not only is the quality of audio and video of presentations generally lower for virtual participants, but they are frequently given little opportunity to contribute to discussion. Technology frequently is not the main issue, rather, it is the way the cohorts are managed that makes the biggest difference to the success of these events for the virtual cohort.[89]

Protocols

Note: an excellent free, online, handbook[90] provides more practical and technical information on teaching with combined virtual and face-to-face cohorts.

Technical protocols

- All of the technical protocols for webinars (see 'Webinar protocols') apply for combined audience events.

Room set-up

- The device from which presenters speak to both virtual and face-to-face cohorts should be a laptop with webcam, on a lectern equipped with a microphone. This should ensure the virtual audience can both see and hear the presenters, and the presenters will be able to see text questions and comments coming into the webinar application interface. Note that it means presenters will not be able to walk around the room.

- Test audio and video are working in both face-to-face and virtual environments. Open web pages to be used. Close all other applications, especially email and instant messaging.

- If possible, also use a strong room microphone and multi-direction camera, to enable the virtual audience to hear and see the venue participants, but be aware that the audio and images will still be distant for the virtual audience. Questions / comments will need to be repeated into the presenter's microphone.

Event design

- Integrating participation with virtual and face-to-face cohorts takes time, so where a facilitator might normally expect to run an hour-long session, a one-and-a-half-hour session might be

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88   Interviewee comments.
89   Interviewee comments.
90   Bower et al. 2014, http://blendsync.org/handbook (accessed 29 August 2014).

needed to achieve the same learning outcomes. However, online participation can be tiring so avoid making sessions longer than this.

- Use periodic quick polls of both cohorts to gather information on participants' background, major areas of interest, and opinions on key issues, and then adapt the presentation and activities according to the results. (Use the webinar application polling tool for virtual participants and a show of hands in the venue.)

- Minimise use of high-bandwidth media such as video and multiple web pages in presentations, as these may transmit poorly for virtual participants with low-bandwidth connections.

- Use at least two co-facilitators to manage IT aspects and support / mediate with the virtual participants.

- Actively seek and acknowledge virtual participants' contributions via text responses, to increase their sense of connectedness. If time permits, ask prepared questions and request open text (and possibly individual audio) responses from both cohorts, to demonstrate the spread of opinions or experiences on important issues.

- Encouraging face-to-face participants to also contribute to text commentary using mobile devices to connect to the webinar interface (with muted audio) can enhance participation and integration of the cohorts.

Invitations and instructions

- In the registration questions, include a question asking participants to agree to share their name and organisation on a participant list (to aid with networking during and after the event).

- Email instructions / reminders to all participants a week, a day and an hour before the event.

- Give face-to-face participants a map and text instructions to find the venue.

- Give virtual participants:

    o the URL and phone dial-in details to take part

    o extremely clear instructions on how to connect

    o further information on troubleshooting in the form of a PDF or link to a web page

    o opportunity to take part in a pre-event trial meeting in the online interface, to test their connection, audio and video capability (these are frequently problematic and can cause attendees to miss all or most of the event if not tackled beforehand)

    o an alert that the event will be recorded.

- In the reminder emailed just before the event, include the list of participants who have agreed to share their name and organisation, a PDF of slides, URLs for web pages and any other

content to be viewed in the event for participants who have trouble viewing visuals or who will be connecting via phone.

- Common problems to address in troubleshooting before and during the event include:

  o participants' workplace administrator firewalls not allowing organisational networked devices to download the necessary plug-in to participate (workarounds are to enter as a 'guest', or use a non-networked laptop or mobile device)

  o participants having inadequate software, such as old operating systems and browsers

  o participants not having their speakers selected in their audio settings.

Facilitation

- Brief the main facilitator in the venue to welcome the virtual cohort, actively look for questions and comments from them, and take special care to ensure the in-venue questions and comments are repeated by a presenter into their microphone, along with the name of the person who spoke.

- Have a co-facilitator with a strong IT background present as an administrator in the webinar, especially in the fifteen minutes before the event starts, to help virtual attendees with connection, audio and video problems. If quick troubleshooting instructions do not solve these participants' problems, this co-facilitator should offer to connect participants who have audio problems by phone, if possible.

- Have a 'host' within the venue to manage the integration of virtual and face-to-face participants. This host should:

  o actively encourage the virtual attendees to communicate via the text field in the interface, eg ask them to introduce themselves and engage via text on key questions as they arise

  o relay information between the venue and virtual cohort, eg relay questions and comments to the room presenters, and let virtual attendees know if audio has been turned off or there are technical glitches, and how long delays are likely to be

  o type or paste links to web pages into the text field so participants can open them in their own browser, which may work better than viewing web pages in the webinar interface

  o monitor the facilitator's email account to check for questions coming in via email from phone attendees

  o manage changing audio and other privileges for online attendees who become presenters or are invited to speak

  o manage polls of the virtual audience.

Presentations

- Minimise use of video and multiple web pages as these are often problematic for low-bandwidth participants.

- Minimise delays between speakers and activities, or at least inform the virtual audience how long the delays are likely to be, as the sense of time being wasted is particularly acute for virtual attendees.

Follow-up

- Survey participants using an online survey (eg Survey Monkey), to gather feedback on technicalities, administration and learning outcomes.

- Upload the recording of the event to a website or YouTube and send a link to the recording to all participants.

Case study: CRRLJ forum on 'Empowering rural audiences through digital technology'

Deakin University's Centre for Rural and Regional Law and Justice hosted a trial two-and-a-half-hour forum with combined face-to-face and virtual cohorts, connected via Microsoft Lync, in June 2014. The subject was 'Empowering rural audiences through digital technology' and the cohort was almost equally divided between face-to-face (twenty) and online (eighteen) modes. Four listened in by phone.

The forum included six presenters speaking for fifteen minutes each, discussing issues and showcasing digital methods they had developed for engaging with RRR audiences. The Lync interface was used as the presentation screen for the venue as well as for the virtual participants. It was projected onto a large screen so venue participants could also see the text field. One of the speakers presented remotely via Lync to the whole forum, using a webcam. A 360-degree camera and room microphone provided the virtual audience with a remote view and some audio input from the room. An expert IT support person managed the hardware connections and virtual participants' connection problems.

Feedback from participants during the event and respondents to the post-event survey indicated strong satisfaction with the event from both virtual and face-to-face participants. Virtual participants rated the learning experience, the ability to communicate and the blending of audiences slightly more highly than face-to-face participants did.

Virtual participants' comments indicated they appreciated very much being able to take part in the forum without having to travel long distances. Five experienced difficulties connecting online, and these were efficiently handled by the IT expert co-facilitator, resulting in successful reconnections or connection by phone. All rated the audio and video functions positively, though several complained that the video (webcam) image of the speaker was too small, and noted occasional lapses when questions or comments from the audience were not repeated into the presenter's microphone for the benefit of virtual participants.

Face-to-face participants' comments indicated they appreciated the added range of perspectives provided by the virtual participants; they thought the presentation from the remote speaker via Lync worked very well; and the technology required to include the virtual audience introduced only minimal distraction. Some commented they would have liked to have the option of contributing to the online text field along with the virtual participants, to reduce the perceptions that there were 'two streams' in the overall group. Given the success of the event, many said they were considering running combined-cohort events in their own organisations.

Asynchronous (non-live) interaction

While having face-to-face or at least real-time interaction with experts may popularly be seen as the best way to learn, many legal service providers note that a *combination* of digital and non-digital, synchronous and asynchronous methods are needed to ensure people's different types of needs at different stages are met.[91] This section focuses on the relative merits and issues related to asynchronous e-learning techniques—those methods that do *not* rely on real-time communication between people. Methods include one-way communication through websites, videos and online learning modules as well as interactive methods where the response may be delayed (as in email and most social media) or automated (as in web- or mobile-based interactive applications).

As most legal organisations in Victoria have an online presence, there is a lot of legal information available online.[92] It is of varying quality, and it can be difficult for general community members to find the most relevant information, in a format that suits them. In 2014, guidelines for best practice in legal websites[93] were released to raise the standard of these sites. The Everyday-Law site was also published to provide an index to sites for information on many categories of legal issues. In the interests of avoiding duplication and promoting best practice in design of digital education, the Community Legal Education and Reform (CLEAR) Database website hosted by NACLC showcases hundreds of community legal education and law reform projects and resources created in Australia. These use a wide range of formats and include both community and professional legal education.

Asynchronous methods are also prevalent in professional development. Members of CLCs have quick access to key online law research resources via a large online repository.[94] Open-source online legal resources have also proliferated in recent years.[95] Professional development resources and programs provided by VLA are increasingly available in digital formats such as online downloads or online modules, and NACLC and the Law Institute also provide some professional development resources

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91   Interviewee comments, Commonwealth of Australia 2012, Hose 2014 *Empowering rural audiences through digital technology* forum presentation (https:// www.youtube.com/watch?v=q2DuZZ2ogUM, accessed 10 July 2014).

92   The Commonwealth Government's 2012 'Stocktake paper' summarises the very large range of websites and web-related applications providing community legal information in Australia. These include government department websites and those hosted by legal organisations.

93   VLAF 2014, http://www.vlaf.org.au/cb_pages/files/Guidelines%20-%20Final%20(140516).pdf (accessed 22 July 2014).

94   Resources include 'practical guidance' modules, legal journals, databases, reports and news feeds. Available at http://www.naclc.org.au/cb_pages/online_legal_resources.php.

95   Popular resources include Legify, Jade Barnett, Foolkit and Australian Policy Online.

online. Social media is also being used informally for professional learning, and will be discussed in the next sub-section, 'Social media'.

Why use asynchronous methods?

In 2012–13, 79% of non-city-dwelling Victorians were online, with access at work, home or on their smart phone or tablet, using the internet for more hours and for more purposes than ever before. Young people were especially frequent users of the internet.[96] With this background, it is not surprising that many people seeking legal information are looking online first.[97] Another important trend, especially among young people, is a preference for video formats.[98] In response, as noted above, most large public organisations providing legal information use a range of asynchronous methods in order to meet their audience's different types of needs. These include websites with downloadable pages or fact sheets. Some of these websites enable asynchronous exchanges via email and (increasingly) social media. VLA and some CLCs (eg Youthlaw and Justice Connect's Not-for-profit Law service) offer short videos and interactive online resources on specific subjects. This kind of combination ensures that users can access information anonymously and when they need it, find it in different platforms and engaging formats, and seek additional personalised help if they still need it. These methods also take the pressure off phone consultation services, and provide a site to which callers can be directed by phone staff and encouraged to help themselves.

A similar multi-platform approach is also useful for professional development. Synchronous events such as videoconferences and webinars have many advantages, and generally they can be viewed as a recording if the live event time is inconvenient, but most legal professionals search out detailed information on websites as they need it.[99] VLA is enhancing its compulsory professional development modules with the addition of professionally designed online modules to streamline their lawyers' learning of key aspects of the law and relevant social issues.[100] These modules may contain text, web links, visual, audio and interactive elements such as asynchronous discussion forums and surveys. VLA modules are frequently available in flexible, blended online–face-to-face modes to gain the advantages of both methods. VLA has recently implemented a Moodle learning management system to streamline access to online modules and administration of professional development.

Protocols

Research conducted by several Victorian legal services[101] indicates that many people who access legal websites or other digital legal resources do not have high levels of information literacy or understanding of legal systems and jargon, and nor are many who could benefit from this information

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96   All statistics are from Australian Bureau of Statistics 2014, 'Personal internet use', http://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/DE28AB7779067AACCA257C89000E3F98?opendocument (accessed 22 July 2014).
97   VLA statistics quoted in interview.
98   Neilsen 2014.
99   Interviewee comments.
100 VLA statistics quoted in interview.
101 Interviewee comments.

highly motivated to persist with difficult searches. Therefore, when planning and designing websites, phone apps and any other self-help resources, it is imperative to use best practice principles.

The Victoria Legal Assistance Forum (VLAF) provides a concise set of best practice guidelines for the development and maintenance of community online legal information in Victoria.[102] Among other principles, resources must be designed and written with the needs of the user in mind, easy for the novice to navigate, current, accurate, and able to be accessed effectively on mobile devices and by people with disabilities. Incorporating an effective search function is also important. As jurisdictions differ but many digital resources are available universally, it is also vital that the jurisdiction to which the information applies is clear. (Justice Connect's Not-for-profit Law 'Information hub' website provides an example of how this may be achieved by using a filter for jurisdiction plus a colour-coding system.) Also, as different legal organisations have different specialisations, it is highly desirable to link out to the best websites for information on specific subjects. When designing self-access resources for remote and rural users in particular, a key principle is to maximise the accessibility of the resource for low-bandwidth users who might also have a poor or non-existent mobile network. This includes minimising high-bandwidth graphics and video, and making these elements optional rather than automatically downloaded, with information on file sizes provided before downloading begins. VLF will provide free 'health checks' of online legal information resources and provide tips.[103]

Creating innovative digital information resources for a general audience presents many challenges, from researching user needs and preferences; to outsourcing expertise in aspects such as video creation, instructional design and web design; to thinking up appealing and effective functionality; to user-testing; to marketing; to ongoing evaluation. VLA has developed strong procedures around design, development and promotion processes based on their research and experience over decades. Staff members have found that, rather than hitting the mark the first time, an iterative process of research, trial, development and evaluation is often necessary. It is also important to work with partner organisations with access to the target group throughout the process, to ensure a resource is useful, relevant, and implemented well amongst the target group.[104] Embedding a resource in a package for teachers and partner organisations to use also helps to ensure it is used successfully. In addition, it is important to ensure community-based intermediaries such as youth, aged and health workers and councils are aware of resources, as these people are frequently essential partners in community education.[105]

Comparison of technologies

The following table outlines advantages and disadvantages of using each of four broad types of asynchronous technologies, and provides some examples demonstrating good practice. The second column provides suggestions for ways in which each group of technologies can be used for different educational purposes.

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102 VLAF 2014.
103 Contact VLF, but see the guidelines and their website first.
104 Interviewee comments.
105 Interviewee comments.

Table 5.4 Comparison of asynchronous technologies

	Educational approach supported	Advantages	Disadvantages	Points to note	Examples
Website	*Provide information* – Use and promote a website as the organisation's main outlet for information. – Provide a variety of media and information forms (eg short and long versions) to suit different needs and preferences. – Short video and interactive elements can be particularly effective for providing rich information in an engaging way. – Useful techniques may include story-based learning through text / graphic / video vignettes. – Encourage further exploration of the field through providing links to other sites and resources. *Learning conversations* – Interactive 'choose your own adventure' resources can be used for self-help 'conversations' with built-in feedback. *One-to-one contact* – Use online forms to invite questions, and provide answers via email. *Collaboratively create knowledge* – Provide and invite comment on relevant issues via a blog feature.[106] – Host surveys on relevant issues, and report results.	– Large amounts of factual information can be stored, and accessed freely by a large number of people. – Multiple formats can be hosted: text, links, video, audio, interactive resources, email, social media links. – Websites are a popular platform for finding information as it is needed, including via mobile devices. – Websites can be updated quickly and frequently. – Providing written responses to questions posted in online forms can be time-effective for lawyers, and may be managed effectively by pro bono lawyers.[107]	– Some groups cannot or do not access the internet (these include remote, homeless, aged, poor, people with low literacy or a disability). – People with poor internet and mobile networks may face lengthy download times (a video streaming option should be provided, eg via YouTube). – Navigation can be difficult for novice users of legal information, people with low information literacy or low literacy. – Users accessing websites without help can make serious mistakes if they misunderstand information. – Specialist skill is often needed for web design and development, video production and interactive element design. This can be expensive.	Good design principles[108] are crucial.	Recently redeveloped websites: – Department of Justice – Consumer Affairs Vic – VLA – Justice Connect: Not-for-profit Law Video examples: – VLA examples – Office of Public Advocate: Take control Interactive element examples: – Hume Riverina CLC: Strongwill – Office of Public Advocate: You decide who decides – Justice Connect: Not-for-profit Law Surveying / reporting public opinion example: – myViews

106 More information on blogs is under the heading 'Social media'.

107 National Pro Bono Resource Centre 2013.

108 See VLAF 2014, http://www.vlaf.org.au/cb_pages/files/Guidelines%20-%20Final%20(140516).pdf (accessed 14 July 2014)

	Educational approach supported	Advantages	Disadvantages	Points to note	Examples
DVD	*Provide information* – Provide a well-structured, self-contained package of information on a particular subject, including a range of formats to suit different needs, preferences and uses. – Use this format to distribute video and other bandwidth-heavy elements to people with poor internet access. *Learning conversations* – Include digital interactive elements, eg 'choose your own adventure' resources. – Include teaching notes, activity sheets to print, etc.	– Can be delivered by post to people without a good internet / mobile network – A permanent resource that won't be removed from view, as happens with websites. – Can include high-bandwidth elements such as video, graphics, audio, and be packaged with print resources. – Allows presentation of material as a structured learning package. – DVDs are more reliable and can be quicker to use when teaching. – DVDs can be stored and distributed as a reference in libraries.	– Posting DVDs to remote areas can take time. – Video, graphic and interactive elements require specialist skill and can be expensive to produce. – Users need access to a computer with DVD drive and relevant software, and some ability to use it. – DVDs are not quickly updateable. – DVDs can become corrupted or lost (online storage can sometimes be more permanent).	– DVDs are most effective when provided as part of a teaching / learning package, in a program supported by partner organisations.	VLA examples (Note that VLA has stopped mass-producing DVDs, but directs people to view its videos online. VLA still produce DVDs for workers running group sessions and for organisations, libraries, teachers, etc., where the DVDs are more likely to be reused.)

	Educational approach supported	Advantages	Disadvantages	Points to note	Examples
Smart-phone app	*Provide information* – Provide small chunks of information that can be important when users are away from a computer. – Include links to further detail on websites. – Provide calculators for users to apply formulas to personal information. *Learning conversations* – Interactive 'choose your own adventure' techniques can be used. **One-to-one contact** – Help organisations' phone contact numbers can be included for instant contact and support. – Text-entry forms can be used to invite questions, with answers by SMS or email.	– Apps are seen as an increasingly popular platform, especially for young people. – Apps can provide important information in crisis situations (eg when faced with a risky situation).	– The target audience needs to own smartphones or tablets, and have access to reasonable mobile networks. – Apps require specialist skill and can be expensive to design, produce and promote to the target audience.	– The app marketplace is crowded and target audiences can be difficult to attract, so it is particularly important to work with partner organisations to ensure the app meets user needs, its design is appropriate, it is properly user-tested, and promotion is effective. – There is 'hype' around apps, and their actual use value is yet to be established in many cases.	– VLA: Below the belt – MyShop Rights – RentRight – Teen Drinking Law

	Educational approach supported	Advantages	Disadvantages	Points to note	Examples
Online learning modules	*Provide information* – Structure information and learning activities on a subject carefully to meet specific learning needs of specific groups of people. – Provide a variety of formats to meet the needs and preferences of learners. – Encourage exploration of the field via links to other sites and resources. *Learning conversations* – Use non-public group-based discussion forums for extended learning conversations with expert, personalised feedback provided. *Communities of practice* – Providing a safe, private discussion space and group-based activities can promote and support a virtual community of practice. – Invite guest experts to lend practical, contemporary expertise in particular discussions and activities. *Collaboratively create knowledge* – Incorporate activities such as wikis, blogs and online role-plays to provide a platform for learners to collaboratively create knowledge. *One-to-one contact* – Use the software to send and receive private, personal messages. *Social support* – Include a social chat area and encourage learners to use this to network and support each other. *Assessment* – Incorporate optional or compulsory quizzes or constructed response assessments to indicate levels of understanding achieved.	– Contemporary learning management systems such as Moodle can provide structure for popular instructional design models. – Online modules can combine multiple formats for information and interaction. – If a learning management system is used, module construction and learner administration can be streamlined.	– Learning management systems are complex and require specialist skill to set up and maintain, even if free, open-source options such as Moodle are used.		VLA: Law essentials modules (not publicly available at the time of writing)

Case study: VLA phone app 'Below the belt'

Below the belt: sex, selfies and cyberbullying, is an Android phone app with information on sex and consent, sexting and cyberbullying for young people in Australia.

As well as providing information about the law in every state, *Below the belt has interactive features young people can use to help navigate the issues. These include:*

• a private electronic diary

• a friends' network to share information and send messages and funny and supportive e-postcards

• Am I legal?—a tool to help young people understand the importance of free consent and work out if they and their friends are within the age of consent in their state.

The app also has referrals to legal help and youth support organisations so young people have access to free or low-cost help when they need it.[109]

The app was developed in partnership with some legal aid commissions and CLCs around Australia, as the content is relevant nationally. The interactive legal and referral details in the app are state-based.

VLA research showed that many Australian legal organisations saw the need for information for young people around sex, sexting and cyberbullying. VLA developed the app to answer these specific needs in a way that was entertaining and funny as well as informative. It includes a calculator to help users calculate ages of consent in different states. It also caters for the ways in which young people commonly communicate with each other around these subjects, with built-in access to friends' email addresses, and access to funny and supportive e-postcards that young people can send to their peers.

The app is the most 'stand-alone' of all of VLA's digital resources—normally, resources are released as part of packages and embedded in implementation programs that include face-to-face and print-based promotion as well as digital access. VLA found the initial take-up rate for the app was comparatively low, possibly because of its lack of integration with other materials and programs, and so worked hard to embed the app in its education programs with young people, including placing an advertisement with an image of the interface on a booklet they distribute widely. VLA Coordinator of Community Legal Education, Allyson Hose, said: 'It's not just about being digital, but how you use digital to reach your chosen audience through that platform . . . it's also about thinking the results through, learning from them, and working out why things don't work the way you thought they would—evaluating them strongly . . . you often need to partner with organisations who are in contact with the user groups.'[110]

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109   VLA 2014, 'Below the belt: a phone app', *Victoria Legal Aid*, http://www.legalaid.vic.gov.au/about-us/community-education/projects-and-partnerships/below-belt (accessed 10 July 2014).

110   Hose 2014, *Empowering rural audiences through digital technology* forum presentation (https:// www.youtube.com/watch?v=q2DuZZ2ogUM, accessed 10 July 2014).

Social media

Most Victorian legal organisations and professionals are using social media in some way.[111] While the take-up of social media may be lower in rural and remote areas,[112] it is increasing rapidly, and as it does, legal organisations are gaining new, low-cost and technically simple ways to engage with these communities and the legal professionals who work in them.

An important aspect of social media is that they are two-way media, so not only do they provide another channel for disseminating information, they also create a forum for commentary, feedback, sharing of diverse views, and participation in constructive learning conversations. This two-way aspect makes social media useful for both community education and professional development. It also means sites need to be carefully monitored, updated and managed—they are not 'set and forget' platforms—rather, they are means to participate actively in a constantly changing information environment. The most effective users make efforts to be seen, heard and respected within their chosen forums.[113] It takes time to build a follower base and nurture the kind of engagement one is seeking with one's target audience.[114]

Another important aspect of social media is that the different applications favour different ways of interacting. While there are hundreds of options, many lawyers just use Twitter, Facebook and / or LinkedIn to increase their networks, and keep up with contacts, news, conversations and events in their areas of interest. Many legal organisations also use just these three channels to promote themselves and their events, and to host public or private conversations. YouTube provides free hosting of large amounts of video that users can stream rather than download. This reduces the strain on private host servers and users' download allowances, and also increases the reach of the information the videos contain.

Comparison of social media applications

As Table 5.5 shows, several applications can be used for a similar educational purpose, however, they each work a little differently, and often have different user groups and cultures, so some will perform a particular function better than others. While considerable hype and anxiety exists around social media, authoritative research into the best methods to use for community education and professional development is lagging, and legal organisations employing social media in their educational strategies say they are using trial and error to decide which applications and techniques are most appropriate for their audience.[115]

An extensive listing of further social media applications and how they may be used in education is available at: https://docs.google.com/spreadsheet/ccc?key=0Ar0FfDINz1W_dGdwRTFUQlJYbGE0V WNXSUZCMWRjaVE&usp=sharing#gid=0 (accessed 9 July 2014).

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111 A 2012 NACLC survey found approximately 50% of CLC respondents had a social media presence (mostly Facebook and Twitter) (Commonwealth of Australia 2011, p. 83).
112 Interviewee comment.
113 Olson 2012, Accenture 2011.
114 Interviewee comment.
115 Interviewee comments.

Table 5.5: Comparison of social media applications

	Educational approach supported	Advantages	Disadvantages	Points to note	Examples
Twitter[116]	*Provide information* – Post ('tweet') updates on new programs, legislation, publications, due dates, using links to websites for fuller information. – Post alerts that an event is about to start, including a link if appropriate. *Support & build communities of interest* – Make regular tweets to people in the community of interest and beyond to pass on news, share items of interest or links related to the field. *Collaboratively create knowledge* – Pose questions or post provocative tweets to draw out knowledge and gauge opinion on an issue, for use by all followers—possibly to support a campaign. *Learning conversations* – 'Follow' many and varied accounts to help your 'followers' learn what other organisations and people are doing and thinking, give them opportunities to engage in varied conversations and feed back into the community of interest.	– Twitter's small bandwidth requirement makes it easy to access on poor internet / mobile networks. – A wide audience is already available in this channel. – Free publicity is available to a very large potential audience (media follow many Twitter accounts and can spread the word further). – Conversations can build fast, providing real-time commentary on an event, and immediate feedback. – The 140-character limit enforces brief, succinct messages, and enables users to scan a wide variety of messages quickly.	– The target audience needs to have ready access to a computer or smartphone. – Messages are easily missed so need to be re-sent and sent by other means as well to ensure coverage of the target audience. – The 140-character limit means extreme brevity, and can encourage reactionary rather than thoughtful responses. – Twitter accounts require daily monitoring and posting to maintain presence with followers and respond to inappropriate postings. – Users need strategies to deal with information overload, eg time limits for daily engagement, and means to archive useful links (eg Scoop.it or a similar application).	– To maximise the effect of Twitter, an organisation needs a large and influential follower base. To build your profile (and increase your followers), follow and engage with key influencers, and participate in Twitter conversations in which you can contribute knowledge, expertise and links to relevant and timely content (eg a link back to a relevant post on your website). – Consider having a 'recent tweets' feed displayed on the organisation website.[117] – Tweets announcing an event often need to be repeated after a period of time. Rather than repeating tweets word for word, introduce changes each time. This makes them less annoying and more likely to capture people's interest the second or third time.	– Victoria Legal Aid – NCYLC (Lawstuff) – Consumer Affairs Victoria – NFP Law – Victorian Farmers Federation's AgChatOz (weekly two-hour Twitter conversations)

116 For more information on using Twitter, see http://www.mediaaccess.org.au/online-media/social-media/twitter (accessed 17 July 2014).

117 For example, see http://www.communitylaw.org.au/ (accessed 17 July 2014); www.nfplaw.org.au (accessed 25 September 2014).

Educational approach supported	Advantages	Disadvantages	Points to note	Examples
– Insert '#' and an identifying word at the beginning of a message to develop a conversation thread around key issues, such as a seminar or an important news item—this can work well if the conversation is advertised in advance and a time limit is set for the conversation (such as one hour).	– People can easily observe ('lurk') in Twitter, which is a valid way to learn, even if they are reluctant to participate via an online identity.	– # thread conversations need to be well publicised or they may attract little activity.	– Certain times of the day, such as early in the morning, during commuting hours and at lunchtime, are more popular for viewing Twitter, so schedule your posts for these times.	
– Display a Twitter feed (using #) in a live event to encourage text contributions around the subject matter (remembering all messages are public).	– Mobile apps make Twitter feeds easy to monitor, and enable organisational staff to respond quickly or make tweets wherever they are.			
Social support				
– Tweet photos from events and encourage informal messages in a # conversation to stimulate personal involvement.				
One-to-one contact				
– Send personal messages through Twitter (delivered via email) to Twitter members in the community of interest.				

	Educational approach supported	Advantages	Disadvantages	Points to note	Examples
LinkedIn[118]	*Provide information / support and build communities of interest* – Gather connections with target audience members and use notifications to connections (which are distributed via email) to publicise events. *Learning conversations* – Set up LinkedIn public or private groups for regional or interest groups, and use them to share items of interest and links, and have threaded discussions. *Social support* – Send private messages of congratulation when you are notified of achievements by members of LinkedIn groups. – Use private groups to support threaded discussions. *One-to-one contact* – Send personal messages through LinkedIn (delivered via email) to members of the community of interest.	– LinkedIn's small bandwidth requirement makes it easy to access on poor internet / mobile networks. – A reasonably wide audience is already available in this channel. – Free publicity to a large potential audience is available. – Public and private groups are supported.	– The target audience needs to have ready access to a computer or smartphone. – LinkedIn is often seen as a job-searching channel rather than an education space.	– As with Twitter, the effectiveness of a LinkedIn presence depends on the number and 'quality' of connections a person / organisation has, and how regularly the person / organisation initiates content. (Quality in this sense implies their relevance for helping the person / organisation achieve their goals of being seen, heard and respected by their target audience.)	– Victoria Legal Aid – In-house counsel use LinkedIn for information sharing as well as professional development and networking

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118 For general information on using LinkedIn, see http://www.mediaaccess.org.au/online-media/social-media/linkedin (accessed 17 July 2014).

Facebook[119]	Educational approach supported	Advantages	Disadvantages	Points to note	Examples
	Provide information – Use a Facebook site to provide basic information about an organisation, its news, events and commentary; and to link to a main organisation website. *Support & build communities of interest* – Post regular updates and pictures to let people in the community of interest and beyond know what is happening in the community (news, events); and share items of interest and links related to the field. – Use the Facebook 'Events' tab to generate discussion around events. – Use 'Likes' to raise awareness of key organisations and people. *Learning conversations* – Set up open or closed Facebook groups for regional or interest groups, and use these as a place to share items of interest, links and threaded discussions. – Use Facebook 'Forums' for conversations on particular issues. *Collaboratively create knowledge* – Set up a special interest Facebook page or group and publicise it to draw out knowledge and gauge opinion on an issue, for use by all who 'like' the page or join the group—possibly to support a campaign.	– Facebook's small bandwidth requirement makes it easy to access on poor internet / mobile networks (pictures are automatically resized and compressed). – A very wide audience is already available in this channel. – Young people may be easier to access via Facebook than other channels, and they may feel more comfortable contributing in this channel than in others. – Free publicity to a very large potential audience is available. – Privacy issues can arise as most do not wish to share personal life and contacts with professional colleagues and clients (some use multiple Facebook accounts for different social networks).	– The target audience needs to have ready access to a computer, smartphone or tablet; and internet access. – Facebook sites require daily monitoring and regular posting to maintain presence with friends and respond to / remove inappropriate postings. – Facebook is generally seen as for 'friends and family', not professional contacts. – Some resent the intrusion of their professional life in what they see as a personal space. – While anyone can read the main pages of Facebook sites, people need to create a personal / organisational account to post content—some may be reluctant to do this.	– As with Twitter and LinkedIn, the effectiveness of a Facebook site depends on the number and 'quality' of connections a person / organisation has, and how regularly the person / organisation initiates content.	– Justice Connect – NCYLC (Lawstuff) – Neighbourhood Justice Centre – Consumer Affairs Victoria – Youthlaw (Lawyers use professional Facebook identities to keep contact with clients.)

119 For more information on using Facebook, see http://www.mediaaccess.org.au/online-media/social-media/facebook (accessed 17 July 2014).

	Educational approach supported	Advantages	Disadvantages	Points to note	Examples
	Social support – Use private groups to support threaded discussions. *One-to-one contact* – Send personal messages through Facebook (delivered via email) to members of the community of interest. – Communicate within this environment using a professional Facebook identity, such as by posting on members' walls.				
YouTube[120]	*Provide information* – Use the free YouTube servers to provide streaming video of events, and / or educational video content. Links to YouTube videos are easily distributed via email, websites or other social media.	– YouTube is easily accessible, searchable, and a highly popular channel for finding information. – Posting videos on YouTube is quick, easy and free. – Videos are streamed, so do not require costly, time-consuming downloads.	– Low bandwidth users can experience long 'buffering' delays during streaming.	– Set up a YouTube channel for the organisation, rather than posting individual videos. This makes an organisation's videos easier to find and encourages cross-viewing of other videos in the channel.	– Victoria Legal Aid – NCYLC (Lawstuff) – Centre for Rural Regional Law & Justice – Consumer Affairs Victoria – NFP Law

120 For more information on using YouTube, see http://www.mediaaccess.org.au/online-media/social-media/youtube (accessed 17 July 2014).

	Educational approach supported	Advantages	Disadvantages	Points to note	Examples
Blogs[121]	*Provide information* – Make regular posts containing in-depth discussion of important issues, reviews of publications, etc. *Learning conversations* – Encourage comments on posts to provide a forum for detailed discussion among specialists in communities of interest. *Collaboratively create knowledge* – Pose questions or post provocative content to draw out knowledge and gauge opinion on an issue, possibly to support a campaign.	– The format is very flexible, catering for lengthy text posts, photos, graphics, video, links, etc. – Blogs are listed in web searches and so postings have a longer presence than in many other social media channels. – A blog is easily inserted into a website to provide a channel for discussion and feedback. – Alternatively, a simple website can often be built around a blog. – Many blogging applications are free, and relatively easy to learn and use.	– Blogs require regular monitoring, to respond to / remove inappropriate comments.		Amica Curiae lists Australian law blogs. The Black Letter is a blog on social justice issues. Quis custodiet ipsos custodies is a blog on Victorian criminal practice issues. The Loddon Campaspe CLC News and events page is essentially a small blog inserted into the CLC website.

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121 For more information on blogging, see http://blog.bufferapp.com/blogging-advice-for-beginners-from-16-experts (accessed 17 July 2014). Wordpress and Blogger are popular, free, blogging applications.

	Educational approach supported	Advantages	Disadvantages	Points to note	Examples
Wikis[122]	*Collaborative creation of knowledge* – Set up a 'knowledge base' to which all members of a community of interest can contribute—this is especially effective in areas where information is specialist or hard to find. *Provide information* – Provide access to the wiki to others beyond the immediate specialist group, to broaden knowledge in the community.	– Wikis' small bandwidth requirement makes them easy to access on poor internet / mobile networks. – The format is very flexible, catering for lengthy text posts, photos, graphics, video, links, etc. – Wikis are listed in web searches. – Wikis create a democratic space to share and create information, while allowing some editorial control over inappropriate postings. – Updates can be very fast, in comparison to standard websites.	– Wikis require regular monitoring, to ensure uploaded content is appropriate and accurate.	– A light editorial touch works best, to encourage people to contribute to the forum. However, it is important to maintain consistency of information, style and formats within a wiki or the space can become confusing. – A charter for the wiki covering its purpose, the type and range of information, the editorial policy and processes, etiquette and standards is required.	Wikipedia

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122 MediaWiki is a popular, free wiki application (it is used for Wikipedia).

Protocols (applying across social media applications)[123]

- Research platforms and strategies carefully before setting up social media accounts as a poor online identity can be worse than doing nothing.

- Use the main social media platforms that your target audience uses, as long as they are appropriate for your educational purpose and methods, rather than expect your audience to set up a presence in another platform. Do not spread your efforts too thinly across too many platforms: Twitter, Facebook and / or LinkedIn may be sufficient.

- Create an organisation (rather than just personal) presence in your social media channels, and share responsibility among staff for posting to this. Articulate and document the kind of identity your organisation is seeking to project, and policies for postings if necessary.

- Create and post a set of 'house rules' on your social media sites, to articulate standards of behaviour you expect in these fora.[124]

- Monitor all social media accounts and post regularly to all of them, to maintain a strong and consistent presence—both within each platform and across platforms. Make monitoring and posting to social media part of your daily work routine.

- High-volume users of social media generally use a social media management tool such as Hootsuite to streamline postings to different social media applications at scheduled times, to coordinate postings and tasks among members in an organisation, to analyse how your postings are received, and to monitor emerging trends in conversations.

- Ensure that the content of your posts is of genuine value to the target audience, such as links to good quality, new references. Explain what it is that is of value in each in a succinct summary.

- Assume your posts in social media will be available forever, and may be readily shared well beyond your sphere, so never post anything that compromises the kind of identity you are seeking to project in the long term (this applies equally for organisations and individuals). Never make derogatory personal comments.

- If inflammatory comments are posted to an account you control, avoid responding directly— simply block the person from posting again.

- Provide links to all social media accounts from your organisation's website.

- Adjust privacy and notification settings carefully so that you control the kinds of information you share with different groupings of people, such as personal friends / family, professional contacts, clients, different interest groups of which you are a member.

- Evaluate the success of your social media strategies regularly and be prepared to trial new approaches and platforms to see whether they deliver value in professional development or stakeholder engagement. Use the analytical tools built into your social media applications.

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123   For more comment on lawyers' use of social media, see Castan 2010.
124   For example, see Loddon Campaspe CLC's Facebook 'house rules'.

Case study: Loddon Campaspe CLC's use of Twitter and Facebook

Loddon Campaspe CLC (LCCLC) were early adopters of Twitter. They used it first as a means to keep in touch with former law student volunteers, but soon found that others, including media organisations, were picking up on items they had tweeted. Staff at the centre were being invited for media interviews on items they had tweeted, and contacted for comment on side issues as well. They rank their Twitter presence as a significant success.

The centre's policy is to tweet regularly. They share items of interest to the legal professional community and support other agencies' initiatives by re-tweeting these items. They also use Twitter to publicise their events and express opinions on legal issues. Their Twitter audience is primarily the legal sector, government and media organisations rather than individuals.

The centre's Facebook page came later. This forum duplicates the centre's Twitter postings, to an extent, but with additional visual detail if possible. The centre's Facebook audience tends to be based more in the Loddon Campaspe community, and includes people from outside the legal sector.

LCCLC Communications Consultant Steve Womersley manages the Twitter and Facebook presence, but the CEO and several others also tweet using the centre's account name (handle) from time to time. Steve receives instant notifications of Facebook comments on his mobile phone, and always checks these. He uses Hootsuite to schedule tweets in advance, at certain times of the day when they are more likely to be read, and also to schedule tweets to come out on days when he is not working.

Steve says while it certainly takes time to set up and manage social media, and sometimes effort is needed to encourage interaction in these fora, the centre has had almost no problematic interactions such as privacy breaches or inappropriate postings.

'We haven't always deleted problematic posts. I would delete comments containing defamatory or racist content, for example (with reference to our page's House Rules), or comments / messages that reveal personal / identifying details. But I wouldn't, as a matter of course, delete a comment that was negative about us or proffered a different perspective . . . The whole idea behind social media is two-way communication (as opposed to the old broadcast model), so we welcome the brickbats as much as the bouquets.'

Steve notes that other smaller organisations have a far greater profile on Twitter and Facebook than LCCLC, but: 'I think people would see us as a country organisation punching above our weight. That's a return on investment for us because it feeds into a general perception that we're progressive, engaging, capable and competent—so when we put in an application for funding people have heard of us and the images they have of us are positive. It also helps cut through when we're talking to a politician or trying to get through to a media organisation,' says Steve.

Steve has also set up two Facebook groups for legal professionals to share information, resources and discussion. One is for communications workers in the non-profit legal sector and the other is for community legal education workers. These are both closed groups, but people working in these areas may apply to join either (follow the links and click on 'Join Group' on the relevant Facebook page).

6. Conclusion

As these guidelines show, advances in educational, information and communication technologies are opening significant new possibilities for legal community and professional education for RRR Victorians. Many people living far from metropolitan areas should now be able to use landline, satellite or mobile networks to access rich, current and varied legal information in multiple formats; have personal learning conversations with peers and experts; collaborate within communities of practice; and give and receive social and personal support. However, the guidelines also show that the choice and application of particular educational technology options to meet legal education needs in RRR areas require thought, care and attention to detail. Numerous factors on both the 'needs' side and the 'solutions' side must be taken into account if the learning potential of technology-supported methods is to be achieved.

The importance of rigorous analysis of the educational needs and capabilities of target learners by organisations seeking to provide legal education cannot be understated. This should include taking into account not only these learners' need for legal education in particular subjects, but their ability and motivation to take up the particular kinds of educational opportunities that are offered. Technical, geographic, cultural, economic and social aspects all come into play. Carefully designing learning opportunities so that learners are able to engage personally, actively and thoughtfully with the types of skills, knowledge or attitudes to be learnt is also critically important. The principles of sound educational design have been known for some decades, but further research may be required to determine how best to apply them in the contemporary professional and community legal education sector.

Choosing the most efficient and effective technology from the ever-expanding plethora of options available can be difficult for the layperson, but happily technical advances bring convergence, so many product groups now offer a similar, high-standard range of functions: webinar products are a good example of this. In addition, the ability of many products to support text, audio, video and images, and public as well as private learning spaces, means that many products can be used for a wide variety of educational activities. Educational technologies are much easier to learn to use than they were even five years ago, and free trial periods for many products mean that those organisations willing to spend some time researching and trialling options can make informed choices without making expensive mistakes. An increasing number of free, open-source, or at least low-cost options offering high functionality deserve to be explored.

Fortunately, given the complexity of the current educational technology landscape, no organisation need undertake this endeavour alone. Many public facilities in RRR areas are available for educational use, and many people in other sectors with services in RRR areas have made similar explorations, and are frequently open to suggestions to share resources, expertise and knowledge in this field.

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Appendix

Research methods

Research questions

The research questions guiding the project were:

- What are issues RRR people face in accessing legal information and engaging with others on legal matters:

    o technological issues?

    o other issues?

- Which internet-based technologies and pedagogical techniques could help overcome barriers to access and engagement with legal information, both individually and in combination?

- What protocols would maximise capabilities for delivery and engagement for these methods of e-learning:

    o technological protocols?

    o pedagogical and non-technological aspects?

Interview questions

The basic interview questions are as follows. These were supplemented with further questions relevant to each interviewee's particular context and area of expertise.

Interview questions—legal and health education representatives

1. Could you describe your role and the context in which you work, please?

2. What digital teaching and learning techniques have you used in this role?

3. What have you found to work well, and why?

4. What difficulties or barriers have you faced with these techniques (or the technologies they use) in your context?

5. What sorts of unmet legal / health information needs are you aware of in remote, rural or regional areas, for both legal professionals and people not working in the law, such as government service providers, farmers, ordinary people?

6. Do you think there are particular techniques using digital technologies that could address these needs?

Interview questions—forum / webinar participants

1. Where do you live?

2. Are you a legal professional? If so, where do you work?

3. Did the webinar meet your expectations? What were they?

4. Did you have any technical difficulties?

5. Do you have any suggestions for how the webinar could be improved?

6. Did you form or strengthen any local connections today? In what ways do you think these connections might be useful?

7. Do you feel more connected to legal networks or information today? Can you describe in what way you might use this connection?

8. Would you prefer the online webinar or regional videoconference format? Why?

Trials detail

Subject	Platform	Attendance	Survey respondents
Social media and defamation	GoToWebinar	36 (all online)	14 (39%)
Take control: enduring powers of attorney	Microsoft Lync	70 (62 online, 8 via phone)	19 (27%)
Empowering rural-regional audiences through digital technology	Face-to-face (metropolitan venue) + Microsoft Lync	42 (20 face-to-face, 18 online, 4 via phone)	18 (43%)