COMMUNITY DIRECTIONS

UKTF Forum: Supporting the Teaching Fellow Community

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Abstract

Recent developments in the Higher Education sector have resulted in the creation of increasing numbers of teaching-focused positions, whose imcumbents are commonly referred to as 'Teaching Fellows'. Individuals in these roles face a variety of unique challenges compared with their more traditional research-focused colleagues and they often lack access to tailored support and mentoring structures. In this report we highlight the creation of the UK Teaching Fellow Network and describe the online community and discussion forum that have been set up to support these individuals. The pilot programme targeted physics Teaching Fellows; below, we outline our plans to expand membership to encompass other STEM subjects in order to promote a content-rich, vibrant and supportive community in the long-term.

Keywords: teaching fellow, network, community, online, forum

Introduction

Teaching has always gone hand in hand with research in the Higher Education (hereafter HE) sector; however, the Dearing Report (NCIHE 1997), Brown Report (Browne *et al.* 2010) and guidelines from the QAA (2012) have placed an increasing emphasis on the quality of teaching within these institutions. As a result many Higher Education Institutions (hereafter HEIs) have not only been adapting their delivery methods to enhance the learner experience, but have also been employing more staff in increasingly teaching-focused roles to supplement the more traditional research-focused staff who also have teaching duties. In the physical

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sciences sector this has resulted in a greater number of staff with a 'Teaching Fellow' (hereafter TF) or related job title.

Overall, the creation of such teaching-focused posts is a very positive move by the HE sector; having staff who want to teach (rather than being forced to in addition to their more favoured research role), are engaged with the pedagogical literature and open to implementing new pedagogical strategies can only enhance the student learning experience. This in turn will lead to more engaged students who will ultimately graduate with better grades and an increased feeling of satisfaction regarding their time spent in HE (Raine 2013).

Critically, the creation of TF posts has not been uniform across the HEI sector, particularly in the physical sciences sector. In some institutions a TF is a full-time position with clear career progression and is valued on the same level as other more traditional research- focused posts; in others, a TF has a more 'interstitial' academic status (Husbands & Davies 2000) that may only be paid part-time, has a poor career progression path within their HEI, or is not perceived to have the same value as a more traditional lecturer. This disparity in the perceived value of the TF compared to their traditional lecturer counterparts, particularly where a TF is employed in isolation in their department, is having a mounting impact on job satisfaction and ultimately on the long-term retention of such valuable departmental resources. Even when an individual has a well-defined role within their own department, and is valued by all its members, they may not know how they fit at an institutional or national level, again leading to the same problems. In addition, the level/scope of the pedagogical training available to TFs and academic staff is not uniform across all HEIs; many are moving towards qualifications such as the PGCAPHE but they are not currently mandatory. Further to this not all HEIs have clearly defined support or mentoring policies in place that are tailored to the unique challenges that a teaching-focused role faces.

The TF Network was created to help address all of the concerns outlined above and to provide an overall support structure for TFs. In conjunction with this an online community was set up to facilitate discussions between TFs on topics such as pedagogical practice, educational research and general advice: all of the things that would normally be available to a discipline specific researcher in a traditional research group but may well not be available to an individual with a teaching-focused role embedded in a research department. The remainder of this article is organised as follows. In the next section we explore the literature on the design and implementation of online communities, outline the pilot user base and discuss the pros and cons of several different modes of communication. After that, we discuss the motivation for choosing a forum to support the TF Network, elaborate on the existing forum structure and briefly discuss the composition of the current registered users. In the following section we outline the future of the forum and, finally, present our conclusions.

Supporting the Teaching Fellow Network with an online community

The motivation for creating an online community to support the TF Network is obvious: we are all becoming ever more immersed in an online culture so the digital environment, and its attendant technical skill set, are commonplace among academics in HE. A community connected by an electronic mode of communication breaks down both spatial and temporal barriers making it easier to conduct a variety of parallel discussions as and when it is convenient for individual participants, as well as ultimately generating an archive of reference materials that will be of use to both newly appointed and more established/ experienced TFs.

Designing and implementing online communities

There is a significant body of research surrounding the implementation of online communities, the *social capital* (see Endnote) they generate and how individual users interact with them. A brief outline of the theories that are most relevant to the design and implementation of the TF Network community will be discussed here.

As discussed in Ren *et al.* (2007), the majority of content encapsulated within any online community is generated by the voluntary contributions of individual users. Furthermore, they point out that the people who run online communities have limited direct control over the individual users in that they cannot compel them to generate content via employment contracts or financial incentives, but instead must create an environment that encourages commitment, and therefore contributions, from its members. Ren *et al.* (2007) argue that there are two main ways in which users can develop a commitment to an online community – either by becoming attached to the community as a whole (*common identity theory*; Prentice *et al.* 1994) or by becoming attached to individual members (*common bond theory*; Prentice *et al.* 1994) – and that knowing which is applicable in any given implementation will enable community developers to make the best design choices to promote long-term activity. In the case of the TF Network the community obviously falls under the '*common identity*' category with

individual members clearly self-identifying as such from their employment roles. This provides a solid foundation from which to work, but care must be taken to avoid eroding this identity whilst simultaneously promoting contributions from a wide variety of members. The mode of communication chosen must: focus on discussion topics which the community as a whole needs/wants; avoid unnecessary tangential discussions that may prove irritating to members; avoid developing into a 'cult of personality' around a single user (or small group of users); and deter contributions from perceived interlopers such as the general public.

We have already highlighted the need for content generation from the community at large, but does this means that *all* members must be actively contributing *all* of the time for the community to be considered successful? Research conducted by Nonnecke (Nonnecke 2000, Nonnecke & Preece 2001, Nonnecke *et al.* 2004 and references therein) indicates that a majority of individual users signed up to online communities showed little (81% of users) or no active engagement (55% of users). However, that does not mean that those users did not find the community and its contents useful – they simply prefer to read the existing material rather than engage in content creation. Such users are commonly referred to as 'lurkers'. In some communities 'lurking' is considered a normal activity, especially for newer users, and the term is not pejorative in any way and is analogous to a 'vicarious learner' (McKendree & Mayes 1998). In other communities such behaviour is perceived to somehow damage the community as a whole by free-riding on others' efforts, thus reducing the development of social capital. To avoid any perceived negative overtones we will use the term 'silent users'.

Clearly, existing online communities can cope with a high percentage of silent users without detriment, but what do the silent users themselves get out of being a member of the community? Nonnecke & Preece (2001) found that such behaviour enabled silent users to satisfy their needs in a variety of ways; in brief, they

- were interested in information not interaction;

- were provided access to expertise/experience;

- gained a sense of community without posting;

- were allowed connections to individuals;

- were able to follow conversations/stories;

- had access to entertainment; and

- benefited from new (presumably engaging) material in their inbox.

When asked to state their reasons for lurking, lurkers gave the following reasons (Nonnecke & Preece 2001):

- wanted to be anonymous, and/or preserve privacy and safety;

- had work related constraints;

- had too many or too few messages to deal with (e.g. too many messages was considered to be a burden whilst too few made it is easy for the user to forget the community);

- received poor quality messages (e.g. content was irrelevant to community theme or had little information);

- were shy about posting;

- had limited time (i.e. other things were more important);

- were new to the group and thus still learning about the group;

- had nothing new to offer; the group was perceived to be more knowledgeable.

So if there are compelling reasons to be a silent user, multiple reasons that enforce silent behaviour, and groups overall seem to be resistant to large percentages of silent users, is community-wide active posting desirable at all? Broad community activity is certainly desirable based on Fincher's (2002) experiences with the various incarnations of the EPCOS network; over-reliance on a core user (or small set of users) can have serious repercussions on the long-term viability of a network. If we are aiming to build a robust, long- lasting community then active participation is needed. However, we should not be concerned if there is a significant number of silent users as they are likely to be benefiting from the community in a tangible way, if not in a way directly measureable by the designers in terms of forum activity. It is also important to recognise that silent users can become active users over time (Nonnecke 2000); ostracising them or otherwise preventing them from interacting with the group, even passively, thus eliminates a pool of future active users. So must all users be active all of the time? Yes, it is desirable, but it is certainly not essential. This must be borne in mind as the community is designed and maintained.

User base

Initial funding for this project came from the Higher Education Academy's (hereafter HEA) Physical Science centre with particular emphasis on physics TFs. This is intended to be a pilot scheme that may be adopted or result in future collaboration on a similar platform by other subjects within the physical sciences, other disciplines within STEM, or

in a broader HE sector context at a later date. At present, only physics TFs were actively recruited, but if an application was received for any HEI TF then this was accepted.

In light of this, it is extremely important to consider the total target user base that this online community is intended to support during the initial stages of the scheme. As of 23 May 2013, 39 individuals have been identified as 'Teaching Fellows' or 'University Teachers' working in physics departments across the UK HE sector. It is likely that the sum total of HE practitioners whose job description fits the title of 'Teaching Fellow' is greater than this; however, they are not identified as such on their respective HEI's website. This is a relatively small community so it is difficult to determine what 'critical mass' of users will need to be active in order to ensure that the community flourishes based on Nonnecke's (2000) research. Morris & Ogan (2006) propose that a critical mass of as many as 100 users may be required to be successful in the long run.

Modes of online communication: pros and cons

Three different modes of online communication were originally considered to support the TF Network:

- email group/discussion lists/LISTSERV (hereafter combined under the heading 'LISTSERV');

- forum/bulletinboard (hereafter BB) embedded in an existing national scientific body or HEA website (analogous to the public forum on MyRSC);

- standalone forum/BB.

Each implementation has its pros and cons, as outlined in Table 1. In some cases the cons can be mitigated by further user interventions, for example multiple LISTSERV discussions can be made easier to follow if the user sets up filters to direct emails with specific keywords to different folders. Whilst there is no issue that the intended users have the technical capability to do this, they might not have either the time or the inclination do to it effectively, as we show later on. To ensure that this resource is used effectively we must:

- take care to minimise the need for such user interventions;

- remove as many technological and time barriers as possible;

- ensure that the final implementation is user-friendly and intuitive to navigate;

- ensure that the resource is useful to both active and silent users.

Existing social media networks, such as Google+ and Facebook, were excluded from the range of potential options for two main reasons. First, whilst they may offer many facilities that would meet the stated aim to produce an archive of reference

Table 1 Summary of pros and cons of the three modes of online communication

Email group / Discussion Lists / LISTSERV	
Pros	**Cons**
• Many intended users will be familiar with the concepts of a LISTSERV and are likely to be members of existing LISTSERVs. • Available to anyone with an email address. • Once registered there is no 'upkeep' overhead. • Users only have to remember their normal email username/password. • Delivery of a new email provides encouragement for recipient to join in the discussion.	• Active LISTSERVs can overwhelm inboxes with quantity of emails or memory requirements for individual messages/attachments. • Difficult to keep track of multiple tangents on the same topic or multiple concurrent topics. • Difficult to retain an overview of the entire discussion if participants delete previous replies in order to reduce memory load. • Problems with satisfactorily archiving old posts in the short and long term. Users are likely to delete emails to save space in their inboxes. A central archive could be maintained on a separate website but it would have to be curated; such archives are usually difficult to search within. This may lead to new users asking questions that have been answered multiple times in the past. • Too easy to accidentally reply to the whole LISTSERV when you may only want to email the last author. • Difficult to enforce measures, such as consistently formatted subject lines, to indicate the email contents. • Automated 'out of office' replies may cause email cascades within the LISTSERV if not set up and maintained correctly. • Messages from this LISTSERV could easily be confused with other LISTSERVs the user is signed up to. • To use this resource effectively the user has to be an active participant.

Table 1 Continued

Forum/BB embedded in an existing website	
Pros	**Cons**
• Users have to create an additional username/password set but if they visit the host website regularly this should be easy to remember. • Free administration support. • Professional 'endorsement' from hosting site/agency/professional body. • Much easier to follow topics of discussion from start to finish than an email implementation. • Potential to embed large documents/multimedia resources and run automated online polls etc. • Discussions will aggregate over time to produce a useful body of reference material – newly joined users can locate and read old discussions. • Effective use of this resource does not require active participation.	• If the user visits the host website only for the forum/BB then an additional username/password could be difficult to remember if not used regularly. • Limited flexibility in the functionality, implementation and structure of the forum/BB as it is constrained to what already exists. Not all forums/BBs have particularly good functionality. • Entirely new software implementations will have to be agreed with the host website's central organiser which could lead to long delays. • Messages specifically related to TFs may be 'drowned' out by high volume of messages from other users. • Host site/agency/professional body will have to be chosen careful to avoid alienating subsets of potential users. • Archiving/moderating discussions could be difficult depending upon the permissions given to moderators within the forum/BB environment. Host site/agency/professional body may have strict rules governing who is allowed such permissions.
Standalone forum/BB	
Pros	**Cons**
• Hardware/software/administration costs fall upon the host institute. • Users have to create an additional username/password set but if they visit the host website regularly this should be easy to remember. • Full flexibility in choosing which forum/BB software is used. • Many freeware forums/BBs provide the functionality to embed documents/multimedia resources and run automated polls. • Easier to grant moderator permissions as this only has to be agreed by the central Admin rather than another host agency/professional body. • Much easier to follow topics of discussion from start to finish than an email implementation. • Potential to embed large documents/multimedia resources and run automated online polls etc. • Discussions will aggregate over time to produce a useful body of reference material – newly joined users can easily locate and read old discussions. • Effective use of this resource does not require active participation.	• User must remember to visit the forum/BB. It will not benefit from the 'halo effect' of users visiting another agency's/professional body's website • If the participant visits the forum/BB infrequently then an additional username/password could be difficult to remember.

material, such as hosting various multimedia files, there is no guarantee that these facilities will remain functional over the long-term, or that the authors will retain intellectual property rights to any material which they may post. An interesting discussion of this is presented in Rodriguez (2011). Second, these social media sites raise considerable concerns regarding the separation of professional and personal activities online (Labrecque *et al.* 2011, Sánchez Abril *et al.* 2012, Stutzman & Hartzog 2012). Some users will be perfectly comfortable self-regulating and separating online 'professional' and 'social' personas but others may not, either because they do not know how to, or because it would require a significant amount of work to do so.

Final choice: a standalone forum/BB

Taking the various factors outlined above into consideration, the optimum solution to provide support for the TF Network was determined to be a standalone forum: the UK Teaching Fellow forum (hereafter UKTF forum), http://tinyurl.com/UKTFForum (Figure 1). Membership of the forum requires a login, and whilst this produces an additional perceived barrier to using the online community, it is essential to prevent users being bombarded by extraneous (and exceedingly irritating) material posted by autonomous software (spambots). It also provides an additional layer of privacy for community discussions: content can be

restricted to be viewable by community members only, which should help to counter any feelings of shyness or other general privacy concerns on the part of silent users. The final choice for the forum software was phpBB (https://www.phpbb.com – last accessed 23 May 2013), partly due to the core administration team's previous experience of the software and for the following functionality:

- the overall display of individual discussion threads is very easy to follow; responses are stacked in chronological order on screen without requiring further clicks to view;

- content is presented on a single, easily navigable and searchable website with no need for separate curating activities, thus allowing the forum to build into a valuable reference resource that is particularly useful for silent users;

- the posting interface allows rich text formatting, embedding images/files/hyperlinks either by using the simple editing interface or with a bare minimum of coding (e.g. [url][/url]) to embed a hyperlink;

- individual posts can be 'previewed' before posting, which is particularly useful if the individual post is longer than a paragraph or two;

- the ability to create interactive polls;

- highly customisable email notifications – users can choose to filter notifications based on multiple criteria such as 'responses to my own posts', specific discussion threads or entire sub-forums;

- the ability to apply different reading and posting permissions to different areas of the forum, which makes it possible to have 'public' viewable areas and 'members only' discussion areas;

- the ease of carrying out simple moderating tasks (e.g. moving individual threads to different sub-forums if they have been incorrectly posted);

- the ease of granting individual users moderator privileges to help with the continued maintenance of the community should the need arise.

Forum structure

The current structure of the forum is outlined in Table 2. The motivation for including two sub-fora that are publicly viewable (but not editable) is that it allows administrators and registered users to post information that they may wish to be available for

Figure 1 Screen capture of the UKTF forum in its current form

Table 2 Fora annotated with an asterisk indicate that they can be read by anyone but only commented in by registered users; remaining fora can only be read and commented in by registered users.

Subforum title	Short description
Official News and Announcements*	Area used to convey official news and announcements
Technical Support/FAQ*	Subforum intended to provide tech support for this forum only
Introduce Yourself	Subforum allowing user to introduce themselves to other forum users
Events (Conferences/Meetings/Workshops)	Subforum allowing users to post and discuss materials from a variety of conferences/meetings/workshops etc.
Pedagogy	Area for discussion of existing pedagogy
Funding Opportunities	Subforum where current funding can be posted – please feel free to add any that we may have missed!
Advice	Area to ask advice from more experienced Teaching Fellows
Teaching Spotlights	Subforum intended to highlight a variety of different areas of good practice and promote discussion of existing practices
Resources	Subforum for the posting and discussion of all forms of useful resources
Research	Subforum collating all aspects of research, from calls for collaborators to final results
Project Dissemination	Area for dissemination and discussion of ongoing and completed projects
Careers	
Outreach	Subforum to discussion of good practice and outreach design – or even for advertising your own outreach programme!
Suggestions	We welcome any and all suggestions for the forum, the Teaching Fellow Network etc here.
General Discussion	Area for all those discussion threads that don't fit into any of the above categories . . . or more casual discussions

*Fora annotated with an asterisk indicate that they can be read by anyone but only commented in by registered users; remaining fora can only be read and commented in by registered users.

wider distribution (i.e. will turn up in search engine results) such as conference advertisements etc. It also allows administrators to post information that might be helpful to users who have forgotten their login details. The forum structure is easy to modify; consultations with the TF community have already resulted in the creation of several additional sub-forums.

Current members

As discussed, the pilot user base is relatively small. As of 23 May 2013 there were 25 registered users. A breakdown by subject area is outlined in Figure 2. Note that a significant proportion of users are not physics TFs, and were thus not targeted by the initial promotional campaign. Their registration was a result of word-of-mouth promotion among existing members, which indicates that this service is considered worthwhile by TFs outside the original pilot scheme.

The future of the UKTF forum

Now that the UKTF forum has been implemented the challenge lies in how to support and promote it effectively because its long-term viability depends upon the continued engagement of its users.

Assessment of the pilot period of this forum, including of feedback received at the inaugural meeting of the TF Network, indicates that it is an extremely useful resource. However, further efforts must be made in order to increase the total user base (aiming for the critical mass of 100 proposed by Morris & Ogan (2006)). In future we hope to extend our promotional activities (targeted email invites) to all STEM TFs, as long as this is not seen to interfere with other related activities being
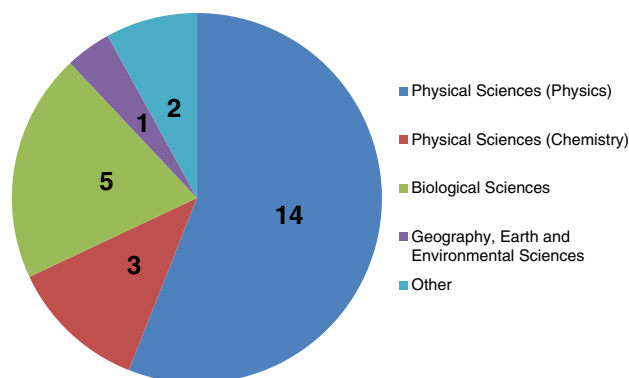
Figure 2 User affiliation by STEM discipline. 'Other' contains a purely pedagogical researcher with no specific subject ties and the Administrator account

promoted by the HEA. This would expand our potential user base from 39 (physics TFs) to a minimum of 626 (all STEM TFs) and possibly more, as a significant number of HEI staff members did not provide job title information. If the take-up rate is similar to that by physics TFs, this should easily yield a membership with a critical mass and will lead to very interesting cross-disciplinary discussions.

It is also important to encourage the long-term engagement of individual users. Realistically, this will only be achieved if the forum continues to generate new content on a regular basis and existing members are periodically prompted to engage with such content. Studies such as those conducted by Houston *et al.* (2010) indicate that email reminders significantly increased the level of participation in online resources. Our forum users are made aware of several in-house features within the phpBB software that can facilitate this, such as receiving email notifications when new topics/ messages have been posted or when a reply has been made to their own posts (both of which include a url 'quick link' to the content). This will abrogate the need for users to remember to log on to the site periodically to manually check content. Global email posts to users can also be made by the administrator account to inform them of significant posts (such as polls) of which they may be unaware of or to deliver newsletters summarising recent activity on the forum. This last option is currently being used very sparingly to avoid annoying users with unnecessary inbox 'clutter'.

The ability to activate an ATOM/RSS feed exists on the forum. However, the exact implementation is currently being discussed with the user base due to the way in which different browsers retrieve the RSS information. One of the core principles of this forum is that users should feel that they can post comments privately. Most browsers respect the privacy settings applied to the individual forums, but not all. It is possible that an ATOM/RSS feed could be activated for a subset of the forums, thus avoiding ones where privacy is likely to be an issue (e.g. the 'Advice' section).

Conclusion

In this report we have elaborated on some of the unique challenges faced by TFs in the evolving Higher Education sector and have highlighted the creation of the UK Teaching Fellow Network and the development of a pilot online community, in the form of a discussion forum, to support these individuals. Furthermore, we have outlined our plans to promote content generation and to expand the user base in order to create a vibrant and supportive community that will produce an archive of useful reference materials for existing and future TFs.

We conclude by offering an open invitation to the wider TF community to join the UKTF forum (http://tinyurl.com/UKTFForum). If you have any suggestions to enhance the TF Network or the forum please do not hesitate to contact the lead author directly or to leave a comment on the forum itself.

Endnote

There are various definitions of 'Social Capital' in the literature, which are particularly well summarised by Claridge (2004). In this context a suitable definition would be: "Individuals investing their time and expertise into a social network with the expectation of a return in either intellectual or material benefits". These benefits can take the form of increased status within their field, enhanced knowledge, support or encouragement from their peers, advice from more experienced members of the community, access to resources (such as academic literature, 'ready to use' classroom resources, career progression materials, physical facilities) or opportunities for collaboration that would otherwise be unavailable to them, etc. Lin (1999) provides a particularly insightful discussion of this concept in relation to online communities.

Acknowledgements

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