

Enterprise and acumen: real world information skills and employability for business graduates

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Abstract:

Academic librarians see a significant part of their role to be supporting students to develop information literacy (IL) skills. These are generally viewed as essential graduate attributes for professional competence and lifelong learning. However, does our notion of IL match the needs of our graduates in the real world workplace? At Western Sydney University a new Bachelor of Business course started in 2016 with a focus on 'enterprise' and the contemporary Australian business environment. The Library saw this as an opportunity to improve support for the School of Business by reviewing our IL practice and further integrating IL into the curriculum, informed by research into IL in the workplace. Our project 'Information Literacy and Employability...' explores which IL skills are of practical value to newly graduating students in the workplace and of greatest value to their employers. We aim to do this by interviewing twelve individuals with experience of supervising recent graduates within the workplace and twelve working graduates.

Introduction

An internal review of information literacy (IL) programs conducted by Western Sydney University Library suggested that an increased focus on the competencies required for professional success after graduation would be beneficial. Library staff were concerned that there was too narrow a focus on academic information skills in our programs. The aim of this research project is to identify specific information tools, techniques and processes used in business workplaces in Greater Western Sydney (GWS) so that we can develop practical curriculum innovations and training opportunities to prepare our graduates to be 'work-ready'. We sought to do this through interviewing individuals with experience of supervising our graduates as well as recent graduates themselves.

Our research questions are:

- What information skills are of practical value to graduates entering the workforce in Greater Western Sydney and their employers?
- To what extent do the information literacy skills taught at University transfer to the workplace or need to be adapted?

Literature review

There is a considerable body of literature on the topic of information skills in the workplace. Inskip (2014) suggests information literacy competencies do not necessarily transfer readily from education to the workplace or improve employability. He recommends that the "contextual nature of workplace information practices" (p. 13) be recognised. Recent studies into the transfer of IL skills into the workforce in the US (Head 2013, 2015) and the UK (Goldstein 2014) explore IL skills from the perspective of employers and students/graduates. Their findings are valuable for mapping the specific information challenges in the workplace which can inform more relevant course content and activity. For example, Head (2013) revealed four areas where graduates were reported as lacking key competencies. These were engaging with other team members, retrieving information from a range of formats, higher order analysis of information and lack of thoroughness in searching. Goldstein (2014) found that the concept of information literacy itself was not generally recognised by his interviewees although various attributes of IL competencies were valued in practice. He found that some professions require sophisticated information competencies and there is an expectation that new graduates will be appropriately prepared. He also identified significant differences in work cultures. For example in the business environment graduates might be expected to produce accurate and informed decisions under considerable time pressure.

Sokoloff (2012) surveyed employers of business graduates from James Madison University and identified specific types of information and tools used in the workplace as well as information-related activities and research skills. He suggests, for example, that Library staff could simulate the "feed" culture of the workplace by using the social media services of Library vendors and subject experts who are active online. Nagarajan and Edwards (2008; 2014) explored the professional work experience of recent IT graduates in NSW, finding out what they actually do, the challenges they face and the preparation of university courses. O'Farrell's (2010) study of information use in the NHS in Scotland found the IL frameworks devised by librarians leave out important aspects such as the use of people as sources of information and the collaborative way in which information is made sense of and applied in the workplace. Crawford and Irving's (2009) study of Scottish workplaces also emphasised the importance of people as sources of information as well as specific print and online sources of information. They also found 'laddering' of skills with some employees being given more complex information tasks. Lloyd's (2011) study of ambulance officers, refugees and firefighters in NSW explored the complexities of acquiring knowledge and developing a professional identity. Bruce's (1997; 1999) influential theory 'Seven Faces of Information Literacy' was drawn from interviewing academics and library staff. She links IL to key business processes such as environmental scanning, information management, Research & Development and organisational memory. Wiley (2014) suggests libraries should

co-operate with careers services and others to assist students looking for professional work by offering training in researching companies or industries and effective use of social media profiles. Griffis (2014) describes a range of experiential learning opportunities offered at university which reflect actual workplace practices and current tools.

Research methodology

This is an exploratory qualitative study based upon interviews with twelve individuals with experience of supervising recent graduates within the workplace and twelve working graduates. The interviews are semi-structured conversations prompted by specific questions which have been recorded and transcribed. The Western Sydney University Human Research Ethics Committee has given approval for our project (ORS Reference H11278). This conference paper shares findings from a sample of seven of the interviews, four employers/supervisors and three graduates.

What information skills are of practical value to graduates entering the workforce in Greater Western Sydney and their employers?

In order to assess the value of information skills we need to understand relevant aspects of the contemporary business environment. We asked interviewees where they worked and then questions designed to find out what information skills would be relevant to their workplace. We asked what activities require employees to do research or find information, what types of information they use, what tools or resources they use to gather information and what skills they need to do the necessary research. We also asked how they store and manage information, how they assess the quality of information and about ethical use of information in the workplace. The following case studies from our interviews give valuable insights into the working environments experienced by our graduates and employers and suggest the kind of authentic information tools and tasks which we could be focussing on in preparing students.

Graduate A: works in an organisation which supports financial planners, providing information which informs the advice they give clients. The advice usually relates to interpretation of legislation and government policy, for example looking at how government bodies such as the Australian Tax Office would expect individuals to apply the rules. He uses what he termed “*primary sources*” that is legislation, regulations and rules, but also uses research papers or other trade press articles which provide further discussion of an issue. Business contexts include superannuation law, tax law, estate planning, social security and aged care. The sources used are almost completely online although there are a few hard copy sources relating to legislation and discussion of legislation e.g. sources published by CCH or Reuters. They also use Austlii (the online legal database maintained by UTS and UNSW). In accessing sources he will often just use Google to search on a

key term knowing that the sources he needs will usually come up at the top of a search. Client confidentiality was a key ethical consideration in his business context.

Graduate B works for a peak regional body which represents not for profit and non-governmental organisations. Her role is Communications Officer which she relates to “*stakeholder engagement and strategy*”. She develops and distributes external communications such as media releases, statements, social media and public relations. In responding to statements she has to do research within and outside her organisation. She is often looking for contacts for professional industry people and uses websites and LinkedIn. She manages membership databases which include contact information, email opt-ins, subscriptions and event registrations. She specialises in digital communications which includes management of website content, e-commerce, email marketing and digital campaigns. She is developing policies and procedures for the website based on documents and data. For professional development she uses information from the internet as well as RSS feeds and blogs. Information tools used include RSS feed generators particularly Feedly which collects information from all over the internet including Twitter and Instagram. She also uses Excel because websites export out to CSV files. She doesn’t use scholarly information much but if she needed to she would use Google Scholar or the University website to find it. She uses Survey Monkey. As an example of research in the workplace she described redeveloping the website. She used Google analytics to review how traffic moved through the website and will also use it to see the effect of any changes. She also uses link trackers like Bitly. Ethical issues include consideration of privacy of information especially the use of contact information for marketing and the security of personal financial information when taking payments. She also discussed the ethical aspects of how journalists collect information when researching a story.

Employer / Supervisor A was a managing director for a large multinational company supplying carpentry materials to tradespeople. That company needed data on market share, market size and customer feedback. Two employees of the company, an analytical researcher and a data researcher, used official sources such as the Australian Bureau of Statistics (ABS) and the Australian Housing Association as well their own database to establish how many houses were being built and to get a snapshot of sales and their market share. They also employed a graduate to conduct a telephone survey of relevant client businesses. Then the researchers compared the data and worked out how many joiners there were in the area, what their market purchases were, what suppliers they used and their level of satisfaction. More recently he is been a director in a firm which provides business advice to medium and small businesses experiencing adversity. This involves being up to date with specific business contexts relevant to helping a business recover from a position of vulnerability.

Employer / Supervisor B works for the communications and marketing section of a not-for-profit provider of disability support to individuals from babies to the elderly, as

well as carers and families. They are currently impacted by changes in government legislation around welfare funding (the NDIS) and find themselves in a much more competitive environment than previously which has influenced their research needs. A junior employee might research and compare costs of promotional items. The Business Development Team would research competitors and also try and work out where they should position themselves in terms of growth. They have to be “*smarter*”, for example they would research the number of potential clients in an area when considering an office in a new. Employees have to keep up to date with new therapies, techniques and skills and there is a subsidiary which focusses on innovation to meet client needs. An evaluation team conducts client interviews and surveys. Some employees in clinical divisions would use journals. Other information sources used include the internet, media and industry news, market research sources as well as attending conferences and forums and networking generally.

Employer / Supervisor C works in an accounting firm. The firm conducts tax audits and also provides business advice, helping businesses deal with their growth and innovation and managing risk. For example many companies want to transition from traditional manufacturing for sale in Australia to being competitive in a global market. Employees need to understand the market and issues facing business. Specialist fields have specific research skills, for example with tax advice they would have to “*structure an issue, identify the problem, then work through the business analysis piece but then research the thinking and legal precedents and all that stuff before coming up with a conclusion*”. Tax audits can involve analysis of vast amounts of client data so employees need skills related to data analytics and analysis. Information sources include specific technical publications and service providers including ASIC, Dun and Bradstreet, Ibis and ABS data. Social media is an increasingly important research tool enabling one to keep up to date by pulling feeds together on specific topics. The firm has mandated data retention document control systems. Client confidentiality is “*paramount*”. Other ethical issues include legal frameworks and professional codes, intellectual property and concern for insider trading.

Applying findings to information literacy programs at university

We are still working through the process of analysing our interview transcripts but already we are beginning to see many possibilities for applying the information found to more authentic and relevant information literacy support. We can obviously focus on the information resources which are used in the workplace, as described by our interviewees, such as company, industry, statistical, government and legal information. We can also create assignments which mimic workplace research tasks such as those described. We could ask employers and working alumni to come to the university and talk to our students, either virtually or through face to face opportunities, about their practice and our interviewees seemed very open to that suggestion.

Graduate B felt that it would have been better if there had been more explicit messages about the relevance of course content to the business context. Research skills were applied to finding better sources for essays and, while she acknowledges skills are transferable, she would have liked to have been taught how she could apply those skills to business. She felt that was true even for humanities subjects: *“We need to better equip students for the actual world regardless of what they are studying”*. She also suggests it would have been better to have used tools commonly used in business such as SurveyMonkey and Excel rather than specialist tools, because unless it is their core business most businesses use free or easily accessible options. She suggested it would be particularly worthwhile for students to have *“real world examples”* and opportunities to hear from people currently working in a relevant field. *“This would have helped me retain the information more, been more curious, asked more questions and ultimately learnt more on the subject”*

What did our interviewees understand by the phrase ‘information literacy’? How important is it for graduates? Was it included in interview criteria?

In considering the relevance of information skills for the workplace it is useful to look at the conceptions of information skills held by our graduates and employers. Most of our interviewees had never heard the phrase ‘information skills’ before they read the academic definition we provided them, although a few had heard it in the university context. None of our interviewees thought it would ever be used in a business context. They also said that information skills were not explicitly included in workplace interview criteria although some thought perhaps they should be. Various responses from our interviewees suggest that information skills, however described, are essential for success in the contemporary business environment.

Graduate A said he had not heard the phrase ‘information skills’ before but felt it was *“critically important”*. He spent most of his time engaged in research and virtually everyone working in his industry did *“knowledge and skills based work”*. For him it was *“a given that you need to know how to research and filter information efficiently”*. *“Maybe it should be questioned more at interviews as it’s what you are going to be doing most of the time ... My industry is a pure knowledge based industry ... which is something that the whole economy is trended to in the last couple of decades right away from a manufacturing to a knowledge based economy..”*

Employer C also said that he had not heard the phrase information literacy before but when he read the definition of IL as a graduate attribute he felt it lined up with their requirements as a key *“plank”* of employee skills *“which goes from being able to access and evaluate and come up with possibilities as a progress, through being able to then synthesise and come up with recommendations, through to being able to conclude and to justify ... Our whole reason for being is to be able to solve complex business problems”*. In interviews they look for *“really good evidence of problem structuring ability”*.

Graduate C (who has been working in a large government agency for the last 6 years) associates information literacy with challenging the status quo at work and suggests that if you want to *“stir things up”* you need to have the evidence and relevant information *“to back your opinion up”*. He suggests that information skills can enable you to come up with new *“left field”* ideas and potentially enact change in a business. He felt information skills were a *“foundation for a professional future”* although they were not really relevant to his current work context because *“it is so controlled”*. He said *“the reason I came to university was to question things”* and *“I’m not really a sheep”*.

Employer A suggested that research was very important to ensuring businesses stay open to new ideas and remain competitive: *“our assumptions internally were always fixed for many, many years... so using external research really liberated the business to be able to try and see what new opportunities there were because often we believed our own assumptions which were static. The market moves quickly and you cannot afford to let the market move over 2 or 3 years without doing new research and it is important to keep that fresh”*. If companies do not have access to good, current data, no matter what kind of business they are in *“it will generate the same problem, it will create dysfunction, it will limit your cash flow, it may lead to poor decision making and so forth”*. Information is a *“critical factor”* and inability to do market research or a business forecast is a *“real limiting factor on the business”*. He also describes how in the lifecycle of a business they tend to be active researchers at early stages but can then reach a plateau and stop looking outwards and stop growing. While he was not familiar with the concept ‘information literacy’ he acknowledged that *“having an information literate workforce which is able to access information from many sources is important”*.

Graduate B suggested it was important to know how and where to access information and that *“evaluating information is key in a business setting as it forms your credibility and reliability”* at work when you make observations and recommendations to senior staff. She suggested you can use information to solve problems and information skills promote independence as a student and employee. Information finding also *“strengthens how organisations conduct themselves”* and *“encourages that culture of – ok – we need to check our sources, we need to find that information, we need to be up to date on things...”* She suggests that finding information is relatively easy but what is more important is how it is used and applied in business.

Information use in the business context

Our interviewees described a number of ways in which information needed to be contextualised to be understood and was made useful by being applied to business outcomes.

Employer A - suggests it is important in applying information that people understand the business context so they know if the data makes sense or not. For example *“if you are analysing the market size of a particular sector but the employee numbers don’t match...”* They don’t consider information literacy when recruiting but *“it is important to have an inquiring mind”*. Business analysis requires a *“forensic”* approach, gathering data, pulling together comparative data (such as about similar businesses) and *“making sense of it in the current context”*. Information has to be well presented in a report: *“the data has to flow and tell a story and lead to a conclusion...”* It was important that data was *“actionable”*, that employees *“do something with the data, not just report it”*.

Employer A also suggests that new graduates often come into the workplace with technical skills and are keen to demonstrate their ability but lack the understanding of context which develops with time in the business environment. *“We want them to think outside the square in terms of what does this data actually look like; what does it mean for the person you are doing it for.”*

Employer B said that analysing data and turning it into meaningful information which a business can use are vital skills. Her business has invested in collecting data on their client base and also their industry so they can succeed in the newly competitive world of disability support. They need to use that data for *“informed decisions”* so they can *“put options to the Board”* which can enable the business to move forward.

Employer C wants employees who do not get *“immobilised by the lack of a complete data set and so continue to search for additional data”* but rather are able to focus on what is *“critical”* or what they actually need for the issue at hand. Information is used in the context of a hypothesis – *“does it support the hypothesis or do you need to reframe your hypothesis?”*

To what extent do the information literacy skills taught at University transfer to the workplace or need to be adapted? How well prepared are our graduates for the workplace? What are our employers looking for?

Graduate C felt he had learnt his research skills partly through workplace experience and partly through university studies. *“I carried knowledge from my workplace into my degree [which] confirmed [it] and provided some sources I hadn’t seen before as well as others that I had.”* His postgraduate study expanded his understanding, created a lot of depth in his knowledge and *“cemented a lot of things that I thought I knew ... so I had more confidence in communicating”*. He was impressed by University library resources and felt that there was an onus on students to be themselves proactive and *“go through the door opened for them”* and explore for themselves. *“When I did go in and use the various journal search functions I was blown away by the depth of the content ... far out ... there is just information on everything and anything from any university in the whole world and I can be sitting here at 10.30 at night or 10.30 in the morning with a coffee and just*

reading it.” He also recognised the value of the library resources: *“It doesn’t come cheap ... a goldmine”*

Graduate A felt that his tertiary education had been helpful on one occasion when he was asked to research the pros and cons of investing in stand-up workstations. He felt his colleagues who did not have a tertiary education would not have understood the concept of academic or reliable sources. He suggested his education was of benefit to himself and his business by enabling him to access reliable information, compile it and use it to support his argument.

Employer B valued the ability of someone with stronger information skills to assess the reliability and validity of information sources: *“Gathering from as broad a stream as possible but put weight to those you [thought] had more weight or validity”*. She said the importance of information literacy skills would *“vary between different functions”* but is *“always going to be an asset”*. She said it was *“super valuable”* when some-one can very quickly look through information and pull out what was relevant. She appreciates graduates who don’t just go to someone else to look for the answer but will *“have a go”* and try and work out for themselves where to find the information; *“..having initiative and thinking outside the square and just getting on with things”*.

Business acumen and awareness of the business environment

A significant theme emerging from the employer interviews was the importance of developing what might be called ‘business acumen’ or an understanding of the current business environment. Business students could be particularly encouraged to tap into business news and to read relevant trade publications. Before they even start work, if they can demonstrate an informed interest it is likely to help them stand out at interviews, especially if they show an understanding of the hot topics for the company and industry they are seeking employment in.

Employer C suggests that many graduates lack understanding of the business environment - would not be able to *“turn up and do an analysis piece around what are the significant issues facing X,Y,Z company”*. He looks for evidence of a personal interest in business topics when interviewing and has found students often don’t have a good answer when he asks them why they want to work in the field. He has found many students have no awareness of current business news.

Conclusion

Preliminary analysis of a subset of our research interviews has helped us begin to find out what information skills are of practical value to our business graduates and the extent to which university taught skills can transfer to the workplace.

Our interviewees were able to identify relevant topics or skills they had learnt at university such as the evaluation of evidence and the use of specific important resources. Beyond that our interviewees have given us very useful insights into

specific tools, processes and practice of applied information skills in the workplace which we can use to develop more relevant information literacy support. Our research also strongly suggests that students would respond positively to Library skills support which has more explicit relevance to a professional context.

The overall importance of information skills in the workplace is very clear from our interviews although they would not normally use that phrase. Our interviews suggest enhanced information skills give graduates an advantage and enable businesses to adapt and thrive in a competitive business environment. Several interviewees mentioned the 'knowledge economy' and suggested that they spend most of their working life managing information in various ways. The ability to research, sift and pick out relevant information and apply it to a particular problem is obviously seen as an essential workplace skill by all our interviewees.

A significant theme was the importance of helping students develop 'business acumen' or an understanding of the current business environment. This would assist new graduates to make sense of and apply business information in context. This can be done through tapping into business news and also from exposure to authentic business challenges.

The research has also enabled new connections for the Library within the University (the School of Business, Alumni, Careers and others) as well as outside (commercial businesses as well as not-for-profit and community organisations).

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