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Methods used by South African visual artists to find information

Carol van Zijl
Gold Fields Library
Vaal Triangle Technikon
Elizabeth M. Gericke
Dept of Information Science
University of South Africa

Abstract

As part of a Master's dissertation at the University of South Africa, the information-seeking behaviour of South African visual artists was examined. The research method used was a self-administered, cross-sectional survey carried out amongst artists lecturing at universities and technikons as well as secondary school art teachers and members of art societies in South Africa. These were deemed by the researcher to be the more information-literate artists. It was found that artists use a wide array of information-seeking methods, but that preference is given to conducting their own searches, browsing, and getting help from a librarian or a colleague. The independent variables of gender, working affiliation, qualifications, age and lecturing field influence the way in which the respondents go about finding information.

I RESEARCH PROBLEM

Visual artists as information users have been neglected by researchers in South Africa, although their information behaviour appears to differ somewhat from that of other information users. The researcher wanted to discover how artists choose to look for their information in order to try to improve information services provided for them. The main problem

addressed here is how South African visual artists go about finding the information they require. The researcher also tried to discover whether certain variables influence the way in which artists look for their information.

2 RESEARCH DESIGN

The researcher carried out a cross-sectional survey as the empirical part of her Master's studies at the University of South Africa. The instrument used was a self-administered questionnaire.

The research population is the more information-literate visual artists in South Africa and the sampling frame includes lecturers in all branches of the visual arts in universities and technikons, art teachers in South African secondary schools and members of art societies. Questionnaires were distributed to all art lecturers whose names had been forwarded to the researcher, all registered members of an art society known as the South African National Association for the Visual Arts (SANAVA) and to a randomly selected sample of secondary school art teachers.

Out of the 286 questionnaires distributed, 123 were finally returned. The response rate was thus 43%.

Although the researcher had hoped for a better response rate, the number of questionnaires returned cover most categories of visual artists, and there are enough respondents to allow for a comparative, in-depth study.

3 WAYS IN WHICH ARTISTS LOOK FOR INFORMATION

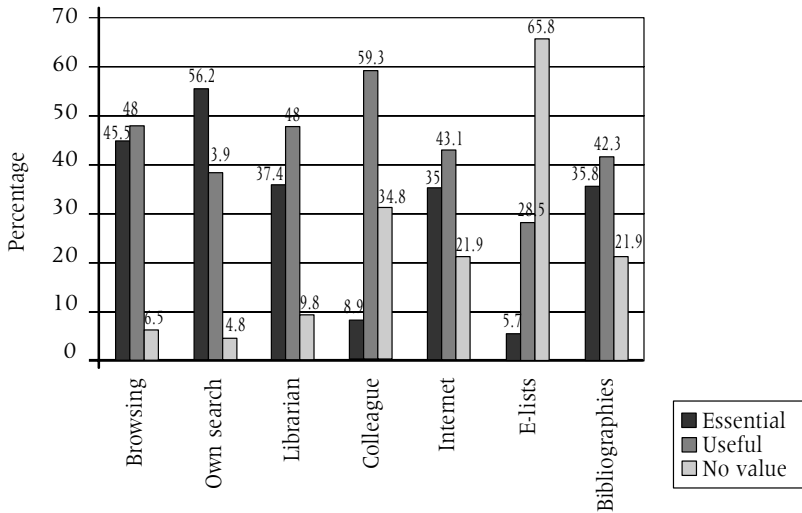
In the questionnaire, respondents were asked to indicate how useful certain methods of finding information were to them personally. Figure 1 shows the relative value of some information-seeking methods amongst South African visual artists.

3.1 Conducting own search on OPAC or databases

The information-seeking method that is essential to the most artists is 'personally searching in the library's catalogue or other databases'. In this category, 69 of the 123 (56,2%) respondents indicated that this was an essential way of finding information and 39 indicated that it was useful.

FIGURE 1

Information-seeking methods of artists



Very few respondents (six) indicated that they considered this search method to be of little or no use. Overall, 117 respondents (95,1%) consider conducting their own searches using catalogues or databases to be useful or essential. This finding supports those of several other researchers who have found that humanists or artists prefer to work on their own to find information (Stone 1982:294; Budd 1989:9; Watson-Boone 1994:212; Van Zijl & Gericke 1998:30).

As can be seen in Table 1, lecturers at tertiary educational institutions are the most likely to consider conducting their own searches on OPAC's and databases to be essential ways of finding information. This study revealed that 67,7% of the university lecturers and 60,6% of the lecturers in technikons believe that this is essential to them. In contrast, only 38,1% of the secondary school art teachers and none of the members of SANAVA gave this response. When the 'useful' responses are added to the 'essential' ones, the picture changes somewhat and all the groups of artists then show a great interest in searching for their own information sources without intermediaries.

TABLE 1

Affiliation of artists and conducting own search on OPAC

			Affiliation of respondent				
			University lecturer	Technikon lecturer	High School teacher	Member of SANAVA	Total
Conducting own search on OPAC or database	Essential	Count % within Affiliation of respondent	21 67,7%	40 60,6%	8 38,1%		69 56,1%
	Useful	Count % within Affiliation of respondent	9 29,0%	25 37,9%	10 47,6%	4 80,0%	48 39,0%
	Little value	Count % within Affiliation of respondent		1 1,5%	1 4,8%		2 1,6%
	Irrelevant	Count % within Affiliation of respondent	1 3,2%		1 4,8%	1 20,0%	3 2,4%
	No data	Count % within Affiliation of respondent			1 4,8%		1 ,8%
Total	Count % within Affiliation of respondent	31 100,0%	66 100,0%	21 100,0%	5 100,0%	123 100,0%	

Due to the high percentage of respondents who find that it is useful or essential to look for their own information on databases or OPAC's, correlations with other independent variables did not reveal any other significant trends.

3.2 Browsing

The second most valuable method of locating information is browsing through the shelves in libraries or information services. Fifty-six of the respondents (45,5%) indicated that this method is essential to them, and another 59 (48%) find this method useful. When these two categories are combined, it means that 115 (93,5%) of the respondents consider that it is either essential or useful to browse. This is only marginally lower than the

interest shown in conducting their own searches on OPAC's or databases. This finding again supports previous research in this field. Pacey (1982:36), Stone (1982:295), Case (1986:99) and Budd (1989:9) all found that browsing is an essential means of finding information amongst artists or humanists. In the studies conducted by Broadbent (1986:26) and by Van Zijl and Gericke (1998:30), however, this method of information retrieval proved less popular. It must be said that the latter researchers found that browsing was used by respondents in their studies and was found important to a large number of respondents. Van Zijl and Gericke's (1998) survey population consisted of the lecturers at one tertiary educational institution. It is possible that other services offered at that institution obviate to some extent the need to browse in order to find information. The convincing preference for browsing amongst respondents in this present study is irrefutable, however. It seems that browsing is extremely important to South African artists as a means of finding information.

3.2.1 Gender and browsing

It was found that female artists constitute the group that is more interested in browsing through material. This finding supports that of Van Zijl and Gericke (1998:30). Out of the 66 male respondents, 28 (42,9%) believe that this is an essential information-seeking method, as did 28 of the 57 (49,1%) female respondents. Out of the male group, four found that this method was irrelevant whilst only one of the female respondents gave this answer.

3.2.2 Lecturing field and browsing

Table 2 reveals that the lecturing field of artists influences the degree of interest they show in browsing as a means of finding information. At times, the researcher differentiates between the fine arts and applied arts. Applied arts could be defined in this study as those forms of art for which one needs specific equipment such as cameras, printing presses or computers in order to practise one's craft. These arts include such art forms as photography, graphic design and printing.

The art historians (60%), graphic designers (73,3%) and textile designers (71,4%) show the greatest interest in browsing as a means of finding information. Graphic and textile designers often need examples of the creative work of others, and this might explain their reliance on browsing as a means of finding information.

The photography lecturers show little interest in this means of finding

TABLE 2
Lecturing field and browsing

			Lecturing fields									
			Unknown	History of art/Art theory	Graphic design	Photography	Textile design	Jewelry design	Fine arts	Other design	Teacher	Total
Browse through shelves	Essential	Count % within Lecturing fields	1 14.3%	9 60.0%	11 73.3%	3 25.0%	5 71.4%	1 33.3%	21 43.8%	2 33.3%	3 30.0%	56 45.5%
	Useful	Count % within Lecturing fields	6 85.7%	6 40.0%	4 26.7%	8 66.7%	2 28.6%	2 66.7%	21 43.8%	4 66.7%	6 60.0%	59 48.0%
	Little value	Count % within Lecturing fields				1 8.3%			4 8.3%		1 10.0%	6 4.9%
	Irrelevant	Count % within Lecturing fields							1 2.1%			1 .8%
	No data	Count % within Lecturing fields							1 2.1%			1 .8%
Total		Count % within Lecturing fields	7 100.0%	15 100.0%	15 100.0%	12 100.0%	7 100.0%	3 100.0%	48 100.0%	6 100.0%	10 100.0%	123 100.0%

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information as only 25% find browsing essential. This branch of art is more scientific than other branches and it is feasible that photographers seldom search for information without having any clear goal. It is thus understandable that these applied artists do not rely heavily on browsing. Those whose field of interest is unknown to the researcher also show little interest in browsing – only 14,3% consider it essential. Jewelry designers (33,3%) and those who lecture in the fine arts (47,6%) are also not very interested in browsing.

3.2.3 Qualifications and browsing

It is interesting to observe that the group that has the highest incidence of considering browsing to be essential, is the postgraduate group. In this group, 53,8% (35 out of 65) believe that it is essential to browse for information. The second highest incidence appears in the group with technikon qualifications up to B.Tech. level. In this group, 48,3% (14 out of 29) believe that browsing is essential. Only a third of the artists with B.A. degrees shared this view. The artists with postgraduate qualifications have wide-ranging interests which could possibly explain their desire to browse through material for information.

3.2.4 Home language or ethnic group and browsing

Although there is not much difference between the interest shown by the English-speaking and Afrikaans-speaking artists regarding their interest in browsing, the Afrikaans group shows slightly more inclination to browse through shelves in their information-seeking activities, as can be seen in Table 3.

What is significant, however, is that the Black and Asian artists are not as likely to browse for information as are their Caucasian counterparts. None of the Asian artists find browsing for material essential, and only 25% of the Black respondents find this method of seeking information essential. This is very much lower than the proportion of Caucasian artists who trust this as a means of finding information. It would seem that these groups of artists prefer to look for a particular information source, instead of browsing with the hope of coming across something interesting.

TABLE 3

Home language or ethnic group and browsing

			Home language					Total
			English	Afrikaans	Other language (European)	Black	Asian	
Browse through shelves	Essential	Count % within Home language	34 45.9%	17 50.0%	3 75.0%	2 25.0%		56 45.5%
	Useful	Count % within Home language	35 47.3%	16 47.1%	1 25.0%	5 62.5%	2 66.7%	59 48.0%
	Little value	Count % within Home language	3 4.1%	1 2.9%		1 12.5%	1 33.3%	6 4.9%
	Irrelevant	Count % within Home language	1 1.4%					1 .8%
	No data	Count % within Home language	1 1.4%					1 .8%
Total	Count % within Home language	74 100.0%	34 100.0%	4 100.0%	8 100.0%	3 100.0%	123 100.0%	

3.3 Asking a librarian for assistance

Next in importance to artists as an information-seeking method, is asking a librarian for assistance. Out of 123 respondents, 46 (37,4%) consider this to be essential and 59 (48%) find that this is useful. In total, 85,4% considers that it is useful or essential to ask a librarian for help in finding information. It was found in this study that academic libraries are the most important information channels to South African artists. When one juxtaposes this finding with the fact that 85,4% of respondents find it useful or essential to ask librarians for help in finding information, it can be seen that artists rely heavily on academic libraries and the librarians working in these institutions when looking for information. Wiberley and Jones

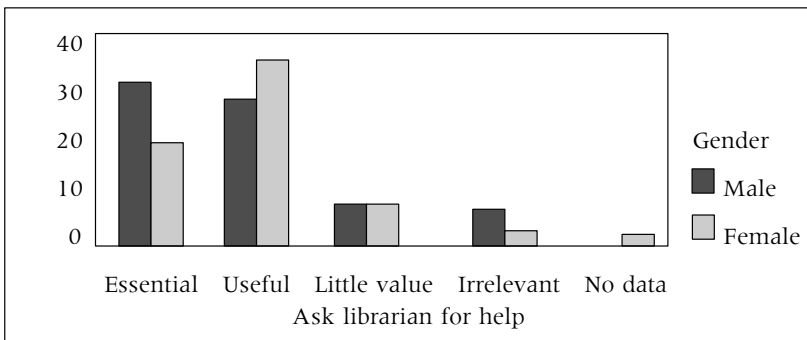
(1989:640), on the other hand, found that the humanists in their study used the services of librarians very grudgingly. Van Zijl and Gericke's (1998:30) survey, which was carried out in South Africa, concurs with the findings of this study, however. Artists in South Africa clearly use librarians when they need information.

3.3.1 Gender and asking a librarian for assistance

As found by Van Zijl and Gericke (1998:30) male artists are more inclined to ask librarians for help than are female artists. In this study, it was found that whilst 45,5% of the male artists believe that asking a librarian for assistance is essential, only 28,1% of the female respondents gave this answer. As seen in Figure 2, although more females (57,9%) than males (39,4%) indicated that this is a useful means of finding information, it is still clear that males are more likely to ask a librarian for assistance.

FIGURE 2

Gender and asking a librarian for assistance



3.3.2 Age and asking a librarian for assistance

The data reveals that older artists are more likely to ask for assistance. Amongst the artists who are younger than 30 years, only 18,2% (two out of 11) believe that asking a librarian for assistance is essential. Out of the 32 artists in the 30–49 group, 31,3% (10 respondents) thought this was an essential information-seeking method. In contrast to this, 44,4% (20 out of 45) of the 40–49 group and 40% (14 out of 35) of the 50 and above group consider it essential to elicit the help of a librarian. The older artists show a higher interest in asking librarians for assistance, although it is not statistically significant ($\chi^2 = 1,376, df = 2, p > 0,05$). It is possible that over the years, artists have discovered the value of librarians as a means of

finding information. Alternately, age has taught them that asking for assistance is an acceptable alternative to conducting their own literature searches.

3.3.3 Affiliation and asking a librarian for assistance

Table 4 reveals that lecturers at higher educational institutions are the most likely artists to ask a librarian for assistance. It was found that 35,5% of the university lecturers and 42,4% of the technikon lecturers consider this to be essential.

TABLE 4
Affiliation and asking a librarian for assistance

		Affiliation of respondent					
		University lecturer	Technikon lecturer	High School teacher	Member of SANAVA	Total	
Ask librarian for help	Essential	Count % within Affiliation of respondent	11 35.5%	28 42.4%	6 28.6%	1 20.0%	46 37.4%
	Useful	Count % within Affiliation of respondent	16 51.6%	31 47.0%	10 47.6%	2 40.0%	59 48.0%
	Little value	Count % within Affiliation of respondent	1 3.2%	7 10.6%	4 19.0%		12 9.8%
	Irrelevant	Count % within Affiliation of respondent	3 9.7%			2 40.0%	5 4.1%
	No data	Count % within Affiliation of respondent			1 4.8%		1 .8%
Total	Count % within Affiliation of respondent	31 100.0%	66 100.0%	21 100.0%	5 100.0%	123 100.0%	

In contrast, only 28,6% of the high school art teachers consider this essential and 20% of the members of SANAVA find the help of librarians essential.

This confirms the previous finding that the assistance of academic librarians is essential to artists in South Africa. It appears that users of academic libraries have found that librarians at these libraries are valuable allies in their information-seeking activities.

3.3.4 Qualifications and asking a librarian for assistance

Out of the 29 artists who have technikon qualifications, 13 (44,8%) consider it essential that they ask a librarian for assistance, making them the most likely to use this means of finding information. All other groups show less interest in asking a librarian for help. Amongst those with BA qualifications, 33,3% said that it was essential to elicit the help of librarians and of those with postgraduate qualifications, 36,9% made this claim. Amongst those with teaching qualifications, 33,3% indicated that this was an essential means of finding information. Several of the respondents who lecture at technikons commented that they are very satisfied with their library services. This correlates with this finding that artists with technikon qualifications are the most likely to ask their librarians for help.

None of the other independent variables had any decisive effect on the amount of interest shown in asking for the assistance of a librarian.

3.4 Following up citations in bibliographies

Following up the citations found in the bibliographies of relevant articles or books was found to be essential to 44 (35,8%) of the respondents and useful to 54 (42,3%), making it a very popular means of finding information. In total, 79,6% of respondents consider this method essential or useful. Broadbent (1986:27) and Wiberley and Jones (1989:638) found that this method of seeking information is the primary one amongst humanists. Brilliant (1988:126) explains this process of information-seeking very succinctly as follows:

Every scholar begins research with known bibliographical sources and moves from known sources to the unknown through the references, the footnotes, and the bibliography provided by the source.

South African artists might give this method of looking for information a slightly lower priority than their overseas counterparts do, but it is still a very important means of finding information.

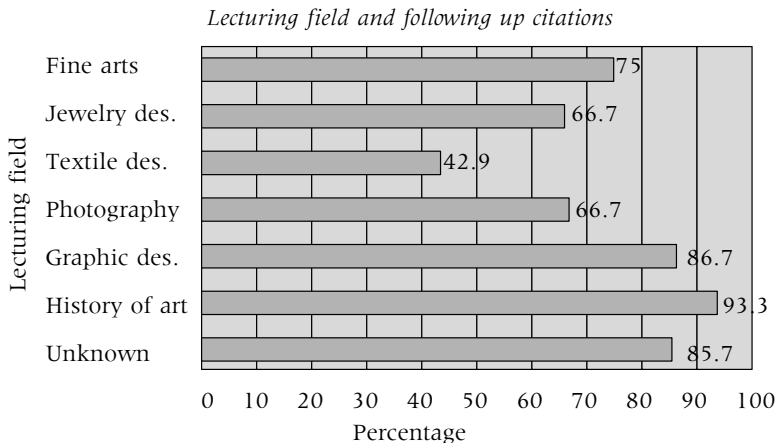
3.4.1 Affiliation and following up citations in bibliographies

In a cross-tabulation with the affiliation of artists, the group that shows the greatest interest in finding information through following up citations given in bibliographies of books or articles is that comprising the university lecturers. In this group 27 of the 31 respondents (87,1%) consider this method of finding information either essential or useful. Eighty percent of the members of SANAVA also indicated that this method was either essential or useful to them. This is significantly higher than the interest shown by technician lecturers and school teachers. In the former group only 51 of the 66 respondents (66,7%) gave these answers as did 14 of the 21 art teachers (66,7%).

3.4.2 Lecturing field and following up citations in bibliographies

The data show that artists who are involved with the more theoretical and historical aspects of art are more inclined to follow up citations as a means of finding information than are those lecturing in the applied arts. This can be seen in Figure 3.

FIGURE 3



Amongst the art historians, 93,3% believe that it is either essential or useful to follow up citations in bibliographies. This is the largest group of lecturers in the survey. Other groups that show a particular interest in this means of finding information are the graphic designers (86,7%) and those whose lecturing field or particular field of interest is unknown (85,7%). Those who lecture in the fine arts including ceramics and sculpture show only a 75%

interest in this method of finding information. The photographers and textile and jewelry designers show a significantly lower interest in using this as a means of finding information. The kind of information used by art historians is centred on formal print information sources such as books and journals. It is to be expected that they will consider lists of sources to be valuable sources of information.

The applied artists on the other hand have expressed a greater interest in trade-orientated information. Lists of sources are not nearly as important to these subject fields, as is shown in the data relating to this section.

3.5 Conducting own searches on the Internet

Using the Internet to find information is only minimally less important to artists than the previous method. It was found that 43 (35%) of the respondents consider this essential as an information-seeking method and 53 (43,1%) find it useful – in total 78% find it either essential or useful. It was found in another section of the survey, that 53 of the respondents (43,1%) either do not have access to the Internet in their offices or libraries or do not know if such a service is available. This factor is relevant to the finding that the Internet is only the fifth most important means of finding information. Out of the remaining respondents who do have access to the Internet, the amount of use made of this method of finding information is very high. This would suggest that it is not so much the value of the Internet that is in question here, but the lack of access to this network.

Van Zijl and Gericke (1998:30) also found that artists hold the Internet in high esteem. Gill and Grout (1997:20), however, found that artists showed a certain resistance to using this medium because of the difficulty in finding the information they need on the Internet. These researchers found that only 35% of the teachers, students, researchers, museum curators and visual arts practitioners in their sample use the Internet regularly to find information.

3.5.1 Age and conducting own searches on the Internet

The under 30 years group of respondents showed the highest incidence of considering it essential to conduct their own searches for information on the Internet. This is probably because this generation of artists has had more exposure to computer technology during their youth than the older group of artists did. There appears to be a higher degree of computer literacy amongst this younger group of artists. In the under 30 group, 54,5% indicated that

conducting their own searches on the Internet is an essential means of finding information. This is considerably higher than the responses given by the other age groups. The group showing the second highest incidence of considering this an essential means of finding information is the 40–49 years group. In this group, 46,7% gave this response. These two groups scored significantly higher on this variable than the other age groups, as can be seen in Table 5. In order to apply the χ^2 test, the two strongest categories, namely the under 30 group and the 40–49 group were taken as one category. The χ^2 test proved to be significant at $p < 0.05$ ($\chi^2 = 7,253$, $df = 2$).

TABLE 5
Age and searching the Internet

			Age group				
			Below 30 years	30–39 years	40–49 years	50 years and above	Total
Own search on Internet	Essential	Count % within Age group	6 54.5%	7 21.9%	21 46.7%	9 25.7%	43 35.0%
	Useful	Count % within Age group	2 18.2%	19 59.4%	16 35.6%	16 45.7%	53 43.1%
	Little value	Count % within Age group	3 27.3%	3 9.4%	6 13.3%	4 11.4%	16 13.0%
	Irrelevant	Count % within Age group		2 6.3%	2 4.4%	6 17.1%	10 8.1%
	No data	Count % within Age group		1 3.1%			1 .8%
Total	Count % within Age group	11 100.0%	32 100.0%	45 100.0%	35 100.0%	123 100.0%	

3.5.2 Affiliation and conducting own searches on the Internet

Lecturers at tertiary educational institutions are the greatest proponents of conducting their own searches on the Internet as an information-seeking method. Thirteen of the 31 university lecturers (41,9%) and 26 of the 66 technikon lecturers (39,4%) believe that searching on the Internet is essential to them. In contrast, three of the 21 art teachers (14,3%) and one of the five members of SANAVA (20%) share this view.

3.6 Asking a friend or colleague for help

Although not many respondents consider that asking a friend or colleague for help is an essential way of acquiring information (only 11 respondents (8,9%) gave this response), a large number (73 or 59,3%) find it useful. This was by far the largest number of 'useful' responses given in this section of the questionnaire. In total, therefore, 68,3% of the artists in the study indicated that asking a friend or colleague is a useful or essential means of getting the information they require.

The so-called 'invisible college' is often given great status in the information-seeking behaviour of humanists and artists. In the project carried out by Wiberley and Jones (1989:638), for example, it was found that communication with colleagues was the second most used means of acquiring information amongst humanists. Cronin (1982:232) also found that the invisible college was a pivotal feature of scholarly communication. Although this study does not place the invisible college very high in the choice of information-seeking methods amongst South African artists, this is still a very important factor and should be taken into account as a valuable means of finding information.

3.6.1 Gender and asking a friend or colleague for help

Due to the high incidence of 'useful' responses relating to this variable, unless otherwise stated, the 'essential' and 'useful' values will be combined into a single 'useful' category for the rest of the discussion about asking a friend or colleague for assistance.

Female artists are the more likely group to elicit the help of another artist or friend in their information-seeking behaviour. Of the 57 female respondents, 41 (71,9%) found this a useful method of finding information as compared to 43 of the 66 (65,2%) of the male respondents.

3.6.2 Affiliation and asking a friend or colleague for help

The data showed that the affiliation of the artists is related to the value placed on friends and colleagues in the information-seeking process as shown in Table 6.

The members of SANAVA do not rely heavily on friends and colleagues in their attempts to find information. In this group, only 40% find this useful.

Another group of artists who were proved to be less likely to consult friends and colleagues was that comprising the technikon lecturers. In this group, 66,7% indicated that it is useful to them to ask friends or colleagues for help.

The other two groups, namely the university lecturers (74,2%) and the secondary school art teachers (71,4%) value friends and colleagues very highly as a channel for finding information. The survey revealed that university lecturers are on average more highly qualified than technikon lecturers. It is thus possible that university lecturers have easier access to a more erudite invisible college than do the technikon lecturers. This might explain the high incidence of consulting friends and colleagues for information found amongst university lecturers. The value placed by teachers on friends and colleagues is very interesting. Perchance these artists consult friends and colleagues because they do not have such ready access to the information sources available at academic libraries and thus find it easier to consult the invisible college. This is not clear, but the fact remains that teachers make extensive use of friends and colleagues in their information-seeking patterns.

TABLE 6

Affiliation of respondents and asking a friend or colleague for help

		Affiliation of respondent					
		University lecturer	Technikon lecturer	High School teacher	Member of SANAVA	Total	
Ask friend or colleague	Essential	Count % within Affiliation of respondent	2 6.5%	6 9.1%	3 14.3%		11 8.9%
	Useful	Count % within Affiliation of respondent	21 67.7%	38 57.6%	12 57.1%	2 40.0%	73 59.3%
	Little value	Count % within Affiliation of respondent	5 16.1%	15 22.7%	2 9.5%	3 60.0%	25 20.3%
	Irrelevant	Count % within Affiliation of respondent	3 9.7%	7 10.6%	3 14.3%		13 10.6%
	No data	Count % within Affiliation of respondent			1 4.8%		1 .8%
Total	Count % within Affiliation of respondent	31 100.0%	66 100.0%	21 100.0%	5 100.0%	123 100.0%	

It is also interesting to note in Table 6 the high proportion of members of SANAVA and technikon lecturers who find friends and colleagues of little value in their information-seeking efforts.

3.6.3 Qualifications and asking a friend or colleague for help

Artists with technikon qualifications, who are employed mainly at technikons, are the least likely to consult friends and colleagues for information. In this group only 17 of the 29 (58,6%) find this a useful means of finding information. This is significantly lower than the proportion of the other groups. Twenty of the 27 (74,1%) artists with BA degrees, 45 of the 65 (69,2%) with postgraduate qualifications and 13 of the 18 (72,2%) with teaching qualifications indicated that they find it useful to consult friends and colleagues for information.

3.6.4 Lecturing field or field of interest and asking a friend or colleague for help

There was a close correlation between the amount of interest shown in asking friends or colleagues for help by artists who lectured in, and who had an interest in, certain fields of art.

It was found that graphic designers and photographers are the least likely groups of artists to ask friends and colleagues for help when they need information. Out of the graphic design lecturers, 60% (nine out of 15) found this a useful way of finding information and out of the photography lecturers, 58,3% (seven out of 12) share this view. All other groups showed an interest of 66,7% and higher. The only group amongst the lecturers who showed a considerably higher interest in asking friends and colleagues for help was that including the history of art lecturers. In the latter group 80% (12 out of 15) indicated that this is useful to them.

When one uses the fields of interest of artists as the independent variable, the graphic designers again demonstrate the least interest in asking friends and colleagues for information. Here, only 57,7% (15 out of 26) indicated that this was useful. All other groups show an interest of between 64,9% and 70,5%.

3.7 Using electronic lists and bulletin boards

The use of electronic communication channels as a means of finding information shows again that this method is not held in high esteem by South African artists. As 33,3% of respondents do not have access to e-mail

facilities in their offices or libraries, this lack of interest can be more clearly understood. Without access to the Internet and e-mail connections, electronic lists and bulletin boards would have no significance or use for artists. Out of the sample of 123 artists, only seven (5,7%) believe that these are essential means of gaining information and 35 (28,5%) indicated that they are useful. This was also the only dependent variable in this section in which a large proportion of respondents (50 or 40,6%) indicated that this method was 'irrelevant' to them. Comments made by respondents in the questionnaires also indicate that respondents are rather indifferent to electronic communication channels. This duplicates the findings of Van Zijl and Gericke (1998:27) who found little enthusiasm for electronic lists and e-mail facilities amongst artists in their sample.

It is possible that the problem with using these communication channels as a means of finding information is limited not so much by their inherent deficiencies, but by lack of access.

3.7.1 Gender and use of electronic lists and bulletin boards

Male artists are considerably more interested in using electronic lists and bulletin boards to find information, as can be seen in Table 7.

TABLE 7
Gender and use of Internet lists and bulletin boards

		Gender			
		Male	Female	Total	
E-Lists or Bulletin Boards	Essential	Count % within Gender	5 7.6%	2 3.5%	7 5.7%
	Useful	Count % within Gender	22 33.3%	13 22.8%	35 28.5%
	Little value	Count % within Gender	17 25.8%	14 24.6%	31 25.2%
	Irrelevant	Count % within Gender	22 33.3%	27 47.4%	49 39.8%
	No data	Count % within Gender		1 1.8%	1 .8%
Total	Count % within Gender	66 100.0%	57 100.0%	123 100.0%	

As can be seen, the proportion of male artists who find lists and bulletin boards both useful and essential is higher than that of female artists. In the

former group 7,6% indicated that this is essential and 33,3% that it is useful as compared to 3,5% of the female artists considering this essential and 22,8% considering it useful. There is also a higher proportion of female respondents who consider these to be irrelevant. This finding is only marginally less than statistically significant at $p < 0.01$ ($\chi^2 = 2,327$, $df = 1$).

3.7.2 Age and use of electronic lists and bulletin boards

An interesting fact came to light when the age of artists was correlated with the interest shown in lists and bulletin boards as seen in Table 8.

TABLE 8
Age and use of Internet lists and bulletin boards

			Age group				
			Below 30 years	30–39 years	40–49 years	50 years and above	Total
E-lists or Bulletin Boards	Essential	Count % within Age group		4 12.5%	3 6.7%		7 5.7%
	Useful	Count % within Age group	2 18.2%	5 15.6%	14 31.1%	14 40.0%	35 28.5%
	Little value	Count % within Age group	4 36.4%	9 28.1%	13 28.9%	5 14.3%	31 25.2%
	Irrelevant	Count % within Age group	5 45.5%	13 40.6%	15 33.3%	16 45.7%	49 39.8%
	No data	Count % within Age group		1 3.1%			1 .8%
Total	Count % within Age group	11 100.0%	32 100.0%	45 100.0%	35 100.0%	123 100.0%	

It is the older artists who make the greatest use of these methods of finding information. Only 18,2% of the under 30 years group consider these to be useful and 28,1% of the 30–39 years group feel this way. In contrast, 37,8% of the 40–49 years group indicated that it is useful to use electronic lists and bulletin boards to find information, as did 40% of the above 50 years group. This is difficult to explain because the number of ‘irrelevant’ responses does

not differ greatly from group to group, meaning that the groups have approximately the same amount of access to the Internet.

3.7.3 Affiliation and use of electronic lists and bulletin boards

The groups most likely to use electronic lists and bulletin boards were the university lecturers (35,5% find them useful) and the technikon lecturers (39,4% find these useful). None of the members of SANAVA share this view and only 23,8% of the secondary school art teachers find electronic lists and bulletin boards useful ways of finding information.

3.7.4 Qualifications and use of electronic lists and bulletin boards

The artists with technikon qualifications are the most likely to use electronic lists and bulletin boards. In this group of respondents, 41,4% finds these either essential or useful means of finding information. Then come those with postgraduate qualifications. In this group, 35,4% finds lists and bulletin boards either essential or useful. Artists with Bachelor's degrees come next with 29,6% indicating that these are essential or useful, as did 22,2% of the secondary school art teachers.

3.8 Other methods used by artists for finding information

Respondents were also asked to indicate any other methods they use for finding information. This brought to light that 3 of the respondents contact either art museums or even the artists under investigation themselves to get the information they need. One respondent indicated that it is useful to listen to recorded media in some cases. Consulting the local and foreign press for information is valuable to one of the respondents. Interestingly enough, the latter respondent was a photographer. Consulting trade representatives was found to be useful to one of the photography lecturers in the survey as was visiting factories to one of the textile designers.

4 CONCLUSION AND RECOMMENDATIONS

In order of decreasing popularity, South African artists use mainly the following methods for finding information: conducting own searches on library catalogues or databases, browsing, asking a librarian for help, following up citations, searching on the Internet and asking a friend or colleague for assistance.

Because artists prefer to search for their own information, it would be wise

to ensure that they are trained in the use of all the relevant information retrieval tools available to them. Only in this way can one be assured that visual artists will derive the maximum benefit from the tools that have been developed to enable them to find information.

It became clear in comments made by visual artists in the questionnaires that many of the respondents were not aware of services, databases and other tools which were, in fact, offered at their libraries or information services. By actively encouraging contact with artists through arranging training and information sessions, art librarians will not only help artists to be more effective in their information-seeking endeavours, but they will also open the way to closer interaction with the users. Once contact has been made, the 'threshold anxiety' experienced by some artists will be eliminated, and they will feel more free to approach the art librarians, whose assistance is clearly valued by those who have been audacious enough to seek help in the past.

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New technologies

Michel Serres

I INTRODUCTION

Our body listens, cries out and remembers. Bacteria, algae, fungi, plants and animals also signal their presence and perceive their environments in their own ways. No organism could survive without both an exchange of energy and information. Communication characterises life as an open system: cells communicate with each other in bodies as bodies do within their ecological niche.

We humans add to this purely physiological or physical activity a whole panoply of artefacts intended to relay our body in its communication. This arsenal of signals and messages has varied throughout history. Recently, electronic technology drastically changed the tools we use to receive, sort, store and forward information. This recent change impacts on Time, Space and Men.

2 TIME AND HISTORY

We have known at least two transformations of similar magnitude to the current one over the course of history: the advent of writing and the invention of the printing press. Along the Fertile Crescent the first led to the establishment of cities and the organisation of great states through words carved in stone, bronze or on wax tablets and written laws such as the Hammurabian code and Mosaic law. Writing also contributed to the acceleration and flexibility of commercial trade through the production of currencies as well as engendered rapid development in science and education in Ancient Greece and monotheistic religions that we may define as 'writing cults'. In fact, today we separate the story of human experience into two distinct periods: the first is pre-history and the second – beginning with the appearance of written texts – is history. The great political, religious, economic and scientific institutions that we know today were born of the tools used to relay information. These tools did not so much change themselves over the course of time as they prompted change since writing gave birth to history.

The printing press and mass printing arrived with the Renaissance. Italian banks were able to replace coins with bills of exchange, thus transforming commerce around the Mediterranean and giving birth to capitalism. The circulation of books reinforced the idea of individual freedom – as advocated by the Protestant Reformation – and led to Democracy and civil rights. The accumulation of books in libraries depreciated the value of handwritten documentation and, by reducing the importance of memory as a means of recollection, meant that an observer could be confronted with hard facts, a possibility that generated a proliferation of experiments in mechanics and physics. It was thus that printed materials gave birth to modern science. Montaigne, Erasmus and Rabelais all decanted original educational concepts from such novelty. These two transformations, writing and mass printing, produced similar effects.

2.1 The great difference between software and hardware

Thanks to its flexibility, speed and growth potential, the new information medium used for storing information – ‘soft’ware – a non-entropic technology, appears to more strongly influence individual behaviour and social organisation than so-called ‘hard’ware, defined as entropy-producing techniques such as illustrated in the machinery of the Industrial Revolution. If mechanics and thermodynamics provide us with a precise understanding of the laws, energy and efficiency of hardware, we remain in the dark about the rules governing software which is so distinct in its application and order of magnitude. Software suggests a collection of artefacts that manipulate signs or *logos* as opposed to hardware for which the field of energy differs from the first by a factor of 10 to the 16th power.

Here is another example. Over the last few decades the delicate hands of philosophers crafted writings which taught us of the decisive importance of non-writing techniques such as mining and manufacturing. These idealistic and transparent pages were not themselves considered as technologies. Nevertheless, the different ways of satisfying the vital need for accumulating and exchanging information generate change that, although less visible, has a more far reaching impact than changes that affect the higher energy techniques and processes.

My generation witnessed the decline into obsolescence of steel, coal and blazing furnaces, the very tools with which my forefathers believed to be building Europe. The computer has had an opposite effect by multiplying the need for printers and in so doing furthering the age-old art of printing symbols. So, far from burying the old medium, the invention of a new one

has resuscitated and propagated the old. The European Community would have been better built on education!

If our revised view of the past has meaning, and the new technologies more strongly innovate than the previous ones, we must expect not only disruption but social rupture on a scale at least equivalent to the impact of writing and printing on the past. The economy is transforming right before our eyes through the Web which makes currency so liquid that the need for even a single accounting unit is surpassed. The computer is changing traditional scientific models. Urban and rural space is redefining itself, since global access makes concentrations of people obsolete and traditional belief systems are being challenged. Some people are looking for the creation of new laws since the Web and science are constantly illustrating areas where current law does not apply. Everyone is upset that politics is falling apart while we await the possibility of direct democracy with direct vote and without human representation. Finally, developed as well as developing societies are capable of distributing knowledge far afield for the benefit of the young generation who, predictably, take easily accessible information for granted and do not understand the older generations' resentment of this new form of exchange. We hear the echo of Socrates' refusal to write and consequent praise for the merits of oral transmission just as we see those nerdy professors at the Mediaeval Sorbonne unnerved by a hearty Rabelaisian laugh. History is repeating itself.

3 SPACE AND ADDRESS

We may sum up the 'old' world in a word: *concentration*. We have lived in a space dominated by concentration: families are housed in cities, households and professions are clustered in streets, neighbourhoods and districts. A business combines production with communication. Farms collect seed and mate animals. Banks, libraries and museums amass wealth, books and works of art. Campuses are made up of laboratories, dormitories and classrooms. An amphitheatre packs in students ... a book aligns thousands of words and the concept of circle paper clips an infinite number of loops ... It took me years to understand that comprehension itself, intellect, cognition and, simply, thought, all obeyed the rules of accumulation, intrinsically materialistic, energetic and informative, edible and vital, demographic, collective and social, practical and financial, political and philosophical, mnemonic and cognitive. The 'me' houses ideas, the ideas house a multitude of examples, books display millions of signs, libraries

amass thousands of books, cities contain libraries and finally, space incorporates cities, farms and paths. Accumulation precedes and conditions exchange.

Since the dawn of time people have lived within concentrations, be it of houses, villages or goods, and at a specific point called residence which is referred to as address. Constructing its form and living within it consolidate it and thinking enables us to reproduce it. Our species accumulates as an individual thinks; such is one and the same process. We continue to invent new concentrations whenever we can for we cannot survive without them; they condition the lives of individuals, communities, practices and theories.

Today computers bring this segment of humanisation to a head since they represent the ultimate tools for concentrating or accumulating. Why do we still need to physically collect books, wealth, students, houses and professions in one place? *The computer has always already done it.* The eternal problem of accumulation with which mankind has forever been preoccupied has not only found a real solution in the computer but a virtual one as well, since multiple electronic possibilities now exist for accumulating.

Computer networks outdate *the here and now* aspect of concentration. The speed of transmission and the availability of part of the connections make concentrations possible virtually everywhere. High speed transmission in today's computers replaces the information storing function of the old technologies. The set of available paths *is* the synthesis. Although we no longer accumulate and store tangible information we do accumulate and store relations. Exchange gives meaning to accumulation. Must we therefore re-think capitalism? I had some good laughs over the years that it took to build the new library of Paris on the banks of the Seine because it corresponded with the moment in time when its precise function – that of accumulation – was becoming outdated and useless. The pharaonic decision-makers who invested so much money in its four towers echoed the 17th century maharajahs who erected the latest most precise sundials available for celestial observation at the very moment that Galileo focused his telescope on Jupiter and discovered its moons. But how can you not forgive those Hindu princes for being behind the times since thousands of kilometres separated them from Renaissance Florence? On the other hand, at the time, the French government, evidently deaf, had access, like everyone, to the buzzing new form of world communication. A poorly advised President equipped Paris with its four sundials at a time when anybody, at any address, and at any hour of the day or night could connect to a single book! So why bother to pile them up?

Networks have replaced the importance of Concentration with *Distribution*. Since we can easily access all things or people from our laptop computer or mobile telephone, we have less of a need for concentration. Why do we still have amphitheatres, classes, meetings or colloquia in a physical place? Why, even, do businesses still maintain headquarters when courses and meetings may be conducted at a distance in real time? *Address*, the ultimate example, has throughout history been linked to one's residence or workplace. Today, a cell phone's telephone number and electronic address no longer designate a specific physical place; a code or number suffices no matter where we may be physically located in the world. Indeed, when all points in the world are equivalent, the *here and now* is compromised. When Heidegger – the most widely read philosopher in the world – refers to human existence as *being-there* he designates a way of living and of thinking that is becoming extinct. The theological notion of *ubiquity* – the divine capacity of omnipresence – better describes our possibilities than the funereal *here lies*.

3.1 Digression on the subject of address

Ever since that clever woman – the descendant of a hunter clad with animal skins – first cultivated a plot of barley, the agrarian couple set up home around an edible treasure. Similarly other animals never ventured far from their dog-house, nest, eyrie, den or shed.

For the first time in history the portable computer and mobile telephone have *liberated address from physical place*. I no longer telephone you at your home or office or in the middle of an alfalfa patch but rather wherever you may find yourself, be it at sea, atop the Matterhorn, in a train or plane, four steps from here or on the other side of the world. I do not know where you are and you do not know where I am. Only a number indicates to me the source, but not the place, of transmission: we converse code to code for arithmetic and cryptography now replace geography and topography. We are absent from a local place but present in a global space. Are we roaming or simply lost?

If address contains the semantics of correction, straightforwardness and meaning, the gradual fading of its physical aspects helps to lift the burden of rules. There are those who wish to regulate the Web for they fear losing all laws as well as place and destination. I believe it better to rethink space, residence, the here and now, collected objects and collective subjects, philosophy in general and cognition in particular.

4 COGNITIVE AND SOCIALISED MAN

4.1 The case of memory

Altering time and residence does not leave one unchanged. The act of accumulating – placing information on parchment, printing on paper or recording electronically – constitutes the construction of memory. As actors today recite their lines by heart our ancestors were able to do with large quantities of verse. Nowadays, most people no longer have this capacity. As we build more powerful memories, we tend to lose our own, the one that philosophers referred to as a faculty. But can we really say ‘lose’? Not quite, because little by little the body apports this faculty to the ever-evolving new forms of media making a once subjective faculty objective and collectivised. A stele, a roll of papyrus, a page of paper constitutes material memories that ease the burden of our own physical memory. This is the role of libraries and even more so of the Web, which represents global memory and the comprehensive encyclopaedia of humanity.

A few centuries ago, epic poets, Jesus’ apostles, Plato’s interlocutor, even a student at the Mediaeval Sorbonne was able orally to reproduce with great accuracy a master’s discourse heard many years before. The oral tradition was more reliable than the written mostly because of the liberties that a transcriber could take in reproduction of a text. Our predecessors cultivated their memories with the aid of a well-developed repertory of mnemonic devices. But this isn’t to say that the more we found ourselves taking notes or reading printed materials the more we began to *lose* the faculty of memory for this faculty was simply *redirected* into books and pages. In the same way that the wheel was directly inspired from our rotating ankles and kneecaps, the accumulation of information was guided by our ancient cognitive functions. We differentiate ourselves from the rest of animals – incapable of secreting inventions like ours – for we continue unceasingly to replicate our body’s functions in the products that our bodies themselves create. We are losing our memories because we are building so many others.

4.2 Loss or gain?

Throughout the ages many people have lamented the loss of memory’s oral expression, conceptualisation and many other things that their forbears considered precious. But let us consider the process of humanisation as the pre-historian Leroy-Gourhan described it.

As our early ancestors abandoned life on all-fours and assumed an upright

stance – an evolution which lasted for thousands of years – their forelimbs *lost* motor function. But their hands acquired new function: ‘to grasp’ suggests a non-specialised organ that dextrously and nimbly executes as a seaman knots, the surgeon operates, or the pianist plays. The hand became the body’s prestidigitator. As soon as our hands became prehensile – a necessary condition for comprehension – the muzzle, projected forward up until now so that the teeth could easily grasp, *lost* the need to grasp and began to recede. This in turn altered facial structure. As the skull began to reshape space was freed so that the brain could develop frontal lobes ... and the mouth began to speak.

Although our arms and hands no longer helped to carry our weight and our jaws lost the ability to seize these were small losses compared to the new functions that we gained for we were now able to make things with our hands, and converse using sophisticated language abilities. Another more positive way to consider these losses is to reason that our arms were freed from the burden of our weight, our mouths were relieved of the exhausting need to take, our hands became skilled and our brains began to think. Obsolescence became positive.

Similarly, the post-Homerian loss of memory relieved our cognitive functions from the burden of storing and recalling enormous quantities of verse. Geometry, the daughter of Writing, appeared to fill the void with its abstract simplicity. The perceived loss of memory continued into the Renaissance and thus relieved scholars from the obligation to document, enabling them to focus on pure observation – an activity which gave birth to the experimental sciences, the daughters of the printing press. In the final account, the benefits of these two new worlds – geometry and experimental science – far outweighed any perceived losses and helped us to better understand our own world. Knowing no longer consisted in remembering but in the ability to render memory objective by displacing it on objects, by transferring it from our bodies into artefacts, consequently freeing our head for discovery.

It took me a long time to understand what Rabelais meant when my teachers asked me to speak about his famous phrase, ‘Préférez une tête bien faite à une tête bien pleine,’ or, ‘It is better to be able to think well than to be full of a lot of superfluous information.’ Before being able to meditate upon the words in a book or commit it to their libraries, Montaigne and his erudite ancestors had to learn by heart the *Illiad* and Plutarch and the *Aeneid* and Tacitus, but when the author of the *Essais* referred to these works all that he remembered was where they were placed on his bookshelves: what a

savings! As a result, the Renaissance emptied the over-stuffed head and restructured it without worrying much about its content, useless now anyway since available in books. Relieved of the burden of memory reasoning could now be fuelled by global and social observation. In reality, Rabelais' famous sentence sings the praises of mass printing and its pedagogic benefits for humanity.

Like the failing memories of older people in their declining years, children do not even remember today what they saw on television last night. What grand new science will this new example of memory loss promote? The new forgetfulness has restructured recent knowledge in a way that makes it easy to consult or acquire on the Web. Under the effect of the liberation of the mind we no longer need to remember precisely, for the encyclopaedia has changed its model and now the information is globally distributed. Our minds are still freeing themselves from all remaining memories in order to make space for invention. So, here we stand, stark naked, in front of an awesome destiny: *free of all quotations and freed of the burden of footnotes, we are reduced to becoming intelligent!*

4.3 Man without faculties

This string of reasoning applies as well to cognitive functions. Calculators, the watery mosaic of pixels, and the thousands of different types of software freed in their own right just as many basic functions as well as imagination in part. Our old cognitive faculties which we believed to be personal and subjective have been socialised and made objective through the new technologies. We lose the former, we gain the latter. We must stop reasoning as if the psychology of faculties still exists. To parody Robert Musil, I willingly designate those who are born this morning as *men without faculties*.

This change in the mental process of understanding has occurred several times over the course of history, for example with the appearance of Geometry's abstract models or with experimentation in Physics and has always been associated with the advent of new media. Inseparable from the evolution of cognition, the history of philosophy and history itself is just as inseparable from the history of change in information media.

4.4 The torment of Saint Denis

After enraged soldiers cut off Denis' head and it fell to the ground, he bent over, decapitated, to pick it up. He then held it for a moment in his raised

arms. This incredible gesture made even his persecutors withdraw in horror. Such is the story of Denis, martyr and bishop of Paris, about 250 A.D., as recounted by tradition. One can view this scene in Paris' Panthéon as depicted in 1888 by the ceremonious painter Léon Bonnat.

Sometimes we pick flowers, or take a rock or a lump of earth with our hands for closer examination. These acts suggest that we see the objects first, then the body crouches down, followed by the arms that present the objects before our eyes. The head houses sight, hearing, smell, taste, the tongue that speaks and the mind that filters and decides. It is above all the supreme reference since it commands bending over, grasping and drawing to itself for a closer look the things that interest it. Philosophy calls this authority, the head that is judge, the subject. The thing lying on the ground that the fingers clasp is referred to as an object when the hand takes it and the subject understands. A simple exercise in perception and knowledge is marvellously transformed in Denis' story since the object that is picked up and presented to the court for observation is itself the judge – the head exactly 0 and yet, at the same time, an absent and detached authority. What higher power enables a severed Denis to find his head on the ground?

The object – not actually recognised as such by the horrified onlookers – suddenly raised up above the fascinated murderous gazes: yes, the victim's very head held between his hands, above his own acephalous cadaver, still remained a subject. But what other head, missing, is able to see this one without eyesight, smell it without sense of smell, hear its teeth chatter and pained sobbing without sense of hearing, judge it without a brain and proclaim it without a mouth? The phantom-head looks blindly at the real head, separated after decapitation. Do you see the empty subject *devoid of faculties*, the one that Bonnat painted in a halo of dazzling transparency facing the objectified cognition that is the severed head?

With whom or with what should you compare your workstation, your computer and its immense memory, its graphic screen, its computational speed, its lightning-fast archiving ... with which filled and thoughtful head, replete to the maximum and brilliantly crafted? With what transparent light should you then compare your own *empty head* in the face of these powers, materialised through glass, plastic, silicon and fibre optics? Bearers of empty and inventive heads on our shoulders, we are all Saint Denis because we everyday grasp and use that filled and thoughtful head that lies before us.

4.5 Education and developing countries

Among the most important information streams today is the transmission of tradition from one generation to the next, with its predictable alterations and its positive accent on history's contingency. Education has always changed at the same time as information media and so were born – each in their own time – the Greek *Paideia* and Renaissance education.

The investment required to build a university campus today with all of the pertinent buildings, libraries, amphitheatres, laboratories, restaurants and residences ... would outmatch by one hundred times the cost for the same distribution of education using the new technologies. Modest costs – with the same or improved quality of educational project – provide the chance for less privileged groups of people to access sources of knowledge. And what does the word university mean anyway if it doesn't call for universality?

This is why I have worked for more than ten years to promote on-line teaching, an educational consequence of the new way of thinking, in the hope that it will contribute to more equality in a still non-existent global democracy since this word – democracy – conceals the most implacable imperialism of all, through its production of energy and transmission of information.

Atlas of knowledges: in pursuit of the new knowledge

Fanie de Beer
Department of Information Science
University of South Africa

I INTRODUCTION

When Michel Serres (1989a:177) writes: 'Let the new knowledge come', it was almost like a prayer. It sounds like a great expectation on the one hand, and like a sigh of discontent with regard to its opposite, let us call it 'old knowledge', on the other hand. Is this really the case? Are we operating with old knowledge, inappropriate knowledge and inadequate knowledge? Is the hope for new knowledge a realistic hope, a futile exercise, or already a reality? Too many scientific discourses suggest the last option as really the case. What are the limitations of the old knowledge and the possibilities of the new knowledge? Under what theoretical and methodological conditions can we expect knowledge, old or new, to emerge? It is fairly clear that they require different conditions, different in terms of assumptions, methods, and mode of thinking.

This article has a threefold focus:

- (1) It wants to refute the rejection of an application for research support from the HSRC for a recently undertaken project which was meant and motivated to be pursued in terms of and under conditions applicable to a new conception of knowledge;
- (2) It wants to emphasize, explore and elaborate on the challenges posed to information scientists and informaticians in terms of the crucial and central position of information in current societal, political, intellectual and even political matters, especially in view of a new conception of knowledge;
- (3) It wants to challenge readers in terms of the competitive nature of current local and global contexts and situations regarding the understanding, pursuit and promotion of knowledge in the full sense of the word.

These three issues are intimately related, of course, and should be dealt with as such. Let us start with the last point first: there exists something like

national and international competition, also in the field of knowledge and knowledgability. In many circles, global or international, competition is a loveable term, albeit the case that it is often misplaced in terms of the requirements set. This competition affects all of us and our work. It is extremely demanding and requires the absolute maximum in input, commitment and devotion. Communicologists, all of a sudden, claim the field of information policy and related issues for themselves. Managers and business schools claim information and knowledge management for themselves. Departments of English and comparative literature are moving in the same direction with great effect and impact. I am convinced that these endeavours belong to us, as well as and, perhaps in the first place, especially if and when we contemplate the really decisive and crucial contributions information scientists and workers are able to make in this respect. In order to comply with this sense of belonging and to demonstrate it convincingly, we have to act accordingly. If we do not, others will take over. In the process our little field becomes shrinking to the extreme.

The important issue in this regard is not so much the fact of competition, albeit an important matter to take cognizance of, but the fact that information science departments are challenged to position themselves, to give account of their positions in today's, and specifically in today's, situations – the situations where information is central.

This was to mention only a few. Despite these developments we prefer to sit back and engage ourselves in the safe and secure activities of traditional library science, without taking cognizance of these challenges. The implications may eventually prove to be fatal for our future. The major and primary challenge is put to our ability, the most unique ability of humans, to think – to think deeply, thoroughly, comprehensively, and inventively about the notion of 'new knowledge' and how we should be involved. In this regard we have to keep in mind that there are different conceptions of thinking and we have to opt for a mode of thinking compatible with the new and radically different notion of knowledge. The question is what conception of thinking will be adequate for us should we want to respond to these challenges responsibly and adequately.

What is to be done? To my mind there is only one option: we have to position ourselves in the heart and at the core of the current multiple discourses on information as a central societal issue. All these discursive activities take information seriously. We simply have to demonstrate that we are aware of this and understand it properly and deeply by participating in debates. To us it is a given, in view of our historical place within the

disciplines, and a responsibility to take this given position seriously, profit from it and make thoughtful contributions.

What is lacking in all these discourses? Precisely what we can offer and indeed have offered for many years and decades: organization, retrieval, classification, abstracting, interpretation (value adding), utilization, etc. of knowledge and information. We are the only ones qualified and able to make these contributions, and to make it in order to facilitate significant and constructive work in all possible knowledge areas. In order to do so it will be of crucial importance for us to articulate what we are able of doing in such a way that our contributions will appeal to others.

In the second place it should be mentioned that the central place taken up by information in the contemporary world cannot be left to others only. Certainly this new field does not belong only to us. But to accept too easily that it is not meant for us in the first place or at all would be a grave mistake. As a matter of fact nothing could be more foolish, shortsighted and irresponsible and, of course, useless than such an attitude.

From these perspectives (namely the suggestion of a new notion of science, requiring a new mode of thinking and a different methodological approach), the rather naive and superficial dealings of the HSRC and its agencies should be re-evaluated. They obviously have lost touch with what is going on in current scientific approaches and in the demands posed to scientists of some kind and format. New paradigms obviously leaves them in the cold. They are obviously ignorant about these. The outdated classical approaches are still the predominant basis of the assessment of applications without the slightest understanding of any new dynamics introduced into the picture of scientific work for some decades now. Concentrating in a forced and artificial way on problems and problemsolving are outdated and onesided to a great extent. As a matter of fact the articulation of problems no longer really takes place in terms of any single problem only. Problems appear in a context and related to other problems at the same time. Any sufficient and adequate articulation of any specific problem can only happen after it has been understood and described in its particular context and related to many related issues, theoretical and practical, before we can even dream of partly or even fully solving it.

In other words the justification of many research projects is to be motivated and should be motivated on other and radically different levels from that on which the HSRC and its disciples **operate and on which they unconditionally insist**. This article argues in favour of this other fully legitimate level of activity and motivation which must deliberately be put outside **the field of**

operations. Is scientific work justifiable in any other terms or along any other routes than the one of problem formulation and potential solutions? Is this the only route and why in case it is? Is the so-called problem not enormously inhibiting, limiting, done in terms of personal interests, prescriptive, and prejudicial? Who is anyhow able to formulate a problem outside these restrictions? Anyone who drops the shackles of the dogmatic image of thought. This image of thought clings to problems, methods and solutions. We have to move beyond the level of the dogmatic and onto the level of the valuable in order to achieve an understanding of alternative ways of pursuing knowledge and doing science than the traditionally accepted ways, ways of value, insight, wisdom and invention. In this regard the following three publications are of immense importance: *Between time and eternity: the new place of the human being in natural science* (Prigogine & Stengers 1989); *The uncertain quest: science, technology, and development* (Salomon, et al. 1994), and *Thinking science or the issues of knowledge* (D'Espagnat 1990). It seems clear that much more room should be made for thoughtful free reflection on what is given, which may eventually prove to be certainly a much more fruitful and rewarding exercise and practice. In this case not method but a 'beyond method', not solution but invention, and not a problem but a situation is required. Value is brought into the picture and so is freedom.

The objectives of the research is not as simple as the solving of a problem. It is much more and much rather a matter of taking care of the future of our profession and of future knowledge workers. It remains with us to work out a space, not only for ourselves, but for them as well. And this caretaking is, moreover, not merely a matter of keeping a profession going and moving forward, but of making society going and moving forward. No progress of a kind can be expected without a comprehensive understanding of knowledge as well as of knowledge work in terms of a new and different idiom.

In order to facilitate this new approach we have to take a close look at the main requirements for a professional regarding the knowledge issue in particular. Mason (1990) offers excellent guidelines in this respect. He writes: 'Information professionals possess specialized knowledge about knowledge itself which they use to improve the intellectual state of people. Information professionals empower their clients to understand and to know. ... This empowering information ... consists of the signs and symbols that one mind uses to influence another mind Information professionals are the people who carry out this process of influence on the mind. To be more precise, information professionals are mediators between one mind ... and another mind ...' (Mason 1990:123–124). This approach gives

depth, suppleness, variety, substance and practicality, room for movement and invention, to our profession. The development of such a disposition as suggested here will be in compliance with the dynamics of the field. What is meant by dynamics of the field? At least that no rigid or inflexible approach would be able to deal with this dynamics. In a more positive tone it has to be emphasized that flexibility and suppleness in thinking and an accommodating spirit with reference to multiple viewpoints we do encounter in a dynamic field.

During the past decades developments in every area were fast and vast. Institutionalized terms, conceptions and views, pertaining to our field became outdated. Terms like knowledge, information, human subjectivity, users, language, reading and writing, transmission, organization and retrieval, management, to mention only a few, have been turned upside down completely. Without taking cognisance of these developments and rethinking our practices along these lines we will remain behind and increasingly so. Eventually it may become difficult, if not impossible, to catch up.

We must be careful not to allow our workplace to out-develop us but we have to remain in step. We simply have to keep track and pace in an intelligent way with the developments, theoretical and practical, in and around our workplace and related to our workplace. This implies thorough rethinking of knowledge and information along new and completely different lines. Knowledge work cannot be pursued without such new explorations and reflections. It will be useful to make use of an example. One of the most brilliant examples in terms of a conception of knowledge and a comprehensive understanding of the place of knowledge and its dissemination in and usefulness for society is most certainly the work done over many years by the French thinker Michel Serres. His notion of 'the atlas of knowledges' offers a unique and significant point of departure for our discussions.

2 IN PURSUIT OF A NEW CONCEPTION OF KNOWLEDGE

With this paper I want to do different things at the same time: introduce the philosophy of knowledge of Michel Serres and why it deserves more reading than it receives; against this background show that knowledge is a much more complex issue than our research endeavours and institutions, and more recently 'knowledge management companies' (that is merely

‘with it’ businesses and companies without any real clue about knowledge) try to make out; that all forms of knowledge are to be taken seriously; that humans, us, are challenged to be inventively involved with the issue of knowledge; that knowledge (and not any deformations of it, and also not its disfigurement by powers like rhetoric, or political systems and ideologies, or colonizations, or decolonizations, nor even the market), and knowledge only, is the issue that can take us (the human race and South African society) forward in any sensible way; the last issue is to emphasise these matters in such a way that it will form food for thought and further discussions.

The implication of the title as well as the contents, although not fully spelled out, demonstrate another form of globalization, forced on us from pure theory, as well as *information* technology and not *information technology*. The actor/network theory inspired by Michel Serres, the grounds of which were well articulated already in 1968 (*La communication*), as well as his core oeuvre rotating around the Hermes figure, and his never-ending involvement with and indulgement in information, are all demonstrations of unlimited scope, the transgression of boundaries, the mobility of the nomad. Another perspective, much more constructive and much less threatening than the economic/market version of globalization emerge in this view. This input is however not without intersection with the other one. As a matter of fact a great deal they have in common are there links to electronic media. We should never forget that the theoretical perspectives developed with global implications were not in its initial stages inspired or supported by electronic media. As a latecomer to the scene it indeed reinforces, activate and intensifies these theoretical views immensely. One of the more recent publications of Serres, *The legends of the Angels*, is a particularly relevant publication in this regard.

Reading Michel Serres is like visiting paradise – the garden of Eden – I imagine. Scintillating, jubilating, sparkling, surprising, adventurous, unknown, enriching, playful, harmonious. Reading on or about him leaves one easily with this kind of experience. There is a freshness and a sparkle which reminds of the cleanest air one can find high up in the Drakensberg.

After I said to myself: this is how I experience the writings of Michel Serres, I read what Pierssens (1979:102) writes: ‘To read Serres means to rest on a window pane in order to discover an immense horizon, the inexhaustible of the present; it means to receive, with one blow, the wind of a thousand hurricanes which leaves everything uncertain: the certainties of fiction, the reveries of science, the neatly argued pathos of philosophy.’ ‘Serres is not

an aesthete, but an artist of philosophy. Integrity of this beautiful art, gravity of this dance, aesthetics and logic make a complete circle' (Debray 1979:18). In this capacity he revolutionizes our conception of knowledge by linking it to all possible other discourses. In this regard he is not alone but certainly gives his own stamp and flavour to the process of revolutionizing knowledge.

Another way of making the same point is a reminder of Merleau-Ponty who once wrote: 'Meaning is like spots of light surrounded by rugged clouds of night, glowing islands.' Michel Serres' oeuvre is remarkable since it tries to link these spots of light – these islands – as well as the rugged clouds of night in a harmonious way: The web of meaning which can neither nihilistically deny light, but at the same time, in terms of which it cannot apocalyptically be pretended that all we see is light and that there is no darkness. The recent debates about chaos, order and complexity are relevant here. His Hermes philosophy (remember that he published five books in his Hermes series) is about this. 'One of the most beautiful things that our era is teaching us is to approach with light and simplicity the very complex things previously believed to be the result of chance, of noise, of chaos, in their ancient sense of the word. Hermes the messenger first brings light to texts and signs that are hermetic, that is, obscure. A message comes through while battling against the background noise. Likewise, Hermes, traverses the noise, toward meaning' (Serres 1995:65–66).

Some views along these lines which make the self-sufficiency of our generally accepted views on knowledge ludicrous and highly questionable and therefore risky are the following:

Jean-Francois Lyotard (1988:28), the philosopher, in *Peregrinations*, writes about the importance of doing away with 'the delusion of consistency' (the attitude reflected in the so-called 'old knowledge') without shying away from the complexity of things. He writes: 'It is time to complicate a bit our approach by opening up gaps inside what is certainly a too thick cloud of thought in order to do away with the delusion of consistency and to make ourselves receptive again to more intricate events.'

Hundertwasser, the artist, is even more explicit: 'In 1953 I realized that the straight line leads to the downfall of mankind. But the straight line has become an absolute tyranny. The straight line is something cowardly drawn with a rule, without thought or feeling; it is the line which does not exist in nature. And that line is the rotten foundation of our doomed civilization. Even if there are places where it is recognized that this line is rapidly leading to perdition, its course continues to be plotted Any design

undertaken with the straight line will be stillborn. Today we are witnessing the triumph of rationalist know-how and yet, at the same time, we find ourselves confronted with emptiness. An aesthetic void, desert of uniformity, criminal sterility, loss of creative power. Even creativity is prefabricated. We have become impotent. We are no longer able to create. That is our real illiteracy' (Hundertwasser, as quoted by Peitgen & Richter 1986:v).

Mandelbrot (1982:12), the geometrician, puts the same problem in a very clinical way in perspective when he writes: 'Why is geometry often described as cold and dry? One reason lies in its inability to describe the shape of a cloud, a mountain, a coastline, or a tree. Clouds are not spheres, mountains are not cones, coastlines are not circles, and bark is not smooth, nor does lightning travel in a straight line Nature exhibits not simply a higher degree but an altogether different level of complexity. The number of distinct scales of length of patterns for all purposes infinite. The existence of these patterns challenges us to study those forms that Euclid leaves aside as being formless, to investigate the morphology of the amorphous. Mathematicians have disdained this challenge, however, and have increasingly chosen to flee from nature by devising theories unrelated to anything we can see or feel.'

A fairly recent publication and exhibition in Paris on 'Measurement and the unmeasurable' demonstrates in various ways to what extent the measurable is not reliable and that our decisions, even scientific ones, are very often affected and directed by what cannot be measured. We should never be tempted to confuse knowledge with the measurement of knowledge. These two entities although they are somewhat linked are also incompatible.

These views are cutting deep into the heart of our knowledge culture, and consequently our information culture and calls for drastic revision, re-articulation, and rethinking.

This is exactly what Michel Serres has been doing for the past 30 years years and is still working on currently. His works are, each of them in its own way, an effort, and a very successful effort, to articulate precisely these issues related to a new knowledge culture (cf for example the book by Assad (1999) in which she offers lively interpretations of and comments on some of his books).

Three general and very dominant features of his project of thinking that have an impact on all his other themes should be mentioned and eventually explored somewhat as well: he is an **acritical** philosopher; he is a

philosopher of **networks** and **invention**. These two outstanding characteristics of his thinking determines the mode of his oeuvre. Each work stands in the light of an acritical inventiveness. Networks are enabling factors for inventions. This makes of his thinking something drastically different from the enlightenment philosophy.

3 WORLDMAPPING KNOWLEDGE

These views introduce to us the idea of a road map for knowledges (cf the History of science). This is the idea of giving or working on a comprehensive, all-inclusive map of the world of knowledge, which is at stake here.

The history of the thinking of Michel Serres is a history of wrestling with the issue of knowledge. All his books rotate around this theme and each one of them elaborates and highlights a particular perspective on this issue. Themes addressed by his many books on themes like communication, translation, interference, distribution, passage, statue, five senses, genesis, detachment, hermaphrodite, Rome, Atlas, and more are all weaved around this formidable theme, so totally indispensable for the human race and at issue since the beginning of human history. Compare the history of religions and cultures and the role knowledge played all the time in all these cultural traditions. Knowledge and its importance for human life and existence is no new invention, least of all an invention of the sciences or of the marketplace. It is certainly not suddenly an important theme because it is surprisingly included in the rhetoric, vocabulary, and marketing strategies of big companies, or finds a strategic place in organizational politics, or in business and management contexts where it has never been a prominent issue before.

Serres' deep, honest authentic urge at the end of his book, *Detachment*, namely **let the new knowledge come** is eventually culminating in the statement in one of his more recent books, *Atlas*, in the following terms: 'We should no longer run after a knowledge universe, but pursue the multiplicity of possible knowledge worlds'. In this book he unravels the zig-zag tours and detours leading to an illuminating enlightening focus point where all routes converge and come together in a single knot – harmonious, significant, and meaningful. This knot constantly requires to be untied. In his reflections on knowledge, information is never far behind and never left out of the picture. As a matter of fact it finds a very special place. Serres can indeed be called one of the most productive, imaginative and inventive

philosophers of information. The implications will hopefully become clearer as we go on.

We need an atlas to guide us through landscapes, countries, etc. Without it we will easily get lost. Equally important is an atlas for the landscape of knowledge, and its place in culture and society. Hence, his exercise in mapping the world of knowledge as comprehensively as possible. Knowledge as map or atlas is needed in a much more comprehensive sense than merely for purposes of physical moving around. Knowledge is the issue that enable us to find our ways and directions through life. It is indispensable for us as living beings.

Atlas represents a more comprehensive and open-ended notion than *encyclopaedia*, which is closed and finite. This rethinking of knowledge in new terms is made necessary by the development of a new conception of knowledge, which emerged during the past number of decades, with vast implications for the creation, dissemination, transmission, and utilization of knowledge for the well being of society. These new developments also pose serious new challenges for the activity of thinking, the fantasia of thinking, and the pursuit of science in the sense of nomad science. Gilles Deleuze is a key thinker in these matters who incidentally had close connections with Serres.

Serres (1994:276) prefers to speak of 'a multiplicity of possible knowledge worlds', rather than the classical 'knowledge universe', and that for very self-evident reasons. These reasons became prominent in solid theoretical terms but also supported by developments in the area of electronic media which certainly facilitate these new developments. Hereby human thinking is confronted with dramatic challenges. In a similar way as our talking of networks of roads (represented by the idea of atlas) we can speak of networks in a more abstract sense, referring to the links between knowledges, institutions, insights and many more related issues.

4 KNOWLEDGE AND INFORMATION SPACE

Serres developed at an early stage his theory of networks of communication (*La communication*), which offers in itself a model of communication more adequate and significant than the linear model of Shannon and Weaver. This theory can be made fruitful for other linkages as well, very useful from the point of view of knowledge usage. We can easily detect from what has already been stated that the notion of space, real and/or virtual, is self-evidently suggested. Atlas, maps, networks are all spatial terms. Knowledge

space and information space will become crucial issues in this regard, and very importantly so, as a space to be inhabited!

Real space implies the following: Does there exist a road of which one could indicate the exact departure point and point of destination? Virtual space on the contrary entails the following: if Hermes carries his messages only to a unique sender ..., while Leibniz, like the Angels, describes the passages from whatever place towards the universe, or from this global point to such sojourn by virtual intermediaries, it becomes perfectly clear from where the idea to design these sheaves in worldmaps, in an Atlas originated. His whole oeuvre rotates around this theme: communication between the sciences, between knowledges, between the sciences and societies, and movement in all directions. For this reason the notion of space is important as well as mapping knowledges in this space. A brief look at his works will illustrate this somehow. At the same time this way of articulating knowledges emphasizes self-evidently the idea of a new knowledge that is not a given but should be pursued.

Serres' notion of communication involves transfers from one science to another, or from the purest science to philosophy and even poetry. Communication traverses these spaces that would be much less clear and transparent than one would have believed. The titles of many of his books, like communication, interference, distribution, translation, North-West passages, lighthouses and fog horns suggest movement from place to place. Not things and operations but relations and rapports are what he is concerned about. A reading of his books may seem difficult since it is all the time a matter of changes and moves. This changing and these transformations and these wanderings either follow or invent the path of a relation, relations between the sciences, between knowledges, between humans and knowledges.

When one reviews it will be possible to retrace easily how he passed from mathematics to physics, from physics to the life sciences and to the human sciences, without ever leaving behind its historical component. But these movements do not make up a seamless list which occupies a flat space. They suggest a hilly landscape, ondular pathways – chaotic and fractal, much closer to reality. Besides utilizing concepts by which he wants to facilitate movement and communication in a successful way he also uses characters which find expression in some of the titles of his books as well. Some of these characters are: Hermes, Parasite, Hermaphrodite, Harlequin, troubadour of knowledge. In these books where he meditates on successful communication, the difficulties, obstacles, and conditions pertaining to

transformations, movements, communications and translations are laid down in detail and make for fascinating and exhilarating reading.

A brief illustration about how Michel Serres in his books tries to establish relations between disciplines, but also between ideas and relations as conditions of our knowledge creations and the world in which we live and which we create in some way. This may help us to understand a bit better the idea of the atlas of knowledges, the idea of the urgency of a new conception of knowledge, and why a comprehensive worldmapping of knowledges is required. How sociology is situated in astronomy (the two most distant sciences in terms of positivism's classification) is discussed in his origins of geometry. How politics is situated in physics is the great question of *The natural contract*. How technology and physics are both situated in an anthropology of death is the main concern of *Statues*. The possibility of fitting together information theory, parasitology and table manners is discussed in *The Parasite*. In his book on Zola (*Lighthouses and fog horns*) he situates thermodynamics with genetics and both of them with the history of religion. The question he tries to answer in *Hermaphrodite* is how it is possible to link the symmetry/assymetry of left and right, of orientation and of sense in the physical and in the human sense of the word? These passages between the disciplines or sciences are explored in a very specific sense in *The North-West passage* and strongly recommended for teaching in *The troubadour of knowledge*. Nothing can be more relevant for knowledge and information workers – we simply have to undertake these journeys and on a continuous basis. This is a demanding challenge but hardly anything can be more rewarding at the same time.

5 CORE THEMES

Some **core themes** emerging from the reading of his oeuvre deserve attention and may prove to be enlightening in more than one respect as well. In order to articulate this pursuit of the new knowledge and to engage in the processes of designing the comprehensive atlas that has been referred to, certain core areas are identified as focal points for illustrating that all of them are extremely relevant, not only for establishing links between knowledges, but also for the exploratory pursuits Information Science ought to get engaged in and the knowledge practices that flow from this.

i Atlas of knowledges. The issue of knowledge networks (very contemporary) immediately springs to mind. The actor/network theory in Sociology emerges from these insights on networks and the link between knowledge

and action. Knowledge, information, science, literature, philosophy – labyrinth, networks, crossroads – are all linked! Let the new knowledge come (Detachment?). This formidable theme is discussed from the first volume in the Hermes series to the very latest publication I know of, namely *Variations*. It is all the time a matter of knowledge/information for Michel Serres – the first, perhaps the only, philosopher of information. In the middle of his publications appears this exclamation: let the new knowledge come! The notion of atlas of knowledges does not create room for criticism which limits freedom of movement, but for an acritical attitude which encourages movement of thought. ‘So – stand up, run, jump, move, dance! Like the body, the mind needs movement, especially subtle and complex movement’ (Serres 1995:107).

ii Language and structure. Michel Serres’ book, *The five senses*, is a protest against ‘the empire of signs’ and the all-inclusiveness of language in certain circles, especially in Paris under the influence of structuralism. He writes about his own book in the following words: ‘All around us language replaces experience. The sign, so soft, substitutes itself for the thing which is hard. I cannot think of this substitution as an equivalence. It is more of an abuse and a violence. The sound of a coin is not worth a coin; the smell of cooking does not fill the hungry stomach; publicity is not the equivalent of quality; the tongue that talks annuls the tongue that tastes or the one that receives and gives a kiss. My book *Les cinq sens* (The five senses) cries out at the empire of signs’ (Serres 1995:132).

iii Pragmatogony: This refers to subjects who are created by objects, and not in the first place subjects manipulating and molding objects. The object is the horizon of knowledge, and not the initial reference of its exercise. In this sense the object becomes a project (Serres 1972:63). Felman (1979) wrote a remarkable article on this. These views open the road to an ambitious anthropology of science which emphasizes the impact of science on humans. ‘Our tools ... are simultaneously objects of this world and objects of society. Every technology transforms our rapport with things ... and, at the same time, our relations among ourselves’ (Serres 1995:141).

iv Messages. Angels and cyberspace are the issue here. From Hermes 1 (*La Communication*) to the latest publication on the body he is dealing with this issue. Hardly any theme can be closer to the point regarding the contemporary knowledge and intellectual theme than the one of message and the circulation of messages. ‘What could be more luminous’, he asks, ‘than a space traversed with messages? Look at the sky, even right here above us. It’s traversed by planes, satellites, electromagnetic waves from

television, radio, fax, electronic mail. The world we are immersed in is a space-time of communication. Why shouldn't I call it 'angel space' (*The legends of the angels*), since this means the messengers, the systems of mailmen, of transmissions in the act of passing or the space through which they pass? ... Indeed, we live in the century of angels' (Serres 1995:118–119).

v Bodies and the five senses. Dare one emphasize this in 'the age of the spiritual machines'? (Kurzweil 1999). Currently there are complex interplays between embodied forms of subjectivity and arguments for disembodiment throughout the cybernetic tradition. The erasure of embodiment is a feature of both the liberal human subject and the cybernetic posthuman. Identified with the rational mind the liberal subject possessed a body but was not usually represented as being a body. How exactly is the body to be understood: as an object of control and mastery rather than as an intrinsic part of the self? Fantasies of disembodied immortality are alive and fresh right now! *Variations*, published in 2000, is coming in from a slightly different angle, describes the admirable metamorphoses that human bodies can accomplish like athletes, dancers, clowns, artists, etc. Animals lack such variety of gestures, postures and movements. Supplement to the point of fluidity the human body can imitate with ease things and living beings. Moreover it creates signs! The five senses are not the sole source of knowledge; knowledge emerges to a great extent from the imitations that render possible the extraordinary plasticity of the body in its entirety. In it, with it and by it knowledge commences. This view leaves the spiritual machine behind.

vi Method: This is a strategy for the lazy. 'It is reasonable to be reasonably wary of the rational'. Serres is seeking a knowledge that is finally adult, a balanced wisdom, a certain forgetfulness of death ... the adult person is educated in a third way It is the acritical individual, the one who knows what it really means to read. 'What is more lively than the improbable unexpectedness of findings? Who is more profoundly boring than the repetitive reasoner who copies or seems to construct by constantly repositioning the same cube? Ruminating on the past – what a system! Repeating a method – what laziness! Method seeks but does not find.' (Serres 1997:100).

vii Reading. Reading as poaching, or even as castration versus reading as invention – this is our alternative. All knowledge is to be taken seriously. Collective intelligence; sharing; reading with others; acritical reading, all these reflect the views of Serres on reading (see De Beer 1999). This reading

is a breaking out of the static order (the order of statues) and the embracement of chaotic fullness – the birth of a new knowledge. A move from the clarity of light to the hopeful vagueness of glimmers (Serres 1989).

viii Troubadour of knowledge: The educated third, as presented to us in this character, to which a whole book is devoted (Serres 1997). We must imagine a way to teach, with the same gesture, both the poem and theorem, both the immortal world of scientific laws and the new age of the arts. Those taught the third approach to knowledge will have chucked the death wish. This publication is not only offering a delightful model for the knowledge worker to pursue. At the same time it is specifically relevant from the point of view of invention. Or in the words of Assad (1999:128): this book ‘is a book on education in the largest possible sense of the term: the all-encompassing formation of human thought as invention; and inventive creativity as the only activity worthy of cognitive thought.’

ix Invention. This is a core issue for Serres which he considers as the only true intellectual act, the only intelligent action. Lack of invention proves the absence of works and of thought. Life as Invention, that is, of thought. ‘Sadly, the time has come when the sciences are letting themselves get trapped in the customary subservience of groups who are looking only to perpetuate themselves as a group. Thought can only live free from these constraints. The misfortune of our times is that these constraints are precisely those of thought as such: exactitude, rigorousness, precision ... Hence our narrow margin, our small degree of freedom: thinking with scientific thinking, but especially thinking outside of it, knowing how to free oneself from these stifling regulations, but also knowing how to regulate this freedom. Inventive reason has before it but the eye of a needle to be able to pass through, freedom tempered by rigor’ (Serres 1995c:105).

As a matter of fact, Assab highlights invention as the core, the real focus and objective of Serresian philosophy. Not repetition, not memories, but invention – new beginnings, new findings ... that’s why reading him is so exciting. Closed, repetitive systems smothers invention.

6 TREES OF KNOWLEDGES

The very rich and productive insights of Michel Serres, as discussed up till now, are in a very significant way ‘operationalized’ (what hateful military term introduced in a scientific context?) by Authier and Levy, 1996). They do it under the theme of ‘trees of knowledges’. According to them the knowledge system should be dealt with in terms of its principles as well as

its effects. A discussion of their insights will demonstrate to us to what extent they have fruitfully applied the philosophic insights of Serres in an economic and business sense.

The knowledge tree was conceived and implemented to virtualise our relation to knowledge and skill. It enables both groups and individuals to identify and orient themselves within a universe of knowledge in flux. The knowledge tree provides a means for grammatizing the recognition of knowledge. The elementary particles of recognition, brevets (or signs of competencies), are not fully meaningful in themselves, but only as part of a blazon (or the image of individuals), a group of brevets (or curricula) obtained by an individual and displayed on the knowledge tree (or community of knowledge). A set of brevets can be used to construct an indefinite number of different skill paths. The same individual curriculum assumes different significance and value depending on the community in which the tree appears.

We thus obtain a system structured around two sets of relations: first, that between individual brevets and curricula (similar to the relationship between phonemes and words), and second, that between the curricula and the tree. A tree is formed from the different skill paths of the members of a community and structures them in turn in the form of blazons. (This is similar to the relationship between words and sentences – the sentence consists of words of indeterminate semantic value and actualizes the meaning of the words it comprises.)

Initially, any brevet, more or less, can be integrated into any curriculum, and any curriculum, although with varying results, can be included on any tree. The brevet is the mobile characteristic for the identification of knowledge. This bilateral grammatical function is the connection that makes possible the standardization, deterritorialization, and virtualization of recognized knowledge. A kind of skill-signalling phoneme, the brevet represents a virtual particle of skill. It is, therefore, essential that it be stereotyped and independent of any particular individual, place, or educational programme. The blazon that appears on the knowledge tree expresses an individual's competencies in a given context. It provides an image – always singular – of the actualization of a person's skills in a given situation.

Such an approach is rational and practical. It enables us to resolve a number of problems, which are both urgent and concrete. And yet it smacks of heresy, for the same reason that it is novel: the recognition of skills is completely disconnected from any particular assumption about the order of

knowledge. The various ways of classifying knowledge, visualized by means of the tree, are the result of the different approaches to apprenticeship taken by different communities. Something has been set free.

Intelligence incorporates a collective dimension: it is not only languages, and institutions that think in us but the whole of the human world, with its lines of desire, affective polarities, hybrid mental machines, and landscapes of meaning paved with images. To act on one's environment, no matter how slightly, even on a purely technological, material, or physical level, means that we erect a shared world that thinks differently in each of us, indirectly secrete some subjective quality, work in and with affect. By living, acting, and thinking, we weave the very fabric of the life of others. For this reason human communities can be said to be intelligent in a collective sense. A common space is created where the effects of these ideas on individuals, on enterprises and employers in general, and on teachers and educationalists are immense towards the creation of a new civility (see Authier & Lévy 1996).

Collective intelligence thinks in us. We can take individual pleasure in the collective intelligence, which enhances and modifies our own intelligence but at the same time enhances the creation of intelligent communities.

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Alternative models of knowledge production

Gerhard van der Linde
Department of Library Services
University of South Africa

Abstract

The article outlines two models derived from the concept of knowledge as the result of production processes. It is suggested that plurality should be affirmed by accommodating alternative models, two of which are subsequently outlined.

I INTRODUCTION

Knowledge production is central to an economic environment in which knowledge, rather than resources, provides the competitive edge. The term collectively refers to a number of interlinked processes, which include individual research and research collaboration, the dissemination, decoding and evaluation of research results — which can also be termed knowledge outputs — and the integration of these results or outputs into further research processes, from which the cycle recommences. All these processes combine to add to the corpus of available knowledge by delivering outputs to target audiences, through distribution channels appropriate for effective and efficient communication. The cumulative result of all these processes is the continuous evolution of available knowledge.

I would contend that the concept of knowledge as the output of a group of production processes is problematic in itself, in view of the connotations which could be attached to it. Against the background of a practice such as business process re-engineering, the concept can be taken to imply insistence on elements such as streamlining, cost effectiveness, and a clearly defined purpose (cf Loh, 1997:63–67). Such an approach could lead to knowledge production and knowledge outputs being constrained within certain narrowly defined parameters. The configuration of knowledge outputs according to predetermined frameworks would receive priority over

the presumed self-justifying generation of knowledge. While processes such as open-ended research, speculative thinking and reflexivity, which do not quite fit these parameters, would not necessarily be excluded *a priori*, they could be marginalised or severely restricted.

Viewed in this light, the concept of knowledge production as such suggests an underlying bias towards a certain paradigm of the processes involved, and of knowledge itself. Such bias can be reinforced by the impact of certain external factors.

In the context of tertiary institutions having to deal with severe financial constraints, the status of science and technology as vehicles for economic development, and the concomitant deprioritisation of the 'soft' disciplines, as well as the tendency to import business management principles and practices into a variety of organisations, including educational institutions (cf Lenington, 1996; Ramsden, 1998), it seems likely that a particular model of knowledge production would be generally favoured and promoted. Such a move should, I believe, at least be problematised, in order to open up a space within which a more inclusive pluralist approach could come into play. Failure to do that could pave the way for the pervasive diffusion of a perspective on the nature and purpose of knowledge which would be driven purely by utilitarian impulses and would operate in a short term time horizon.

For the purposes of this article, the concept of knowledge production is retained, as I am not primarily concerned with a question of terminology or with a critique of the concept itself, but with offering pointers towards the pluralisation of the concept, which would promote the acknowledgement of multiple pathways to a plurality of knowledge types, thereby suggesting that the definition presented above simply indicates one possibility, and discarding hierarchical differentiation between any of the types. It is therefore proposed that a diversity of models of knowledge production should be acknowledged, and that in principle the hegemony of any single model should be rejected. In what follows, a number of possible models is outlined. These are not models in any formal sense of the word, but are offered as basic approaches, which are primarily differentiated by the kinds of knowledge they are meant to output, and by the routes adopted to realise those outputs. All the models are not necessarily mutually incompatible.

2 THE BUSINESS MODEL

The first model, suggested by the above definition of knowledge production

and reinforced by the external factors referred to, can be described as the **business model**. The key notion underlying the model is that knowledge is viewed as a marketable commodity (cf Lyotard, 1987:6). The model is linked to the application of what is viewed as sound business management principles and practices to a variety of organisations and activities. The business model dictates that knowledge outputs, and therefore, also the processes that produce them, should be justifiable in terms of satisfying the needs of a particular market or market segment, or that it should at least be feasible to create a market for such knowledge. The outputs should be tailored to the requirements of the target audience. Thus, knowledge configuration becomes a necessary corollary to knowledge production. A limited time frame would be allowed from initialisation to delivery, since it would be required that a return on investment should become apparent as soon as possible. There should be a satisfactory correlation between the resources invested and the return on investment, measured in terms of definite benefits to the market and/or revenue generated. In simple terms, the model implies maximum output with minimum input; it requires that the return on output should exceed input; in other words, inputs should generate surplus value, which could be reinvested in further production cycles (cf Lyotard, 1987:45).

Inasmuch as globalisation can be linked to the global dissemination of capitalist doctrines through vehicles such as the World Bank, the IMF and multinational corporations (cf Sklair, 1999), facilitated by the demise of various systems of social engineering, such as apartheid and Soviet communism, and by the fading away of what Lyotard (1987:31–37) refers to as the grand narratives, replaced by the justification of knowledge on the basis of its usefulness to economic development, it creates an environment conducive to the pervasiveness of the business model. From this perspective, contemporary society can be viewed as shaped by the complex interactions of market forces, rather than by centrally imposed ideological systems or by a shared worldview, with the result that it appears increasingly fragmented and unstable. In so far as the knowledge outputs delivered in terms of the business model are determined by the law of supply and demand, it is highly opportunistic, even parasitic, feeding on society, rather than attempting to shape it according to an abstract framework or coherent value system. It is geared towards survival; what the market does not want, should be discarded, therefore, it is imperative to produce the desired product.

The approach is related to modernism in its emphasis on the need for innovation and efficiency (cf van der Loo & van Reijen, 1990:28–32), yet

insofar as the business model gives rise to a striving for the novel and the unexpected, that is primarily the result of an effort to follow and anticipate market and consumer behaviour.

Though it may be adopted in a variety of fields, the model is always governed by assumptions and approaches which originate in business environments. This implies tight, possibly centralised control over the knowledge production process and its outputs.

3 THE COMMUNICATION MODEL

The second model, in terms of which knowledge is packaged as message, can be called the **communication model**. This is the classical model of scientific knowledge production, familiar to all academics. The object is to ensure the efficient and effective dissemination of knowledge outputs to a particular intellectual community. The processes which produce those outputs move in line with the game rules which apply in that community. These rules largely define the kinds of outputs which would be acceptable, while a peer review process both acts as a quality control mechanism and confirms the credibility of outputs deemed to be acceptable. In some cases, the review process could also act as custodian of the game rules. Since results are subjected to critical scrutiny by a community of scholars, it is assumed that a process of natural selection will ensure that only the best will survive, being recycled through further production cycles, instead of being relegated to archival obscurity. In quasi-Darwinian fashion, it is assumed that the principle of using the outputs considered to be best as building blocks for further knowledge production would lead to inevitable and continuous progress (cf Campbell, 1987:46–50). Viewed as cumulative and evolutionary, the production of knowledge might even be accepted to be capable of virtually unlimited expansion.

The communication model is, amongst others, fundamentally different from the business model in that it is motivated by a search for truth or truthfulness, which, of course, can be variously defined, depending on the context. In this sense, knowledge production in terms of the model is a consumer of resources, evidenced for example by the expensive tools and techniques used in experimental physics, whereas the business model is underpinned by the demand for the development of new resources, whether intellectual, as in knowledge transfer, or financial, as in wealth creation. In its narrowest and most traditional form, the communication model gives rise to a self-perpetuating system which survives and grows by feeding on

itself. Viewed positively, this results in the expansion and evolution mentioned above; on the negative side, excessive emphasis on the game rules and an exaggerated inward focus within a discipline could lead to a 'silo mentality', and even to a kind of orthodoxy.

Knowledge outputs produced according to this model will not necessarily be marketable, and may in that sense be incompatible with the 'business model'. Scientific acceptability does not imply marketability, and vice versa. However, to some extent, the communication model could be absorbed into the business model, mainly as the result of external pressures. Financial constraints and government intervention in tuition and research policies and priorities could create a situation where it would no longer be acceptable for knowledge outputs to be justified purely in terms of the rules of the academic game (cf National Commission on Higher Education, 1996: 173,226). The entity which holds the purse strings is likely to demand cost effective processes and a clearly identifiable return on investment. The producer of knowledge outputs could be forced to think of himself as a supplier of products to an industry which serves consumers, with the term 'industry' referring both to the distribution channels of academic knowledge, such as academic journals and teaching, and to business environments where knowledge outputs are used for financial gain. Since consumer products by definition quite soon outlive their usefulness, the producer would be forced continuously to look for ways of attractively packaging existing products and developing new products as successive groups of consumers exit a particular consumption cycle. It would, in other words, not be sufficient merely to think in terms of reflecting and contributing to the evolution of a particular body of knowledge, since the consumer, especially in a capitalist society, is driven by needs and desires which bear little or no relation to the acquisition of knowledge as such.

4 BEYOND THE MARKETPLACE

Itself wholly market-driven, the business model, stepping through the breach opened up by social, economic and political factors, invades the territory formerly occupied by the pursuit of knowledge as an end in itself. The romantic is forced to make way for the functional. One line of thought which might be advanced in an attempt to justify this is that it could generate pressures which would counteract academic insularity and orthodoxy, stimulating continuous innovation, yet it is difficult to avoid the suspicion that such innovation would occur within a rigidly standardised framework. If he plays within this framework, whether by

choice or through force of circumstance, the producer of knowledge seems likely to lose control, if not of the production process, then at least of its outputs.

In order to reaffirm the plurality which is perhaps the major gain of the postmodern (cf Welsch, 1988:37–38), therefore, lines of escape would have to be sought. As part of this endeavour, multiple models of knowledge production would have to be acknowledged and accommodated. If a globalised economy threatens to impose uniformity and orthodoxy, global communication networks could provide an outlet and enabler for a kaleidoscopic collective intellect, offering a channel for alternative models of knowledge production, two of which are outlined below.

5 THE NETWORK MODEL

The third model, which I call the **network model**, aims to produce knowledge outputs which can be read as text. In other words, the outputs will tend to be open-ended, provisional, speculative, even fragmentary, suggesting networks of connections, rather than offering linear argument and neat packaging. These outputs are not strictly bound by respect for disciplinary boundaries and often do not easily fit the parameters dictated by existing game rules. This is the domain of nomadic wanderers in the knowledge landscape, of encyclopaedic writers who treat the universe of knowledge as a giant intertext, of intellectual mavericks. The value of their outputs is not measured in terms of usefulness or credibility amongst peers, but in terms of richness of implications, of the capacity to generate connections between disparate elements, of freshness of insights, of scope.

Inasmuch as the outputs could also be useful and scientifically credible, there is no absolute distinction between this model and the previous two. Yet its focus is quite different; in this respect, it is especially clearly differentiated from the business model. The network model is aimed at producing outputs that are interesting and unexpected; their usefulness, such as it may be, is incidental. The reductionism and linearity inherent to the emphasis on usefulness and marketability is alien to this model. Without necessarily abandoning the conventions of logical coherence and rigorous argument, it adds a dimension of playfulness, and favours trajectories of thought which move in unforeseen and unpredictable directions. The model is not directed towards providing answers and solving problems, but towards raising questions and generating new problems. It offers a home for the ironist, always ready both to maintain

and undermine a position, never to be tied down (cf Jankélévitch, 1979:30–37).

6 THE NARRATIVE MODEL

The final model outlined here I call the **narrative model**, in terms of which knowledge is presented or generated through the vehicle of a narrative (cf Jordaan, 1999:76). As such, the model can, for example, accommodate texts originating in literature, mythology, and history. The specific nature of each knowledge output is determined by the game rules of the field from which it originates and the kind of narrative used. The knowledge content of an output can be clearly defined, as in historiography, or somewhat varied and unpredictable, as in the case of literary narratives, where only a small proportion of the knowledge content is directly communicated and immediately apparent, while most of it is generated through the interaction between text and reader, with the result that different readers will generate different knowledge contents through readings of the same text.

Knowledge is here defined as a set of statements or beliefs which a particular community formulates in response to its *Umwelt*, and which it accepts as truthful, after coming to an agreement that sufficient objective grounds exist for such acceptance to be reasonable (cf Gill, 1985:386). Knowledge thus defined is neither purely subjective or arbitrary, nor does it make any claims to universal validity. Thus, in terms of the narrative model, one could (and should), for example, accommodate different narratives of the origins of the universe, some offering the scientific point of view, others representing more naive positions. None of these would be rejected *a priori* or viewed as inherently superior, inasmuch as all will be accepted as attempts to make sense of and to explain particular phenomena. The narrative originating in religion and the narrative originating in science could, in terms of this model, be accepted as complementary, instead of as conflicting and incompatible, although the respective knowledge contents would obviously not be viewed as equivalent in any way.

In certain kinds of narrative, such as historiography, factual accuracy would be considered as critically important, though one would assume that ‘facts’, defined as truthful statements about events, are in themselves constructs and therefore at least partly based on interpretation. In the case of literary narratives, factual material as such would be of less interest than the ways in which it is manipulated and transformed. Narratives accommodated by this model would always have a basis in observed phenomena, yet the

explanatory power of a particular text may reside in an appeal to the reader's intuition and imagination, rather than in any degree of analytical precision. In some cases, for instance in the case of counterfactual historiography, the interest of a narrative could reside in its capacity to offer alternatives to established viewpoints.

7 BY WAY OF CONCLUSION

A systematic critique of the concept of knowledge production would be an ambitious undertaking. Yet, even in the absence of such a critique, one should be aware that the concept lends itself to being appropriated for promoting agendas of which the primary focus lies outside the acquisition of knowledge as such, and which could significantly curtail the freedom of the producer of knowledge, forcing him to work towards predetermined outputs within a tightly constrained framework, neither of which would necessarily be determined with his consent. Acknowledging and accommodating multiple approaches to knowledge and knowledge production would be a first step towards counteracting such a tendency.

At a basic level, the models proposed above could be differentiated by using the concept, formulated by Roland Barthes (1994b:558), of the 'readerly' (*le lisible*) and the 'writerly' (*le scriptible*). In simple terms, the distinction is between 'readerly' outputs of which the knowledge content is clearly defined and neatly packaged, and which can therefore be conveniently received and recycled by the destinatory – this would apply to the business model and the communication model – and 'writerly' outputs of which the knowledge content is at least to some extent presented obliquely or implicit, and which could therefore only be brought to light through the active collaboration of the destinatory – this would apply to the network model and to most instances of the narrative model, with historiographical narratives occupying an intermediate position. Because of this intrinsic difference, the knowledge contents pertaining to the second category of outputs would tend to be variable or even unstable, resisting facile application and dissemination.

In a culture where instant access to information has become the norm, a reaffirmation of plurality would offer a salutary countercurrent, pointing us towards the alternative option of attaining knowledge through dialogic reflection.

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Science for ideology?: P C Coetzee and the professionalization of South African librarianship

Archie L Dick
Department of Information Science and
Deputy Dean's Office
Faculty of Arts
University of South Africa

Abstract

At the historic Annual Conference of the South African Library Association (SALA) in November 1962, the decision was taken to establish racially-segregated library associations. A letter from some concerned librarians was sent to the SALA's professional journal, *South African Libraries*, which elicited a response from its editor, P C Coetzee. This article examines the way in which scientific discourse was deployed in the professionalization of librarianship in South Africa using the writings and activities of one of the SALA's most prominent members. P C Coetzee's editorial response provides an excellent opportunity for analysing both the tensions between a scientific approach and a narrow cultural identity outlook in the professional discipline of librarianship, and the intellectual's complicity in apartheid.

I INTRODUCTION

A letter requesting that he bring to the attention of South African librarians an article of interest to the profession published recently in the highly respected scientific journal, *Nature*, confronted P C Coetzee with a crisis. His brief editorial response in *South African Libraries* demonstrated both the interesting use of scientific discourse in the professionalization of librarianship in South Africa, and intellectual complicity in apartheid.¹

The *Nature* (Apartheid 1962:1241–1242) article dealt with apartheid in South African learned societies and noted that the South African Library Association (SALA) had in fact not waited for impending legislation, but eagerly complied with the expectation of its guest speaker at the historic National Conference on November 5, 1962, the Minister of Education, Arts and Science, that there should be separate professional library associations for whites and non-whites.² Nor had the SALA waited to see what the response of other scientific bodies in the country would be to the Minister (Apartheid 1967:109–114). It not only recommended separate library associations ‘for the various racial groups in South Africa’ and restricted membership to whites from November 7, 1962, but the President of the SALA was requested to publicly announce these decisions in a press statement immediately after the Conference had ended (Minutes 1962).

The eleven existing ‘non-white’ members³ were allowed to retain membership only until their own societies were established (Survey 1963:78). Coetzee’s (1963:119–120) editorial response to the letter and article was titled ‘Science or Ideology’ (without a question mark), and for someone who has been described as an academic through and through (van der Walt 1997:40) and as the father of a scientific approach to librarianship in South Africa (Aschenborn *et al* 1975:vii), his reply was a weak defence of what had happened at the Annual Conference of the South African Library Association in 1962, and an apology for apartheid.

This article attempts to show how a ‘scientific approach’ to professionalizing librarianship came to be seen eventually as entirely compatible with Afrikaner Nationalism and the South African Government policy of apartheid by focussing on some of the writings and activities of Coetzee. The ideological uses of science in South African politics have been investigated by a number of scholars who describe the tensions between the view of science as an autonomous mode of detached and universal reason, and its imbrication with local politics and society (Dubow 1991, 1995, 2000; Fleisch 1995; Posel 1996; Rich 1993). The case of Coetzee is interesting from the point of view of a particular application of science in the profession of librarianship, and its more general use in the legitimation of apartheid. In the South African context, science became more about closing debate than sustaining it.

The Coetzee case is also interesting as a study of how the intellectual gives way to the political. The relationship between the state and intellectuals, and the political responsibility of intellectuals are themes of enduring interest (Bauman 1992; Dick 1999; Karabel 1996; Maclean 1990; Muller &

Cloete 1993; Rossouw 1993; Said 1994). The normative view is that the intellectual should speak the truth to power, but the empirically grounded analytical view reveals a more complex process that can at times involve the intellectual's complicity with power. In his analysis of the relationship between the intellectual and apartheid as manifested in the life and work of Afrikaans poet and essayist NP van Wyk Louw, Sanders (1999:631) cautions that 'wherever it is the case that intellectuals celebrate "cultural identity"', employing it as an alibi for domination, exploitation, and the denial of justice, there is an irreducible complicity in what was, for nearly 50 years, apartheid'. My own view is that the historical dimension is a critical factor so that a shift in the balance of power can mean that an intellectual who at one point speaks **to** power may at another speak **for** power. This, as we shall see, is what happened to Coetzee.

P C Coetzee therefore provides an excellent opportunity for analysing both the tensions between a scientific approach and a narrow cultural identity outlook that were at play in a morally-warped profession, and the intellectual's complicity in apartheid. The latter focus is especially useful in approaching the more intriguing question of whether any intellectual can ever achieve true independence, or if indeed s/he should even aim at such an ideal. It is hoped that this case study will throw some light on the matter. I shall interrogate especially the writings that Coetzee published mostly outside of the library journal that he edited from 1961–1968, and analyse some of his activities in the library association. I will, however, refer also to his other writings as and when this becomes necessary.

2 AN AFRIKANER LIBRARY ACTIVIST

Petrus Carolus Coetzee was born on 21 June 1905, and was certainly one of the key figures of twentieth century South African librarianship and a prominent Afrikaner intellectual. His parents moved from the Karoo area to Pretoria before the Anglo-Boer South African War of 1899–1902. Coetzee's father was a 'bittereinder' who refused to lay down his arms after the war, and slipped into Pretoria in 1903 with his firearm.⁴ Coetzee was one of seven children, and had to leave school after completing standard six (grade eight). He delivered meat for a butcher for a while and then found work in the State Archives where he sorted packages and delivered papers to Members of Parliament. He joined the University of Pretoria as a telephonist at the tender age of seventeen in 1922, and immediately enrolled for his

matric. He had to repeat the final examination, but then registered for a Bachelor of Arts degree with a very wide range of courses.

He worked his way through the ranks from messenger, library assistant and acting librarian to become the Merensky University Librarian in 1937 (Ad Destinatum II:41). In 1938 the University of Pretoria introduced a three-year course in Library Science that could be taken with the Bachelor of Arts degree or as a skills course included in the Higher Education Diploma. A diploma course was also introduced exclusively for the Merensky Library personnel.

Coetzee had qualified himself through the examinations of the Library Association of the United Kingdom in 1932, and he was the driving force behind these new developments in library education at the University of Pretoria. His other qualifications were a Masters degree on the cultural philosophy of Albert Schweitzer from the University of Pretoria in 1941, and a Doctorate from the University of South Africa (Unisa) in 1952 on meaning and reduction in the work of Edmund Husserl and Nicolai Hartmann.⁵ It is important to note that Coetzee's first love was philosophy, and that he was indeed preparing himself for an academic career in this discipline. What is more interesting and pivotal in Coetzee's life is that the Professorship in philosophy was promised to him when C H Rautenbach had to leave his position as Professor and Head of the Department of Philosophy to take up the Rector's post in 1948. But it was instead given to C Oberholzer without even informing Coetzee, who was eagerly preparing the lectures for that year.

The decision may have had something to do with Coetzee's religious stance. He had walked out of the 'Hervormde' Church as a young man, after a falling-out with the ministers about predestination. The University of Pretoria which usually appointed Professors in philosophy 'with teaching responsibilities in Theology and Education' was probably not prepared to allow its future ministers ('dominees') and teachers to take philosophy from someone like a 'non-church' Coetzee. Coetzee was bitterly disappointed and from then on concentrated his intellectual energies on librarianship. Almost as a sop, he was appointed in 1948 as senior lecturer in an independent Department of Library Science, becoming its first full-time Head in 1959 and Full Professor in 1963 – only the second person to achieve this status in South Africa by that time.

In 1971 he retired from the University of Pretoria having spent a total of 48 years there. For a few more years, he worked as a part-time lecturer at the Randse Afrikaanse University in Johannesburg. Among other things and at

different times, Coetzee was Secretary of the Afrikaanse Studentebond, member of the Constantia Club and the South African Academy of Science and Arts, Secretary of the SALA, editor of *South African Libraries*, Chairman of the Board of the State Library in Pretoria, and vice-Chairman and member of the Advisory Board of the Transvaal Provincial Library Service. Coetzee died on 12 June 1987. Several honours were bestowed upon him, such as Socius status of the SALA (its highest honour) in 1967, and an honorary doctorate in Arts and Philosophy from Unisa in 1982. He was listed in the *Who's Who of Southern Africa* of 1970, and the *Wie is wie in Suid-Afrika* of 1967.

Coetzee pioneered work in some areas of librarianship, and he developed material in such diverse subjects as library history, administration, education, cataloguing, research, classification, readership – he was called the father of readership in South Africa by Fouche (1977:8) – and science as an aspect of the cultural infrastructure of modern civilization. He published several articles, editorials, books and book reviews in librarianship – a total of over 156 separate pieces in all – and his influence in readership studies is still recognizable today in the study guides of Unisa's user studies course in its Department of Information Science.⁶ There is little question about the comprehensive and thoroughly systematic approach that Coetzee adopted in broaching any subject. He perceived himself as a serious scholar and intellectual, and was variously called a man of ideas ('ideemens'), an Afrikaner intellectual ('Afrikanerintellektuele'), 'the father of scientific research in library science' and even 'the father of communication in South Africa'. He (1971:27) likened his own style to one who searches for the source of a river that is hidden high up in the mountains and traces the several streams that issue into it, thereby strengthening its current. To fully understand the river and know what to expect from it, it is necessary to then follow its meandering course fully and completely. This is exactly the character that Coetzee's intellectual and scholarly pursuits assumed.

What is important to note is that during the 1930s when Coetzee started to agitate for a scientific and academic approach to librarianship and library education, the Afrikaans universities were playing a significant role in promoting the nationalist enterprise of Afrikaner ethnic mobilization (Beale 1998; du Toit 1981; Grundlingh 1990). The university's significance for ethnic mobilization in relation to other Afrikaner movements and organizations such as the Broederbond, the Ossewabrandwag and so forth still awaits a solid assessment, but some degree of overlap and cross-membership and hence mutual influence across cultural and academic sectors is undeniable. The 50–50 English/Afrikaans policy on language at the University of Pretoria was revoked in 1932, and the University Council

decided that the university would become an Afrikaans institution. But according to Mouton (1993), it was a time of Afrikanerization rather than becoming Afrikaans ('Afrikaanswording').

Coetzee's scientific approach was itself closely linked from the outset with an Afrikaner identity emphasis, and this link was sustained throughout his intellectual and professional career.⁷ His early efforts to place library education on a scientific footing were perceived as a campaign, even as part of the struggle of an Afrikaner library activist. Aschenborn (1975:5–25), for example, claims that his contribution should be recognized as towards both a scientific approach and an Afrikaner approach to librarianship – the two cannot be separated. In this connection, he refers to Coetzee's fighting spirit and energy ('vegtersmoed en energie'), and acknowledges his struggle and campaign in the cause of an Afrikaans scientific library education, an Afrikaans library language, and the Afrikaans idea ('vegter vir die Afrikaanse gedagte'). Institutional recognition of this link came with the unveiling of a bust of Coetzee in the University of Pretoria's Merensky Library on August 20, 1984 (Ad Destinatum III:423). The bust symbolizes appreciation for Coetzee's contribution to an Afrikaans scientific librarianship ('die Afrikaanse wetenskaplike biblioteekkunde').

In this 'struggle' for an Afrikaans scientific librarianship, the antagonists for Coetzee included the Library Association of the United Kingdom, the early British-oriented South African Library Association, the international press, the international scientific community, and sometimes even certain sections of the Afrikaner community itself. The letter and *Nature* article and Coetzee's editorial response was a flashpoint and a defining moment in this 'struggle', and brought to a head especially the scientific and conservative impulses that rubbed up awkwardly against each other in Coetzee's own intellectual outlook. Coetzee had been Secretary of a branch of the 'Purified' National Party briefly during its leadership by D F Malan. What is more interesting politically is that he wrote for Oswald Pirow's New Order on a number of subjects commencing during the Second World War, and continued to do so afterwards (1940–1958). Pirow was an admirer of Adolf Hitler and served in General J B M Herzog's pre-war cabinet as Minister of Defence. He led the pro-fascist and national socialist splinter group The New Order in the later 'Reunified' National Party parliamentary caucus.

In several articles in Pirow's *Die Anti-kommunis Verteenwoordigende die Nuwe Orde: weekblad waarby ingelyf is die Advokaat Pirow se nuusbrieff*, Coetzee advocated geographical/territorial separation ('geografiese skeiding') to prevent miscegenation ('bloedvermenging'). He also called for complete

segregation ('volledige segregasie') and race apartheid ('rasse-apartheid'), and he accused especially urban intellectuals of blood treason ('bloedverraad') in their suggestion that there are no differences in intelligence between whites and blacks. None of these articles are identified in Aschenborn's biography and bibliography of Coetzee's writings. Coetzee was therefore significantly influenced by the Afrikaner Nationalist radical right in the 1930s and 1940s.⁸ His scholarly love of all things German may have led to his flirtation with the national socialism of Nazi Germany. It certainly influenced his involvement with an attempt to bring German orphans to South Africa after the Second World War (van der Merwe 1988:25), and his efforts to secure a job at Merensky Library for H J de Vleeschauwer, a world-renowned expert on the German philosopher Immanuel Kant.⁹

3 THE EDITORIAL RESPONSE: SCIENCE OR IDEOLOGY

For someone with such impeccable qualifications and at the pinnacle of his professional and academic career, the quality of Coetzee's response is disappointing, even a little bizarre. It offers a glimpse into the embattled mind of one of the library profession's leading lights, and reveals the fraudulent nature of the 'scientifically-based' segregation of the library profession and library services along racial lines.

One of the signatories to this letter to Coetzee, C D Saul, was honorary secretary of the Southern Transvaal Branch and one of its representatives on the Administrative Council of the SALA from 1962–1964.¹⁰ On 29 November 1962, Saul had submitted an earlier letter on behalf of the Southern Transvaal Branch to C J H Lessing, the Honorary Secretary of the SALA, 'deploring the introduction of the principle of apartheid into the library profession in South Africa'. At the Annual General Meeting of its Special Libraries section, the Southern Transvaal Branch had expressed the need to place on record its opposition to the setting up of separate racial library associations (Branch News 1962). Saul's letter noted that academic and professional qualifications should be the only valid criterion for admission to the profession and 'that any other considerations such as race, colour or creed are completely irrelevant' (Letter 1962). It also expressed the pity that the SALA was not prepared to await the passing of legislation enforcing apartheid in professional bodies.

The letter to Coetzee that accompanied the *Nature* article was co-signed by B

Lunn, L A Phillips, D M Turner, B Strachan and L Greenstein who, along with C D Saul, were presumably members of the Southern Transvaal Branch. The *Nature* article bore the title: **Apartheid in South African Learned Societies**. It announced the launching of a new review journal, *Minerva*, which replaced *Science and Freedom*. This new review journal aimed at improving an understanding of the effect of contemporary developments in every sphere of life on the pursuit of truth through science and scholarship. The opening article in *Minerva* by the editor displayed the way in which Government and science and scholarship interact with each other (Apartheid 1962:1241). The first issue of *Minerva* contained also the text of Sir Eric Ashby's Chancellor's Lecture to the University of the Witwatersrand in which he defended the university's right of admission without external interference.¹¹ This argument applied also to learned societies such as professional associations, and the *Nature* article noted the 'strange coincidence' of the appearance of Ashby's lecture at the same time as the South African Minister's announcement of apartheid in scientific and professional organizations.

The *Nature* article proceeded, following the cue in *Minerva*, to defend the scientific community's sceptical stance towards government and society in respect of claims that are unavoidably made on it. While restrictions on the autonomy of the scientific community reasonably arise from the necessity of financial provision and public policy, it is the way in which Government or other influence is exercised that should be clarified and examined. The demands of Government 'are illegitimate where they would interfere with the discovery and communication of truth'. The article also pointed out the damaging consequences of the South African Government's decision on science itself and the possible isolation of the South African scientific community from international contacts. Closer to the heart of the library profession's own character, the article highlighted the detrimental effects of the obstruction of the communication of ideas and information on the advance of science and learning.

While the article would be eminently reasonable to any self-respecting scientist, it was denounced by Coetzee (1963:119) as disappointing, partisan, abusing the authority of a highly respected scientific journal, not even pretending to be objective, and using the language of a soapbox orator. Coetzee clearly appeared to defend the SALA's decision, preferring to use the phrase 'separate development' instead of apartheid. But instead of engaging the argument of the *Nature* article, Coetzee instead attacked the writer/author of the article (whom he presumed to be an individual and male). This was clearly not vintage Coetzee applying his intellectual powers

to argue cogently against the salient points brought by the *Nature* article against government interference in scientific activity. There was instead a number of things that are either odd or shocking in Coetzee's editorial response.

First, he hardly found it necessary that a scientific journal with an international reputation should deal with what in the last instance is 'a political issue within a particular state'. By simply declaring apartheid as a domestic political issue, Coetzee automatically turned it into a 'no-go area' for the foreign scientific commentator; Second, at least the issue should have been 'treated scientifically' by which he meant that the author should be impartial and objective – there should be 'a survey, as complete as possible, of all facts and aspects involved; that he will examine these without bias in order to discover problems, causes, and motives, and that in reporting on the results of his investigation, he will exercise judicial restraint'. Science is here reduced to style and method, with an appeal to the jewel in the positivist crown – the survey technique; Third, Coetzee picked out a typographical error (Dr 'Voerward' instead of Verwoerd) but completely missed a factual error (the article states mistakenly December 5 as the date of the Minister's announcement instead of November 5 when the Minister opened the Library Conference). While Coetzee scoffed at 'uncritical readers that may be impressed' by the apparent competence of the scientist responsible for the article, he was clearly not reading critically himself;

Fourth, Coetzee claimed that the use in the article of 'deviation' in the phrase 'this latest deviation of the South African Government' was one of 'moral disapprobation'. This is dishonest because the matter is not, as Coetzee preferred, that only one 'orthodox' way of thinking and conduct is correct and that anything else is a deviation 'deserving the wrath and chastisement of all good men (sic)'. The article instead questioned the interference of the South African Government as a specific instance in which the impact of any government on the primary aims of science and scholarship may impair the ability of a scientific society or professional association to serve the welfare and progress of the community and society; Fifth, Coetzee accused the article's author of being under the illusion that his own opinions were 'eternal verities' and that his own judgements 'reflect everlasting values'. This is fatal to scientific enquiry, according to Coetzee, and must 'render futile any attempt at free discussion'. This statement assumed that the SALA decision in favour of the formation of separate Library Associations itself followed free discussion among all affected parties concerned, which Coetzee himself identified as 'the Bantu,

the Coloured people, and the Indians'. This could of course not be further from the truth, rendering the SALA decision as being itself an illusion by Coetzee's own logic;

Sixth, Coetzee asserted that the 'policy of pluralism or separate development of groups with different culture patterns had not been adopted without study or without a thorough knowledge of South African realities'. This study and knowledge was based on premises that were different from those of 'the present day ideological orthodoxy that sees in multiracial unity a panacea for all political and social evils'. Coetzee then added that it would be misleading to think that the South African ideology (of apartheid) must necessarily be wrong and wicked. In other words, it becomes impossible to judge between two ideologies and therefore impossible to condemn apartheid.¹² In this respect, Coetzee's editorial title is puzzling. It is phrased **Science Or Ideology**, without the question mark. Whether he equated or contrasted science and ideology is unclear. What is suggested in an analysis of this editorial is either that science and ideology are the same or that science follows and is therefore limited to and by ideology.

One can only speculate on how Coetzee intended his editorial to be taken or whether this odd response simply reflects a stunned and slightly disoriented mind. After all, the 'father of the scientific approach to librarianship in South Africa' was fundamentally challenged by the views of the international scientific community, and in one of its most prestigious journals. This raises the question of how one is to understand the relationship between science, conceived as the embodiment of universal and rational knowledge, and its articulation and resonance in the historical context of South African librarianship? More specifically, was (or is) an Afrikaner scientific librarianship at all possible?

My view is that Coetzee's early 'scientific' development of librarianship was largely in reaction to the British conception of librarianship as typified by the Library Association of the United Kingdom and its influence on the early SALA, and that his later 'scientific' development of librarianship was influenced by Afrikaner intellectual traditions that drafted science in the service of Afrikaner Nationalism, and which ultimately served to justify apartheid. In other words, an apt title for his editorial response would have been **SCIENCE FOR IDEOLOGY** because the enduring point of reference in his professional career was that of Afrikaner cultural identity.

4 SEGREGATED LIBRARY SERVICES

Coetzee's early impulse to develop a professional library philosophy cannot be viewed in isolation from his related concern to cultivate the library idea among Afrikaners. He was especially motivated by the very English character of the library profession in the early 1930s. Except for the first Conference of the SALA in 1930 and one other Conference, he attended all the others and was Secretary of the SALA under four different Presidents. During this time, very little Afrikaans was spoken at the Conferences, and Coetzee tried to promote the Afrikaans idea wherever he could. He often discussed the possibility of even breaking away from the SALA to found an Afrikaans Library Association if the pressure became unbearable (Aschenborn 1980:14). The English-Afrikaans tension overshadowed the matter of separate library services for black South Africans. Coetzee (1955c:5), for example, bemoaned English dominance of the early development of librarianship in South Africa, and the lack of opportunity to develop a parallel Afrikaans library tradition. The antagonism between English-speaking white South Africans and Afrikaners was particularly acute in the 1920s and 1930s as the Anglo-Boer South African War of 1899–1902 was still fresh in popular memory. Discourse on race relations and the 'race problem' at that time was in fact seen to be between Afrikaners and English speaking whites (Dubow 1996).

Separate treatment for South Africa's white and black people had existed already from the inception of the formal organization of (free) library services in 1928. Even before that, black South Africans were either restricted in their use of subscription libraries because they could not afford the fees or their subscriptions were refused or returned to them (Peters 1975). The reports of the Carnegie expert librarians, S A Pitt from Scotland and M J Ferguson from the United States who surveyed the library situation in South Africa with a view to receiving funds from the Carnegie Corporation and the South African Government, showed early differences of opinion about library services to black South Africans. Pitt (1929) believed that the 'Non-Europeans' were not yet ready for library services and that attention should be given to them at a later stage, but Ferguson recommended provision of books to the 'natives' (by which he meant blacks, 'coloreds' and East Indians) so far as they are able to use them – although 'no sane person would advocate the circulation of the same books to all' (Ferguson 1929:10). The historic South African Library Conference in Bloemfontein on 15–17 November 1928, was based on the recommendations of the reports of Pitt and Ferguson, and it advocated separate general

library services for 'Non-Europeans' (Report 1929:11). Since the outset then, library services were separate and unequal – the total amount of Carnegie funds for services to black South Africans, for example, was \$32 000 by comparison with \$143 750 for white South Africans in the period 1930–1932 (Stackpole 1963:29).

Pitt and Ferguson also noted the schism between English-speaking and Afrikaans-speaking whites, and the negative implications of this disunity for the development of library services in South Africa. The imitation of the Library Association of the United Kingdom model by the SALA presented several problems for Afrikaners, according to Coetzee. Because of their small numbers on the library staff, English as medium of instruction in the SALA's examinations isolated Afrikaners even further. Changing circumstances, however, led to a growth in demand for librarians between 1933 and 1937 and brought a number of unqualified Afrikaners into the library, who could still only qualify themselves through the examinations of the British-oriented SALA.

At the same time, Coetzee (1975:104) argued, there was both a call in especially the United States and the Netherlands for a more scientific education to replace the undue emphasis on techniques, and a call from Afrikaans universities that university librarians require more than what current SALA syllabi offered. When the University of Pretoria commenced its library education in 1933, the SALA refused to recognize its qualifications and found all kinds of reasons to continue its own examinations until as late as 1962. As more and more Afrikaners entered the profession and assumed leading positions, however, the SALA had little choice but to adapt.

Coetzee distinguished sharply between the scientific education of the universities and the technical education of the SALA, and claimed that the academically-educated librarians boosted the status of the profession and the SALA. This was borne out, in Coetzee's view, by the fact that the development programme of the SALA was accepted at the National Conference of Library Authorities in November 1962 (where the infamous decision to establish separate Library Associations was taken). The key elements of this academic/scientific education is discernible in Coetzee's own scientific views.

Coetzee's (1935:40) early concern with fundamental issues was evident from an essay produced more than sixty years ago in which he expressed the view that most writings about libraries at the time were "pretentious and unsatisfactory". In that early essay he called for a professional philosophy

that would account for the purpose of the library and its function within an organization. The early conception of science in Coetzee's writings was broad in the sense that he stressed general scholarship in the educational preparation of librarians. His early essay on education for library service (which had to be translated from the original Afrikaans into English for publication in *South African Libraries*) drew on the ideas of American library educators such as Pierce Butler, Ernest Reece, Charles Williamson and George Works who in the 1930s sought to base education in librarianship on basic principles instead of an exclusive focus on techniques and methods. The librarian, in this early view of Coetzee (1937:155), should be 'a fine scholar, a man (sic) with the tact and vision of an educator and an administrator, thoroughly equipped with technical knowledge and possessing the skill of a good organiser'. In this essay, Coetzee went to considerable lengths to point out the several shortcomings in the examinations of the British-oriented SALA, and to emphasize the advantages of an academic/university education to achieve the professional qualities sought in a librarian.

In his efforts to develop a scientific librarianship to counter the approach of the SALA, Coetzee therefore drew on developments abroad, most prominently, the United States, the Netherlands and Germany. His emphasis was on general principles and general scholarship with a broad educational and cultural role for the library. The focus on cultural identity at this point was still submerged and his activism appeared to be a plausible attempt to merge a concern to develop librarianship in line with international trends together with the real need at Afrikaans universities to suitably prepare their library personnel to cope with new challenges. At this point in his career, Coetzee expressed what he perceived to be the real need for Afrikaans academic education for an important profession requiring qualified personnel. When he (1937:164) therefore stated that 'The future of the library lies not in its becoming a part of the bureaucratic system, but a cultural power in the community', there was no indication of just how rigid this claim would become in his later work.

A bolder approach to forging the link between science and cultural identity appeared in his two-part article on the question of whether librarianship was indeed a science. This article was published in Afrikaans in a journal called *Municipal Affairs* in 1955. Here he talked about a new idea, a new reality, and new ideals, and he argued that only with a thorough knowledge of the whole cultural situation we can determine afresh what the purpose and function of the new librarianship should be in this situation. This, according to Coetzee (1955b:11), required a scientific study of librarianship,

its place in society, its internal structure and its functions. A broad conception of science was still present in the sense that reality in all its interrelatedness will reveal its structure, and guide human conduct and behaviour based on insight. He (1955b:13) stated that science was more than simply knowledge – it was systematic knowledge that formed a cohesive whole of realities and meanings about the world, mankind and society. Librarianship as a learned profession should be based on a science if it expected to enjoy the same status as medicine, theology and law, and if it expected to be taken seriously.

In this article, Coetzee once again acknowledged the ground-breaking work of foreign library ‘scientists’ such as the American, Pierce Butler (whom he called ‘the father of theoretical library science’), the Germans, Walter Hofmann and Hans Trebst and the Hollander, van Riemsdyk. And once again he took a swipe at the SALA when he said that neither Butler, Trebst nor Hofmann would be members of the British-oriented SALA as a result of their academic qualifications. He subtly pursued his campaign against the SALA by arguing that for librarianship to become a science, there was a need for lecturers who actively participate in scientific activities themselves instead of simply transmitting existing knowledge. He was targeting the examinations of the SALA once more which he maintained earlier was simply about the regurgitation of memorized facts.

It is evident that Coetzee’s scientific efforts at this stage was still motivated by a need for recognition of Afrikaners by the British-oriented SALA, and that he deployed a scientific and academic approach in his strategy. As mentioned earlier, this situation in the library profession reflected the larger national picture in which the tensions between English-speaking white South Africans and Afrikaners dominated politics and characterized race-relations at the time. Indeed, apartheid itself was not a fully-fledged ideology by the end of the 1940s, and was very much a subject of struggle well into the 1950s. The efforts at forming a unified white South African polity were still strongly contested, and was felt even within the library profession itself.

5 SCIENCE AND CULTURAL IDENTITY

Coetzee wrote several articles on the Afrikaners and librarianship, as well as their relationship with literature and art (1950a, 1954a, 1954b, 1955a, 1966a, 1968). But what began as an attempt to incorporate Afrikaners into the predominantly British-oriented SALA on largely scientific grounds

developed later into a justification for separate library associations and separate library services strictly along racial lines. The processes of cultural identity formation among Afrikaners led to the felt need to create also other cultural identities, and to the subsequent separation of library associations and library services. For the scientifically-inclined Coetzee, this differentiation could only be justified on the basis of a set of fundamental principles. And the likely source for such principles was the debates and discussions found in Afrikaner intellectual circles in the 1930–1950s.

There were two prominent Afrikaner intellectual groupings that sought a moral grounding for what became apartheid – namely, the members of the South African Bureau for Racial Affairs (SABRA) who were based mainly at Stellenbosch University, and the Potchefstroom intellectuals who were based at the Potchefstroom University for Christian Higher Education. The two groups of intellectuals differed mainly in the way in which they grounded their support for apartheid. The SABRA intellectuals lacked an overt religious framework or any holistic belief system in their work on national and ethnic differences, and their conception of these differences was based more on an anthropological than a Calvinist basis (Norval 1992: 281). The Potchefstroom intellectuals were guided primarily by their interpretation of the writings of the French theologian, John Calvin, and articulated their vision of national self-determination and of territorial separation along ethnic lines based on the concept of the sovereignty of spheres. The Calvinist respect for the principle of diversity allowed Afrikaners to become aware of their own identity as a people (Stoker 1952), and the principle of difference which was viewed as the universal manifestation of the principle of diversity sanctioned differentiation of human beings – for these intellectuals, along racial lines. Hence, freedom and development and cultural achievement were achieved through apartheid, that is, within different spheres. This prepared the moral ground for the subsequent ethnic groupings and homelands of grand apartheid.

Coetzee's own intellectual inclinations reflected characteristics of both groups. His 'independent' style tended at times towards association with the Potchefstroom intellectuals and at other times towards the views of the SABRA intellectuals. This is clear, for example, from his talk delivered at Potchefstroom on 'librarianship and the current social situation', in 1969. In his opening remarks, Coetzee (1969) warmly praised the Potchefstroom intellectuals and stated that for librarianship to move beyond the mere discussion of techniques, it had to base itself on the Afrikaner Calvinist tradition. He saw this as a gap that had to be filled by library scientists who were themselves rooted in this tradition.¹³

On the other hand, his activities and writings also revealed an affinity with the SABRA anthropological views of the day, and he drew on both the 'volkekunde' of Afrikaner cultural anthropologists and the physical anthropology of people like Raymond Dart whose work on race typology and 'cultural diffusionism' was well-known in South Africa in the 1930s–1950s. When the Minister of 'Volksgesondheid', Dr A J Stals, therefore opened the SALA Annual Conference in 1950, a number of key ideas came together in his speech that reflected both a shift in the balance of power in South African politics, and also highlighted related changes in Coetzee's own scientific views. The Minister (Stals 1949:112) cautioned that in their relation to 'non-whites', the SALA should know what to do in order to preserve the all-important cooperation between the two white population groups. Nothing should be done to jeopardise this unity, but the establishment of a separate library association for 'non-whites' should be guided in the spirit of trusteeship and the will of providence that whites should bring the light of civilization to the southern tip of Africa. The already-existing separate treatment for black South Africans therefore began to intensify after the National Party victory in 1948, and the subsequent legislation by the South African Government for separate scientific and learned associations was already foreshadowed in pronouncements like these.

But more importantly, these remarks by the Government Minister were prompted by the already ongoing efforts inside the SALA to amend its constitution to implement apartheid. And Coetzee played a significant role in these activities. A few years earlier, in 1947, Coetzee had served on a SALA committee that was constituted at the Annual Conference in Cape Town to consider the question of the feasibility of establishing a 'Non-European' Section of the SALA, and the necessary constitutional changes that this implied.¹⁴ Coetzee (Report 1948) circulated a questionnaire to members of the committee and, as a result of a positive response to a question on the desirability of listening to the views of experts on 'Non-European' affairs, W W M Eiselen, J R Brent, G H Franz and J D Rheinalt-Jones (who did not attend but afterwards wrote a long letter to Coetzee) were invited to advise them. The purpose of the questionnaire was to establish the guiding principles for separation. The principles excluded the possibility of asking whether racial separation was at all the right thing to do. It simply sought a basis on which such separation should proceed – in other words, science was pressed into service of an ideology, and ruled out completely certain kinds of questions.

All three 'experts' were from the Transvaal Province. Eiselen was then a Professor of Ethnology at the University of Pretoria, and a colleague of

Coetzee. He was the author of the Transvaal Education Department (TED) Report on Native Education in 1941, and he later chaired the infamous commission which proposed a new form of 'Bantu' education which became the basis for the Bantu Education Act (no 47 of 1953). He was also a SABRA founding member. Franz was Chief Inspector of Native Education of the TED, a post that Eiselen once held. Brent was Manager of the Native and Asiatic Administration of Pretoria. All three were also members of the Transvaal Carnegie Non-European Library Committee (Report 1948). These experts recommended an entirely separate 'Non-European Library Association' in which equality with the association for whites was assured, as this would be the best way of serving the interests of the 'natives'. Rheinalt-Jones believed that it was unwise and unjust to refuse membership of 'Non-Europeans' to the SALA. The final recommendations of the Committee to the SALA were that there should be either separate and autonomous library associations or full membership of 'Non-Europeans' in the SALA with a measure of group autonomy for 'Non-Europeans' in a country-wide section or a number of Branch sections.

At the 1948 Annual Conference of the SALA, the majority of members voted for total separation in a preliminary vote on the report, but a motion was also passed that the matter be referred to the SALA Branches for a final decision in 1949. At the 1949 Annual Conference, Coetzee (1950b:8) expressed impatience at the SALA's hesitation to finally decide on the matter. Interestingly, another university colleague of Coetzee at this meeting was F R Tomlinson, who the following year would chair the Commission for the Socio-Economic Development of the Bantu Areas within the Union of South Africa (1950–1954). That Commission drew strongly from the biology of 'culture contact' to provide a 'scientific' basis for native policy. The Commission's report served as the basis for the Promotion of Bantu Self-Government Act (No 46 of 1959). At the SALA Annual Conference of 1949, Tomlinson (1950:10) voiced his concern about the continued membership of 'Non-Europeans', and threatened to propose to the University of Pretoria that it should withdraw from the SALA.

Coetzee's involvement with the amendment of the SALA constitution to establish separate library associations continued with the preparation for the historic 1962 National Conference of Library Authorities. On 1 June 1961 the President of SALA, H M Robinson (Letter 1961), sent to its Administrative Council copies of the SALA constitution drawn up as a Parliamentary Bill and a statement of the principles on which the regulations would be based. These documents had been prepared by a Sub-Committee consisting of R F Kennedy and Coetzee. The SALA was

hoping to change its status from a private association to one with a Parliamentary Charter in order to secure for itself the same status and position as that of other associations such as the Suid-Afrikaanse Akademie vir Wetenskap en Kuns (South African Academy of Science and the Arts) – of which Coetzee was a full member. The Administrative Council was expected to submit their comments to the Sub-Committee before 15 June 1961 for finalisation before the Annual Conference in November 1962. Coetzee (1961a:42) anticipated that the new constitution would be an instrument for the SALA to act with greater proficiency than in the past and allow it to ‘adapt itself more effectively to **emerging conditions**’ (my emphasis). The Administrative Council met on the evening of 20 June 1962 at an Extraordinary Conference of the SALA for the last time before the historic November 1962 National Conference.

The draft Constitution dealt with several matters and did not contain anything about racially segregated library associations, but three Administrative Council members insisted on its inclusion.¹⁵ On 7 November 1962, at the Annual Conference, motions from M A Peters (an ‘expert’ on library services to ‘Non-Europeans’) and T Friis (a former doctoral student of Coetzee) on racially segregated library associations and exclusive white membership of the SALA were tabled, and the infamous decision was taken after some discussion. As a result of this decision, the Bantu Library Association of South Africa was launched in Mamelodi, Pretoria on 5 and 6 October 1964. Coetzee had been nominated by the Administrative Council of the SALA to chair an ad-hoc Committee to organise this launch.¹⁶ Coetzee received assistance in the preparation for this meeting from the Department of Bantu Education and Bantu Administration and Development, the Non-European Library Services of Transvaal, and several library organizations.

6 SCIENCE AND IDEOLOGICAL LABOUR

Coetzee’s own opening talk at this historic occasion was titled ‘Professional education for a Bantu Library Service’, and concentrated on the idea of a ‘volk’ and on Bantu colleges and universities, and he preferred the idea of a Bantu Library Movement to that of a Library Association. His discussion of ‘Bantu cultural groups’ was wholly consistent with the official Government discourse on ethnic groups as outlined in the Tomlinson Report that provided the ‘scientific’ basis for the Promotion of Bantu Self-Government Act (No 46 of 1959). The homogeneous ‘Natives’ of the Segregation era had now found a scientific platform for the heterogeneous ethnic groupings or

'volke' of the Apartheid era. Coetzee (1964a:503) fully endorsed this, and argued that in addition to conventional library education, Bantu librarians required an in-depth understanding of the cultural needs of the Bantu as a basis for their professional education.

By this time, Coetzee's views had narrowed from the former concerns with promoting civilization and scholarship based on scientific investigations to focus almost obsessively on specious notions of culture, enculturation, cultural disinheritance and 'culturology'. His notion of culture was no longer the earlier 'judicious love of the past' (1937:156), but had become tied securely to the 'volk' or group so that an individual, in true Calvinist spirit, could only fully attain self-fulfilment within the confines of the cultural group to which s/he belonged. But his views on cultural groups also drew heavily on the cultural anthropological views of the day.

The broad educational role of the library was now dismissed as 'a blight on library thinking' and 'a dogma of library science' (Coetzee 1966b). Instead, the library became an instrument of enculturation. Coetzee, who back in 1937 had said that the educational function of libraries would begin to feature more and more strongly, now held that the library was a cultural instrument instead and that its functions were derived from its cultural character. Libraries strove to perpetuate culture and the cultural progress of a community. Culture was viewed here as that force that supplied uniformity of thought and actions in a community. It was closely associated with education since individuals had to be inducted into the ways of the group to which s/he belonged. Enculturation occurred when a person 'picks up' the *ethos* (a relatively constant system of beliefs and attitudes) and *mores* (a relatively constant system of behaviour patterns or folkways) of a group. Coetzee's notion of 'ethos' corresponded closely with the 'ethnos' theory that was adapted by Afrikaner cultural anthropologists from Abraham Kuyper's (1943) interpretation of Calvin's views on 'sovereignty in one's own sphere'. Kuyper was a professor of theology at the Free University of Amsterdam. The four sovereign spheres of Kuyper were reduced to a single historical imperative, namely the 'volk', and the state was obliged to preserve the diversity and integrity of South Africa's several 'volke'.

Enculturation was viewed as a life-long process and differed from formal education in that it was more spontaneous and was initiated and maintained by the individual's desire to be part of the group. The librarian was no longer the fine scholar and so forth as Coetzee described in 1937, but now became a social scientist, and more specifically a culturologist who studies culture or cultures of the community served by his/her library.

Coetzee (1966c) now became single-minded about this group focus, so that the librarian/culturologist aimed at discovering what books would be the most acceptable to cultural groups being served, and finding means of raising the general cultural level of the group or groups concerned.

This turn towards a narrow cultural emphasis in line with the logic of apartheid discourse brought with it an accompanying shift in his use of scientific discourse. In other words, Coetzee coordinated several discourses in his later views on the professionalization of librarianship. These views resonated with the wider political changes in South Africa. With the introduction of the Bantu Self-Government Act in 1959, apartheid had reached a high-point with its 'solution' to the country's colour question, centralising issues of ethnicity and the development of the homelands. This Act itself consolidated several disparate matters relating to the future political dispensation and provided a solid perspective of the future relations between white and black South Africans.

Afrikaners no longer reacted only to the 'imperial' cultural, social and economic hegemony of the English-speaking white South Africans. In a long speculative essay dealing with his conception of the 'ethos' of groups, Coetzee (1961b) acknowledged the difference between Afrikaners and English-speaking whites, but advocated a broader 'Anglo-Afrikaner ethos' based on a common Western European heritage of both groups – Coetzee (1955c:5) even viewed South Africa itself as a Western European country, and white librarians as Western librarians. Oddly enough, the common Southern African origins of 'Bantu' groups did not similarly guarantee a broader ethos such as was then emerging in the more politically threatening African Nationalism. The segregationist discourse was replaced by apartheid discourse which dealt with both the Afrikaner vis-à-vis English groups and the 'colour question'. The perceived threat of African Nationalism in fact prompted the need to create separate ethnic groupings or national units as 'volke', but these were not only about different 'peoples' but also about a hierarchy of white and black. The divide-and-rule principle had assumed a fresh form in apartheid South Africa.

When the first 'watershed' symposium on library services for 'ethnic' homelands was held in Pretoria from 24–28 October 1977, Coetzee's attendance as a then-retired academic confirmed his solid ideological support for the full flowering of apartheid policy in library services (List of delegates 1978:37). At two other annual meetings of the SALA, moreover, Coetzee played a leading role in preventing the reversal of the infamous

1962 decision so that black librarians may once again be admitted to the SALA.

Science had become the handmaiden to ideology in the professionalization of South African librarianship. In Coetzee's (1960:84–89) view, it had become impossible to judge apartheid on the grounds of truth or morality since the choice between integration and apartheid was one of a choice between different ideologies. He argued that the right to maintain separate identities justified apartheid, but he failed to explore the historical processes by which identities developed. They simply appeared to be there, and the group was the primary identity through which an individual may fully develop. A plurality of cooperating cultural groups sustained this ideology and was oriented to a different Utopia from that conceived by integration. Science should find its rightful place within this context and deploy its techniques in aspiring towards this Utopia. Cultural discourse had become a thin veil for racist discourse, and Coetzee's reference to cultural groups in fact implied a racial typology as a basis for segregating library services and library associations. This was clearly spelled out in a review article in which he (1964b:46–53) confidently asserted that general history is racial history and that the superiority of the white race justified violence against other races in the name of civilization.

Coetzee claimed in this review article that what had happened in South Africa was in line with what had happened elsewhere in the world in the sense that whites had always subdued other races wherever they went. Coetzee argued that the indigenous peoples, and slaves brought to South Africa, were exploited in several ways as a result of either their own population dynamics or as a result of prevailing historical circumstances that cannot be blamed on whites. On the other hand, he ascribed the rise of African Nationalism to ideological views propagated by whites especially from foreign countries. Blacks were viewed as clearly incapable of such thoughts themselves. In fact, 'non-white civilization' is either an oddity or impossible since real civilization had always been the achievement of whites (Coetzee 1964b:51). But whites ought not to impose this on others and should instead recognise a plurality of races and cultures, albeit along a superiority-inferiority differential. As in the case of a previous article in which he expounded his views on race and culture, Coetzee cited once more the work of Raymond Dart. Dart had arranged the races in a clear hierarchy with the creative and mature Nordic at the top and the childish and infantile San (Bushman) at the bottom (Dart 1939; Dubow 1996).

When the retired Coetzee (1972:170) therefore reflected that the funda-

mental core of 'library science' was the problem of storage and retrieval of the record of human experience, learning and imagination, which united it into an integrated whole, and that it was more specifically the science of the record, he clearly had in mind its application to library services within narrowly conceived and racially-based cultural communities, endorsed and enforced by the apartheid ideology. His (1965:105) observation that science was itself a human endeavour that aimed to discover and describe facts about a problem or group of problems with a view to an explanatory insight, had taken on a decidedly tendentious character. In his last study of the sciences, or, 'wetenskapkunde' for the Randse Afrikaanse University's journal *Sinjaal*, Coetzee (1977–1978) finally placed the purpose of science firmly within the cultural infrastructure, thereby domesticating its application and violating the universal and rational basis of science.

Coetzee's intellectual outlook therefore accounts for his editorial response to the letter and *Nature* article, and throws light on his full support for the racially-based segregation of library services and library associations in South Africa, as officially sanctioned by the SALA on 7 November 1962.¹⁷

7 CONCLUSION

By pressing science in the service of ideology, the professionalization of South African librarianship shows how the library profession became racist as the discipline and library education became 'scientific'. The scientific development of librarianship expressed itself strongly in the ideas and activities of its most influential intellectual, P C Coetzee, for whom an Afrikaner cultural identity focus mutated from an anti-imperial stance to a pro-apartheid one. Scientific discourse was deployed in justifying both an Afrikaner identity in the library profession, and in the formation of apartheid in library services. The intellectual's complicity in apartheid, as typified in the case of Coetzee, underscores the difficulty of achieving true independence in the realm of ideas and scholarship. A moralist view is that intellectuals should speak the truth to power, but a realist view based on an empirically-grounded analysis of the intellectual shows an accommodation to power, or speaking the 'truth' for power. In South Africa today, as librarianship continues to seek improvement of its professional status based on science (information science), and as group discourse along national, ethnic and racial lines stubbornly persists alongside new forms of inequality, there is a need for continued vigilance.

Notes

- 1 In a recent book on apartheid in South African libraries, Kalley (see bibliography) claims that the SALA expelled its black members in 1962 as a result of the Broederbond. This is not only incorrect, but her analysis fails to account for the activities and debates inside the SALA that led to the decision taken in 1962 to establish racially-segregated library associations. What also still awaits an explanation is the rather 'tame' acceptance of this decision by black South African librarians, but this article more narrowly deals with the SALA and P C Coetzee.
- 2 This Conference was the second National Conference of its kind. The first was the 1928 National Conference in Bloemfontein that launched the formal organization of library services in South Africa. Six of the delegates to the 1928 Conference were also expected to attend the 1962 Conference. The 1962 National Conference of Library Authorities was held on 5–7 November and was the culmination of the work of an Action Committee that dealt with several aspects of library services and library cooperation. Authorities of all the major libraries, university principals, heads of Government Departments, Town Councillors and Town Clerks and a large number of learned societies were represented at this historic conference where resolutions in the form of a manifesto for the planning of future library development for South Africa were adopted (Programme 1963 – see bibliography). H M Robinson who was the President of the SALA at the time was careful to alert the Secretary of Education, Art and Science about the library association's concern not to stray from government policy and to bring any contentious matters to his attention (Correspondence 1962 – see bibliography).
- 3 Another source (Kesting 1973 – see bibliography) claims that the number was only three at the time, although it should be mentioned that this appears as a correction pasted over the original writing.
- 4 Interview with Mrs K Roodt-Coetzee, wife of P C Coetzee, on 24 October 2000.
- 5 This doctoral thesis was completed under the supervision of another library educator/intellectual, H J de Vleeschauwer, who after some initial resistance from the Unisa Executive of Senate because the latter was also linked to the Merensky Library at the time, examined the thesis along with H G Stoker of Potchefstroom and A H Murray from the University of Cape Town. Coetzee had been encouraged by de Vleeschauwer to submit this thesis for examination as an external student at Unisa after he had read it as a draft of something that Coetzee had worked on in the course of his studies in philosophy at the University of Pretoria. In his letter of application to Unisa, Coetzee mentioned that he had, at the same time, also completed writing another doctoral thesis on 'Die Objek van Wetenskap' (earlier 'Kultuur as voorwerp van Wetenskap') which was in its final version and

in the hands of his supervisor, Prof C H Rautenbach, the rector of the University of Pretoria at the time.

It is not yet clear what happened to this thesis, nor where this work is today. In 1956, Coetzee submitted the outline of yet another doctoral thesis, and the first one for the newly-founded Department of Library Science at Unisa under the just-appointed Head, de Vleeschauer, who was also Head of the Department of Philosophy. There were a few irregular things about this submission. First, it was once again based on work that Coetzee had completed as part of his study and teaching responsibilities at the University of Pretoria. Second, Coetzee did not have a Masters degree in the subject, but his request to Unisa for the Masters status was granted and he was admitted directly to the doctoral examination. Third, although the title of his proposed thesis was only finalised in June 1958, the full thesis was already published in de Vleeschauer's series of *Mousaion* by 1957 as 'Die Sintaksis en Semantiek van die Trefwoord'. The change in thesis title had been effected as result of an objection by Prof H J J van der Merwe of Unisa's Department of Afrikaans-Nederlands. Nothing further was ever heard of this doctoral thesis. Coetzee could therefore well have ended up with three earned doctorates.

- 6 The University of South Africa is the largest South African distance-teaching university with about 130 000 students.
- 7 The reference to Afrikaans is misleading because Coetzee's focus was on the white Afrikaner and excluded black Afrikaans-speaking persons.
- 8 Although it is difficult to prove, it is possible that Coetzee was also a member of the Ossewabrandwag (OB – Oxwagon Sentinel) – a mass-based Afrikaner Nationalist movement that was founded in February 1939. His name appears in the archival tapes of the OB held at Potchefstroom University as reflected in the footnotes of an article by Marx (see bibliography). As Secretary of the Afrikaanse Studentebond he would probably have been an automatic member of the OB because of an agreement between the two organizations.
- 9 de Vleeschauer had to flee from Flanders in Belgium because he was sentenced to death by a 'volkshof' for cooperating with the Nazi-regime (Muller 1988). Coetzee even arranged accommodation for him after his arrival, and they became close friends ('geesgenote').
- 10 The SALA was organised on a federal basis, allowing its seven branches considerable autonomy. Each branch was represented on the Council, and the Council was charged by the annual Conference of the Association to run the Association and conduct its general affairs. The very representative character of the SALA of the Council prevented it from meeting frequently, and an Executive Committee usually from one part of the country was elected to manage the day-to-day affairs

of the Association. Conference also appointed a number of Sub-Committees for special purposes (Perry 1951 – see bibliography).

- 11 The mis-named Extension of University Education Act of 1959 introduced apartheid into higher education in South Africa.
- 12 Coetzee (see bibliography) had also written a similar article in 1942 in which he presented conflicting conceptions of the state by Gert Maritz and Piet Retief as contrasting and irreconcilable ideologies.
- 13 One such attempt has been made by H S Fourie in 1985 (see bibliography).
- 14 The other members were K Johnson (who withdrew as Convenor), E A Borland (who assumed the role of Convenor), M Whitely, E Levy, E M Lister (who asked to be excused), A M L Robinson and D Varley.
- 15 These members were F J Potgieter and S C J van Niekerk from Bloemfontein, and A P Duvenage from Kimberley (Correspondence 1961).
- 16 Marguerite Peters (see bibliography) claims that Seth Manaka of the Non-European Library Services, Transvaal, approached the SALA Consultative Committee, indicating an initiative from the side of Black librarians to endorse segregation – but this requires corroboration. In fact, the entire matter of racially separate professional associations still requires further investigation. Besides the Carnegie Non-European Library, Transvaal, and the Carnegie Coloured Library Committee that commenced activities in the 1930s, there was also a Cape Library Association that was established already in 1959 in Cape Town exclusively for Coloureds. Through encouragement by the SALA decision in 1962, it attempted to extend its reach to the entire country's Coloured librarians as the Library League of South Africa. An Indian Library Association was established in 1967 also under the guidance of S I Malan of the SALA. What is worth noting is that the 1962 decision by the SALA brought into being three sub-committees to look into all matters relating to the establishment of associations for the Bantu (headed by P C Coetzee), Coloureds (headed by D L Ehlers) and Indians (headed by R Brown). They were to investigate especially such matters as liaison between the associations, the feasibility of a joint publication and international representation. These associations were also to be open not only to librarians but all interested parties and to be seen as peoples' movements.
- 17 The repeal of the Separate Amenities Act in 1990 officially ended segregated library services, and the launching of the Library and Information Association of South Africa (LIASA) on 10 July 1997 unified the several library associations in South Africa – although the Library and Information Worker's Organization (LIWO) remains independent.

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The many faces of globalisation

Elirea Bornman and Norlé Schoonraad
Department of Communication
University of South Africa

Abstract

Although 'globalisation' has become the catch word of our times, it is not a simple linear or uniform process. On the contrary, globalisation is associated with apparently contradictory processes that manifest themselves in different forms in various domains such as the economic, social, cultural and political domains. Furthermore, in all these domains, globalisation is not only characterised by universalisation, homogenisation and uniformity, but also by localisation, heterogeneity and an emphasis on uniqueness. These many faces of globalisation are discussed in this article.

I INTRODUCTION

Nothing will be done anymore, without the whole world meddling in it.
(Paul Valéry, quoted in Featherstone 1991:15)

The term 'globalisation' refers in general to the accelerating process that involves the formation of complex power and communication relations worldwide between societies, cultures, institutions and individuals. One of the most important features of this process is the transformation of time and space constraints, that is, the contraction of distance as a result of the dramatic reduction in time needed to cover distances – whether personal or in the form of a message, representation or replication. Globalisation thus implies that the world in reality has 'shrunk' and that people have been brought 'closer' to each other. This process has reached almost all corners of the earth. Time and labour-saving production techniques (such as robot technology) and technology to cover spatial distances (for example, modern transport and telecommunication technology) have further contributed to

the spread of modern ideas, technologies and organisations of the European and North American centres to virtually all corners of the earth (Mohammadi 1997:3, 128; Tomlinson 1997:170; Waters 1995:3).

The compression of time and space distances also induced the intensification of awareness of the world as a whole. Apart from the objective reality of globalisation, there is therefore also a subjective dimension that relates to the increase in awareness among people that they form part of the global set-up (Robertson 1992:8).

However, globalisation is an intricate and multiple process. In the first place two dimensions – a horizontal and a vertical dimension – can be distinguished. The horizontal dimension involves the progressive compression of time and space that culminates in the world becoming a unified place, a single system. The vertical dimension involves a twofold process. On the one hand there is a tendency to homogenise, synchronise, integrate, unify and universalise. On the other hand there is a tendency to localise, differentiate, diversify and particularise. Although various analysts acknowledge the existence of these apparently contradictory processes, little is known about their link with each other. Yet it is generally accepted that these processes are essentially interwoven and – as two sides of the same coin – actually represent two manifestations of a single process (Tehrani & Tehrani 1997:131). Braman and Van Staden (2000:3) therefore prefer to use the plural form ‘globalisations’ to indicate that globalisation is a multiple process that can be observed in more than one area, experienced differently in different areas and manifest in a variety of – even contradictory – ways. The multiple nature of globalisation can however be understood better if one takes a look at its realisation in various domains.

2 THE ECONOMIC DOMAIN

Economic globalisation can be defined as a process in which economic activity occurs progressively on an international level. Economic globalisation is characterised by an ever-stronger liberal approach to international trade in goods and services, as well as by the international flow of capital (Chen, Hule & Stocker in Chen 1998:2). This means that obstacles in the form of trade restrictions between countries are reduced, and in some cases totally removed.

As a result of economic globalisation an integrated and unlimited market develops for all commodities. An integrated market does not mean that

there is one world market only, but that economies and markets of countries become increasingly interdependent. No market or economy can operate in isolation any longer. As a result of the rapid development of information and communication technology, geographic borders and time differences cease being a limiting factor in international trade and finance and an unlimited or virtual market emerges. Commodities are anything that can be exchanged, borrowed, purchased or sold, and include money, physical products and services, and information. Hamelink (1994:110) describes economic globalisation as the emergence of global consumers who demand global services and products that are provided by global distributors.

2.1 Facets of economic globalisation

Two distinct facets of economic globalisation can be distinguished:

2.1.1 An increase in international trade

Waters (1995:66) regards trade as the foundation of globalisation as it has the potential to bring producers and consumers who are geographically removed from each other into contact. From the earliest times man engaged in trade, but international trade started expanding rapidly during the industrial revolution in the nineteenth century. Ruggiero (1997:16–17) describes three phases through which the world economy proceeded after the Second World War. The first phase – which Ruggiero named the *international economy* – took up the first three decades after the Second World War and was marked by an increase in trade between a group of national economies or nation states. The period 1970 to the late 1980s was marked by rapid technological advances and a systematic reduction in trade restrictions. This enabled businesses to establish different facets of their production in different parts of the world that, in turn, leads to the establishment of so-called transnational or multinational enterprises. World trade was consequently no longer restricted to transactions between nation states – a *global economy* has emerged. Currently, multinational enterprises are responsible for about two-thirds of world trade and are regarded as the locus of transnational economic activities.

A third phase, the unlimited economy, was introduced by the development of digital technologies and communication networks in the late 1990s. As geography, borders and time no longer formed significant barriers to international trade, an unlimited world economy was established. Information has become the most important commodity, and free and equal access

to it has the potential to bring more balance into the relations between countries.

2.1.2 The globalisation of financial markets

In the unlimited economy in which we find ourselves currently, the flow of capital is no longer limited by geographic or time barriers. The circulation of money progressively occurs outside of the jurisdiction of national governments (Hamelink 1994:108). We can also refer in this regard to a virtual financial market. Rastogi (1997:48) identifies three driving forces behind the globalisation of financial markets. Firstly, the worldwide deregulation of trade and financial markets results in most countries raising various regulations that restrict the flow of commodities as well as capital to and from them. In other words, countries open their economies or make them more accessible. Advances in computer and communication technology have furthermore facilitated and accelerated the flow of information on which transactions in the financial markets are based. Financial transactions are nowadays virtually clinched in the space of milliseconds. Information on financial markets is available 24 hours per day, worldwide, and when changes occur, information is instantly updated accordingly. CNN–FN (Financial News) is an international television channel and Bloomberg Financial Markets provide financial information via computer networks, radio, television and the printed media (Howard 1998:48). Diverse developments such as the formation of free trade zones, the demise of communism, the switch-over to fluctuating exchange rates, the aging of the world population, the growth of the middle class in developing countries, and the reconfiguration of pension schemes also lead to an increasing supply of and demand for capital.

However, there are some obstacles that the unlimited economy still has to overcome, such as legal, accounting and tax differences between countries. Furthermore, not all countries are equally keen to deregulate their economies. According to Rastogi (1997:50, 53) these obstacles may delay, but will not prevent, the globalisation of financial markets.

2.2 The driving forces behind economic globalisation

What induced economic globalisation and still accelerates it? Four important driving forces can be identified:

2.2.1 The economic theory of demand

Hu and Griffith (1997:117) as well as McClements and Smallman (1998:5) regard the economic theory of demand as the foundation of globalisation. International trade (goods as well as financial transactions) started to increase supply in answer to the growing demand for goods, services, capital and information.

2.2.2 Economic integration

Economic integration is supported by the formation of economic regions such as the European Union (EU), the North American Free Trade Agreement (NAFTA), and the Asian Pacific Economic Cooperation (Hu & Griffith 1997:118).

2.2.3 Technological development

Technological development, especially communication technology, facilitated and accelerated economic globalisation. Developments in telecommunication and mass media have resulted in the exposure of consumers right across the world to new/different standards of living. This has resulted in the emergence of a global consumer market with similar needs (Hu & Griffith 1997:118). Technological progress also made possible/facilitated the globalisation of financial markets.

2.2.4 The decline in the influence of the nation state

McClements and Smallman (1998:3) refer to a fourth factor that accelerates economic globalisation: the decline in the influence of the nation state. This aspect of globalisation is discussed in more detail in the section on the political domain (Section 5).

2.3 Threats and challenges associated with economic globalisation

2.3.1 The ripple effect of crisis situations

A major threat associated with the unlimited economy (where a group of countries conduct trade, lend and borrow money and engage in investments among themselves) is that when one country or region plunges into an economic crisis, the effect of the crisis can spread worldwide. A good example of this is the Asian economic crisis that began during 1997. This crisis was marked by dramatic falls in the values of monetary units and

economic growth rates in countries such as Thailand, Indonesia, the Philippines, Malaysia and Japan. The crisis was a major shock for Asia and the rest of the world because until shortly before Asia was regarded as the world's fastest growing region. It was even feared that the Asian crisis could result in a worldwide economic recession – that the 'Asian flu' could become a worldwide epidemic.

One of the causes of the Asian crisis was that many of the South Asian countries had under-developed local financial systems. In other words, the requisite financial infrastructure (e.g. a highly developed bank system) for complying with the demands of the increasing international trade did not exist. This not only led to instability in the Asian markets, but destabilised the world markets too. The impact of the crisis was felt by developing countries in South America and Eastern Europe as well as Russia (Aggarwal 1999:392–398). Peru, for instance, exports zinc, copper and tin to South Asian countries. As a result of the Asian crisis these exports fell considerably (Anonymous 1998). Even developed countries in North America and Western Europe were affected by the crisis.

Another example, closer to our own soil, is the recent economic and political crisis in Zimbabwe. It did not only impair Zimbabwe's economy, but also had a very negative effect on the South African economy. The Rand weakened considerably against the American Dollar and British Pound, and investor confidence in Southern Africa declined.

2.3.2 Over-production

One of the challenges of the increase in international trade is the balancing of supply and demand (Smith 1998:125). A growing number of companies start to focus on production for the international market but overlook demand. This results in supply exceeding demand worldwide. An example of this is the motorcar industry: Grieder (in Howard 1998:50) points out that the total supply by motorcar manufacturers in the year 2000 will reach 79 million vehicles worldwide, although the worldwide demand will be for 57 million vehicles only.

2.3.3 Competition

The greater openness of the unlimited economy stimulates competition from upcoming countries in Asia and South America, which competition increasingly threatens the economic dominance of the USA and Europe.

2.3.4 Labour

The idea behind multinational companies is, amongst others, to shift production to countries where labour is much cheaper. However, this is often accompanied by large-scale exploitation, so that multinational enterprises have increasingly been pressurised from various quarters to improve the working conditions of the labourers at their overseas plants.

2.3.5 Global leadership

The decline in the influence of the nation state has already been referred to in the discussion of the driving forces behind economic globalisation. Despite the fact that the world is dominated in the economic sphere by a few multinational giants, this domination does not occur within an ethical framework. Most of these enterprises operate in their own interest only.

2.4 Critique on theories of economic globalisation

Although the idea of economic globalisation is recognised worldwide, there are also people who are sceptical about it. The debate deals in particular with the real extent of economic globalisation. The results of a study by Kleinknecht and Ter Wengel (1998:637) draw attention to the tendency in international trade to occur to a great extent **within** trading blocks (e.g. EU, USA and Asia) and not **between** trading blocks. One can easily err in thinking that economic globalisation means that all countries of the world trade with all other countries. Economic globalisation means that markets worldwide have become more accessible, and this accessibility is still growing, but a totally integrated world economy is still a long way off.

3 THE SOCIAL DOMAIN

3.1 The so-called 'global village'

In the past, social relations and the concept 'community' primarily referred to face-to-face communication and interaction between people within the same geographic space. This communication mainly centred on matters of local interest and was facilitated by a local community culture. Examples of such interaction are getting together at coffee bars; interaction on the village square; and shaking hands, within view of all the parties involved, to confirm that a contract has been closed.

Today neither dialogue nor interaction nor the community is required to share the same geographic space. The compression of time and space that coincides with globalisation also results in a re-organisation of social relations. Nowadays social relations in fact extend across the globe. This means that communication relations are no longer limited to a particular place, but are globally/spatially extended. We have all in reality become a part of an unlimited community. The existence of this community, which is not constrained by distance, interstate borders or other physical obstacles, is made possible by modern communication technology that maintains communication relations – regardless of time or space.

Social globalisation implies that Marshall McLuhan's (1964) conceptualisation of the world as 'a global village' is in certain respects indeed materialising. Frederick (1993:119) does however point out that McLuhan was over-idealistic. He believed that the wonders of electronic communication would lead to the disappearance of all social, ethnic and racial divisions and eventually create a homogeneous global society. According to Frederick, communication in the global village differs from that in a local context. Communication via the electronic media is often impersonal, of short duration, anonymous and mostly indirect. On the other hand, communication within the local context is characterised by personal contact and interaction. It must further be noted that the daily life of most people, despite the fact that they are aware of their being part of the global set-up, is bound to their local geographic space. They incorporate elements of other societies and the global society into their personal life in their local space.

3.2 The fragmentation of identity

An important effect of social globalisation is the fragmentation of individual as well as social identity (also called 'group identity'). People's identity is formed by fragments that originate at different levels. These levels range from the local to the global. Hence there does not exist in real life a pure global or a pure local identity. Rather, people's identity is a complex blend of global and local elements. Within the local space people's individual and social identities are also continuously formed and re-formed by the incorporation of elements originating from the different levels. The paradoxical phenomena of heterogeneity, differentiation and particularisation – and in particular the rise of ethnic solidarity – that are discussed in Section 5, lead scholars to doubt whether, at this stage, one can really talk of the establishment of a single human awareness or identity.

3.3 The global versus the local

Social globalisation has furthermore resulted in local events being influenced by events that occur at places even thousands of miles away. The relations that dominate our everyday life consequently shift from the local to the global context, because the local context is interpreted against the broader global framework of time and space. The opposite is just as true. What occurs locally can exert an influence on locations that are literally on the other side of the globe (Frederick 1993:7; Tomlinson 1997:171). Giddens (1994) talks in this regard of 'action at a distance'. A good example of this phenomenon is the way in which negative perceptions of Africa in the rest of the world exert a negative influence on investments and economic development in South Africa. The perceptions and actions of people who live hundreds – and even thousands – of kilometres from where we live do consequently greatly affect our lives.

3.4 The formation of a global civil society

Globalisation further led to the establishment of a global civil society. Civil society can be defined as those societal activities that fall outside of the economy and politics, but are significantly affected by economic and political realities. Before modern technology made communication relations across time and space borders possible, the civil societies of the world had difficulty to unite in broader alliances. The new technology promotes, however, co-operation between a variety of the world's non-governmental and non-profit organisations (the so-called NGOs) in a wide variety of spheres such as human rights, consumer issues, conflict management, women's rights, racial equality and environmental conservation. Global mobilisation around these issues rests on the assumption that we are all inhabitants of Planet Earth, that is, members of the global social community, and that transgressions in any of these spheres affect all of us deeply. This significant development in the history of human communication has already had a powerful impact worldwide on social and political movements (Frederick 1993:7; Waters 1997:101). The fuss that the 'Green' movement in Europe makes about the culling of elephants in the Kruger Park is but one example of global social mobilisation around nature conservation issues.

4 THE CULTURAL DOMAIN

4.1 Processes associated with cultural globalisation

The horizontal and vertical dimensions of globalisation can nowhere be observed better than in the cultural domain. The cultural situation of the world is intrinsically linked with the flow of information and knowledge that in themselves can be designated as cultural flow. However Appadurai (1990:2) distinguishes processes that have an impact on culture – global as well as local. These processes are the following: the flow of individuals (tourists, migrants, refugees, etc); the spread of technology; the spread of capital; the spread of information; as well as the spread of political values and ideas (for example, ideas on freedom, democracy and human rights). Waters (1995:126) adds to these the spread of religious values and ideas.

4.2 The emergence of an universal consumer culture

It was long believed that the increase in the flow of information – and in particular the introduction of the Internet – would lead to the establishment of a homogeneous world society and culture. It is indeed so that there is currently talk of the worldwide establishment and spread of a homogeneous American-Western consumer culture (Tehrani & Tehrani 1997:132; Waters 1995:140). Terms such as ‘Americanisation’, ‘Western cultural imperialism’ and the ‘Coco-Colonisation’ of the world are often used in this regard.

The spread of this consumer culture is promoted by the enormous growth in world trade and the concurrent spread of publicity for the mass market; the rapid development of communication technology and other technological innovations; the mass media (and people’s tendency to imitate depictions and actors in the mass media); the worldwide spread of electronic entertainment presented by a few mega-conglomerates; the spread of commercially packed cultural products such as food (for example, Coca-Cola and McDonald’s hamburgers), clothing (for example, Calvin Klein denims and Nike sport equipment), popular music and many more. The establishment of a uniform consumer lifestyle that is propagated aggressively worldwide by advertising is further facilitated by a liberal political climate. A further consequence of the consumer culture is the popularisation of so-called ‘high’ and ‘elite’ cultural products. A good example is the concert of the three tenors during the world soccer event in 1992 where opera music was linked to popular sport. The form of the concert was also

rather that of a pageant (probably aimed at the mass media) than that of a classical music concert.

It is however important to note that the term 'consumer culture' implies more than the mere use or consumption of particular goods and services. The items and goods at issue do not only have material value, but also achieve symbolic meaning. The consumer culture originates from influential groups who in their capitalist drive encourage consumers to 'desire' things they may not really 'need'. Consumption therefore becomes a way in which the individual expresses him/herself and defines his/her identity. Both the need structure and the self-image of individuals are thus transformed, while consumption is directly associated with identity. Sources of social differentiation such as descent, class and political affiliation are also greatly replaced by concepts such as 'fashion', 'taste' and 'lifestyle'. One's place and esteem in society are therefore determined by the extent to which one reflects the latest fashion fads and lifestyle of the consumer culture. The saying 'fine feathers make fine birds' indeed assumes a new meaning in the global cultural set-up.

4.3 Cultural imperialism

The term 'cultural imperialism' is often used to refer to the homogenising influence of the global consumer culture, that is, the equalisation and even extermination of local cultures as a consequence of the worldwide spread of the Western-American lifestyle and the values and consumer goods associated with it. According to the discourse of cultural imperialism, one of the most important implications of this cultural equalisation is the reduction of the space in which local communities can practise their own culture. (The ability of a local community to develop and maintain its own culture depends to a great degree on the local cultural space that that community controls.) Local initiative is however suppressed and the production of local cultural products is impaired. The local culture is indeed silenced. According to this view the process of cultural globalisation ultimately boils down to the predomination of Western modernisation and a particular national culture, namely the American culture. A dramatic pessimist scenario is furthermore pictured of the Third World, which scenario asserts that the cultures of these parts of the world are virtually being fully absorbed by the homogenised and commercialised global culture.

However, the discourse of cultural imperialism is currently widely criticised for various reasons. On the one hand this view represents a one-sided and

deterministic perspective on cultural processes according to which the local culture is totally determined from above by political and economic realities. Cultural processes are thus regarded as a one-way flow of power from the American and European cultural centres to other parts of the world. The elements of the popular world culture are also regarded as a type of drug that intoxicates the local population so that they become passive receivers of the 'foreign' cultural goods.

This is however not the full picture of what really occurs. Rather, there is a complex and continuous interplay between foreign and local cultural goods, that is, between the global and the local culture. Giddens (1991:181) refers to a 'global-local' dialectic in this regard. Braman (in Servaes, Lie & Terzis 1998:59) uses the term 'interpenetrating globalisation' to explain that the global culture can only exist in the local culture. In the interplay between the local and the global culture foreign goods can be taken over as they are, or can be translated or transformed in the local idiom (a process that is also termed 'localisation'), or can mutate (take on another form) or blend with local goods (also called 'hibridisation' or 'creolisation'). A good example of these processes is the complex mutations that can be observed in the popular music culture. For instance, the 'hip-hop' culture, which is regarded as an expression of the culture of poor urban Afro-Americans and currently forms part of a world youth culture, is in reality a complex blend of the Afro-American and Caribbean music cultures. In South Africa the soapie 'Egoli' is modeled on the American 'soap opera', but has obtained a local content and character. T-shirts (one of the symbols of the international consumer culture) with slogans that mirror local issues are another good example of the blending of the global and the local culture.

4.4 Reverse cultural imperialism

Tomlinson (1997:180) also points out that there is currently talk of reversed cultural imperialism. For instance, it is often assumed that television programmes originating from the USA hold a virtually untouchable position in external markets. This is however not always and everywhere the case. Products of countries on the periphery provide strong competition in certain circumstances. The products of companies such as TV Globo in Brazil and Televisa in Mexico dominate not only their local markets, but they also export their products to other Latin-American countries and even European countries such as Spain, Portugal and Italy. Even in the USA with its large Spanish-speaking community these programmes are very popular. Globalisation and more specifically the increase in international tourism also

creates in many centres a market for local cultural products (consider, for instance, the demand for traditional African art), and has directly contributed to an increase in the production and even export of such products.

Developments such as these indicate that one should rather talk of a pluralisation of cultural production in centres around the world and that geo-linguistic factors and the local culture remain factors to be taken cognisance of. The idea that a monolithic and homogeneous global culture is taking shape appears at this stage to be unfounded. The global culture should rather be described as ‘meaning on the move’, that is, a culture that occupies space next to and between other cultures, the essential nature of which is rather that of a hybrid or a blended culture.

4.5 Intercultural communication

What is however true is that globalisation has led to a change in the nature and problems associated with intercultural communication. The international flow of individuals increasingly enables people to come into contact with more than one culture, but also increases their first-hand experience of problems associated with intercultural communication. The globalisation of capital, world markets and the establishment of large multinational companies have, for instance, led to the birth of a new group of business people and other professional people who often travel the world in the execution of their duties. Their frequent traveling among cultures demands an adaptable lifestyle. Their adaptation to different cultures has been eased by the development of a so-called ‘third culture’, the cosmopolitan culture. According to Featherstone (1990:9) the response of individuals to foreign cultures varies on a continuum that runs from localism to cosmopolitanism. Some people never really desert their local culture even though they may find themselves in foreign countries. In addition, they have access to travel brochures that give directions on how to get to their local culture in a foreign country, such as a list of restaurants where Americans (and probably also South Africans!) can obtain steak in Japan. Tourists, too, usually prefer to have exotic as well as familiar experiences in a foreign country and tour guides usually protect their clients against potentially alarming intercultural experiences. Other people, such as transnational academics, are not only at home in foreign cultures but also consciously maintain an open and receptive attitude towards other cultures.

Increasing migration – mostly also as a result of economic, financial and technological globalisation – and numerous political refugees further

contributed to the liberation of many cultures from their containment in a particular state or geographic space, allowing them to spread across the borders of existing states and even across the world. This implies that it becomes more difficult for governments to manage and control cultures and subject them to the power of a particular state. (This problem is however discussed in more detail in the next section.) Another implication is that local cultures that were previously homogeneous, increasingly assume a heterogeneous character as a result of the flow of migrants. This stacking of cultures in previously homogeneous spaces has also resulted in a hybridisation, creolisation or blending of cultures (amongst others as a result of marriages across cultural borders). Scholars are therefore of the opinion that the term 'multicultural' should replace the term 'intercultural' in order to reflect the current cultural scenario.

The flow of individuals further led to the presence of 'the foreigner' in the local cultural space, that is, an individual or individuals who for shorter or longer periods reside in the local culture without becoming or aspiring to become part of the local culture. Also on these individuals the attempts of governments to control and integrate cultures have had little impact. Globalisation therefore results in cultural differentiation within previously homogeneous space.

4.6 Summary

The conclusion can be drawn that cultural processes worldwide should be regarded as dialectic, which implies that there is a possibility of a continuous interaction, interplay as well as tension between local and global cultures. Globalisation in general, notably cultural globalisation, leads simultaneously to greater homogenisation and greater differentiation.

5 THE POLITICAL DOMAIN

5.1 The traditional role of the nation state

As early as the fifteenth century, when the church, religious leaders and feudal land holders gradually lost their influence and power in Europe, the so-called 'nation state' – a medium-sized, territorially bound, centralised and sovereign form of government – became the dominant form of political organisation in the world. National governments negotiated with each other, declared war and made peace. Through the conclusion of treaties and

agreements a certain measure of order was brought into international relations. The relations between states rested on the principle of sovereignty. According to this principle each state had the absolute right to decide on internal matters, and meddling in the affairs of another state was regarded as pathological. The economy, too, was virtually completely at the command of the nation state. The aim with economic activities was to expand the power and glory of the nation state and promote the position of the particular state in its competition with other states. In this competition the nation state could depend on the loyalty and patriotism of its citizens; indeed, the state was a significant component of their identity. In the nation state emotional connectedness usually combined with administrative effectiveness. It is therefore no wonder that the nation state became the central conceptual unit in sociology, political science and international relations (Tomlinson 1997:172; Valaskakis 1999:153; Waters 1995:96).

According to Waters (1995:27) this conceptualisation of internal politics and international relations can be compared with the balls on a snooker table. Each ball is a world on its own and has a different colour and weight. As these balls change in the course of time – or move across the table – they come into contact and interact with other balls on the table. Each ball has a certain measure of autonomy over its own movements as determined by the player – or his/her government. As a ball moves across the table, its movements or autonomy are however limited by the positions and movements of the other balls (or states). The white ball can be regarded as a super power that has a larger measure of autonomy over its own movements and exerts a greater influence on the movements of the other balls.

The term ‘nation state’ is however problematic. The term ‘nation’ is derived from the Greek word ‘natio’, which refers to a group of people who are all kin. This consequently points to a common descent or relationship, which in Europe in particular – where the nation state was born – can be associated with ethnicity and a common culture. The concept ‘nation state’ therefore implies cultural homogeneity, that is, one nation, one state, one culture, one ethnic identity that simultaneously also represents the national identity of the state.

The problem is, however, that the homogeneous nation state has always been the exception rather than the rule. Currently only about 10 % of states across the world can be regarded as ethnically homogeneous. In the majority of states there is thus a lack of convergence between the political (the state) and the cultural (the nation) – a problem that is further

complicated by the flow of migrants and refugees that has been referred to in the previous section. This state of affairs causes the governments of many heterogeneous states to follow a policy of nation building, so as to comply with the requirements of a true nation state. Nation building implies that various means at the disposal of the state (for example, political institutions, national symbols, the educational system and the media) are harnessed to actually form an overarching national identity and promote loyalty to the state. In many states, nation building unfortunately coincides with the equalisation and extermination of cultural diversity and the negation of the interests of ethnic minorities.

5.2 Changes in the position of the nation state

Globalisation did however effect an incisive change in the role and position of the nation state and created problems in the conceptualisation of society, politics and international relations on the basis of the nation state. The form, legitimacy, sovereignty and power of the state are also increasingly threatened. A variety of factors led to these changes:

- The complex international links unique to globalisation ignore existing social and political borders. The globalisation of technology – and notably the Internet – has made it almost impossible for governments of nation states to control and limit the free flow of information. National governments are therefore no longer able to regulate or control the flow of ideas, information and economic items. The borders of the state – as well as internal policy and the institutions that enforce internal policy – are thus increasingly rendered ineffective.
- The growth of transnational processes in number and extent implies a further contraction of the power of the state. Certain transnational companies (for example, Microsoft) are currently larger and have much more influence and power than many governments.
- The transnational mobility of corporations, capital and technology enables the private sector to ignore and evade national legislation and regulations. If legislation and regulations in a particular state are not to their liking, they merely move their business elsewhere. They are also able to pit one government against the other and force them to bring down tax and labour costs to the minimum. States are progressively exposed to the effect of international market forces and lose their power to regulate or protect their internal economies. Hence a government can do virtually nothing when its monetary unit is forcibly weakened by other units in the foreign exchange markets. The fact that the South

African government can do little when the value of the Rand drops as a result of international market forces is but one of the examples of this trend.

- Many spheres that traditionally fell under the jurisdiction of the state (such as defence, communication, economic management) are currently co-ordinated internationally.
- In order to be able to compete effectively in the new economic and political climate, many states must abandon their sovereignty in favour of larger political units (such as the European Union) and international organisations (for example, the United Nations, the World Trade Organisation and the International Monetary Fund).
- The sovereignty of the state is also often negated on the multilateral level on the basis of the principle that all inhabitants of earth experience certain societal problems that are aggravated by the action of an individual nation state. The point of departure is therefore that global issues such as the conservation of nature and the protection of human rights should be addressed at the international level because they represent problems shared by the inhabitants of the earth.
- The fact that individuals and societies regard themselves as part of a global system, causes the nation state to be no longer the only or most important source of citizenship or identity. Globalisation thus undermines the emotive and normative values of connectedness to a particular nation state.

In re-applying the snooker table image, one may compare the new international scene with a finely woven cobweb that has been spun above the snooker balls and across the whole of the snooker table. The thin lines of the cobweb are the complex connections across political borders, which connections are based on factors such as trade, communication, technology, language, ethnicity, religious identification, ideology, strategic alliances and legal and communication agreements. When the balls move slowly (for example, in the exercise of diplomacy), movement is greatly determined by the lines of the cobweb. The autonomy of the balls therefore declines, as their movements are largely regulated by the multiple connections across borders. When the balls move fast (for example, during conflict and war) the lines are disrupted. According to Waters (1995:28) this situation demands that the concept 'distance' as a geographic concept be replaced with the concept 'effective distance'. The thicker the web above two locations or states, the 'closer' they are in effect to each other. When this web above the world is as thick as it usually is in a local context, globalisation would have taken its full course.

5.3 New role-players on the world scene

While the power and legitimacy of the nation state are declining, various new role-players have appeared on the international political scene. Diplomatic relations between states are greatly supplemented and even replaced by non-governmental agents such as the so-called non-governmental organisations (NGOs), private individuals and groups. The private sector has also started to take over services that were traditionally provided by the state, and state-controlled industries are progressively privatised.

5.4 The revival of ethnicity

One of the most important implications of the change in the position of the state is however the weakening in the relation between the state and ethnicity. In reality the links between ethnicity, the state and the economy have been severed. Ethnic minorities who used to be subjected or absorbed by the state have actually been liberated by globalisation. The result is a revival of ethnic and cultural loyalties and the mobilisation of ethnic groups across the borders of existing states. Globalisation has further led to the contention that all forms of ethnic identification are legitimate and that not only major ethnic groups who organised themselves in states since the nineteenth century have a right to be recognised. The fact that most political entities currently are multicultural entities causes most states of the world to be confronted with the demands of ethnic and cultural groups for recognition, cultural rights, self-determination and equal access to resources. Ethnic conflict in various parts of the world such as Ruanda, Burundi, Kosovo, Somalia, Turkey and Sri Lanka has thus become one of the most important characteristics of the international political scene since the termination of the Cold War.

According to Servaes, Lie and Terzis (1998:45), the articulation of ethnic and cultural identities at grassroots level can also be regarded as a form of localisation. Localisation implies in this regard that not only contact between nation states and large-scale processes have become important, but also that small-scale local communities and contact between them and other role-players are important. In addition, localisation is related to heterogeneity and differentiation and as such it counters the homogenising effect of globalisation. Whereas in the engagement with global issues such as nature and human rights scholars premise their arguments on the assertion that these issues affect each inhabitant of the earth (thus there does not exist an 'other'), ethnic and cultural movements emphasise differences rather than similarities, because cultures are always distinguishing themselves

from other cultures. Differences can also only exist if there is an 'other'; it is therefore impossible to create a global 'us'. The only perspective according to which ethnic cultural movements can be deemed 'global' is the way in which they use modern communication technology such as the Internet, faxes and image technology to communicate worldwide with each other. For instance, the international Muslim community uses above all the Internet to mobilise members worldwide and to keep them informed of the developments within their community. South African communities, too, such as the Afrikaners, keep in touch with their members who have emigrated by the placement of Afrikaans newspapers on the Internet and a web page such as LitNet. In their means of communication these ethnic groups are therefore global, although not in respect of their objectives.

5.5 A global political culture

By contrast to differentiation, which coincides with the revival of ethnic and cultural identities, analysts point out that there is currently indeed talk of a global political culture. This culture rests in the first place on the idea of individual human rights, that is, the conception that each individual has the right to autonomy in certain spheres of thought and action (for example, freedom of religion and political thought); the right to own and sell property; the right to elect a government and participate in it, and the right to equal participation and influence. The latter implies that liberal democracy is accepted as the norm for governments and political systems in the global sphere. Commitment to liberal democracy also implies a commitment to capitalism and the protection of individual rights in the economic sphere.

5.6 The future of the nation state

Many analysts believe that when globalisation has taken its full course the world will function as a single place in which the nation state will become redundant. They are further of the opinion that the world community is inevitably moving towards a global political community and one or other form of world government – a view that is supported by the fact that a common political culture is materialising worldwide. There are however other analysts who think that the governments of states as we know them today play an essential part in matters such as the establishment of local infrastructure and the maintenance of law and order. How ethnic and cultural groups will be accommodated in a global system of government is

also unclear. Hence only time can tell what the result of globalisation will be in the political domain.

6 CONCLUSIONS

The conclusion can be drawn that globalisation is by no means a simple, unitary or linear process. Globalisation and its effects differ for various domains, different regions of the world and not even individuals in the same region is affected in a similar way. Moreover, the globalising world is characterised by apparently contrasting processes such as globalisation and localisation; homogenisation and heterogeneity; cultural imperialism and reverse imperialism; the formation of larger political units and ethnic revival. Academics and analysts understand very little of the dynamics underlying these processes. However, the fact of the matter is that globalisation is transforming the world at an unprecedented pace. In the end no-one will be left untouched by its farreaching effects.

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Why the market model is unfit for the university library

Johann Rossouw, editorial member of
Fragmente: Tydskrif vir Filosofie en Kultuurkritiek

With his publication in the mid-seventies of *The Postmodern Condition*, Jean-François Lyotard came to the merry conclusion that we had reached the end of the era of so-called grand narratives, all-encompassing world-views that were supposed to explain everything from history to God. His conclusion was merry indeed, for it signalled a greater seriousness from within philosophy itself with regards to its own unhappy contribution to the practice of grand narratives, Hegelian dialectics and historical materialism being but two of the guilty parties. Lyotard's book and the rest of his oeuvre, as well as the work of many other philosophers of his generation, opened the floodgates of a re-thinking of the history of philosophy and of knowledge itself as we had not seen in recent times. But the honeymoon was short-lived. Since the fall of the Berlin Wall, that unavoidable marker of so many recent turning points occurring exactly two hundred years after another such a marker, the French Revolution of 1789, we have witnessed the unbridled ascent of the neo-liberal paradigm on a global scale.

Broadly speaking the neo-liberal paradigm takes the profit motive and the market as its prime values. The paradigm was engendered by the radical market reforms installed by Ronald Reagan of the United States and Margaret Thatcher of Britain during the eighties of the previous century. Initially the paradigm seemed to bring about a new wave of economic growth, especially in the case of the US, which is now in its ninth consecutive year of 'growth'. There are signs, however, that the myth of the market *über alles* is heading for the scrapyard of history. Witness, for example, the return of late-nineteenth century working conditions in the investment-friendly zones of Britain and the fact that a record number of Britons are currently employed on a contract or temporary basis. Witness further, that the US has financed its 'growth' of the past nine years not only with a historically unprecedented debt explosion, but also by drawing large parts of the world's investment capital to its markets. Sooner rather than later any credit-financed 'growth' is bound to grind to a halt, and, as a recent edition of *Le Monde Diplomatique* put it, the massive capital

investments in the US market is destined to depart 'at a mouse-click' when the market catches flu. Other signs of well-being, such as a newly developed health index from the World Health Organization in which the US rates only in 24th place, are clearly telling us that the neo-liberal model is not everything that it is touted to be.

This is not the time and place to speculate on why yet another simplistic model is duping the world, claiming to be the be-all and end-all. We may refer to the primary reason, being the collapse of communism and nationalism as viable challenges to liberalism, which has of late found such a cosy sleeping partner in market economics, their bed being the autonomous individual, that great fiction of contemporary times. But this reason is for those who consider rationality important. In the irrational world of power politics, propaganda in the guise of marketing and public relations, has found a new lease on life. (It remains one of the real shockers of the twentieth century that largely the same techniques that served fascism and militarism so well, were taken over so gallantly by the market economies of modern democracies to soften their shining, hard edges.) Driven along by the stranglehold of the US on multi-lateral organisations we are at present left with the bleak method of managing everything that can be found.

This paradigm, if it is at all worthy of the name, is at present in large part responsible for the crises of mad-cow disease, as well as foot-and-mouth-disease (leading to the senseless burning of hundreds of thousands of farm animals suffering from a disease that is non-fatal to humans), stemming from the fact that in particular the British government a few years ago cut back on its age-old agricultural vaccination budget. Is it any wonder that what we knew since the vaccination revolution brought about by Robert Jenner and others in the nineteenth century has yet again underlined itself? But there is another part of society where the paradigm is wreaking increasing havoc, namely the university.

For numerous reasons that cannot be set out in the present context, the university as we have known it since the Enlightenment, as a servant of the national state for the *Bildung* of the student's character, has come to an end. Knowledge itself – especially when it is uncritically equalled with information, which is rather like an undigested and unprocessed form of knowledge – is undergoing major changes. Not only is it exponentially exploding, as we all know by now, but it is also being disseminated on a much larger scale than ever before, although it will serve us well to keep in mind that a mere 5% of the world's population actually has access to the

Internet ... The university itself, having for such a long time been one of the foremost custodians of knowledge, now finds itself severely challenged. The possibilities of on-line education, for example, are already leading to some brilliant academics selling their courses to different universities, prompting the others that can't afford such expensive courses to complain of unfair knowledge practices. Clearly all these changes demand a sustained re-thinking of what the university, knowledge and information are really all about. What we may, however, state without any doubt, is that reducing this deeply complex set of problems to 'management' by the market model is at best dangerously irresponsible and, at worst, downright stupid.

Let us consider, for example, what the implications would be of running an academic library along the lines of the market model. The users of the library would be the consumers, the library staff would be the shop assistants, while the knowledge/information itself would be the product. We could even imagine the knowledge/information to be 'assets'. If a collection builder – let us call her an 'asset manager' – bought a book (an 'asset'), let us say Martin Heidegger's classic *Being and Time* (1927) (in all likelihood the single most influential and commented upon work of twentieth century philosophy), she would surely be entitled to determine after a year or two whether the 'asset' has performed well or not. Now, there are (and used to be) several intelligent ways of measuring the 'performance' of a book, namely whether it spawned post-graduate research, whether it was read and discussed. Dare we say it aloud, some books simply had to be part of a respectable collection due to their unquestionable value. Those were the days when libraries still had a sense of the future in their buying policies, rather than the present situation where all investment must perform immediately. But in present times our dear asset manager would rather only use one yardstick (because it is 'empirical' and extremely simplistic, just like the kind of statistics that work well for asset managers, but not necessarily for people concerned with knowledge), namely how often the book has been taken out. *Being and Time* not being your normal bedside reading, it is unlikely that the book would have been taken out so many times as, say, a third-year management set work. And, lo and behold, our asset manager should conclude that she should dispense with the book, it being of low 'investment value'.

Clearly something is wrong here. Only some problems are briefly raised:

1. If there is one thing that centuries of philosophical, scientific and artistic work have taught us, it is that complexity is the order of the day. He who wants to simplify, generally makes a good totalitarian, but

unfortunately seldom a good artist, scientist or philosopher. Relatively speaking, the world of money (where the object is so easily quantifiable and measurable) is far simpler than the world of knowledge. It would work just as little to run an asset management fund like a university library, as it would the other way around. Better to respect and consider each world on its own terms, which is not to say that some of the insights learned in the one world might not be of use in the other world.

2. The question of what we are busy with in a university library is now more pertinent than ever. The changes that the world of knowledge and information are going through, as briefly touched upon above, demand that we re-think our knowledge models of old and who the custodians of knowledge are. The university would do well to get rid of some of its self-indulgent pretensions, some of it dating from the Middle Ages (such as graduation suits, or the unequalled power that a study leader exercises by virtue of his position over his student), but this does not mean to streamline everything into non-existence.
3. A better strategy might be to re-think the continuous training of university librarians and collection builders, in order to keep them abreast of the latest developments in their fields. The 'savings' that we are chasing so desperately through the market model will cost us dearly in the near future. There is simply no better investment than continuous development of staff, especially in the context of the current knowledge explosion. Skimping on the continuous training of university librarians is no savings at all – it is simply a shortcut to a costly future of a truly uncompetitive library.

BOOK REVIEWS •

Fanie de Beer
Department of Information Science
University of South Africa

Brief reviews of a few books are presented. Some of the reasons for these reviews are sketched here. These are not ordinary books. All of them are either bestsellers (showing a kind of popularity) or translated (showing their importance) and much reviewed and read. All of them are quite remarkable in similar ways: they are difficult books (but nevertheless much read which does not make sense in our context since nobody is meant to read difficult stuff anymore); they are books on theorising information technology in all its different manifestations (again strange since for us the only important thing is doing technology but never be tempted to think the technical); they are interdisciplinary in the full sense of the word in the sense that all discourses of all sciences are taken seriously by them (not like with us where there is a lot of talk about interdisciplinarity without understanding other disciplines or the confession of some that interdisciplinarity means actually that all should understand what we are talking about, which may of course also mean underdisciplined or even undisciplined). These are leading publications which implies that they should be read if one wants to be somehow informed about what is taking place at the highest intellectual level on the world scene and wants to become internationally competitive; they do lift the level of the debate immensely on issues of crucial importance; they have important educational value beyond the level of the simple, the simplified, the easily accessible, the merely lazy, and offers food for thought to those who look for substance rather than pictures; they demonstrate and represent the format and layout of most library books and books on science and theory so that those students who are only exposed to the pictorial habits of the current education system will not get a fright when they incidentally or by accident encounter a proper library book; they create an awareness for a body of literature from which an infantile (sick) educational system deliberately and planfully keeps readers away. These are books which, in this year of the reader, should also be read, simply because they are difficult and challenge thinking abilities to the utmost, and because they are not fiction and not picture books, not meant for relaxation and not as easily accessible as books for children and toddlers. In my view, information and knowledge workers should become much more actively involved in creative writing displaying for users the wealth invested in libraries – in other words not only classifiers, cataloguers and shelvees but

explorers and disseminators of the wealth entrusted to them in order to help overcome 'the passion for ignorance and the lust for superficiality' so much alive in contemporary society.

**Jean Baudrillard *Sage masters of modern social thought*
(4 vols)**

Edited by Mike Gane
London: Sage Publications
2000

Is Baudrillard a visionary or a lost/nut case?

Why would anybody put four volumes together on a thinker who is of no use and why would publishers of the calibre of Sage declare themselves willing to publish this set? Because this thinker does not make a point? Because he does not know what he is talking about? Because of his generally accepted total irrelevance in some circles? Even if others, like some crazy sociologists, may be willing to invest in such rubbish it is certainly for the soberminded, clearsighted librarian, library worker, or information worker, those with an elevated status without necessarily having their minds and intellects elevated to a level that complies with the status, complete nonsense and utter rubbish. We are busy with important things, the orderly, the classifiable, the sensible and cannot afford to waste time on the crazy, the nonsensical, the inaccessible, the chaotic. The crazy, inaccessible, nonsensical can only be important for similar nut cases. Talking about virtuality, simulacra, ideological needs, the posthuman, and other matters of this nature cannot possibly be important for anybody in her/his right mind.

On the other hand, there are so many discourses going on on these matters that they can hardly be ignored. In view of this Baudrillard's oeuvre poses a number of crucial problems for the 'rightminded' intellectuals. In the first place, he challenges us to come to terms with 'the difficult text', the problem/challenge of 'understanding' and the threats of a disaster posed by a lack thereof, and then the specific challenge confronting human thinking. Needless to state: these three matters hang intricately together. A reading of Baudrillard, and of texts on Baudrillard as published here, make the consideration of these matters unavoidable. At least for those with the slightest intellectual integrity and interest in contemporary debates. Remember one thing, even the intellect can be immorally applied or not applied at all, or even misapplied or abusively applied. Think of the idea of

the difficult text (Steiner), and the ideology of the simplified and simplification on which Gaston Bachelard writes so elegantly. Then there is the problem of understanding and the superficiality of clarity: 'Not everything that is clear, is also selfevidently true' states Pierre Bourdieu.

The challenge posed to thinking and the poverty of its surrogate, namely thinking skills are explored by none less than Gilles Deleuze. Immoral thinking? Deliberate distortions, deliberate denials, deliberate reductions, deliberate absolutizations. The honest thinker tries at least to think everything comprehensively and integratively.

Jean Baudrillard is not only a prolific writer, but he also writes on many themes. His many texts are the one as provocative as the other. Commentaries and debates on his works are numerous as the four volumes put together here testify. The eight themes covered in these four volumes do not exhaust the scope of his oeuvre. His critique of technique, technology, information and informatics are for example not explicitly addressed here albeit present in many of the articles.

Baudrillard's commentary on contemporary society, the society of which we form part, in which we live, which we experience in all its vitality, contradictions, tensions and uncertainties, as well as his technology critique, represent some of the most acute diagnoses of our time. Even if we think we can afford a neutral position regarding these matters, Baudrillard's writings, as well as the work of those commenting constructively and with approval on his works, as we find demonstrated in these four volumes, may convince us of the complete opposite.

The four volumes cover the following themes:

Volume I deals with theoretical issues (Part One) and postmodernism (Part Two). A number of acute theoretical problems related to Baudrillard's oeuvre are discussed, like the place and merits of critical theory, the politics of signs, communication theory, the dynamics of culture and radical politics. What comes to mind in looking at these articles is the scope, depth and width of theoretical work. The interdisciplinary dimensions of theoretical work are clearly demonstrated as well as the indispensability of solid and comprehensive theory for all intellectual work which wants to be worthwhile.

Part Two, dealing with Postmodernism, is handled by a number of very prominent and significant scholars in this area. Crucial matters, very much characteristic of the postmodern problematic, addressed in this regard, such as commodification, the disorder of things, decomposition, the debate

between modernism and postmodernism feature prominently. Perhaps in our so-called 'age of knowledge' the most important feature of the postmodern approach which emerge indirectly from these articles is the drastic difference between a modernistic and a postmodern conception of knowledge. Any significant discourse on knowledge management without taking these different conceptions seriously is doomed to failure.

Volume II reflects on Culture (Part Three) and War (Part Four) and Baudrillard's contribution to and the implications of his thought for these themes are highlighted. Regarding culture problems related to meaning and 'the abyss of meaning', virtuality, hyperreality, cybermatters, implosion, the end and absence of the social, and leisure are discussed. The articles show what immense and even revolutionary impact the work of Baudrillard has on cultural thinking and conceptions of culture.

Perhaps one of the most discussed topics of Baudrillard is his statement: *The Gulf War did not take place* which justifies a separate part on War (Part Four). Certainly a strange statement to make, one would say, until you realize what the issues really are that he addresses related to this event, how important they are for us and to what it is that he calls our attention. We have to remember that substantial links exist between war, media reception, distorted information and communication, the manufacturing of truth, news and fictitious 'reality' as well as the global implications of these matters – important for all of us. The fact that America was one of the role players in this event is not at all insignificant.

It should be kept in mind that America is for Baudrillard an important and significant cultural phenomenon. Various books have been devoted to this phenomenon, and articles of Part Five in Volume III address precisely this aspect of his oeuvre. Baudrillard's 'commentary' on America is a splendid piece of cultural assessment and critique, not only of one country or nation, but of the West in general. A number of very stimulating and useful articles deal with these comments and assessments. America as the abyss of modernity and as the beacon of postmodernity, a country with many faces, the venue of the ultimate simulacrum, the source of catastrophe, and even a domain for theologizing. Europe and America: conflict or harmony? places of solidity or of the playfulness of signs?

Volume III, Part Six, contains a number of essays on one of Baudrillard's favourite themes, *Seduction*. His discussions on this theme are highly controversial (which is no surprise because this is true of his whole oeuvre). The notion of seduction, and the complex social, cultural, political,

aesthetic and gender issues brought forward by a reflection on it, can be made applicable to God, Art and Women.

Volume IV again contains two parts, Part Seven, which offers comments on his views on Fiction and Art, and Part Eight attends to his interdisciplinary and intertheoretical connections. From the point of view of considering Information Science as an Interscience these contributions, like the contributions in the rest of the four volumes seem to be insightful and highly significant.

Three general comments:

- i The majority of the articles on various aspects of Baudrillard's influential contributions are of a highly specialized nature, collected from research journals and prepared by scholars with a specialized knowledge and understanding of their fields. The significance of reading any of these articles is infinitely more than merely a matter of 'reading something on Baudrillard', but of reading on a social, cultural, political, technological theme as such and will become from this perspective a truly rewarding experience.
- ii It is unfortunate that themes related to contemporary developments in the fields of technology, information technology and meaning were not specifically thematized. Baudrillard's contributions in these fields, on topics like virtuality, the posthuman condition, globalization, and many others, are in many respects not less than profound. But again, like it has been emphasized in point 1, these themes are present in these four volumes but in a fairly hidden way or by way of implication while it really deserves more explicit attention. Reading these articles will certainly be rewarding too. It is unfortunately true, however, that there is a lack of commentary in general on these aspects of his work, hence perhaps the absence of explicit thematization for purposes of this publication.
- iii What I personally experience as a twofold lack is in the first place the absence of a concise introductory essay to each of the eight parts. The general introduction is clever and well written, but insufficient for this purpose. Such a wealth of material needs some guidance if one wants to reach a wider audience. This could have been extremely useful for readers less familiar with Baudrillard's oeuvre. In the second place, it remains sad that we obviously keep on thinking that writing about or on authors and their texts can replace the excitement of being exposed to the texts of great authors themselves. A few fragments of the very prominent and influential texts by Baudrillard himself on themes

addressed here could have enriched this already rich publication to a great and significant extent.

How we became posthuman: virtual bodies in cybernetics, literature, and informatics

N K Hayles

Chicago: University of Chicago Press

1999

In this book Hayles examines in a very competent way the fate of embodiment in the information age. She indicates how we can keep disembodiment from being written once again into dominant concepts of subjectivity. Despite 'the lust for information' in our age, she makes out a strong case that bodies do still matter. This book matters now 'when serious commitment to an embodied life world full of fleshly, mortal beings seems to be, at least ideologically, an endangered species' (Donna Haraway). 'The central event of the twentieth century is the overthrow of matter' (Quote by Hayles from Toffler, et al *Magna Charta*). She explicitly argues 'that the human being is first of all embodied being, and the complexities of this embodiment mean that human awareness unfolds in ways very different from those of intelligence embodied in cybernetic machines' (283–4).

She interrelates and integrates three different stories: 1 How information lost its body, or, how it came to be conceptualised as an entity separate from material forms; 2 how the technological and cultural construction of the cyborg as technological artefact and as cultural icon came into place; and 3 how the dismantling of the liberal humanist subject in cybernetic discourse and the emergence of the posthuman became a reality. In this process we find a crystallization of a new description of human subjectivity in the age of cybernetics and informatics.

She provides an indispensable account of how we arrived in our virtual age, and of where we might go from here, making use of the history from the birth of cybernetics to the developments related to artificial intelligence and life. The idea of the posthuman may be a replacement, but not at all a destruction of the human, is perhaps only a more adequate description and articulation of what it means to be human. Questions about the relationship between the human and the posthuman may be answered in the following way: 'the answers will be the mutual creation of a planet full of humans struggling to bring into existence a future in which we can continue to

survive, continue to find meaning for ourselves and our children, and continue to ponder our kinship with and differences from the intelligent machines with which our destinies are increasingly entwined' (282).

Remediation: understanding new media

J D Bolter and R Grusin
Cambridge, Ma.: MIT Press
1999

The title is already insightful. We in the information sector are involved with the new media. The importance of understanding the issues we are working with has been emphasized. It is of relevance that we understand the new media as well. This publication offers marvellous thoughts and perspectives in this regard. 'An instant classic, *Remediation* is required reading for anyone interested in the New Media, especially in relation to other forms of representation. This is one you won't want to miss' writes Katherine Hayles.

Bolter and Grusin survey contemporary media with broad-ranging theoretical sophistication. They address what they call 'our culture's contradictory imperative for immediacy and hypermediacy in terms of what they call a double logic of remediation. Their 'double logic of remediation', transparent immediacy (denying the presence of the medium) and hypermediacy (fascination with the medium itself), provides a solid dose of good sense and visionary calm, of sound and thorough scholarship and philosophic reflection.

Many media critics assume that digital technologies such as the World Wide Web, virtual reality, and computer graphics must divorce themselves from earlier media for a new set of aesthetic and cultural principles. In their richly illustrated study, Bolter and Grusin offer a theory of mediation for our digital age that challenges this assumption. They argue that new visual media achieve their cultural significance precisely by paying homage to the earlier media. The new media are doing exactly what their predecessors have done: presenting themselves as refashioned and improved versions of other media. What is new about new media comes from the particular ways in which they refashion older media. They call this process of refashioning 'remediation'.

In the first part (Theory) the authors explain in detail the theory and history of remediation. Like other media since the Renaissance new digital media

oscillate between immediacy and hypermediacy, between transparency and opacity. The process of remediation makes us aware that all media are at one level 'a play of signs', and at the same time it insists on the real, effective presence of media in our culture. Media technologies constitute networks that can be expressed in physical, social, aesthetic and economic terms. The usefulness of, for example, the World Wide Web, for marketing and advertising, scholarship, personal expression, and so on, is the reason why these technologies, can be seen as agents in our culture without falling into the trap of technological determinism.

The chapters of the second part (Media) illustrate the process of mediation in about a dozen contemporary media. They show how digital media such as computer games, the World Wide Web, and virtual reality refashion their predecessors and each other in their efforts to convince us of their transparency or to confront us with a striking variety of media and mediations. They demonstrate further that all current media (old and new, analog and digital) honour, acknowledge, appropriate, and implicitly or explicitly attack one another. Various media adopt various strategies, which are tried out by designers and creators in each medium and then sanctioned or discouraged by larger economic and cultural forces.

In the concluding part (Self) the authors pursue the reflexive relationship between user and medium by examining some consequences of the remediating power of digital media for our culture's definitions of the self. They focus on the remediating self, who is a network of affiliations which are constantly shifting, the virtual self, who occupies multiple points of view as a positive good, and the networked self, who may lead simultaneous lives in cyberspace and in a physical office. New media are fully involved in the contemporary struggle to define the self as both embodied and mediated by the body.

Black holes

J Hillis and Miller
Stanford: Stanford University Press
1999

This is an interesting publication in the sense that it actually contains two texts, one by J Hillis Miller and the other by Manuel Asensi on the work of J Hillis Miller. The first analyzes from a European perspective, the analyses of the second who writes from an American perspective. What is more interesting is that this book has a graphic arrangement in which the two texts of the two authors face one another. As such this endeavour calls for thorough reading, analysis and interpretation in its own right. This will be done at another occasion.

For the moment the concern here is to briefly introduce *Black holes* of J Hillis Miller because of its immense relevance from two perspectives only (there are many more): in the first place he addresses the problem of the contemporary university in terms of what he calls 'the transnational university', and that because of the marginalization of substantial parts of the university, like the humanities for example, mainly in terms of the second important issue, namely information and information technology and related matters. At the same time his text is an appeal to us not to sacrifice the privilege of reading for something less sublime and less privileged. Amidst all the talk about being disadvantaged the greatest disadvantage may be currently in the process of being promulgated: the disadvantage of taking reading in a final sense away from people.

Different motivations inspire Hillis Miller to proceed with his teaching and writing activities: the notion of the other, or rather of others. The question of others remain fundamental in *Black Holes*. His instigation to write this book was his reading of the formidable, but also somehow sad, analysis of the state of the contemporary university as offered by Bill Readings in his intriguing study *The university in ruins*. A further motivation was his most abiding desire to account for, to understand, to read in the sense of seeing through, the strangeness of particular literary works, but certainly of other texts as well. In his efforts to understand and to think out what is happening currently in universities it became clear as well to what extent such thinking, reading and studying takes one on unforeseen courses. That is one important reason why we need to go on reading, and rereading. Each such reading to some degree remakes us.

He addresses the changes that occur in the research university today, which

can also be applied to research in universities today. Those changes can be related to the Cold War, the decline of the nation-state, the rise of multicultural study, the concomitant waning of literature studies, and the globalizing of economies and of university research. This globalizing has happened in part under the influence of new communication technologies, without which it would have been impossible. All these changes put us in a new place, from which we can turn back and take a fresh look, facilitated by these changes, at literary works as well as works in the humanities in general. The changes wrest these works from their familiar institutional contexts. The danger is that these works will come to be seen as just one more form of historical information like any other.

Information technologies have created a powerful new paradigm redefining every form of sign as so many bits and bytes of information. These may be stored, manipulated, transferred and translated in all these marvellous but disquieting new ways. These technologies not only give the illusion of mastery over what can be digitized. They also produce an alienation effect that may facilitate new readings. Miller's reading of literary works have been presented as examples of the way literary works are, according to his title metaphor, black holes in that great galaxy of global information we shall more and more have at our fingertips, no more than a mouseclick away.

He indicates that his responsibility in each reading act is to decide and to act but the grounds of decision are impossible to know. Kierkegaard stated somewhere: 'The moment of decision is madness.' His reading also remakes the institution, for example the university within which the reading takes place and is authorised. Reading, when it happens, like other encounters with otherness, remakes the self and all its institutional, interpersonal, social, and political contexts. That is our chance. To that chance Hillis Miller gives the name: The university of dissensus to come. Where there is no longer reading there can no longer be a university!

Notes on contributors

Elirea Bornman and Norlé Schoonraad teach in the Department of Communication Science at the University of South Africa. They are involved in the development of undergraduate and postgraduate courses in International Communication. They are currently involved in a bilateral research project on globalisation with the Free University of Brussels and the Catholic University of Brussels

Prof C S (Fanie) de Beer has studied philosophy at the University of Pretoria and at the University of Paris X: Nanterre. He taught Philosophy for 15 years and Communications for 3 years at the University of Zululand. He has done extensive research (local and abroad) on a number of philosophy, communication and information themes for many years and has published extensively in all these areas: 5 books (as author); 8 books (as editor); 60 scientific articles; 8 unpublished research reports. His most recent scientific involvement and research publications are in the field of teaching in Higher Education, the current challenges posed to universities, interdisciplinary scientific work and the importance of scientific information for the South African society in particular. He has attended numerous international conferences on all the above-mentioned themes. He is currently Head of the Department of Information Science at the University of South Africa.

Archie Leonard Dick is Vice Dean of the Subfaculty of Cultural Sciences at the University of South Africa. He was a visiting professor at Wayne State University in Detroit, Michigan during 1997.

Elizabeth Gericke is a senior Lecturer in the Department of Information Science at the University of South Africa where her teaching portfolio includes readership, user studies and research methodology.

Johann Rossouw is one of the editors of *Fragmente: Tydskrif vir Filosofie en Kultuurkritiek*, and regularly publishes in South African media on philosophical topics and popular culture. He is currently working towards a doctorate under Régis Debray.

Michel Serres, a retired French philosopher of science, has taught at Clermont-Ferrand, The University of Paris VIII (Vincennes), and the Sorbonne. He has served as visiting professor at Johns Hopkins University and has been a Faculty member of Stanford University since 1984. He was elected to the prestigious French Academy in 1990.

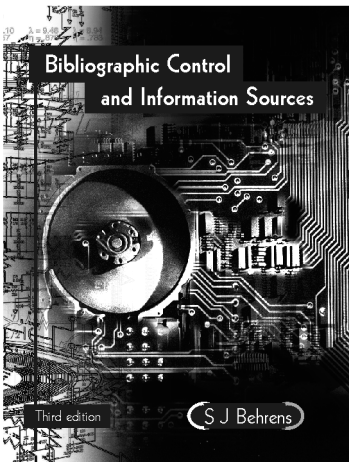
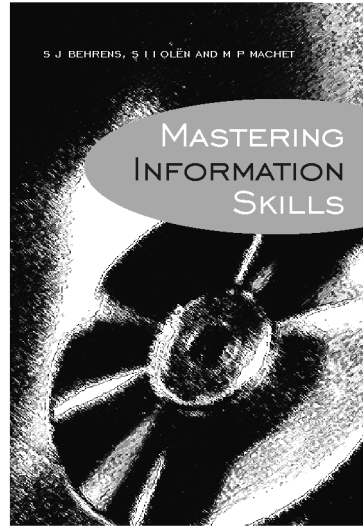
Carol van Zijl has worked for many years as a subject librarian for visual artists at the Vaal Triangle Technikon in South Africa. She is currently the Acting Head of the Department of User Services at this institution, as well as the Head of the Department of Technical Services.

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