“Intellectual and Practical Knowing”: the introduction of the Professional Knowledge and Skills Base at University College London

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Abstract
Early work in progress paper, reporting on questionnaire-based survey of students working with the new self-assessment professional development tool (*Professional Knowledge and Skills Base* (PKSB)) provided by the UK professional association (CILIP). Discussion of the sociology of professionalization identifies Wilensky’s Process of Professionalization as a useful starting point for discussion. Provides historical overview of the association’s seminal involvement in the creation of Library and Information Studies (LIS) as a discipline in the UK. Highlights the importance of the reflective practitioner within LIS education. The first in a series of papers that will explore the implementation of the PKSB within the academic setting in the three-year period 2014-2017.
Keywords: Professionalization; LIS Curriculum; professional associations; qualifying associations; Library Association; CILIP; reflective practice; continuing professional development
Citation: Welsh, A., Inskip, C. (2015). “Intellectual and Practical Knowing”: the introduction of the Professional Knowledge and Skills Base at University College London. In *iConference 2015 Proceedings*.

Acknowledgements: The authors would like to acknowledge the students who took part in the anonymised study.
Research Data: In case you want to publish research data please contact the editor.
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1 Introduction

“The optimal base of knowledge or doctrine for a profession,” wrote workplace sociologist Harold L. Wilensky (1964, p. 149-50), “is a combination of intellectual and practical knowing, some of which is explicit (classifications and generalizations learned from books, lectures and demonstrations), some implicit (“understanding” acquired from supervised practice and observation).” Writing in the USA in the mid-twentieth century, he classed librarianship, alongside “schoolteaching … nursing, pharmacy, [and] optometry” as a “borderline case,” still in the process of emerging and establishing itself as a profession (p. 142). Five years later, a UK study measuring nineteen different variables that indicate provision of professional services found the Library Association provided only two, as compared to the top-scoring medical qualifying associations, which provided thirteen of the nineteen (Hickson and Thomas, 1969). As the UK library association, CILIP (the Chartered Institute of Library and Information Professionals) implements its new Professional Knowledge and Skills Base (PKSB) not only as a tool for its members to self-assess their continuing professional development, but as the criteria against which “all accredited [library school] programmes are assessed” (CILIP, 2014), this paper takes a timely look at the role of the professional association and the university in developing the curriculum, and reports on initial steps to research the influence of CILIP’s PKSB on students taking their MA LIS (Master of Arts in Library and Information Studies) at UCL.

2 The Process of Professionalization

As educators of information professionals, it is easy to take for granted day-to-day that the working environment for which our students are destined is a professional one. The word “professional” is, after all, embedded in the generic description of the occupational group; we describe our qualification as a “*professional* Masters,” and our curriculum development is influenced and accredited by a *professional* body, CILIP.

However, the process by which the information profession emerged as a profession began in the UK a little over a century ago. We might count it from the date of the foundation of CILIP’s predecessor, the Library Association in 1877, or the granting of its Royal Charter in 1898, or, from the passing of the Libraries Act 1850, which saw the foundation of public libraries across the country and a consequent rise in the demand for those trained and able to manage the new organizations (Munford, 1976). We might look to our oldest universities and count the first professional librarians as their employees, or those of the Church libraries, or the libraries of the Inns of Court. Then we might question when such employees’ core duties became curation of the library as opposed to divine or secular scholarship.

As Watson (2002) has put it, the concept of professions and professionalism in general is "slippery." He also points out that it is "pejorative"; that those occupational groups seeking definition (or re-definition) as a "profession" are seeking the acquisition of an "honorific label." Larson (1977) has discussed professions as having "organized themselves to attain market power," (p. xiv) and "prestige" (p. 68). She offers a classification which she herself admits is "overschematic" but which is a useful starting place for discussing "various means by which prestige is attached to an occupational role," and which identifies factors that are "I. independent of the professional market" or "II. dependent upon an established professional market." Class I is further split into "traditional" and "modern means." Both involve education: the traditional is an "aristocratic or liberal education" while the "modern" is defined as "systematic training and testing." The emphasis she places on educational activities as independent of the marketplace is interesting, and worth revisiting for further analysis later, especially in the light of her description of the activity that she defines as dependent on the market: "Cognitive exclusiveness (Institutionally located in professional associations, "modern" university)." In terms of social mobility through professionalization, Larson identifies "aristocratic or gentlemanly characteristics" as a traditional means and "registration, licensing" as its modern equivalent. Finally, and here is a moot point, "Higher incomes and prestige than most occupations" and "connections with "extra-professional" power" are identified alongside cognitive exclusiveness as being dependent on the market. While there are many other theories about professionalization that are less purposive and instead focus on identifying trends and on the actions of individuals rather than collective groups (MacDonald, 1995), Larson's is useful in offering not only means of progression but also an indication of the agenda behind such a progression, and a schematic into which we might place LIS as an occupation that has moved towards the status of profession over the last hundred years.

Wilensky's (1964) work, similarly, is not the final word on how and when occupational groups become professions, but it provides us with a pragmatic framework into which we can map UK LIS in order to establish it as a profession and identify key points at which it emerged. Wilensky documents the tasks in which occupations need to succeed in order to be reclassified as professions:

> "Any occupation wishing to exercise professional authority must find a technical basis for it, assert an exclusive jurisdiction, link both skill and jurisdiction to standards of training, and convince the public that its services are uniquely trustworthy" (Wilensky, 1964, p. 138).

Further, he identifies "crucial events in the push towards professionalization" (p. 142-146), *viz.*:

- Emergence as a full-time occupation
- Foundation of a formal training at university or elsewhere
- Formation of a professional association
- Call for legal protection of the role through regulation of those who carry it out
- Publication of a code of professional ethics

Until the 1960s, UCL offered the only university-examined course in LIS in the UK: its graduates were exempted from the Library Association examinations that granted membership of the LA and were the means of assessment of the other library schools, set up from 1946 in various technical colleges. Sheffield University opened its library school in 1963, and the College of Librarianship Wales was formed at Aberystwyth in 1964, offering a joint honours degree in conjunction with its neighbour, the University of Wales. Also in 1964, the establishment of the Council for National Academic Awards (CNAA) empowered colleges to award degrees; its Librarianship Board was created in 1966, and the first degree course was approved in 1967 in Newcastle, with other colleges following suit. (Wood, 1997)

It was not until the 1960s that the role of the Library Association with regard to library schools settled into that of accrediting body: whereas UCL set its own syllabus and carried out its own assessment of students, mindful of the LA examinations from which its assessments exempted its alumni, later library schools (until Sheffield) taught a syllabus established and assessed by the LA. It was not until 1957 that library school teaching staff were invited to sit on the LA's Education Committee, and not until 1964 that the syllabus resulting from their inclusion was launched (Grogan, 2007). If, as argued elsewhere (Welsh, 2015), the significance of a university training school rests in liberal education and cultural capital, there is a period of nearly fifty years between the establishment of the first university syllabus in the UK in 1919

and assessment according to university curricula accredited by the Library Association becoming the usual form of assessment for new career entrants.

If we consider Larson's means of professional prestige, we can see both the traditional means (liberal education) and modern means (systematic training) at work here – the university contributing its tradition and culture of general education and the professional association bringing a set of criteria for systematic training, firstly through direct assessment and later through accreditation of university curricula.

3 The Role of the Professional Body

Historically, established professions such as Medicine and Law have been involved in self-regulation and certification (Jarausch, 2004). At the same time as moving from entirely practice-based skills-acquisition to higher education, from the mid-nineteenth century we can see a corresponding growth in the number of qualifying associations – organizations established by professional groups not only for networking and collegiality but also providing some form of qualification necessary for full membership. Millerson (1964) lists seven formed in 1391-1629 (of which four are the Inns of Court); none in the period 1630-1799; 42 in the 19th century; and 99 in the first half of the 20th century. From 1518-1950, 31 qualifying associations were granted Royal Charters, alongside "about twenty-four" learned societies and six professional institutes that did not administer qualifying examinations (Millerson, 1964, p. 92). Royal Charters confer prestige on an organization, but they also bring responsibilities. In the case of the Library Association, its aim, stated at inception in 1877 was

> "to unite all persons engaged or interested in library work, for the purpose of promoting the best possible administration of existing libraries and the formation of new ones where desirable. It shall also aim at the encouragement of bibliographical research" (cited in Munford, 1976).

This was expanded in its charter to eleven objectives, three of which have direct bearing on the education and training of new career entrants:

> "1. To unite all persons engaged or interested in library work, by holding conferences and meetings for the discussion of bibliographical questions and matters affecting libraries or their regulation or management or otherwise.
>
> …
>
> 3. To promote whatever may tend to the improvement of the position and the qualifications of Librarians.
>
> …
>
> 10. To hold examinations in librarianship and to issue certificates of efficiency." (Library Association, 1898).

The LA's direct involvement in education for the profession pre-dated any outside teaching institution's involvement by quarter of a century (1877-1902, when the LSE school opened), and continued for nearly half a century after the establishment of the first permanent university education programme for librarians (1919-1967, when library schools other than UCL, Sheffield and Aberystwyth/University of Wales, began to be empowered to award their own degrees).

Jarausch (2004) has observed that there is a natural tension between the aims of universities towards liberal education and of professional groups, which might aspire to protectionism of jobs. Millerson points out that in the formation of professional associations, there is a Catch-22 situation, in which to increase membership it is often necessary at the very beginning to grant membership to pre-existing members of the occupational group who have not taken the new qualifying examinations. Unless a profession is state regulated and licensed so that only those who have achieved a particular qualification can be employed in a role, the qualifying body is in the position of competing with other associations. Membership is voluntary – people working in the occupational group may choose to join the qualifying association or another interest group – or, indeed, may choose not to join any professional body. Setting the entry qualification too high may deter potential members and Millerson identifies the Library Association as an example of a "very specialized association" that has suffered in this way (1964, p. 129). Nonetheless, before passing on to discuss more recent times, it is worth noting that the Library Association was directly involved in the

establishment not only of the curriculum for career entrants to LIS from 1877-1967, but also, therefore, in the creation of LIS as an academic discipline. When we consider Wilensky's "crucial events in the push to professionalization," not only does the Library Association represent one of those events in itself (the foundation of a professional body), it was also responsible for one of the others: the formation of a training school (firstly outside the university system and then inside it). When library school students assert (as they are sometimes heard to do) that CILIP has no relevance to them, they overlook the seminal role of its predecessor, the Library Association, in the birth of UK LIS as an academic discipline.

Post-1967, the certification of career entrants by the Library Association did not cease to exist. As degree programmes became available, they were accredited by the LA, and alumni of the courses were granted exemption from LA examinations in the same way that UCL, Sheffield and College of Librarianship Wales/University of Wales students had always been. The current system of initial certification of individuals by CILIP sees the submission of a "Chartership portfolio", usually after at least one year in practice following library school. As has been argued elsewhere (Welsh, 2015), it is important to note that there was no 'big bang moment' in which all career entrants to LIS began to take the LA examinations; nor in which they took university degrees; nor in which they all joined the Library Association/CILIP. In-house training schemes continued in large academic and public libraries (for example the Bodleian Library and Birmingham Public Library) for some time after formal qualifications became available. In the same way, it is clear from CILIP's membership figures, down to 13,470[1] (Dada and Colbert, 2014, p. 7) that today not every qualified librarian continues to charter.

In this sense, Wilensky's "crucial event in the push towards professionalization" – and Larson's "modern means of professional prestige" – licensing - has not been achieved. Certification by CILIP is entirely voluntary. However, it is worth noting Wilensky's exact phraseology: "There will be persistent *political agitation* in order to win the *support of law* for the protection of the job territory" (1964, p. 145, his italics). Although CILIP does not campaign directly for licensing of the information professional's role, it does advocate strongly for the profession across a range of issues, and, in its own words, its Advocacy and Campaigns team "work with politicians, the media, the general public and key organisations to ensure that your [information professionals'] voice is heard and that your [information professionals'] value is recognised" (CILIP, n.d.). It has also established a professional code of practice (CILIP, 2012), which follows on from the *Code of professional conduct* first introduced by the Library Association in 1983. Prior to that date, information professionals followed an "implicit" set of values and were aware of the American Library Association's *Code of ethics*, which had been introduced in 1938 (Sturges, 2003).

In this way, the Library Association can be seen to have been a driving force in the transformation of LIS from a job of work to a profession. As an occupational group, information professionals have come a long way since 1600, when Bodley's first librarian, Thomas James, "found he was obliged to work as long as ten hours a day in the library" (Clement 1991, 273).[2]

4 Professional Skills and Knowledge

Although we might consider Ollé's condemnation of the Library Association exams quite harsh – "the oddities of its early syllabuses and the even stranger examination questions which were derived from them (more akin to competitive quizzes than invitations to provide intelligent comments on professional topics)" (p. 253) – it is certainly clear that it has taken a long time for the Library Association / CILIP to develop a clear statement of core knowledge. The merger of the Library Association with the Institute of Information Scientists in 2002, which formed CILIP, brought an influx of professionals working in the technical side of the sector and widened the scope of the organization's area of interest. In 2004, CILIP's new *Body of Professional Knowledge* proclaimed the necessity of marking out an area of professional practice:

> "Every professional organization requires a knowledge base, which describes the specialist subject knowledge that practitioners are expected to acquire for current and professional practice. The knowledge base defined in this paper … establishes the unique knowledge which distinguishes library and information professionals from professionals within other domains" (as cited in Broady-Preston, 2005, p. 51).

[1] This is nearly 10,000 less than the figure Broady-Preston (2006, p. 48) gave for membership in 2005.
[2] There may have been full-time librarians in the UK before 1600, but James's diaries provide a clear record of his library duties (as distinct from scholarly pursuits.

As Broady-Preston goes on to highlight, the need for flexibility and adaptability of the framework is stressed and, significantly, "the *BPK* does not constitute a curriculum *per se*" (2005, p. 251).The *Body of Professional Knowledge* marked a significant evolution in CILIP's development of materials for new career entrants – not only as the first major educational output from the newly-emerged professional body, but also as a departure from the style of criteria that the Library Association had delivered in the past, through its examinations and, later, its instructions for candidates preparing Chartership portfolios.

The wording of the cited passage from the *Body of Professional Knowledge* bears a strong resemblance to Wilensky's assertion discussed in section 2 above:

> "Any occupation wishing to exercise professional authority must find a technical basis for it, assert an exclusive jurisdiction, link both skill and jurisdiction to standards of training, and convince the public that its services are uniquely trustworthy" (Wilensky, 1964, p. 138).

As argued elsewhere (Welsh, 2015), it is the assertion of the jurisdiction of the information professional as "exclusive" – that only information professionals can perform the technical tasks within it – that has proven to be a major challenge for the profession. Increasingly, roles requiring a high level of programming skills are advertised within even the most traditional settings. For example, a recent job advertisement for the post of Systems Librarian at Senate House Library (University of London, 2014) provides a long list of highly technical knowledge and skills, including, as essential, "Knowledge of Unix-like server systems" and as desirable,

> "Understanding of modern web platform infrastructures …
>
> Knowledge of web applications and scripting for example PHP, Python or JavaScript; shell scripting such as bash; databases such as MySQL, application APIs."

Perhaps unsurprisingly, the qualifications sought as essential are

> "Educated to degree level, with a postgraduate degree or equivalent by experience and/or ability in librarianship, information science or other relevant discipline
>
> Demonstrable commitment to continuing professional development."

Written, like all good job descriptions, to attract the widest range of suitable candidates, this leaves plenty of scope for the selection panel to prefer skills and experience over qualifications: to change the order of Wilensky's phrase, to select a candidate based on "practical knowing" first and "intellectual knowing" second. Meanwhile, recruiting someone who has a track record of continuing professional development provides some assurance that they will continue to develop their skills as library systems continue to evolve. Having satisfied these essential criteria, "Membership of relevant professional bodies" is merely desirable, and, of course, plural: someone with this skill-set is just as likely to be a member of the British Computer Society as of CILIP.

At the same time that it is difficult to be prescriptive about the skills and professional status of those required to manage modern information services, conversely, core information skills are required by a wide range of employers outside the traditional information sector. As CILIP's (2013b) vision statement points out, "A fair and economically prosperous society is underpinned by literacy, access to information and the transfer of knowledge." Every website and intranet has an underlying information architecture and every organization has a need to maintain records of electronic documents: taxonomy design, knowledge management and records management are common destinations for some students after graduating from library school.

While sociological articles of the 1960s-1980s discuss professionalization in general, and LIS articles of the same period analyze the rise of the information professional, more recently there has been a growth in articles on "professional de-skilling" or the dissolution of professional groups into wider occupational settings (Broady-Preston, 2010; De, 2014; Dilveko, 2009; Forrester, 2000; Nerland and Karseth, 2013). Against this backdrop, continuing professional development becomes more important: constantly evolving technology requires professionals who are constantly upskilling to manage it.

CILIP's latest qualification framework maintains the format of the 2005 version: post-qualification, career entrants can work towards chartership; post-chartership, CILIP members can work towards re-validation. It also develops the Body of Professional Knowledge and, following consultation with a wide range of

members and non-members, has published its *Professional Knowledge and Skills Base* (CILIP, 2013c). This set of criteria and accompanying self-assessment tools presents a view of the breadth and depth of the professional skills information professionals may need. It is commonly represented as a "Wheel" (copyright CILIP), with "ethics & values" at its core, surrounded by "professional expertise [and] generic skills", which are surrounded in turn by "wider library, information & knowledge centre context," and then, on the outside ring the "wider organization and environmental context."

Area of PKSB
1. Organising Knowledge and Information
2. Knowledge and Information Management
3. Using and exploiting knowledge and information
4. Research skills
5. Information Governance and Compliance
6. Records Management and Archiving
7. Collection Management and Development
8. Literacies and Learning
9. Leadership and Advocacy
10. Strategy, Planning and Management
11. Customer Focus, Service Design and Marketing
12. IT and Communication

Professional expertise and generic skillset, numbered according to the *PKSB gap analysis* spreadsheet (CILIP, 2013a).

As part of the accreditation of university courses, teaching staff are asked to map module content to the PKSB skills, ethics and contexts, and, as well as providing CILIP with data with which it can assess the course for re-accreditation, this process alerts programme and module directors to the strengths of their offering – and, of course, any gaps. Similarly, for individuals members, CILIP (2013a) provides a *PKSB gap analysis* spreadsheet, which they can use to benchmark their current skillset and identify where they would like to focus their development activities. Formulae in the spreadsheet calculate the difference between the individual's self-identified "ideal" level of knowledge and their current self-assessed level, and CILIP suggests that the areas with the highest difference may be where the next phase of professional development might be targeted.

5 Implementing the PKSB as a tool to develop students' self-reflection

As discussed elsewhere (Welsh, 2015), in terms of programme development, we walk the middle line between providing a Masters that is of the same academic standing as all Masters at our university and maintaining the link between theory and practice that is often felt to be lacking in LIS (Gorman 2004; Haddow and Klobas, 2004). As well as providing our students with a strong theoretical and technical understanding (Wilensky's "intellectual knowing") we aim to encourage them to become reflective practitioners of the kind described by Audunson (2007, p. 104, his italics):

> "a *reflective* practitioner, who is not only taught to repeat established practices, but to go behind them, to criticize, refine and develop these practices and discard them if necessary; for example, a practitioner who is capable of maintaining a reflective and critical relationship to a central professional area such as information organization and retrieval."

Although CILIP has devised the *PKSB gap analysis* spreadsheet for use by those working towards a CILIP qualification (post-library school), we have identified that, with appropriate presentation by teaching staff, it may be a useful tool in developing students' skills in reflective practice. In session 2014-15, we are encouraging students to use the spreadsheet alongside the university's own personal and professional development resources. Having mapped our modules to the PKSB as part of our programme reaccreditation by CILIP earlier this year, we feel that the spreadsheet is an appropriate tool for students to use to chart their progress. We also believe that it is appropriate to ease students into the process they will be expected to implement throughout the rest of their career if they choose to become full members of CILIP. We have identified key points at which we will introduce the PKSB and its *gap analysis*:

1. Induction Week (September 2014)
2. Reading Week (November 2014)
3. Submission of coursework (January 2015)
4. Term 2 Reading Week (April 2015)

5. After Work Placement (May 2015)
6. After Case Study Submission (June 2015)
7. After Dissertation Submission (September 2015)

We are keen to follow the usefulness of this framework longitudinally, and students will be recruited who are willing to continue with the PKSB post-library school, and who will report back to us, using questionnaires that we will distribute at the end of their first and second years post-qualification.

It must be clear from the dates given above that this paper, submitted in January 2015, can report only the very earliest of findings. Indeed, we can report only the induction week activities and those that took place at Reading Week. These consist of a rich picture session (September 2014), in which students shared their current self-perception of their thoughts about the course they were about to start; a questionnaire completed at the start of term (September 2014) by all 27 participants in the core Cataloguing module (INSTG004); and a follow-up questionnaire completed by 12 participants in the core Cataloguing module (November 2014). It is worth noting that students reported technical difficulties connecting to the Internet during the session in which the second questionnaire was completed, so the low return rate may not be indicative of anything subject related. However, it is clear that the second questionnaire does not carry they same weight as the first in terms of completion rate.

Despite the newness and the slimness of the data at this point, it is significant in so far as it presents early work in progress as part of a longer study of the impact of the new Professional Knowledge and Skills Base on the first cohort for whom it has been available since the start of their library school experience. As well as reporting initial findings, the study is limited by presenting self-reported data. Since the activity under review is self-reflection, self-reported data is deemed to be an appropriate mode of data collection.

In terms of introducing the PKSB to students, a plenary was given on the Library Association and CILIP's involvement in the development of the UK LIS curriculum, and the role of the PKSB within current LIS education, containing content similar to the content of sections 1-4 of this paper. This fed into an interactive session in which students worked in small groups to create rich pictures of their views of the professional landscape and the skill gaps they have identified in their knowledge. The collaborative creation of rich pictures was identified as a supportive and non-confrontational way for students to share their pre-existing experience as paraprofessionals in their pre-library school year; to obtain data that we may not have anticipated via our questionnaires; and, from a teaching perspective, to identify students who are not yet comfortable with self-reflective practice.

In November, students were asked to update their *PKSB gap analysis* spreadsheet and, again, to complete a simple questionnaire that asked them to identify the areas in which they have self-identified development. The questionnaires were administered during one of the core modules, Cataloguing and Classification 1 (INSTG004), and, for this term, focused in detail on one section of the PKSB (1. Organising Knowledge and Information). This is an area of the PKSB that consists of a large number of "hard skills", as opposed to "soft skills" such as leadership and advocacy (PKSB 9), and we were keen to discover if students felt that any skills outside section 1 were likely to be covered in the module. Following discussion with the students during Induction Week in the rich pictures session, it was clear that both hard and soft skills were highlighted as objects of potential gaps, but hard skills were easy to identify and articulate. Therefore, in Term 1 we focused data collection in a core module with plentiful hard skills, whereas in Term 2, we will collect data in a core module with plentiful soft skills – INSTG020 Management.

From the rich pictures, it was clear that time and time management were major concerns: in the 24 pictures collected, 19 (79%) depicted a calendar, clock-face or hour-glass and / or included phrases such as "No Time", "Time Management", or "I'm running out of time!" Worries about potential "failure" also loomed large: despite instructions to use only black pen or pencil, one student used a red pen to draw a huge "F" across their picture. On being asked during the group feedback whether they meant they thought their picture was a failure, they replied that failing the course as a whole was their greatest fear for the year ahead. Another student was more verbal in their picture, drawing a sketch of themselves surrounded by various challenges, and the thought-bubble "Noooooo!! I am going to be a failure!" and the words "CRY, CRY, CRY, CRY" descending from the thought-bubble in capital letters of decreasing size, stopping next to their face, from which three tears were falling from their right eye. Another student was more specific or localized in their fear of failure: alongside bubble showing "no time", "poor organization",

money being set light and a massive pile of books, they drew a scroll containing the words “My dissertation” with a large capital F ringed on it. Again, they defied the instruction to use only black pen or pencil, and drew four large red question marks and three large red exclamation marks, surrounding a distressed and worried looking person sitting at a desk marked “LIBRARIAN?” from whom the thought bubbles were emanating. Another students showed one stick man throwing hands up to clutch his head, facing a gigantic computer with binary numbers, while another sick man sat at a desk working through a huge pile of books and papers with a giant thought-bubble containing a question mark. Similarly, someone else drew a confused and worried stick man with one thought bubble showing a pile of books marked as “>” a small stickman and two arrows pointing to a clock and a giant pound sign, which another thought bubble showed a small stickman wearing a dunce’s cap.

In fact, most students chose to draw a person (often personalized to look like themselves, for example, a stick figure with long curly hair, or in two cases a good caricature of their own face). Only four rich pictures did not contain a picture of a person – and one of those was an image of Old Father Time with a clock and a scythe. Other common depictions included: a computer (8 pictures) ; piles of books (10) ; cross-roads / signposts (5) ; and money (5).

Although instructed to use words sparingly on their pictures, students did include phrases (21 out of 24 pictures). Most often (12 out of 21 pictures containing phrases) these performed a labeling function, making it clear what was being depicted. For example, calendars always (5 out of 5 pictures of calendars) contained a month label within them, which helped the reader to identify the object depicted; books occasionally (twice out of 10 pictures of books) had spine labels such as “RDA” and “AACR2” or “ALA” and “CILIP”; computer screens occasionally (three out of eight pictures of computers) had some text on them, be it binary numbers (twice) or paraphrasing - the woeful “TECHNICAL LANGUAGE ☹”. The 5 cross-roads or signpost pictures are clearly interesting: by their very nature, signposts must contain some indication of what lies on each potential route, and we can see commonality between them:

Image No.	No. branches	No. branches with words	No. branches with symbols	Words	Symbol
5	7	4	0	Reference Cataloguing Digitisation Techy Way	
8	7	3	1	Data References Cataloguing	?
9	2	2	0	Experience of modules taken Experience from other subjects	
12	3	0	3		?
21	2	2	0	MA PG Dip	

We can see that crossroads (Identified here as image 9 in the set) and signposts are used in quite specific ways: either to identify particular subject areas or to express a specific concern: in one case that by selecting one set of optional modules, the way to other subject areas will be “blocked” (A barrier has been drawn and labeled “blocked”) and in another case concern that the Postgraduate Diploma will lead in one direction and the MA in another. Clearly, this difference cannot be subject-based, since the MA consists of the same taught subjects as the PG Dip, with the addition of a thesis, so the student in this case must be indicating a different longer-term career direction. In two cases, question marks have been used as symbols on the signposts, indicating the unknown.

There are also examples (10 in the 24 pictures) in which words have been used to identify concepts that it is difficult to render visually, or where there may be concern that the rendering could lead to confusion. In one case, a spanner has been set on one side of a set of scales, with an open book on the other side. The student is clearly trying to encapsulate the need for balance between “practical and intellectual knowing”, but to make absolutely certain, they have written “Practical” next to the spanner. They have not

labeled the book or the scales. In that case, it could be argued that the label is redundant; perhaps the student lacked confidence in their drawing or our ability to understand it. In other cases, though, the words are clearly needed to ensure we understand the specific, nuanced meaning: the picture of a stick man with a question mark and a cloud above their head trying to cross a chasm is enhanced by the sign saying "Language Gap": this student has a specific concern they wish to voice. Similarly, the same student has drawn another stick man on bended knee before a monster – not simply any monster or fear, though; this one is clearly labeled "Unknown".

The fuller paper that we will write at the end of this academic year exploring the students' rich pictures in full, will inevitably discuss the different approaches that the students have taken – there are clear examples in which students have created one coherent picture (9 of the 24 pictures), while the majority (15 pictures) depict several different issues on the same sheet of paper. There are also images in which text has been used where an image might have been used instead, and this may be indicative of the extent to which the individual student is more comfortable portraying their thoughts verbally.

For discussion here, we merely wish to highlight the key themes. When faced with the task to "Draw a picture representing your concerns for the year" students were specific and task-orientated: across all 24 pictures there were only two vague fears mentioned: "Panic!" and "Worries!" and these both occurred on sheets that also contains very specific images. Indeed, perhaps for these individuals "panic" or "worry" are not vague fears but concrete memories of mental blocks they suffered during study tasks in the past, so we may be unfair in labeling these emotive expressions as lacking in specificity.

Moving on from the rich pictures, we wanted to use the elements of the PKSB to allow students to continue to explore their learning. We advised everyone to complete the *PKSB gap analysis spreadsheet* ahead of the start of term and informed them that they would be asked to complete a questionnaire in one of their core modules in Week 1. We did not tell them in advance that this would be INSTG004 Cataloguing, although the savvy amongst them may have suspected it, given the lecturing staff involved in the research and the occurrence of practicals in computer clusters for that half of the core module Cataloguing and Classification.

The questionnaire administered in Week 1 identified the level of the students' previous experience, finding that everyone (27 students) had experience searching catalogues and bibliographic databases on their own behalf, and almost everyone (26 students) had experience searching on behalf of information service users. Just over half (17 students) had taken part in copy cataloguing (amending downloaded records) and just under half (13 students) had created catalogue records from scratch. As such, these 27 students (the entire cohort taking Cataloguing this year) can be seen to consist of complete beginners (10 students with no experience even in copy cataloguing) through to experienced cataloguers. Further questions on experience considered international formats and standards (including 15 students who had experience in MARC 21; 11 with experience in AACR2; and 5 who had catalogued in RDA); and sector – 15 work or worked in Higher Education libraries, including 7 students who work or worked in Special Collections (which, of course, require detailed and specific cataloguing).
In considering the PKSB, it is notable that students were given the option of skipping the questions on the PKSB. Students were asked to identify which of the criteria in PKSB element 1 Organising Knowledge and Information they thought would be covered in the Cataloguing and Classification module:

	No.	**%**
1.5 Cataloguing and resource description	22	100%
1.3 Classification and taxonomies	17	77.27%
1.7 Subject indexing	14	63.64%
1.6 Thesauri	12	54.55%
1.10 Metadata	12	54.55%
1.1 Information resources	10	45.45%
1.4 Ontologies	10	45.45%
1.8 Information architecture	7	31.82%
1.2 File planning	4	18.18%
1.9 Database design and management	3	13.64%

N.B. 5 students skipped this question.

Students were also asked to identify which of the other PKSB skills and elements they thought might be covered:

	No.	%
2. Knowledge and Information Management	17	80.95%
3. Using and exploiting knowledge and information	17	80.95%
Other PKSB elements: Wider Library, Information and Knowledge Sector Context	13	61.9%
6. Records Management and Archiving	9	42.86%
10. Strategy, Planning and Management	9	42.86%
12. IT and Communication	9	42.86%
11. Customer Focus, Service Design and Marketing	8	38.1%
Other PKSB elements: Wider Organisation and Environmental Context	8	38.1%
4. Research Skills	6	28.57
8. Literacies and Learning	6	28.57
Other PKSB elements: Ethics and Values	6	28.57
5. Information Governance and Compliance	4	19.05%
7. Collection Management and Development	4	19.05%
9. Leadership and Advocacy	2	9.52%

N.B. 6 students skipped this question.

These answers provide us with the first confirmation that carrying out this exercise is worthwhile from the perspective of syllabus planning. This module is described on its primary webpage as follows:

> *Cataloguing:* Brief history of catalogue codes, in order to familiarize students with catalogues compiled under older rules; development of ISBD and AACR; nature and structure of AACR2; practical descriptive cataloguing; development of MARC format; practical cataloguing using MARC 21 format; nature of online catalogues and problems that arise in using them; cataloguing of Web resources; metadata; OPACs; the future of AACR.
>
> *Classification:* Intellectual organization of knowledge and the physical arrangement of documents; principles underlying the design and construction of subject indexing tools; factors affecting subject access to documents both in physical and digital environments; how to identify the semantic content of documents; practical work in application of standards for subject description, specifically LCSH, and classification schemes DDC, UDC, LCC.

It is, therefore, interesting that only 17 of the 22 respondents believed the module would cover "1.3 Classification and taxonomies" and only 14 believed it would cover "1.7 Subject indexing." However, perhaps this can be explained by the way the module is structured, with two different lecturers each teaching 30 hours in class – some students may have answered the questions with only the Cataloguing component in mind.

Of more interest are the topics that students believed would be covered which are not part of the syllabus drawn up by teaching staff, specifically:

- 1.1 Information Resources (touched on briefly, but in the main taught in the core module on Information Resources)
- 1.2 File Planning (covered in various optional modules, including Records Management and Digital Curation)
- 1.6 Thesauri (covered in the optional Advanced Cataloguing and Classification module)
- 1.9 Database design and management (touched on briefly, but in the main taught in the core module on Personal Computing and Information Technology)

With regard to the wider PKSB elements, it is pleasing that at least six students saw that most of the other areas would be touched on in some way, although concerning (though not, perhaps surprising given the silo nature of some of the LIS literature) that Collection Management and Development was seen by only 4 students as something that would be covered. The inventory function of the catalogue and its uses in weeding and collection management seem to pass many aspiring librarians by at point of entry to the course. Similarly the recognition by only 2 students that Leadership and Advocacy might be skills covered in a module that trains the next generation of cataloguers is unsurprising but concerning.

Having identified the areas that they believed they might cover in the module, students were asked to self-assess their current skills in the areas of element 1 of the PKSB. None self-assessed as "4 (advanced) in any of the areas outlined in section 1. Responses were clustered in the "0 (none) – 2 (good) range. A fuller paper considering all the questionnaires issued to the Cataloguing class will discuss this initial self-assessment in more detail. For the purposes of this paper, it is enough to recognize this is the level of knowledge that teaching students expect students to have when we design the MA LIS modules.

A technical glitch involving connection to the Internet on the day that the Reading Week questionnaire was administered meant that only 12 students completed the questionnaire, and of those only 10 completed the PKSB element rendering its analysis of limited extensibility. Long-term, it will still be useful as indicative, once the final questionnaire for the module is completed at the end of January, when students submit their assignment for the module. At the moment, we share its findings with the caveat that it represents less than half the cohort. Pedagogically, it was reassuring to see that students realized that "1.2 File Planning" was not covered by the module, although only 4 students believed they had covered "1.7 Subject indexing". This must be as a result of answering questions to reflect only the Cataloguing component of the module, since at the time they answered this questionnaire they had begun work on Library of Congress Subject Headings in the Classification element.

Of more interest at this stage, of course, is the ten students' self-assessment of their skills and experience. 1 person rated themselves as having Advanced knowledge / experience in Information resources. 2 people self-assessed their knowledge / experience to be Comprehensive in Information resources, while 1 self-assessed Comprehensive in File planning and Cataloguing and resource description. The table shows the number rating their knowledge / experience as "none" in the areas of section 1:

	No.	**%**
1.2 File planning	6	60%
1.4 Ontologies	5	50%
1.7 Subject indexing	4	40%
1.9 Database design and management	4	40%
1.8 Information architecture	3	30%
1.10 Metadata	3	30%
1.5 Cataloguing and resource description	1	10%
1.6 Thesauri	1	10%

All other responses were in the Basic-Good range:

	Basic (No.)	**Basic (%)**	**Good (No.)**	**Good (%)**
1.1 Information resources	5	50%	2	20
1.2 File planning	2	20%	1	10%
1.3 Classification and taxonomies	3	30%	7	70%
1.4 Ontologies	4	40%	1	10%
1.5 Cataloguing and resource description	2	20%	6	60%
1.6 Thesauri	6	60%	3	30%
1.7 Subject indexing	2	20%	4	40%
1.8 Information architecture	5	50%	2	20%
1.9 Database design and management	6	60%	0	0%
1.10 Metadata	4	40%	3	30%

Two respondents made comments on the ease of use of the self-assessment criteria:

> "It's really hard to tell what elements we have covered, because I don't understand well enough what the terms mean to be able to apply them."

> "I find it very difficult to assess myself on such broad subjects, so would possibly rate myself higher but would need examples."

These are interesting points. From a pedagogical perspective, there are changes we can make to the way we present the PKSB at point of entry to assist students in understanding the self-assessment criteria. However, given that CILIP has been at great pains to make the elements inclusive and accessible by a range of information professionals in different sectors and settings, there may be elements here of caution amongst new entrants to the profession – while the "intellectual knowing" of the discipline may be clearer, in the UK the codification of our "practical knowing" has a much briefer history, which is, as yet, still unfolding.

6 Conclusion

Despite evident teething troubles in understanding the definition of some of the PKSB elements, there are indications at this very early stage that students are gaining some use from thinking about their learning in the context of the standards set by the professional body, CILIP. In the next phase of this research, we will conduct another rich picture exercise at the start of the Management module, and will gather data from questionnaires in Management and after the Cataloguing and Classification module assessment has been completed. These will allow us to analyse if and how students self-perception changes (through the rich pictures) and how their self-assessment ratings in the PKSB advance. We will also gather data after their work placements, case study submission and dissertation submission. Our final analysis of this year's cohort will examine if and how the rich pictures and self-assessment questionnaires come together to provide a picture of student development. We will also recruit volunteers to allow us to collect data from them as they advance within the profession post-qualification.

In the same way that individuals are not expected to develop every area of the PKSB at the same time or at the same rate, accredited library school courses are not expected to explore every area in the same depth. Some skills are more likely to be developed in the workplace. However, by undertaking this exercise, we aim to obtain good-quality, relevant feedback from students and alumni, from their perspective hopefully as the byproduct of self-reflection they would undertake in any case as new professionals. As well as closing the feedback loop by implementing change based on it, we will analyze it for future papers which continue to explore the "intellectual and practical knowing" in which our students, as new professionals, are engaged.

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