

Making the link: the library's role in facilitating research collaboration

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Introduction

Academic libraries face significant shifts in the behaviour and expectations of its users brought about by a flux of continuous technological innovation. As a consequence, libraries are constantly challenged to transform in order to remain an essential part of the changing academic environment (CARL, 2010).

The manner in which academics conduct research is exemplar of the shifts currently experienced in user behaviour. One of the foremost trends emerging over the past several decades is that research has become significantly more collaborative. A plethora of reasons for this development exists, and increasing numbers of international collaborations and co-authored publications pay testimony to its continued growth (Schleyer et al., 2012). Further fuelling the trend is common consent that collaboration is “desirable” – it is considered good and beneficial practice (Mouton, 2000).

In light of these developments, this paper briefly explores collaboration as a phenomenon in libraries and as a major trend in science. Subsequently, a description is provided of the inceptive steps taken by Stellenbosch University Library and Information Service (SULIS) to develop services which aim to encourage and facilitate research collaboration. The objective is to describe the nature of research collaboration and the various ways in which it can be supported by libraries.

Although ample opportunity exists for libraries to play a role in exploring research collaboration and partnership opportunities between institutions, this paper is limited to the role of the librarian in facilitating relations between individual researchers. Focus is placed on providing facilities for networking and the identification and assessment of potential collaborators.

In conclusion a number of links are made. These links aim to draw connections between the facilitating of research collaboration, the Library's ability to continue playing a vital support role in the research production cycle, new roles for librarians, and alignment with university strategy.

Understanding research collaboration

Collaboration: as a foremost trend

Collaboration is regarded as one of the foremost trends of the twenty first century. The inclination to work and think together to address important and pressing issues is evident throughout society (Montiel-Overall, 2005). Indeed, collaboration is also a fundamental element of librarianship and one can say that we, librarians, have collaboration running in our veins.

Libraries have been collaborating for centuries to overcome obstacles such as knowledge, space, fiscal and skills scarcities and are doing so increasingly. James Neal (2011) was very emphatic about this when he declared “Cooperation is part of the professional DNA of research libraries”. At a previous IATUL conference, Murray Shepherd ventured to say that librarians practically invented collaboration in the university context. Working together creatively on wide-ranging aspects, libraries have learned to serve the needs of user communities more efficiently.

While admittedly showing great propensity for working together, librarians have however traditionally regarded collaboration more as something they “should do” than something they should “bring forth”. This habit only started to unravel with the widespread establishment of flexible workspaces and group study areas in libraries to promote interaction and collaboration among students (Van Note Chism, 2006). In this paper, we propose that libraries continue on this path, by extending it also to facilitating collaboration among researchers. By doing this, we believe librarians will take up a pivotal position in the research process and contribute actively to research productivity and attaining institutional objectives.

Changing research practices

It is important to recognise that globalisation has changed research practices and given rise to trends such as increased collaboration. In a study conducted by Gibbons et al. (1994) it was noted that a new mode of knowledge production has emerged which deviates from traditional notions of ‘science’ and gives rise to a changes research landscape. Gibbons includes the following elements as characteristic of the new landscape:

- Interdisciplinary and transdisciplinary research – teams working collectively on common problems that cannot be addressed adequately within a single discipline (e.g. environmental or health problems);
- Focus on problems, rather than techniques, with solutions being sought from a range of disciplinary ‘toolboxes’;
- Blurring of organisational borders and greater emphasis on collaborative work and communication;
- Changes in the modes of communication – including increased commercial guarding of intellectual property, less emphasis on publication in refereed journals and more on informal communication through networks of researchers.

Schleyer (2012) quotes Olson et al. (2008) who included aspects such as “the urgency, complexity and scope of unsolved scientific problems; the need for access to new, and often expensive, research instruments and technologies; pressure from funding agencies” which make collaboration crucial for progress in science.

The foundation for these characteristics lie within advances in Information Technology (IT) which facilitated the growth of interdisciplinary research and which enabled geographically separated researchers to work together (Houghton, 2003: 59). Collaboration is central in all the characteristics listed by Gibbons. The consequence has been profound. According to Jacobs (2008) researchers’ working together in teams has become a primary feature of the new research landscape. She finds that the phenomenon has become so common that in many scientific fields, teams have become the principle unit of production.

What is research collaboration and how is it counted?

Having indicated that research collaboration constitutes an important factor in the new research landscape, it is appropriate to consider the concept in more detail to explain its significance in

science. According to Katz and Martin (1995) 'research collaboration' could be defined as the working together of researchers to achieve the common goal of producing new scientific knowledge.

It follows logically from this definition that the counting unit which measures collaboration, is co-authored publication. This is despite many limitations such as, referred to by Subramanyam (1983) as the “indeterminate relationship between quantifiable activities and intangible contributions”. For example, a brilliant suggestion made by a scientist during casual conversation may be more valuable in shaping the course and outcome of a research project than weeks of labour-intensive activity of a collaborating scientist in the laboratory. Despite reservations multi-authorship however continues to be the traditional and main quantitative indicator of research collaboration (Mouton, 2000).

Benefits of collaboration

Collaboration is generally regarded as a positive activity which adds value to the research process by allowing for resource-sharing, providing greater research credibility and opportunities for division of labour and risk sharing (Mouton, 2000). Katz and Martin (1995) elaborate, also listing the following benefits:

- Sharing of knowledge, skills and techniques
- Transferal of new skills and knowledge
- Cross-fertilisation of ideas
- Intellectual companionship
- 'Plugging' into a wider network of contacts
- Improved decision-making about the best journal in which to publish
- Increased likeliness of acceptance for publication due to the enhanced technical competence of a multi-authored paper;
- Co-authored publications earn greater credit than single-author papers

Correlation between collaboration and productivity and quality

Many scholars have studied the correlation between collaboration and productivity. We will however suffice with quoting a study by Mouton (2000) which demonstrated a significant relationship between multiple authorship and total scientific publications.

Infometric studies which have been done to test the influence of collaboration on research impact are equally bountiful. We refer to one study by Van Raan (1998), which demonstrated strong evidence that generally internationally co-authored publications are cited more than single-country papers. Van Raan attributed this to the fact that international collaboration often implies a considerable broadening of the audiences around the authors.

Turning the spotlight on Southern Africa, a study by Onyancha (2011) showed that international collaboration yielded more citations per paper than papers authored within South Africa. A similar pattern was witnessed in the analysis of the h-index, which indicated that the h-index was higher for papers produced through international than through continental collaboration.

Finding collaborators

Even though information about researchers has become more accessible (Katz and Martin, 1995), Schleyer (2012) points out that it is difficult to find appropriate collaborators. Schleyer explains that establishing collaborations is a labour-intensive and risky process, especially when

multiple disciplines are involved. He adds “collaboration seekers often struggle with the target disciplines’ terminology, have difficulty identifying true experts, and lack relevant social contacts. In addition, they must assess potential collaborators in light of many criteria, a process impeded by incomplete, fragmented information”.

Facilitating collaboration at SULIS: inceptive steps

Recognising the importance of collaboration in the University context

During the past number of years SULIS has intensified efforts to improve its research support services. Since 2009, the Library has participated in the Research Library Consortium (RLC) project - a multi-level intervention programme to enhance research support; it established a state of the art Research Commons; created positions for research librarians; participated in a three year partnership with Elsevier; established a digital archival collection and greatly broadened scholarly communication services. In 2011 the Library hosted a symposium on the topic of research libraries covering aspects such as the changing research landscape, new roles for libraries and initiatives for developing research and research support.

This deep preoccupation with enhancing research support naturally brought to the fore the strategic importance of research collaboration. It was an evident trend in research, contributed to research output and manifested opportunity for the Library to add value.

This notion finds resonance with the fact that Stellenbosch University has a strong tradition of research collaboration. The University is currently involved in 269 collaborative projects with 418 partners in 36 African countries. Indeed, Stellenbosch University is generally regarded as one of the best “networked” universities in the country. Collaboration is clearly regarded as an important strategy in the University’s pursuit of excellence and is further endorsed by the University’s slogan “your knowledge partner”.

Aligning Library and Institutional objectives

Stellenbosch University is recognised as one of the four top research universities in South Africa. Its vision statement is clear: “By 2015, Stellenbosch University (SU) has the vision to position itself as the leading research-intensive higher education institution on the African continent.” To actively pursue this vision, the University identified “broadening its knowledge base” as an important objective in the quest for competitive advantage. This implies an expectation for staff - as producers, conveyers and appliers of knowledge - to sustain and grow research output and quality in order to improve its standing at national and international levels.

Taking these institutional imperatives as a signpost, SULIS created several strategic objectives to guide the development of corresponding library activities and initiatives. Most pertinent to this paper, are the objectives: (1) effective use of performance management and bibliometric tools to enhance research support, and (2) conducive physical spaces that promote collaboration and social networking in support of the research process (SULIS, 2010). These objectives aim directly to facilitate the sustainability and growth of research output.

Using bibliometric tools to identify and assess potential collaborators

While established researchers usually rely on informal networks for collaboration (OCLC, 2010), the use of bibliometric tools may be particularly useful for emerging researchers who have not yet established pervasive networks and who find it difficult to identify true experts.

At SULIS we identified Elsevier's *SciVal* suite of products, as well as *Researcher ID* of Thomson Reuters as useful tools to assist researchers to identify potential collaborators. These tools include bibliometric measures which allude to the productivity and impact of researchers in specific disciplines and go beyond merely showing mutual interest. Finding a collaborator with demonstrated output and impact is bound to yield greater results in terms of publishing and soliciting citations.

Case 1: SciVal Experts as a tool to identify suitable collaborators

SciVal Experts consists of profiles which have been pre-compiled from authors' publication data in *Scopus*. Profiles are grouped first by institution and then by academic department. Combined, all subscribing institution's form a community. Each individual profile displays the author's publications, internal and external co-authors and his/her "Fingerprint". A "Fingerprint" is an index of weighted terms associated with the author's publications. By comparing "Fingerprints", researchers are able to expose connections among themselves.

To demonstrate how *SciVal Experts* is used to identify potential research collaborators, we have selected a specific researcher to act as a point in case. Dr Nox Makunga in the Department of Botany and Zoology complied to this exercise. She fits the profile of a young researcher who would like to increase her publication output and increase her reputation amongst her peers. Dr Makunga's specific research focus is "medicinal plants" and "plant extracts". It is also in this research field that she would like to expand collaboration.

Using the concept "medicinal plants" which appears in Dr Makunga's "Fingerprint", thirty six profiles of international experts were retrieved. When further refined with the concepts "extracts" and "chemoprevention", the results were reduced to five.

Each of the profiles retrieved, listed the particular author's publications, h-index, citation activity and his/her unique "Fingerprint". This information was useful to compare potential collaborators.

However, since all five candidates were exceedingly proficient, it was decided to analyse each candidate in more detail using *SciVal Strata*.

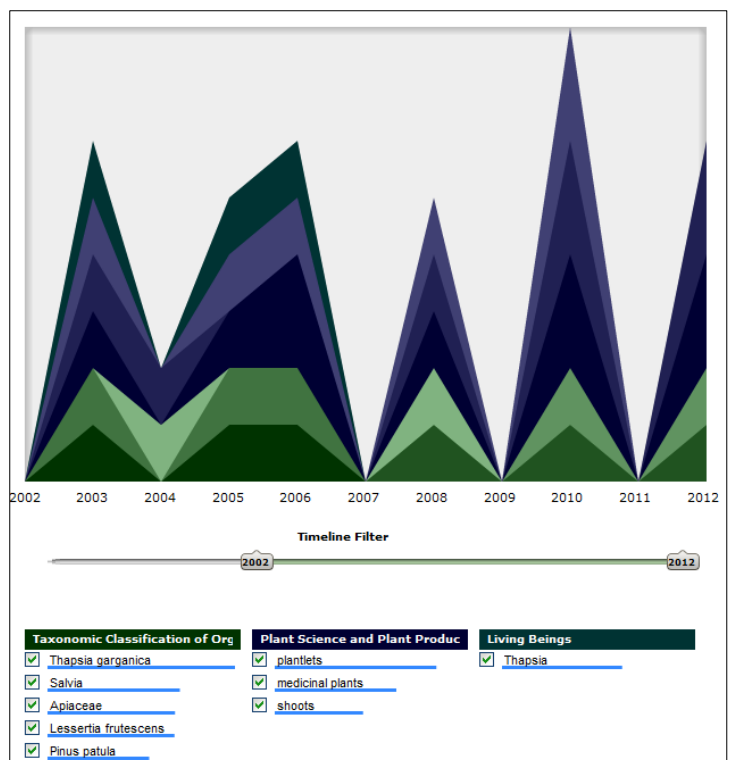


Figure 1: A snapshot of Dr Makunga's "Fingerprint" (most significant research concepts) in *SciVal Experts*

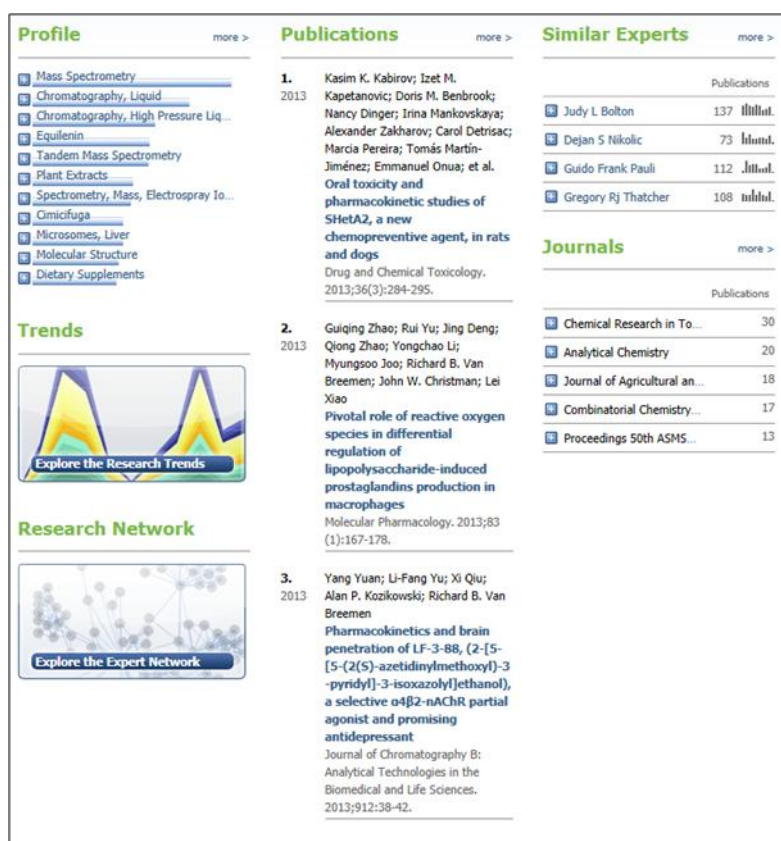


Figure 2: A snapshot of a researcher's profile in *SciVal Experts*

Case 2: *SciVal Strata* as a tool to benchmark potential collaborators

SciVal Strata is a benchmarking tool that allows quantitative analyses of teams' or individual researchers' performance using publication and citation data available in Scopus. In *SciVal Strata*, researchers can be identified and their performance graphically displayed relative to specified reference fields and time periods. Numerous variables contribute to analyses, such as document output, citations received, cited/uncited documents, and indicators such as h-index, g-index and m-index.

In the case of Dr Makunga it was possible to benchmark the five collaborators identified in *SciVal Experts* against each other using citations, document output, cited and not-cited; h-, m- and g-index as well as collaboration as variables. Results are categorised by the following variables:

- average citations
- number of documents published
- number of cited vs. uncited published documents
- h-index
- regions or countries in which the researcher has been active.

To protect identities, the subjects are named Researchers A, B, C, D and E.

(i) Citation benchmark

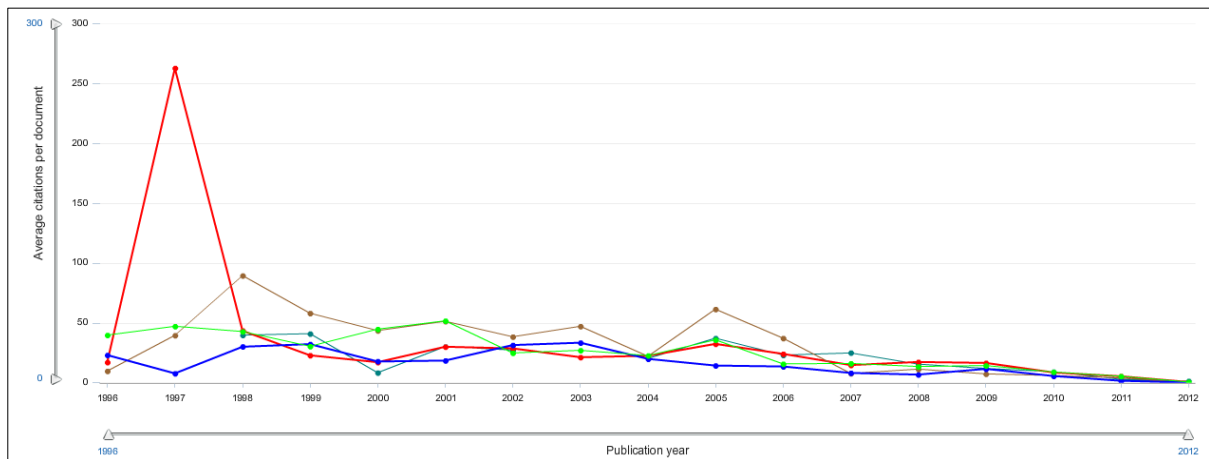


Figure 3: Graph in *SciVal Strata* showing citation counts of five respective researchers: Researcher A (red), Researcher B (green), Researcher C (brown), Researcher D (blue) and Researcher E (teal)

The citation benchmark tool is used to show the average citations received per document published, per publication year and compares it against specified criteria. The potential collaborators identified in *SciVal Experts* represented the criteria in this case. Results showed that each of the candidates consistently demonstrated high impact, yielding citations above the world average. One incident of exceptionally high citations was noted in the case of Researcher A (red). This peak in citations did not manifest as a trend however and was put into perspective when seen over an extended period.

(ii) Document output benchmark

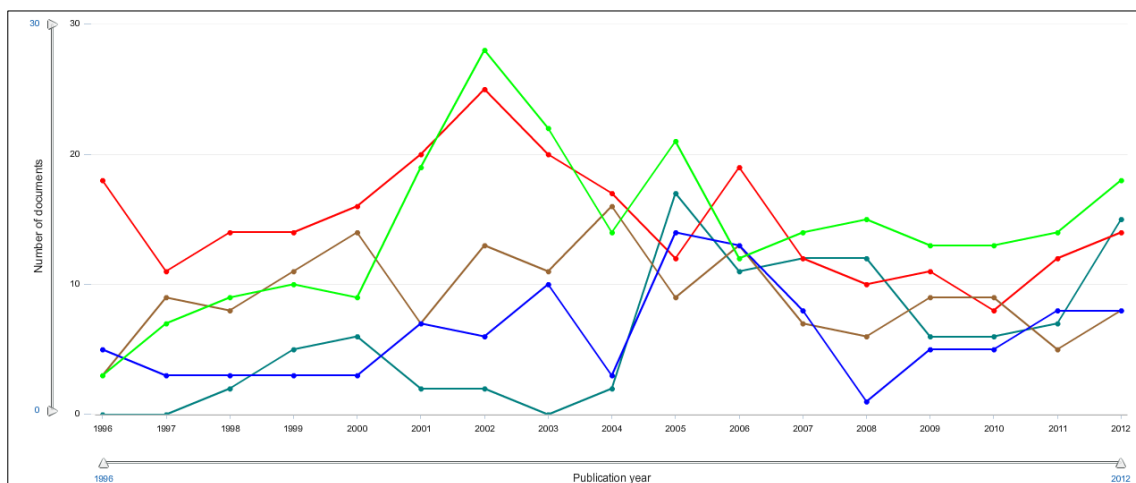


Figure 4: Graph in *SciVal Strata* showing document output of five respective researchers: Researcher A (red), Researcher B (green), Researcher C (brown), Researcher D (blue) and Researcher E (teal)

The output benchmark tool shows how many documents a researcher published in a particular year. As indicated above, analysis indicated that Researcher B (green) was the most productive researcher followed by Researcher A (red) and Researcher C (brown).

(iii) Cited/uncited benchmark

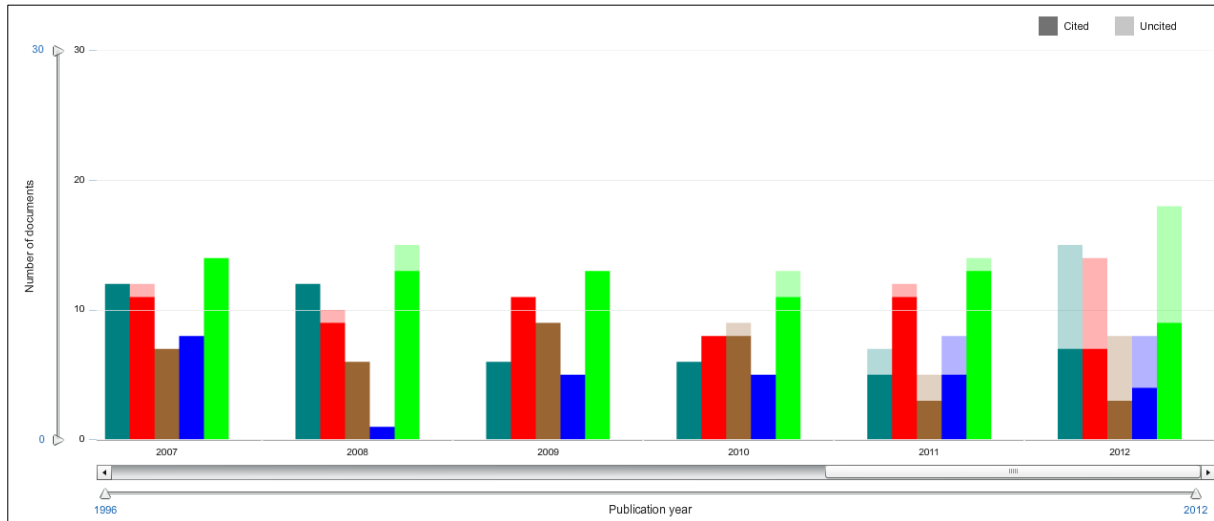


Figure 5: Graph in *SciVal Strata* showing cited vs. uncited documents of five respective researchers: Researcher A (red), Researcher B (green), Researcher C (brown), Researcher D (blue) and Researcher E (teal)

The cited/uncited benchmark charts the split of documents published in any one year that have been cited at least once, or not yet cited at all. This analysis revealed that all documents, published by the five potential collaborators in 2010, were cited except for one uncited document by Researcher C (brown) and two by Researcher A (red).

(iv) H-index benchmark

Index	Researcher A (red)	Researcher B (green)	Researcher C (brown)	Researcher D (blue)	Researcher E (teal)
h-index	27	40	39	24	45
g-index	41	80	69	34	63
m-index	1.688	2.222	2.167	1.333	2.5

Figure 6: Graph in *SciVal Strata* showing citation counts of five respective researchers: Researcher A (red), Researcher B (green), Researcher C (brown), Researcher D (blue) and Researcher E (teal)

The h-index benchmark shows how documents published by a researcher generate the h-index, g-index or m-index. H-index illustrates average citations to date and g-index the cumulative citations to date. M-index is defined as the h-index divided by the number of years since the first published document.

The table illustrates that Researcher B (green) had the highest h-index, indicating a pattern of consistently high citations. Researcher A (red) had the highest g-index, indicating that he had published work with extraordinary impact. Researcher B (green) however also had the highest m-index which indicated that he had cumulated the most citations relative to the span of his career.

(v) Collaboration benchmark

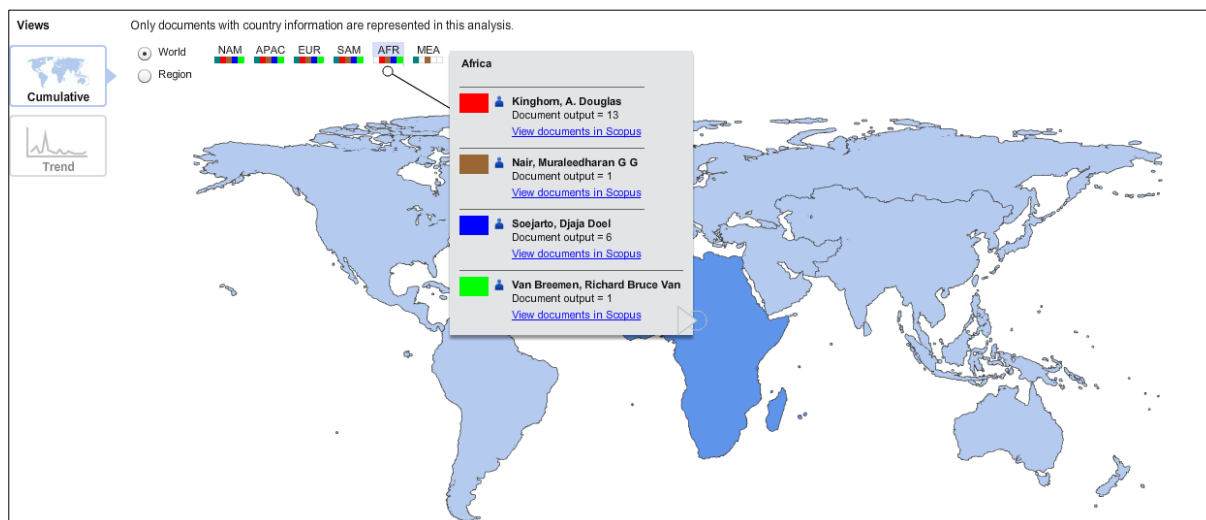


Figure 7: Graph in *SciVal Strata* showing collaboration activity in Africa of respective researchers: Researcher A (red), Researcher B (green), Researcher C (brown) and Researcher D (blue)

Based on country information in a document, the collaboration benchmark shows the regions or countries in which the researcher has been active. Results from this analysis, showed that Researcher A (red) had previous association with Africa which yielded 13 publications and Researcher B (green) had previous association with South Africa which yielded 1 publication.

Full exploitation of *SciVal Strata* tools enabled Dr Makunga to objectively weigh demonstrated characteristics such as high productivity, high impact and exposure to Africa in order to make an informed decision about approaching a potential collaborator.

Case 3: Researcher ID as a tool to identify potential collaborators

Researcher ID is a scholarly research community in which a unique identifier is assigned to each author to eliminate author misidentification. Researchers' publications are listed and linked to the *Web of Knowledge*.

The keywords "medicinal plants" retrieved 45 researcher profiles in *Researcher ID*. Results were displayed in table and map format. Using the map format, Dr Makunga was able to explore potential collaborators by continent. Each coloured region on the map contained researchers' profiles which included scientific documents associated with the keyword. Each research profile also included diagrams showing the corresponding top citing authors, research areas, geographical territories and associated institutions. Selecting a hyperlinked document title led to



the particular document record in *Web of Science* where further information such as cited references and related records was found.

Figure 8: Geographical distribution of researchers with corresponding interest in "medicinal plants", identified in *Researcher ID*

Name	Institution(s)	Country/Territory	Researcher ID	Keywords	Other Names
1. Mark Arthur	University of Adelaide, Adelaide	Australia	C-4680-2011	dry evergreen forest, medicinal plants conservation, participatory action research, bee foraging behaviour, function of unisexual flowers	M. Arthur Selwyn
2. Vemulamad Subramanyam	Macquarie University, Sydney	Australia	A-6332-2010	traditional medicines, complementary and alternative medicine, chiropractic, autofluorescence, medicinal plants, sidha	V R Subramanyam
3. Wohlmuth Hans	Southern Cross University	Australia	B-6213-2011	pharmacognosy, medicinal plants, herbal medicines, herbal products, herbal medicine	

Figure 9: Three researchers in Australia with corresponding interest in "medicinal plants", identified in Researcher ID

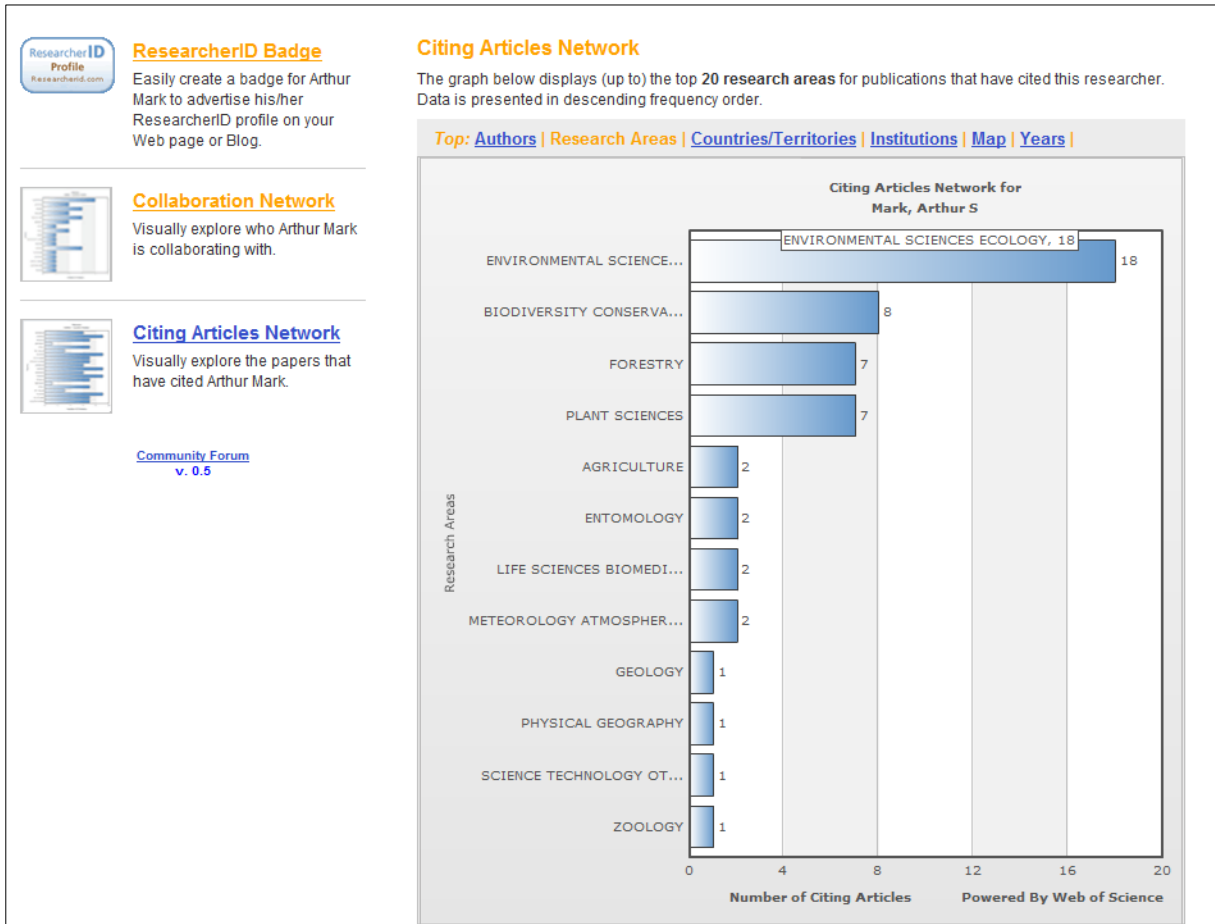


Figure 10: A researcher profile in Researcher ID including diagrams of top citing authors, research areas, geographical territories and associated institutions

Case 4: Scival Spotlight as a tool to identify potential collaborators

SciVal Spotlight uses the citation patterns of researchers in the *Scopus* databases to identify the research competencies of institutions and countries. The analysis produces graphical views of these competencies which contain detailed information about the institutions, authors, citations and collaboration activities that contributed to the competency. A powerful feature of *SciVal Spotlight* is that it shows an institution's standing relative to the competition across the entire science spectrum. It also answers the question: "With which institutions/authors are we

Not yet collaborating authors in competencies

[Choose a different set of authors](#)

Where is collaboration taking place?

- Collaborating authors**
Show which authors collaborate with the University of Stellenbosch
- Collaborating authors in competencies**
Show which authors collaborate with the University of Stellenbosch and also appear in competencies of the University of Stellenbosch
- Collaborating authors not yet in competencies**
Show which authors collaborate with the University of Stellenbosch but do not appear in competencies of the University of Stellenbosch

Where are opportunities for new collaborations?

- Authors in competencies**
Show which authors appear in competencies of the University of Stellenbosch
- Not yet collaborating authors in competencies**
Show which authors appear in competencies of the University of Stellenbosch but do not yet collaborate with the University of Stellenbosch

Figure 11: Various options to explore collaboration in SciVal Spotlight

not collaborating, but could be very good partners since they have contributed to our competencies?"

Dr Makunga's interest, "medicinal plants", falls within Stellenbosch University's 69th competency. It does however not have a strong presence in the competency. Dr Makunga consequently explored *SciVal Spotlight* merely for interest. In the "Explore Collaboration" feature, she selected the option to see authors/institutions that do not yet collaborate with the University of Stellenbosch. The list which was subsequently retrieved contained 10 institutions which had published articles related to the competency, but with whom Stellenbosch University had not collaborated. Taking top position on the list was John Hopkins University, with seven articles. Generally, this would indicate an ideal opportunity for future collaboration. However, Dr Makunga would have to investigate further due to the weak presence of "medicinal plants" in the competency.

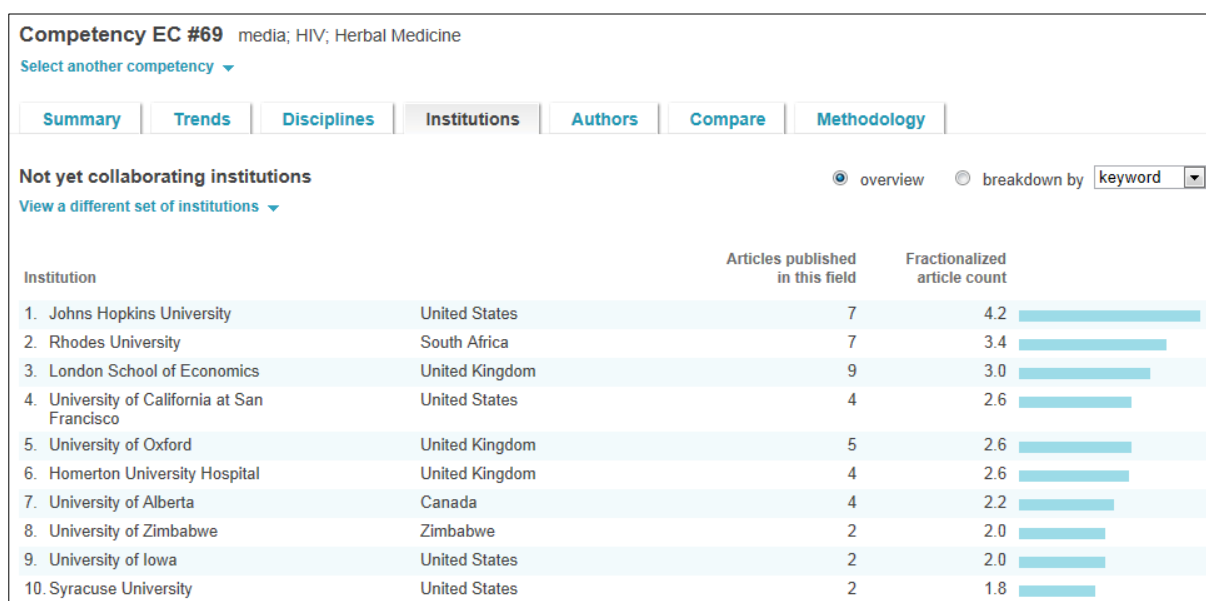


Figure 12: Institutions across the world that are associated with the particular competency but does not collaborate with Stellenbosch University

Providing spaces, facilities and events conducive to collaboration

SULIS' second objective addressed research collaboration in terms of providing spaces, facilities and events conducive to collaboration. Where bibliometrics is aimed at assessment of potential collaborators. This objective focuses on generally facilitating engagement and interaction.

An ideal opportunity to establish conducive spaces for collaboration arose when a Research Commons was established at SULIS in 2011. The Research Commons' concept document (2011) therefor stated: "The Research Commons will provide flexible, technology-enabled spaces for postgraduate students and researchers; be conducive for collaboration between students and academics, researchers and between research communities; serve as a centre for a range of scholarly activities, from collaborative projects to individual scholarship..." A room with videoconferencing facilities, three seminar rooms and a large relaxation area to accommodate scholarly gatherings were included in the construction plans to give life to the conceptual plan.



Figure 13: Videoconferencing facility in the Research Commons, JS Gericke Library, Stellenbosch University

The seminar room in the Carnegie Research Commons, which houses the system, can accommodate eight participants and up to three remote locations can be connected simultaneously. The service is made available free of charge to academic staff and students and make use of Internet connectivity provided by the Library and Information Service. It fundamentally allows postgraduate students and researchers to collaborate across institutional and continental boundaries and makes it possible for peers to connect virtually.



Figure 14: Seminar room 1, in the Research Commons, JS Gericke Library, Stellenbosch University

Although various discussion rooms were already existent in the Library, three additional rooms were included in the Research Commons for the exclusive use of senior students and researchers. These rooms provide extra comfort, are ICT-enabled and allow for refreshments. The rooms are used extensively to discuss collaborative projects, co-authored articles and for group discussions and meetings.

A large area in the Research Commons was also set aside for relaxation, informal networking and scholarly dialogue sessions. Research Commons' users are encouraged to use the relaxation area for informal networking and to connect socially with colleagues and fellow students. To contribute to the culture of collaboration, the Commons regularly hosts events which create opportunity for researchers to build relationships. The "Social Hour" for example constitutes a regular event where a distinguished researcher is invited to give a short inspirational talk followed by discussion and refreshments. The initiative is aimed at creating an opportunity where emerging researchers can engage in dialogue, find inspiration, exchange ideas, support each other and socialise.

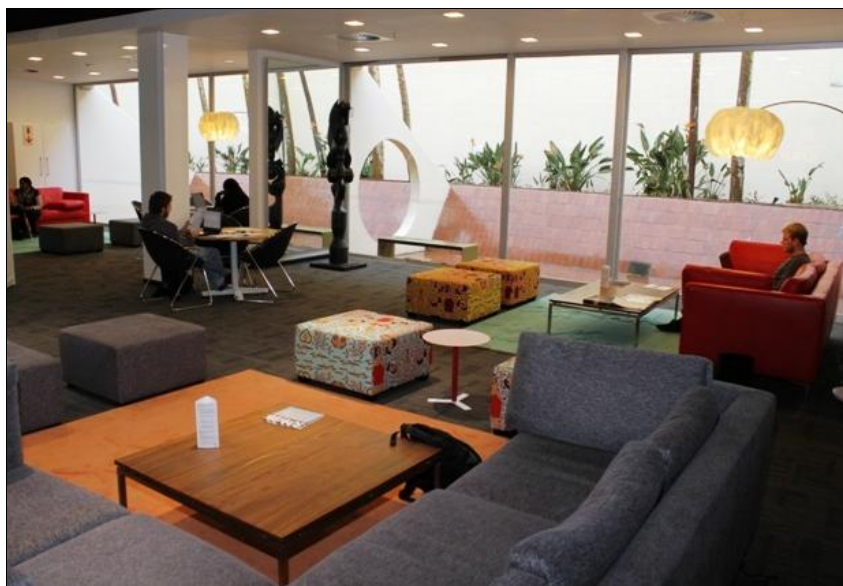


Figure 15: Relaxation area in the Research Commons, JS Gericke Library, Stellenbosch University

Creating awareness for social network sites (SNSs)

Moving back to the virtual realm, the Library also took cognisance of another development, commonly referred to as Research 2.0. According to Parra and Duval (2010) “Research 2.0 is the result of applying Web 2.0 tools and approaches to regular research processes in order to improve practices and to increase participation and collaboration”. This manifests as social network spaces (SNSs) for researchers, based on social networking principles.

According to Bullinger (2010), the functionalities that make SNSs particularly useful for collaborative research are: (1) they allow for identity and network management, (2) information management, and (3) communication with peers. It is therefore not surprising that researchers are increasingly attracted to SNSs due to their affordances and reach (Boyd and Ellison, 2007); the fact that they are becoming tailored to scientists’ needs and often encompass Open Access principles which allow for search, access and dissemination functionalities (Giglia, 2011.)

Recognising this trend and taking into account the prevailing significance of researcher interaction in modern science, the Library incorporated “collaboration networks” as a feature in its guide for postgraduates and researchers. The Guide actively encourages collaboration and lists the most popular social research networks, such as Mendeley, ResearchGate, Academia.edu and iamResearcher. Each entry includes a short summary and a hyperlink to the network concerned (figure 16). We envisage further development of this guide which, in future, may also include comparative information relating to the respective SNSs and recommendations about the most appropriate networks based on subject field.

Home | Research steps | Training & events | Specialised support | Tools & applications | Collaboration support | Get published


Collaboration support | Comments (0) | Disable Comments | Search: | This Guide | Search

Why collaborate? [edit](#)

Collaboration is becoming increasingly important as the focus on interdisciplinary research increases worldwide. In many disciplines it has become a requirement for obtaining funding. It can also be an important factor to raise the profile of your research project/group. The Library provides a number of resources which can help you find potential collaborators:

[\(Add / Edit Text\)](#)
[Comments \(0\) | Disable Box Comments](#)

Video conferencing [edit](#)



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[Comments \(0\) | Disable Box Comments](#)

Collaborative working spaces [edit](#)

Book a seminar room in the

- Research Commons Seminar rooms
- Learning Commons Seminar rooms

[\(Add / Edit Text\)](#)
[Comments \(0\) | Disable Box Comments](#)

Find suitable collaborators [edit](#)

SciVal Experts
 An application that creates profiles of researchers within an institution, showing their publications and citation patterns. Collaborators can be identified by areas of mutual interest – or with potential for future partnerships – inside and outside their institutions.
 Click for [more information](#) about SciVal Experts.

SciVal Spotlight
 An application which shows the University's research strengths (competencies). The "Explore Collaboration" page in the application helps you to identify potential collaboration candidates. Questions addressed include: With whom do we collaborate who does not contribute to our competencies? With which are we not collaborating who could be very good partners?

SciVal Strata
 Contact your faculty/branch librarian or the Research Commons staff for assistance with SciVal Spotlight.
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Virtual networking spaces [edit](#)

- [Social Science Research Network \(SSRN\)](#)
- [LinkedIn](#)
- [Academia.edu](#) is a place to share and follow research. Share your papers. See analytics on your profile and papers. Follow other people in your field.
- [CoS Scholar Universe](#) brings a world of research and scholarship to one easily searchable database. With 2 million profiles, it helps researchers and academics connect with colleagues with shared interests while expanding their networks to include previously unknown people working in related fields or in other areas of the world.
- [Google Groups](#) is a free service which helps groups of people to communicate effectively using email and the Web. Every group has a home page hosted by Google where members can start new discussions or reply to older topics.
- [ResearcherID](#) provides a place to manage and share your professional information. Solve author identity issues while simultaneously adding dynamic citation metrics and collaboration networks to your personal profile. View the [video](#).
- [ResearchGATE](#) is the world's largest professional network for scientists and researchers, with 1.2 million users.
- [Scopus Author Identifier](#) helps to distinguish authors with similar names in SciVerse and Scopus.
- [Mendeley](#) is a free reference manager and academic social network that can help you organize your research, collaborate with others online, and discover the latest research.

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Figure 16: Libguide for Postgraduates and Researchers, Library and Information Service, Stellenbosch University

Problems and recommendations

Established researchers are often sceptical of using bibliometric tools to identify potential collaborators, preferring to rely on personal and social networks for collaboration. At SULIS we try to bridge this problem by regularly presenting bibliometric workshops to all researchers on campus to introduce and demonstrate the value of using different tools. The AgriSciences and Science Faculties' librarians additionally have a bi-annual showcase event for the Masters and PhD students to familiarise them with the different bibliometric tools.

Traditional bibliometric tools do not reflect authors' scholarly impact in social media. Given the rapid evolution of scholarly communication and the speed, richness, and breadth of altmetrics, this is an issue worth taking note of.

Due to different publication trends, traditional bibliometric tools often poorly reflect the arts, humanities and certain social science disciplines. Researchers in these disciplines are therefore hesitant to use the illustrated bibliometric tools and might be better served by altmetric tools.

The reverse side of “finding collaboration” is for researchers to be “findable” themselves. More attention should therefore be given to increasing researchers’ visibility by creating and making available researcher profiles.

Conclusion

The way in which research is conducted has been affected profoundly by globalisation over the past few decades. Increased collaboration among researchers has emerged as a key characteristic of this evolution. In the new realm, geographically separated researchers are enabled by technology to work together with great benefit and increased research productivity.

At SULIS we perceived this transformation in research practice as an opportunity to evolve ourselves and step up to the challenge of developing new and relevant ways to support researchers. By using bibliometric tools at our disposal we are able to assist researchers to identify and assess appropriate collaborators across the world and nationally. We have also purposefully established spaces to facilitate collaboration and provided technology such as video-conferencing software and equipment to enable collaboration on a global scale. In recognition of the growing favour for social networking, we have begun to create awareness for the availability of social network spaces such as ResearchGate.

With these initiatives, we believe we have taken the first steps towards creating a new role for our librarians that is aligned with the current research practice and the research objectives of the University.

In the broader context of the profession, we propose that we, librarians, transcend tradition by using our favourable “collaboration genes”, not only to collaborate with, but to facilitate collaboration. In doing so, we can make the link between an emerging trend and a new role for librarians; between institutional goals and library support; and between individual researchers, for the advancement of science.

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