When Gove became bigger than God: using social bookmarking to track subject knowledge development and student priorities in Initial Teacher Training

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This paper explores the potential for the use of social bookmarking to do two things: to support knowledge development during the religious education (RE) Initial Teacher Training course, and to aid the formative assessment of trainees. This paper has arisen out of an ongoing exploratory pilot project examining the potential of RE student-teacher-led trials of a free web-based social bookmarking application. Tentative conclusions of this exploratory paper are drawn from the descriptive analyses of users of the web-based application, the resulting group folksonomy, and the generation of asynchronous discussions. The results give an insight into trainee RE teachers' subject-knowledge development priorities throughout the course, as well as general subject-related concerns.

Keywords: Social Bookmarking; Folksonomy; Subject Knowledge; Tracking.

Introduction

The development of subject knowledge has always been a priority for trainees on PGCE (Post-graduate Certificate of Education) courses in England. Many trainees do not have a first degree in theology or religious studies, but often have complementary degrees such as sociology or philosophy. Even where the trainee has a degree in religious studies, there is no certainty that the 'big six' religions of the UK will have been taught. With the demise of the Teacher Development Agency (TDA-)funded booster courses, the RE Initial Teacher Training (ITT) tutor now has an even greater role in ensuring that trainees are developing their subject knowledge to a sufficient depth. During the PGCE itself, there is little time to devote to discrete subject knowledge development. Therefore, effective tracking of subject knowledge development is imperative. While various methods such as self-assessed subject knowledge audits, or even tests can be used, tracking the trainees'

development through using a social bookmarking service can be an insightful way of assessing individual and group progress.

Context

Of the University of London (UEL) RE PGCE cohort in 2010/11, less than 10% were religious studies or theology graduates, whereas 25% had taken philosophy or sociology degrees. While the trainees were committed to developing their RE subject knowledge, this provided the tutor with several immediate challenges that required a reworking of the course content. In meeting the challenges, the formative assessment of subject knowledge and tracking sources for newly gained knowledge was key in ensuring that development continued throughout the year and did not 'drop off' once placement began.

In questionnaires for previous years it was discovered that the internet was the predominant source for gaining new knowledge; the students largely eschewed the library, citing the one-week loan system as a barrier to taking out books. A list of suggested websites was always provided, but there was no guarantee that trainees would use this, and a probability that they would view sources beyond it. In the context of the trainees' lack of subject specialism, there was a real fear that over-reliance on internet research, coupled with a lack of discernment, could lead to trainees acquiring a large body of knowledge containing misconceptions and bias. Methods would need to be put in place that would ensure that the trainees developed competency in the discernment of sources, and also track their development. Traditionally, a self-assessing subject audit had been used at various points in the year to indicate progress in relation to personalised subject-knowledge targets. However, it had been my experience that trainees were often overly optimistic in their judgements. Additionally, despite a reading log and media log, it was hard to assess the quality of sources that had been used to develop their knowledge. A portfolio of subject-knowledge development served as a summative assessment of

their progress. However, regular formative assessment of knowledge was needed for a course that lasted but nine months and where the lack of subject knowledge could quickly lead to a failing trainee, who otherwise was competent.

The visual search engine and bookmarking service, Middlespot™, replaced the static media log for two years. Using the application at its most basic level, users bookmarked interesting browsed pages and tagged them with keywords. Trainees commented on the usefulness of sharing and evaluating good sources. However, while trainees found Middlespot's visual interface appealing and the comments button useful, they found the dashboard difficult to navigate.

Figure 1: A truncated tag cloud for May 2011

Therefore, for the current cohort, the switch was made to using Diigo™, a cloud-based social bookmarking tool and information management system. This application was chosen for several reasons. Firstly, Diigo provided a closed group function, meaning that the cohort could develop their own folksonomy, a user-based, non-hierarchical system of organisation, through the use of tags, for browsing and searching purposes (Mathes, 2004). The group page displayed the group 'tag cloud' (Figure 1), which could also be embedded in the cohort's wiki. The tags themselves were prioritised by font weight and colour, giving the viewer an immediate illustrative model of the content. This would facilitate the sharing of resources. However, the tag cloud provided more than this. At a glance it could provide useful data which could be used to give insight into the group's changing priorities for subject-knowledge development. Henceforth, the aims for the pilot study altered: both tracking the development of subject knowledge and changing priorities during the course would be analysed.

Another key feature was the ability to highlight information and annotate with sticky notes directly on websites. This information would be available to all other users in the group (unless deactivated by the individual). Collaboration was facilitated through the comments button and threaded discussions linked to the bookmark. Again there were benefits for both the trainees and tutor. It was hoped that interesting comments would encourage others to take a look at the source. Following on from this, discussions on chosen sources would hopefully lead to a deeper understanding and serve as a form of peer review. From a tutor perspective, comments and discussions would expose depth of understanding and ability to judge material accurately. The potential to track websites viewed and see the aspects of the page which trainees found most meaningful through highlighting was valuable.

Methodology

The PGCE RE group were encouraged to bookmark their websites throughout the year, with all course-related items shared to an online group library. The generated tag-cloud and numerical data relating to the top ten tags generated by the RE PGCE trainees were captured each month in order to assess the changing priorities in subject knowledge. Both information gleaned from the tags themselves and the relative font weight were used in analyses. Additional qualitative data were drawn from the comments, threaded discussions, highlighted passages and sticky notes.

Formatively assessing developing subject knowledge

Discussions related to the bookmarks were very useful in helping formative assessment of the trainees' developing subject knowledge. The discussion tab, framed as a speech bubble, encouraged a natural, chatty style, and trainees used these to discuss ideas, ask questions and to say thanks to the user for a useful source. Discussions tended to be initiated where the original comment fell into one of three types: comments that were controversial, ones that asked for guidance, or recommendations for viewing. From a tutor perspective, the comments and discussions were important in that they revealed the trainees' understanding of the concepts of religion. For instance, one trainee commented that a particular website provided a useful summary of the Christian understanding of the creation. From clicking on her bookmark, it became clear that the website represented only the Young Earth Creationist perspective. I was able to respond immediately by posing a question to the group regarding the diversity of creationist beliefs within mainstream Christianity. Tutor input was essential to prevent misconceptions spreading among those who also lacked understanding. It also alerted me to the wider issue that this trainee did not have a grasp of the diversity of belief within Christianity, and this was addressed at the next tutorial.

However, more often than not, discussions in the pilot enriched and clarified ideas, and were preferable to bookmarks without annotation, which had the potential to mislead. In one example, a trainee bookmarked a website from the Ahmadiyya Muslim Community. She had found this website through a pamphlet. The trainee commented, '*It says on the leaflet that they are, "...the most educated, organised and disciplined of all Muslim communities in Britain". Have a look at the websites and see what you think?*' This was a useful post for several reasons. Firstly, it served as a reminder to the tutor that many of the trainees would be gaining their subject knowledge through many different sources, not just through a recommended list of academic literature, or the internet. This would include literature from partisan sources, many of which exist in the local community. Secondly, it helped to build up a greater picture of her subject knowledge in relation to Islam. Finally, it was useful from the perspective that the trainee was herself asking for clarification and more information, rather than presenting information as fact. The threaded discussion continued as other trainees looked at the source, with one Muslim trainee responding; '*Hey, just be careful about how people would refer to the Ahmediye group, as Muslims/non-Muslims... There are some Muslims that feel strongly about calling them Muslims… they have a number of teachings that contradict Islamic scriptures...*' Had the trainee who bookmarked the website not identified this source and asked the potential question, there may have been a real risk of her including the Ahmadiyya Muslim Community without qualification within lessons on mainstream Islam, and possibly this could be replicated by other users who also lacked subject knowledge.

The highlighting function was also key in providing information as regards the security of trainee subject knowledge. This allowed me not only to see what websites trainees were using, but what aspects of the website they judged as being worthy of selection. For example, in one bookmarked website on Buddhism, the trainee highlighted the following phrase: '*does not have a God at its centre and was founded by an Indian prince, Siddhartha Gautama*'. This information is extremely basic, and probably forms one of the first facts that one discovers when learning about Buddhism. To a trainee with secure knowledge in Buddhism, such basic facts would not register as a trigger for selection. Highlighted passages therefore provided a meaningful source of data for the tutor in assessing security of knowledge. This worked both ways. There were also many occasions when the highlighted aspects of a web page indicated a detailed understanding of the subtleties within religious or educational issues.

Occasionally, highlighting could inadvertently steer trainees in the wrong direction. In one bookmark, divisive quotes were selected from a page reporting the controversy surrounding Pope Benedict XVI's visit to the UK. However, the opportunity to highlight the actual words of Benedict was not taken. When presented with only a selection of soundbites, there is a danger that the viewer will only read the user comments and title and not go to the text itself. The opportunity for the trainee lacking subject knowledge to embed misconceptions therefore increases. To some extent this risk can be diminished where comments are added by the bookmarker. In this particular case the trainee identified the source of the report as a tabloid, hence diminishing the potential for the quotes to be taken out of context.

What can tagging behaviour tell us?

While comments, discussions and highlighted passages provided a source of data for formative assessment purposes, the tags themselves offered an opportunity to monitor the group as a whole. Alexander

(2006) suggests that examining sets of tags can cast light on research, as patterns or absences are revealed. In the pilot study, tags numbered an unwieldy 376 by the end of the course, and these could be sorted into four broad categories: subject knowledge, resource-based, political, and pedagogical. Of these, subject-knowledge-related bookmarks and tags were the most prominent in the first few months, as might be expected from a group who needed to develop subject knowledge quickly for planning and teaching. Subject knowledge remained the largest category throughout the course, with the exception of the rather unhelpful tag 'RE', which was ubiquitous in the first half of the course. However, the number of 'subject knowledge' tags declined steadily after the first placement; only Islam remained prominent as a tagged religion.

The prominence of 'Islam' within the tags is not coincidental. Altogether, 12% of bookmarks were tagged with either 'Islam' or 'Muslim'. It is worth noting that around a quarter of the tags were generated by three Muslim trainees. The high number of tags certainly reflects the inclusion of Islam in the locally agreed syllabi and school curricula in placement schools. The interest generated by continued global events no doubt also played a large factor. However, a clearer understanding of the increase is gained by looking at the discussions accompanying the tags, which revealed a lack of initial confidence that Islam could be taught with the sensitivity and integrity required. Impacting on pupil preconceptions of Islam are the increase in Islamophobia and resulting misconceptions. This has given rise to the potential for controversy in the classroom and some difficult questions. It is notable that only on websites tagged with 'Islam' and 'Muslim' did bookmarkers ask questions, rather than simply making a comment. These tended to be basic, seeking confirmation of the source's angle, although there were some thoughtful enquiries too. One trainee, in response to a bookmark on a recent female convert to Islam, comments, 'She also points out that she sees misogyny coming from MEN not religion, but this then draws in the issue of where does man and religion separate?'

While developing understanding of Islam was a priority for this PGCE group, it was interesting to note key subject-knowledge areas where there was a scarcity of tags. There were only five websites bookmarked which were discretely Sikh. The Baha'i faith also had five discrete bookmarks, compared to seven for Humanism and 51 for Christianity. Bookmark dates seemed to give some indication why this might be the case. The Baha'i websites were all tagged within a week of a successful session introducing the trainees to the faith. It is also noteworthy that the Baha'i faith was not taught in schools by any trainee at any time during placement. Of the 51 Christian bookmarks, 10 were made within a week of the Christianity booster-course session. All trainees taught Christianity in both placements. It would appear in this study that one of the main triggers for bookmarking websites is the coverage of related material in university sessions to spark further research. If so, the lack of Sikh bookmarks may be attributable to a couple of factors. During the booster course, a session on Sikhism was cancelled. This was compounded by a lack of Sikhism taught on placement. Only three schools covered Sikhism in depth. This provided a cue for tutor intervention through tutorials to discover whether subject knowledge related to Sikhism was in fact being developed by other means. Up until that point, in the majority of cases it was not. Perhaps the most interesting growth in the tag cloud over the year has not been the changing priorities within subject knowledge, but the increased focus on politics. As Grimmitt (2000) remarks, RE has always been a politicised subject, with successive governments producing outcomes that inadvertently have narrowed content and impacted on subject pedagogy. However, up until this year, recorded trainee interest in this area has narrowly focused on the historical political elements, limited largely to the 1988 Educational Reform Act's impact on RE and the subsequent fallout.

For this cohort of trainees, interest in the RE political landscape has been marked, with the tag 'politics' occurring in the top ten tags from week eight of the course onwards. In the tag cloud, 'Gove' and 'God' sit shoulder to shoulder. A monthly analysis of the tag cloud has seen the professional influence of one rise while the other remains static. Indeed it can be wryly observed that at one point in April, as the current political landscape cast shadows over RE, the relative weight of 'Gove' became bigger than that of 'God'. This year, trainees have had to contend with refining not only their own understanding of RE, but their understanding of the value and perception of RE through the eyes of non-specialist teachers, managers, advisers and officials. The uncertainty surrounding RE thus became part of the background to the PGCE RE course. One trainee sombrely notes in response to a bookmark regarding the TDA allocations for RE for 2012, 'Wow, tough times for RE - lets hope we get into the Ebacc so this can correct itself in the years to come - but no doubt we are in tough times for the foreseeable future'.

Problems in gaining reliable data

While the pilot achieved its overall aims in providing a way to track subject-knowledge development and facilitate formative assessment, there were inherent problems which were characteristic of most folksonomies (Estelles et al, 2010). As a tool for trainees to locate sources efficiently, the lack of synonym control in Diigo proved challenging (Mathes, 2004). For example, synonyms such as 'catholic', 'Catholic-Church', 'RC', 'Catholicism' and 'RomanCatholic' were all used as tags, and the ability to link these under one word would certainly be beneficial. A search for 'Catholicism' in the Diigo group library automatically searches within tags, title, annotations and URL. This broad search will capture many of the synonyms, but not all. Plurals were also particularly problematic, 'lesson plan' and 'lesson plans' showing up under two tags. Additionally, phrases that were not put in speech marks, as required by the application, resulted in separate tags (such as subject and knowledge, instead of subject knowledge). This also made it difficult to gain an accurate picture of tagged concepts.

Another stumbling block was the group's lack of 'tag literacy'. The RE group folksonomy evolved over time. At the beginning of the course, trainees initially focused on very basic keywords when tagging, such as 'Islam' and 'Subject Knowledge', producing a classification system useful only for basic browsing based on personal recommendation. For example, an article on Islamic reform was bookmarked with the sole tag 'Islam', yet the trainee went on to add a helpful description: '*This talk regards how Islam should be reinterpreted on a continuous basis, but without infringing upon the fundamentals of the religion*.' However, 'tagging literacy' increased in several cases as trainees developed their own internal classification of religious ideas. Tags that moved from broad keywords towards specific vocabulary began to appear over the course of the first term, such as 'niqab', 'covenant' and 'sewa'. Reflecting trainees' improved confidence in subject knowledge, a greater sophistication of tags evolved over the course of the year which related to religious concepts, with tags emerging such as 'modernity', 'secularisation' and 'pluralism'. However, some tags did pertain to the tagger's personal understanding but were too ambiguous to be helpful as part of a shared classification system. This was the case for the bookmark tagged 'religion-as-a-force'.

Some tags remained unhelpful, however, even at the end of the course. For example, a magazine article on Lady Gaga's controversial video, 'Judas', was bookmarked with only the tags 'Christianity and resources', missing out an opportunity to classify it by reference to the controversy caused and the offence given to religious groups, as well as by the type of resource. There was no accompanying discussion, save a comment on this being 'useful in class'. It is not surprising, therefore, that there were no viewers of this bookmark.

It is hard to distinguish whether an increase in the depth of tags used by the end of the course was due to an increase in tag literacy or subject-knowledge development. I would like to think that perhaps both factors had developed over the period of the year. By looking at several layers of data together, and in particular the level of discussions sparked by the bookmarks, subject-knowledge development was evident.

Conclusion

The imprecise nature of tagging makes it difficult to present more than tentative conclusions. There are caveats to accompany the use of the tool to limit the spread of misinformation. Both the 'highlight' and 'comments' functions are helpful accompaniments to bookmarks, especially when used together. A trainee cannot afford to take a bookmark without comment as a personal recommendation of an accurate source for subject knowledge. It is also advised that groups are not left to their own devices without moderation. A little knowledge can be a dangerous thing. Finally, for the next cohort, I will give thought to creating a tag dictionary, or at least guidance to develop tag literacy (Guy & Tonkin, 2006). Despite this, social bookmarking within the RE PGCE group has provided trainees with a system of organisation for viewed websites, a forum where focused dialogue relating to a particular text can occur, and for the tutor a wealth of tracking information whereby action can be taken where necessary. It is not the full picture for tracking the development of subject knowledge, but it can play a fruitful role.

[i] Grimmitt (2000), chapter 1

[ii] RE Hit in TDA Allocations[03.02.11]
http://news.reonline.org.uk/re_news.php?343

[iii] Rethinking Islamic Reform, A lecture by Sheikh Hamza Yusuf-Hanson, and Dr Tariq Ramadan

http://rethinkingislamicreform.co.uk/transcript

[iv] Term coined by Marieke Guy and Emma Tonkin (2006)

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