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Keeping Up With the Law: Investigating Lawyers' Monitoring Behaviour

Stephanie Ellis, LexisNexis, London, UK
Stephann Makri, City University London, London, UK
Simon Attfield, Middlesex University, London, UK

Structured Abstract:

Purpose:

We wanted to provide an enriched understanding of how lawyers keep up-to-date with legal developments. Maintaining awareness of developments in an area (known as 'monitoring') is an important aspect of professional's information work. This is particularly true for lawyers, who are expected to keep up-to-date with legal developments on an on-going basis.

Design/methodology/approach:

We conducted semi-structured interviews with a group of lawyers who authored and published current awareness content for LexisNexis - a large publishing organisation. The interviews focused on identifying the types of electronic, printed and people-based current awareness resources the lawyers used to keep up-to-date with legal developments and the reasons for their choices.

Findings:

The lawyers mostly used electronic resources (particularly e-mail alerts and an electronic tool that alerted them to changes in website content), alongside interpersonal sources such as colleagues, customers and professional contacts. Printed media such as journals and newspapers were used more rarely and usually to complement electronic and person-based resources. A number of factors were found to influence choice. These included situational relevance, presentation, utility and trustworthiness, the speed of content acquisition, and interpretation facilitated by the resource.

Originality/value:

Our findings enrich our understanding of lawyers' monitoring behaviour, which has so far received little direct research attention. Our design suggestions have the potential to feed into the design of new and improvement of existing digital current awareness resources. Our findings have the potential to act as 'success criteria' by which these resources can be evaluated from a user-centred perspective.

1. Introduction

Monitoring (*"maintaining awareness of developments and technologies in a field through regularly following particular sources"* - Ellis and Haugan, 1997, p. 396) has been found to be an important aspect of information behaviour in a variety of disciplines, including the social sciences (Ellis, 1989; Meho and Tibbo, 2003), physical sciences (Ellis, Cox et al. 1993), engineering (Ellis and Haugan, 1997) and architecture (Makri and Warwick, 2010). It has also been found to be particularly important in the knowledge-intensive discipline of law (see Makri, Blandford and Cox, 2009; Attfield, Blandford and Makri, 2010; Attfield and Blandford, 2011). Keeping up-to-date with changes to case law and legislation and being aware of the practical implications of these changes is an essential component of lawyers' information work (Makri, 2009). 'Keeping up with the law' provides lawyers with knowledge that can filter into their argumentation in legal cases and the advice that they give to clients. It also provides them with knowledge of how the law has changed over time, which can be used for anticipating legal trends (Makri, 2009). Without a clear and accurate understanding of the current state of the law (which is primarily

achieved through monitoring current awareness sources – Makri, 2009), lawyers would simply be unable to practise effectively.

Monitoring behaviour has been examined in the context of lawyers' broader electronic information behaviour (see Makri et al., 2008; Makri, 2009), in the sociotechnical context of lawyers' dissemination of current awareness material (see Attfield et al., 2010) and from the perspective of improving the efficiency of interaction with email alerts (see Attfield and Blandford, 2011). However, to the best of our knowledge, there are no studies which have systematically explored the range of tools and services that lawyers use, asking the question: what do they prefer to use and why? Whilst previous studies have identified common ways that lawyers performed monitoring, such as by subscribing to e-mail alerts or conducting regular searches on digital law libraries (see Makri, 2009), relatively little attention has been paid to lawyers' reasons for using particular electronic, printed and people-based current awareness resources when keeping up-to-date with the law. Gaining an understanding of these reasons is not only useful for explaining their monitoring behaviour at a rich level of detail, but the elaboration of assessments underpinning resource choice can help inform the shaping of more attractive and useful information resources.

In this article, we report findings from a study in which we conducted in-depth, semi-structured interviews with eight lawyers (five associate lawyers and three barristers) working for LexisNexis (LN) - a large publishing organisation that provides a range of information and knowledge solutions (in electronic and print format) to customers ranging from law and accountancy firms, corporations, the public sector and academic institutions. Five of the participants authored content for an on-line current awareness information service, mainly subscribed to by law firms, in-house lawyers and the public sector and consequently, were part of a wider current-awareness distribution network and had a continuous requirement to be up-to-date. This need related to both legal developments and also to general developments in the profession and industry sector. The three remaining participants worked in a publishing capacity with responsibility for electronic and print resources. The semi-structured interviews were designed to elicit the range of current awareness resources used by the lawyers for keeping up-to-date and the reasons underlying the choices that they made (i.e. which resources they chose to use and why).

The remainder of this article is structured as follows: first we examine the background literature on the use of current awareness resources (including electronic, printed and person-based resources) in a variety of disciplines, as well as the few existing studies that have examined lawyers' monitoring behaviour and use of current awareness resources. We then present the method used for collecting and analysing the semi-structured interview data, followed by our findings on the different types of current awareness resources used by the lawyers and the factors influencing their use. Finally, we discuss the implications of our findings for the design of electronic current awareness resources, making recommendations for how these resources can better support lawyers' monitoring behaviour.

2. Background

2.1 Studies on monitoring across disciplines

Monitoring behaviour has been identified and discussed in a number of studies by David Ellis and his colleagues, across physical, social and engineering science disciplines (see Ellis 1989; Ellis, Cox et al., 1993; Ellis and Haugan, 1997). In these studies, based on semi-structured interviews, it was found that participants maintained an awareness of developments in their field through:

- Using **electronic tools** such as online databases, online search printouts and current contents search (for journals);
- Consulting **informal contacts**—by networking with colleagues, technology and equipment suppliers, external contacts and project partners, and by relying on gatekeepers;
- Attending and contributing to **conferences** and browsing conference proceedings;
- Consulting **printed materials**, including:
 - Journals—by browsing journal current contents, specialist research directories, bulletins of research in progress and reading abstracts.

- Newspapers and magazines—by browsing quality press such as The Times, Independent and Guardian and industry magazines.
- Books—by scanning publishers' catalogues, consulting new book reviews, reading bibliographies and checking new library book lists.

Since Ellis's studies and the proliferation of the Internet, the use of electronic current awareness resources has become much more common. These resources not only include online databases, but also websites and blogs aimed at showcasing new developments in a particular topical area, RSS feeds (a standardised format for publishing frequently updated information, such as posts in an online forum), online forums and e-mail lists (also known as listservs) and e-monitoring tools which alert users when the content of a website has changed. E-mail alerts are also provided by websites and digital libraries—automatically informing users when new information is published in a particular topical area (or if new information matches a pre-defined filter).

Electronic current awareness resources can be divided into *push* and *pull* technologies. Push technologies, such as RSS feeds and e-mail alerts, provide information directly to users, without the user having to 'do something' to acquire the information. Hence they support *passive* information seeking (Bates, 2002). Pull technologies require *active* information seeking (Bates, 2002) in which the user instigates acquisition (for example by regularly browsing a particular website or regularly searching a digital library for new developments in a particular area).

There is a degree of diversity in the methods people use for monitoring which itself reflects a range of possible resources. Push technologies, such as e-mails alerting users to the articles in newly-published journal issues and new books published have been found to be used by engineering faculty members (Schlembach, 2001). E-mail alerts were also used as a passive method of keeping up-to-date by humanities scholars (Palmer and Neumann, 2002) and science scholars (Hemminger, Lu et al., 2007). In a study of electronic journal use by users of a fulltext digital library system, Zainab, Huzaimah et al. (2007) found that users preferred e-mail alerts that provided direct links to articles over alerts that provided the table of contents of newly published journals, alerts that provided article citations or alerts based on keywords. More recently, RSS feeds have also been found to be a useful method of passive information delivery (Hemminger et al., 2007).

Pull technologies are also used in a variety of disciplines to support monitoring. For example, science faculty members in a study by Eason and Harker (2000) regularly accessed the table of contents of particular journals in digital libraries, whilst a survey of the information sources used by astronomers found that they regularly visited an e-print service (astro-ph) to keep up-to-date, but did not use push technologies such as e-mail alerts (Tenopir, King et al., 2005). Pull technologies were also favoured over push technologies by Finnish academic staff who primarily monitored developments by searching journal databases (Vakkari and Talja, 2006). Similarly, in an interview study focusing on academic scientists' interactions with information resources, they were found to prefer manually monitoring of websites using bookmarks, rather than regularly searching or browsing digital libraries to maintain an awareness of developments (Lee, 2003).

Despite the exponential increase in Internet use since Ellis's original studies, using informal contacts for keeping up-to-date has remained popular. For example, attending conferences and networking with peers was found to be important for music, geography and social science academics (Brown, 2002; Borgman et al., 2005; Francis, 2005). Also, humanities scholars have been found to use informal collaborative networks and the 'grapevine' to keep up-to-date with new books or articles (Brockman, Neumann, Palmer and Tidline, 2001). However, since the widespread use of the Internet, the use of informal contacts appears to have become more of a complement to electronic monitoring. For example, in a study of Finnish university academic staff, Vakkari and Talja (2006) found that whilst the use of informal contacts was still important in a teaching and research environment, increasing use of electronic journals had led to a decrease in informal communication with colleagues as a way of staying up-to-date.

The use of printed materials to maintain awareness of developments has also remained popular across a variety of disciplines, in spite of the increasing use of electronic resources. For example, Bronstein (2007) found that Jewish studies scholars favoured books and journals to electronic tools as they provided a context where they could determine the construction of a paper and for them, unlike electronic tools, implied a certain quality of writing. In addition, music scholars and social scientists also scanned recent printed issues of journals as their main method of keeping up-to-date (Brown, 2002; Francis, 2005). The music scholars also scanned new book

shelves, library acquisition lists and sight-read new compositions (Brown, 2002) and, overall, preferred printed materials and personal communication to the use of electronic current awareness resources.

Whilst these studies provide us with a broad understanding of current awareness resource use and preferences across a variety of disciplines (for printed and person-based as well as electronic resources), they nevertheless only provide limited insight into the reasons *why* particular resources are used or preferred over others—a central theme of our study. Understanding lawyers' reasons for using particular current awareness resources is particularly important in order to gain a richer understanding of their monitoring behaviour.

2.2 Studies on lawyers' monitoring

Whilst keeping up-to-date with legal developments is particularly important for lawyers, we are unaware of any studies that have focused specifically on lawyers' needs and/or behaviour when keeping up-to-date with legal developments. Indeed, most existing studies that have examined lawyers' broad information needs and behaviour and have provided insights into lawyers' monitoring practices as a by-product. For example, when investigating the information-seeking needs and practices of lawyers, Otike (1999) found that, when looking for information on new developments the lawyers in her study preferred to contact colleagues or personal contacts before moving onto printed or electronic resources. The general importance of informal contacts for lawyers when looking for information has been widely noted (see Kuhlthau and Tama, 2001; Wilkinson 2001; Jones, 2006). Otike (1999) also found that, when informal contact was not possible, the use of law journals was preferred—however the lawyers often *“did not have enough time to browse through the many journals received by the law library”* (p. 32). The practicing lawyers in Otike's study also mentioned using meetings, conferences and seminars to keep abreast of new legal developments as well as an electronic legal current awareness service. Although no detail is provided about what the service involves, Otike mentions that lawyers with organised libraries (where new information is displayed centrally or circulated to lawyers), benefited most from the service. Other current awareness resources mentioned by the lawyers included consulting legal digests and citators, as well as reading summaries of court judgements in newspapers (in particular The Times).

In a study that focused directly on lawyers' monitoring, Bunnage (1999) examined the current-awareness-based information needs of the Harvard Law Faculty. She found that faculty members, who were using a manual, paper-based current awareness service (photocopied pages of US law journals and a monthly list of library book acquisitions), were looking forward to the widespread introduction of electronic current awareness resources. In particular, many of the faculty members expressed an interest in using electronic versions of currently used current awareness resources, such as an electronic version of new library acquisitions. Many faculty members also expressed an interest in 'being alerted' to new electronic current awareness resources that were relevant to them (such as new digital libraries or websites). Although many of the faculty members were aware of current awareness services provided by digital law libraries such as Lexis and Westlaw, they nevertheless found them *“difficult to program for certain subject areas”* (p. 116) and asserted that, if the libraries are not used regularly, *“the information amassed becomes too difficult to digest easily”* (p. 116).

Monitoring was also discussed in a more recent study on lawyers' information behaviour by Makri et al. (2008), who made a distinction between *active* monitoring (facilitated by pull technologies) and *passive* monitoring (facilitated by push technologies). Lawyers were observed to perform active monitoring in three main ways; by conducting regular searches on a particular legal topic in one or more digital libraries, by regularly browsing digital libraries or particular legal websites and by regularly following previously bookmarked pages. Passive monitoring was achieved through the subscription to e-mail alerts which alerted the lawyers when new information on a particular topic or from a particular source had been published. Although there was widespread mention and use of electronic current awareness tools amongst practicing lawyers (see Makri, 2009), Makri et al. (2008) identified a lack of awareness of electronic monitoring tools amongst academic lawyers and suggested the need for digital law libraries to make it clear what current awareness tools they provide and how to use them.

Attfeld et al. (2010) observed current awareness practices in a large London law firm. They found that fee-earners and knowledge management staff subscribed to a wide range of current awareness resources which allowed lawyers not only to maintain an awareness of legal developments (through the provision of legislation updates, legal judgements etc.), but also of news and business developments that might have an impact on their

work. It was noted that e-mail “*was the primary current awareness delivery mechanism*” (p.5) and that only one lawyer used RSS feeds. The main focus of this study was on the way that the selection, re-aggregation and forwarding of current awareness information gave rise to a complex distribution network in which knowledge management staff operating locally could be sensitive to local information needs and mitigate the problem of information overload.

Finally, Attfield and Blandford (2011) analysed lawyers’ moment-by-moment interactions with email-based current awareness information using CASSM (‘Concept-based Analysis of Surface and Structural Misfits’, Blandford et al. 2008), a usability evaluation method structured around the identification of conceptual mismatches, or ‘misfits’, between user-concepts and concepts represented within a system. They identified a number of ‘misfits’ relating to a lack of representation of key user-concepts (such as a ‘back-story’, primary sources and user collections) which presented barriers to efficient reviewing and follow-on activities. Their findings provided a basis for articulating requirements for improving interaction efficiency in a situation where users were frequently overwhelmed with information and working under considerable time-pressures.

These studies provide evidence for the range of current awareness resources used by lawyers, the significance of colleagues for distributing information (both formally and informally), and how barriers to efficiency in interactions with email-based current awareness alerts can be overcome. However, we are unaware of studies that examine lawyers’ reasons for choosing one current awareness resource over another. Our study begins with the observation that any modern information landscape presents its users with multiple alternatives and an assumption that the choices people make reflects some underlying values which are significant when considering electronic information resource design. In the next section, we discuss the method used for identifying and understanding these values.

3. Method

3.1 Data collection

The study was conducted at the London office of LexisNexis and involved semi-structured interviews with eight lawyers who had responsibility for authoring, editing and publishing information products for the legal market. Seven of the lawyers had responsibility for authoring and publishing legal content. The eighth worked solely in a publishing role, with responsibility for overseeing the authoring and publication process. Accessing current awareness information was a key part of their job roles. Seven of the eight lawyers self-selected by responding to an e-mail sent out by a manager at LN while the eighth lawyer was contacted based on the recommendation of another participant, who thought his colleague would be particularly suitable to take part in the study given his experience in working with current awareness resources. Interviews were used (rather than observations) given our interest in eliciting data about a broad range of behaviours and the values and motivations underpinning them. The interviews were conducted in a private meeting room.

The semi-structured interviews were constructed around five steps:

- (1) Participants were prompted to describe their role and work background;
- (2) Participants were asked to list the electronic, printed and person-based current awareness resources they used to keep up-to-date with developments for their work;
- (3) For each resource discussed in (2), participants were asked to elaborate how they used it and their reasons for doing so;
- (4) Participants were asked which resource they preferred overall and to give their reasons.
- (5) To maximise coverage of the interviews, participants were asked to review a list of current awareness resources and for each resource that they used which had not already been discussed they were asked to elaborate as in step (3). The list (shown in table 1) was compiled on the basis of a literature review (discussed in section 2) with some omissions due to clear lack of relevance to the legal industry and obsolescence. One key type of resource (website notification tool) was added following the first interview.

Throughout the interviews, the interviewer steered the conversation towards concrete details of the resources used (such as the names of websites visited or the types of informal contacts consulted). This helped to facilitate collection of rich interview data.

Type of current awareness resource	Source(s) from the literature
Electronic resources	
Receiving e-mail alerts	Attfield and Blandford (2011); Attfield et al. (2010); Makri et al. (2008)
Regularly searching or browsing digital law libraries	Makri et al. (2008)
Regularly visiting particular websites (e.g. specific legal websites, discussion groups, forums)	Makri et al. (2008); Meho and Tibbo (2003)
Using citation alerting and tracking or contents and abstract services	Ellis (1989); Ellis et al. (1993)
Using website update notification tools (e.g. WebSite-Watcher)	Added after first interview
Subscribing to RSS feeds	Attfield et al. (2010); Hemminger et al. (2007)
Subscribing to e-newsletters or listservs	Meho and Tibbo (2003)
Printed resources	
Consulting journals (e.g. new journal issues, tables of contents of new issues)	Ellis (1989); Ellis and Haugan (1997)
Consulting newspapers	Ellis (1989); Ellis et al. (1993)
Consulting books (e.g. newly-published books, publishers' lists, reviews of new books, library acquisitions)	Ellis (1989)
Person-based resources	
Informal contact with internal/external colleagues	Ellis (1989); Ellis et al. (1993)
Networking at conferences and/or events	Ellis et al. (1993); Ellis and Haugan (1997)

Table 1: List of current awareness resources consulted during interviews

The interviews lasted between 45 and 60 minutes, were audio recorded with permission and transcribed verbatim, resulting in around 60 A4 pages of data. The data included many diverse, rich descriptions of the current awareness resources used and reasons for using them. The data was anonymised during transcription, whereby any information that could be used to identify particular individuals, customers or competitors was omitted. The lawyers were also asked to refer to individuals by generic job roles rather than by name. The lawyers were asked to read and sign an informed consent form, which made them aware that they could request to review the transcript arising from their interview or withdraw from the study at any time and for any reason.

3.2 Data analysis

A grounded analysis of the qualitative interview data was conducted. This analysis followed many of the core principles of Glaser and Strauss's (1967) Grounded Theory. The analysis was 'grounded' in the sense that common categories of factors determining the use of current awareness resources were identified by 'listening to the data' through a cyclic process of data gathering and analysis. One of the most important principles guiding our process of data gathering and analysis was that of constant comparison, where we continually questioned and revised our understanding of the factors influencing the lawyers' use of current awareness resources both during and after the process of data collection. This was achieved by asking questions of our data such as 'what is this reason/preference an example of?' and 'how does this reason/preference relate to and differ from others that we have identified?'

We also followed the 'open' and 'axial' coding procedures of Grounded Theory, as described in Strauss and Corbin (1998). The authors define open coding as "the analytic process through which concepts are identified and their properties and dimensions are discovered in data" (p. 101) and axial coding as "the process of relating categories to their sub-categories, termed 'axial' because coding occurs around the axis of a category, linking categories at the level of properties and dimensions" (p. 121). The lawyers' reasons for preferring to use a particular resource over others were also coded in the same way. Coding resulted in the identification of several current awareness resources used by the lawyers and seven categories representing factors that influenced the

lawyers' choices. These categories were re-examined through the process of axial coding and two categories merged into existing 'stronger' categories. The final five factors influencing choice were: *situational relevance*, *presentation*, *utility*, *trustworthiness* and *speed*. These findings, along with our findings relating to the range of current awareness resources used by the lawyers, are discussed in detail in the next section.

Despite following many of its core principles, we do not claim to have followed a full Grounded Theory methodology as we did not follow the procedure of evolving theoretical sampling (where the chosen sample evolves based on emerging theoretical concepts during analysis) or selective coding (where one category is chosen as the core category). This was because of a priori assumptions we felt able to make that participants will use a range of resources, that each use will be motivated, and our research aim to elaborate both in as comprehensive a way as possible. Consequently, we believe our qualitative data gathering and analysis approach is more appropriately described as grounded *analysis* rather than Grounded Theory.

4. Findings and discussion

4.1 Current awareness resources used by the lawyers

In this section we begin by briefly elaborating the range of resources used with some limited discussion of the reasons motivating choices. This provides context for **Error! Reference source not found.** in which we focus on the five factors: *situational relevance*, *presentation*, *utility*, *trustworthiness* and *speed*.

Our data showed that the lawyers in our study predominantly used electronic current awareness resources. All of subscribed to e-mail alerts, and some to RSS feeds and e-newsletters. Half used the automatic website update notification tool WebSite-Watcher. As the lawyers' roles were monitoring-intensive, this specialist tool to support awareness of developments was regarded as a considerable time-saver. Person-based resources included colleagues and other industry professionals, although these were used to a lesser extent than electronic resources. In particular, informal contacts with colleagues were important for those lawyers who did not choose to use WebSite-Watcher. Whilst most of the lawyers also used printed materials such as journals and newspapers, these were less significant than electronic and person-based resources. A summary of the types of current awareness resources used by the lawyers in our study is presented in table 2. We now discuss the lawyers' use of electronic, printed and person-based current awareness resources in detail.

Type of current awareness resource	Used by lawyers in our study?
Electronic resources	
Receiving e-mail alerts	✓
Regularly searching or browsing digital law libraries	✓
Regularly visiting particular websites (e.g. specific legal websites, discussion groups, forums)	✓
Using citation alerting and tracking or contents and abstract services	x
Using website update notification tools (e.g. WebSite-Watcher)	✓
Subscribing to RSS feeds	✓
Subscribing to e-newsletters or listservs	✓
Printed resources	
Consulting journals (e.g. new journal issues, tables of contents of new issues)	✓
Consulting newspapers	✓
Consulting books (e.g. newly-published books, publishers' lists, reviews of new books, library acquisitions)	x
Person-based resources	
Informal contact with internal/external colleagues	✓
Networking at conferences and/or events	✓

Table 2: List of current awareness resources used by the lawyers in our study

4.1.1 Electronic resources

The four lawyers who used WebSite-Watcher were all involved in authoring content for an online current awareness service and therefore used the automatic website notification tool to help them monitor an extensive list of websites in order to select and disseminate content relevant to their own audiences. The time-saving properties of this resource were described by P5:

P5: WebSite-Watcher does the initial grunt work otherwise we'd be flicking through 120 different bits of the web, once an hour every day before we even thought whether things were significant.

Many of the lawyers mentioned that the functionality provided by the resource - automatically monitoring and reporting web page changes and updates (by email), performing automatic searches and reading RSS feeds, - meant that they had little need to use other electronic current awareness resources (such as manually following bookmarked websites):

P5: You can set up bookmarks to watch any bit of the web you want. It can do a variety of different things ranging from just monitoring the contents of a flat webpage to automatically performing searches with a series of key search terms and then looking at the results and seeing if they are different from last time. An awful lot of websites that we track with WebSite-Watcher do alerts but it is such a complete product that it makes sense to keep information in one place.

One lawyer (P3) who authored content (for the online current awareness service) chose not to use WebSite-Watcher, but had instead set up separate e-mail alerts with digital law libraries and legal websites. He also regularly visited three websites that he had saved in his bookmark list belonging to the Estates Gazette, the Department for Environment, Food and Rural Affairs and the Communities and Local Government. P3 chose not to use WebSite-Watcher as he believed it produced “*too bureaucratic a regime*” and explained that he would “*much rather stick to a regime [he'd] found effective over a number of years rather than being prompted by WebSite-Watcher.*” This lawyer's ‘regime’ involved using three e-mail alerting services and regularly visiting a particular legal website.

Participants P6 and P7, who were involved in *publishing* rather than authoring current awareness content tended to subscribe to one or two e-mail alerts and rely on colleagues to keep them up-to-date.

Although some of the lawyers in our study regularly browsed and searched digital law libraries and law websites in order to keep up-to-date with developments, none of the lawyers browsed or searched the Internet on a standalone basis as a means of maintaining an awareness of developments. Some did, however, subscribe to electronic newsletters.

4.1.2 Printed resources

Although the lawyers only tended to use printed current awareness resources as a supplement to electronic resources (rather than as a primary method), these types of resources were used to some extent. Printed journals were often used as a form of ‘quality control’ where participants had chosen to write about a development and wanted to ensure that important aspects had not been omitted. Some participants prioritised selected journals—limiting the titles they regularly browsed to those which they thought had a high probability of carrying useful material. The participants who authored current awareness material tended to use only *online* versions of journals as the publication of hardcopy versions was considered too slow:

P5: We don't rely a lot on journal articles. It's a question simply of speed again and by the time a journal has published something, it's several weeks after we're reported it. So the fact that someone may have something interesting to say about something, it's too late for us.

Other than printed journals, the lawyers also made regular use of newspapers. Most of the lawyers mentioned reading The Times, either in hard copy and/or online. Many would buy a copy on Tuesdays (when law reports are published) and read the printed version on the way to work. This was often supplemented by accessing the online version during the day. Book-related current awareness resources such as publishers' lists, reviews of new books and lists of new library acquisitions (Ellis, 1989) were not used by any of the lawyers to monitor legal developments. However, books (both printed and electronic) were used to aid general understanding of topics and to support the authoring of content.

4.1.3 Person-based resources

Whilst the use of person-based resources such as colleagues or other industry professionals was mentioned by all of the lawyers in our study, the use of other people as current awareness resources did not seem to be as important as in Ellis's studies. This is likely to be because of the increasing importance of electronic current awareness content. The lawyers who authored current awareness attended regular meetings aimed at discussing new legal developments in the context of what had already had taken place:

P7: I meet with them [managing editors] once a week and at those weekly meetings one of the things we cover is what's changing, what are the latest updates, what can inform the publishing schedule.

Whilst the lawyers who were involved in authoring current awareness content only used person-based resources to supplement their use electronic resources, the lawyers who were involved in *publishing* rather than authoring content used person-based resources as their main method of monitoring. This included professional contacts such as academics, customers and former colleagues (who were practicing lawyers or barristers). P6 explained how his academic contacts keep him up-to-date:

P6: They'll [academics] call me up and say 'the chapter I just sent you, you need to re-write this because there's been a new case' or 'we've just heard that the charity commissioners have said XYZ.'

All of the lawyers suggested that maintaining a network of contacts was important for current awareness purposes as it gave them a good idea of how changes in the law might affect their customers. They used semi-formal methods such e-mail and meetings with colleagues. Attending conferences was also deemed to be important for maintaining a network of contacts and acted as a form of 'quality control' for one lawyer's current awareness system:

P3: That provides a really useful cross-check because if they come up with a case I dismissed or hadn't even seen then something has gone wrong with my system and it's also useful to kind of see the sort of selection criteria they are applying because that helps over a number of years to kind of refine my own selection process.

4.2 Factors influencing choice

There were five main factors that influenced the lawyers' usage of current awareness resources or what Ellis and Haugan (1997) refer to as "*the conscious orientation towards particular sources*" (p. 399). These were *situational relevance*, *presentation*, *utility* and *trustworthiness* of the content and also the *speed* of content acquisition facilitated by the resources. Each of these factors had associated properties which are summarised in table 3.

Factor/category Identified	Properties
Situational relevance	<i>For selection:</i> practice area, customer relevance, novelty, currency <i>For understanding:</i> interpretation, historical/future insight, verification potential
Utility	Ease of acquisition, findability, filterability, editability
Trustworthiness	Recommendation, respectability, authority
Presentation	Conciseness, comprehensiveness, structure
Speed	Accessibility; attainability

Table 3: Factors influencing current awareness resource use and associated properties

4.2.1 Situational relevance

'Situational relevance' refers to the "utility or usefulness of the viewed and assessed information object(s) by pointing to the relationship between such retrieved objects(s) and the work task at hand underlying the information need as perceived by the user" (Borlund, 2003, p.915). As highlighted by Schamber et al. (1990), situational relevance is both "a multidimensional cognitive concept whose meaning is largely dependent on users' perceptions of information and their own information need situations" (p. 774) and "a dynamic concept that depends on users' judgements of the quality of the relationship between information and information need at a certain point in time" (p. 774).

In the current study, perceptions of situational relevance significant to the selection of material were influenced by *practice area* and *customer relevance*, *novelty* and *currency*. Practice area relevance was important as the lawyers often wanted information tailored to the area in which they specialised (e.g. employment law, property law). Lawyers who authored current awareness content rarely changed their practice area search or filter criteria when using electronic current awareness resources as they tended to focus only on developments in their specialist area, whilst lawyers who were not involved in authoring content changed practice area options according to the area of law they were currently working on (particularly when they deemed that information on another practice area or jurisdiction might have an impact on their own).

P2, a Professional Support Lawyer (PSL), explained how a listserv prepared by an employment barrister enabled her to acquire information relevant to her practice area of employment:

P2: It will be anything of interest so it can even be an employment tribunal decision or it might be a press release which will be about something that is interesting.

The perceived *customer-relevance* of current awareness content was also important:

P4: It's a bit like a newspaper editor in that we have to go with what the majority of our customers will find interesting.

In order to assess what their customers might be interested in, the lawyers read articles from legal and non-legal websites (including those of competing legal current awareness providers). They also interacted directly with customers and with industry professionals via meetings and e-mail to obtain feedback on what current awareness information customers found useful. Industry journals, such as 'The Lawyer' were also used for finding out 'gossip' on the status of the legal profession that customers might be interested in:

P4: Everybody reads the Lawyer for gossip. Gossip is important, you know what the trends are, who's moving and shaking, who's about to open an office in Prague or something. Information is useful. There's no point in pushing to sell to a firm if they are about to split up.

The *novelty* of current awareness information was also important for influencing lawyers' perceptions of the relevance. They preferred finding original information and opted to use resources such as WebSite-Watcher that tended to provide them with more original content:

P1: The information comes to you but it comes in many forms and often duplicated so I think that's where's there is an inefficiency.

Related to this, *currency* was also particularly important; as explained by one of the lawyers, the very nature of current awareness requires information to be up-to-date:

P4: Current awareness is stuff that is still hot off the press and is still warm out of the oven.

When deciding on the situational relevance of particular information, the need to establish understanding goes hand-in-hand with the need to establish relevance. A number of properties related to the 'understandability' of content influenced perceptions of situational relevance. The first was the extent to which the content provided not just news, but an interpretation of the news; for example, online journals and the law reporting service were used by P6 (one of the lawyers involved in publishing current awareness content):

P6: We will take not news so much from journals as comment and assistance in how we evaluate the primary sources.

By providing interpretation (we think of this as a form of 'sensemaking by proxy'), current awareness resources helped the lawyers make sense of current developments and appreciate their significance as well as simply appreciating what these developments were. There was a preference for resources that expressed a useful point of view or opinion. P6, for example, read 'The Times' newspaper because it provided an insight into the wider effects of legal developments:

P6: When we look at the rest of the law supplement in the Times most of that is opinion. There we're clearly interested in the views and comments expressed. It's helpful because it doesn't feed directly into what we do but it does help us understand our assessments of the materials that we work with.

Two further factors related to 'understandability' were the extent to which the content supported access to

historical insight or insight into *future trends* in law. Being able to view and compare previous cases/legislation against new content helped the lawyers appreciate the meaning of a development. Consequently many of the lawyers performed a type of backwards chaining (Ellis, 1989) where previous cases or legislation were cited,

P4: *A new case might mention a series of previous cases and you might want to look at those to see why the judge has referred to them and what relevance they have because in writing and analysing the piece you're probably going to want to analyse the significance of the previous cases as well as the current one.*

In terms of future trends, the lawyers valued current awareness resources that provided information on emerging and future trends in court and parliament. P3 used an online Court Reporting Service (which provided instant access to judges' signed-off court reports),

P3: *The most effective shift or innovation of the last year has been the ability to talk to the court reporters and get their take on what's going on in the courts at the level not of 'what is today's decision?' but 'can we spot any discernible trend in the way the judges are deciding cases?'*

A final factor relating to 'understandability' was the extent to which the content allowed the lawyers to *verify* the effectiveness of their procedures and practices for keeping up-to-date. As part of their publishing responsibilities, they had to ensure they were aware of important developments. In practice, this meant using resources such as listservs and journals as a means of cross-checking and ensuring thoroughness. Conferences were also regarded as an opportunity to verify the effectiveness of current awareness practices, as explained by P3, a property PSL:

P3: *[Conferences] provide a really useful cross-check because if they come up with a case I dismissed or hadn't even seen then something has gone wrong with my system and it's also useful to kind of see the sort of selection criteria they are applying because that helps over a number of years to kind of refine my own selection process.*

This form of verification contrasts with the 'verifying' behaviour discussed by Ellis et al.(1993), where physical scientists reported checking their *content* for errors and omissions.

4.2.2 Presentation of content

Presentation was also identified as an important factor influencing use of current awareness resources, with this in-turn relating to conciseness, comprehensiveness and structure.

Participants expressed a preference for *concise* and *succinct* information, which could be easily read and interpreted,

P3: *Things that are too long are a problem and having to scroll through acres and acres of text to get to what you want.*

As legal content is usually word-intensive, participants preferred to read a summarised commentary. For example, P4 mentioned reading the 'All England Reporter' law report series online rather than others that carry the same cases, as the reports were well summarised:

P4: *The All England reports are easier to use in that one of our court reporters has actually gone and listened to the case and prepared a bite-size chunk (10-15 lines in print) as to what it's all about so yes, it's easy to digest the principles of the case.*

Although the lawyers preferred content that was concise and succinct, they also wanted it to be *comprehensive* in its coverage. For example, the monitoring tool WebSite-Watcher was often used because of its wide-ranging coverage. Similarly, P4 used Lexis Library (a digital law library providing wide range of cases, legislation, commentary, forms and precedents) due to the breadth and depth of the content provided:

P4: *It's a very comprehensive database and if you need any cases it would be unusual if it wasn't on Lexis Library. Some very older ones aren't there and specialist ones but everything else is.*

The lawyers also expressed a preference for content that had been carefully *structured* so as to support fast discovery and determination of relevance. Well-structured content enabled the lawyers to quickly determine how much they wanted to read, as explained by P2,

P2: What it always starts off with is a brief summary of what it is and it will either be a case report, a new piece of legislation - something odd that has happened in the employment world and it will usually contain a link to the source and then if you want to read further you can do, or that's enough.

4.2.3 Utility of content

In addition to situational relevance and presentation, utility was seen as important. Properties that influenced the perception of utility were ease of acquisition, findability (i.e. how easy it was to look for and within content), filterability (how easy it was to maximise the receipt of relevant content and minimise the receipt of irrelevant content), and editability (how easy it was to modify content for future dissemination).

'Push' technologies were used by many of the lawyers since they allowed content to be *more easily acquired* than 'pull' technologies. An example of the use of push technologies is provided by employment PSL P5, who explained how WebSite-Watcher automatically searched for updated content hourly:

P5: We have that running on an hourly basis and in employment we're monitoring in excess of 120 bookmarks now ranging across a whole variety of different websites and all WebSite-Watcher does is tells you when something has changed.

Lawyers also mentioned the ease of acquisition of information from informal contacts. Indeed, colleagues not only provide fast access to current awareness, they also act as a filter such that only information they think will be relevant is passed on. P8, who had a managerial role, relied particularly on colleagues hand-delivering information.

When passive information acquisition was not possible or feasible, the lawyers wanted to be able to look for and within content easily. Therefore its '*findability*' was important. For example, when searching for websites, P5 explained that WebSite-Watcher could locate information from multiple sites with one search, whilst P3 used the House of Lords website because content was easy to find within it:

P3: With the Lords' website I know where the weekly list of hearings and judgments is and if it's moved, as it was when there was a bit of a re-jig of the parliament website, it's easy enough to find.

The lawyers also wanted to maximise the acquisition of relevant content and minimise the amount of irrelevant content received; therefore the *filterability* of content was also important. They had few concerns about excluding important information when using electronic filters (a concern expressed by the scientists and engineers in Ellis and Haugan, 1997), perhaps due to the large amounts of information they had to deal with on a daily basis. Instead, filters were used to customise the type of current awareness information received:

P8: In terms of current awareness, it's great because I can very much customise what I want to receive on a daily basis.

Another lawyer used a filtering strategy with WebSite-Watcher in order to minimise information overload and the potential for irrelevant information,

P5: So you can filter the results to a degree so that you only get things which are genuine changes.

After acquiring information, the lawyers often wanted to modify content for future dissemination. Therefore the *editability* of content was also important. For example, P4 mentioned that lawyers could be 'more creative editorially' with a word-processed version of a piece of legislation:

P4: We'll go back now to the database that we hold behind Lexis Library for a more editor-friendly format which will mean getting a Word or RTF version of the Act which we can then go into and be more creative editorially in it.

4.2.4 Trustworthiness of content

An important factor influencing the use of current awareness resources was *trustworthiness*. Factors that influenced perceptions of the trustworthiness were whether a resource had been recommended by others and its perceived respectability and authority. For example, the employment PSL discovered an employment Professional Support Lawyer network through recommendation,

P2: It was an e-mail that a colleague knew that this was being set up and was I interested.

The lawyers also preferred content if they believed it was from a *respectable* or *authoritative* source. P7 mentioned using current awareness resources that were well-respected in the legal profession, such as a particular employment firm that was a highly-regarded LexisNexis customer. P6 also mentioned collaborating with law commissioners, who he regarded as “*highly respected academics*” in order to keep up-to-date. The lawyers in our study chose to use current awareness resources that fostered confidence. Highly related to the perceived respectability of resources is their perceived authority (or the perceived authority of the author). For example, one lawyer explained that he would be more inclined to read content from a partner than from an associate or newly qualified lawyer and explained his approach of looking at the profile of the author of a piece of current awareness content in order to decide whether to read the content itself:

P7: The first thing I did was click through to his profile to check who he was to see whether or not he was worth reading and he was a partner and so I thought and decided that this would be interesting.

Other lawyers mentioned using content from law firms that were either widely considered to be specialists in a particular practice area or considered to be at the top of the profession. This had the potential to inspire confidence in the content:

P7: It's helpful to know that it comes from a good place so you know that the article you're reading comes from a top law firm so that gives you some confidence immediately.

4.2.5. Speed of accessing content

The final factor influencing the use of current awareness resources was the extent to which the resource can offer fast access to information.

Accessing current awareness content as close to, or before the anticipated publication date was of paramount importance to the lawyers. In this regard, they utilised resources that provided information almost immediately after publication or where possible, in advance of its publication in the public domain, WebSite-Watcher was deemed as particularly useful in providing the lawyers with content in a timely fashion, as it automatically alerted the lawyers of new developments as soon as monitored websites were updated or new documents found that matched the lawyer's saved searches.

Two of the lawyers also mentioned selecting resources on the basis that they provided them with access to information not yet in the public domain,

P2: They [The European Court of Justice] send out their press releases before they put the actual judgment on the webpage so you get it marginally faster, not significantly, but maybe 1-2 hours.

Similarly P7 described how informal contacts provided him with access to a report in an area he had been monitoring before its publication in the public domain,

P7: What I suspect will happen is that someone in the dispute resolution team here will get hold of an early copy of it and circulate it.

5. Design implications

An understanding of the factors that influence lawyers' use of electronic, printed and person-based current awareness resources is important, not only for understanding lawyers' monitoring behaviour, but for the design of new or improved electronic current awareness resources. In this section, we make several recommendations based on our findings on the basis that our results delineate features of valuable monitoring resources. The five factors can be regarded as broad design requirements which electronic current awareness resources might be designed to support, whilst their associated properties can be regarded as more specific requirements which propose ways in which they can be realised. These properties can also represent evaluation criteria that can be used to assess how well a particular electronic current awareness tool supports each factor (i.e. as a framework for *evaluating the success* of resources from a user perspective). We now make recommendations for how electronic current awareness resources can support or better support the identified factors of situational relevance, presentation, utility, trustworthiness and speed and their associated properties.

Situational relevance assessments:

- One way in which electronic current awareness resources can help to ensure the situational relevance of the content they provide is by explicitly displaying the broad practice area(s) to which they apply at the top of the content in addition to keywords relating to topical relevance.
- Where content has been acquired or summarised from another source, a link to the source could be provided in order to help users establish the novelty of the content.
- To make it easier for users to discern whether or not content is current, resources might provide users with the ability to collaboratively flag content that is no longer up-to-date, so that subsequent users are made aware of this or display the date next to a link.
- Resources might also support the provision of historical insight or future trends by allowing users to display previous versions of legislation on screen, with mark-up, highlighting or annotations to indicate where changes have occurred. It is also possible to provide the case history related to a particular piece of legislation and likewise the legislation related to a particular legal case (referred to by Attfield and Blandford (2011) as the 'back-story').
- Content could support users in verifying the effectiveness of their personal monitoring system by authors providing explicit reasons for its inclusion (thereby making the selection criteria of resources such as e-newsletters transparent). This is with the aim of allowing lawyers that are new to a particular practice area (e.g. trainee lawyers who move seats at four/six monthly intervals) to acquire subject area expertise as quickly as possible – specifically, expertise on what types of content are likely to be relevant to them.

Presentation:

- The presentation of content can be supported by providing a short summary (or "speed-read") at the top of a document (summarising the main points of the document) together with the headings of the document as links allowing users to 'drill down' to read a particular section or expand the entire document to read in its entirety.
- Since the preferred structure of content is likely to be subjective amongst users, the functionality to customise the structure of displayed content (such as case reports, legislation or e-mail alerts) would allow for greater flexibility. For example, one lawyer might prefer a headnote summary to be displayed for all legal cases, followed by the case history, followed by the full-text, whilst another might prefer to see only a summary, keywords and an indication of the positive or negative treatment of the case (and to click to expand the full-text of the document). Being able to sort lengthy e-mail alerts by the date, court, source would also enhance flexibility.
- It is also possible to improve the presentation of current e-mail alerts, whilst preserving their conciseness and succinctness, by making the information provided more *comprehensive*. This might be achieved by providing a link to an author profile beside the existing summary and link to the full-text of content. It is also possible to provide lightweight user-generated content in the alert e-mail (such as ratings of the content by colleagues).

Utility:

- Electronic resources can help ensure the utility of content by making it easier to disseminate informal information, for example by setting up 'professional social networks' whereby information is disseminated through the use of real-time feeds such as those used by popular social networking sites such as Facebook and Twitter. Whilst such a system would require strict privacy rules, it is likely to make informal information easier for lawyers to acquire and save time by disseminating to several users at once. These networks might also include practice-area discussion forums, with the ability to link to an integrate content from external websites.
- Current awareness resources might also support easy search within content for particular keywords and browsing between keywords or section headings. This might be achieved by allowing users to 'jump' between headings or each instance of search terms in the text of the document, for example by clicking on a button integrated into the browser.
- 'Filterability' of content can be supported by automatically marking-up or user-tagging content to make content filters as useful as possible and minimise the chance of them failing to identify relevant content.

Trustworthiness:

- Trustworthiness judgements can be supported in electronic current awareness resources through the use of user-generated content such as the ratings functionality touched on earlier. Such functionality might allow colleagues to rate the respectability and/or authority of particular content, for example by implementing a lightweight 'star rating' system that stores user ratings and displays the average rating to subsequent users. The functionality might also be provided to allow lawyers to restrict the ratings displayed to those submitted by particular individuals or groups (e.g. colleagues working in their own department). It is also possible to facilitate the rating of individual content authors as well as content itself and to provide other user-generated content, such as content summaries.
- Trustworthiness might also be supported by providing the functionality to recommend content to individual or groups of colleagues.
- Clearly displaying the source of content can support trustworthiness judgements

Speed:

- Finally, the speed in which content can be acquired and accessed can be improved by making new content available to digital library and search engine indexes as soon as possible after publication and notifying users when new content has been added.
- It would also be useful to integrate the facility to monitor changes or updates to websites and search results into web browsers themselves, so as to allow users to be notified of changes/updates in real time without having to use a separate tool (perhaps through an unobtrusive notification message or icon).

6. Conclusion

The lawyers in our study used a variety of electronic, printed and person-based current awareness resources for maintaining an awareness of legal developments. They mostly used electronic resources to support their monitoring activities, although printed and person-based resources were also used (primarily to complement their electronic current awareness practices). They used these resources due to the situational relevance, utility, trustworthiness and presentation of the content provided and the speed in which they facilitated the acquisition of that content.

Whilst an understanding of what resources lawyers use when acquiring and interpreting current awareness content provides a useful insight into the nature of their work, it is the rich understanding of *why* lawyers use these resources that we have gained from our interviews that is most useful for informing the design of electronic information resources. This understanding not only has the potential to inform the design of new and improvement of existing electronic current awareness resources, but also the potential to identify success criteria by which these resources can be evaluated from a user-centred perspective.

Our work also illustrates the importance of gaining a detailed theoretical understanding of aspects of information behaviour - particularly those that have not been studied in detail before. Therefore a similar approach might be taken in future work to investigate monitoring behaviour in other disciplines where it is particularly important (e.g. newspaper journalism, investment management, financial services) or to investigate in detail information behaviours that are pertinent to particular domains. For example, 'verifying' was found to be an important information behaviour for physical scientists – who often needed to check their work for errors and omissions (see Ellis et al., 1993) and 'encountering' (as opposed to actively seeking) information was found to be particularly important for architects (see Makri & Warwick, 2010).

Finally, this work highlights the importance of a broader ethos; that it is useful to gain an understanding of the information needs and behaviour that are pertinent to a particular discipline as this understanding can be fed into suggestions for the design or improvement of electronic information resources aimed at better supporting these needs and behaviour. This is a user-centred ethos that recognises that a rich understanding of information behaviour can inform the design of electronic information resources that truly support their users. We hope that an enriched understanding of lawyers' monitoring behaviour will result in the development of resources that better support lawyers in 'keeping up with the law' - by encouraging developers to keep the factors that influence lawyers' choice of current awareness resources in mind during the development process.

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