Trans-Pacific doctoral success – A collaborative cohort model

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Helen Partridge
University of Southern Queensland

Christine Bruce
Queensland University of Technology

Sandra Hirsh
San Jose State University

Ken Haycock
Ken Haycock and Associates

Sylvia Edwards
Queensland University of Technology

Cheryl Stenstrom
San Jose State University

Susan Gasson
Queensland University of Technology

Abstract
The San Jose Gateway PhD program is a doctoral partnership between the School of Information at San Jose State University (SJSU) in the USA, and the Information Systems School at the Queensland University of Technology (QUT) in Australia. Because of Californian legislation, SJSU has not been able to offer PhD degrees. The Gateway Program therefore provides a research pathway for SJSU's coursework students. It also helps the School to grow the research capacity of academic staff. For QUT, the Program provides the opportunity to advance research agendas and to build strong international connections and partnerships. The Program began in 2008. It is a distance-delivered cohort-based scheme with new students commencing in August of each year. All students are enrolled as part-time students in QUT's Doctor of Philosophy. Each student is assigned supervisors from both universities. In addition to individual and group supervisory meetings, all students and supervisors meet in a virtual meeting space once a month. The online monthly meetings are supplemented by two residential events each year: (i) a one week face to face residential in August at San Jose State University, and (ii) an online residential in March. This paper will critically reflect upon this unique Program, which has led to high quality research outcomes, rapid completions, and noteworthy graduate employments. Critical consideration of the challenges and future proofing of the approach will also be explored.

Keywords: distance education; cohort-based program; part-time students; multi-national partnerships; higher degree research education.

Introduction

How can two universities on opposite sides of the Pacific Ocean work together to deliver a successful doctoral program? What elements are needed to deliver a doctoral program with partner institutions in different countries? This paper presents a unique collaboration between San Jose State University (SJSU) School of Information in the United States and Queensland University of Technology (QUT) Information Systems School in Australia to create and provide a distance-delivered cohort-based doctoral program, called the San Jose Gateway PhD Program, in the library and information science discipline. This San Jose Gateway PhD program (SJSU, n.d) was initially established as a way to enable SJSU to offer a PhD program, which it was not able to do due to California state legislation. In addition to achieving this objective, the partnership has also proven to offer many other benefits to each institution. For example, the San Jose Gateway PhD Program helps SJSU grow the research capacity of academic staff and provides the opportunity to advance research agendas and to build strong international connections and partnerships for QUT. The

San Jose Gateway PhD Program, which commenced in 2008, has produced nine graduates as of 2016 and all completed within the recommended timeframes; most graduates achieved completion within four years part-time and two received top thesis honours at QUT. This paper critically reflects upon this unique Program; it begins by first exploring the key literature relevant to the provision of higher degree research education especially in the context of distance or online delivery. The paper will then outline the San Jose Gateway program including a discussion on the key lessons learnt.

Literature Review

Higher degree supervision of doctoral students has always required a balancing between the processes of engaging in research, and learning to be a researcher. There are many different facets to the experience of bringing about learning in the doctoral educational program (Bruce and Stoodley, 2014). While demographic variables and personality traits remain important factors for successful completion, emerging research shows that the intentional design of program elements can contribute to higher graduation rates and scholarly outcomes (Burnett, 1999). This is especially important for doctoral programs offered in a distance or online mode, where student isolation continues to be identified as a key concern, as do the possibilities of receiving nuanced feedback from supervisors (Nasiri & Mafakheri, 2015).

Significant trends in supervision are emerging, particularly in doctoral programs situated outside North America, and include an increasing reliance on team supervision (see, for example, Erichsen et al, 2014; Fenge, 2012; Manathunga, 2012, Watts, 2010). The addition of multiple perspectives on a student's work increases their chances of successfully completing the doctoral program (Chipere, 2015), and deepens the student experience by allowing different team members to take on various roles as the student progresses through candidature (Erichsen et al, 2014; Manathunga, 2012). Despite the multiple benefits that can come from team supervision, the team-based model can add complexity for the student if disagreements or power struggles characterise the team (Manathunga, 2012; Watts, 2010). Related to the trend of team supervision is a recognition of the benefits of peer learning and cohort models. The development of critical thinking skills and social cohesion (Stracke, 2010) as well as reinforcement of professional identity (Fenge, 2012) can be enhanced in the group or cohort setting.

New work is emerging that examines the role of online learning in doctoral-level study. While student satisfaction and success can be achieved (Erichsen et al, 2014; Harrison et al, 2014), traditional elements of successful supervision must be replicated in the online environment. In addition to providing robust technical platforms from which students and supervisors can operate, frequent contact, relevant and timely feedback, and personal characteristics of both the student and supervisor remain important elements in any program, regardless of delivery format (Chipere, 2015; Cross, 2014; Lee, 2008; Nulty et al, 2014).

The San Jose Gateway PhD program described in this paper is a unique partnership between two universities. The program has sought to implement some of the positive practices as well as address some of the challenges raised in the research literature by building a learning community of doctoral candidates and supervisors in a distance learning environment across two continents and incorporating elements of the cultures of both continents.

The San Jose Gateway Program

The San Jose Gateway PhD Program is a unique partnership between SJSU and QUT. It is set up as a part-time doctoral program for students who reside outside of Australia, primarily those who are from the United States and Canada, though the student body has become increasingly international since the program began. Students have up to 7 years to complete their degree, and firm milestone completions are expected after six months (Stage 2 milestone) and after two years (Confirmation of Candidature). Students then have several years to work on their dissertation, with the final stage involving a Final Seminar and external review of their thesis. Students have supervisory teams of three people (one from SJSU and two from QUT) and receive mentoring and support from the broader SJSU and QUT faculties and their doctoral student peers. This section provides background on how the program began and how the program is currently offered, including a description of the teaching and supervision methods used.

How the program began

SJSU stakeholders had identified a challenge for their institution. Due to California state legislation, SJSU was not allowed to offer PhD degrees but had aspirations to become more research intensive, increase its research profile, and grow the research capacity of its academic staff. SJSU was looking for a partner institution that it could work with to offer a joint PhD program. SJSU found an interested partner in QUT, and the stakeholders from the two institutions began informal discussions in 2005. From the QUT perspective, working with SJSU could increase the pool of doctoral

supervisors and students in a particular discipline area, thus enriching research in that discipline. Goodwill on both sides was needed as the SJSU and QUT stakeholders discussed the possibility of creating a unique doctoral program that would provide a gateway to the QUT doctoral program and as the stakeholders defined how this innovative model could work.

The result of these discussions was the creation of the San Jose Gateway PhD program in 2008. This program is an external QUT-led doctoral program, supervised in collaboration with researchers from the San Jose State University in the United States. QUT provides the degree and students follow the rules and requirements of the QUT doctoral degree. The San Jose arm of the partnership includes supervisors who are research active, and who have expertise in working and teaching virtually. Thus, each student in the Gateway program has three supervisors: a lead supervisor from SJSU, a Principal Supervisor from QUT, and an Associate Supervisor from QUT. Students work very closely with their SJSU supervisor on initial versions of their work, which is then regularly reviewed by the QUT supervisors. In this way, students benefit from having a strong supervisory team.

An important element in the success of the Gateway PhD program was the training of SJSU doctoral supervisors by QUT. As there are significant differences in the doctoral education models in the United States and Australia, the two institutions needed to work together to develop effective and innovative practices. Specifically, in the United States, doctoral education typically involves two years of coursework, a comprehensive exam and defence of the doctoral proposals, and a formal defence of the dissertation. It took some time for the American and Canadian faculty at SJSU to get used to the QUT research-focused doctoral education model, which did not require formal coursework and instead involved more directed readings and learning. Additionally, since it was new for the SJSU faculty to supervise doctoral students and SJSU faculty were not familiar with QUT practices and policies, QUT supervisors provided valuable training and mentoring for the SJSU supervisors.

How the program is currently offered
In addition to supervising students, SJSU is responsible for the marketing, recruitment, and initial vetting of potential doctoral students for the San Jose Gateway PhD Program. Admissions to the first cohort in 2008 were drawn from current staff and graduates from the SJSU Master of Library and Information Science program who wished to, and were well suited to undertake PhD studies. After the first couple of cohorts, a wider recruiting net was cast and the reputation of the program is now well established; there is broad awareness of the San Jose Gateway PhD program and strong interest from applicants, with more than one hundred expressions of interest received annually. Annual cohorts of students are admitted and begin their program in August. Cohorts have ranged in size from one to nine students, with the average annual intake of four students per year.

Once a candidate student is endorsed by a SJSU faculty member, which signifies the SJSU faculty member's willingness to supervise the student's work, a list of all of the endorsed candidates is reviewed by the SJSU Director of the School of Information. The director discusses the ranked list of candidates with the lead partner at QUT to determine the final applicant pool. Then the selected applicants are invited to formally apply to QUT for admission to the doctoral program. Candidates must meet QUT's admission standards, including the requirement to have demonstrated research experience.

The San Jose Gateway PhD program follows the QUT doctoral program structure, but SJSU and QUT supervisors have modified some of the structure to facilitate the distributed and part-time nature of the program. Technology plays a central role in ensuring that the program goals for deep interaction, regular communication, and knowledge management are met. Communication tools like Skype and Blackboard Collaborate (a web conferencing system), and Blackboard IM (an instant messaging tool), in addition to email communication, provide important support for student and supervisor interaction. These tools are used for individual and group supervisory meetings, as well as for monthly web conference meeting with all students and staff and for a two-day virtual residency.

Wikis are used for storage of critical QUT program documentation and for sharing of doctoral student work; these online resources are annually reviewed, as they are critical teaching and learning tools for both students and supervisors and are key to ensuring everyone remains aware of QUT HDR policies and procedures. These learning resources cover, for each cohort, their literature reviews, research methods, writing, working with your supervisors, ethics, thesis writing and presentation resources. These resources are designed to allow both independent and community learning and to cater for a distance learning population. QUT also provides online training for specific skills for both doctoral students and supervisors. SJSU provides a broad orientation for incoming students faculty to the technical tools most frequently used

in the program, and students are also able to audit online classes in the SJSU School of Information's program as needed.

Details of program design
The program design includes student and supervisor participation in an annual onsite residential, an annual virtual residential, and monthly web conference group meeting, in addition to regular virtual contact between students and supervisors. These elements enable the successful management of the program, which includes overseeing development of supervisors, induction of research students, development of training resources, design and implementation of week-long face to face development opportunities, and evaluation strategies. Each of these program elements utilizes support strategies to achieve quality supervision, as elaborated below:

1) On Site and Virtual Residencies
Two residencies take place each year: an annual one-week on site residency in San Jose, California in the United States in August and an annual two-day virtual residency in March (in 2014 this replaced the annual residency that took place at either the ALISE or ASIS&T annual meeting). The annual residency in San Jose is attended by two QUT supervisors, all of the SJSU supervisors, and all of the Gateway students (regardless of what stage of the program they are at). Students enjoy working with a cohort of doctoral students at these residencies; the residencies provide an opportunity for the students to engage both personally and academically.

The residencies have evolved from workshops for inducting new students and supervisors, initially largely facilitated by the QUT team, to a conference style seminar/workshop program managed by San Jose supervisors and involving many facilitators from the students and supervisory team. Students are encouraged to contribute from as early as possible to enhance their research leadership capabilities. These events typically include, for example:

- A three-minute thesis event
- Poster presentations
- Literature review, methodology, and other milestone preliminary and final presentations
- Peer learning and support activities, e.g., writing for publication, presenting at conferences
- 'Reflective' seminars where students critique their own performance as well as respond to commentary from others. Commenting students document their thoughts in writing.
- Guidance around milestones, including confirmation and final seminar presentations.

Residentials are evaluated annually and feedback informs the following year's programs. Typically, new cohorts/students seek a high level of scaffolding and guidance, making a key task of the program the need to bring them to a place where they can be comfortable with a high level of collegial working, as opposed to direction. This shift usually takes about twelve months and is supported by monthly web conferences attended by all students and supervisors.

2) Monthly Web Conference Group Sessions
Students meet virtually for two hours each month to share their work with each other and with all of the SJSU and QUT faculty. Monthly web conference attendance is well established as a requirement for students in the program. These two-hour meetings are an important supervision space, and also a space where supervisory teams receive support from the wider group. Students bring their work in progress, issues in need of discussion and are supported by wide ranging constructive conversation. Students begin to get exposure to the quality of work being generated by peers at later stages of candidature. It also means that new supervisors and students are well supported in learning how to review and assess the quality of work. Great attention is especially devoted in early stages to ensure students reached the six-month Stage 2 milestone. It does take a while for new students to perceive the value of group meetings where they are involved in responding to the work of others; the established pattern over the last eight years is that perseverance pays off and students become committed to their peers, learning about a very wide range of research processes, topics and methods as they engage with the larger community.

Part of the research training is exposure - through these monthly web conference sessions and annual face to face/virtual residencies - to literature reviews, methods and critical staged milestone documents aimed at supporting progress. Students in the cohort draw momentum and inspiration through sharing the research journey in this very overt environment. The rich diversity of topics and methods provides exposure and training for participants in a variety of valid research approaches both qualitative and quantitative. The capacity to engage in discussion across this range of work and critically comment and evaluate represents a unique research learning experience. This participation in a wider doctoral community enriches the doctoral learning experience, builds their confidence in communicating about research

and drives a level of expectation about progress and quality of work. The collegial sharing allows new PhDs to see the shape and form of a PhD, which helps them to understand the size of the work and the nature of the contribution they will need to make.

3) Supervisory Mentoring
In addition to the program elements that support student learning and progress, there is a strong focus on general supervisory mentoring. Senior supervisors, especially the QUT team, engage in supervisory mentoring which involves role modelling and guiding supervisors in best practice for supervision, negotiating topics, high levels of communication around expectations, scaffolding the early stages of the process, and identifying and resolving issues early where possible. The supervisory team (which like the students is also external and distributed), has formal meetings (twice a year) and as needed to discuss student progress, supervisory processes, learning styles, meeting different needs, balancing independent learning and formal instruction, as well as conflict resolution. These group processes are usually highly productive, but can involve a bit of balancing student privacy and confidentiality; where challenging case arise these are usually managed in detail by a specific sub group of supervisors and other advisors.

Learnings from the Program
The fact that this is a learning community, for both the students and the supervisors, has always been a central element of this program. Being part of a broader research group has always been beneficial. It is a model replicated over not just decades, but centuries since early research programs began, because it has proven its worth for both students and their supervisors. Replicating this via an online community is not as common, nor as simple, as it sounds. Challenges have included those expected when participating in both synchronous and asynchronous meetings, and the expected challenges that arise without visual and sound when attending online meetings or when communicating via emails. Unexpected challenges have also arisen, some of these presented below. Our team has approached these challenges with an open mind, remembering always that we are all learning how to achieve from this partnership all that we hope for. There are several learnings from this unique partnership and a new doctoral supervision model in the San Jose Gateway PhD program. A key component leading to the success of the San Jose Gateway PhD program has been building a research learning community. Another factor contributing to the program's success has been the continual learning and refinement of the model to adapt to the changing needs of the doctoral students and to address program feedback. This section also shares some of the student and faculty perspectives on the program.

Building the research learning community
The vital elements over the years have proved to be the development of strong virtual communities of practice where supervisors work together and support each other and students have a network of critical friends, including peers, beyond their own supervisory team. While QUT staff originally took responsibility for the initial program design, over several years, it has become jointly owned and continuously monitored and improved based on the needs of participating students and supervisors.

Pivotal to the success of the program is the student experience of developing a research learning community that extends beyond graduation and their supervisory team. For example, students typically connect with their cohort and maintain close communication throughout the year. Past students (both completed students and those on leave) can, and frequently do, attend the annual residency in San Jose. Those in and around the Bay area have independently set up social support opportunities three to four times a year. Past graduates become supervisors and/or mentors for other students.

Continual refinement
The San Jose Gateway PhD Program has continued to evolve since it began in 2008, and this evolution and refinement can be characterized in three phases: 1) Start Up, 2) Development, and 3) Evolution.

1) Start-up phase - Laying the Foundation (Years 1-3)
As the new program was getting established, strong role modelling by QUT supervisors was required, for example, the QUT supervisors lead the design and development of the first residential programs and training for new students and supervisors. QUT supervisors invested time to be assured of the calibre of the graduates and staff and to facilitate admission into the QUT PhD program for identified applicants. A key point in this process was the common commitment to the shared areas of research strength. Over time, the capacity of applicants to address the admission criteria has improved and their capacity to address entry processes has been refined.

Both QUT and San Jose were committed to supporting students, primarily from the United States and Canada, to pursue their studies at a distance, with scaffolding provided by faculty at SJSU and QUT. To do this appropriately, infrastructure and funding were required. The model has been refined but always involved a QUT principal and associate supervisor working with an on-site paid San Jose supervisor for each student, with the SJSU supervisor taking a key leadership role in the student learning experience. This represents a greater commitment of supervisory capacity than is usual at QUT where only a principal and associate supervisor would be required. Effectively, the principal supervisor plays a dual role, supervising the student and mentoring the novice San Jose supervisor who, more recently, are new graduates from the program themselves. The need for mentoring of SJSU supervisors has decreased over time, as SJSU supervisors gained more experience in doctoral supervision and specifically gained more knowledge of QUT policies.

In the early years, it was important for students and supervisors to work through the implications of a cross-cultural program, where an Australian Degree was being granted. The status of such a qualification in the United States was still uncertain and required clarification for prospective doctoral students. An important focus in these early years, and ongoing, was community building, and this has turned out to be a big strength of the program. Community building has been achieved both through the virtual and on site residencies and through the monthly web conference sessions, and has resulted in strong and lasting bonds among doctoral student and with supervisors.

2) Development Phase - Graduates Helping Drive the Program (Years 4-7)
After the first couple of years, the SJSU faculty took the lead role in organizing and leading the annual onsite residency in San Jose, with advice from QUT colleagues. Within four years, graduates from the program became involved in program leadership, and began to move into supervisory roles. During this time, stability in the program was maintained through limiting the number of QUT principal supervisors to a team of three: Professors Helen Partridge, Christine Bruce and Sylvia Edwards. During this phase, QUT associate supervisors had also previously worked closely with the Principal supervision team, and were familiar with the supervision 'culture' established.

Engagement of the staff in this phase has been rewarded by a very productive cohort, able to generate high quality research outputs, which in turn have led to enhanced employment outcomes after graduation. This research output was deliberately driven by provision of funding by QUT to assist students to publish. The return on this investment has been co-authored high impact publications with supervisory teams (See Appendix A). During this phase several students graduated from the program, establishing markers of success, and started to gain employment. As students began to publish, and become invited to academic and industry-research positions faith, in the program was strengthened.

3) Expansion phase - New Supervisors (Years 8-)
As the San Jose Gateway PhD program has grown, the number of supervisors involved has increased. Some of the early participating SJSU supervisors have retired and new supervisors on both sides of the Pacific have had to be trained -- sometimes in the supervision process generally and always in the specific approaches of this program which spans two academic cultures. Given the retirements of experienced SJSU supervisors, new SJSU supervisors were recruited and needed to be trained and mentored. This meant that the mentoring load for the QUT supervisors was greater than anticipated in this phase. At the same time, shifts in the QUT staffing profile meant that a different group of supervisors, both experienced and early career, are taking on principal and associate supervision roles. Academic management of the program has thus shifted to enabling a much larger group in the supervision process.

Widening of the supervision team has also been driven by unexpectedly large enrolments in recent years. The 2014 cohort comprised nine students, a further two commenced in 2015, and it is anticipated that four will join the group in 2016. In this new phase, one of the SJSU Professors, who graduated two QUT students, was invited to an Adjunct Professor role at QUT. This role will allow him to act as a Principal supervisor for SJSU students, and is also recognition of the mentoring that he is able to provide to colleagues.

Student and Faculty Perspectives
The section describes student and faculty perspectives about the San Jose Gateway PhD program summarized from a comprehensive program review of program. The review was undertaken to identify positive student outcomes and those program components intended to lead to them, as well as to assess the degree to which the program goals were being met. It was primarily reflective with an aim to maximize student learning, create programmatic efficiencies where appropriate, and to develop new program content as necessary.

Data were collected from student and faculty evaluations of residential programs; graduating students' exit survey responses; notes from faculty meetings that took place between 2008 and 2013; and interviews with current and former

students', supervisors' and non-supervisory faculty's about their perceptions, experiences and expectations. Generally, student and faculty feedback has consistently featured common themes, both in terms of the characteristics of the program contributing to its success, and the areas upon which additional focus should be placed. The degree to which the various stakeholder groups express satisfaction varies but several issues are salient for all program participants.

1. The greatest satisfaction with the program is derived from the sense of community developed among students and faculty members as a whole. Students and faculty alike find those program components contributing to group-based learning, mentorship, modelling and participatory learning most fulfilling.

2. Grounded in the QUT approach to doctoral education the program does not involve the same degree of coursework as would be present if the program was based on a north American approach. Concerns still exist by stakeholders about the perceived lack of structured guidance for students in developing skills that help them achieve formal milestones, particularly those related to the gaining thorough knowledge of a wide range of methodologies.

3. The multifaceted concept of socialization into the research community has emerged as an underlying concern for both students and faculty. While some inconsistency appears in a precise definition of the concept as it applies to the program and the individuals involved at any given time, it encompasses notions such as developing confidence as a researcher, transitioning to scholar, and becoming a member of the wider research community.

Overall, students express high levels of satisfaction with many program components, including individual supervision, individual progress and the broad program structure.

> *I chose this Gateway program based on my options for supervision, the distance model, and the research focus (no courses required). I did consider two other programs in Canada. Both would have required me to relocate.*

The flexibility offered by the absence of regularly-scheduled mandatory classes has attracted students to the program and also afforded the opportunity to develop a model of learning based largely on group participation, modelling, and mentorship.

> *I was employed full time [while I was in the program]. I could not have done this without distance program.*

This model has also allowed students to develop and to reinforce the skills needed to learn independently.

The research foci of the program tend to be grounded in industry problems, as students typically are experienced professionals, often senior executives. The strong industry-academic connectivity has become a key feature and strength of the program. Academic output has demonstrably been on strong quality, with student led publications appearing in high impact journals, and students winning prizes for papers. Graduates are also finding themselves in demand, with most having secured new appointment in more senior roles within the library profession (e.g. Library Dean or Director) as well as taking on more research related positions (e.g. university academic appointments).

An interesting tension is arising in regard the best way to design the program to meet the diverse student cohort. While some of the students are undertaking doctoral study with the view to begin a research or academic career, many are undertaking the program for personal development and/or to advance their library and information career, with no intentions to enter the academy. Different approaches, foci and syllabus may be required for those students wishing to pursue a career in academia, as compared to students wishing to purse leadership within the professional practice of library and information.

Conclusion

The doctoral education landscape is changing rapidly and these changes are reflected in the San Jose PhD Gateway program. Virtual teams of researchers work together in different parts of the globe. Since the program began in 2008, 28 academics have participated in student supervision (13 from QUT and 15 from SJSU) and 22 are currently active. As of 2016, there are 14 students in the program, and the program has had 9 graduates. Between 2008 and 2016, students – alone or with their supervisors – have written or delivered 121 publications and presentations. The San Jose PhD Gateway program demonstrates how a trans-pacific collaborative model can lead to success in many different ways and at many different levels.

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Appendix A Selected Presentations and Publications 2001-2016

Presentations

2016

Buchanan, S. (2016, January). Student-driven, independent inquiry and academic motivation. Poster session. Association for Library and Information Science Education, Boston, MA.

Fraser-Arnott, M. (2016, January). Professional identities of LIS graduates in non-traditional roles. Poster session. Association for Library and Information Science Education, Boston, MA.

2015

Buchanan, S. (2015, June). The impact of student-driven, independent inquiry on academic motivation. Presented at the 7th International Conference on Qualitative and Quantitative Methods in Libraries, Paris.

Maybee, C. (2015, April). Preparing today's learners: The role of information literacy in the adoption of innovative pedagogies. Invited presentation at the University of Southern Queensland, Toowoomba, Australia. Available at http://www.usq.edu.au/learning-teaching/usqsalon/previous/maybee(link is external)

Otero-Boisvert, M., Romaniuk, M.J., Stenstrom, C., Fisher, B. & Haycock, K. (2015 January). Transforming LIS Professionals into Self-Confident Leaders. Juried panel. Association for Library and Information Science Education, Chicago, IL.

Sarraf, N. (2015, March). Smart affective search [Lightening talk]. Presented at the iConference, Newport, California.

2014

Otero-Boisvert, M. (2014, January). Funding the academic library: An ethnography. Poster session. Association for Library and Information Science Education, Philadelphia, PA.

Romaniuk, M.J. (2014 January). Developing emerging leaders in the library profession: Program content, self-efficacy and leadership. Poster session. Association for Library and Information Science Education, Philadelphia, PA.

2013

Fraser-Arnott, M. (2013). Opportunities for LIS Graduates: Capitalizing on our Transferable Competencies. Presentation at the Library 2.013 (Virtual Conference). Available at https://sas.elluminate.com/drtbl?sid=2008350&suid=D.30FFFEC61CCC4C921DDF4647250BB0(link is external)

Harlan, M.A. (2013). Digital Media and Learning Conference. Panel Convener: Generation Connect: Evolution of a Youth-Center Network in San Francisco.

Tucker, V.M. (2013, November). The expert searcher and threshold concepts. Invited speaker, San Jose State University Colloquium Series. Available from: http://slisweb.sjsu.edu/about-slis/colloquia/Fall%202013

Journal Articles

2016

Smeaton, K.; Maybee, C.; Bruce, C.S.; & Hughes, H.E. (2016). Crossing literacy and informed learning boundaries with Manga. *Access, 30* (1), 12-26.

2015

Fraser-Arnott, M. (2015). Librarians outside of libraries: The experiences of library and information science (LIS) graduates working outside of libraries. *LIBRI 65*(4), 301.

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Stenstrom, C., Haycock, K. (2015). The role of interpersonal influence in budget decision making: The Canadian public library experience. *Administration & Society 47*(8), 983-1014.

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for effective social media use. *Journal of Information Technology Management, 26*(3), 21-32.

2014

Harlan, M.A., Bruce, C., & Lupton, M. (2014). Creating and sharing: teens' information practices in digital communities. *Information Research 19*(1).

Stenstrom, C. & Haycock, K. (2014). Influence and increased funding in Canadian public libraries. *Library Quarterly 84*(1), 49-68.

Stenstrom, C., Roberts, K. and & Haycock, K. (2014). The role of influence in city and public library partnerships: An exploratory study. *Library Management 35*(3), 213-223.

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