



The OpeningScholarship Project: Executive Summary

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August 2009



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Report of the Opening Scholarship Project funded by the Shuttleworth Foundation

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The OpeningScholarship project

The OpeningScholarship project was established in July 2007 and is hosted by the Centre for Educational Technology (CET) at the University of Cape Town (UCT). It is funded by the Shuttleworth Foundation and its main aim is to explore the opportunities that ICTs and open dissemination models could offer for enhanced communication and more effective knowledge dissemination in one South African university, namely UCT.

This study recognised the fact that the changes wrought by new information technologies go beyond simply easing information transmission – although this is itself a potentially a powerful tool – but have impacted on the way research is conducted, how teaching and learning takes place, and how scholars, students and the broader community communicate with one another. In particular, therefore, this project has been concerned to track the disruptive potential of ICT use at UCT, the ways in which the use of new technologies could transform old practices and break down the silos of the traditional university to overcome old injustices aligning itself as an African university with the rapidly changing landscape of 21st-century scholarship in a global networked society.

What makes a study of a South African university particularly interesting in this regard is the seldom-noticed conjuncture of the rise of the internet as the dominant means of communication in the world and the advent of democratic government in South Africa. When South Africans went to the polls in 1994 to vote in the first democratic government, the internet was in its infancy, right at the beginning of its phenomenal growth curve. Post-election, the South African higher education system sought to transform itself, in order to acknowledge its African context, shed its apartheid heritage and provide more democratic access to the benefits of learning to the majority of the population. In parallel, the internet was transforming higher education across the world, offering more open and more democratic ways of accessing the knowledge produced in universities and challenging some of the traditional hierarchies and authority systems.

Thus, just as UCT addressed ways of aligning its research with African priorities and the needs of the South African community, and sought to enhance its teaching and learning to empower previously disadvantaged students, internet communications were changing the face of research and offering new modalities for effective learning. What has perhaps not been fully enough engaged with is the conjuncture between this digital knowledge environment and the transformation needs of South African higher education. In other words, to what extent could the use of new communication strategies could help address historical inequities in South African higher education? The question that was addressed in the OpeningScholarship project was how effectively UCT was talking advantage of this potential.

What emerged was typical of transitional periods: pockets of change largely driven by far-sighted individuals, and attempts at institutional transformation often dragged backwards by the conservatism of an entrenched culture that sought paradigms of excellence in past traditions. Most startling was the impact of the fact that UCT, as a not-untypical South African university, did not perceive the active dissemination of its research, nor wider access to its teaching and learning materials as part of its mission. Instead, the drive continues to be for publication in the internationally-indexed journals, following a 'free rider' syndrome in which South African universities perceive publishing as the responsibility of outside commercial publishers, a closed copyright system that limits access to knowledge where this can be ill afforded.

The questions that the OpeningScholarship project asked, therefore, were concerned with the extent to which UCT was using the capacity of ICTs to build its the global reputation and help deliver a public good and transformative mission, providing access to knowledge, enhanced capacity in teaching and learning, and greater impact for the country's investment in research on national development goals. In this context, the pursuit of global excellence might well take on a different form, one more closely related to the real strengths of an African university, in line with UCT's mission.

The intervention

The context for the overall investigation is provided by a set of national and international environmental scans of current policies and practices and new developments in scholarly communications for research, teaching and learning and social responsiveness. The project then investigates a South African university – the University of Cape Town – to explore how a South African university is responding to the use of ICTs, new communication channels and open and collaborative approaches for knowledge dissemination within the university community, nationally and internationally.

Twelve case studies were undertaken at UCT, which correspond to UCT's key stated missions of research, teaching and learning and social engagement. Four case studies focused on research dissemination, five on teaching and learning, and three on social responsiveness. These case studies are contextualised in the institutional reports reporting on ICTs and open dissemination at UCT. These institutional reports, together with the national and international scans, various seminars and conference papers produced from this project form the final project report of which this document is the executive summary. Appendix A provides a map of the contributing documents and seminar presentations.

Introduction: A changing global academic environment

Across the globe, it is generally understood that the Higher Education (HE) academic endeavour has as its core purpose the function of creating, sharing and disseminating knowledge. These core activities are reflected in most higher education institutions' (HEIs') missions to undertake research, to teach and support learning, and to engage with the broader community. The rise of the internet and the onset of Web 2.0 technologies has, however, enabled HEIs to engage with these ambitions in new ways which facilitate unprecedented impact and reach.

Digital technologies have had a considerable impact on the ways in which research is conducted worldwide. The Australian Department of Education, in its report on *Changing Research Practices in the Digital Information and Communication Environment* provides a cogent account of these changes and their impact on research communications. The report sums up the five major shifts as: 'increasing diversity in the location of research activities; an increasing focus on inter-disciplinary, multi-disciplinary and transdisciplinary research; an increasing focus on problems, rather than techniques; greater emphasis on collaborative work and communication; and greater emphasis on more diverse and informal modes of communication' (Houghton *et al.* 2003: 126).

In teaching and learning, the role of the student is becoming more active, with the lecturer as a facilitator; students have access to a much wider variety of resources in a range of media; learners are no longer confined to a specific geographic location, but can access teaching and learning remotely; and access is no longer limited to a particular time, disrupting conventional practices of attending classes at a specific time. The adoption of digital learning

management systems is allowing for efficient communication activities and interactive teaching with students generally finding the efficient communication the most valuable (Lonn and Teasley 2009).

Many of the world's leading universities have realised the importance of staying abreast of the latest technologies in order to deliver on their academic mission. In research, this trend is reflected in a greater involvement of universities in scholarly publication activities, the global proliferation of access institutional repositories, changing roles of librarians in knowledge dissemination, and electronic research collaboration between academics across institutional, country and continental borders. It is also reflected in the changing policies of many of the world's leading academic institutions as they seek to integrate digital communications across the institution. Research communications are being pulled closer to the strategic concerns of institutions and access to research findings is of increasing concern as, across the globe, international agencies, governments and institutions are implementing policies and strategies that harness the power of the internet and Web 2.0 technologies to more effectively disseminate research. Of these multiple initiatives most notable at a government level are the US Federal government legislation in 2008 enacting a mandate for access to all research funded by the National Institutes of Health and the Australian government's extensive review of legislation to align its higher education policy with the changing digital environment. In the developing world, the Scientific Electronic Library Online (SciELO) has created a regional open access platform,¹ for scholarly journals in Latin America. SciELO is now partnering with the Academy of Science of South Africa (ASSAf) for the hosting of South Africa's scholarly journals, linking these to regional and national impact measurement.

As far as the universities are concerned, Harvard University created a stir when in 2008 its Faculty of the Humanities and Sciences enacted a mandate for the open access deposit of scholarly publications. The fact that one of the world's leading universities was adopting an open access strategy served as an encouragement to many others. In South Africa, the University of Pretoria became the first African university to enact a mandate for the open access deposit of publications. In addition to this, several universities, such as the University of Liège in Belgium, have mandated deposit of research in institutional repositories and linked their policy to performance review – stating that only those publications deposited in institutional repositories will be taken into consideration in publication counts and evaluation procedures.³

In the sphere of teaching, the adoption of open educational resources (OER) on an institution-wide scale by universities such as MIT⁴, Open University⁵, Johns Hopkins Bloomberg School of Health⁶, University of Oxford⁷, Harvard University⁸ and the University of

¹ <http://www.scielo.br>

² <http://www.scielo.org.za>

³

<http://www.eprints.org/openaccess/policysignup/fullinfo.php?inst=Universit%C3%A9%20de%20Li%C3%A8ge>

⁴ <http://ocw.mit.edu/OcwWeb/web/home/home/index.htm>

⁵ <http://openlearn.open.ac.uk/>

⁶ <http://ocw.jhsph.edu/>

⁷ <http://webcast.oii.ox.ac.uk/?view=Default>

Michigan⁹ demonstrates how the use of ICTs can extend the influence on universities on the broader community, present new opportunities for digital learning communities and offer additional prospects for collaboration between institutions.

In the realm of digital publication, the artificial barriers between the different communication functions of the university break down. Catherine Candee, the Executive Director, Strategic Publishing and Broadcast Initiatives in the office of the president of the University of California:

Publishing and communication enhance knowledge, not just scholar to scholar but scholar to student as well as to the public. In the digital realm, there is no reason to plan to enhance scholar to scholar communication without considering how to improve the knowledge, the creation and scientific output of the university to the public. This is not just for the individual public interest and good – universities must aim to meet the challenges of modern society. How better than to ensure that we have an adequate publication and communication system?¹⁰

In many respects these policies are heralding a new system in which libraries, individual academics and institutions are working together towards broad knowledge dissemination. In a sense, they also herald a return to notions of greater good and the sharing of knowledge which were implicit in traditional academia before the onset of private, commercialised publishing became the principle vehicle for the dissemination of research and ultimately resulted in the onset of the ‘serials crisis’¹¹ in the 1990s. New prospects for the sharing of knowledge outside of proprietary locked-down copyright systems have especial significance resource-poor environments, with the potential to disrupt the traditional North–South flow of knowledge and to facilitate South–South collaboration.

The concept of openness

The concept of ‘openness’ is based on the philosophical view of knowledge as a collective social product and the desirability of making it a social property. According to Yuan, MacNeill and Kraan, the ‘two most important aspects of openness are free availability and as few restrictions as possible on the use of the resource, whether technical, legal or price barriers’ (2008:1). While the actual definition of openness is still evolving and extending to a whole range of contexts, e.g. media, education, workplace design, philanthropy, public policy and even politics (Surman and Schmidt 2008), three current initiatives are at the heart of the emerging ‘open movement’, namely the open source software (OSS), open access and open educational resources (OER).

The concept of open dissemination extends beyond mere access to scholarly articles and teaching resources. Open dissemination also includes the notion of participation as

⁸ <http://athome.harvard.edu/archive/archive.asp>

⁹ <https://open.umich.edu/>

¹⁰ <http://www.arl.org/sparc/meetings/ala08/index.shtml>

¹¹ ‘Serials crisis’ is the term generally employed for the situation in which the cost of scholarly journals has risen dramatically since the 1990s and the number of journals produced has increased at a significant rate. One of the results of this crisis is that university libraries have found themselves in a position where they cannot afford the number of journal subscriptions they previously held, leading to widespread cancellations of subscriptions and cuts to general budgets.

exemplified in the OSS movement where the ‘architecture of participation allows for a real free market of ideas, in which anyone can put forward a proposed solution to a problem; it becomes adopted, if at all, by acclamation and the organic spread of its usefulness’¹². The notion of participation is particularly strong within the OER movement where teaching resources are not only distributed freely, but can also be reworked and redistributed under various alternative copyright licences. In research the phenomenon of sharing research data and contributing reworked versions of this data is also emerging allowing for vast quantities of data to be collated, used and reanalysed in a relatively short space of time.

A vision for the University of Cape Town

UCT is South Africa's oldest university, and is considered one of Africa's leading research and teaching institutions. In 2008, UCT enrolled 22 231 students – of which 16 079 were undergraduates and 6 152 postgraduates – and employed 768 permanent full-time academic staff.¹³ Considered a traditional campus-based institution, UCT also has more than 60 specialist research units that provide supervision for postgraduate work and is home to more than a quarter of South Africa's A-rated researchers – academics who are considered world leaders in their fields.¹⁴

UCT's stated mission is to ‘be an outstanding teaching and research university, educating for life and addressing the challenges facing our society’.¹⁵ As stated on the university's website, ‘educating for life’ means that the educational process must provide:

- ‘a foundation of skills, knowledge and versatility that will last a life-time, despite a changing environment;
- research-based teaching and learning;
- critical enquiry in the form of the search for new knowledge and better understanding; and
- an active developmental role in our cultural, economic, political, scientific and social environment.’¹⁵

The OpeningScholarship project set out to examine how the institution's consolidated use of ICTs for the purposes of knowledge dissemination and optimising scholarly communication could best serve its missions of research, teaching and learning, and community engagement – and how this use could contribute to the ‘active developmental role’ called for above. In line with the pressures faced by South African research institutes and universities to contribute to national development objectives, the project also examined the extent to which a changed approach to research dissemination lies at the heart of UCT Vice-Chancellor Dr Max Price's ‘Afropolitan’ project, which ‘connotes an open, assertive engagement with the world from the standpoint of Africa’ To be a global university, he argued, ‘UCT needs to be an African university’.¹⁶ The OpeningScholarship project was interested in the role that ICTs and a new approach to dissemination could play in furthering this objective, which brings together the university's twin goals of global excellence and national relevance and development impact.

¹² <http://www.oreillynet.com/pub/wlg/3017>

¹³ http://www.uct.ac.za/usr/ipd/IIU/intreports/facreports/2007_2008_facreport.pdf

¹⁴ <http://www.uct.ac.za/about/intro/history/>

¹⁵ <http://www.uct.ac.za/about/intro/>

¹⁶ <http://www.uct.ac.za/about/management/vc/installation/>

What emerged in an analysis of the university's approach to the dissemination of its research was that a powerful backward drag was being exerted at institutional level by the application of government policy for the reward of scholarly publication. This policy, enacted by the national Department of Education (now the Department of Higher Education and Training (DHET)) pays substantial subsidies for the publication of accredited outputs, with a particular emphasis on publication in the Thomson Web of Science journal indexes. As a result, a very high percentage of UCT's formal research outputs are published in these foreign journals. In this case, UCT's drive for international competitiveness and excellence, in which it performs very well, is outweighing its commitment to social and development impact.

This is in spite of UCT's considerable strength in Mode 2 research (Gibbons et al. 1994) which combines high-level research with community engagement in a number of research programmes and groupings..Many of these publish a range of academic publications that are placed online with few access restrictions. What appears to be happening is that the university striving for global preeminence is unwittingly undermining its visibility and impact of its transformation goals when it comes to scholarly publication.

The use of ICT for scholarly publication at UCT lags behind its role in teaching and learning at the university. The Centre for Educational Technology provides institution-wide services for the use of technology for teaching and learning, centred on an open source learning management system, Vula, part of the international Sakai consortium. In this context, individual lecturers and departments are making innovative use of ICT, including simulations, animations and the creation of social learning environments to address the learning needs of a multicultural and multilingual student body. Students are taking greater control of their own learning environment and the hierarchical relationship between teacher and learner is beginning to be disrupted.

In this environment, greater degrees of openness are beginning to emerge and, in a follow-up programme to OpeningScholarship, the university is beginning to engage in the creation of open education resources (OERs). In 2008, the university became a signatory to the Cape Town Open Education Declaration¹⁷ and the promise of this commitment is steadily being delivered.

When it comes to the university's social responsiveness role, the OpeningScholarship project found that the university, because of its focus on formal publication, was not taking advantage of the potential of ICT and online open access publication to profile its considerable contributions in this regard. Most of all, there has been a failure to recognise that in the new communications environment, in a digital world, the three silos of research, teaching and learning and social responsiveness are in fact a continuum, in which the advantages of open access would be of value to the university.

Institutional policy

The OpeningScholarship investigation revealed that UCT might benefit from investigating ways in which it can take a more strategic role in dissemination and use ICTs more effectively. It was apparent to the OpeningScholarship research team that this move would need to happen on various levels – not only collaborating with various stakeholders such as libraries, the Research Office, the Centre for Educational Technology (CET) and Institutional Planning; but also facilitating a change in institutional culture. In the course of conducting the

¹⁷ <http://www.capetowndeclaration.org/>

case studies which constitute the supporting documents for this investigation, it became clear that there are various pockets of individual activity at UCT – such as individual academics setting up repositories or publishing their teaching materials as OER on the internet – which engage with the new knowledge ‘Commons’,¹⁸ but these individual efforts lacked leverage as they were not backed by institutional policy or support. What is more, it became clear that general conceptions of copyright were, to a large extent, outdated, and that support was required in order to help individual academics and institutional decision-makers navigate new systems of flexible licensing and the contractual implications of working in the ‘open’ electronic arena.

It became clear to the OpeningScholarship team that, other than copyright and legal issues, a number of financial and sustainability issues underpinned the proposed vision for an institution that would transform to fully participate in the global knowledge Commons and utilise the affordances of Web 2.0 technologies to profile its research and teaching activities. This interplay of factors revealed that the process of foregrounding institutional research dissemination is in fact linked to deep-seated practice at both institutional and national levels;¹⁹ and that addressing the issue of dissemination cannot be disentangled from institutional vision and policy-making processes. In many respects, integration is key in the digital world. As the *Ithaka Report on Scholarly Publishing in a Digital Age* argued, given the dynamic and collaborative digital environment in which many researchers are working, there is a move towards the conceptualisation of research output as ‘continuous content’ or ‘dynamic content’ that can be continually updated. This research is likely to be produced in an integrated environment, in which published materials, data and more informal communications can be hyperlinked, as before incorporating multimedia and the applications needed to work with and transform data (Brown *et al.* 2007: 13, 14). Once this is attained, it enables processes to cut across disciplines, countries, research areas, teaching and learning, and community engagement.

The interplay between UCT’s current policies and the structures that exist for supporting and furthering the university’s objectives became a key factor for consideration in the OpeningScholarship investigation, which revealed that structures and initiatives currently operate in silos. The policies of any institution are manifest in the structures it invents. OpeningScholarship research consistently pointed to an integrated system, enabled by ICTs, which could traverse traditional boundaries in order to optimise the transformative potential of ICTs and firmly place the university as a global player in the arena of profiling its research and teaching.

Recommendations

The OpeningScholarship project’s investigation at UCT revealed that there were a number of endeavours under way within the university which were utilising ICTs for widespread

¹⁸ Wikipedia, probably the world’s best known example of a Commons, describes the broad usage of the term ‘Commons’ as: ‘...any sets of resources that a community recognises as being accessible to any member of that community’ (<http://en.wikipedia.org/wiki/Commons>). In the context of the OpeningScholarship project, the term is used broadly to refer to any free sharing of teaching and learning materials or research content in the electronic environment.

¹⁹ See Institutional Report 1: Delivering a research mission in an ICT-mediated information age: the case of the University of Cape Town (<http://www.cet.uct.ac.za/OpeningScholarship>).

collaboration and the sharing of knowledge. Generally spearheaded by individual champions, these pockets of individual effort revealed a momentum which, if capitalised upon and institutionalised, could have significant impact on profiling UCT's research efforts and cementing its status as the leading research institution on the African continent. They could also have a significant role to play in furthering the Afropolitan ambitions articulated by its Vice Chancellor and contribute to the transformation of the university and the South African HE environment.

Recommendation 1: Engage with knowledge dissemination at an institutional level

The findings of the OpeningScholarship project challenge both institutions and individual academics to broaden their notion of research in order to obtain greater visibility and meet the desired objective of research which makes a real impact on society in a country that faces major development and transformation challenges. At the heart of the current challenge lies the need to interrogate the idea of the academic endeavour as a series of divisions – traditionally split along the lines of UCT's core mission objectives of research, teaching and learning and social responsiveness – and to see research instead as a continuum.

Underlying all these factors is the need for UCT and other institutions to engage with their role as disseminators of research; not only focusing on the endeavour of conducting world-class research, but also playing an active role in ensuring that this research reaches the sectors which require it in order for that research to have a real impact on society.

Recommendation 2: Investigate an institutional strategy for utilising ICTs to optimise scholarly communication

A cohesive, institution-wide strategy for optimising research dissemination and use of teaching resources is required in order to serve notions of public good and advance UCT's visibility and status in the international research community. This dissemination strategy should reflect the university's strategy and general transformation goals and fully take on board the importance of open access publishing.

Open access would be the default, increasing global reach, so that UCT research is downloaded and read in most countries in the world, creating substantial increases in impact. This would also contribute to the efficiency and effectiveness of research, increasing collaborative potential and decreasing duplication. Social media would support international research exchanges and research communications could draw upon a range of multimedia options.

The university would support the active publication of its research, providing technical platforms for the support of publishing activities. The publication focus would be aligned with the university's strategic goals and effectively marketed for maximum impact. Academic staff would be provided with mentoring and support in publishing activities and the editors and publishers of scholarly publication would be given recognition and reward for their contribution to scholarship. Publication activities would include the identification of potential in repositories and cultural and other archives of publishable material. In return for its investment, UCT's reputation as a centre for research excellence would be widely recognised. The active marketing of research publications would also ensure that the African

truly becomes the global, with the particular contribution of UCT as an African centre of excellence recognised as a global standard.

Recommendation 3: Formulate an integrated approach for supporting scholarly communication

If UCT were to follow leading international examples of successful communications management, it would have an integrated and collaborative institutional infrastructure for managing the full range of its communications. This would include senior administration, faculties and academic staff, the library, and students. It would be led by an Officer of Scholarly Communications and Publishing Strategy at the top level of the university. This integration would allow the university to take a strategic view across all its communication requirements: library subscriptions and budgets; the effective dissemination of university research; the management of formal publication; strategic management of intellectual property and contracts; and support for on-campus publication initiatives and journal editors.

Systems for open access publishing and financial support for the payment of publication fees associated with open access publishing would also need to be part of an integrated approach to engaging with scholarly communication. In addition, this office could assist in profiling their leading academics by making special lectures and teaching resources publicly available. For example a selection of the Vice-Chancellor's speeches, special inaugural lectures or guest lectures as well as a selection of teaching materials from the foremost lecturers could help to build awareness of UCT's unique contributions to knowledge.

Recommendation 4: Engage more broadly with copyright issues

The internet has brought with it the need to re-assess traditional, iron-clad conceptions of copyright. This is particularly the case in the realm of knowledge dissemination, where open-access systems and the proliferation of versioning in content has necessitated a more flexible approach to copyright – as is embodied in the Creative Commons²⁰ (CC) licensing system. As various publishing systems increasingly foster their own varieties of copyright systems, university academics require guidance and support in the process of navigating the concomitant legalities. UCT's Research Contracts and Intellectual Property Services (RCIPS) currently acknowledges the role of alternative copyright licensing systems such as Creative Commons and has even had the OpeningScholarship team contribute a section on Creative Commons licensing to their departmental website²¹. In order to provide adequate advice and copyright clearing services, UCT will need to determine an approach to copyright at an institutional level – synthesising the interests of individual academics, libraries, the Research Office, and other parties, into a cohesive institutional strategy and approach to copyright. A particular issue that needs to be addressed is establishing the entity that would be able to undertake copyright negotiations with publishers in order that UCT might maximise the cost advantage of open access publishing.

²⁰ <http://za.creativecommons.org/>

²¹ <http://www.rcips.uct.ac.za/ip/copyright/creativecommons/>

Recommendation 5: Develop an integrated plan for supporting knowledge management

Throughout the OpeningScholarship research process it was increasingly made apparent that research, teaching and learning, and community engagement are not isolated endeavours; but are in fact linked on a continuum. The current focus on published research output in accredited publications largely disregards a large volume of knowledge and resources generated in the teaching process, and an equally significant amount of research and output generated in community engagement. In order to best utilise this knowledge and ensure its desired impact in terms of national objectives, it is crucial that the university develop an integrated system for supporting knowledge management across research processes. Technical solutions such as platforms, systems and repositories will also be required.

This entails policies to facilitate open access publishing and support for publishing activities within the institution (including support for journal editors based within the institution). Processes for dealing with expanded conceptions of copyright and intellectual property issues are also required. The university also requires ICT platforms for linking the research process and developing an integrated cyberinfrastructure for managing data.

The key factor underlying these needs and support structures is the use of ICTs – which, if optimally used, has the potential to link not only divergent activities and individuals but also research processes across the institution. In the current electronic environment, ICTs lie not at the heart only of issues around technology and dissemination, but are central to each of the universities missions of research, teaching and learning, and community engagement; and they provide the key to developing an integrated cyberinfrastructure for data.

Conclusion

If UCT were to take an active role in the publication of the outputs of its full range of research activities, disseminating these open access online, it would go a long way to achieving its vision of being an Afropolitan centre of global excellence in research, teaching and learning and social responsiveness.

The publication focus would be aligned with the university's strategic goals and effectively marketed for maximum impact. Academic staff would be provided with mentoring and support in publishing activities and the editors and publishers of scholarly publication would be given recognition and reward for their contribution to scholarship. Publication activities would include the identification of potential in repositories and cultural and other archives of publishable material. In return for its investment, UCT's reputation as a centre for research excellence would be widely recognised. The active marketing of research publications would also ensure that the African truly becomes the global, with the particular contribution of UCT as an African centre of excellence recognised as a global standard.

References

- Brown L, Griffiths R and Roscoff M (2007) *University Publishing In A Digital Age*. New York: Ithaka. <http://www.ithaka.org/strategic-services/Ithaka%20University%20Publishing%20Report.pdf>.
- Gibbons M, Nowotny H, Limoges C, Schwartzman S, Scott P and Trow M (1994) *The New Production of Knowledge: The dynamics of science and research in contemporary societies*, London: Sage.
- Houghton JW, Steele C and Henty M (2003) *Changing Research Practices in the Digital Information and Communication Environment*, Melbourne, Australia: Department of Education, Science and Training. http://www.dest.gov.au/sectors/research_sector/publications_resources/other_publications/changing_splitpdf.htm [Accessed July 2008].
- Lonn S and Teasley SD (2009) Saving time or innovating practice: Investigating perceptions and uses of Learning Management Systems. *Computers and Education* 53(3): 686–694.
- Surman M and Schmidt P (2008) Open everything seminar, Cape Town, 22 October 2008 Available at http://openeverything.wik.is/Cape_Town [Accessed November 2008].
- Theron H (2008) VC shares vision for UCT. *Monday Paper* 27(14):1. Online: <https://www.uct.ac.za/downloads/news.uct.ac.za/monpaper/mp14.pdf> [Accessed July 2009].
- Yuan, L, MacNeill, S and Kraan W (2008). Open Educational Resources – Opportunities and Challenges for Higher Education. JISC CETIS. Available at http://wiki.cetis.ac.uk/images/0/0b/OER_Briefing_Paper.pdf [Accessed February 2009].

Appendix: Project documents and other output

Institutional Reports

Institutional Report 1: Delivering a research mission in an ICT-mediated information age: the case of the University of Cape Town

Institutional Report 2: ICTs and teaching and learning at the University of Cape Town

Position Papers

Paper 1: International environmental scan of the use of ICTs for research communications in higher education

Paper 2: National environmental scan of South African scholarly publishing

Paper 3: International environmental scan of the use of ICTs for teaching and learning in higher education

Paper 4: National environmental scan of the use of ICTs for teaching and learning in higher education in South Africa

Paper 5: International environmental scan of the use of ICTs for community engagement in higher education

Case Studies

Case Study 1: South African Review of Sociology

Case Study 2: Feminist Africa

Case Study 3: LitNet and OnScreen

Case Study 4: UCT Press

Case Study 5: Mobile learning

Case Study 6: Simulations for visualisation of complex processes and principles in chemical engineering and in physics

Case Study 7: Interactive spreadsheets

Case Study 8: Custom-designed virtual experiment in fracture mechanics in Mechanical Engineering

Case Study 9: Social simulation in International Law

Case Study 10: The Health and Human Rights Programme

Case Study 11: Cell-Life

Case Study 12: Masizikhulise

Toolkit

OpeningScholarship Resources Toolkit

Seminars and other initiatives

Seminar 1: What does Intellectual Property mean for educators?

Seminar 2: Open Education Resources - Eve Gray 13 March 2008

Seminar 3: Emerging Researchers' Programme - Herding dinosaurs? Scholarly publishing in a rapidly changing environment - Eve Gray - 26 March 2008 and My journey to open access: Reflections of a newcomer - Cheryl Hodgkinson-Williams - 26 March 2008

Seminar 4: Licensing, Publishing and New Business Models - Frances Pinter 8 February 2008

Presentation 1: Herding dinosaurs or surfing new worlds: Scholarly publishing and open access to research knowledge in Africa - Eve Gray - 25 September 2007

Presentation 2: "Overcoming the global knowledge divide: Open access scholarly publications in South Africa and lessons for an Open Access approach to data" - Eve Gray - 27 September 2007

Presentation 3: Gray E and Hodgkinson-Williams, CA (2009) The public mission of South African universities: ICT use for scholarly communications for research, teaching & learning & social responsiveness in a leading South African research university. African Digital Scholarship and Curation Conference, 12-14 May 2009 CSIR Conference Centre, Pretoria.

Workshop 1: Juta/UCT Workshop The other end of the telescope: The future of academic publishing from a South African perspective - Eve Gray 11 March 2008 and Publishing and Alternative Licensing Models:South Africa

Workshop 2: ICEL Open Education Resources (OER) Workshop - Cheryl Hodgkinson Williams and Philipp Schmidt - 24 June 2008

Workshop 3: Elpub 2008 The other end of the telescope - Eve Gray - 27 June 2008

Events: UCT signs Cape Town Open Education Declaration - 8 April 2008

Project Blog: <http://blogs.uct.ac.za/blog/openingscholarship>