

Who is managing information? Opportunities in the e-information market place

Hazel Hall¹

School of Computing, Napier University, Edinburgh, UK

Angela Abell

TFPL Ltd, London, UK

TFPL's e-information roles project

This paper presents a summary of results that derive from research into the emerging information job market. The project was conducted by TFPL between February and June 2006, and focused on "e-information roles". E-information roles are defined as roles that are (1) directly related to the creation, use and management of electronic information, and (2) comprise at least 50% information management or knowledge management in their responsibility. It became evident in the course of the work that job titles for positions that fit the criteria of an e-information role are diverse, as illustrated in Table 1:

Table 1: E-information role job titles

Business analyst	Digital records preservationist	Librarian
Cataloguer	E-learning facilitator	Portal manager
Coach	Freedom of information officer	Researcher
Community and network facilitator	Informatics officer	Statistician
Competitive intelligence officer	Information architect	Taxonomist
Compliance officer	Information officer	Technical writer
Data steward	Information scientist	Trainer
Database designer	Interactive project manager	Usability expert
Digital project manager	Intranet editor	Virtual conference organiser
	Knowledge harvester	Web content manager

The broad aims of the project were: to assess the nature of the e-information job market; to establish the extent to which this market is identifiable; to identify the major drivers for the creation of new e-information roles; and to highlight the sectors which offer greatest opportunity for e-information employment growth. The work was also concerned with how such roles might be filled: the backgrounds of individuals selected by employers to perform e-information roles, and the means by which universities might prepare graduates for such employment.

A further development from the project was the creation of a "framework" of e-information roles. The framework will help organisations identify the roles/functions needed to maintain a healthy e-information environment; plan relevant development and training programmes; and attract talented staff into their workforce.

Data collection

Approximately 120 individuals had input to the e-information roles project over its five month duration. Six data sets were collected in total, as summarised in Table 2 below.

¹ From February to July 2006, Hazel Hall was seconded to TFPL, supported by an Industrial Secondment Grant awarded by the Royal Academy of Engineering.

Table 2: Data sets for the 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	Analyses of job data	Details of 1937 “internal” (TFPL) e-information jobs, complemented by a sample of 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

Participants in the survey, interviews and focus groups comprised individuals with a mix of backgrounds, including, but not exclusively, “traditional” information backgrounds. They were considered as three groups: (1) qualified, practising information professionals; (2) experienced, but unqualified, information specialists; and (3) other stakeholders in the e-information job market whose professional “home” was not information/knowledge management. It was important that all groups were represented in the research to guard against introspective research findings. There was particularly good representation of groups 2 and 3 in the internal consultation phase of the project, and one third of the web-based survey respondents were from groups 2 and 3. It was also important to consider a range of industry stakeholders in the analyses of job data. For these exercises, the details of 1937 job placements handled by TFPL in the period September 2004-March 2006 were examined. In addition, a number of external job adverts, which were “live” in March 2006, provided part of the job advert data set. The job adverts analysed were found on general recruitment sites such as www.monster.co.uk, sector-specific sites such as www.jobs.ac.uk, and application-specific sites such as www.e-consultancy.com/jobs.

The nature of the e-information roles market

The research findings indicate that the e-information role market place is diffuse. It is developed to the extent that organisations expect to be able to employ new recruits who are experienced. Further evidence of its development is that the majority of web-based survey respondents in the study indicated that in the past eighteen months the number of e-information roles in their own organisations had grown (46%) or stabilised (41%). Individual sectors exhibit particular “flavours” of e-information work. For example, e-information roles in industries such as engineering and construction focus on project

² The Bath Club is a TFPL-hosted, invitation-only networking group for public sector knowledge and information strategists.

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. There has been recent growth in roles for information analysts, information architects and project managers. The research indicated that recent opportunities appear to be more prevalent in the public and voluntary sectors than in the private sector. This is possibly because e-information roles in the private sector are longer-established. As far as current e-information roles are concerned, their main job functions fall into seven main areas of work: (1) acquisition and collection management of electronic resources; (2) editing electronic content; (3) information governance; (4) provision of access to electronic information content (for example, portal development); (5) information analysis; (6) creation or origination of electronic information content and (7) end-user support in the use of electronic resources. Analysis of current e-information job function by sector shows differences in emphasis. For example, information governance is a priority in public sector and voluntary organisations, and here there is less scope for “creative” work related to electronic information: larger proportions of the roles in the public and voluntary sectors are concerned with editing, organising and publishing - rather than actively creating - electronic resources.

Drivers of the e-information roles market

The survey respondents identified the most important drivers of the e-information job market as (1) technological developments; (2) government targets; (3) new legislation and (4) globalisation. Participants in data sets 1 and 4 also highlighted moves to online collaborative working, and data set 1 also referred to the need to support and/or measure efficiency and profitability within organisations. Again, it is possible to see different patterns of interest across the two main sector divisions. For example, public and voluntary sector participants felt that the need for e-information roles was driven primarily by government targets ahead of new legislation and technological developments.

Opportunities and skills requirement for e-information roles

Web-based survey respondents were asked to identify where they believed the greatest opportunities lie in e-information work. Three key areas were highlighted: information architecture (already noted above as prominent as a recent growth area and current job function); content management (also a prominent job function) and teaching, training and the support of learning activities (also specified in data sets 1, 2 and 4). The desirable skills set for e-information work comprises core information management skills (especially those related to the building of information architectures and content management); general IT literacy; and core personal attributes (such as flexibility, confidence and enthusiasm). Certain skills combinations are particularly in demand, such as project management with an awareness of electronic publishing, or of information management. An analysis of skills requirements by sector demonstrated that the public and voluntary sector survey respondents were more likely to make greater distinctions across skills sets than those from the private sector. This may indicate that the private sector has a greater need for all-rounders in the workplace. It is of some concern that this research revealed that the skills *gaps* observed in new graduates matched the skills *requirements* of the market place.

Who is managing information?

E-information roles can be filled by staff from a range of professional backgrounds, such as information management, information technology, communications and publishing. It is certainly not the case that a single professional group can claim the e-information role market as their own. Whilst the survey respondents taken as a whole valued formal qualifications in information management above qualifications in computing or business

subjects, and thus appeared to indicate a preference for offering e-information posts to “traditional” information professionals, there was evidence to suggest that it was difficult to attract such people to these roles. For example, one interviewee complained that he could not persuade library staff to apply for internal appointments which eventually went to others from his organisation’s records management and policy functions. Further barriers to the traditionally qualified moving into this kind of work include low professional profile and a failure on the part of individuals to demonstrate how they add value to organisational objectives.

Opportunities in the e-information market place

This work uncovered a number of career opportunities in the e-information market place. There is much variety of work in the roles on offer, particularly in the private sector where all-rounders are sought for roles that extend beyond traditional information delivery. Expertise in information architecture, content management, and teaching and training in support of learning are in particular demand, with most opportunities currently available in the public and voluntary sectors. Those hoping to move into such roles need to be aware that the opportunities are advertised over a range of media, and that they should look beyond job titles to establish whether their background, talents and aptitudes match the specifics of the posts on offer. Traditional information professionals must be conscious of the competition from others from beyond their occupational domain, and be prepared to demonstrate explicitly that their training, experience and skills position them well for the roles advertised. It is also important for individuals to develop the desirable skills sets and maintain familiarity with “hot topics” of concern to target employers to ensure the widest set of options for future employability.

The research also has implications for organisations such as professional bodies, training organisations and universities. There is a need for enhanced training provision in the three areas of activity identified above (information architecture, content management, and teaching and training in support of learning). It is important that there are opportunities for individuals to be able to develop their core information management skills, basic skills for the work place (in particular IT literacy) and core personal attributes. This is of particular relevance to the new graduate population, and thus the universities which offer courses in information and knowledge management.

Related publications and the development of an e-information roles framework

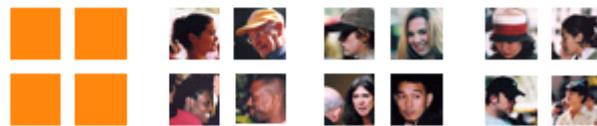
This work has provided an overview of the findings of the e-information roles project. Fuller details of the methods deployed and the research results are available in a research-oriented paper prepared for ASIST 2006 (Hall & Abell, 2006). TFPL has been able to use these research findings in combination with insight from other work completed in 2006 to write a white paper on the e-information job market, and devise a framework for e-information roles. An article based on the white paper is due to be published in the next issue of *Business Information Review* (Abell, Chapman, Phillips, Stewart & Ward, 2006).

References

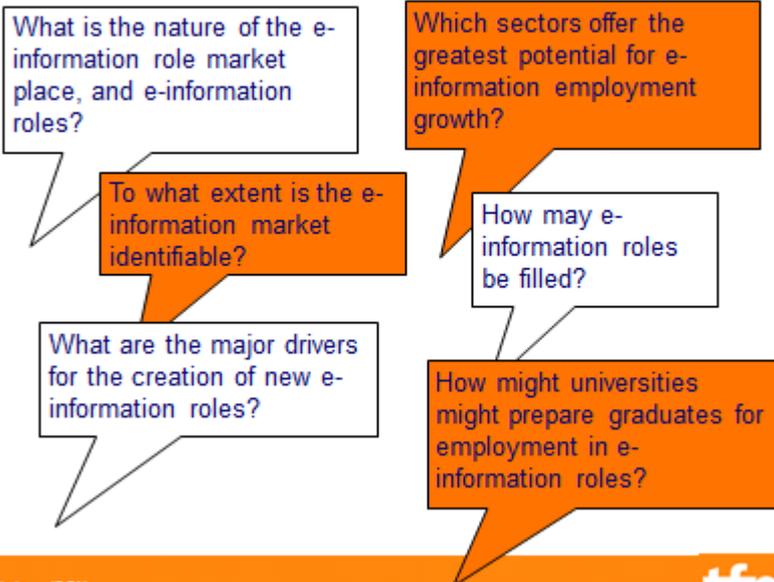
- Abell, A., Chapman, D., Phillips, P., Stewart, H., & Ward, S. (2006). Roles in the e-landscape: who is managing information? *Business Information Review*, 23(4).
- Hall, H, & Abell, A. (2006). New role realities: avenues for extending the reach of information specialists. *American Society of Information Science and Technology Annual Conference*, November 3-8, Austin, Texas.

Who is managing information? Opportunities in the e-information market place

Hazel Hall
Angela Abell



Broad research questions



“E-information role” criteria



▶ Roles are

- ▶ Directly related to the development and application of those processes which facilitate the creation, acquisition, capture, organisation, security, flow and sharing of electronic information.

and

- ▶ With a significant element (50%+) of knowledge or information management in their responsibility

TFPL is an IDOX company



E-information role sample job titles



Business analyst Cataloguer Coach Community and network facilitator Competitive intelligence officer Compliance officer Data steward Database designer Digital project manager Digital records preservationist E-learning facilitator Freedom of information officer Informatics officer Information architect Information officer Information scientist Interactive project manager Intranet editor Knowledge harvester Librarian Portal manager Researcher Statistician Taxonomist Technical writer Trainer Usability expert Virtual conference organiser Web content manager Web project manager

TFPL is an IDOX company



Data collected March-June 2006



Set	Date	Activity	Data subjects	Scope
1	March	Internal (TFPL) consultations	TFPL advisors, recruitment staff, Bath Club (~28)	Series of 6 meetings held in London
2	March	Analysis of job data	"Internal" & external job ads	Mainly UK
3	May	Web-based survey	Information specialists (42)	Mainly UK
4	May 22	Focus group	Information specialists (12)	Glasgow
5	May	Interviews	Sub-set of survey respondents (16)	14 UK, 1 USA, 1 Germany
6	June 14	Feedback seminar	Information specialists (22)	London

TFPL is an IDOX company



Sampling - range of industry stakeholders 1



▸ Sample targets

- Qualified, practising information specialists (group 1)
- Experienced, but unqualified information specialists (group 2)
- Other stakeholders whose professional "home" was not IM/KM (group 3)

▸ Representation

- Particularly good representation of groups 2 and 3 in internal consultation phase
- Over a third of survey respondents from groups 2 and 3

TFPL is an IDOX company



Sampling - range of industry stakeholders 2



- ▶ Internal job advertisements
 - ▶ 1937 roles handled by TFPL September 2004-March 2006
- ▶ External job advertisements
 - ▶ General recruitment sites, e.g. www.monster.co.uk
 - ▶ Sector specific sites, e.g. www.jobs.ac.uk
 - ▶ Application-specific sites, e.g. www.e-consultancy.com/jobs
- ▶ Representation
 - ▶ Beyond “traditional” information work

TFPL is an IDOX company



Nature of the e-information job market



- ▶ Diffuse: “like trying to grasp smoke”
- ▶ Developed
 - ▶ Employer requests for experience
 - ▶ Survey respondents - 41% roles stable, 46% - roles increased in past 18 months
- ▶ Flavours - examples
 - ▶ Engineering and construction - management of electronic documents associated with projects
 - ▶ Higher education - support of e-learning
- ▶ Recent growth areas
 - ▶ Information analysis
 - ▶ Project management
 - ▶ Information architecture
 - ▶ Most opportunity in public and voluntary sector organisations?

TFPL is an IDOX company



Functions of current e-information roles



- ▶ Acquisition and collection management of electronic resources (62%)
- ▶ Editing electronic content (50%)
- ▶ Information governance (48%)
- ▶ Provision of access to electronic information content, e.g. portal development (38%)
- ▶ Information analysis (31%)
- ▶ Creation/origination of electronic content (31%)
- ▶ End-user support in the use of electronic resources (21%)

TFPL is an IDOX company



Function focus across sectors - examples



- ▶ Information governance
 - ▶ Public and voluntary sector 73%
 - ▶ Private sector 20%
- ▶ Creating and originating electronic content
 - ▶ 40% of private sector respondents identified “creative” roles
 - ▶ 23% of public and voluntary sector respondents identified “creative” roles
 - ▶ Private sector responses - lower proportions of roles that encompass
 - ▶ Editing
 - ▶ Organising
 - ▶ Publishing

TFPL is an IDOX company



Technology drives the e-information job market



▸ Drivers acknowledged as important (ranked)

1. Technological developments
2. Government targets
3. New legislation
4. Globalisation

▸ Also:

- Need to support/measure efficiency/profitability (data set 4)
- Move to online collaborative work (data sets 1 & 4)

TFPL is an IDOX company



Drivers of the future e-information job market



▸ Public & voluntary sector drivers

1. Government targets
 - Efficiency agenda
 - Relocation from London
 - Transformational government
2. New legislation
3. Technological developments

▸ Private sector drivers

1. Technological developments
2. Globalisation
 - Majority of private sector respondents from organisations that operate globally
3. New legislation

TFPL is an IDOX company



Drivers of the future e-information job market



- ▶ Public & voluntary sector drivers
 - 1. Government targets
 - ▶ Efficiency agenda
 - ▶ Relocation from London
 - ▶ Transformational government
 - 2. New legislation
 - 3. Technological developments
- ▶ Private sector drivers
 - 1. Technological developments
 - 2. Globalisation
 - ▶ Majority of private sector respondents from organisations that operate globally
 - 3. New legislation

TFPL is an IDOX company



Skills requirements for e-information work - all sectors



- ▶ A range of skills is required
 - ▶ Core information management skills - especially those relevant to building information architectures & managing content
 - ▶ General IT literacy
 - ▶ Core personal attributes
 - ▶ e.g. flexibility, confidence, enthusiasm
 - ▶ Certain skills combinations in demand
 - ▶ e.g. project management plus awareness of electronic publishing/IM

TFPL is an IDOX company



Skills requirements for e-information work - survey results by sector



- ▶ Public & voluntary sector: skills required
 - ▶ Ranked 1st
 - ▶ Core IM skills
 - ▶ Ranked 2nd and 3rd
 - ▶ Business skills
 - ▶ Personal attributes
 - ▶ Equal ranking
 - ▶ Business attributes
 - ▶ Basic skills for the work place
- ▶ Private sector: skills required
 - ▶ Ranked 1st
 - ▶ Core IM skills
 - ▶ Equal ranking
 - ▶ Business skills
 - ▶ Personal attributes
 - ▶ Basic skills for the work place

Greater need for all-rounders in private sector

TFPL is an IDOX company



New graduate skills gaps



- ▶ Survey data rankings
 1. Business skills
 2. Core IM skills
 3. Basic skills for the work place
 4. Core personal attributes
- ▶ Data set 6 rankings
 1. Core IM skills
 2. Basic skills for the work place, notably IT literacy
 3. Core personal attributes

TFPL is an IDOX company



New graduate skills gaps



- ▶ Survey data rankings
 1. Business skills
 2. Core IM skills
 3. Basic skills for the work place
 4. Core personal attributes

Level of expectation? Can new graduates really be expected to offer skills such as customer relationship management, interviewing, training etc?

- ▶ Data set 6 rankings
 1. Core IM skills
 2. Basic skills for the work place, notably IT literacy
 3. Core personal attributes

TFPL is an IDOX company



New graduate skills gaps



- ▶ Survey data rankings
 1. Business skills
 2. Core IM skills
 3. Basic skills for the work place
 4. Core personal attributes

Cause for concern: the skills gaps in new graduates map on to the skills requirements for e-information work

- ▶ Data set 6 rankings
 1. Core IM skills
 2. Basic skills for the work place, notably IT literacy
 3. Core personal attributes

TFPL is an IDOX company



Who is managing information?



- ▶ Range of professional backgrounds suitable
 - ▶ IM, IT, Publishing, Communications
 - ▶ Not “owned” by any professional group
- ▶ Examples from interviews
 - ▶ RM & policy staff appointed to e-information roles where library staff showed no interest
 - ▶ E-information roles filled by employees whose career have taken them through a web development route
 - ▶ Low profile of “traditional” information workers, and their failure to demonstrate role in adding value in meeting organisational objectives, seen as barriers to their filling e-information role vacancies

TFPL is an IDOX company



“Traditional” information workers and the job market



- ▶ Qualifications in IM valued
 - ▶ IM qualification ranked as most desirable overall by survey respondents (especially those from non-IM backgrounds)
 1. IM
 2. Business
 3. Computing
 - ▶ “Librarians” unlikely to be in post, or sought
- ▶ Private sector priorities
 - ▶ Business qualification ranked as most desirable overall by private sector respondents
 - ▶ “To get the confidence of senior management”
 - ▶ Ease of training an industry specialist in IM in contrast to training an IM specialist in an industry specialism

TFPL is an IDOX company



Key messages for individuals 1



▶ Career opportunities

- ▶ Variety in roles, especially in private sector where all-rounders are sought for roles that extend beyond traditional information delivery
- ▶ Particular areas of expertise in demand
 - ▶ Information architecture
 - ▶ Content management
 - ▶ Teaching/training and support of learning
- ▶ More work currently available in public & voluntary sector?

TFPL is an IDOX company



Key messages for individuals 2



▶ E-information role candidates

- ▶ Seek out opportunities advertised across a range of media
- ▶ Look beyond job titles to identify e-information role opportunity
- ▶ Recognise competition for jobs from others with “non-traditional” information backgrounds
- ▶ Keep up to date with “hot topics” of concern to target employers
- ▶ Develop desirable skills sets
- ▶ Provide clear demonstrations of suitability in applications for posts

TFPL is an IDOX company



Key messages for bodies



- ▶ Need for training provision in particular applications of e-information work
 - ▶ Content management
 - ▶ Information architecture
 - ▶ Teaching/training and support of learning

- ▶ Need for development of skills, especially in new graduate population
 - ▶ Core IM skills
 - ▶ Basic skills for the work place, especially IT literacy
 - ▶ Core personal attributes

TFPL is an IDOX company



For further information please contact



Hazel Hall, Napier University, Edinburgh
h.hall@napier.ac.uk

Angela Abell, TFPL, London
angela.abell@tfpl.com

TFPL is an IDOX company

