

1 **Open Access Research and the Public Domain in South African Universities:**
2 **The Public Knowledge Project's Open Journal Systems**

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5
6 **Introduction**
7

8 This paper, based on a broader empirical study I am conducting at three South African
9 universities, examines how globalization and democratization have affected knowledge
10 production at South African universities. It looks at whether increasing open access to academic
11 research, which can be made readily available through new technologies, might enhance the
12 research capacity of these universities and give impetus to the transformation project aimed at
13 social justice and a new democratic order in South Africa. In this paper I consider the current
14 state of research access at the three universities and whether open access publishing systems,
15 such as the Open Journal Systems developed by the Public Knowledge Project, are in a position
16 to contribute to building research capacity at South African universities.

17 The questions posed in this paper are: (1) Given global economic trends and the low
18 value of South African currency in the exchange market, what has been the access to scholarly
19 resources and technology at South African universities over the past five years? (2) To what
20 extent do the experiences of historically black universities (HBUs) differ from those of
21 historically white universities (HWUs)? (3) What are the research access and capacity issues
22 confronting researchers and librarians at South African universities? (4) To what extent can open
23 access and the public domain of research be increased through the Open Journal Systems?
24

25 **Background and Context**
26

27 As a new African nation South Africa is faced with challenges that are both local and
28 global. The country needs to build a democratic society from the devastation in the wake of
29 apartheid while finding its niche in a globalized world that is knowledge-based (White Paper
30 1997, as cited in Kraak, 2001, p. 20). The new higher education policies and several scholarly
31 analyses of this policy focus attention on the universities' agency in the transformation to a new
32 democratic and equitable society nationally and in providing the country with skills, innovation,
33 and knowledge to compete globally (Ekong and Cloete, 1997, p. 7; see also Currie and
34 Subotzky, 2000; Kraak, 2001; Soudien and Coneilse, 2000). Universally institutions of higher
35 education have been seen as the main producers of knowledge and skills and as transmitters of
36 culture (Sadlack & Altbach, 1997, pp350-351; Neave, 2000, p. 1).

37 At the local level in South Africa the knowledge processes at the university can help to
38 solve some of the many social problems facing the country. Universities can also assist in
39 reconfiguring notions of culture, identity, and diversity in the postapartheid society (Cloete et al.,
40 1999). In a knowledge-based global economy knowledge creation, innovation, and high skills
41 formation at the university may help to position the country as a competitive global player.
42 Although the new higher education policies emphasize the universities' dual role in these
43 processes of democratization and globalization, little research has been conducted on whether
44 these universities have the research capacity to generate this knowledge, innovation, and skills.
45

46 **Research Methods**

1
2 The research methods consisted of an ethnographic multiple case study of research access
3 and capacity conducted at three sites, namely, an HBU, a historically white Afrikaans university
4 (HWU-A), and a historically white English university (HWU-E). Although the three cases were
5 limited to one particular province in South Africa, their different social and historical contexts
6 are not only similar to most other South African universities but also mirror the sociopolitical
7 context of South Africa and the dilemmas it presents for the transformation of the society from
8 an apartheid past to a democratic future. These cases have allowed me to examine any
9 similarities and differences in research capacity between privileged HWUs and underprivileged
10 HBUs in South Africa. Although the intention is not to generalize the findings of this research,
11 as Miles and Huberman (1994, p. 29) evince, “Each setting has a few properties it shares with
12 many others, and some properties it shares with some others, and some properties it shares with
13 no others.”

14 A Likert scale and short answers and in-depth interviews have been the main data
15 gathering techniques in the survey. Thirty participants consisting of academics, postgraduate
16 students, librarians, university administrators, and policy makers were surveyed and/or
17 interviewed. Participants were drawn from faculties across the disciplines, from sciences to
18 humanities and social sciences. The sample included racial, gender, and language diversity.
19

20 Findings

21 Access to Scholarly Resources

22
23
24 *Print Journals.* Two of the three universities have experienced a sharp decline in library serial
25 holdings (see Table 31.1). The HBU was most severely affected, with journal subscriptions
26 across the disciplines having been cancelled due to financial constraints. Not a single new book
27 had been acquired over the past five years. Although the academics and librarians at all three
28 institutions place a premium on the value of research literature for teaching, supervising
29 postgraduate students, conducting and publishing research, and providing counsel to public
30 bodies, they have had to contend with this lack of access to scholarly resources. Interestingly,
31 the HWU-E, an institution traditionally recognized for its research output, has managed to
32 maintain its journal holdings. Participants at the HWU-E described their access to journals as
33 adequate to good, at the HWU-A as adequate to poor, and at the HBU as poor. Invariably
34 African journals were considered less important than international journals at the HWUs and
35 equally important at the HBU. The discipline with the highest journal subscriptions was social
36 sciences for the HBU, life and physical sciences for the HWU-A, and humanities for the HWU-
37 E. Science and technology were among the disciplines with the lowest percentage of journal
38 subscriptions. On average 80 percent of the holdings of these universities consisted of
39 international (Western) journals, whereas only 20 percent comprised African journals, these
40 being mainly South African journals.

41 One way that South African universities have overcome the limited access to scholarly
42 resources is to form national and provincial consortia of university libraries. There were almost
43 no endeavors to form regional African library consortia, a method used by other jurisdictions for
44 securing greater access to journals (DFID, 1999).
45

1 *Interlibrary Loans.* Given the constrained access to scholarly resources, academics and
2 postgraduate students had to depend heavily on interlibrary loan systems, which they believed
3 was a further drain on their limited research funding. Articles retrieved internationally cost 110
4 rands while books cost 200 rands each. Postgraduate students working on their theses found this
5 system “frustrating and time-consuming.” One student explained the frustrations with such a
6 system.

7
8 Sometimes when I get that book, my study is not there. I have moved on and I am busy with other
9 areas. Sometimes I feel I have wasted their [librarian’s] time because I will refer maybe to a
10 paragraph or two, but if I had made contact with that information from the beginning, I would
11 have learned more. It posed [frustration] and it limits you and it makes you to make wrong
12 choices because the tendency is that you are driven by the text (that is available) to make
13 decisions. By the time you get, maybe things that are brilliant . . . you have closed your mind and
14 made your choice and that is how you are going to do your research. So in a way I would say
15 ‘yes, it does limit one.’

16
17 This view shows that while interlibrary loan systems have worked well over the years, they do
18 have shortcomings, which according to the student cited above, could have a significant affect on
19 the research product.

20
21 *Electronic Journals.* Electronic access to journals has been well received by most participants.
22 They cited the relative ease of wider access to scholarship and saving of time as the main
23 advantages of electronic journals. In addition, several users may access an e-journal
24 simultaneously, whereas print journals can only be consulted by one user at a time. For those
25 who have access to the Internet at home, research may be conducted outside of library hours.

26 It is perhaps no surprise that the librarians of the universities with better resources—the
27 HWUs—claimed that the most popular format for consulting research literature was online,
28 whereas the librarian of the HBU posited that print form was the only format available to
29 students. The HBU university’s library had a total of 73 computers with Internet connections,
30 yet only librarians used these computers (see Table 31.2). They conducted searches on behalf of
31 academics and students, who had little direct access to them. The HWU-A’s library had a total
32 of 94 computers with Internet connections but only 8 were available for use by the students and
33 none by academics. The HWU-E had approximately 102 computers with Internet connections
34 used by librarians and staff, 49 of these being available to the public, including students. At the
35 HWUs the academics had their own computers with World Wide Web access. At the HBU,
36 which is rurally located, the academics had only recently acquired computers with World Wide
37 Web access, but the quality of the connections was still problematic and often resulted in slow
38 and/or aborted connections.

39
40 *Concerns about Access to Scholarly Resources.* Reasons for the declining access to scholarly
41 resources went beyond the financial capacity of the individual universities. Librarians and
42 academics at the HBU and the HWU-A complained that decision making about the allocation of
43 resources seemed to indicate that management had placed a low priority on research output.
44 These participants contended that a strong research culture, such as the one at the HWU-E, was
45 not prevalent at their institutions. Policy makers and senior managers at the HWU-E placed a
46 strong emphasis on research in their planning and budgeting. The dean of research, an active
47 researcher, was also a member of senior management. In addition, the head librarian was
48 included in budget discussions

1 Participants at the HWU-A attributed this lack of research culture to the history of these
2 universities. The former government of South Africa had established these racially segregated
3 universities to implement and consolidate its apartheid policies. By and large the HWU-As
4 produced skills for the mining and manufacturing industries (Ashley, 1971; Bolsmann and Uys,
5 2001; Mabokela, 2000; Nordkvelle, 1990). HWU-As produced an Afrikaner elite to assume key
6 positions in politics, government, and public administration, while HBUs were intended to
7 legitimate the policy of separate development and to reproduce the subordinate social and
8 economic position of black people (Mabokela, 2000; see also Christie and Collins, 1984; Gwala,
9 1988; Subotsky, 1997). Furthermore, HBUs received an inequitable resource allocation from the
10 apartheid state. Between 1989 and 1990 just before the end of apartheid, the 10 white
11 universities spent more than 300 million rands on research while the six black universities spent
12 a mere 24 million rands (Nordkvelle, 1990, p. 10). The new policies aimed at transforming
13 higher education South Africa have now emphasized the importance of research (White Paper,
14 1997) and individual institutions are beginning to institute significant incentives and rewards for
15 research output by academics. At the HBU, for example, the university may receive 30,000
16 rands from the government for articles published in rated journals, with 12,000 rands of this
17 going to authors (interview with executive dean, HBU, 2002).

18 Librarians and academics also pointed out that although electronic access opened new
19 pathways and allowed for wider access to resources, it was not necessarily cheaper than
20 subscriptions to print journals. The costs of electronic scholarly resources were still prohibitive
21 due to unfavorable currency exchange rates and dwindling resources. In addition, researchers
22 and librarians believed that existing facilities and resources were not being used optimally
23 because many academics and postgraduate students did not have sufficient information
24 technology literacy skills to conduct advance searches for print or electronic resources.

25 This, they claimed, was particularly acute among some black academics and the majority
26 of black postgraduate students who had little to no access to libraries or technology outside of the
27 university. Whereas white academics and students reported having access to online connections
28 both at the university and at home, most black academics and students had no access to these
29 facilities at home. In fact, some academics at HBUs were not assigned or allocated their own
30 computer. By contrast, as one participant observed, many white university students had access
31 to computers at the secondary school level and were therefore more empowered to conduct their
32 research. Black academics, on the other hand, were sometimes reluctant to admit their lack of
33 search skills to the mostly white librarians at the HWUs. A black academic, who felt
34 embarrassed about admitting her lack of search skills to the librarians, shared the empowering
35 effect electronic access has had on her, enabling her to conduct the searches in the privacy and
36 comfort of her office, away from the intimidating gaze of the librarians.

37 Library orientation programs, consisting of hour-long sessions, were inadequate for
38 equipping students with necessary information and skills to use the facilities efficiently. As one
39 student pointed out,

40
41 That is your only orientation to the library . . . It is not an individual one hour slot, but it is the
42 whole group. Then you are offered that if you want to come back you are welcome. Yes it is good
43 to say that but as a student it hinders you. . . [They may] show me this one journal . . . I want
44 different options that say if you can't find it here you will find it there. It is like they are holding
45 the information to themselves and they are using that information against you as a student. That is
46 how you think because it threatens you and you as a graduate student don't want to look stupid.

47

1 In their evaluation of these sessions postgraduate students expressed the need to have
2 such sessions during their first year at the university. Librarians were particularly concerned that
3 they did not have sufficient time to devote to information literacy training because of their
4 workload. Inevitably the libraries at all three universities were short-staffed. Vacancies could
5 not be filled because of a lack of finances. Existing staff was expected to fulfill a number of
6 functions. For example, at the HBU the periodicals librarian was also a subject librarian and a
7 cataloguer. Some participants—librarians, academics, and students—were of the view that
8 information literacy should be integrated into coursework, “just like the research methods
9 course” said a postgraduate student.

10 **Research and Publishing**

11
12
13 Almost all academics claimed that they devoted a greater percentage of their time to
14 teaching than research. The general lack of resources for recruiting more staff resulted in most
15 universities’ increasing the teaching loads of academics. On examining the allocation of time
16 spent on research, teaching, and administration and policy, the lowest ratio for research was
17 10:50:40, whereas the highest ratio was 60:20:20. On average, academics devoted only 20
18 percent to 30 percent of their time to research. When asked about their visions for the future,
19 almost all academics expressed a strong desire to have more time for conducting and publishing
20 research.

21 Aside from this lack of time for research, new academics, in particular black academics,
22 and students asserted that they received very little support on how to go about publishing. One
23 student was told by her supervisor that certain journals only accepted articles from their
24 members. This would mean that black researchers might find it difficult to publish in a country
25 like South Africa, where previous patterns of privilege still exist. A student mentioned the need
26 to understand the conventions of publishing and the hindrance these conventions posed for
27 novice researchers. Older academics expressed a preference to publish in international journals
28 mainly, while newer academics, both black and white, claimed it was important to publish in
29 South Africa or Africa, where their research might hold more relevance and thus serve a social
30 purpose. On the other hand, participants also pointed out that locally published journals are not
31 as highly rated as international journals and hence there is little incentive for publishing in them.
32 One participant was concerned about the hegemony of the West in publishing and dissemination
33 of knowledge, pointing out the anomaly that some African journals are published in the
34 developed world and then sold to African institutions at exorbitant prices.

35 **Open Access**

36
37
38 All participants in the study expressed positive views about greater open access to
39 research resources, believing that it would provide greater access to scholarly information,
40 enable researchers to conduct searches and retrieve information with ease, reduce costs, and save
41 time (see Table 31.3). The librarians in particular were positive about open access. Rather than
42 consider it a threat to their jobs, they believed that their role in an open access world would be to
43 act as managers and facilitators of information.

44 The participants expressed a number of concerns regarding open access. One participant
45 pointed out that open access publishing would not offer the kind of financial incentive
46 institutions or individuals receive from the government for articles published in rated journals.

1 Hence, he could not foresee South African researchers publishing in open access journals unless
2 they were rated. But the main concern expressed by several participants related to the abundance
3 of information available through an open access system. Librarians and academics were
4 concerned that the students may find the information overload overwhelming. Given the
5 students' relative lack of information literacy they may not be able to distinguish quality research
6 from the range of research materials and information available through open access. Academics
7 were of the view that open access scholarship must be subjected to the peer-review system and
8 that students must be coached on how to become discerning users of open access scholarly
9 resources.

10 Although open access can be an "open door to learning," as one student put it, it could
11 also result in researchers expending valuable time on irrelevant information, especially if they do
12 not have good information literacy skills. Other concerns related to plagiarism, copyright, and
13 intellectual property rights. Although many academics were very concerned that open access
14 would lead to greater incidences of plagiarism among students, a few pointed out that the
15 Internet has made it easier to monitor and detect plagiarism.

16 A further concern was that open access would increase the digital divide in South Africa.
17 The following observation made by a study participant may pertain to the global realm as well:
18 "People that have had access before, like the white people of this country, will still be more
19 advantaged with technology because they have computer access in their homes and the very
20 people that were discriminated are left behind now." She expressed a sense of hopelessness in
21 all of this: "I think it is more threatening to them. People give up . . . They feel more
22 disadvantaged now." But she admits that we cannot ignore technology and that this sense of
23 hopelessness may be limited to the older generation:

24
25 The solution is to [begin with] the younger generation, to have more computers in schools . . . I
26 have learned with children that technology is not something that is threatening. It is a challenge to
27 them, but to us who are grown-ups it becomes a threat. That is why I think the earlier people are
28 exposed, the more advantages they will see in technology because technology is beautiful!

29
30 Although this statement ends on a positive note, the concern that open access would only benefit
31 a small privileged group, rendering those without technological capacity to the periphery,
32 presents a real challenge to proponents of open access. It is a challenge to which careful
33 consideration should be given, even as we push the frontiers of open access.

34 35 **Public Domain of Academic Research**

36
37 The notion of the public domain of academic research was relatively new for some
38 participants and they had some difficulty with its credibility. Others, however, believed that
39 universities had a social responsibility and that the research generated by universities should
40 have a public value. Several participants were not convinced that research could become readily
41 available to the wider public—given their relative lack of access to technology—but they
42 claimed that it was essential to at least make research available to practitioners and policy
43 makers. As one participant noted,

44
45 There are people out there, not all of them are interested in being researchers, but they are
46 interested in being competent practitioners. If they could have access to the research that is being
47 done that would give more solutions to the problems that they are encountering out there . . . That
48 would be a useful system.

1
2 Participants also pointed out that there were examples of community centers equipped
3 with computers and Internet access throughout the country, rendering the notion of community
4 access to knowledge less remote. However, the quality of connections and the incidence of
5 power failures in remote areas posed a problem for electronic access to public knowledge.

6 Some participants were of the view that academic researchers should play a bigger role in
7 shaping public policy, locally, nationally, and regionally. They contended that regional African
8 organizations such as the Southern African Development Community and the New Partnership
9 for Africa's Development could benefit from research that focused on regional growth,
10 sustainable development, peace, and security. Open access would also ensure that the
11 deliberations of these organizations at various conferences and forums, could be made available
12 to the public immediately.

13 Over recent years the conditions attached to research funding stipulate that South African
14 researchers work closely with a range of stakeholders, including local communities. A botanist
15 pointed out that she was working closely with rural communities and the government in water
16 and estuarine studies; a legal researcher explained that her research dealt with customary laws
17 and the rights of African women and that this information needed to be made available to these
18 women. Although these communities do not have electronic resources, the researchers explained
19 that they popularized this research through community talks, radio, popular magazines, and
20 pamphlets. Some academics worry that applied research of this nature will erode the base of
21 pure research. Others contend that it is possible to conduct socially relevant research while
22 maintaining the foundations of basic research. Researchers in the medical and pharmaceutical
23 sciences were less hopeful about making their research open to the public because of intellectual
24 property rights.

25 Librarians noted the increasing use of their facilities by the public. Corporate and
26 professional bodies and individual lawyers, teachers, social workers, business people, and
27 other interested persons were already using academic library facilities. Yet others
28 expressed concern about Western domination of knowledge and definitions of knowledge
29 and public knowledge. One participant, for example, raised the question about the
30 imperialism of knowledge and knowledge ownership: "Who generates the knowledge?
31 Who sets the rules and determines what is scientific?"

32 33 **Discussion**

34
35 Given the high expectations South Africa has of its higher education sector in
36 contributing to knowledge production, innovation, and skills development as noted above, the
37 universities in this study do not have the necessary research access and capacity to fulfill their
38 roles as agents of transformation. As has been the case for most of Africa and the developing
39 world, there is a lack of adequate resources for producing knowledge, making innovative
40 interventions, and developing a highly skilled workforce.

41 42 **Access**

43
44 Access to the latest international research through updated serial holdings and other
45 research literature is key to producing cutting-edge research and finding innovative solutions to
46 the range of social and development problems facing South Africa. Teaching and research are

1 integrally related. A university cannot produce highly skilled professionals when academics and
2 students do not have access to the latest research in their respective disciplines.

3 The findings in this study show that journal holdings have declined sharply at two of
4 these universities, almost 50 percent at the HBU, where not a single new book has been acquired
5 in five years. Journals in discipline areas that are crucial for innovation and development,
6 science, and technology have suffered the most. The costs of electronic journal subscriptions
7 have also been prohibitive. The interlibrary loan system, although an essential resource facility
8 in higher education over the years, is not without its problems. The process can be slow and this
9 might impact negatively on the quality of research produced, as noted in the findings above.

10 Despite the limited availability of resources, access to technology such as computers with
11 Internet access does not appear to be a big problem. As can be seen from Table 31.3, all libraries
12 had between 74 and 102 computers with Internet connections. Poor connections at the HBU
13 recently have been resolved. Academics at the three universities have their own computers in
14 their offices and some even have home access. The problem with the library computers is that
15 students should learn how to use them independently of the librarians. It is no surprise that at the
16 HWU-E, the university with the highest research output among the three universities, 49 of the
17 102 computers available were being used not only by students but the public as well. Perhaps
18 the remaining two universities should also make such facilities more readily available to users so
19 that they may develop the skills to use them independently.

20 Another consequence of inadequate resources has been understaffing, both of librarians
21 and academics. Librarians cannot find the time to train academics and students on how to use
22 existing scholarly resources and facilities optimally. This creates a double jeopardy; not only are
23 the libraries limited in scholarly resources but existing materials are also not being used
24 efficiently and optimally. As some participants wisely observed, information literacy programs
25 should be integrated with the coursework, but this will require additional human resources to
26 conduct this training. The historical background of these universities and the low prioritization
27 that management and policy makers have given to research at two of these universities have
28 affected their research capacity negatively. It seems that when there were cuts to spending, the
29 libraries at all three institutions were always targeted (interviews with librarians and policy
30 makers). The established research culture at the HWU-E may largely be attributed to the
31 emphasis senior management and policy makers place on research activities.

32 For academics teaching has been prioritized, whereas the time afforded to research is
33 viewed as a luxury or privilege for only a few. As noted the quality of teaching depends on the
34 research being generated and vice versa. Heavy teaching loads mean that these institutions are
35 generating little research. Since most academics expressed a strong desire to have more time for
36 research and publishing, one wonders how this constraint may affect their sense of job
37 satisfaction, self-worth, and their identities as researchers. Already South Africa, like many
38 African countries, is experiencing a “brain drain.” Over the five-month initial phase of this
39 research two academic participants from different institutions, both in computer and information
40 sciences, emigrated. In an earlier interview one, himself a dean, expressed much dissatisfaction
41 with what he and other academics perceived as management’s disinterest in research. The
42 consequence of the “brain drain” is that it further erodes the research and skills base of a country
43 like South Africa.

44 **Research and Publishing**

1 Publishing presented a dilemma for some South African researchers. Limited access to
2 the latest research developments can seriously impinge on researchers' capacity to produce and
3 publish research, let alone cutting-edge research (see also Altbach, 1987; Canagarajah, 1996).
4 As Altbach contends, scholarly journals are a key element in the knowledge distribution network
5 and are even more important than books (p. 72). Some participants believed that their research
6 was more relevant to the South African or African context, for example, in estuarine studies and
7 the African woman's right of succession in customary law. Yet, there were higher incentives,
8 such as status, recognition, and rewards, for publishing in international journals. On the other
9 hand, African journals were not highly rated nor were they well publicized and some participants
10 did not even know of their existence. This trend is common in other African countries as well
11 (see DFID, 1999, p. 7). In general, African journals had not been subscribed to and were thus
12 not available at the library. Given the limited resources librarians prioritized subscribing to
13 international and South African journals over African journals. As noted above, many African
14 journals are published in the West and sold back to African universities at high cost. Participants
15 referred to this as the "imperialization of knowledge."

16 A few developed nations dominate the production and distribution of knowledge by
17 controlling the publishing houses and the production of scholarly journals that the rest of the
18 world consumes: 34 industrialized countries with only 30 percent of the world's population
19 produce 81 percent of the world's book titles (Altbach, 1987, p. 18). Although these figures are
20 dated, scholars seem to concur that the knowledge gap has increased and will continue to do so
21 (Altbach, 1998; Gibbons et al., 1994; Willinsky, 2000). According to Altbach, 62 percent of
22 social science periodicals and virtually all "prestigious scientific journals" are published in the
23 West (p. 28). In addition, the spate of mergers and acquisitions in journal publishing over the
24 last few decades appears to have set off spiraling price increases that are undermining the
25 circulation of knowledge. These increases can be traced to a growing corporate concentration in
26 scholarly publishing, especially in the sciences, which has resulted in three Western companies,
27 Elsevier, Springer, and Taylor and Francis, controlling 60 percent of the journals in the leading
28 citation index, ISI Web of Science (Merger Mania, 2003).

29 Hence, these Western countries define research paradigms and the focuses of the field,
30 rendering the rest of the world peripheral in determining the research agenda (Altbach, 1987, p.
31 17; 1997, p. 16). As has been shown above, there has been little exploration of regional
32 networks to overcome such barriers to publishing. Nor does foreign aid help (Altbach, 1987, pp.
33 17-27; Day, 2002, p. 3). Instead the university libraries in this study received large donations of
34 not only irrelevant books but also hundreds of copies of the same book. In addition, scholars like
35 Altbach have shown that the textbook publishing programs of the World Bank have actually
36 weakened the indigenous private firms (1987, p. 24; 1996, p. 7). According to Altbach, neo-
37 colonialism is maintained through foreign aid programs and loan policies and is a factor that
38 must be considered in any analysis of publishing in the Third World (1987, p. 33).

39 Aside from a lack of time for research and publishing, black academics and students
40 noted the lack of support and access to publishing. Publishing rules and conventions often
41 inhibited them from publishing. Scholar Canagarajah (1996) refers to these conventions as the
42 "'nondiscursive' requirements" of academic publishing houses in the West, a "hidden
43 publishing" agenda that makes it virtually impossible for researchers from the Third World to
44 publish successfully in the industrialized world and leads to the exclusion and marginalization of
45 peripheral (Third World) research (p. 1). These requirements include format of copy text,
46 bibliographical conventions, weight and quality of paper, number of copies required, postage,

1 procedures for revision, procedures for interaction between author and board, and deadlines (p.
2 2). These conventions speak directly to scholars in the West alone, ignoring not only the context
3 of peripheral writers (e.g., a lack of access to computers, photocopiers, fax machines, and
4 telephones; electricity; copy paper according to specifications; funds for postage of bulky copies,
5 especially to referees in the West; access to reference conventions; access to journals as guides
6 and diskettes), but also time and space factors, which global technology has not yet compacted in
7 most of the world. In setting deadlines of three to four days editors reveal that they have little
8 concept of the distance between Sri Lanka, for example, and the West, or the unreliability of
9 international mailing systems (see also Day, 2002).

10 Based on his experiences and that of fellow scholars at the University of Jaffna,
11 Canagarajah (1996) shows that these conventions preclude peripheral scholars from publishing.
12 More perniciously, the apparent lack of attention to these requirements on the part of peripheral
13 scholars may result in them being labeled unscholarly, unprofessional, or downright
14 incompetent, despite the substantive value of their research. He notes that scholars in Asia, Latin
15 America, and Africa have similar experiences (p. 9; see also Muchiri, et al., 1995). Canagarajah
16 contends that “these publishing conventions are deeply implicated in the politics of knowledge
17 production and the hegemony of intellectual property of the developed nations” (p. 3). Drawing
18 on Foucault (1976), he shows that these rules of publishing serve to legitimate particular
19 conventions and exclude others (op cit).

20 A more reciprocal flow of knowledge and publishing would not only benefit the
21 periphery. Canagarajah argues that if all knowledge is situated and personal then periphery
22 perspectives, which are often critical of center research, may enrich and expand the narrow
23 knowledge base of the center (p. 21). Altbach (1997) recommends a better balance of the
24 research agenda between researchers and users, the strengthening of regional and international
25 networks for sharing of research, and the inclusion of peripheral research communities in the
26 international mainstream (p. 20).

27 28 **Open Access**

29
30 This discussion focuses on participants’ orientation toward open access and the public
31 domain of academic research. As previously noted, the participants welcomed open access and
32 the possibility of making academic research more publicly available. Their concerns about open
33 access centered on the quality of the research and the need for strong peer-review systems,
34 information literacy, and management systems to deal with the information overload, plagiarism,
35 and inequitable access to technology that might lead to the exacerbation of the digital divide.

36 The participants expressed enthusiasm at the prospect that academic research could be
37 made available to the public at large. Although they were concerned that rural communities
38 would not have the technology to access such information, they agreed that it was worthwhile to
39 make this information available to practitioners and policy makers, whose work impacts directly
40 on the people “out there.” The new higher education policies emphasize the social value of
41 academic research and support applied research conducted in collaboration with public
42 stakeholders (see Gibbons et al., 1994). Hence, the expansion of the public domain of research
43 in South Africa may be well received when viewed as a contribution toward the democratization
44 process.

45 The discussion above notes the constraints on current South African research capacity,
46 leading to the following crucial questions for developing research capacity not only in South

1 Africa or Africa but also in other parts of the developing world. What measures do we have
2 that are readily available to deal with the factors constraining research access and capacity in
3 South Africa, Africa, and the developing world? How can we overcome resource constraints and
4 increase access to journals so necessary for the production, publishing, and distribution of
5 knowledge? How can we begin to establish journals with locally relevant content and whose
6 agendas are determined by periphery researchers and editors?

7 Open access systems such as the Open Journal Systems of the Public Knowledge Project
8 may be just one example of how open access may help to address the constraints the academics,
9 graduate students, and librarians in my study have voiced. The following section discusses the
10 possibilities of the Open Journal Systems in building research capacity in developing world
11 contexts, such as in South Africa.

12 13 **The Open Journal Systems¹** 14

15 The Open Journal Systems of the Public Knowledge Project,² the University of British
16 Columbia's federally funded research initiative to improve the scholarly and public quality of
17 academic publishing on a global basis, was launched in November 2002. The Open Journal
18 Systems is an online journal management and publishing system that enables editors to manage,
19 publish, and index peer-reviewed journals over the Internet on an open access or free-to-read
20 basis. It can be installed on Web servers anywhere and requires few if any technical skills from
21 editors. It has tremendous potential to make journals easier, more efficient, and cheaper to run.

22 The Open Journal Systems open-source software can be downloaded free of charge. The
23 intention is to enable journals and scholarly societies to consider publishing in an open-access or
24 free-to-read basis, which has been shown to increase readership dramatically.

25 Open Journal Systems is currently under consideration in Canada, Turkey, Kenya,
26 Rwanda, India, Australia, and the United States. In January 2003 it was listed as a "landmark
27 event" in the timeline of the Free Online Scholarship movement by Peter Suber. The Open
28 Journal Systems has the option of being able to publish by issue, volume, and year, by volume
29 and year, and by year alone. It can be refined so that each article comes out by number and exact
30 date within a given volume and year. As one interested person from Turkey observed, "I did not
31 expect such a comprehensive programme for free!"

32 33 **Possibilities for Building Research Capacity** 34

35 As noted, resource constraints severely hamper the capacity of South African universities
36 to produce and publish research. An online journal system such as Open Journal Systems can
37 make journals readily available to academics, postgraduate students, and librarians at almost no
38 cost. Academics and graduate students can have easy access to the latest research for both
39 teaching and research purposes, including journals to which libraries currently have very limited
40 access, namely, science and technology journals. The HBU, with its severely constrained
41 coffers, would especially benefit from such a system.

¹ Additional information about the OJS can be found in Chapter 32 of these *Proceedings*, "The Public Knowledge Project's Open Journal System," by Florence Muinde.

² See <http://www.pkp.ubc.ca>. A demonstration journal and further information about Open Journal Systems may be found at <http://pkp.ubc.ca/ojs>.

1 Libraries could then use the savings from journal subscriptions, both print and electronic,
2 to recruit staff to deliver information literacy courses, which would help students to use
3 technology more efficiently, optimally, and independently of the librarians. Hence the HBU and
4 HWU-A will be more confident about allowing their students to use the existing library
5 computers. The course will also empower students to cope with the information overload,
6 enabling them to become critical and discriminating users of online open access. The negative
7 impact the slow processes of interlibrary systems may have on research will be reduced since the
8 researcher will not have to depend on this system alone.

9 Although resources will be needed to recruit staff to lessen teaching loads, open access
10 publishing would cut down on the time spent accessing print and interlibrary loan materials,
11 especially materials that may not be available through the libraries' e-journal subscriptions. The
12 time saved can be allocated to conducting more research.

13 Open Journal Systems perhaps has the most to offer in the area of local or, as Canagarah
14 puts it, "peripheral" publishing. As we have seen in the discussion on publishing, not only do
15 peripheral scholars have limited access to the latest research but the publishing conventions also
16 inhibit them from publishing successfully. Peripheral scholars have no voice in defining
17 research paradigms, focuses for the field, or what constitutes relevant research within a particular
18 context or environment. Open Journal Systems has the potential to make the latest research
19 readily available to all researchers at no cost through a fully indexed system. Peripheral editors
20 may determine focuses and content that is context relevant. The conventions for publishing are
21 easy to follow. This means greater freedom for peripheral scholars who have felt constrained by
22 the "nondiscursive requirements" of publishing. Although some conventions still should be
23 followed, other cumbersome requirements such as quality paper, copies, postage, communication
24 with editors, and unrealistic deadlines for the resubmission of articles can all now be avoided
25 through open online publishing using the Open Journal Systems. This system may be suitable
26 not only for South Africa and the African continent but for countries in Asia and Latin America
27 as well, where scholars have had similar constraints.

28 More importantly, publishing through an open system like the Open Journal Systems
29 would perhaps enable a more reciprocal flow of knowledge between the center and the
30 periphery, allowing peripheral perspectives, especially when considering developing world
31 issues, to expand and enrich the narrow knowledge base of the center. This should not be done
32 merely with the hope of including peripheral research in the mainstream but rather to revisit the
33 notions of knowledge and knowledge ownership to confront what one participant referred to as
34 "knowledge imperialism."

35 Concerns about open access should be addressed. There should be little concern about
36 the quality of the research published through Open Journal Systems because the journals will be
37 peer reviewed. Also, free access through the Open Journal Systems can potentially expand the
38 public domain of research. For those who have access to technology, for example, practitioners
39 and policy makers, Open Journal Systems can be a readily available source of scholarly
40 information on which competent practice and good policy making may be based. The lack of
41 access to computers with Internet connections need not be a major shortcoming at this point
42 because we are seeking to increase access for those who have a growing ability to tap into
43 technology but cannot afford the prohibitive costs associated with current print and e-journal
44 access.

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1 TABLE 31.1. Serial Holdings

University	HBU	HWU-A	HWU-E
Print Journal subscriptions. 2002	462 (45.6% decrease)	1057 (32.2% decrease)	1300
1997	850	1559	1300 (approx)*
Electronic database Subscriptions 2002	14	13	21

2
 3 *This university could not provide accurate figures of print subscriptions over the five year
 4 period.

1
2
3

TABLE 31.2. Library Computers with Internet Connections

University	HBU	HWU-A	HWU-E
Computers with Internet connections, 2002	73	94	102
Student use	0	8	49 (including public)
Faculty use	0	0	nil

4

1

2 TABLE 31.3. Advantages and Concerns Expressed about Open Access

Advantages	Concerns
Greater access to journals and research information.	Quality and standards may drop.
More sources of information.	Peer-review systems are essential for online publishing.
Access to most recently published articles.	Issues relating to copyright and intellectual property rights may be problematic.
Home access to scholarly information.	Plagiarism.
Enables students to search and retrieve information by themselves without the help of librarians.	Open access may reduce credibility of journals.
Provides students with more choices.	Some scholars feel it is “beneath” them to publish online.
Inspires users to conduct more research.	Can only benefit a few with access to technology. Access to technology is still limited in South Africa, especially at HBUs.
Time and energy saving.	Speed of access still problematic where technology is inadequate.
Timely access as opposed to time-consuming interlibrary loans.	Lack of information literacy skills. Low capacity to use technology.
High cost of subscriptions will be a thing of the past.	Management and security of technological facilities and equipment is a problem.
Will help with problem of declining library subsidies.	Information overload. Need information management training on how to critically evaluate information.
Reduce the costs of publishing.	Universities receive funds for articles published in rated journals. Open access journals would have to be rated.
Reduces need to use personal funds for articles.	

3