

Sir, publishing on internet is a like a dog's walking on his hinder legs. It is not done well, but you are surprised it done at all. (with apologies to Samuel Johnson)

Forgotten Majorities in E-Print

I want very briefly to consider three groups who may be forgotten in distributing preprints electronically – experimentalists, those less well supported, and young scientists.

Figures are central. As Chair of the Task Force reviewing *Physical Review B* I got and attempted to print every paper posted on `cond-mat@baggage.sissa.it` for 15 months. My main observation is that there were no experimental papers. This situation has not changed. Even now I bring over every experimental paper, and they are a handful.

The reasons are simple to understand: (i) Experimentalists largely use PC's and MAC's and have little experience with unix and internet; (ii) They use WORDPERFECT and MICROSOFTWORD and know little of TEX and LATEX; (iii) Most importantly, the meat of their papers – the figures – are produced by a variety of software and seldom is POSTSCRIPT the chosen output.

For electronic-posted preprints to include the centrality of physics – experimental results – we must make it possible for experimentalists using other word processors, other graphical software and other workstations to post those papers in the manner they were produced. We must stop forcing all to pass through the keyhole of LATEX. The scientific community must make an extended effort to accommodate all its scientists. Anything less and electronic-posted preprints will continue to be the playpen of theorists.

Who should pay for what you read? Electronically posted manuscripts are very attractive from the standpoint of the writer. The distribution is free: no staff is needed to copy the manuscript and to arrange mailing, and no money is needed for postage. All the costs are borne by the reader or by the host institution of the reader. They pay for the workstations, the printers and its paper, and for maintaining it all.

The financing of electronically posted manuscripts stands the conventional funding mechanism for journals on its head. In its strongest extreme – the original plan of *Physical Review* – the authors pay for the editorial costs while the institutions and individual subscribers pay for the production and distribution costs. With time the editorial costs have increasing shifted to the institutions, primarily the libraries. Electronic posting puts all the costs on the individual scientists or their departments. But in many countries these are the least able to bear this cost. At the least we should think seriously about how important we want e-print to become in the scientific life of our less affluent colleagues.

Can you trust what you read? This problem of credibility is worst for those least able to recognize it – the youngest scientists. It is all too easy for them to spend their time electronically extracting manuscripts that have not been evaluated in any way. Should scientific societies not worry that their support of electronic distribution may convey a credibility that they are unable to intellectually supply. After all, if you get a paper in the mail with all the other junk mail, time may have taught you to be properly suspicious. Do the scientific societies and the federal funding agencies by their support of electronic posting want to assume the dubious mantle of junk mailers?

... *A final note* ...

Maintaining the archival journals. The central problem with anything that looks good on the page – as TEX and LATEX manuscripts can – is that good-looking garbage is still garbage. It is all too easy to forget that refereed journals are what constitutes the scientific literature. Funds and efforts to maintain e-print facilities should not come at the expense of the primary archival journals.

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