Information Literacy: Graduate Attributes for Employability: Are we Talking the Same Language?

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Abstract

This study portrays an interconnectedness between graduate attributes and information literacy skills and attributes preparing students for future careers. Research in the area of workplace information literacy has demonstrated the effectiveness of information literacy as a transitional skill from academia into the working place. However, there is currently an information literacy skills deficit in graduates coming from different disciplines. With Higher Education Institutions (HEI) placing emphasis on graduate attributes for employability, there are opportunities for academic librarians to explore information literacy as a graduate skill and assert information literacy instruction as more than a one-off workshop and as a practice embedded into the curriculum. This research has relevance to academic librarians and curriculum programme developers.

This research has focused on six main information literacy themes: Discover and Access; Interpret, Analyse; Manage and Store; Create with Information; Communicate with Information and Collaboration. The last three themes consider ethical practice within the domain of graduate attributes. Template analysis was conducted on fourteen Scottish Universities' graduate attributes public pages and across four graduate Scottish recruitment websites to review thirty-seven graduate job vacancies over a set time period. Using social constructivism theory, information literacy skills found in job advertisements were analysed with the purpose of mapping academic librarian terminology against industry terminology.

The findings conclude an inconsistency in terminology between academia and industry terminology as collated through the above methods. This calls for relevant stakeholders to engage in an audit of meaningful skills to inform a core shared language, and a holistic organisational approach to delivering information literacy through an interdisciplinary approach. In response to this finding and wider debates within academia, the study offers practical advice to academic librarians as a catalyst for change. This is offered through identifying overlapping and interconnected terms, which an academic librarian can apply to classroom narratives and therefore move closer to teaching students how to have a clearer understanding of what potential employers are seeking and allow them to have a language to articulate this with meaning. Overall, the findings suggest that discipline knowledge alone is not enough to prepare new graduates to be work-ready.

1. Introduction

Information literacy is defined by CILIP (2018) as involving higher order thinking, to source and engage information in different formats and environments within an ethical capacity to empower our lives. Information literacy is also recognised as relating to other literacies such as digital, and media information literacy (MIL). The Alexandria Proclamation of (2005), UNESCO (2017), share the view that Information literacy and these other literacies empower citizens' rights to communicate. Internationally there is an assembly of Information literacy models and frameworks. The main models

in academia are, SCONUL (2011), ACRL (2015),and, A New Curriculum for Information Literacy, (ANCIL 2012). In a move beyond education, Lloyd (2011), and Head (2017) models demonstrate information literacy in the workplace and discuss transferable informationliteracy skills. Social constructivism theory is applied to interpret this study. The theory has been applied in previous research to understand how information literacy in the workplace functions. The theory recognises that learning and knowledge is constructed through social interactions and narratives.

The recent focus of graduate attributes within Universities has placed a focus ongraduate attributes for employability. Graduate attributes are identified as the key skills and competencies developed during a degree programme at universityand recognised as being valid for graduate's future success within different rolesin life, including the workplace.

This study aims to investigate whether there is a relationship between information literacy skills connected to graduate attributes and information literacy skills for employability. Additionally, the research will aim to explore whether the academic librarian's role can assist students to express meaningfulgraduate attributes in relation to information literacy within the workplace and establish whether stakeholder's terminology has similar or different meanings attached to associated information literacy terms. This is conducted over six specific information literacy themes: 'Discover and access, Interpret, Analyse, Manage and Store; Create with information; Communication and collaboration.

The role of the University instruction Librarian is appraised as a thread runningthroughout this research, to establish their position, if any, to prepare students with information literacy for employability. The role of the librarian to teach information literacy for employability addresses a gap in the literature and justifies the value of this study. Findings will help inform educators with a direction to align academic information literacy terminology with industryterminology. Additionally, findings will enable a greater understanding of the operational practice of information literacy and discuss its value beyond university. These points are examined through exploring the domain of graduate attributes on university public graduate attribute webpages and graduate recruiters job adverts. The research also explores whether the librarian has a role in collaborating with faculty to help students develop information literacy to transition into employment, thus contributing to new graduates being more work ready.

1.1 Background and rationale

The role of the instruction librarian has moved from traditional bibliographicinstruction such as referencing and searching techniques to teaching information literacy as a skill. According to the findings of a USA study by Julien, Gross and Latham (2018 p. 179), "teaching critical thinking and information evaluation", is a shift in library instruction from a traditional approach to a wider context of transferable skills. This change is central to understanding the role of the academic instruction librarian teaching information literacy within universities' graduate attribute and employability frameworks.

Some of the key skills named as graduate attributes are linked with informationliteracy, which has an influence in shaping the role of the instruction librarian. Academic libraries and librarians have a place to partake in the revamping andvalue of teaching information literacy for employability, related to the principles of university graduate attribute frameworks. This study proposes to demonstrate information literacy is not just a library skill but more than that. Information literacy skills are connected to students' transitions into the workplace. This is a practice that encompasses the skills and activities for meeting career goals and is fundamental for personal and commercial success (Hill, Walkington and France 2016; Hounsell 2011; Head 2017; Abdi and Bruce 2015; Lloyd 2011; Inskip 2014).

1.2 Aims and objectives

1.2.1 Aim

This study aims to explore whether there is a role for the academic librarian in teaching and preparing students information literacy skills for employability.

The research aims to explore whether the librarian's role can assist students to express meaningful graduate attributes in relation to information literacy within the workplace and establish whether stakeholders' terminology has similar or different meanings attached to associated information literacy terms.

1.2.2 Objectives

1. Review the literature to examine information literacy instruction in conjunction with developing graduate attributes, for transitioning into the workplace
2. Analyse University graduate attributes (GA) webpages for terms associated with information literacy as identified in this study
3. Analyse graduate jobs on Scottish Job Recruitment sites to identify information literacy terminology applied in Industry, to inform information literacy instruction in academia based on the themes of this study.

    The study will make recommendations for future examinations relating to aims two and three towards evolving graduate attributes to be inclusive of a common information literacy language to transfer into the workplace.

1. Methodology and theoretical approaches

2.1 Introduction to research design

This chapter discusses the steps applied to the research design and methods along with the scope of the project. The Sociological approach of social constructionism theory (Lloyd 2010a) sets a theoretical framework to the research. The premise to this theory is that knowledge and meaning are created through social interactions, thus inferring that knowledge and meaning
have a contextualised and interactive process attached to them. Within specific contexts, social interactions and language exchanges can result in social phenomena being created resulting in greater understanding of actions and the acquisition of knowledge in a cultural setting. A qualitative design has been selected for its merit to be conducive for descriptive discussion. As the focus of this research is relevant to forming knowledge and shaping social interaction it was considered to be the best fit.

There is research gap in understanding the transfer of information literacy from academia to function as workplace information literacy. This study aims to contribute towards that understanding. Social constructivism theory has been substantiated within existing research to advance the development of information literacy in the workplace (Lloyd 2010a; Head 2017, 2012, 2013; Abdi and Bruce 2015). Workplace information literacy is identified as complex and relatively young in its field. This study will pay particular attention to the gap in the literature focusing on terminology.

The following section explains the qualitative approach followed in the study which consisted of collecting multiple sources of evidence via an analysis of information literacy terms found in graduate attribute publicly available including documents of 15 Scottish universities and a selection of recruitment websites listing graduate vacancies across a range of professions.

2.2 Data collection

Data was collected through a literature search which was conducted across essential Library information services (LIS) databases accessed on Robert Gordon University (RGU). These included Literature and Information Science, LISTA, EMERALD, and ERIC, the latter included an education dimension to provide a comprehensive account, these were selected for their relevance to librarianship and information science. Key words were based on the aims and objectives of the study, and a record of searches was documented. Three separate searches were conducted across all the databases using three searchstring combinations, e.g. 'Information Literacy AND Graduate Attributes', 'Information literacy AND employability of graduates', 'Information literacy instruction AND academic libraries. Due to lots of technical data articles beingretrieved in the first round of searches, the Boolean operator, 'NOT' was usedto exclude the terms teaching and data.

During the first phase of searching, the title and abstract content determined the documents relevance in relation to the scope of the research. This appraisal technique is highlighted by Beretona et al. (cited in Xiao and Watson2017). The full reference of approved documents was stored for a second screening which involved a full text evaluation. Further articles were identifiedfrom forward and backward chaining and citation searching, carried out on google scholar. These documents and reports were accessed via google scholar or shibboleth institutional access.

2.3 Template analysis

A template analysis technique has been selected for its ability to thematically organise and evaluate qualitative data, representing hierarchies and relationships which unite and bring the themes or codes together. An initial template was constructed from the CILIP (2018), information literacy definition, which has been applied to guide the overall research. A template of a-priori categories was produced, based on activities named in the definition: discover, access, interpret, analyse, manage, create, communicate, store and share information CILIP (2018). These a-priori categories acted as a template with main themes becoming higher order categories from which sub themes were generated, this approach is non- prescriptive and is open to further modification. The subdivision of codes based on the research inquiry provides deeper insight of the data.

Template analysis is a useful approach for real life evaluations, King (cited in Cassell and Symon 2004), this further justifies this technique as complimentary to this study. Template analysis is not a methodology as such, but a style of thematic analysis. The flexibility offered by Template Analysis was preferred over grounded theory with its prescriptive structure.

Text in the template was revised, based on the extracted data which evidenced the original codes did not depict or accommodate the findings and therefore necessitated a revision. Further revisions manifested in theme 4, 'create', this required a sub theme to fully interpret its meaning, resulting in 'create with information'. As part of this revision, theme 4 also required further modification to insert two further main themes, revealed by the search process uncovering, 'communication and collaboration' as recurrent themes. These were finally defined as: 'Communicate and share information: Communication and share information (ethical practice)' and 'Collaboration: Working together and alongside; within and between'. Ethical appears in both main themes 4, 5 and 6, template analysis 'permits parallel coding of segments of text, whereby the same segment is classified within two, or more different codes at the same level' King (cited in Cassell and Symon 2004 p.258). In this research the inclusion of ethical practice establishes a link to professionalism and underpins themes 4, 5 and 6, this became evident during the analysis process.

Data from job adverts within each of the six main themes was subdivided to assist with analysis, this level of subdivision represents the component parts which make up the mechanisms of organisational systems, e.g. 'individual/team', 'internal/external'. Data was initially extracted during the pilot study, extracting single information literacy terms, lost any necessary context required for evaluation and consequently informed the researcher to repeat a second sweep of the data, concentrating on whole sentences in order to maintain integrity of text for interpretation. Data was then transferred into corresponding mind maps as this software allowed for easier management of the data.

2.4 University websites

Text relating to information literacy and graduate attributes was gathered from fifteen Universities. This decision to investigate only Scottish universities was based on managing the timescale and deadline of the research. A pilot study was undertaken using RGU, see section 3.6 for further details. The pilot study informed the design for data collection for the fourteen universities reported on. Findings from the pilot study were excluded from the main findings to improve validity and reliability.

Given the presence of ambiguous terms, similar terms to those identified in the coded themes were extracted for use from university websites., some were rejected later as they did not illicit clear examples of information literacy e.g. 'Manage the creative process in oneself and in others'. The data was initially recorded against four main themes, '1. Discover and Access; 2. Interpret, analyse; 3. Manage and Store; 4. Create: Create and Share', before the second sweep of the data, findings were then transferred into a mind map for textual analysis.

Table 1.   Final Criteria Information Literacy Themes: Version Two

Information Literacy Themes	
1.Discover andAccess	Information Seeking. Information Searching. Information Collecting. Information Retrieval
2.Interpret, Analyse	Critical Analyses. Critical Evaluation. Validity
3.Manage and Store	Information recording management. GDPR Data Management. Secure and Ethical handling of data.
4.Create withinformation	12. Create with information(Ethical practice)
5.Communicate andshare information	13. Communicate and share information (Ethicalpractice)
6.Collaboration	14. Working together and alongside, within andbetween

In the first instance, terms were categorised into sub themes under two headings, 'similar and matching', but this was deemed too complex, and one category was defined to contain all included terms, 'Matching terms or phrases'. Terms organised within their allocated sub-theme, gave the mind map a hierarchal order, which benefited analysis at a later stage. The final step was to insert a node in the mind maps, under each main theme, to assemble a full list of terms, from each sub-theme, this

gave a quick visual on the tally of the terms reported across each main theme and responding subthemes.

2.5 Recruitment websites

Scottish Recruitment sites were identified to compare information literacy terminology reported through university graduate attributes against language used by employers and recruiters in the same domain. A google search was performed to search for Scottish graduate recruiters, the results were evaluated to establish four main recruitment sites. The researcher used personal details to register to the sites, setting up a profile and setting search fields from drop down boxes in each recruiter's website to capture the broadest spread of employment sectors. The findings are interpreted as providing an overview and not connected to any single profession.

Searching and email alerts were subscribed to over a period of four weeks, with a date range of 31st March to 31st April 2019. Some adverts were omitted as they did not provide enough information to extract information literacy. The search field criteria for geographical area was set for the widest coverage in Scotland, local geographic areas and specific professions were not the main concern, and beyond the scope of this study.

Given the presence of ambiguous terms, similar terms to those specified in coded themes were extracted from recruitment websites. These were extracted in sentences in order to maintain their meaning in relation to information literacy. Some terms were rejected later as they did not fit. The remaining terms were entered into the recruiter's mind map, similar in design and structure to the mind map created for university websites. This had six main themes and corresponding sub-themes e.g. Main theme: Discover and Access; Sub Theme: information seeking, searching, Information collecting, retrieval.

Data within the mind map was evaluated; the following is an example of a term collected then excluded on the second sweep, 'Lead, manage and facilitate staff capacity building in the use of data and related toolkits.' As explained previously at section 3.3, further coded subthemes were established as information literacy activities were identified e.g. individual/team orientated or internal/external. In main themes 4, 5 and 6, ethical practice was included as a sub-division. Across all themes composite terms were captured within an additional sub-theme, e.g. 'Ability to interpret and present data accordingly'.

2.6 Pilot

In the first instance analysis was conducted on RGU website as a pilot study. In order to remain objective and omit from introducing any institution bias or author bias into the study findings from the RGU pilot was excluded from the final set of data. At the time of this research the author is an MSc student at RGU.

The pilot study aided in inclusion and revising of sub-themes in the template analysis. This pre-research activity is supported by Kitchenham and Charters (2007 p.10) who states, "The criteria should be piloted before adoption" (cited in Xiao and Watson 2017). The pilot was an opportunity to test the robustness of the themes and to troubleshoot. This exercise established that extracting individual words failed to deliver quality evidence, informing that data collection had to be comprehensive therefore extracting terms in their context to maintain meaning. To reflect analyses of the other fourteen websites, only public areas of the RGU website were assessed. The learning gained through conducting the pilot was applied to the main body of the investigation.

2.7 Limitations

The timescale for the completion of the research influenced the geographical coverage being limited to Scottish Universities and the timeframe for collating job adverts. The restricted access to public pages of university websites has determined the findings. Information beyond a log -on page may have been of significant value. Text in graduate vacancies mostly composed of a general job description and was more inclined to state the employee's responsibilities and benefits over the role requirements. Due to variances in the user functions on each recruiter's website design, it is plausible that the profile set up, and the search option choices, restricted discovery of all employment sectors.

Applying a longer timeframe for gathering data in job adverts may have produced a wider collection of jobs types for analyses, producing alternative findings. Analysis of recruitment sites was challenging due to many of the vacancies not including a person/job specification or desirable/essential skills required for the job. Consequently, this study is not representative of all employment sectors, based on the above factors.

2.8 Ethics

Ethical concerns related to the author having an awareness of personal beliefs and opinions in order to prevent these potentially contaminating findings. The author excluded RGU from the study to uphold legitimacy to the findings of the study. All the articles included in the study respected the principles of copyright thus supporting the validity of the study. Acknowledgment to maintain integrity and accuracy of other authors' work has been carried out through referencing.

1. Literature review
3.1 Introduction

A literature review was selected to summarise the literature available within the paradigm of the research aims. To satisfy this component a time frame criterion of 2009-2019 was applied to searches. As a research topic, information literacy is vast, accordingly a literature review was deemed practical in terms of evaluating findings, as set by the inclusion and exclusion criteria to support relevant inquiry. Cooper (cited in Templier and Pare 2015) emphasises the overall value of a Literature review as

> …individual studies incrementally contribute to a larger understanding of a phenomenon of interest, building scientific knowledge requires cooperation and interdependent research work. (Cooper 2009 p.113).

Two characteristics endorsing this methodology are, firstly, the literature review will examine a representative sample of the literature, to position this research in. Secondly, a development review permits the interpretation of key theories and concepts, thus enabling discussion and reflection of the findings collated through template analysis. This study selected a "standalone developmental review" (Templier and Pare 2015 p.122), as it fits with the adoption of a theory. This study has a focus on terminology operating as a critical tool for utilising information transfer.

This literature review is organised into themes, arranged around investigating information literacy terminology and its association to graduate attributes terminology for the purpose of graduate employability. Section one examines information literacy as more than a library skill, then moves on to section two to discuss information literacy around the domain of academia and the workplace. This section discusses information literacy and talks of the different models within academia. Section three covers the concept of information literacy as a transferable skill into the workplace explored through its interconnectedness with graduate attributes around academia, industry, and employability. Section four explores, the role of the librarian and collaborative working in relation to a shared discourse to enhance the transfer of information literacy. This is explored through social constructivism theory and its focus on the value of discourse and social exchange.

The bulk of the literature comes from the UK, USA, and Australia, where research has been more active in this field.

3.2 Information literacy: more than a library skills-based activity

In the UK, a new definition of information literacy was released by CILIP (2018) having evolved from their (2005) definition:

> Information literacy is the ability to think critically and make balanced judgements about any information we find and use. It empowers us as citizens to develop informed views and to engage fully with society. (CILIP 2018 p.3).

CILIP (2018) highlight the process of becoming information literate includes critical and reflective thinking, problem solving, sharing, and actively participating in information, across the varied domains of our lives. It is about knowing how, and when to use information and also understanding ethical issues around, sourcing, storing, and sharing.

This definition talks of different contexts emphasising information literacy in "Everyday life"; "Citizenship"; "Education"; "Health" and the "Workplace", CILIP (2018 p.5). The definition has moved from exploring the value of information literacy within academia to other contexts, demonstrating that information can be relational across contexts and that it is not only an academic skill for researching. Over time information literacy has come to be known as more than an academic skill, having moved beyond the boundary of the library. It has been acknowledged to exceed print, and the scope of digital environments.

Information literacy has developed into these wider contexts, over the last thirty years (Lloyd 2010a). We are now living in a society where people are more connected through networked social and professional communities. Furthermore, people are no longer passive consumers but active participants of information, and in this way, technology has acted as catalyst giving rise to information as a valuable asset in a modern information society.

The term, digital literacy has been used interchangeably with information literacy. Sheppard (2014) describes digital literacy as having digital skills and tools that aid our ability to live and engage in digital networks. This includes rationalising and producing information. CILIP (2018) acknowledges information literacy relates to digital literacy and media literacy. SCONUL (2011) non-linear model defines information literacy as skills and behaviours, the model talks of people having an awareness of their interactions and concludes with seven steps of engaging with information. The SCONUL (2011 p.11) model connects with the use of "digital technologies" and talks of individuals engaging with a range of digital formats. Cordell states, Information literacy and digital literacy are not competing concepts; they are complementary areas for students in higher education. (2013 p.182-183).

Digital literacy is a pre-requisite to information literacy, and technology is a tool to utilise information. Information knowledge acquisition and sharing is more than having the technical skills to navigate digital environments. It is about higher-level skills such as critical judgement which involves a human aspect to learning information literacy through human interaction. Therefore, digital literacy skills are relevant but not central in all work environments.

SCONUL's (2011) definition takes into account human behaviours and attitudes as influencing learning, indicating a move from skills. This model infers that context and peoples prescribed experiences and attitudes influence the creation of knowledge. It does not go as far as explicitly stating established discourse and cultures can function to modify a person's learning, as Lloyd (2011) states these can sanction learning.

Information literacies presence is now recognised in a variety of contexts via social exchange and discourse. CILIP (2018) Lloyd (2011, 2010), Head (2017) and Abdi and Bruce (2015) all acknowledge information literacy as a 'human activity' (Lloyd 2010a p.1). Information literacy has evolved to mean more than an individual library skill. However, information literacy as a social practice incorporating human activity is not recognised within the academic skills approach to teaching information literacy. Information literacy in academia is aligned to information professionals and research (Inskip 2014; Lloyd 2010a). This association to evaluating and retrieving information through online searches or databases relates to traditional bibliographic library instruction.

Both SCONUL (2011) and ANCIL model (2012) convey information literacy operating through a continuum of learning, and as a transitional academic skill. The Association of College and Research Libraries (ACRL 2016) define information literacy as combined abilities, recognising that engaging with information is a process of activity. It further identifies participants as being part of an ethical community of learning, suggesting that this definition identifies with formal settings.

In conclusion, information literacy is on an international platform, operating across many contexts, and extending beyond a library skill. It relates to human rights, crosses digital boundaries and requires discourse and human interaction for learning.

3.3 Information literacy within the domain of academia and the workplace

Advances in understanding how information literacy functions out-with academia takes into account how information is created and shared (Webber 2010; Bent and Stockdale 2009), as more than a skill. Comparisons are drawn between the operations of information literacy in academia, usually set as an individual text-based task, (Ashley et al. 2012) alongside technologies, (Lloyd 2010a). In academia learning outcomes are explicitly presented without a sense of urgency, against the less structured, complex, social, contextual, and collaborative nature of information literacy in the workplace (Goldstein and Whitworth 2015; Lloyd 2010a).

A shift from a skills approach to a practice approach has been driven through empirical methodologies, demonstrating a growing body of theoretical approaches. Lloyds (2010a, 2011) research identifies that information literacy is challenging and in defining it as a skill restricts how we relate to understanding the experience of information exchanges between people.

Furthermore, how the context of a setting has an influence over our practice in the workplace or academia. Lloyd (2010b p.245) based her work in "Practice Theory" which draws on human activity. Lloyd states practice theory can enable learners to gain an understanding to recognise and use implicit and contextual information related to personal and social characteristics. Practice theory is relevant to information literacy as, Lloyd explains,

> …knowledge is relational and therefore constructed and is brought about by engaging with discourses, other practices, and tools of a particular setting. (Lloyd 2010b p.250).

This approach views information literacy as a social practice (Lloyd 2010a, 2011; Abdi and Bruce 2015; Head 2017; Hinchliffe and Jolly 2011; Inskip 2014). These authors argue for consideration to be given to the context of learning as an influencing factor. This position contributes towards the debate for information literacy to be taught as a practice and in context to the subject discipline (Bent and Stockdale 2009).

Lloyd's (cited in Lloyd, 2011) research with emergency workers observed a shift from the individual to the individual's social exchange around information adding a socio-cultural dimension to information literacy in the workplace. In this way information is described as a practice and not as a skill. This work

concluded
> that social exchanges and constructing of information were "just as important as the activities that enable access", Lloyd-Zantiotis (cited in Lloyd 2010a p.76).

Lloyd's (2011) socio-cultural position recognises discourse as crucial for constructing information through social engagement. Learning is recognised as an ongoing process and is connected to information literacy and the concept of lifelong learning. This differs from a positivist view in which information literacy is developed through a skills approach (Lloyd 2010a; Bent and Stockdale 2009).

The sharing of information in the workplace operates within an organizational culture, for business sustainability. Implicit and explicit knowledge exchanges take place and knowledge is often held implicitly with established or mature employees (Crawford and Irving 2014; Lloyd 2011; Webber and Johnstone 2017). A contrast in skills can often be noted between experienced employees and new graduates who are lacking in experience. Implicit knowledge evidences a contrast to workplace practices. it is the act of not sharing information, and resembles an individual approach as observed in academia, whereby information sourcing does not typically engage utilizing others. In time the landscape of academia would benefit to engage in the social side of learning information literacy as a practice, particularly around 'problem solving' discussed later.

Bruce's (1997) seven faces model of workplace information literacy also gives significance to the context for learning, and of people engaging together. This model is described as a relational model whereby information literacy is experienced. Bruce's research was conducted with knowledge workers; this evidences a shift from an educational skill-based approach in academia.

Altogether these approaches highlight that the interplay of information literacy within academia and the workplace are disjointed. From the employer's position, the literature reported, employers place a high value on the ability to obtain and process information (Head et al. 2013). Head et al. (2013) reported on the experience of problem-solving strategies in the workplace from the perspective of employers and graduates. Employers reported that they "found overall, research skills among newcomers were inadequate" from a social perspective. Employers described graduates' problem-solving skills as a "competency gap" this was defined through identifying basic skills (Head et al. 2013 p.87). This study concluded employers' value social interaction to solve information problems, and that new graduates were hesitant in this practice to obtain information solutions. Employers identified that information problems are resolved through engaging with a range of resources. New graduates were identified as being adept with online searches and were unlikely to look beyond this. Employers reported new graduates were highly skilled in correlating findings but struggled with deadlines and less specific instruction in the workplace. Overall, Head et al. (2013) highlight relationships in the workplace are effective for facilitating information literacy outcomes. Crawford and Irving (2014) referred to problem-solving in academia being in contrast to the workplace team effort.

Students have also reported feeling unequipped for the workplace environment, in particular around asking questions, and forming effective information strategies. This was reported as a typical finding overall, that created a disadvantage in new graduates being predominantly focused on speedy responses over patience to resolve issues correctly (Head 2017). Over time new employees were reported to adapt their techniques to incorporate, "Going beyond computers to cultivate social capital within the workplace'" (Head 2017 p.83). Head (2017) concluded relationships and social interaction promote information literacy, her study identifying this as a gap in university education. Findings by Head (2017) resonate with Lloyds view which talks of the need to understand tacit information and other "sociocultural" features that shape information (Lloyd 2010a p.3). Lloyd defined this influence over shaping practice as, 'performance and participation' (2010a p.89). They describe information literacy as having both a cognitive and social aspect, with sources of information being more than

print. Context-specific factors and drivers, present within industry, distinguish workplace information literacy practices from the academic environment.

Collet, Damian and du Plessis (2015 p.551) compare skills setting from the perspective of both domains stating "academic discourse focuses on means, and industry focus is more economically pragmatic". The world of work is less linear and structured, it moves at a faster pace with a function on productivity to generate profit, which sets organisational prioritises and needs. Abram expresses workplace information literacy as having a "focus on the needs of the enterprise and aligns with the mission of the organisation to succeed" (cited in Mawson and Haworth, 2018 p.103).

These priorities will have a knock-on effect for graduates once they enter the workplace. Disparity has been documented between universities projected outcomes for graduate attributes and employers' feedback on the skills of new graduates. This demonstrates a weakness, possibly as a result of disjointed terminology and/ or curriculum design and delivery. Employers have also fed back dis-satisfaction and a deficit in areas of critical-thinking, asking questions, problem-solving (Head 2017), and evaluating information needs (Cote and Juskiewicz 2014), skills recognisable as information literacy.

Different theoretical approaches have the power to influence discourses and teaching methods, furthermore clarity and consistency will come from a whole organisational buy- in. The overall approach selected will have an impact upon students' rhetoric, skills and knowledge whilst transitioning into the workplace. Discordance resonates with the findings of Collet, Damian and du Plessis (2015 p.553) who concluded a recommendation for terminology to move from "generating a new list" of skills, to developing commercially aware graduates with an understanding of organisational drivers. As evidenced in the literature, information literacy skills are utilised through contextual sanctions which shape practice and professionalism. This validates the significance of context and meaningful discourse.

3.4 Interconnected: Graduate Attributes and Transferability for Employability

There is a debate in the literature around information literacy being recognised or not, as an employability skill connected to graduate attributes. Mawson and Hepworth (2018 p.102) note that "information literacy is rarely recognised explicitly as an employability skill", and references made to corresponding skills results in pure information literacy terminology being unrepresented and therefore discredited. In contrast, Webber and Johnstone (2017 p.60) hold the view that information literacy is recognised in graduate attributes rhetoric for employability. Information literacy terms within graduate attributes and employability frameworks can be recognised through the use of overlapping and interchangeable terms. This well cited definition for graduate attributes is applied to this study:

> Graduate attributes are the qualities, skills, and understandings a university community agrees its students should develop during their time with the institution and consequently shape the contribution they are able to make to their profession and society. They are qualities that also prepare graduates as agents of social good in an unknown future (Bowden et al. cited in Barrie 2012 p.80).

This definition suggests graduate attributes as giving a person agency and morals in the work environment, recognised as professional ethics. Universities are referred to as a precursory experience to develop graduate attributes for students to discharge and influence their future regardless of their path.

Bowden's definition excludes a demographic who acquire these skills through work experience and training, so these attributes are not exclusive to graduates. The definition indicates that university is

a key time for students, when in fact learning can be shaped through adversity, trial, and error in the workplace.

The term graduate attribute being used interchangeably to refer to employability skills, presents an issue. Graduate attribute skills include technical discipline skills, which can date (CBI 2011) therefore these terms do not transfer directly. Furthermore, employability skills go beyond specific discipline knowledge.

Thomas and Day (2014 p.222), state that employers are seeking graduates with capabilities that can endure different demands and contexts, naming the following, "thinking, problem solving, communication, a range of personal attributes, and ethical values". This evidences a link to information literacy and graduate attributes for employability, (Gunn, Bell and Kafmann 2010; Inskip 2014). Gunn, Bell and Kafmann (2010, p.1) also discuss this referring to "the graduate attributes agenda incorporates the employability agenda". This is inferred to in the following long-standing employability definition, that frames employability within skills and personal attributes,

> …a set of achievements, skills, understandings, and personal attributes, that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy (Yorke and Knight 2006 p.3).

Information literacy is featured within the following graduate attributes "critical thinking skills, such as intellectual curiosity, analytical reasoning, problem-solving and reflective judgement, effective communication" (Hill, Walkington and France 2016 p.156) and therefore information literacy should be acknowledged as a graduate attribute. These skills are frequently stated on university graduate frameworks. Hill, Walkington and France (2016 p.156) further mention "research and inquiry skills and information literacy", along with an ethical outlook, which further contributes to substantiating information literacy as a graduate attribute in its own right.

Howard (2012), looks at library work in the University of Leeds, merging academic skills and information literacy to deliver information literacy instruction linked to employability. In this, Howard (2012 p.72) reports on the "academic skills strategy" as encompassing a comprehensive set of skills, positioning information literacy within these. The strategy raises awareness to students being 'critical thinkers and reflective learners' - skills that enable students to recognise and articulate their skills and also understand "information use" (Howard 2012 p.75). These skills identify with several authors who confirm employers are seeking graduates who are "flexible and adaptable" (Thomas and Day 2014 p.218; CBI 2011; Cote and Juskiewicz, 2014 p.440) and demonstrate value in problem-solving, critical thinking and communication skills (CBI 2011; Cote and Juskiewicz 2014) as transferable graduate attributes for employability.

Pitman and Broomhall (2009) report on the Australian federal government who implemented that Universities should introduce a set of graduate attribute competencies, in order to bolster the needs of future industry and in parallel support economic and social growth. Information literacy can be identified within these competencies as e.g. 'high-order reasoning, critical thinking' (Pitman and Broomhall 2009 p.339). In the UK, economic development is cited as a key driver for developing skills and attributes within the employment landscape. Additionally, in the UK this is a factor informing government policy (UKCES, 2010). Universities UK (2016 p.32) produced feedback from UK employers signifying graduates' preparedness for work in England is satisfactory which is in contrast to USA studies (Head et al. 2013; Head 2017), discussed earlier.

The landscape of the workplace is described as being complex and governed by "social, political and historical" (Lloyd 2010a p.90), factors that define the information landscape priorities. From this viewpoint, Lloyd questions the transfer of information literacy from academia to the workplace. Inskip (2014) also shares a similar view around the inability to effectively transition skills from academia to

the workplace without integrating workplace factors into the curriculum. Negating this, Head et al. identified:

> …graduates recognize early on that they must alter their information-seeking behaviour to fit the cultures and demands of their new workplace environments. (Head et al. 2017 p.91).

This change is noted in relation to meeting organisational objectives. A lack of attention is given to the benefit of creating a standard terminology for the acquisition of information literacy as a transitional skill. Collet, Hine and du Plessis (2015 p.533) state "the biggest challenge requiring resolution relates to the different meanings used by each stakeholder group to describe skills and their application". Collet, Damian and du Plessis and other commentators call for stakeholders to establish a shared language, and also certify this should constitute shared meaning. The authors suggest an industry skill requirement audit should be carried out in advance to validate unified meaning to inform "education programmes" (Collet, Damian and du Plessis 2015 p.534). The evolving and innovative nature of the workplace will prove a challenge for this language to remain consistent over time.

In contrast to Lloyds (2010a 2011) approach that examined developing information literacy for the workplace through focusing on discourse, context and social exchange, is the view that associates the UK becoming a "knowledge-based economy" (James, Guile and Unwin 2011 p.3), this view originates from New-Labour and neo-liberalism. This held an ideology to put business interests first and projected information literacy as a 'transferable skillset' (Webber and Johnston, (2017 p.160). These different approaches and what underpin them results in different beliefs as to whether or not information literacy is a transferable skill. Mawson and Hepworth (2018) view corresponds with Lloyd (2010a), in that they debate information literacy as a transferable skill, questioning the quality of transfer from academia to workplace. Their study suggests academic librarians should familiarise themselves with literacy related to the workplace, to improve the transfer of information literacy from academia and the workplace. (Abdi and Bruce 2015). Australian research adopts a relational approach to define information transfer from one context to another through practice (Andretta 2012). Their research explored meaningful exchanges between web professionals working remotely, confirming information literacy discourse does not need to take place face to face to be effective.

To conclude, the debate between information literacy being a transferable skill is ongoing. Meanwhile academic terminology is disconnected between stakeholders, resulting in transfer from academia to the workplace as problematic.

3.5 Information Literacy, Collaboration for Employability

Information literacy is still predominantly taught in the library as a skill and disconnected from a student's discipline subject. This study will argue for a shift for librarians and faculty to work together and thus develop a shared core language for information literacy that fits with graduate attributes for employability. The objective to create a shared terminology based on the practice of information literacy could be customised within a discipline to enhance information literacy transfer.

Disciplines coming together can work to enhance the development of transferable information literacy skills. This approach has an overall aim to help students "locate, retrieve, understand, and use information" (Gammal 2009 p.7) and also states interdisciplinary teaching methods as having a focus on the development of astute critical thinking abilities, the use of multiple perspectives in problem-solving, and the ability to draw connections between related issues. (Gammal 2009 p.7).

From the position of Gammal, advocating for the role of the librarian to work closer with faculty can be seen to pull out and complement a greater understanding and awareness of information literacy and discipline and enhance learning, creating a more critical edge. The benefits of these skills are reported by Goldstein and Whitworth (2015 p.70) as "financial, enhanced efficiency, competitive advantage, or employee job satisfaction". These predominantly relate to developing context specific

information literacy skills through discourse and social exchanges. There is a consensus that information literacy underpins the activities of other work-based tasks to be carried out, and without information literacy these tasks would not be performed (Lloyd 2011 p.277). Therefore, this approach will bring additional benefits to both domains and stakeholders through collaborative working between academic librarians and faculty. Lloyd (2011) concluded that information literacy is a practice consisting of social actions, shaped through context and discourse, therefore it is more than developing a suite of skills and is more complex, involving working together to engage with workplace goals. The approach involves developing an identity related to the workplace and understanding the nature of performance in the workplace, which will together evolve to become richer over time.

This approach could help overcome the issue of faculty feeling "uncomfortable teaching out -with the scope of their discipline" (Collet, Damian and du Plessis 2015 p.533). Cote and Juskiewicz (2014 p. 75) state the biggest challenge in their work had been attaining collaboration to support information literacy across the university, in particular communicating what information literacy is to professors. Cote and Juskiewicz (2014), also report on librarian's workload as being a challenge to manage the additional demand to teach. This study demonstrates collaboration between academic librarians and faculty as an effective teaching solution and reported that their strategy has resulted in enthusiasm and awareness of information literacy coming from faculty and reaching across a wider context. Furthermore, it concludes that librarians are now involved in participating with curriculum planning for first year students. This success was realised through the librarians adapting their terminology around information literacy to make it relevant to faculty and thus engaging faculty support. This study highlights discourse must carry a relevant meaning, without this the transfer of knowledge between people and context maybe problematic. Lloyd (2011) describes this in more detail:

> Knowledge of information sources within an environment and an understanding of how these sources and the activities used to access them are constructed through discourse. Information literacy is constituted through the connections that exist between people, artefacts, texts and bodily experiences that enable individuals to develop both subjective and intersubjective positions. Information literacy is a way of knowing the many environments that constitute an individual being in the world. (Lloyd 2011 p.286).

These contributions to the literature, add weight to the debate for information literacy instruction in Higher Education Institutions (HEI) to be taught as a collaborative practice. The complexity and pivotal role information literacy has in our lives, is evident from the literature where its presence is documented in the many domains of our lives (CILIP 2018; UNESCO 2017). Correspondingly, recognition as to how it overlaps a range of contexts justifies the need for information literacy to be taught with a collaborative approach (Cote and Juskiewicz 2014; Bent and Stockdale 2009). Organizations and employers have over time become more aware of the role and value that information literacy has within the workplace. However, there is still a lack of acknowledgement in the role and expertise of the librarian to deliver information literacy as a graduate attribute for employability. Currently the practice and terminology within academia is weak in resembling workplace information literacy, perhaps even perpetuating the reported skills gaps within USA universities.

3.5.1 Collaboration: Social Constructivism Theory, the Value of Discourse in Social Exchange

Discourse and social exchange operate to transfer and shape future employees, and the engagement of people forges networks, knowledge and innovation. People as sources of information, give emphasis to the value of discourse within social exchange in a contextualised setting. Social constructivism theory illustrates how information literacy is more than a list of skills, necessitating collaborative practice to utilise information use:

> …information literacy is enacted as a situated, collective, and embodied practice that engages people with information and knowledge about domains of action that are authorized by the discourses of the setting. (Lloyd 2011 p. 277).

Comparable to Lloyd (2011), Goldstein and Whitworth's (2015), study identifies the bias that defines information literacy as a library skill. The literature discusses a social and collaborative aspect to developing information literacy and draws attention to the antiquated librarian skills view as inhibiting the practice of information literacy to grow, (Lloyd 2011; Hepworth and Smith cited in Lloyd 2010a). Authors, Inskip (2014), Abdi and Bruce (2015), Lloyd (2010b) and Head (2012) support discourse and social exchanges as conditions for information literacy to develop. Higdon (2016 p.177) talks of "social capital", as crucial in the workplace as does Head et al. (2013). This view embraces discourse, networking, creating relationships and utilising resources to build knowledge Lloyd (2010a), and thus makes the knowledge available as a result of the interplay of these relationships in our immediate context.

3.6 Conclusion

Debates in the literature are wide-ranging towards teaching and learning information literacy in academia as a soft skill to boost employability and thus transfer into the workplace. The literature concludes that specific areas for essential learning to occur is compromised and as a result the librarian's role to effectively teach information literacy is restricted. Social constructivism theory states information literacy is enacted through discourse and social exchanges, and the literature proposes the need for a core shared language, crucial for graduate's success during recruitment and there onto employment. Existing debates demonstrate unresolved issues within information literacy instruction, particularly around clarification of meaningful terminology and social constructivism theory to influence pedagogical practices. These factors validate the rationale behind this research proposal and substantiate the overall aims and objectives of this study. The findings of this study will contribute to informing the academic librarian of practical ways to practise information literacy instruction and adopt a terminology aligned with industry thus evolving information literacy to be recognised as a graduate attribute for employability and also transfer into the workplace.

4. Results and discussion of findings

4.1 Introduction

The data was mined under six main themes, which are dealt with respectively. The taxonomy of the main themes has been influenced by using the terminology applied to CILIP (2018) definition of information literacy; this was selected as it underpins specific customs and practices in the workplace to advance knowledge.

A description of the link between the broader main themes and sub themes follows. Information literacy skills are sometimes named as soft skills, which compose of specific behaviours and cognitive activities. Within this study these skills and attributes have been ascribed to coded sub-themes 1-14, (See Table1), these differentiate from themes 1-5 which relate to broad information literacy concepts, the final theme 6, encompasses relationships. When sub themes are utilised, they facilitate the achieving of information literacy outcomes. These skills and attributes are mainly taught explicitly to information professionals only. Consequently, critiquing their usefulness to generate deeper knowledge for information transfer is not communicated to allstudents. CILIP (2018), describe the formation of these skills and attributes as equipping,

> Learners at every level with the intellectual strategies and tools such as adopting a questioning approach, not only to solve problems,but also, to frame problems and situations in new and ground-breaking ways. This capability is crucial, beyond education, to meeting the expectations of the workplace. (CILIP 2018 p.5).

CILIPs definition recognises information literacy as a transferable skill wherelearners gain competency in making associations and thinking in unorthodoxways to evaluate, ask appropriate questions and problem-solve. This model enables critical thinking skills to develop and for this to become a lifelong learning disposition which employers recruit for. This study justifies the inclusion of related cognitive and behavioural terms e.g. problem solving, curious, creative thinking, based on the principals reported in CILIP (2018) definition and the SCONUL seven pillars model (2011). Further additional terms are included for the purpose of coding ambiguous terms.

Collaboration is enabled through information literacy in different ways for example, in receiving and processing information it takes on the role of facilitating meaning-making, executed through social exchanges and discourse. At another level, information literacy and collaboration function toorganise and reconcile information with a variety of outcomes, therefore serving to maintain the value and credibility of information.

The term digital literacy was present within the data and required clarification in relation to information literacy. This research adopts the following understanding towards digital literacy, thus positioning digital literacy as an aspect of information literacy:
Information Literacy is an umbrella term which encompasses concepts such as digital, visual and media literacies, academic literacy, information handling, information skills, data curation and data management. (SCONUL Seven Pillars 2011 p.3).

4.2 Analysis and discussion: university graduate attributes and recruitment

4.2.1 Websites terminology

The following table exhibits main themes 1-6 and subthemes 1 -14. The framework was applied to analyse, fifteen Scottish Universities websites public graduate attribute pages and thirty-seven job adverts posted on online graduate recruitment sites. The framework adopts working definitions to interpret the findings.

Table 2: Framework themes applied for analysis

Theme 1		
Discover and Access		SCONUL Seven Pillars model: Pillar Identify + Plan, equates to Discover andAccess.
1.InformationSeeking	3.InformationCollecting	Definition:
2.InformationSearching	4.Retrieval	Can locate and access the informationand data they need.
		(2011, p.5)
Theme 2		
Interpret, Analyse		SCONUL Seven Pillars model: Pillar Evaluate, equates to Interpret, Analyse
5.CriticalAnalysis	7.Validity	Definition:
6.Critical Evaluation		Can review the research process and compare and evaluate information anddata
		(2011, p.9)
Theme 3		
Manage and Store:		SCONUL Seven Pillars model: Pillar Manage, equates to Manage and Store.Definition:
8.Information recording management	10. Data Management	

| 9. GDPR | 11.Secure and Ethical Handling of Data | Can organise information professionallyand ethically

(2011 p.10) |
|---|---|---|
| **Theme 4** | | |
| 12. Create with information(Ethical Practice) | | SCONUL Seven Pillars model: PillarPresent equates to Create with information (Ethical Practice) Definition:

Can apply the knowledge gained: presenting the results of their research, synthesising new and old information anddata to create new knowledge and disseminating it in a variety of ways.

(2011 p.11) |
| **Theme 5** | | |
| Communicate and shareinformation: | | Definition: enables learners to engage in deep learning - perceiving relationships between important ideas, asking novel questions, and pursuing innovative linesof thought.

CILIP (2018 p.5) |
13.Communicate and share information (Ethical Practice)		
Theme 6		
14.Working togetherand alongside withinand between		Definition: Meads and Ashcroft definition has been applied as a working definition to outlinethis study: At its simplest collaboration is about working together. It therefore implies both difference… and commonality… Collaboration is also about relationships –working together and not just alongside. It implies more than activities which overlap or interact in some way and would normally include some conscious interaction between the parties to achievea common goal. (Meads and Ashcroft 2005 p.15-16)

4.2.2 Discover and access

Universities' terminology describing graduate attributes around this theme illustrated a preference for the use of the term, 'research', e.g. 'Research and inquiry'; Research-led enquiry'; 'undertake research and use research'. This connects to main theme" "discover and access" and to the traditional long held view of Information literacy as a research activity.

Recruiters also use the term research, which is synonymous to information literacy, thus confirming new graduates have a need to understand strategies and tools for conducting effective research. Recruiters data at the level of Internal/External gave e.g. 'knowledge and understanding of research to support organisational goals'. This substantiates information literacy is a sought-after employability skill for business operations. The extracted data corresponds to findings in the literature review shared by Abram (cited in Mawson and Haworth, 2018; Collet, Damian and du Plessis 2015) who reported the workplace operates on the premise of targeting organisational goals to generate profit.

Other terms related to, 'find information', 'gather data', 'Identify key sources of information' and 'access information', these alternative terms describe sub themes 1 and 2. Data mined from recruiters' job profiles around subtheme 2, revealed the term 'monitoring' as having equivalence to information searching, with monitoring relating to information searching as it refers to the ongoing examination of data. Employers also talk of information searching and refer to monitoring as linking to both individual/team and internal/external contexts.

The term monitor is not a preferred term used within graduate attributes terminology. This is evidence of ambivalence in the terminology between both the domains. The term 'gather' at graduate attributes was favoured over 'information collecting', although the term 'gather data', was sometimes in list form therefore no context could be established. 'Gather', revealed itself to be the preferred terminology to articulate the information literacy sub-theme 3. This finding establishes a discordance with information literacy terminology for information collecting. Discovering and accessing information is an iterative process with the new information directing change, in the search criteria. Specifically, around the review of terminology for information retrieval, findings concluded a unified meaning between graduate attributes and information literacy terminology.

Regarding terms referring to what data was being collected, the following terms were retrieved from university webpages, e.g., 'evidence', 'information' or 'key sources', plus reference to polices.

Recruiters' terminology pointed towards retrieving information from digital sources. e.g. 'Utilise internal database, online job boards and social media'. This data cannot be generalised to give conclusive findings as some of the graduate jobs had an aspect of working online or with digital customer records. The use of this terminology in job adverts may have significance to understanding graduate employees' behaviours, who are reported by employers to go directly to online resources to gather information. Employers stated this activity often fails to resolve the issue. These findings resonate with the literature reporting, on "employers place a high value on the ability to obtain and process information" (Head et al. 2013). Additionally, this evidence significance in that new graduates require a high level of information literacy skills to understand the steps and the process of searching online to access quality information. Employers were reported to endorse the social aspect for gathering and sharing information rather than overly relying upon information communication technology (ICT), which is the most common method taught in university. During the transition period whereby, graduates have not formed a strong level of social capital in the workplace, graduate's dependency to problem-solve through online resources will be necessitated.

Head (2017) reported social capital as developing over time therefore the need to have strong information literacy skills over and above discipline skills, particularly if the job is not ICT based is essential.

There was no significant difference to subtheme 4, retrieval. The use of this term on graduate attributes frameworks corresponded with information literacy terminology. This indicates a consensus between graduate attributes and information literacy terminology.

Composite terms were ambiguous and problematic to interpret without a full understanding of the job, e.g. Assist in the inspection, monitoring and reporting on applications. The need for graduates to have a high level of information literacy skills is evident.

4.2.3 Interpret and analyse
Within the domain of graduate attributes this main theme was rich in terminology, e.g. analyse, analysis, analytical thinking, critical thinking. Interchangeable terms associated to critical analyses and

evaluation included critical thinking, decision-making and problem-solving. Critical analysis as a skill is important, it is used more broadly in problem-solving thus critically evaluating information takes place within the context of problem-solving.

Terminology expressed e.g. 'strong' and 'excellent' problem solving skills. Within job adverts the term analysis was mainly recorded in list form, therefore making context difficult to determine. Subtheme 5, is discussed in a general sense, terms relating to analysis, were plentiful e.g. 'excellent analytical skills', 'business analytical skills', 'strong analysis' and 'analysing and utilising robust data sets.' The terminology identifying the information skill to analyse information is a mutually shared term, across the domains, however it cannot be fully established if the meanings ascribed are completely agreeable. Thomas and Day (2014) communicated problem-solving as a sustainable core concept for lifelong learning, stating that employers identify graduates with this skill as being flexible. Overall the literature established information problem-solving as a valuable skill (Hinchliffe and Jolly 2011; Maxwell and Armellini 2019; Cote and Juskiewicz 2014; Head 2012). The use of the interchangeable terms decision-making and problem-solving confirm that terminology at both domains around main theme 2 are in discordance with pure information literacy terminology. Accordingly, further research to establish the meanings ascribed by each stakeholder to the terms analyse, decision-making and problem-solving is required. Overall the use of the information literacy term 'analyse' suggests a consensus between graduate attributes and recruiter's terminology aligned to the practice of interpret, analysis within information literacy. Teaching analytical skills within the context of information literacy is an area of expertise for the instruction librarian. Findings confirm that graduates are vetted for their competency in this skill during the recruitment selection process and require a language to articulate this after graduating.

Sub-theme 6, critical evaluation at graduate attributes, is associated to the skill and activity of asking questions. The following are examples of such term and phrases, 'ask questions'; 'Willingness to question accepted wisdom'; Challenge disciplinary assumptions; 'Ability to question'. The retrieved terminology is not aligned to information literacy terminology. Ambivalent terminology for concepts poses a challenge for students transferring into the workplace. The range of terms within 'critical evaluation' illustrates there is no preferred discourse and reveals a discordance between graduate attributes, and employers and information literacy terms.

Within job adverts the information literacy term 'critically analyse' revealed itself through associated terms, evidencing a discordance between employers and graduate attributes and information literacy terminology. The term 'translating' and 'interpret' was used as an interchangeable term to 'interpret', other favoured terms e.g. 'decompose', 'distinguish'. This highlights the necessity for a shared language and demonstrates that graduates need to be able to articulate meaningful information literacy terminology prior to entering the workplace. Employers use of the term' interpret' is in contrast to academic information literacy terminology, this term being used as an interchangeable term to refer to critical analyses.

Findings at subtheme 7 show that 'validate' was poorly represented within graduate attributes. Recruiters referred to validate in the context of 'decision- making'. Terminology showed the aspect of decision-making to infer validity, which may result in students experiencing ambivalence in comprehending information literacy terminology. Graduate attributes terminology sometimes substituted the term 'evaluating', for 'validity', evidencing a disparity between academic information literacy terminology and that of employers. Evaluating is associated to the effectiveness or efficiency of information. This suggests that 'validate' is either a strong librarian term or alternatively the concept of decision-making is recognized as a significant graduate attribute. Decision- making has a different meaning to validate; validate is defined as the "approximate truth of an inference" Shadish, Cook and Campbell (cited in Barnett et al. 2007 p.106). Broadly speaking, decision-making is about

weighing up options, asking questions and making a choice based on credible information. Decision-making differs from validating as it typically includes the element of making a plan of action. In contrast, 'validate' in its true sense supports truth. Decision-making can be individual or collective, based on facts, intuition, creativity and innovation. The phrase, 'check and complete ppi case administration, using available evidence and data' was coded in subtheme 7, however this aligns closer with cross-referencing data over validating. This example demonstrates the level of ambivalence in the terminology. Accuracy of data is important within information literacy; this requires an understanding of what the information need is to allow for accurate identification of data to be confirmed. Applying different meanings to equal terms is problematic for communication.

Recruiters' terminology around decision-making gave meaning to identifying trends and developing further business opportunities, linking to commercial objectives. Although this study did not focus on individual professions, terms were collated from job adverts within finance. A range of meanings maybe discovered across different sectors or correspond to findings here. Webber and Johnstone (2017 p.160) expressed the notion that education is shaped by political influence that prioritises business interests. The drivers of education have relevance to librarians work as operational strategies can create obstacles and influence dominant narratives. Cote and Juskiewicz (2014) share how the librarians in their study used a horizontal approach and applied their own "working definition of information literacy" (2014 p.75). This enabled them to introduce information literacy to faculty and established a starting point around understanding information literacy. This study sought feedback from faculty asking them what they wished the librarian to teach. This was established as the teaching of two key skills, "critical thinking and the ability to ask good questions", which led to a positive outcome relating to how information was promoted across the university (Cote and Juskiewicz 2014 p.74).

A further factor emerging from the literature is around decision-making within the workplace which is influenced by the sanctions of the workplace context (Head 2011). This is a recent and ongoing area of research whereby a greater understanding is progressing to inform how this shapes knowledge.

Interchangeable terminology associated to main theme 2 holds value to both domains. Librarians could consider introducing these terms to relate more with industry narratives and subsequently assist information literacy skills to be communicated and transferred into the workplace context. Considering employers' feedback and findings from Tymon's (2013) research, the role of the librarian in teaching information literacy as a transferable employability skill is important. Feedback from employers stated graduates struggle with less explicit direction in the workplace and required tasks to be spelled out to them. Head (2012) found that employers considered new graduates would arrive in the workplace already equipped. Tymon (2013 p.846) states "organisations are becoming increasingly reluctant to invest in developing the transferable skills of graduates due to economic pressures", and further comments that the responsibility to develop "transferable skills", is falling upon academics, with the intention of generating work-ready graduates.

As previously commented on, employers have fed back that students go straight to Google and come back with the quickest answers which often do not resolve the issue. (Head et al.2013 p.86; Head 2017 p.83). Ambiguous terminology may be a contributing factor affecting graduates' understanding of how to complete a task, along with the inability to see others as resources of information. Implementing a social-constructivism approach to teaching a social side to learning information literacy may offer additional employability skills.

Composite terms in main theme 2, revealed terminology constitutes skills in forecasting and summarising accurate information and also for sharing data e.g. 'examinations lead to decisions or

recommendations', 'analyse large amounts of data, make recommendations'. These phrases evidence that graduates are vetted for information literacy competencies at the recruitment selection process.

4.2.4 Manage and store

This theme is the least reported across graduate attributes frameworks. 'Information recording management' predominantly deals with structuring information. Terminology around this subtheme referred to having organizational skills. Recruiters' terminology around the individual/team, orientated towards the context of case management, data processing and monitoring, requiring a graduate to have competency in file management. These findings reflect a view held by CILIP (2018) that information literacy, 'may be subsumed in other employment-related concepts such as knowledge and information management and data management' (CILIP 2018).

In account of all companies having to adhere to General Data Protection Regulation (GDPR) polices, this term was reflected poorly in job adverts at subtheme 9, e.g., 'manage evidence', 'manage data' followed by 'keep document up to date'. The closest term to GDPR was found within internal/external, referring to data protection'. Within academia this subtheme was also underrepresented, with the closest term being 'data and information management' inferring to policies in relation to managing data. Recruiters' job adverts reported on ethical practice terms mainly in relation to industry specific polices. CILIP comment:
Information Literacy means, working ethically, understanding the implications of data protection, intellectual property rights, such as copyright'. Ethical practice is recognised as a core skill for participating in a 21st century workplace. (2018 p.5).

This finding informs information literacy instruction to adopt a focus on grey literature and polices with an equal weighting to teaching copyrighting and plagiarism skills. Accordingly, this also infers that graduates require a mutual language to speak with employers around policies. This reveals a disparity between information literacy terminology and recruiters' narratives. This also highlights the different priority attached to subtheme 9 within academic information literacy.

Within recruitment, sub theme 10, 'Data management' deals with managing records of data. 'Manage information' was a common term within graduate attributes. At the level of individual/team, the created theme 'recording' included 'digital recording on customer records management systems'. The types of jobs examined can affect the findings therefore this result has to be generalised. Digital practices are often misunderstood: digital literacy is a tool to utilise digital information. It would benefit a graduate if they could articulate both digital literacy and information literacy, this would give graduates a language to showcase each skill to potential employers. The evidence reveals a discordance in information literacy terminology around the term 'data management' and the corresponding graduate attribute term 'manage information', preferred by universities.

Secure and ethical handling of data was not highly documented in the language across graduate's framework. Where it was documented, ethical practice terminology portrayed an internalized individual disposition, with the exception of reference to 'knowledge of plagiarism and copyright'. In contrast the terminology around this subtheme within recruiter's job profiles at internal/external gave attention to organisational policy and procedures e.g. 'good records development 'and 'development and maintenance of all polices and procedures', this data was minimalist.

Composite terminology within employers referred to both collecting and managing information e.g. 'collated and stored within a managed file', this involves both evaluating and organising information.

4.2.5 Create/Create and share (ethical practice)

Main theme 4, was given notable recognition in relation to graduate attributes, where create is associated to the context of taking on an intellectual and innovative capacity for creating solutions. This asserts creativity in creating information as a characteristic in problem-solving, e.g. creative solutions to problems, creative thinker, curious, innovative and imaginative. The terminology talks of encouraging a creative and curious thinking disposition, to foster graduate attributes. Creative and creativity, have different meanings, as a person can create something without being creative. Promoting unorthodox ways to creating information correlates with information literacy terminology articulating for students to engage in "new ways of thinking and new knowledge', for information transfer and employability" (CILIP 2018 p.5) The term 'Synthesising skills' was coded as an interchangeable term to infer 'create'.

Recruiters terminology links creating, to work tasks, in particular goal setting areas, actualising and sharing ideas connected to problem-solving outcomes. This aspect of finding solutions moves create beyond an intellectual skill to implementing solutions. Recruiters terminology e.g. 'developing solutions, strong problem-solving skills', expresses that employers are seeking graduates who are confident in having agency in their work to meet organisational goals. The diverse range of activities represented within this main theme demonstrate its difference across different professions. CILIP (2018) equate creating with sharing information implying that information is constructed between people. Recruiters' terminology would suggest this is the process that creativity operates within in the workplace as it aims to achieve positive organizational outcomes. Widén, Hansen and Widén, defined this as:
Information sharing behaviour describes the explicit and implicit exchange and sharing of data between people, groups, organizations and technologies. (2012 no page number).

The term problem-solver evolved from the data to be associated to creating, which occurred in list form at the level of individual/team. The data indicated that employers' terminology links creativity to actualising, autonomy and sharing, e.g. bring forward your own design. This has similarities to SCONULs seven pillars (2011) definition to create which implies bringing new information forward to share. Creating new information can be defined as having no prescriptive format to it and crossing over a range of individual, social and operational activities. Terminology used at internal/external included a diverse range of activities, demonstrating difference across professions, highlighting the need for a shared meaningful terminology around information literacy. Terminology around problem-solving was plentiful which suggests employers and universities give merit to creativity and problem solving and that creating new information is valuable as it facilitates problem- solving. Problem-solving can be creative and or methodical, based on due diligence. UKCES (2010p.56), talk of "creativity and innovation", being a future skill important for employers, as does Maxwell and Armellini (2019).

Wood and West (cited in Tymon 2013) also comment on creativity as a skill sought by employers. However, these authors define creativity as a personality trait. University webpages promote tertiary education in relation to this main theme as offering students the acquisition of new ways of thinking, seeing, and talking. Tymon (2013) shares a selection of authors' views commenting on universities' role as taking on an active stance to develop personality and foster creativity in students which they define as a personality trait. This is an area that requires further research and is out-with the scope of this study. From a different aspect this communicates the importance of understanding how information literacy functions beyond academia and the library requiring consideration to be given to how information is created and shared as more than a skill (Webber 2010; Bent and Stockdale 2009; Head 2017, 2013, 2012; Lloyd 2010a). Johnston and Webber argue for a move away from:
> information literacy as a skill or personal attributes in favour of information literacy as a discipline relevant to a broad range of contexts. (cited in Howard 2012 p.75).

This matches CILIP's definition, acknowledging that information literacy is present across many environments, e.g. workplace, education, health, everyday life, citizenship (2018 p.4-5), and therefore

transferable. The quote from Johnston and Webber (2006) appraises information literacy as mapping into frameworks such as graduate attributes for employability.

Information literacy is noted in the literature as present in a range of settings. Teaching information literacy beyond the traditional library skills remit can provide students with transferable strategies to think laterally, make connections, draw assumptions, and ask relevant questions to information. Recruiters' terminology presents creating and sharing knowledge and information as more than a library skill. Terminology is encompassing creativity aligned with multiple elements, at the level of both individual and group, within the workplace. The findings of recruiters' terminology agree with findings of the literature review. (Webber 2010; Bent and Stockdale 2009; Head 2012; Lloyd 2011).

With the adaption of a shared meaningful language with faculty to match industry terminology, information literacy can evolve to have a value in academia and subsequently for employability and transfer into the workplace. Strategies to practice information literacy within a social context and preparing students to have critical thinking skills and be problem-solvers addresses deficiencies employers have been feeding back in the USA (Cote and Juskiewicz (2014). In the UK these deficiencies have not been reported in the same way, they are identified as essential skills for the workplace. (UKCES 2010; Maxwell and Armellini 2019; Woods and West cited in Tymon 2013). This is an area for future research in the UK.

Ethical practice is a component of this main theme. Within graduate attributes terminology relating to ethical practice in this context was minimalist and pointed towards social responsibility through individual participation, e.g. 'Maintain ethical and environmental responsibilities'; 'Developing solutions that are ethical, visionary, realistic and sustainable'.

Recruiters' terminology gave meaning to framing ethical practice in relation to employees' duties within organisation policies, e.g. development and maintenance of all policies and procedures. This requires graduates to have the ability to extract and interpret essential policies to fulfil this responsibility. CILIP comment:

Information Literacy also manifests itself both in terms of the information behaviour of individual workers and in the corporate policies, strategies and activities of organizations (2018 p.5)

Social constructivism theory defines information literacy as occurring through social interactions. e.g. ethical practice. Head talks of organisational sanctions and cultural context shaping professional identities and practices, conveying that the work environment can be powerful in modifying a person's behaviour. Robinson states:

> Ethics is more complex than codes or prescriptive theories, and increasingly is concerned with character, identity, virtues and related skills. (2005 p.2).

Ethics is an important area for instruction librarians, for students should have a clear understanding of ethics' multifaceted functions across different contexts including the workplace. Information literacy instruction taught in relation to discipline knowledge can assist students in starting to acquire professional identifies and adopt transferable strategies e.g. think laterally, make connections, draw assumptions. During a degree programme these strategies can be refined before moving into the workplace where these practices can be utilised to support organisational goals. The role of the librarian working closer with faculty will contribute to students having a richer understanding of the characteristics of information and information behaviour, so subsequently this will develop a higher standard of information literacy Cote and Juskiewicz (2014).

Universities composite terms defined students as not only creators of information but as contributors to the information landscape, e.g. 'presenting and producing ideas'. Recruiters' terminology around create outlines meeting outcomes in relation to a specific work-related task. This typically means an organisational goal and not an individual one, something for academic librarians to consider when planning information literacy instruction, as academic outcomes are mostly based on individual goals. An understanding of what underpins information literacy activities can assist graduates to complete workplace tasks and expectations. Overall a general observation framed creativity as a way of thinking to find a solution, for this to transfer into the workplace requires a shift to incorporate problem solving through discourse and social exchange.

4.2.6 Communication and share information (ethical practice)

An insufficient understanding of the elements involved in communication can result in a lack of comprehension and confidence to reach the standard of being an effective communicator. Communication is more than talking.

Structuring and re-framing information in order to identify the information need is an important aspect to resolve issues and respond to business needs. In relation to information literacy and sharing information a student needs to have the ability to extract key points from text or from a conversation.

This theme focuses on the communicative side of sharing information; ethical practice has also been incorporated. Communication governs the process of other skills, and has many elements e.g. active listening, negotiating, conflict management, persuasion, articulate self, or meaning. Knowledge is created and built up through discourse and social exchange, we learn from each other (CILIP 2018; Lloyd 2011, 2010; Head 2017; Abdi and Bruce 2015).

Basic literacy terms such as writing skills were excluded, information literacy relates to higher order thinking skills. The most recurring terms in graduate attributes included, 'communicate information' and 'effective communication', Graduate attributes terminology portrayed other aspects of communication, e.g. 'pursued', 'influence' 'negotiates', debate, 'defend ideas in dialogue'. These terms were not significantly represented within recruiter's terminology. Overall, the data was rich in terminology around 'oral and verbal communication', 'presenting information' and 'public speaking' terms, conveying that graduate attributes emphasises this area of communication.

Data within recruiters' terminology was rich evidencing this as a priority skill to employers. Subtheme 13, terminology is discussed here in a general sense as data was predominantly documented in list form, e.g. 'Strong and effective communicator', 'excellent communication skills'. At the level of internal/external data collected mainly pointed towards external stakeholders/partners and related to business development, e.g. 'Make amends to existing projects based on client and internal feedback'. An example of internal communication, e.g. 'Attend internal and external meetings and co-ordinate technical activities'. Communication skills are reflected in the data as a priority in the workplace, whilst conversely academia practices to learning information literacy do not reflect the vital contribution of discourse or the benefit of social capital and relationships to build knowledge Lloyd (2010a). Head (2012) connects social capital and information literacy together as valuable skill in the workplace. Within her study Head (2012 p.19) asked new graduates transiting into the workplace about their experience in the workplace of using information and of their search strategies and how this differed from academia. They reported, "the social side of research mattered far more in the workplace setting than it had in college" (2012 p.19).

Discourse and social exchange function to bring information to the surface and enable its transfer. In this way discourse fosters professional knowledge and practices. This study outlines the importance of team working and mutual engagement to find solutions for information problems. Replicating this

in the academic setting would support developing information literacy for employability and transfer into the workplace. Lloyd (2011) also argues that social activities, "enable the development of information literacy". Lloyds research states the context "underpins discourse" (2011 p.280) and can also "act to constrain activities" (2011 p.278) therefore the academic setting can never fully resemble workplace information literacy. Work placements within the study discipline can provide students with experience of workplace discourse, and the social side to sharing information.

Communication was also represented through terms relating to the digital platform in both domains, e.g. 'digital literacy' and 'share digital content' 'understand when and how it is best to communicate through social media'. SCONUL seven pillars (2011), describes information literacy as being the parent literacy encompassing other technology and information management. This helps explain where digital literacy sits in relation to information literacy. Information literacy skills can help guide a user through the online environment by providing strategies to minimise information overload, thus, communicating key points. Terminology within graduate attributes revealed e.g. 'communicate effectively through digital media and other media'. Within recruiters' terminology digital communication was not highlighted although reference was made to being concise with information e.g. provide accurate advice and support. This requires mastering information literacy to communicate key points. The terminology is mixed whereby there is agreement with some terms and disagreement with others across the domains.

Graduates need to recognise both the correct medium to share information and be able to understand the type of information they are receiving in order to make informed decisions on how they act upon it. Information literacy instruction supports this though identifying bias or fake information. When a student first enters the workplace, they will most likely find themselves working alongside experienced colleagues who have a great deal of tactic knowledge that students can learn from. It is important to be able to ask the right question to understand the actions and behaviours that correspond with tactic knowledge. Wellman states:

> Tacit knowledge is also regarded as being the most valuable source of knowledge, and the most likely to lead to breakthroughs in the organization. (cited in Hajric 2018 p.19).

It is vital for professional development that a student has the skill to engage in communication and develop an understanding of how knowledge operates through hierarchies and therefore learning the who, what, where, and how to access knowledge that is implicit and explicit in the workplace.

Information literacy is reliant on social actions and discourse for transfer. Social constructivism theory has a strong emphasis on narratives and relationships, positioning knowledge as occurring at the point of social transactions and connections Hargie (2010). Librarians teaching information literacy around what relates to different workplace contexts, can help students gain an understanding to how social capital can operate in the workplace and take them beyond academic practices to develop knowledge. Head et al. (2013) talks of social capital and information literacy which can be seen to be coming together as a valuable skill within the workplace. This is an area where academic librarians and faculty can work together to bolster graduate's information literacy practices to support the social side of learning information literacy.

Cranmer (cited in Tymon 2013), states evidence is weak in confirming that universities are the best setting for developing transferable skills related to the workplace. Towlson and Rush (2013) express academics views in supporting work-placements as opportunities to develop employability skills, this would enable the opportunity for students to learn how information is created and shared, along with work related terminology.

Ethical practice features in both academia and the workplace and can be described as a pre-requisite for fulfilling work tasks. Findings discussed around ethical practice at 4.2.4 are replicated within this subtheme, with the addition that job vacancies terminology indicates employers seek graduates who can exhibit professionalism. Hinchliffe and Jolly (2011 p.564) discuss the dilemma this poses to graduates at recruitment as they have not yet established their professional identities due to lack of experience, and state this transformation takes shape as a development from their current graduate identity. This agrees with a social constructivism approach.

Terminology collected within this subtheme e.g. 'Ethical impact of their actions', 'Ethical, social and professional understanding', 'Acts with ethical approach'. This refers to a person's responsibilities within their social and or professional role. How and what we communicate, is grounded in the context we are in, the context of a seating has its own local informal and formal sanctions which influence how we exhibit our ethical values. Ethical practice is recognised in policies and guidance around plagiarism, copyright, equality and diversity. It can also be described as a pre-requisite to fulfilling work tasks.

The findings conclude practicing information literacy within a meaningful contextualised setting, one that incorporates a social aspect to sharing

information can lead to increasing students' proficiency to effectively communicate. Subsequently this will enable graduates to have improved information literacy strategies to assist during transition into the workplace.

4.2.7 Collaboration (ethical practice)

Collaborative and other interchangeable terms relating to teamwork and work, featured highly on graduate attribute frameworks, indicating an emphasis towards collaborative practice. Terminology inferred specifically to engaging and participation e.g. 'participatory learning and peer learning', 'engage in scholarly community'. This is in contrast to recruiters who give meaning to collaboration in the context of developing business and achieving commercial outcomes.

Graduate attributes terminology around teamwork was plentiful e.g. 'work within a team' or 'work collaboratively'. It also referred to students' personal attributes, e.g. 'contribute positively when working in a team', 'gives and receives feedback effectively'. Other terms made reference to the task, e.g. 'gather together, necessary evidence', 'produce a presentation or report together'. Graduate attributes data included data referring to collaboration beyond the university, e.g. 'engage locally and globally', 'pro-active participation in academic and/or professional online networks', 'Industrial placements'. Although graduate attributes terminology focuses on collaboration around teamwork, terminology revealed the practice of collaboration is predominantly linked to engaging and participating. These terms centre on the actions of the individual, not on the outcome. The basis of engaging and participating being applied as a framework detracts from the focus of knowledge and information being produced through discourse and organisational sanctions that shape professional identities Lloyd (2010a, 2010b; Hinchliffe and Jolly, 2011).

Terms gathered from job adverts at individual/team, had a stronger emphasis on collaborative practices over information literacy. Some terms were ambiguous, as such the specific information literacy tasks could not be defined. Examples of information literacy in job adverts at internal/external e.g. 'work with various teams to provide the best possible solutions, 'support partners in establishing effective monitoring and evaluation strategies". These terms relate to co-creating information and sharing to develop business goals, thus demonstrating collaboration functions to develop business needs (Abram cited in Mawson and Haworth 2018; Collet, Damian and du Plessis 2015). These terms demonstrate the meaning behind collaborative practice that enables information literacy and

knowledge to come to the surface in the workplaces and differentiate from terms inferring to collaborative practice around information strategies within academia.

Recruiters terminology also denotes an interdisciplinary and multi-agency approach to working, whereas the academic curriculum is designed in a way that sets disciplines to be quite insular to each other. Learning new knowledge stays within the immediate subject field and has the potential to contain discipline bias, or not corresponding to others information needs and goals. This highlights a gap in information literacy instruction within Universities not explicitly teaching students to engage with others and their disciplines as information resources. Teaching practices within academia relating to where information is sourced may be a contributing factor. This may also shed light on new graduates' behaviour, described as being attached to turning to digital sources to problem solve and experiencing difficulty to fully assess the information need, "and frame research questions for implementing an iterative research strategy" (Head 2012 p.19).

Information literacy teaches one to question and read between the lines, put into practice and accompanied with experience this can sharpen observational skills. In terms of receiving information, the activity of collaboration mediates a social means to transfer and creating new knowledge-this is the product of information literacy and collaboration operating together. Johnstone and Webber (2017 p.158) talk of steps leading to be becoming information literate involving, "cognitive and social development as well as practical acuity and collaboration".

As established in this paper, collaboration plays a role in information literacy and has a reciprocal association through discourse and social exchange: receiving and processing information (Lloyd 2011). Many business tasks could not be completed without engaging information literacy in conjunction with collaboration, this suggests there is a hidden synergy between collaboration and information literacy.

Moving on to the element of ethical practice within collaboration, the data at graduate attributes was minimal and mainly denoted social responsibility over professional practice. e.g. 'ethical and social responsibility', 'reflective awareness of ethical dimensions' and 'work within the established professional codes of behaviour'. Professions and organisations are regulated and governed by ethical practices although the importance of this in industry is not reflected in graduate attributes terminology. The tools and strategies information literacy equip a student to rationalise and be objective in their practice. This is not noted within graduate attributes thus demonstrating a discordance between information literacy practice and gradate attributes terminology. Evidence of ethical practice may not be within the graduate attributes' terminology however it may be included in curriculum delivery.

Collaboration plays a role in information literacy Lloyd (2011), who expresses that information literacy is constructed through people, objects, and experiences which allow an individual to create both personal and or social meaning. This specifies learning takes place through active participation, it does infer a willingness to engage. Through the authority of Lloyd (2011) collaboration and information literacy have a reciprocal association. The activity of collaboration mediates a social exchange to transfer and create new knowledge and information, which becomes the product of information literacy and collaboration operating together.

5. Conclusions and recommendations

This study highlights information literacy operates across many contexts, this wider context is captured by CILIP (2018) in their updated definition. Findings of information literacy terminology from the domain of university graduate attributes and recruiters job adverts revealed that both graduate

attributes and recruiters do not fully ascribe to pure information literacy terms. However, both recruiters' and universities choice of interchangeable terms do convey the characteristics of higher order thinking required for effective information literacy to occur. This discovery of information literacy skills from the terminology confirms there is a relationship between information literacy skills connected to graduate attributes and information literacy skills for employability. This yields to information literacy skills being recognised for advancing graduates employability within universities and as being assessed and qualified during the selection process by recruiters. These findings taken together with previous research establishing information literacy as a social activity in the workplace, forwards the view that information literacy is more than a library skill. Furthermore, this asserts the role of the academic librarian to teach information literacy for employability. The evolving role of the instruction librarian is an opportunity to advance information literacy, and to recognise its crucial role in developing graduates with the necessary pre- requisite skills and knowledge for moving into the workplace. Ensuring students are equipped with a mutual language that employer relate to will help students to articulate sought after information literacy skills. Librarians can help students to distinguish formal discourse from industry discourses and recognise how industry terminology is descriptive of the elements and characteristics of the information literacy process.

The findings of this research provide a snapshot of the current use of information literacy terminology, with key findings highlighting ambivalence of meaning given to information literacy terminology across both domains. Overall, the evidence presents information literacy terminology between the library, graduate attributes and employers as ambiguous. This is problematic for progress and for successful collaborative work to take place between faculty and library staff.

The findings and data in this research indicate practical ways to support librarians to promote information literacy instruction for employability. Cote and Juskiewicz (2014) offer practical ways for librarians to start building a meaningful terminology with faculty. A shift to incorporate information literacy instruction to resemble a workplace approach would have implications for faculty and librarians to embrace terminology and collaborate on the delivery of information literacy within the discipline context. Gunn, Bell and Kafmann (2010) predict greater collaboration with a range of stakeholders is required at various levels to produce work ready graduates that meet with employers' standards. Maxwell and Armellini (2019) research also offer a pedagogic model that gives attention to aspects of information literacy and developing graduate's ability to problem-solve, all leading to fostering employability. Collet, Hine and du Plessis (2015 p.534) established talk of the "knowledge management, information literacy, teamwork, career management and citizenship", as priority skills to employers. Information literacy is aligned to a range of skills underpinned by information knowledge, collaborative and social practices. Understanding what drives and underpins effective information literacy can enable learning and thus support graduates to effectively manage workplace information needs post-graduation.

Until wider debates are closer to agreement and strategical plans are set in place, small steps along the way, made by dynamic and forward-thinking librarians can help new graduates' transition into the workplace.

5.1 Recommendations

1. Implementation of a holistic organisational approach to create value and a shared meaningful core language between faculty and librarians.

2. Information literacy to take on meaning for faculty and allow for working relationships to evolve between faculty and instruction. This would help build the foundations of collaborative discipline work.

3. Librarians to participate in training in relation to a specific field of interest to allow them to keep up to date with industry and be connected to professionals out with the library environment.

4. Modifying teaching to incorporate elements of social learning found in the workplace, paired with a problem-solving task that is less linear.

5. Further research to establish models and methods of best practice to move towards aligning graduate attributes terminology to recruiters for increased employability.

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