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Where, when, why: academic authorship in the UK

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This article offers a snapshot of the status of and pressures on the academic author in the UK at the end of the twentieth century. The Research Assessment Exercise of 1996 and the Report of the Inquiry into Higher Education, published in July 1997, has made available new data on both these issues, and it thus seemed an appropriate time to begin to investigate the topics and to attempt to evaluate whether the Research Assessment Exercise (RAE) has academic authorship in the UK. The two subjects are closely intertwined since, as will be seen, the Research Assessment Exercise (RAE) has intensified the pressure on academic staff in UK higher education institutions to publish - at all costs - *but* in certain areas and at certain times. It may be that the RAE is also a factor in the slow takeup of electronic journals and online scholarly publishing in the UK.

WHAT DO WE MEAN BY ACADEMIC?

Before attempting to describe the average academic author, we must first try to define the average member of academic staff in the UK. But is there such a thing any more? The 1990s have seen a proliferation of different types of contract and employment amongst university staff, and this must be remembered when using the available statistics concerning modes of employment. Commenting on the statistics gathered by the Higher Education Statistics Agency (HESA), Brian Ramsden, Chief Executive of HESA[2], points out the difficulties of statistically analysing academic staff by specific groupings. During the 1990s, trends have moved away from national 'pay bargaining groups' and nationwide salary scales and grades for all staff, towards more flexible arrangements and local pay bargaining.

[1] The author gratefully acknowledges a research bursary from the Authors' Licensing and Collecting Society which funded the research used in this article and permission to use sections of her report for the ALCS's Higher Education and Academic Libraries Project.

[2] Brian Ramsden, 'Academic Staff: Information and Data', *Working in Higher Education*, edited by Rob Cuthbert, The Society for Research into Higher Education, 1996

UK universities are also following the general trend towards outsourcing staff, and large numbers of lecturers and tutors are now employed on a casual or hourly-paid basis. According to the Association of University Teachers (AUT), university professional staff not employed on permanent contracts now make up more than 50% of the academic and academic-related workforce. However, 'although [hourly-paid] staff are believed to be the fastest growing element in the teaching force, most universities do not know how many hourly paid staff are employed in their institution.'[3]

The statistics used in this article are either taken directly from publications of HESA or from data sourced to other bodies - such as the CVCP (Committee of Vice-Chancellors and Principals) or AUT (Association of University Teachers) - by HESA, usually for use in these bodies' submissions to the National Committee of Inquiry into Higher Education (known as The Dearing Inquiry since it was chaired by Sir Ron Dearing - now Lord Dearing in recognition of his services to education), which reported its findings in July 1997. The statistics gathered by HESA only recognise staff whose normal employment is at least more than 25% of a full-time equivalent member of staff (FTE). It must therefore be borne in mind that there is a group of academic and academic-related staff not counted in the HESA statistics - those working at the university for less than 25% of a FTE.

HESA defines 'academic staff' as those whose primary employment function is teaching and/or research. There is a significant, and growing, number of 'teaching only' staff in UK higher education institutions, although they are still less numerous than 'research only' staff. Ramsden[4] comments that there seem to be marked regional variations - with a lower proportion of 'teaching only' academic staff in Northern Ireland, Scotland and a significantly higher proportion in Wales (17%). He suggests that this corresponds with other HESA findings, which point to a more traditional pattern of higher education in Northern Ireland and Scotland than in England and, especially, Wales. The breakdown in the UK as a whole is shown in Table 1.1.

Teaching and	70,469	61.5%

[3] *AUT Update*, Issue 43 June 1997
[4] Ibid, p27

research		
Research only	32,518	28.3%
Teaching only	11,734	10.2%

Table 1.1 Academic staff by primary employment function[5]

Looking at the figures in terms of gender, the AUT broke the statistics from HESA down by sex and contract terms in its submission to Dearing (the difference in total staff being explained by the fact that the AUT's table does not include 'teaching only' staff):

	Research only		**Teaching and research**		**All academic staff**	
	Permanent	**Fixed-term**	**Permanent**	**Fixed-term**	**Permanent**	**Fixed-term**
Female	623	11,018	13,866	4,338	14,489	15,356
Male	1,313	19,012	44,917	6,887	46,230	25,989
Total	**1,936**	**30,120**	**58,783**	**11,225**	**60,719**	**41,345**

Table 1.2 Academic Staff by Sex and Contract Terms (From AUT's Submission to Dearing, Source: HESA[6]*)*

The AUT has expressed concern at the percentage of posts which are now fixed-term contracts; suggesting that staff on short, fixed-term contracts cannot have the same commitment to a department as permanent staff; will use time and energy searching for new jobs; and will feel less able to challenge received wisdom, and hence be less confident or creative within their department. The

[5] Brian Ramsden, 'Academic Staff: Information and Data', *Working in Higher Education*, edited by Rob Cuthbert, The Society for Research into Higher Education, 1996, p 28 plus figures from the Times Higher Education Supplement Website - THES*IS* {http://thesis.newsint.co.uk/DATABANK/fig696.html}
[6] AUT's Dearing Submission {http://www.aut.org.uk/dearing/staffpay.html#table1}

union warned that the orientation of such staff must be to secure their own careers - and thus their research, publishing and teaching priorities will inevitably be geared to this end.[7]

Despite such trends, the majority of 'teaching and research' staff are still likely to be employed on a full-time and permanent basis in UK universities. 'Teaching only' staff are also likely to be employed on a permanent basis, but it should be noted that many are part-time employees. 'Research only' staff are far less likely to be employed on a permanent basis. Since UK higher education institutions do not, as yet, quantify the amount of teaching versus research expected of 'teaching and research' staff, it is impossible to divide these two functions - a rather unusual situation, given that universities are funded from two entirely separate bodies for the teaching and research that goes on in each department.

Whilst UK universities give so much weight to the Research Assessment Exercise (and its concomitant funding), and academic success is measured in terms of publications and conference papers, it may be said that any 'teaching only' academic who wishes to progress in his or her career needs to be actively engaged in research, despite the terms of their contract. There are, of course, benefits for a department in this, especially when it is remembered that 'teaching only' and 'research only' staff are generally remunerated at a lower level than those on the more prestigious 'teaching and research' contracts[8].

[7] Ibid

[8] Brian Ramsden, 'Academic Staff: Information and Data', *Working in Higher Education*, edited by Rob Cuthbert, The Society for Research into Higher Education, 1996, p28

Employment function	Male	Female
Teaching only	62%	38%
Research only	64%	36%
Teaching and research	75%	25%

Table 1.3 Primary employment function by gender[9]

Seventy per cent of academic staff in higher education institutions are male. Women are more likely to be 'research/teaching only' employees and far more likely to be part-time employees. The average age of female staff is several years lower than men. All of these factors combine to depress the average earnings of women in higher education institutions.

However, statistics suggest that there may be a change over time since the number of male and female academic staff in their early twenties at present in UK universities is almost equal, although, of course, childcare needs will still be an issue for a large majority of female staff in their twenties and thirties - one possible explanation for the large number of part-time women staff.

As far as the proportion of senior female staff is concerned, there has been a small rise in recent years, possibly prompted by the founding of the Commission on University Career Opportunity (CUCO), but, again, it is still grossly unrepresentative compared to the proportion of female staff and female undergraduates.

So what does the future hold for the average academic? Retirement for quite a few. The 'stop-go' recruitment policies of the past 30 years have resulted in a skewed age profile throughout UK higher education institutions. In 1996, 85% of teaching staff were over 35 years of age and the average age for academic staff was 45. The bunching of staff in their fifties means that, in a short

[9] Taken from: Brian Ramsden, 'Academic Staff: Information and Data', *Working in Higher Education*, edited by Rob Cuthbert, The Society for Research into Higher Education, 1996, p 30

time, a large cohort will be retiring.[10] But will their places be taken by a new selection of the brightest and the best? Perhaps not, as the pay and social status of the UK academic continues to fall. According to the CVCP's submission to Dearing, for academic staff, real earnings growth has fallen well behind normal pay comparators.

The increased proportion of part-time and short-term contracts; and decline in the relative pay and status of the profession, has led to a decline in the attraction of an academic appointment compared to a job in the commercial sector. Halsey[11] has described this as the 'proletarianism' of the academic profession. Higher education has traditionally relied on the personal dedication of its staff to their students and subjects. However, commentators now suggest that this is likely to be eroded by increased workloads, the demands of audits and the transactional mentality induced by performance-related pay[12]. There is a potential decline in the attractiveness of the career to new recruits.

Why is this? Higher education in the UK has expanded on a significant scale in the last 20 years, transformed from a highly selective elite system into one of mass education. Between 1979 and 1993, the number of university students nearly doubled to 1.5 million[13], and the proportion of young people entering full-time higher education rose over the same period from 12% to over 30%[14]. Over 1.6 million students were enrolled on higher education courses by 1995/96[15]. There has also been an increase in the number of adult students, who now account for a majority[16].

The nature of the student population has changed. Students from ethnic minorities are now well represented as a whole (over 13% of home students are from ethnic minorities), although there are differences between particular ethnic groups and institutions; women make up about 50% of the

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[10] See Ewart Keep, John Storey and Keith Sisson, 'Managing the Employment Relationship in Higher Education: Quo Vadis?', *Working in Higher Education*, edited by Rob Cuthbert, The Society for Research into Higher Education, 1996, p 36

[11] A H Halsey, *The Decline of Donnish Dominion: the British Academic Profession in the 20th Century*, Oxford, Clarendon Press, 1992.

[12] 'Managing the Employment Relationship in Higher Education: Quo Vadis?', Ewart Keep, Joh Storey and Keith Sisson, in *Working in Higher Education*, edited by Rob Cuthbert, The Society for Research into Higher Education, 1996

[13] 'Managing the Employment Relationship in Higher Education: Quo Vadis?', Ewart Keep, Joh Storey and Keith Sisson, in *Working in Higher Education*, edited by Rob Cuthbert, The Society for Research into Higher Education, 1996, p 34

[14] HEFCE Submission to Dearing {http://www.niss.ac.uk/education/hefce/pub-96/m27_96.html#summ}

[15] CVCP's Submission to Dearing {http://www.cvcp.ac.uk/}

[16] HEFCE Submission to Dearing {http://www.niss.ac.uk/education/hefce/pub-96/m27_96.html#summ}

student population; and there have been increases in the number of disabled students. The proportion of non-traditional students has become significant, with 31% of all HE students studying part-time and over 75% of part-time, first-degree students entering university with qualifications other than the traditional A-levels or Scottish Highers.[17]

Moreover, there is a general consensus in the UK, among politicians, employer and employee groups, in favour of increased initial and continuing professional and work-related skills training. The Government's own national target requires an increase in people educated or trained to HE level to nearly one-third of the working population by the year 2000.[18]

At the same time, there has been a reduction in the unit of resource, with larger class sizes, fewer tutorial sessions and increased pressure on academic staff to administer and teach these larger classes, as well as continuing with their research and publications. In recent years, HE has experienced considerable reductions in per capita funding. Since 1989-90, the amount of public funding per student has reduced in real terms by 31%[19] while student-staff ratios (SSR) have continued to rise. In 1970-1, the average university SSR was 8.5:1. In 1980-1 it was 9.5:1; in 1990-1, 12.3:1. In 1994/5, Imperial College, London had the lowest SSR at 7.1:1 and Sunderland University - one of the new universities formed in 199- from the old binary divide system - the highest with 20:1.[20]

The implications of all this for the average academic is that a more diverse student population requires a variety of teaching and learning experiences. Greater flexibility will be required as students have more say in what, when and where they study - and with the introduction of tuition fees in 1998, students are expected to become even more concerned with value for their money.

WHY DO SCHOLARS PUBLISH?

So much for the gloomy picture of life in a higher education institution in late twentieth century Britain. What affect does this picture of an aging, male-dominated and poorly paid

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[17] All bulleted statistics from the CVCP's Submission to Dearing {http://www.cvcp.ac.uk/}
[18] HEFCE Submission to Dearing {http://www.niss.ac.uk/education/hefce/pub-96/m27_96.html#summ}
[19] HEFCE Submission to Dearing {http://www.niss.ac.uk/education/hefce/pub-96/m27_96.html#summ}
[20] Taken from the Times Higher Education Supplement Website, THESIS, {http://thesis.newint.co.uk/DATABANK/ratios.html}

academic workforce struggling with the fear of temporary contracts, increased workloads and the shadow of the RAE have on UK scholarly publishing?

Even in the UK's ivory towers, publication is no longer merely a means of communication. It has come to be a way of evaluating academics, and can be a major factor in professional advancement. It can also help the academic - or their department - attract more research funding from outside bodies. So there are practical reasons of promotion and tenure for publication.

This is not to discount the more esoteric reasons for publication - the desire for immortality in print, for example. Publication may also resolve 'priority of discovery' disputes - particularly in scientific fields. So, ignoring funding and CVs for a moment, one of the most important reasons for scholarly publication is still to inform peers of research findings, and to be informed by them in turn.

In the vast majority of cases, UK scholars do not publish for money. The average academic is too pleased to find a publisher for their monograph or journal article to start making many financial demands about royalties or rights income. (This despite the large profits made by academic and scientific publishers such as Elsevier or Oxford University Press.)

However, it must be remembered that academics hope to be rewarded in an indirect way, such as promotion or tenure. In some scientific fields, of course, scholars are even willing to pay to reach their colleagues. In subjects such as physics and mathematics, page charges to the author's institution to offset part of the costs of publication are common practice in the more esteemed paper publications.[21] If applying for a research grant in these subjects, it is not unusual for the applicant to include costs of publication into his or her grant application.

One of the most influential reasons for academic publishing in the last ten years in the UK has been the Research Assessment Exercise (RAE), an exercise in which the Higher Education Funding Councils assess the research quality of individual university departments

by a process of peer review involving the exercise of academic judgement. The pressure to publish - in the right places and at the right time - is therefore as strong as ever as their RAE rating (from 1 to 5) has become a major preoccupation for most university departments. The RAE rating affects the amount of resources entering individual departments as well as the university as a whole at many institutions. It has reinforced the tendency to prioritise research ahead of good teaching. One side affect in terms of publishing is that it has focused academics' attention firmly on their own sector - and on journal publishing in particular.

The publication of textbooks, monographs and, in particular, articles in peer-reviewed learned journals has always been regarded as an important achievement and mark of success in an academic career. However, in terms of universities' research and teacher quality assessment exercises, textbook writing is not valued as highly and is largely ignored. In the same way, Bradford reports less involvement in A-level examinations and A-level textbook writing from the higher education sector in recent years, neither of which score highly in the RAE.[22]

In the 1996 RAE, 60 panels assessed work in 69 subject areas. Stress was laid on the evaluation of publicly available (ie published) research outcomes as the primary evidence for this. The information collected related mainly to work done within the previous period of four years (six years in the humanities). Each member of academic staff in a department was expected to produce evidence of up to four pieces of published research. Articles in a referred scholarly journal were seen as more presitgious than published monographs, which, in turn, were more valued than textbooks. The departments were then graded from one to five and funding allocated for research on these criteria. After the 1996 RAE, the higher education funding bodies awarded no money for research to departments with low research ratings (1 or 2). University departments have therefore understandably put great emphasis on the research output of their staff. It is not good enough to merely be seen to be doing 'research' - it has to be measurable in published output by a certain cut-off date and has to be published in a

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[21] Stevan Harnad, 'Implementing Peer Review on the Net: Scientific Quality Control in Scholarly Electronic Journals', *Scholarly Publishing: The Electronic Frontier*, ed Robin P Peek and Gregory B Newby, The MIT Press, 1996, page 107

reputable (ie peer-reviewed) journal or by a well-established publisher to gain the maximum prestige. The 'quality' of the research and of the written reports are highly significant, as the best publications of each assessed academic may be read by members of the subject panel.

Much criticism has been levelled at the RAE in terms of pressure upon academic staff; the emphasis on research at the cost of teaching excellence; and the push to publish before the cut-off date, whether your research is completed or not. As *The Guardian* reported one anonymous academic explaining in the weeks after the 31 March closing date for RAE submissions: 'It was a case of publish - or perish. Staff were pressurised to produce. In fact academic publishing houses have since reported that their workload peaked before the March 31 deadline - with little work required for the rest of the year. There has also been a rash of conferences whose sole purpose seems to be to increase the publication count.'[23]

Although the stories in the educational press of secret meetings at motorway cafes between university management and the prestigious academics they wished to attract to their institution were presumably apochryphal, there certainly was something of a 'transfer market' for those with the right publications portfolio. However, since no other method can be agreed upon to divide up the diminishing research funding between ever-hungry universities, the next RAE is already being discussed, although no announcement has yet been made as to whether it will take place in 2000 or 2002 or how many publications scholars should submit. In 1996, the standard entry of publications and other output was no more than four publicly available items for each active researcher. Rumours have it that this may be raised to six by 2000/2002, although whether this is a true measure of how much published output academic staff are likely to produce in four years, or an attempt to limit the number of departments eligible for funding, is debateable.

In 1996, there were 2,898 submissions from 192 higher education institutions - naming 55,893 active researchers. It might be useful at this point to look at the kind of criteria used by the RAE panels to assess the research ratings of individual departments; the 1996

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[22] 'Geographical Transitions', Michael Bradford, *Working in Higher Education*, edited by Rob Cuthbert, The Society for Research into Higher Education, 1996

RAE Manager's Report[24] gives some helpful insights. Broadly, it seems that the panels in the humanities and social sciences tended to be more widely read that those in science, engineering and medicine, and thus more confident of their ability to assess the quality of output of a department by means of the medium of publication. These panels thus tended to target those researchers and topics within a particular department with which no one on the panel was familiar, and works in unfamiliar media and imprints, where assessment by reference to medium of publication was problematic.[25] Where panels relied on medium of publication as an indicator, they considered evidence for the quality of unfamiliar imprints. In contrast, where panels determined to read widely (for example some science panels) there were many problems in gaining access to material. Although university departments were supposed to have copies of all submitted work on hand, in case panels requested them, in practice, this was not always the case.

One of the main problems was on the borderlines of the RAE's definitions of 'research', especially in the humanities. For example, can editing or translation of texts be defined as original research? Panels needed to be satisfied that there was a significant amount of original work leading to new insights in such publications.[26] Another problem was in deciding on a publication date for non-text items. For example, is a painting published when the artist shows it to friends, or when it appears in the catalogue of an exhibition?

HOW MUCH DO UK ACADEMICS PUBLISH?

Total title output for the UK academic and professional sectors is estimated at about 47,000 new book titles per year (but note that, with growing 'on-demand' publishing, private publishing of theses, and production of 'grey'[27] literature, a significant proportion of this figure may not be books genuinely

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[23] 'Higher Education: Funds for the Big Fish', *The Guardian*, 25 June, 1996
[24] Conduct of the Exercise: the RAE Manager's Report, May 1997 {http://www.niss.ac.uk/education/hefc/rae96/Cl_97.html}
[25] Ibid, page 69
[26] Ibid, page 73
[27] For example, when university reports, prospectuses, etc are produced by the university press - it is not intended for sale

publishing for commercial sale). There are 3,000 published journal series.[28] The UK book, journal and electronic publishing industry supplies UK academic and research institutions and their students with learning and research products to a value estimated at £225 millioon per year - to which can be added staff purchasing for their own use and the significant sales to colleges, the vocational training sector and college and faculty libraries - a total of around £400 million.

Home	£98m
Export	£228m
University library purchase of UK journals	£26m
TOTAL	£326m

Table 1.4: UK publishers' research journal sales 1995 [Home and export: tentative estimate][29]

Apart from the demands of the Research Assessment Exercise, there has been little research done on the amount of publication per academic per year in the UK. Unfortunately, the outcome of the RAE merely gives the percentage of staff of each university department who were submitted to the RAE and the rating given to that department. No details are given of the number of staff, the number of their publications, or the number of staff in the department with publications not deemed central to the research focus of the school or department.

It must be remembered that the RAE was aiming to assess quality of individual work and institutional research culture, rather than volume or relevance, and was also only interested in a narrow definition of scholarly publication, as reported above.

There have been some recent attempts at quantifying UK academics' output - mainly as part of a dispute about whether research institutes or universities provide the best 'value for money' in

[28] *The present and future contribution of British publishing to higher education in the United Kingdom, Evidence on behalf of the UK book, journal and electronic publishing industry to the National Committee of Inquiry into Higher Education*, 1996-97, The Publishers Association, p 1
[29] *Ibid,* p 2

terms of papers or citations per person or per pound spend. The Chief Scientific Adviser[30] suggested in 1997 that universities, rather than research institutes, give better value for money. This hypothesis was an attempt to explain why the UK appears to deliver better value for money in science research than its major European competitors (France and Germany). These two countries do more research in institutes than the UK - so are universities more efficient?

Taking up the cudgels in defence of research institutes, John Krebs, Chief Executive of the Natural Environment Research Council (NERC) pointed out that the European countries which outperform the UK are Switzerland, Sweden and Holland, where the proportion of research done in universities varies from over 90% to 50%[31]. So it seems that there is no simple answer.

Krebs went on to point out that it is difficult to compare 'papers per pound' because, in universities, money from teaching might subsidise research, and *vice versa*. However, he did attempt to offer some figures, using research done at the University of Sussex. Researchers there used the Institute for Scientific Information database to measure published scholarly output in the UK between 1981 and 1992[32]. They showed that 62.5% of scholarly publications came from universities (new and old); 22% from 'hospitals' (mainly university medical schools); 11% from Research Council institutes; with industry, government and others accounting for the remainder. The relative contributions remain similar over the period between 1981 and 1992, suggesting to Krebs that they could be extrapolated forward.

Krebs then calculated staff numbers from the 1996 RAE and from current data on Research Council institute staff. In the RAE, he calculated that the total staff in the sciences was 41,702 full-time equivalents (of which 28,492 were non-medical). For Research Councils in early 1997, the total figure was about 5,000. Combining output and workforce figures yielded the following results:

Cited publications per staff member (1981-91)

University non-medical	8.26

[30] in 'The Scientific Wealth of Nations', *Science* 275, pages 793-796
[31] John Krebs, Editorial: Value for Money, *NERC News*, NERC, Summer 1997
[32] S J Katz, D Hicks, M Sharp and B R Martin, *The Changing Shape of British Science*, STEEP Special Report no 3, SPRU, University of Sussex

Hospital and medical	6.19
University/hospital combined	7.60
Research Councils	8.43

At this level of analysis, therefore, Krebs appears to have shown that there is no evidence that Research Council institutes provide worse value for money than universities (although it must be remembered that this was what he was hoping to prove!) He does acknowledge some limitations of the data used - other factors need to be incorporated into a fuller analysis. However, the limitations he points out would again further the Research Institutes' cause. For example, university scientists may spend part of their time teaching, but many also benefit from PhD students, who carry out significant proportions of their research. Many institute staff, on the other hand, are involved in contract research, which may not readily lead to refereed publication (he does not seem to think that university staff may also undertake contract research - although this very article began life as part of a research report contracted by the Authors' Licensing and Collecting Society!).

HAS THE RAE AFFECTED ACCEPTANCE OF ELECTRONIC PUBLISHING?

The number of electronic journals, newsletters and discussion lists devoted to scholarly issues grows every week. The sixth edition of the *Directory of Electronic Journals, Newsletters and Academic Discussion Lists*[33] was published in June 1996. It lists 1,700 journal and newsletter titles - double the number listed in the 1995 edition and over 15 times the amount in the first (110 in 1991, 240 in 1993, nearly 700 in 1995). As far as scholarly e-conferences (including electronic conferences, bulletin boards and discussions of an academic nature on Bitnet, the Internet and other linked networks) are concerned, from 1991 to 1996, these had grown from 517 to over 3,100. (Of course, these figures relate to the world, rather than the UK.)

[33] *Directory of Electronic Journals, Newsletters and Academic Discussion Lists*, editor Dru Mogge, Association of Research Libraries, Office of Scholarly Communication, 1996

With prices of printed journals skyrocketing, and libraries' budgets shrinking, plus an increasing volume of academic writing - due in part to university hiring, promotion and tenure practices - the electronic journal is becoming a real force in the academic world. Much of the informal communication of the research community has ceased to be paper based - with e-mail becoming a frequently used channel of communication, and thousands of electronic newsletters, discussion groups and e-print archives now online - and now formal communication appears to be moving in the same direction. The advantages of electronic publishing include information delivered in minutes, directly to your desk; easy computer-based search methods; and the ability to include datasets, sounds, sequences, animation and simulation in your documents. Electronic documents can be active documents, inviting the reader to participate as well as read.

However, it is important to remember that, in the words of Robin Peek, 'Technology often moves faster than society is prepared to deal with the changes'.[34] There are great differences in technological access and ability across universities and disciplines. Such a discrepancy is critical, because the viability of electronic publishing will seem greater to the academic using a first-rate monitor with excellent graphics, speed and storage than to one with a very slow machine.

For example, the ESPERE Project, one of 60 projects funded by JISC under the Electronic Libraries (eLib) programme, has been looking at the possibilities of electronic peer review in learned journals. Jointly run by the University of Ulster and the Society for Endocrinology, the project conducted a survey amongst 200 editorial board members of learned journals. Whilst 63% of the board members were interested in the idea of submissions to their journals arriving by electronic mail, and 70% were prepared to accept papers for refereeing by this method, *only 45%* had any experience of sending files to others by email.[35] Again, my own informal discussions with colleagues in the two universities in Aberdeen has led me to realise that, outside departments of media and information science, there are many

[34] Robin Peek, 'Scholarly Publishing: Facing the New Frontiers' in *Scholarly Publishing, the Electronic Frontier*, ed Peek and Newby, MIT Press, 1996, page 3

academic staff who can not even turn a computer on (and many are proud of this fact). So those who suggest that the 'brave new world' of purely electronic scholarly publishing is almost upon us, need to realise they may not even be reaching 50% of their audience.

There may, however, be another factor influencing the take-up of electronic publishing amongst UK academics. Although the *Guidelines* for the RAE state that 'refereed journal articles published through electronic means will be treated on the same basis as those appearing in printed journals'[36], this message does not seem to have reached its audience. A survey of 100 members of academic staff at Aberdeen University and the Robert Gordon University, Aberdeen, in 1997[37] found, again and again, that the primary reason cited for non-publication in electronic journals was that 'the RAE does not value them as highly as print journals'. In a five year period, 95% of staff surveyed at Aberdeen and 75% surveyed at RGU had published between one and ten journal articles, monographs or textbooks. 93% of these authors had chosen a print format. Those that had published electronically, had done so purely because the journal that had accepted their article was a dual publication in both print and electronic formats. They had not chosen to publish electronically.

While much more research is needed in this area, it does suggest that the RAE's influence in shaping scholarly publication trends in the UK is not limited to when scholars publish and what they publish but also in which format it appears. Although the RAE states categorically that referred electronic journals will be given the same status as print journals, there is still a wariness amongst many academic staff. Is the slowness of acceptance of electronic publishing amongst many related not just to technophobia and insufficient hardware but also to a perception of how funding bodies and, in particular, the RAE regard electronic journals?

In conclusion, it seems that the Research Assessment Exercise has had a definite impact on the shape of scholarly publishing in the UK in the last few years, and will probably

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[35] Project Update, *Learned Publishing*, Vol 10, no 2, April 1997
[36] 1996 RAE Article 46, Guidance on Submissions
[37] These details are taken from Heather Toye, 'The Academic Author and Digital Media: Tradition faces the Electronic Era', unpublished BA (Hons) dissertation, The Robert Gordon University, 1997

continue to do so for some time come, thus distorting acceptance of electronic scholarly journals in the UK, especially amongst the humanity subjects, and determining when, where and in which format academic staff publish.