

New role realities: avenues for extending the reach of information specialists^a

Presented at ASIST Annual Meeting 2006
Information Realities: Shaping the Digital Future for All
November 3-8, 2006, Hilton Austin, Austin, Texas

Hazel Hall

Senior Lecturer, School of Computing, Napier University, Edinburgh EH10 5DT, UK
h.hall@napier.ac.uk (corresponding author)

Angela Abell

Director and Senior Advisor, TFPL Ltd, 2nd Floor, Times Square, 160 Queen Victoria Street,
London EC4V 4BF, UK
angela.abell@tfpl.com

Abstract

As organizations have developed enterprise-wide electronic information environments, a diverse range of job roles has emerged at a variety of levels. Some of these roles are ear-marked for “traditional” information specialists, but many are not – and although some information specialists have moved into this kind of work, others from a variety of disciplines and backgrounds occupy many of the newly-created information-related positions. This paper reports on a project undertaken by a team of researchers from the corporate and academic sectors in the UK. The project aimed to consolidate, and strengthen, understanding of the emerging information job market, with a view to indicating how those in the “traditional” information profession may extend their occupational reach. The preliminary findings of the work, as presented here, indicate that this job market has grown due to a number of factors. Individuals who can offer skills in particular areas of work that support information delivery, in particular information architecture and content management, are well-positioned to take up the opportunities that this market offers, whether or not they hold formal information qualifications. The research approaches adopted have taken this discussion beyond the natural constituency of earlier work that predicts the nature of information profession in the digital future. This paper, which furnishes an overview of main messages from the preliminary findings of the project under discussion, will be of particular interest to those keen to explore the existing scope of work opportunities for information professionals in electronic environments, and to those whose ambitions lie in preparing for, responding to, and leading the future information world.

Introduction

The *TFPL e-information roles project* is concerned with the emerging information job market. In this context, an “e-information role” is one that is directly related to the development and application of those processes which facilitate the creation, acquisition, capture, organization, security, flow and sharing of electronic information, and has a significant element (over 50%) of information or knowledge management in its responsibility. This definition thus excludes “pure” IT roles. Similarly, business roles which require high electronic information use, but are not primarily concerned with information management or knowledge management (for example,

^a This study was supported by an industrial secondment grant awarded by the Royal Academy of Engineering to Hazel Hall in academic year 2005/6.

insurance broker, software engineer, call centre operator, data entry clerk) are beyond the remit of the definition. Job titles for roles encountered in the course of this research which fit the definition are varied, and include, amongst many others: Community Network Facilitator, Information Architect, Interactive Project Manager, Knowledge Harvester, and Virtual Conference Organizer.

There is a long tradition in the domain of information science to consider the future role of the information professional in the emerging job market-place. A number of previous studies can be cited, for example: Breen, Farragher, McQuaid, Callanan, & Burke (2002); Cronin, Stiffler & Day (1993); Morris, (2001); and Willard & Mychalyn, (1998). During the course of this work the research team became aware of *Future of librarians in the workplace*¹, a larger scale research project that focuses on workforce requirements for library workers, concurrently in progress in the US. The preliminary findings of the *TFPL e-information roles project*, as discussed in this paper, and to be developed further in more detailed work (currently under preparation), contributes to the established body of work in this domain in the tradition of the earlier studies.

This paper outlines the background and purpose of the *TFPL e-information roles project*, the methods deployed to collect and analyze data for the research, the project findings, and some of their implications.

TFPL's e-information roles project: overview of background and purpose

TFPL, an Idox PLC company, is a UK-based specialist recruitment, advisory, training, thought leadership and research services firm. Its staff work with organizations to help develop and implement knowledge and information strategies, and to recruit and train information and knowledge leaders and their teams. TFPL is well-placed to conduct research into the information job market. Its operations across the information industry give access to a large number of contacts. The firm also holds valuable internal resources - such as recruitment data and its team of experienced recruitment staff – on the information job market.

The project described in this paper, conducted in the period when Hazel Hall from Napier University was seconded to TFPL from Napier University in 2006, was conceived as a piece of internal research. It set out to address two broad aims: (1) to strengthen knowledge of the emerging information job market, and (2) to highlight areas for development in academic programs that aim to supply this market's workforce. The research team planned its work around the consideration of a number of themes:

- the extent to which the e-information job market identifiable;
- the market's drivers;
- how the market might develop;
- sectors which offer the greatest potential for growth;
- key areas in which e-information work is most evident;
- the career opportunities that this job market offers.

A number of issues of relevance to workforce supply were also identified for exploration in the study, such as employer preferences for candidates offering particular occupational backgrounds.

The e-information role project data sets

Data for analysis was gathered in six stages over a period of four months, as summarized in the table below.

Table 1. Overview of data collection for the *TFPL e-information roles project*

Set	Date	Activity	Data subjects	Geographic scope
1	March 2006	Internal (TFPL) consultations	TFPL advisors, recruitment staff, Bath Club ² members (approximately 50 people)	Series of 6 meetings held in London
2	March 2006	Analysis of job data	Details of “internal” (TFPL), externally advertised e-information jobs	Mainly UK
3	May 2006	Web-based survey	Information specialists (targeted invitations sent to 200 individuals, 42 usable responses)	Mainly UK-based
4	May 22 nd 2006	Focus group to discuss research questions	12 people	1 meeting held in Glasgow
5	May 2006	Interviews to follow-up survey responses	16 people (38% of survey respondents)	14 UK, 1 USA, 1 Germany
6	June 14 th 2006	Feedback seminar to comment on initial findings of the research	22 people	One meeting held in London

Sample selection for the e-information roles project

From conception, it was the project team’s intention to engage a wide range of information industry stakeholders in the debate around e-information roles. Thus three main³ groups of actors were consulted in the course of the research: (a) qualified, practicing information specialists; (b) experienced, but unqualified, information specialists and (c) those whose career paths had eventually led them into positions of responsibility for information and knowledge management as information specialists, but whose own professional background was in another area, such as accountancy or IT. It was important that all groups were represented in the sample of data subjects. For example, for the web-based survey much effort was devoted to creating an invitation list that would provide a pool of potential respondents from each of the three categories. This strategy was successful: in the event, over a third of survey respondents began their careers outside the domain of the “traditional” information profession. This outcome, it was hoped, would guard against the generation of introspective research findings.

Since perceptions of supply and demand in job market were sought in the study, individual targets for the web-based survey had to meet the criterion of owning some responsibility for staffing in their organizations. In addition, efforts were made so that the target group as a whole represented a range of interest across information industry sectors. It was important to ensure

that that the overall profile of respondents was balanced in terms of the representation of public and voluntary, and private organizations. In the event, the survey returns gave a 52:48 split in favor of public and voluntary sector organizations. Certain sectors within these broad classifications were, however, under-represented. This was a disappointment to the research team, especially given that some of these under-represented sectors, such as retail and higher education, are well-known for employing staff in the type of newer roles with which this research is concerned.

Participation in the Glasgow focus group on May 22nd 2006, and the London feedback session on June 14th 2006, was more open. Both events were advertised widely and, as a result, two diverse sets of participants, comprising a range of information specialists - from recent graduates to established professionals keen to discuss the themes of the project - attended the events. The facilitation style on each occasion differed. The Glasgow event was run as a tight focus group: after a brief introduction to the project, delegates were tasked with a set of time-limited exercises, each of which aligned with the project's main research questions. By the end of the session, groups had created output of their discussions in the form of charts and lists. These supported verbal feedback. The artifacts produced were subsequently used together as a data set (4) in its own right. The London feedback session, in contrast, was conducted as a seminar. By the time of this event in June 2006, detailed analysis of the first four sets of data collected for the project had been made, and, although deep analysis of the survey and interview data was not yet complete, it was possible for the project team to relate initial survey and interview findings to the audience. Thus the format of the event began with a summary of the project findings to date. This was followed by an opportunity for the delegates to comment on the findings, as well as extend the debate on the future of information work. Thus, for example, the record of the London seminar output included a list of ideas on how university programs could be aligned to produce the "right" graduates (a key aim of the research project), as well as a set of suggestions on widening the remit of the research.

It should be noted that it was possible for individuals to make more than one contribution to the research. For example, all interviewees completed the survey, and a couple of participants attended both the Bath Club consultation session in March 2006 as well as the London feedback session three months later. In total, approximately 120 individuals provided input.

The adoption of content analysis of job advertisements as a means of mapping emergent job markets is a common approach for studies of this kind (Cronin, Stiffler & Day, 1993, p. 11). This is in spite of the main drawbacks of such an approach: that only a proportion of available positions are ever advertised, and such work is extremely labor-intensive. The analysis of job data for this project focused on an audit of a total of 1937 contract and permanent posts handled by TFPL's recruitment function between September 2004 and March 2006. Further industry-specific data was gathered from the details of posts advertised in March 2006 on publicly accessible job web sites. The sources consulted ranged from general recruitment sites such as *Monster*,⁴ to specialist services for particular sectors, for example academia⁵, or web sites that advertise work across sectors for particular applications of electronic information, such as *E-consultancy*.⁶ With the output from the internal consultations and literature review work, completed concurrently in March 2006, the data gathered from the job advertisements helped scope out the requirements for the subsequent data collection exercises. The job advertisement data was particularly useful in giving an indication of the state of the e-information job market, as well as employer expectations of the available workforce. The inclusion of a wide-range of sources from which to source job details matched with the goal of extending the research beyond the natural "habitat" of the information profession.

Data analysis

The data collected from data sets 1, 3 and 4 were analyzed manually. In each case mainly qualitative data, such as participant ideas recorded as conversation or contributions to flip chart records of discussions, were “coded up” (Fielding, 2001, p. 236). Consideration of the codes devised alongside detail from literature review work led to the development of a coding scaffold to which the findings of all three data sets could be attached. Strong messages from data sets 1-4 were brought together graphically in a series of mind maps. These summarized the key areas in which e-information roles are evident, the nature of the e-information role job market, how e-information roles are filled and e-information role job titles.

The survey data were captured from the 5-page web returns in a large Excel file. Smaller sets of these data were created in further Excel files for the purposes of data analysis, to which summarized interview data were added. Straightforward quantitative analysis was deployed for the responses to closed answer questions, for example where the respondents were asked to rate the importance of particular industry drivers. In the cases where it was possible to provide free text answers on the survey, and where interviewees had made significant comments of interest to the research aims, a two stage process of data analysis was necessary. First, consideration a classification scheme of responses was devised on the basis of the full data set for that particular question. Then respondent data were entered into a new spreadsheet accordingly. With the data ordered in this way it was possible to conduct quantitative analysis of some of the free text responses. Analysis of the survey and interview data was made first at the level of the whole population, and at then at the level of the (1) public and voluntary, and (2) private sector responses. (The quantity of returns, and the uneven organization representation, meant that it was not appropriate to attempt to draw conclusions at the level of industry sector.)

The nature of the e-information job market

The audit of job advertisements gave a feel for the nature of the e-information role job market. It can be argued that such a market, although diffuse, exists. It is developed to the extent that employers ask for job candidates to demonstrate previous experience in specific, or similar, roles to those advertised. The market exhibits particular “flavors” of e-information work opportunities. For example, advertised posts reviewed for this research in industries such as engineering and construction focus on project management and managing electronic documents associated with projects; in higher education they are concerned with e-learning initiatives; in the health and pharmaceutical industries they often centre on data management for the purpose of activities such as pharmacovigilance. Survey data also gave an indication of the job market. Even in large organizations⁷, however, few job roles match up with the definition of “e-information role”, as determined by this study: 64% of survey/interview respondents estimated the proportion of e-information roles in their own organizations was less than 11%. Survey responses also gave an indication of the “health” of the market: 41% stated that the levels of employment in e-information roles in their organizations had been stable of the past 18 months, and 46% said they had risen in the same period.

As part of the survey, respondents were asked to give examples of roles from their own organizations which fitted with the project definition of an e-information role. They were also required to mark any sample roles which had been created in the previous 18 months. The highest proportion of role categories identified as offering newly-created posts were related to: the management of staff who collaborate in online environments; information governance; the

promotion and exploitation of electronic content; and information analysis. A significant proportion cited as new roles that encompass project management, information architecture and supporting end users. These data were compared with the findings from the audit of job advertisements. Roles carrying the primary function of information analysis, project management, and information architecture also featured prominently in the extracted job advertisement data, suggesting that it is in these areas that the recent growth in e-information job market is most evident. Public and voluntary sector survey/interview respondents identified more e-information roles than those from the private sector. This may indicate that the market in the public and voluntary sector is more buoyant than in the private sector. (This finding needs to be treated with caution, however. There may be other explanations for this, unrelated to the state of the job market.)

Primary functions of current e-information roles

Across data sets 1,2 and 4 the priority e-information job function was identified as the provision of access to electronic information, for example in work on portal development, combined with end-user support in the deployment of electronic information systems. Survey/interview respondents also provided examples of roles whose primary function was concerned with each of these types of work: 38% of respondents mentioned access roles, and 21% roles that focused on end-user support.

However, other role functions appeared to be more prominent within the organizations of the survey/interview respondents. Large proportions of the respondents alluded to roles concerned with the acquisition and collection management of electronic resources (62%), editing electronic content (50%), information governance (48%), information analysis (31%) and the creation/origination of electronic content (31%). As might be anticipated, analysis by sector gave clear distinctions for certain role categories. For example, 73% of public and voluntary sector respondents provided details of roles primarily concerned with information governance, whereas just 20% of private sector respondents did so. (This can be explained in the context of recent UK information governance legislation to which public sector organizations are subject, such as the Freedom of Information Acts, which came into force on January 1st 2005.) There would appear to be greater scope for “creative” electronic information work in the private sector: 40% of private sector survey/interview respondents identified roles that fell under the job function category of creating and originating electronic information content. In contrast, just 23% public and voluntary sector respondents provided details of roles which encompass these activities, and they also reported higher proportions than the private sector respondents of roles that involved the editing, organizing and publishing electronic information content.

The future e-information roles job market

Crosby has noted that “most new types of work result from a combination of factors” (2002, p.18). This research attempted to determine the value of particular factors relevant to this job market. As anticipated, when asked about drivers of the e-information market place, a large majority of survey/interview respondents (86%) rated changes in technology developments as important. A public sector interviewee provided an illustration of how a new technology implementation can have a strong effect within an individual organization. When an electronic document records management system was adopted in the government agency where she worked, a large number of new e-information roles were created. This was because the organization was forced to consider issues such as file-plan development, taxonomies,

metadata standards and template design. A number of private sector survey/interview respondents cited client expectations for extensive, integrated, personalized information delivery to the desk-top (the “Google effect”, also identified by members of data set 1) as an e-information role job market driver related to technology.

Analysis of driver ranking data by sector revealed that technology change was not actually the top driver for each sector under consideration in this analysis. It was considered the most important driver in the private sector environment. However, public and voluntary sector respondents believed that meeting government targets - the UK efficiency agenda, moves for UK government work to be relocated outside London, and *transformational government* initiative to deliver services to UK citizens electronically – was of more significance, as was new legislation. Further “local” differences were observed with regards to the attention paid to globalization, a driver that featured much in the earlier data sets for the study. Whereas 60% of private sector respondents ranked this driver as important, and second to technology change in terms of its impact, just 9% of public and voluntary sector respondents believed it to be of great relevance. This finding was explained by examining the data collected on organizational operations: the vast majority of private sector organizations represented in the survey operate globally, whereas the majority of public and voluntary sector organizations under review operate at national or local level.

A further important driver identified in the course of the research, in particular by the Glasgow focus group members (data set 4) as well the survey/interview respondents, was the drive to greater efficiency and/or profitability within organizations. E-information roles are emerging in response to the need to support workers in their endeavors to increase organizational efficiency/profitability, and to produce the evidence of their level of achievement.

Desires to move to more frequent online collaborative working were identified early in the research as a potential driver in the creation of e-information roles. This issue was important to data sets 1 and 4, but not to survey/interview respondents, even though roles dedicated to the management of staff who collaborate in online environments proved to be amongst the “newest” identified in the survey/interview respondents’ organizations. It is suggested here that perhaps the impact of this driver is yet to be made obvious, but may become so in the future.

Two types of e-information role appear to offer the greatest number of work opportunities in the near future: information architecture and content management (for example, enterprise content management, web content management). These were mentioned frequently in the course of the research. One survey/interview respondent from a government agency, for example, complained of the difficulties posed by the current scarcity of information architects. Almost certainly due to the failure of representatives from mainstream education to participate in the survey and interviews, the potential of e-learning per se – which featured prominently as an important e-information role function in data sets 1, 2 and 4 – to offer career opportunity was not explored by survey/interview respondents. However, they did identify teaching, training and the support of learning activities as an area for future growth.

Again, there were differences across sectors with regards to the survey data analyzed to make predictions about the future of e-information roles. Whilst information delivery is important to both public and voluntary, and private sectors, public and voluntary sector respondents exhibited a clearer vision of particular applications of new information delivery roles. For example, they spoke of supporting online services for citizens along the lines of e-commerce transactions, and the possibilities of information delivery to different consumer platforms, such as hand-held devices.

Extending the reach: “traditional” information specialists and e-information roles

In the course of this study there was no evidence to suggest that those with a “traditional” background in information management would be automatically excluded from taking up the opportunities offered by any of the e-information roles encountered. However, it was clear that, for people already in the work-place, a range of skills will be most in demand in the future. These include core information management skills, especially those related to building information architectures and that support content management in public and voluntary sector organizations, plus general IT literacy,. Other core personal attributes, such as good communication skills are also desirable. The following survey comment illustrates the requirements:

"While skills in e-information specific areas can be important, especially for specialized roles such as web development, more general management, team-working and interpersonal skills - which are common to many jobs - are vital in e-information roles. Especially important are skills in engaging with stakeholders effectively to understand e-information problems fully. E-information roles may involve playing a role in facilitating an IT-enabled business change where skills in facilitation, persuasion, influencing and problem solving are vital."

It is worth pointing out here that participants for data set 6, who were not made aware of these rankings of future skills requirements when they attended the London feedback seminar, gave an identical set of rankings when the conversation turned to identifying current skills gaps in new graduates. It is clearly an issue of concern if qualities which a potential workforce lacks are identical to the actual requirements for future posts.

An examination of future skills requirements across sectors, as identified by the survey/interview respondents, points to some interesting findings. The relative ranking of future skills sets shows that private sector respondents gave a top rating to core information management skills, then equal weighting to business skills (such as training, marketing, facilitating), personal attributes (such as confidence, flexibility and enthusiasm) and basic skills for the work-place (such as literacy, numeracy, problem solving and time management). Coding up and counting the public sector responses revealed a greater distinction between each set of skills in the rankings. This perhaps indicates a greater need for “all-rounders” for e-information roles in the private sector.

Certain skills combinations appear to be in demand, and where this can not be met, there will be opportunities for those who are willing to learn on the job. For example, project management features in a number of the job advertisements audited, and was identified as a relevant work area by the public and voluntary sector survey/interview respondents. One respondent explained that the paucity of project managers who could offer information management or electronic publishing - a resource deemed highly valuable experience - meant that such roles could be taken on by librarians.

Previous studies of this nature have shown that employers have a preference for new entrants to the profession who have an interest in business, or experience of business (Cronin, Stiffler & Day, 1993, p. 9). When questioned about new graduates and their skills, the survey/interview respondents for the TFPL research were most concerned about the lack of business skills offered by new hires. These were prioritized above core information management skills (ranked second) and basic work skills (ranked third). This finding is in contrast with the message of the data collected at the London feedback event, as mentioned above. The difference in opinion

may be explained by the way that data subjects were questioned on the skills of new graduates. Survey/interview respondents may well have taken a straightforward approach to reporting on this issue, stating what might be deemed obvious by most: new graduates do not have developed skills in a number of business applications because they simply have not yet had enough experience in order to become proficient at, for example, customer relationship management or interviewing for new staff. In contrast, in the “conversational” setting of the London feedback event, data subjects accepted as a given the lack of such business skills amongst new graduates, and focused more readily on readiness of the members of the new workforce to slot into an e-information role.

As well as considering the suitability of those with “traditional” information management qualifications for e-information roles, this research was interested in identifying other professional groups who supply the market with job candidates. Most frequently cited were IT, publishing and communications professionals amongst others, thus confirming the conclusions of previous studies that information work is not owned by any particular occupational group (Cronin, Stiffler & Day, 1993; Crosby, 2002, p. 22; Jassin, 2005, p. 22; Nicholle, 2004, p. 21). One public sector survey/interview respondent complained that he could not interest people with library backgrounds in the new e-information roles, so filled the posts with records management and policy staff instead. Another said in his organization many of his e-information employees came into their posts through the web development route. The low profile of traditional information workers, and their failure to promote the value that they add to meeting organizational objectives, were seen as barriers to their appointment to e-information roles in the future. The “unique” skills of librarians, so often cited (for example, Materska, 2004; Nicholle, 2004) are not so special that they guarantee jobs in this domain.

Survey findings on the value of formal qualifications in information management are more encouraging. Taken together, the respondents rated a degree or postgraduate qualification in a subject such as Library and Information Studies, or Information Science as more relevant preparation for e-information roles, than a business (ranked second) or computing qualification (ranked third). The general feeling was demonstrated by comments such as:

“Information management must be a core qualification... if [the e-information in question] encompasses information governance, information architecture, business needs analysis. Computing skills should be delegated to appropriate staff and used as required to support e-information managers.”

Separate analysis of public and voluntary sector, and private sector, qualification rankings, however, showed that private sector respondents actually ranked business qualifications higher. A number of reasons was offered for this, including the need for a “business background... to get the confidence of senior management”, and because it is easier to train a industry specialist in information management techniques on the job, than to train an information manager in an industry specialism. There was almost universal agreement that a computing qualification alone was not sufficient preparation for an e-information post. A survey/interview respondent said:

“Some e-information roles require a strong customer focus and a service orientated approach - this is sometimes lacking - particularly in those with a computing background.”

The data on qualification preferences was analyzed separately to check whether they matched individuals’ own backgrounds, for example to see whether those in group (a) favored candidates

who were qualified in information management. This exercise showed that those in groups (b) and (c) actually tended to value information management qualifications more highly.

Conclusions: the market, market makers, demand and supply

This research has established that there is an “e-information” job market. A number of drivers contribute to an increase e-information work in “traditional” information roles, as well as the creation of new employment opportunities. The most important of these, as perceived across the range of organizational sectors, is the development of new technologies. This, in combination with other forces, is fuelling a need for e-information professionals, notably skilled information architects and content managers, who know how to deliver information for particular applications, such as e-learning or e-commerce-style government services, to a public that is familiar with the convenience of the services offered by Google and Amazon. Employers are willing to consider candidates from a wide range of backgrounds in their quest to appoint the right people. It is clear that this market place is not owned by any particular professional group. “Traditional” information professionals compete with others from domains, and whilst the contribution of their background and training is valued in some quarters, this does not guarantee employment. An understanding of the priorities of the current and emerging e-information job market, as outlined in this paper, may help information specialists extend their professional reach by identifying where new opportunities are likely to emerge, the nature of e-information role in two broad sectors, and the skills sets required for the posts. For those in positions related to training or workforce planning, this work has practical implications, not least those involved in designing university curricula or professional development programs. Further work on the themes discussed here, undertaken with reference to other research conducted by TFPL, is expected to lead to the development of a framework of current and emerging roles in e-information work.

Acknowledgments

The authors would like to acknowledge Belinda Blaswick, Darron Chapman and Val Skelton of TFPL for their contributions to this study.

References

- Breen, C., Farragher, A., McQuaid, M., Callanan, M., & Burke, M.A. (2002). New information management opportunities in a changing world. *Library Review*, 51(3/4), 127-138.
- Cronin, B., Stiffler, M., & Day, D. (1993). The emergent market for information professionals: educational opportunities and implications. *Library Trends*, 42(2), 257-277.
- Crosby, O. (2002). New and emerging occupations. *Occupational Outlook Quarterly*, 46(3), 16-25.
- Fielding, J. (2001). Coding and managing data. In N. Gilbert (Ed.), *Researching social life* (2nd ed., pp. 227-251). London: Sage.
- Jassin, M. (2005). The flat track to new career opportunities for information professionals. *Online*, 29(5), 22-24.

Materska, K. (2004). Librarians in the knowledge age. *New Library World*, 105 (1198/1199), 142-148.

Morris, A. (2001). Knowledge management: opportunities for LIS graduates. Paper presented at *Libraries and librarians: making a difference in the knowledge age, 67th IFLA Council and General Conference*. Retrieved February 22, 2006 from <http://ifla.org/IV/ifla67/papers/015-115ae.pdf>.

Nicolle, L. (2004). Evolution of the corporate librarian. *Managing Information and Documents*, (October), 20-22.

Willard, P. & Mychalyn, J. (1998). New information management work in a changing world: an Australian survey. *International Journal of Information Management*, 18(5), 315-327.

¹ <http://libraryworkforce.org>

² The Bath Club is a TFPL-hosted, invitation-only networking group for public sector knowledge and information strategists, a large number of whom are not

³ Those involved in the internal consultations included information industry stakeholders who cannot be classed as information specialists, for example, recruitment consultants.

⁴ <http://www.monster.co.uk>

⁵ <http://www.jobs.ac.uk>

⁶ <http://www.e-consultancy.com/jobs/>

⁷ The majority (97%) of survey/interview respondents work in organizations that employ over a hundred staff, and 51% of them in organizations where over a thousand people are employed.