Legal Professionals and Mobile Devices

CCH
a Wolters Kluwer business

March 2011

Executive Summary

Smartphones have significantly changed the way legal professionals access and manage information. Media reports suggest the introduction of tablet computers and other mobile devices will change these behaviours again. Is this truly the case, or is it just hype? What does increasing use of mobile devices including smartphones and tablets mean for professionals, firms and content providers?

During September-November of 2010 CCH interviewed a number of legal professionals to find the answers to these questions.

Legal professionals have a range of information needs that they currently manage with several devices These needs may be defined as:

- The need to know what is on the agenda for the day (email and calendar)
- The need for current awareness
- The need to absorb information for use at a later date (sustained reading)
- The need to produce information
- The need to access information for quick reference

Our findings show that legal professionals are using smartphones extensively to shift email and current awareness management outside regular office hours and locations. Professionals use smartphones to productively fill periods of downtime time ranging from minutes to hours. This leaves them free to dedicate office time to intensive tasks including information production which requires the functionality of a laptop or PC.

Tasks such as sustained reading and quick reference activities may occur in or out of the office depending on the situation. Print is currently considered to be the most suitable medium for these activities. However the introduction of tablets, ereaders and ebooks is beginning to change this, particularly in situations where portability is prized over print-centric functionality such as easy annotation.

The growing use of mobile devices has significant implications for legal professionals, firms and content providers. These include:

Changing employee/employer expectations

- Constant connectivity provides flexibility but also contributes to professionals working a much wider spread of hours.
- Professionals expect workplaces to support them in working outside of regular office hours and locations.
- Workplaces and clients expect that professionals will be contactable at any time or location.

Fragmentation of device use

- Professionals use specific devices for different information tasks. In the short term the introduction of tablets may increase the fragmentation of these activities across devices.
- IT departments are increasingly expected to support a variety of devices including personal purchases. This requires increased agility and responsiveness to match the pace of development in consumer IT.

Changing patterns of information consumption

- Professionals now spend less time on sustained reading, instead spending a significant amount of time skimming through short articles. This is driven by the need to keep on top of the rapid flow of information and by the convenience of using smartphones to perform this task.
- Information activities performed on different devices are frequently linked. For example, reading an email or news article via mobile device often triggers a PC-based task. Content providers will be called on to facilitate seamless transitions between devices.

We present the complete findings of our study to you in the hope that it that it may assist you, your organisation and your profession to shape your own response to this new trend in digital information access.

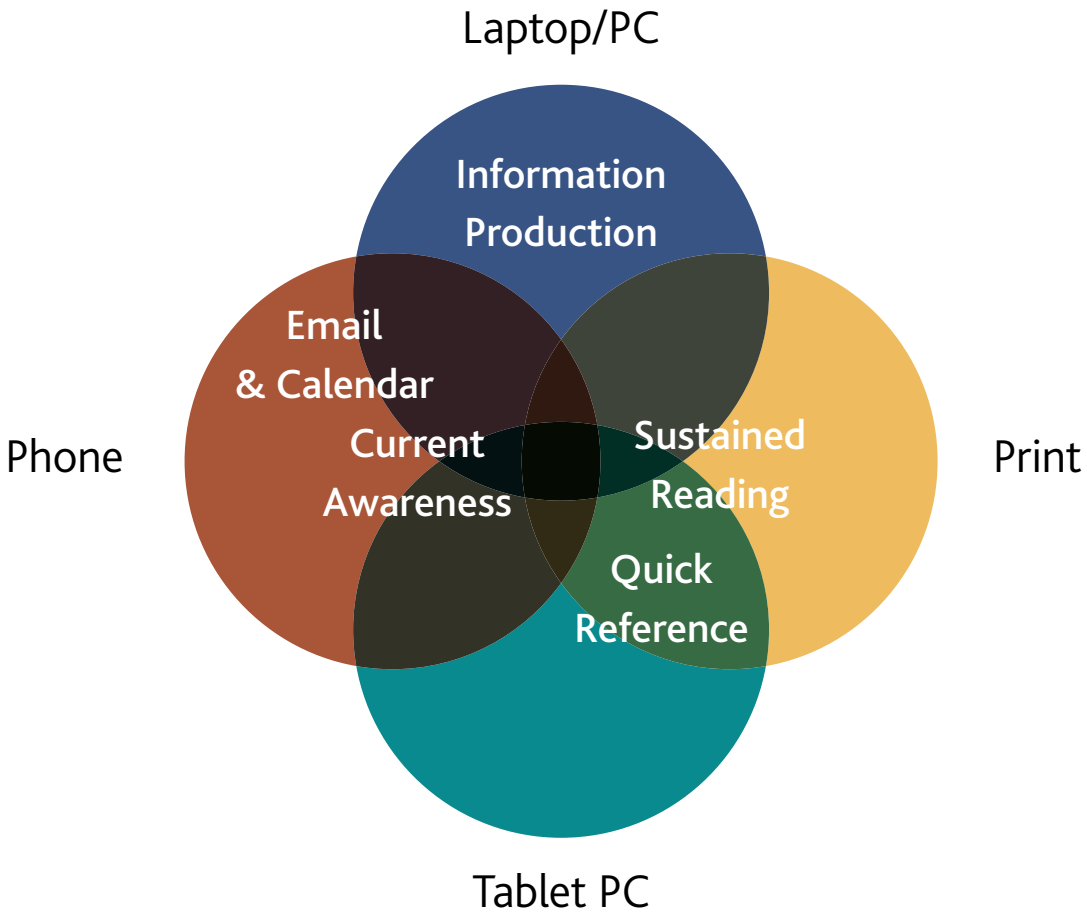

Figure: The Information activities of legal professionals and the devices they are most commonly performed on.

Contents

Objectives & Methodology

Objectives

CCH conducted this research to gain a better understanding of how legal professionals use different devices and specifically mobile devices to consume information.

The objective of this study was to identify how access to mobile devices has changed professionals' behaviour patterns relating to:

- the need to be connected to work in different locations/situations
- information consumed
- work activities performed

The study also aimed to gain an understanding of the expectations of legal professionals for professional information solutions on mobile devices.

Mobile devices are defined as highly portable devices with internet capabilities such as smartphones and tablets. Laptops are not considered to be mobile devices for the purpose of this study. For further definitions refer to the glossary.

Methodology

Qualitative research interviews were conducted with eight legal professionals between September and November 2010. Participants were selected on the basis that they use at least one mobile device for work purposes and are an early adopter or have an interest in emerging technology.

Participants were asked a number of questions regarding:

- their organisation, role and duties
- what their information activities are
- what devices they own or use
- how they interact with these devices to perform information activities
- how they anticipate using these devices in the future

The interviews were transcribed and analysed by grouping common information activities, devices interactions and general opinions together. Prevailing themes were identified for discussion in this paper.

Demographics

Participants were drawn from large firms and organisations, including law firms, government and corporations. All are involved in providing or supporting the provision of legal services and perform a variety of roles including:

- Partner
- CIO
- Knowledge Manager
- Librarian
- Business Analyst
- Corporate Counsel

Of the eight participants:

- eight have smartphones. Six have Blackberries; three have iPhones. One participant used a Blackberry for work and an iPhone for personal activities.
- six have laptops
- five have iPads

Six participants work in the inner city of Sydney or Melbourne and commute by public transport. The remaining two work in a suburban business park and commute by car. The high number of commuters in this study should be considered when reading these results, as the volume of "downtime" provided by the commute (particularly by public transport) is relatively unique to metropolitan professionals. According to the Australian Bureau of Statistics 81.1% of all persons employed in legal services work in capital cities[1], so the results are reasonably representative of the legal profession in Australia

Acknowledgements

CCH gratefully acknowledges the participation of the following organisations in this research:

- Gilbert + Tobin
- Holding Redlich
- NSW Industrial Relations
- Optus

What's on the agenda today? Email and calendar tools

Definition: Identifying and managing daily tasks and activities with tools such as email and calendars.
Preferred Device: Smartphone
Secondary Device: Laptop/PC
Preferred Time/Location: Before work; during short periods of downtime (eg commutes)

Calendars and email are examples of information that enables professionals to identify what they will be doing throughout the day. Examples include scheduled meetings, an emailed query that requires an hour or two of work, or approval to move forward with a particular task.

All participants mentioned that the first thing they do before or on their way to work is check their email and calendar on their smartphone. This enables them to establish their agenda for the day and check email for any unanticipated issues. The smartphone appears to drive this behaviour[2]: the size and initialisation speed of smartphones makes checking email an easy procedure over breakfast or on public transport.

Smartphones have also driven a related behaviour of checking times and locations while on the go instead of planning ahead. Examples from participants include checking court lists and restaurant locations while in transit.

Managing email by smartphone

When managing email by smartphone, participants use a triage process similar to that observed by Matthews, Pierce and Tang[3]. Emails are skimmed and assessed. Emails considered to be irrelevant are deleted. Those requiring a short answer are dealt with. Emails requiring significant input, either in the length of reply or the amount of time and effort required to respond, are deferred until the individual arrives at work.

A common reason participants gave for deferring email is the limited typing facility of smartphones – while adequate for short responses, smartphones simply cannot compete with a full-size keyboard for longer stretches of typing. But another reason why emails may be deferred is that the relevant resources may not be at hand. These resources may be documents, books, online resources, a colleague or simply a dedicated space like a desk to work through the issue.

Email as "pre-work"

Email and mobile phones present an interesting example of how mobile devices are redefining "work". Simon Gilchrist, Business Analyst at Gilbert + Tobin observes that "lawyers…live entirely in email". This is not all hyperbole: according to figures from the Inbox Alliance many workers spend more than 25% of their time on email[4]. Previously this had to be accomplished while at the office, eating into valuable time that could be used to conduct more intensive work. Most professionals now make use of their smartphones to time shift email into available downtime.

All six public transport commuters and one of the driving commuters in this study used the morning commute to manage email by smartphone. During the morning commute the individual is ready to think about work but usually unable or unwilling to access larger devices such as a laptop to perform intensive work. Email and professional current awareness is less of a focus on the afternoon commute where the individual is more likely to surf news sites for general current awareness.

Managing email by mobile device thus becomes a form of "pre-work" that clears miscellaneous matters away and allows professionals to dedicate their office hours to more intensive tasks.

All eight participants check their email via smartphone before they reach work in the morning.

Current awareness

Definition: Monitoring news related to an individual's practice area, industry, firm and/or clients. May be to update professional knowledge or to identify opportunities and risks.
Preferred Device: Smartphone.
Secondary Device: Laptop/PC, tablet
Preferred Time/Location: During available downtime (eg commute, general breaks)

Legal professionals are expected to maintain current awareness for a number of areas including:

- specific developments in their practice area
- media mentions of the firm
- news about or affecting their clients
- more general professional development

Maintaining current awareness is essential for legal firms and professionals to provide accurate and up-to-date advice for their clients. It also provides less tangible benefits. Current awareness enables individuals and firms to rapidly identify business opportunities and minimise risks such as a client knowing more about recent developments than they do.

Prior to the internet, current awareness involved monitoring a limited set of publications updated at the most daily and more likely weekly or monthly. Now there are a multitude of online sources and the turnaround speed is measured in minutes, hours, days or at most a week. This has only been exacerbated by the ubiquity of mobile devices which act both as distributors and receivers of news. A stark example of this new paradigm was provided by one participant from Optus Corporate Counsel. She describes sitting in court with her iPad, monitoring real-time tweets and news updates sent by journalists located just metres away.

"If I'm in a court room and there's reporters sitting there going tap tap tap it's good to... be able to look up and see what it is they're saying."
– Optus Corporate Counsel

Managing current awareness

Most individuals will monitor a personal selection of sources by subscribing via email or RSS or by browsing selected news sites. Firms with dedicated knowledge management or library services usually also provide a centralised current awareness service to ensure significant developments are circulated. This may be distributed via email, RSS, and/or print circulars. Ad-hoc sharing is also common – several participants described how they forward interesting articles to others via email, Twitter and internal social network tools such as Yammer[5].

Current awareness and mobile devices

Like email, many participants treated current awareness as a form of "pre-work" managed by mobile phone. While few legal professionals (with the exception of Knowledge Managers) can justify dedicating significant "office time" to it, they must nonetheless monitor updates regularly. A large portion of the process is skimming headlines and abstracts to assess relevance prior to opening and reading articles. This does not require significant concentration and therefore is an ideal task to achieve on a smartphone during smaller lengths of "downtime".

As with email, a triage process takes place for current awareness whether by mobile devices or laptop. Many articles will be ignored or deleted, some will be read and others will be shared with colleagues. Jane Hogan, Head of Knowledge at Gilbert + Tobin, describes this part of the process as receiving a "landscape view" of the situation. Articles that require significant consideration are usually not read on the smartphone but are deferred for review at the office. This allows the individual to utilise the functionality of a laptop or PC to print the article or read it on a larger screen. Further research can be conducted if necessary and the individual may also choose to add more substantial commentary to the item before sharing it with colleagues or clients.

Sustained reading: Absorbing information for use at a later date

Definition: reading longer documents to absorb information for later use.
Preferred Device: print
Secondary Device: laptop/computer, tablet or ereader
Preferred Time/Location: office hours; longer periods of downtime

Sustained reading may be defined as reading longer documents and texts for the purpose of absorbing information for later use. Examples provided by participants include reading journal articles, cases or technical documents for general professional development or to gain greater understanding of a specific issue.

Sustained reading is often conducted in preparation for a later task such as writing a document. Professionals use it to gain a general understanding of an issue or to identify key points in the article to be referred to or integrated into the work they undertake at a later date.
Sustained reading can also be an extension of monitoring current awareness, which may bring documents and articles to the attention of the individual.

Print is still preferred for sustained reading

Many participants indicated they prefer reading substantial documents in print. Several mentioned that they find it much easier to know "where" they are in a longer document or text if it is printed. Most also indicated that they like to highlight and annotate the text as they read. Studies have proven that annotating a print document is much more intuitive and integrated into the reading process than annotating a digital document[6]. This assists with the process of internalising information[7] and also highlights key points that can be referred to at a later point. Once annotated, the document can then be put aside or saved, ready to be referred to as needed during information production.

Laptops and PCs were deemed by participants to be an acceptable alternative for sustained reading. The large screen is suitable for reading and absorbing substantial amounts of text or graphics at one time. The functionality of the mouse and keyboard also enables rapid navigation of a document and reasonable highlighting and annotating capabilities.

Smartphones were rejected by all participants for sustained reading: the screen is too small to absorb a substantial amount of information, navigation is cumbersome and many standard document formats aren't currently compatible with smartphone operating systems. When participants come across substantial documents while monitoring current awareness on their smartphone, they usually defer the item for later review. Jane Hogan described how she is often alerted to an interesting article while reviewing professional blogs and news on her phone. She would then wait until she arrived at work to locate the article again on her laptop and print a copy to read out either at her desk or on her commute.

Tablets may be the future of sustained reading – but not yet

Participants who own iPads were cautiously optimistic about the ability to read this kind of information on tablet devices, however only only one appeared to have made the attempt. Simon Gilchrist has been tasked with assessing the potential of iPads for Gilbert + Tobin. As such he has experimented with his device more than other participants. He has attempted to read longer technical documents on the iPad and found the experience challenging compared to reading print documents. He speculated that this may be due to the glare of the backlit screen, the typeface used, the screen size or the difficulty in highlighting and annotating compared to the simplicity of using a pen on a print document.

A participant from Optus observed that it is probably habit more than anything else that causes her to

default to print or her computer. Both Simon's and this participant's comments provide significant insight into the current reluctance to read on tablet devices for work. While comparatively intuitive, navigating a touch screen and learning the functionality required to annotate text is still a new skill that must be acquired[8]. It does not present a significant issue for recreational reading or even for skimming current awareness content. However if an individual is attempting to concentrate on absorbing and processing substantial new information it is an unnecessary burden that can easily be avoided by returning to familiar processes.

Other participants who owned iPads have not attempted any work-related sustained reading on their devices, although all of them have downloaded and read ebooks for recreation during travel or holidays. Once professionals grow familiar with tablet and ereader devices through recreational use it is more likely that they will begin to use the devices for work-related sustained reading.

2011 Update: *Simon Gilchrist reports that in the months since his initial interview he has grown more comfortable reading long articles on his iPad. This is due to:*
– increased familiarity with the device
– improved highlighting functionality within specific apps

Other members of the firm are growing more confident in using tablets and ereaders for sustained reading, particularly when they are travelling and do not wish to carry print documents.

Accessing information to produce information

Definition: accessing information to incorporate into the document at hand.
Preferred Device: laptop/computer
Secondary Device: Print
Preferred Time/Location: at the office during office hours

The process of information creation usually involves sourcing, absorbing, and synthesising information into the document at hand. This may be as simple as citing a section of legislation or as complex as comparing multiple sources and using elements of each to develop an argument. Sources commonly used by participants for information production include internal documents and precedents, online sources such as government websites and AustLII, proprietary databases and printed texts such as legislation and guides.

Information production is an intense process that requires dedicated time and space, most commonly at the individual's desk during office hours. Simon Gilchrist defined research and information creation as "work", actively differentiating it from the "pre-work" that is email and current awareness.

A significant proportion of most legal professionals' time is spent producing information, usually in the form of documents and emails. As Andrew Mitchell, CIO at Gilbert + Tobin observed, "documents are what a law firm's about".

For information production, functionality trumps portability

All participants stated that a PC or laptop is the best (and perhaps only) tool to support information production. This is particularly the case as information production is perceived to be "work" – an intensive activity to be completed in the office. The superior capabilities of the laptop or desktop render mobile devices irrelevant when professionals are working at their desk.

This is partially "habit" as a Corporate Counsel from Optus describes it, but it is also because the process is "just faster" according to Simon Gilchrist. He observes that processing power, screen size, and the keyboard and mouse all play a role in this. Sifting through online sources requires a large screen to absorb and compare sources, along with a mouse for complex navigation. Writing documents of any length requires a keyboard. Furthermore, the capacity to multitask is essential. One participant described how she looks up a source and then flips between that window and the document she is working on, copying and pasting text if necessary. The current generation of mobile devices simply do not have the functionality to manage these activities efficiently.

"[Lawyers are] all about document creation, amendment, review. That just doesn't happen on an iPad."
– Peter Waters

Laptops and desktops: One interface, one location

As both Simon Gilchrist and Peter Waters (Partner at Gilbert + Tobin) observed, the office laptop or PC is designed to be a central interface with all the applications and sources necessary for work. This includes personal documents and seamless access to internal and external databases. Individuals become "tied to [this] interface" according to Simon Gilchrist. In comparison, most mobile devices lack familiar word processing software and have not yet been set up to integrate with internal systems beyond email. For example, while a participant from Optus Corporate Counsel is able to take notes on her iPad, she observed that she must still draft settlements from her office PC so that she can access the internal precedents database.

The desk environment that hosts the laptop or PC provides familiarity and access to necessary resources. One participant described how she automatically reaches for her printed Annotated Trade Practices Act when writing advice. Even though she also has to check the online version for

any recent updates she doesn't want to throw it out before receiving the next edition as it would "leave a hole on [her] desk". Jane Hogan discusses using her desk space to lay out multiple documents and texts for comparison and reference when writing documents. Simple tasks such as these form part of the information production process and are much more difficult when attempted on a smaller device in a less suitable location.

Information production out of the office

While most people now rely on mobile devices to occupy them during downtime, some continue to carry their laptops to facilitate information creation. Peter Waters cited the need for his laptop when travelling overseas and Simon Gilchrist also mentioned accessing and working on documents during long client meetings and court sessions. The portability of laptops is increasing with the introduction of lightweight laptops such as those used at Gilbert + Tobin. This suggests that laptops and PCs will continue to be the tool of choice for information production for some time to come.

Portable reference

Definition: Looking up quick facts for immediate use when away from a computer.
Preferred device: tablet, print
Secondary device: smartphone, laptop
Preferred time/location: during meetings and other work activities conducted away from the desk

Participants also expressed a need to access and present information in out-of-office work situations, such as attending court or meeting with clients. Keren Smith, National Knowledge Manager at Holding Redlich, provided the example of a partner requiring a copy of the corporations legislation for reference during a client meeting. Richard McDonough-Glenn, Manager of Information and Research at NSW Industrial Relations cited the need for inspectors to refer to relevant regulations when conducting inspections.

In these situations portability and speed of access is essential. A laptop with its slow initialisation time is not always practical, so bulky print copies of the relevant texts and documents are often taken in anticipation of their use.

Apps and ebooks: the future of portable reference

Participants see significant potential for common reference texts such as legislation and legal guides to be made available in ebook or app form for access from tablets and smartphones. Some partners from Holding Redlich now carry PDF copies of relevant legislation on their iPad for reference during meetings.

While most online sources can theoretically be accessed via a tablet or smartphone's web browser, the sites have usually been designed to offer complex search and navigation functions most suited to a computer or laptop. Discrete ebooks and apps offer the opportunity to present a select range of reference material in a format that can easily be navigated on a tablet or smartphone.

Tablets are the most appropriate device for portable reference, particularly ebooks. They combine a rapid initialisation time with a large enough screen to absorb and share a reasonable volume of information with colleagues or clients. Smartphones are suitable for presenting smaller volumes of information. A simple example is checking a dictionary definition. More complex examples include calculator-style apps that provide an answer based on several criteria entered by the user.

It is likely that improved access to reference materials in ebook or app form will increase instances of portable reference behaviour. This would be similar to the way that access to email via smartphones has driven the tendency to time shift email management into downtime.

Anytime, anywhere: Constant connectivity

The growth of smartphones has seen constant connectivity become a need for all professionals, regardless of whether they spend most of their work day in the office or not. At a minimum this involves being able to manage calls and emails remotely. More comprehensive connectivity involves the capacity to log into a wide range of work-related networks and tools.

Professionals now use their smartphone to connect to their workplace at all hours of the day. Most will review their email via smartphone when they wake up in the morning, on the daily commute, on work breaks and at home of an evening.

For most of the participants the employer provides a smartphone, most commonly a Blackberry, with the expectation it will improve their accessibility and productivity. However the participants who were not supplied with a smartphone by work had all arranged for their work email to be set up on their personal device. This indicates that employees hold an equally strong expectation that they will be able to connect to work outside of standard office times and locations.

All participants have arranged for access to their work email via smartphone, even if the phone was not supplied by their employer.

Anytime

Participants indicated that connectivity via mobile devices and laptops allows them to work a wider spread of hours including early mornings, evenings and weekends. This does not necessarily mean that they work a greater number of hours. Some participants already worked outside of office hours; mobile access merely reduces the need to carry home bags of documents or heavy laptops.

Others make use of constant connectivity to reduce the inconvenience of working on a global scale. In his role as Partner Peter Waters has clients across a number of time zones. He observed that his smartphone and laptop allow him to interact with these clients without attending the office at unusual times or waiting for business hours.

Many participants indicate that they now time shift work, making use of mobile devices to accomplish light work such as email at different times and using office hours for personal activities. A similar activity is "location shifting" – continuing work from another location. One participant provided an example where she had to collect her car from the dealership during work hours and ended up there for 45 minutes. Because she was able to continue working on her iPhone she did not have to make that time up in the office the next day.

Employees expect their workplaces to support flexible work practices by providing access to work from mobile devices.

Anywhere

Internet-connected mobile devices and laptops also alleviate much of the inconvenience experienced by professionals who travel interstate and overseas. One Optus Corporate Counsel observes that her frequent travels interstate are now much simpler thanks to her iPad. Rather than having to travel into a branch office or organise "filler" meetings she can now utilise excess time working in her hotel room. For Peter Waters, who regularly works in remote regions of Asia, the smartphone becomes his lifeline to the office in areas where wi-fi is patchy or unavailable.

For many participants "anywhere" is more local: at home or on their daily commute, out with clients or attending court.

Occupying downtime

Downtime is the time "between tasks and between meetings, in which the participants usually [have] little control over the resources available to them"[9]. Traditional examples include waiting for a court appearance or killing time at the airport and in hotels while travelling. Now it has expanded to include what may have been considered "personal" downtime - commonly long commutes on public transport or unexpected waits in the doctor's surgery.

Working during downtime is not new, particularly if the downtime is expected. In the past many workers would plan for anticipated downtime such as a commute or plane trip by printing and carrying documents or packing heavy devices such as their laptop[10]. A classic example is Jane Hogan, who used to carry a number of documents and publications to read on her daily commute. Her smartphone has not changed the fact that she works through her commute, rather it has made the process more convenient.

Any spare minute now an opportunity to work

The ability to utilise this time productively was the most commonly mentioned benefit of constant connectivity and mobile devices. By virtue of their size and constant connection, mobile devices have increased the number of opportunities to work in unexpected downtime – such as the earlier example of a participant working while waiting to collect her car. The portability and instant initialisation capability of mobile devices also means that bursts of time measured in minutes can be productive – professionals now check up on work over breakfast or while waiting in queues. One participant admitted to checking her email while stopped at red lights.

Downtime now used for quick tasks and light reading

Mobile devices and particularly smartphones have changed the type of work accomplished in downtime. For example, where Jane Hogan used to read longer printed articles or journals on her morning commute (described earlier as sustained reading), she now skims email, news sites and professional blogs. Most participants observed that the screen size of smartphones makes it far too difficult to read and absorb longer documents. With their constant connection smartphones are better suited for clicking through a series of shorter articles or managing emails.

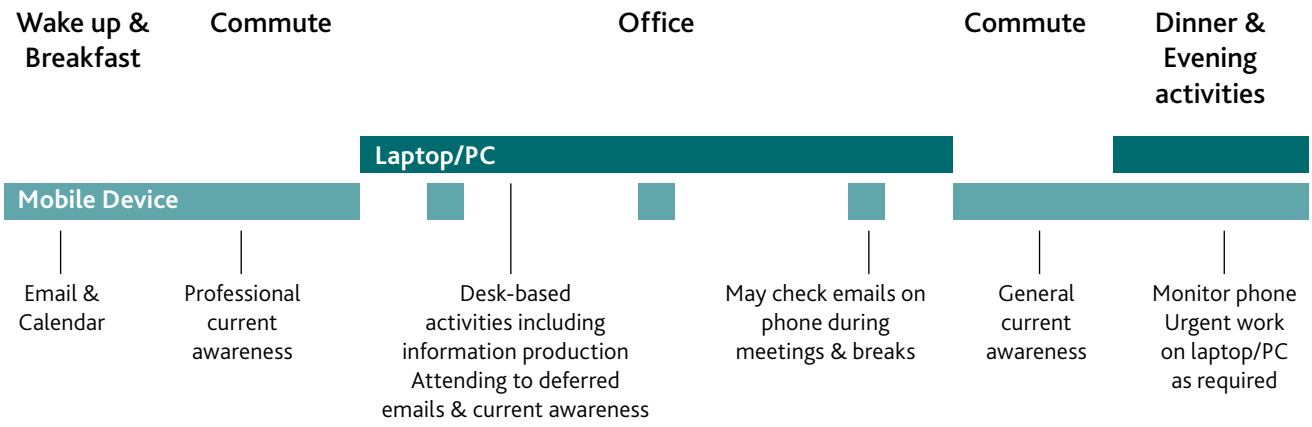

Figure: Device use during an average day for a legal professional

Future trends for mobile devices

Increased mobile access to "pre-work" tools

The growing dependence on mobile devices to conduct "pre-work" activities may likely result in increased demand for more sophisticated tools as well as email and calendars. Access to firm management systems such as practice and matter management systems will support the emergent practice of managing issues while on the go. For example, legal professionals on their way to visit a client could use their mobile device to access the address and relevant correspondence from the practice management system. An evening email exchange with a client could be logged to the relevant matter file without resorting to the laptop. This would not only increase efficiency but also reduce the risk that exchanges carried out by device will not be integrated back into relevant firm databases.

Increased use of tablets and ereaders for reference and sustained reading

The use of tablets and ereaders for reading will gradually expand from being purely recreational to the workplace. Based on the behaviour of participants, current awareness reading and looking up reference information for specific tasks are likely be the first activities transferred to these devices. Sustained reading will follow as people gain confidence in navigating longer texts and the functionality required to annotate text is improved.

Information production will remain the domain of laptops and PCs - for now

The task of accessing information for the purpose of producing information will continue to be performed on laptops and desktops. This will be the case until tablets are developed with more sophisticated options for multitasking and data input. Even then it is likely that this functionality will at first resemble deskbound environments, with docking stations used to provide access to peripherals such as a screen and keyboard. The likelihood that substantial information production will occur on mobile devices such as tablets depends on at least three factors: innovative developments in the input functionality of devices; increased user confidence with the devices (which may come with time or generational changes); and the user's ability to concentrate effectively in their mobile environment.

Fragmentation or consolidation?

For several years legal professionals have split their work between two devices: the smartphone and the laptop or desktop. Certain tasks are accomplished on each device: communication, pre-work, and current awareness on smartphones and information production on laptops or PCs. In the short term the introduction of tablets such as the iPad may fragment work activity further. Mid-size devices such as tablets and ereaders are likely to be used for current awareness, sustained reading and reviewing reference texts without any great impact on the functions of established devices.

The possibility of future consolidation cannot be ruled out, particularly if firms and individuals grow tired of supporting and carrying multiple devices. Lightweight laptops combine the portability of tablets with the comprehensive functionality of PCs. However, the tablet market is still immature and it is likely that the functionality and processing power of these devices will improve rapidly. It is possible that tablets supported by desktop docking stations may become the core device for professionals. In either case it is likely that smartphones will maintain their role as a highly portable device for communication and connectivity on the go.

Implications of mobile device use for legal professionals

Redefining the concept of work and work hours

The use of mobile devices to time shift lighter tasks such as email and current awareness is redefining the concept of work and work hours. People now use personal time to perform work-related activities – whether checking emails during a lunch break or reading current awareness blogs of an evening. While this may not be a uniform expectation from employers, it is certainly common practice among employees and they expect their workplace to support them with appropriate connectivity and devices.

Even holiday time is not exempt – several participants mentioned that they checked their work emails while on leave, indicating that the benefits outweigh the potential impact this may have on their ability to relax. One Optus Corporate Counsel observed that reviewing her email while on holidays smoothed the transition back to work: "On the Monday I got back, if I'd had no access to email and no visibility over what had gone on for the two weeks I was away, it just would have been so much harder".

Ubiquity of access has increased expectations of a prompt response not only from employers but from clients. As Andrew Mitchell observed about supporting a variety of mobile devices for the lawyers of the firm, "You can't really say no. It's their business…they're at the mercy of their clients, and the client will just say 'I want it and I want it tonight'". Richard McDonough-Glenn similarly observed that it was routine for his hours to extend outside of office hours in order to meet client expectations – without his remote connection he would not be able to ensure it was done.

All participants firmly believe that the benefits provided by constant connectivity far outweigh any negative impact of increased hours or expectations. However a recent study by KPMG would suggest otherwise. It indicates that the use of mobile devices to spread work hours increases productivity and work/life balance - to a point. Excessive use of these tools leads to negative effects associated with overworking and the intrusion of work into personal time[11].

Changing patterns of information consumption and production

Professionals are reading less substantial printed or online texts in favour of shorter items that are accessible by smartphones. This behaviour forms part of a wider trend towards scanning a broad range of short, high-level items and only selectively reading more deeply into an issue[11]. It is partly a coping mechanism to deal with the volume of information received every day. However it is also related to the convenience of consuming short bursts of information on mobile devices.

The end result is that professionals may have partial understanding of a broad range of issues and deep understanding of a very select range of topics. This kind of specialisation will likely cause professionals to rely more on colleagues and ad-hoc research to understand issues outside of their core areas of interest.

Reduced capacity for sustained reading is affecting information legal professionals produce for clients. Like professionals themselves, most clients have limited attention spans and consume their emails and other information on mobile devices. This exerts pressure on professionals to provide information and advice in concise bursts. One participant observed that as Corporate Counsel for Optus she is usually expected to provide clients with a short email that states what they should do. They rarely want a lengthy document detailing how she arrived at this conclusion. Peter Waters observed that he consciously works to ensure that the most critical information is conveyed in the first few lines of an email – preferably to the length viewable on a Blackberry screen.

All participants believe that the benefits of constant connectivity outweigh any negative impact.

Implications of mobile device use for enterprises

IT departments require agility

The rapid rate of mobile device development for the consumer market is having a significant effect on enterprise IT departments. Individuals are increasingly rejecting standard enterprise devices and tools in favour of personally purchased consumer devices[12]. Those issued with enterprise devices may do this because they believe consumer devices provide functionality that enables them to do their job more effectively. Those not issued with an enterprise device desire the same ability to work flexibly that their colleagues have.

Individuals increasingly expect to be able to work from personally purchased mobile devices and want IT departments to support this.

IT departments face the challenge of balancing the needs and expectations of workers against the issue of managing resources and data security in an increasingly fragmented IT environment. This requires a high level of agility and responsiveness. Innovative firms such as Gilbert + Tobin are employing individuals like Simon Gilchrist to test the functionality and enterprise value of new consumer devices as they enter the market. This enables them to rapidly assess whether to roll the device out, offer basic support for personally purchased devices or to dismiss the device altogether. Which of these paths is chosen depends on the limitations placed on the enterprise – for example government departments must meet strict security standards which frequently rules out the use of consumer devices. For Gilbert + Tobin the attitude is any device will be supported if the demand is there.

The other side of the equation is ensuring that enterprise software and data applications can function on mobile devices as well as standard PCs and laptops. Firms will need to work closely with software providers and internal developers to identify the best methods for distributing data and applications across multiple devices.

Managing the risk of missed information

Knowledge Management services will be more important than ever in assisting individuals with managing information flows, particularly for current awareness. As individuals move to a skim and triage approach to communication and current awareness it is essential for firms to ensure that critical information is not missed.

The tendency to skim large volumes of information increases the risk of critical issues being missed or misunderstood.

Part of this is providing structured processes for information access and delivery. However, another growing element is supporting the social transmission of knowledge. Participants describe common sharing practices such as forwarding interesting articles or discussing them with colleagues. Many participants reported that their organisation is experimenting with enterprise social tools such as Yammer, which enables items of interest to be distributed and commented on more widely within the organisation. These practices may go some way in ensuring that critical information is distributed and reviewed effectively.

Implications of mobile device use for information providers

Supporting consumption patterns for current awareness and sustained reading

Information providers must now understand and support the consumption behaviours of their clients across multiple devices. This requires developing an understanding of which information is most likely to be consumed on each device and supporting the ability to synchronise information across multiple devices and formats.

Professionals now conduct a significant portion of their current awareness activities via mobile device during downtime. They tend to skim a large number of headlines and articles, flagging significant or longer items for further review once in the office. Information providers should facilitate this by providing different lengths and levels of information according to the client's current activity and location. More importantly, transferring between one device and another and one level of information and another should be virtually seamless. For example, professionals usually triage items of interest based on pithy articles consumed via smartphone. Flagged items should be instantly accessible once the professional transfers to their laptop, PC or tablet, with more in-depth information on the topic one click away.

Content should be optimised for different devices, yet the process of transferring between each device should be seamless.

Identifying core content for portable reference

Participants indicated that the information they use for reference on the go (eg in court or when visiting clients) is a subset of the information they access for information production in the office. Using current online information services is not always suitable in this situation as they have been developed to support complex research and information production. This generally makes heavy use of laptop and PC functionality such as large screens, keyboards and mouse navigation. They rarely translate well to the smartphones or tablets used for portable reference activities.

Providing relevant content subsets in ebook or app format will enable information providers to develop content navigation processes tailored to the portable reference experience. Simple browse menus, minimal input requirements and the ability to bookmark, annotate and share by email are some of the functions participants desire for the portable reference experience.

Conclusion

Professionals are increasingly distributing their information activities across multiple devices. This enables them to perform light activities such as email management on mobile devices during personal downtime, while dedicating office time to intensive tasks such as information production.

As a result professionals are now working a wider spread of hours without spending more time in the actual office. They also face a heightened expectation from clients and employers that they will be available at any time.

Consequently professionals are demanding that IT departments support any device that helps them perform their work, including personal devices. In turn innovative IT departments are developing new practices to help them rapidly assess devices and provide secure access to enterprise content across a range of platforms.

Professionals are performing different information activities on each type of device according to the situation. For this to be truly effective content should be provided in a format and level appropriate to each device and each information activity. In some cases elements of a single information activity will be performed across two devices, for example reading an article on a smartphone and performing additional research on a PC. Content providers need to consider how to make the process of managing information activities across multiple devices as seamless as possible.

Endnotes and further reading

[1] Australian Bureau of Statistics (2009), "Other legal services: Region", Legal Services, Australia, 2007-2008, cat. no. 8667.0, http://www.abs.gov.au/AUSSTATS/abs@.nsf/Latestproducts/8667.0Main%20Features52007-08?opendocument&tabname=Summary&prodno=8667.0&issue=2007-08&num=&view=#AnchorReg, viewed 14/2/11

[2] Matthews, Peirce and Tang (2009), "No smartphone is an island: The impact of places, situations, and other devices on smartphone use", IBM Research Report, p8, http://domino.research.ibm.com/library/cyberdig.nsf/1e4115aea78b6e7c85256b360066f0d4/f5fd878b5b062aca85257635004ec3f5, viewed 30/1/11

[3] Matthews, Peirce and Tang (2009), p4

[4] Gardner, J (2011), "Slaves to email", Business Review Weekly 32(4) Jan 13 p44

[5] Yammer is a Twitter-like tool designed for internal enterprise use. Refer to www.yammer.com/about/product

[6] Liu, Z. (2005), "Reading behavior in the digital environment: Changes in reading behavior over the past ten years", Journal of Documentation, 61(6), 700. Viewed on Proquest at http://search.proquest.com/docview/217977973?accountid=13902

[7] Kari, J. (2010), "Diversity in the conceptions of information use" Information Research, 15(3) colis709, http://InformationR.net/ir/15-3/colis7/colis709.html, viewed 30/1/11

[8] Liu, Z. (2005)

[9] Perry et al (2001), "Dealing with Mobility: understanding access anytime, anywhere", ACM Transactions on Computer-Human Interaction 8(4), p 337, http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.94.6652&rep=rep1&type=pdf, viewed 30/1/11

[10] Perry et al (2001), p334

[11] Sadler, K. (2011), "Work fragmentation: How much is too much?" KPMG, p2, http://www.kpmg.com/AU/en/IssuesAndInsights/ArticlesPublications/Documents/Work-fragmentation-how-much.pdf, viewed 7/3/11

[12] Liu, Z. (2005)

[13] IDC 2010, "A consumer revolution in the enterprise", IDC iView, June 2010, sponsored by Unisys, http://idc.cycloneinteractive.net/unisys_iview/en/IDC_947.pdf, viewed 14/2/11

Glossary

App: A standalone software application. The term app is most frequently used in relation to applications for mobile devices such as smartphones and tablets.

Ebook: A discrete text published in digital form, usually optimised for downloading and reading on a ereader or mobile device

Ereader: a portable device dedicated to reading text such as ebooks

Laptop: a medium-sized portable computer with comparable functionality to a desktop PC (ie it incorporates a keyboard and mouse or track pad). While portable, laptops are not considered to be mobile devices for the purpose of this paper.

Mobile device: a highly portable electronic device with the capability to connect wirelessly to the internet. Examples include smartphones and tablet PCs. Laptops are not considered to be mobile devices for the purpose of this paper.

PC: personal computer; desktop computer.

Smartphone: a mobile phone with access to the internet and the ability to download and access multiple applications. Examples include iPhone, Blackberry and Android phones.

Tablet device: a medium-sized mobile computer comprising a flat touch screen. Uses a stylus or fingertip input in lieu of a physical keyboard (adapted from Wikipedia 11/1/11).

About CCH

For over 40 years, CCH has been building a solid reputation in accurate and timely resources by assisting Australian professionals to establish and maintain their practices and businesses. Our clients in the accounting & financial planning, employment & safety, and legal and business communities rely on CCH information to help them advise their clients, run their businesses and manage their obligations.

Products are available in a variety of media formats ensuring that the customer gets what they want, when and how they want it. In-house specialists ensure that CCH products contain the most accurate, authoritative and timely information.

About the author

Linda Moore is the Senior Information Specialist for CCH Australia, where she sources and manages information that assists CCH in understanding and responding to the needs of its clients. As part of this role Linda has conducted original research into the use of developing technologies by legal and accounting professionals. Her previous whitepapers on social media, document management and research practices in professional firms are available at **www.cch.com.au/whitepaper.**

CCH
a Wolters Kluwer business

The Professional's First Choice

CCH is one of the leading global providers of information services, software and workflow tools for tax, accounting, HR, employment, safety, legal and business professionals.

Contact

CCH Australia Limited
Level 2, 101 Waterloo Road
North Ryde NSW 2113
Australia
Tel: +1300 300 224
Fax: +1300 306 224

CCH New Zealand Limited
41 Centorian Drive
Mairangi Bay Auckland
New Zealand
Tel: +64 9 488 2760
Fax: +64 9 489 3312

CCH Software
Level 2, 101 Waterloo Road
North Ryde NSW 2113
Tel: +61 2 9857 1300
Fax: +61 2 9857 1600

CCH Asia Pte Limited
8 Chang Charn Road
#03-00 Link (THM) Building
Singapore 159637
Tel: +65 6 225 2555
Fax: +65 6224 2555

CCH Hong Kong Limited
Room 1608, 16/F Harcourt House
39 Gloucester Road
Wanchai, Hong Kong
Tel: +852 800 968 667
Fax: +852 800 933 814

CCH Japan Limited
Towa Misakicho Building 5F
3-6-2 Misakicho
Chiyoda-ku, Tokyo 101-0061
Tel: +81 3 3265 1161
Fax: +81 3 3265 1166

Commerce Clearing House (M) Sdn Bhd
Suite 9.3, 9th Floor Menara Weld
76 Jalan Raja Chulan
50200 Kuala Lumpur, Malaysia
Tel: +603 2026 6003

Queries

whitepapers@cch.com.au

www.cch.com.au/whitepaper

March 2011