



UNIVERSITY
OF WOLLONGONG
AUSTRALIA

University of Wollongong
Research Online

Emerging Technologies Conference 2008

Faculty of Social Sciences

2008

A tale of two communities: How online programs can support the diverse needs of commencing and competing PhD candidates

D. L. Martin
University of Melbourne

A. Woods
University of Melbourne

Publication Details

This conference paper was originally published as Martin, DL and Woods, A, A tale of two communities: How online programs can support the diverse needs of commencing and competing PhD candidates, Proceedings of the Emerging Technologies Conference, University of Wollongong, 18-21 June 2008.

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library:
research-pubs@uow.edu.au

A tale of two communities: How online programs can support the diverse needs of commencing and competing PhD candidates

Abstract

In the context of higher education, discussions about community—and particularly online community – tend to assume that students’ needs to connect to community are consistent throughout the course of their study. In the case of relatively small student populations undertaking coursework subjects this may well be the case. PhDs candidates, by contrast, spend an average of 3.75 years in full-time study characterised by distinct and, for some, highly disjointed phases. Their need for community will vary considerably according to the nature and stage of their research. The University of Melbourne has developed two online support programs for PhD candidates under the title Postgraduate Essentials. Strategies for a Successful Start to your PhD facilitates transition into the academy; Completion and Beyond supports candidates to complete their theses and plan for what comes next. This paper offers a series of critical reflections on particular online tools and communication strategies deployed within each program, focussing on how they can help create the different forms of community sought by candidates at the commencement and completion of their research.

Publication Details

This conference paper was originally published as Martin, DL and Woods, A, A tale of two communities: How online programs can support the diverse needs of commencing and competing PhD candidates, Proceedings of the Emerging Technologies Conference, University of Wollongong, 18-21 June 2008.

A tale of two communities: How online programs can support the diverse needs of commencing and completing PhD candidates

David L Martin and Angela Woods
University of Melbourne

Abstract:

*In the context of higher education, discussions about community—and particularly online community—tend to assume that students' needs to connect to community are consistent throughout the course of their study. In the case of relatively small student populations undertaking coursework subjects this may well be the case. PhDs candidates, by contrast, spend an average of 3.75 years in full-time study characterised by distinct and, for some, highly disjointed phases. Their need for community will vary considerably according to the nature and stage of their research. The University of Melbourne has developed two online support programs for PhD candidates under the title *Postgraduate Essentials*. *Strategies for a Successful Start to your PhD* facilitates transition into the academy; *Completion and Beyond* supports candidates to complete their theses and plan for what comes next. This paper offers a series of critical reflections on particular online tools and communication strategies deployed within each program, focussing on how they can help create the different forms of community sought by candidates at the commencement and completion of their research.*

Introduction

As it has grown in volume and confidence, recent scholarship on virtual learning communities has undergone a subtle shift in focus. Questions like “Can Community be Formed Online?” (Palloff & Pratt, 2005) now appear almost rhetorical in flavour and have been eclipsed by more precise modes of inquiry (“What role (if any) does the discussion forum play in the development of a strong sense of community among students?” (Dawson, 2006)). Satisfied that a sense of community can and indeed should be created in online learning environments, attention has turned to the issue of which specific tools and strategies can best be used.

This paper offers a twofold contribution to the study of online learning communities in higher education. First, we want to provide some insight into the particular needs of the graduate research cohort; a group whose academic experiences and expectations can be productively distinguished from those of undergraduate and graduate coursework students. The inherent differences between research and coursework programs underscores graduate researchers' specific and, we will argue, changing needs to engage with their learning community.

The second aim of this paper is to share some practical observations from our experience in the design and delivery evaluation of online transition programs for PhD candidates. *Postgraduate Essentials* is an award-winning suite of two programs: *Strategies for a Successful Start to your PhD* and *Completion and Beyond*. Here, we offer a series of critical reflections on the particular tools and strategies used in *Postgraduate Essentials*—including guided facilitation, synchronous and asynchronous discussion fora, blogs and online profiles.

Our interim evaluation of *Strategies for a Successful Start* and *Completion and Beyond* demonstrates that graduate researchers do not have a constant or consistent need to engage with community; rather, the need for community changes as candidates transition in to and out of the academy. As online tools facilitate *specific* forms of community, it is incumbent upon us as curriculum and technical designers to choose carefully the tools we provide to commencing and completing researchers.

Graduate researchers: A learning community

Studies of online learning communities in higher education have focussed overwhelmingly on the support of coursework students, whether in the context of distance education (Palloff & Pratt, 1999; Rovai, 2002; Dawson, Winslett & Burr, 2004; Olofsson, 2007) or cohort-based teaching more generally (Shea, 2006; Farmer, Yue & Brooks, 2008). Conversely, analyses of the research experience, while often comprehensive and nuanced, tend not to foreground web-based strategies for creating and supporting learning communities (Fisher, 2006; Kearns et al, 2006; Walker et al, 2008). This paper extends the work done by our colleagues at the University of Melbourne in redressing this gap (Larcombe & McCosker, 2005; Brooks & Fyffe, 2004).

Whether the measure is research topic, demography, scholarly and professional experience, enrolment status or location – the diverse make-up of the research higher degree cohort sets it apart from any other group of students. Research into the doctoral experience has shown that candidates form their strongest ties in small research groups, laboratory groups and departments (Ross, 2001); communities of practice characterised by “a shared repertoire, with joint enterprise, mutual accountability, and most particularly with a shared history” (Farrell, 2007; see also Wenger, 1998). Clearly, a large research-intensive University such as Melbourne supports multiple communities of practice, each utilizing a range of tools to facilitate collaboration between members.

Our focus in this paper is on the University-wide graduate research community, a community more accurately described as a learning community where members share resources, communicate regularly, welcome new members and share success (Moore & Brooks, 2000, quoted in Brook & Oliver, 2003). This learning community of around 3500 students is multi- and inter-disciplinary, located across campuses and composed both of full-time and part-time students. Supporting the common principles and practices of doctoral scholarship (from research ethics and integrity to agreed standards in citation), the learning community provides an institution-wide context for discipline-specific communities of practice.

Postgraduate Essentials

Postgraduate Essentials was developed in 2004 to support this University-wide cohort of graduate researchers. A collaboration between the Melbourne School of Graduate Research, Language and Learning Skills Unit and Information Division, the program responded to increasing national demands to provide all PhD candidates with the academic skills needed to transition successfully into research. Since its launch, the online interactive program has won several awards (ASCILITE 2004, Norm Curry Award 2005, Australian University Teaching Awards finalist 2006), been licensed to seven other universities, and has seen over 1200 PhD candidates enrol in ten consecutive semester cohorts. *Strategies* was built on an in-house server called NEO and is delivered as a twelve-week intensive comprising six modules each released for two weeks. Larcombe and McCosker (2005) succinctly describe it as a “gateway” to “administrative information, academic skills advice, information

management strategies and tools, and community building forums and opportunities.”

Designed as the ‘bookend’ accompaniment to *Strategies, Completion and Beyond* was developed, piloted and launched in 2007. Responding to an increasing national and international focus on skills training and issues of workforce transition (Craswell, 2007), *Completion and Beyond* was designed to provide structured support for students in the final year of candidature. The course contains workshops on effective thesis writing, editing and maintaining momentum, as well as providing authentic tasks, tools and advice to help participants track and document skill gains from candidature and successfully transition out of the academy into research or industry positions. Unlike *Strategies, Completion and Beyond* follows a just-in-time logic, allowing candidates to access resources as and when they need them. It currently enjoys a growing enrolment of 230.

Postgraduate Essentials aims to provide academic and administrative support to research higher degree candidates in a way that is as rigorous as it is accessible and inclusive. Key differences between these programs are the focus of the rest of our paper; however, it is worth noting three design principles common to both courses: student-centric presentation, authentic learning tasks and the inclusive use of technology.

Personable but authoritative, the tone of *Postgraduate Essentials* acts as an inclusive welcome to the research experience. In every module, participants are provided with a sense of being given personal access to ‘insider’ knowledge through videos footage of present and former PhD candidates as well as high-profile supervisors offering ‘expert advice’. Quizzes and reflective tasks then prompt candidates to reflect on their own research experiences, and are further supported by workshop exercises designed either to contribute directly to the writing of a thesis or to the production of useful artefacts such as weekly planners. *Postgraduate Essentials* modules disseminate information and encourage reflection, but the course has a third aim of creating a learning community through an inclusive use of technology. Moderated discussion forums (*Strategies*) and centralised course blogging (*Completion and Beyond*) are used to seed discussion and lively debate about different aspects of cohort experience and candidature management. These tools are fully and thoroughly integrated with the course ‘curriculum’ to increase usability and reduce ‘drop-out’ caused by adjunct technology use.

Clearly the course content of *Strategies* and *Completion and Beyond* ‘speaks’ to students at the two very different stages of candidature. What is striking, however, is not that candidates have different needs for information or reflection, but that they have different needs for community.

The Australian standard for a ‘timely’ PhD completion is five years and most full-time researchers spend an average 3.75 years completing their degrees (University of Melbourne, 2007). The duration and intensity of this form of study is underscored by the expectation that PhD candidates will grow into the role of the expert, and thus be empowered to assume a new identity within their learning community as they transition into a professional community of practice. In the rest of this paper, we compare the experiences of

commencing and completing PhD candidates and reflect upon how specific tools in *Postgraduate Essentials* catering to their changing need for community.

Commencing candidates

At the heart of *Postgraduate Essentials: Strategies for a successful start to your PhD* is 'The Postgraduate Lounge', a facilitated asynchronous discussion forum promoted as a space for social networking and casual chat. Here we quote three introductory posts at length, to highlight the diversity of individuals in the graduate research cohort:¹

Maria

Thanks for the welcome. I've just started my thesis in the department of Political Science. [...] Outside of Uni I enjoy art, movies, literature and as a mother of a current VCE student, at present I find myself needing to learn quite a bit about quite a lot...

Sorry I can't make it along to the [*Postgraduate Essentials* welcome session] on Thursday. I work fulltime so getting time off to attend the Department's seminars is all I can manage. It is for this reason I am hoping that the PG Essentials course and community is a big success. I felt terribly isolated not being on campus when I did my post-grad dip last year so hopefully this will help me to get to know a few people.

Kindest to all, Maria

Sam

Greetings to one and all.

[...] I've just started [last week] a new degree in Physics [woo] and am looking forward to expanding my network of future underlings for my new world order...no, wait, I mean friends and colleagues. Quite frankly, I didn't know that there was such a thing as 'outside of uni', honours degrees in physics tend to be rather time consuming, so if anyone would like to start a guided tour of this thing they call 'the outside world', I'll sign up! I'm a big beach fan and love the sun - but believe it or not I haven't really been to the beach this summer. In Science we tend to view things in a slightly more black and white fashion, so I'm looking forward to meeting some of you more 'human' people so I can let my inner humanist out of his box for a little while...

Anyways, I suppose I should get back to work in my evil lab in the turret of a crumbling castle atop a moonlit crag... [...] Toodles!

Yang

Hi, I work full-time for the last 10 years (you know, to earn money to pursue my PhD). I am married and expecting my first baby in May 2007 (too bad, I have to left my lovely wife alone in my home country, but I think I will find my way to go back when she give birth, ahi...). I enrolled as probationary PhD candidature last month in Engineering (Again, I missed the CNY celebration in my home country). Frankly, I have very very limited experience in doing Research work, so I think I will learn more then I can contribute to this small but big community. However, I could share my experiences with you if you are interested working or visiting Malaysia.

Cheers, Yang

¹ The names and distinguishing details of *Postgraduate Essentials* have been changed to preserve confidentiality.

Maria, Sam and Yang's academic, professional and personal experiences and expectations differ considerably. However, whether fresh from a ten-year career overseas or a ten-month intensive honours program on-campus, all three in their opening post register one clear concern: an anxiety about isolation. Conscious that she struggles to connect with departmental programs, Maria hopes her PhD experience will significantly improve on the "terrible" lack of community in her previous graduate degree. If Maria fears isolation *from* study, Sam is concerned about isolation *through* study in the "turret" or "lair" of the physics lab. And Yang has perhaps the most grounds for apprehension: separated from his wife, family, friends, colleagues and country, he must build his own academic and support networks from the ground up.

Isolation, then, appears to be a key issue confronting these students and, as research has amply demonstrated, the wider doctoral cohort at large (Conrad, 2006). The discourse on doctoral education frequently recommends "connecting with research community" as the antidote to isolation, or a prophylactic against its corrosive effects. *Postgraduate Essentials: Strategies for a successful start to your PhD* uses facilitation, general and specific asynchronous fora and a synchronous live chat tool to facilitate these connections.

Facilitation

As has been widely demonstrated (Farrell, 2006; Brook and Oliver, 2003), tools cannot in and of themselves create community. We have already discussed the importance of embedding online tools within a strong course curriculum, but their use must also be modeled, encouraged and supported by a dedicated course facilitator.

More than an institutional point of contact, the *Strategies* facilitator is a 'PhD cruise director' who welcomes participants, maintains conversations and discussions, and acts as an unofficial sounding-board for when participants need to vent. The role requires personal experience of graduate research and skills in effective online facilitation. Hiltz (1997) has shown that facilitators who establish 'swift trust' with participants greatly enhance their experience of any online learning community. *Strategies* facilitators establish 'swift trust' online through regular emails introducing each module, regular forum postings and replies, and live chats with weekly external experts, and offline through welcome and closing events.

Asynchronous discussion fora on each fortnightly topic

Discussion fora are at the heart of the course and the sense of community it engenders. Online identities are created through posts linked to brief biographical profiles. Promoted as a 'safe environment' where participants can interact freely with each other and with course advisors; it is not unusual to see participants, as in the case of Maria, Sam and Yang, share their anxieties, experiment with playful personas, and offer frank reflections on their achievements.

Strategies' module-specific fora are well-suited to inducting participants into an institutionally-regulated learning community. However, we have found them to be less effective at facilitating peer-to-peer interaction; PhD candidates are most interested, it would seem, in connecting to already-established research communities composed of more experienced peers.

Specialist discussion fora

All six modules *Strategies* are generalist in focus rather than discipline specific, so the capacity for participants to create their own fora based on specific needs and interests was a core principle of the course design. Almost entirely student driven, these fora are ‘riskier’ in terms of uptake, although highly effective instances of peer-to-peer learning and networking when they do work. As well as the regular sciences/humanities fora, vibrant networks have formed among other ‘interest’ groups, such as students with kids.

Live chat

The ‘Live Chat’ fora represent the most immediate form of community engagement in the course. Used primarily as an ‘ask the expert’ hour, the resultant sense of community promoted and fostered here is similar to that of the asynchronous fora: ‘institutional’ rather than peer-to-peer. The near anonymity of the online encounter allows participants who are still quite unsure of their place within the University’s research community to be emboldened to seek advice; however, this sense of uncertainty can be unfortunately heightened if students log on to find no-one there. Although students can access logs of the chat, accessing the sense of community inherent in a chat seems limited to those able to participate ‘live’.

Completing Candidates

Margaret

I find that my time is very limited. Reading other peoples’ opinions is not that interesting to me.

Annissa

I guess seeing as how I didn't really want to discuss my experiences with other participants, I wasn't contributing to the 'community', so I can't say how well developed it became.

Theonie

A ‘submit and analyse’ feature where I could submit, say, one paragraph of work and have someone from LLSU give me feedback on my grammar. I'm a bit shaky on passive, active, and all that... so really just some grammatical assistance rather than just the 'big picture' conceptual stuff”.

As these quotations from three of the PhD candidates who piloted *Completion and Beyond* indicate, a clear shift has occurred in the relationship completing candidates have to the idea of community. Recall that Maria shared with the group her fears of being isolated from other students and frustrations at not being able to attend events on campus, while Sam playfully invited colleagues to join him on a ‘real world’ tour. The kind of community that Maria, Sam and Yang were so eager to find is not something that Margaret and Annissa, quoted above, appear to need or want from their online experience.

Margaret, Annissa and even Theonie each seem to want something altogether different. Robust and emboldened by nearly three years of research successes, completing candidates require a very different sense of, and connection to, community – one that is as individualised

as it is professional. As their gaze shifts beyond the academy to research or industry positions, the needs of completing PhD candidates resemble academic staff more closely than any other student population, as the imperative to develop outward-looking, career-sustaining research networks grows.

These issues influenced not only the planning and design of *Completion and Beyond*, but also the very structure of how the course should be accessed and with what technologies and tools. *Strategies* reproduces the linear logic of traditional distance coursework subjects – a series of time-released modules guide students from ‘Getting Started’ to ‘Preparing for Confirmation’. *Completion and Beyond*, by contrast, is much more open-ended – candidates can access all modules at any time in their order of their choosing.

On one level the rationale for these decisions is simple: all candidates need to establish a supervisory relationship; not all candidates will need to workshop a changing relationship. All candidates will need advice on using University databases, not all candidates will need an online editing workshop. But perhaps the more significant rendition of this differential relationship to community-needs can be seen in different application of the specific online tools used in *Completion and Beyond*.

Blogging Tool – Dr Doctor

As we have shown, fora and chat rooms are an effective means of inducting commencing candidates into a learning community. Discussion initiated and mediated by a course facilitator provides candidates with the space to ask questions and articulate their anxieties about the years of study ahead. Completing candidates, because they are more familiar with the requirements of their degree, require less direction and instruction. Instead of using ‘ask the expert’ style fora, *Completion and Beyond* instead makes use of a centralised news, events and discussion blog.

Euphemistically entitled ‘From the Desk of Dr Doctor,’ the central blogging tool of *Completion and Beyond* enables the course facilitator (in the somewhat wry persona of Dr Doctor) to post alerts about upcoming events relevant to researchers, clarify or highlight particular aspects of course content, and seed discussion on research-relevant topics or industry debates.

Appearing on the welcome page of the course, those participants that feel a need to interact with the cohort can do so by leaving comments; those for whom this has no appeal can merely stay informed of upcoming events. At the time of writing, this freedom had resulted in limited uptake – participation on the Dr Doctor blog perhaps being something that needs to be supported by a facilitator external to the course.

Professional Profile

A key component of *Completion and Beyond*’s curriculum is an in-depth discussion of the needs of completing candidates to establish and maintain lasting career-orientated research and industry networks. If the key to productive academic networking is to establish one’s presence ‘in the field’, then constantly being ‘out there’ in terms of a web-presence is, along with publishing and attending conferences, imperative.

Accompanying and reinforcing this core component of the course is the task of producing a dedicated and detailed research profile. Participants are encouraged to keep their contact details clear and current, profile their research work with the inclusion of their thesis abstract, promote their wider research interests and competencies through searchable keyword listings, as well as record their research and publishing accomplishments and milestones.

Presently these profiles are only viewable by other people that have access to the course, and students can contact each other via email. How their networking progresses is, then, something we have not been able directly to assess; however, it is at the centre of our current development of an ePortfolio for research higher degree students.

Conclusion

Connecting to community can help overcome feelings of isolation, produce a more positive cohort experience, and ultimately assist in timely completion (University of Melbourne, 2007). In this paper, we have endeavoured to show that graduate researchers have different needs for community as they transition in to and out of the academy, and have offered our reflections on the strengths and limitations of specific online tools used in the *Postgraduate Essentials* suite to facilitate these connections. As we move towards the integration of *Strategies* and *Completion and Beyond* with new modules for the ‘middle years’ of candidature, the need for a formal and thorough evaluation of *Postgraduate Essentials’* online communities is apparent. What we hope to achieve from this ongoing project is the development of even more tailored, targeted and ultimately effective opportunities for candidates to make the most of their membership of their dynamic learning community.

References

- Brook, C. & Oliver, R. (2003). Online learning communities: Investigating a design framework. *Australian Journal of Educational Technology*, 19(2), 139-160. [viewed 7 April 2008] <http://www.ascilite.org.au/ajet/ajet19/brook.html>
- Brooks, C. & Fyffe, J. (2004). Are we comfortable yet? Developing a community of practice with PhD students at the University of Melbourne. In R. Atkinson, C. McBeath, D. Jonas-Dwyer & R. Phillips (Eds), *Beyond the comfort zone: Proceedings of the 21st ASCILITE Conference* (pp. 163-169). Perth, 5-8 December. <http://www.ascilite.org.au/conferences/perth04/procs/brooks.html>
- Conrad, L. (2006) Countering Isolation – Joining the Research Community. In C. Denholm & T.Evans, eds., *Doctorates Downunder: Keys to Successful Doctoral Study in Australia & New Zealand*. Melbourne: Acer.
- Craswell, G (2007). Deconstructing the skills training debate in doctoral education. *Higher Education Research & Development*, 26 (4), 377-391.
- Dawson, S. (2006). Online forum discussion interactions as an indicator of student community. *Australasian Journal of Educational Technology*, 22(4), 495-510. [viewed 7 April 2008] <http://www.ascilite.org.au/ajet/ajet22/dawson.html>
- Dawson, S. Winslett, G. & Burr, L (2004) Toward A Quantitative Analysis Of Online Communities. In *Proceedings Online Learning and Teaching Conference: Exploring integrated learning environments*, pp.37-43, Brisbane, Australia.
- Denholm, C & Evans, T (2006) *Doctorates Downunder: Keys to Successful Doctoral Study in Australia & New Zealand*. Melbourne: Acer. Fisher, K. (2006) Peer Support Groups. In C. Denholm & T.Evans, eds., *Doctorates Downunder: Keys to Successful Doctoral Study in Australia & New Zealand*. Melbourne: Acer.
- Farmer, B., Yue, A. & Brooks, C. (2008). Using blogging for higher order learning in large cohort university teaching: A case study. *Australasian Journal of Educational Technology*, 24(2), 123-136. [viewed 7 April 2008] <http://www.ascilite.org.au/ajet/ajet24/farmer.html>

- Farrell, K (2007) Participation, Belonging, Identity: The Role of the Department in the Socialisation of PhD Students. Presentation in the Ideas and Issues in Higher Education Seminar Series 2007, Centre for the Study of Higher Education, University of Melbourne.
- Farrell, K (2006) Postgraduate Essentials: A Manual for Facilitators.
- Hiltz, S. R. (1997). Building Learning Communities in Online Courses. Presentation at IADIS International Conference, Web Based Communities. Algarve, Portugal.
- Kearns, H, Gardiner, M, Marshall, K and Banytis, F (2006) *The PhD Experience: What they didn't tell you at Induction*. Adelaide: Flinders University.
- Larcombe, W. & McCosker, A. *Postgraduate Essentials: An Online Transition Program for Commencing PhD Students*. In S. Milnes, G. Creswell, V. Rao & A. Bartlett (eds.) *Critiquing and Reflecting: LAS Profession and Practice* (2005).
- Moore, A. B. & Brooks, R. (2000). Learning communities and community development: Describing the process. *Learning Communities: International Journal of Adult and Vocational Learning*, Issue No.1 (Nov) 1-15. [viewed April 7 2008]
<http://www.crlra.utas.edu.au/Pages/files/journal/articles/iss1/1Moore&B.pdf>
- Palloff, R. & Pratt, K (1999) *Building Learning Communities in Cyberspace: Effective Strategies for the Online Classroom*. San-Francisco: Jossey-bass.
- Palloff, R. & Pratt, K (2005). Online Learning Communities Revisited. 21st Annual Conference on Distance Teaching and Learning. [viewed April 7 2008]
http://www.uwex.edu/disted/conference/Resource_library/proceedings/05_1801.pdf
- Ross, K. (2001) *First-year Postgraduate Students at the University of Melbourne: A Preliminary Investigation*. University of Melbourne Postgraduate Association and the School of Graduate Studies.
- Rovai, A. P. (2002). Building sense of community at a distance. *International Review of Research in Open and Distance Learning*, 3(1). [viewed April 7 2008]
<http://www.irrodl.org/index.php/irrodl/article/view/79/152>
- Shea, P (2006), A Study of Students' Sense of Learning Community in Online Environments, *Journal of Asynchronous Learning Networks*, 10 (1)
http://www.sloan-c.org/publications/jaln/v10n1/v10n1_4shea.asp
- Olofsson, A. D. (2007). Participation in an Educational Online Learning Community. *Educational Technology & Society*, 10 (4), 28-38.
- University of Melbourne Academic Connectedness Advisory Group, (2007). The Cohort Experience. Internal Report Circulated to the Melbourne Experience Committee 6 June.
- Walker, G, Golde, C, Jones, L , Bueschel, A & Hutchings, P (2008) "Creating and Sustaining Intellectual Community," in *The Formation of Scholars: Rethinking Doctoral Education for the Twenty-First Century*. San-Francisco: Jossey-Bass.
- Wenger, E. (1998) *Communities of practice: Learning, meaning and identity*. New York: Cambridge University Press.

Contact: dlmartin@unimelb.edu.au, amwoods@unimelb.edu.au

Cite paper as: Martin, D.L., & Woods, A. (2008). A tale of two communities: How online programs can support the diverse needs of commencing and completing PhD candidates. In I. Olney, G. Lefoe, J. Mantei, & J. Herrington (Eds.), *Proceedings of the Second Emerging Technologies Conference 2008* [pp. 138-146]. Wollongong: University of Wollongong.

Copyright © 2008 Author/s: The author/s grant a non-exclusive licence to UOW to publish this document in full on the World Wide Web within the Emerging Technologies conference proceedings. Any other usage is prohibited without the express permission of the author/s.