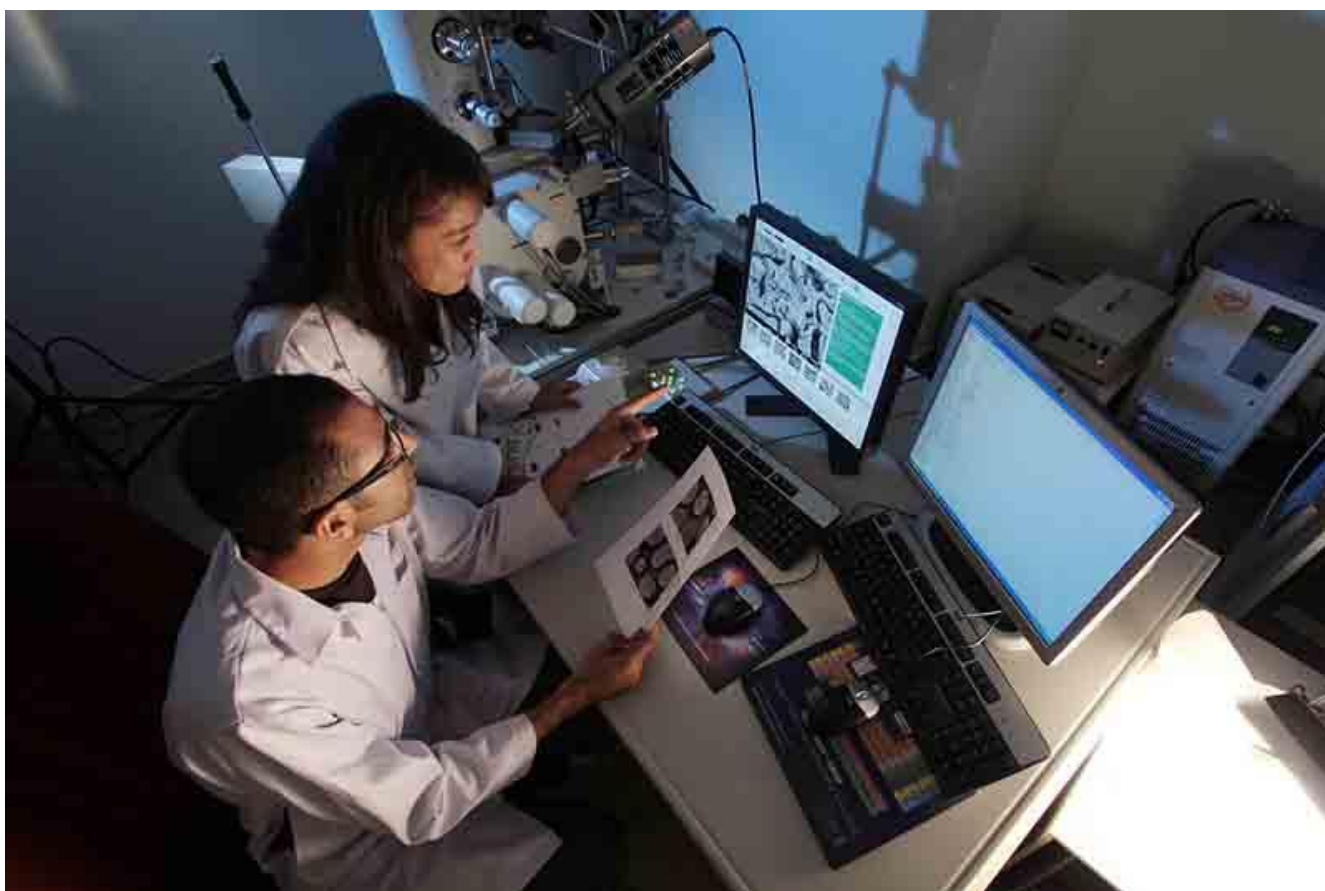




Research plan fuels open access revolution

When Tim Gowers, a maths professor at the University of Cambridge in the UK, wrote a blog post criticising the high price charged by academic journals to access research, he did not expect to start a revolution.

13 March 2013 – By HORIZON REPORTERS

However, to his amazement, thousands of researchers responded by declaring that they would refuse to review articles or submit papers to some high-price journals.

Now the European Commission is throwing its weight behind the movement. It wants to ensure that if the scientific results from projects it funds from next year are published, it's in open access journals.

A subscription to an academic journal can cost thousands of euros, hundreds of times more than a subscription to *Marie Claire* magazine, meaning that companies, teachers and doctors often cannot get access to research.

Under the European Commission plan, any published research it funds from 2014 to 2020 must be available in open access journals, where anyone can see it for free. This proposal is part of Horizon 2020, the new funding package for science research due to be approved this year.

‘Open access to scientific papers and data will speed up important breakthroughs by our researchers and businesses, boosting knowledge and competitiveness in Europe,’ said Máire Geoghegan-Quinn, Commissioner for Research, Innovation and Science. A study by the Danish Agency for Science, Technology and Innovation and Denmark’s Electronic Research Library, revealed that high-technology firms can lag two years behind on innovation, simply because they cannot get free access to results that have been published in academic journals.

Research available to a wider audience

The European Commission's proposals for Horizon 2020 will mean research is available to a wider audience such as retired academics, teachers, policy makers, doctors and patients. ‘More research outputs will be available to a wider audience as a result of this development,’ said Dr Paul Ayrís, President of LIBER, the Association of European Research Libraries.

Academics are under pressure to publish their research in highly regarded journals such as *Nature*, however the use of open access journals such as those published by the Public Library of Science (PLOS) is gaining momentum.

Last year, Harvard University in the USA recommended to its researchers that they publish in open access journals, as many of the leading scientific journals had become so expensive that even well-resourced university libraries reached the point where they could no longer afford to subscribe to all of them.

However, publishers say the cost of scientific journals are much higher than other types of publishing because they must in effect pay for rejections.

Philip Campbell, the Editor-in-Chief of *Nature*, said that the vast majority of the 11 000 papers submitted to the title every year never make it into print, yet all those being considered for publication have to be sent out for peer review and a large editorial staff is kept busy on production.

One way around this could be by asking research institutions to pay processing charges.

Professor Maria Leptin, Director of the European Molecular Biology Organisation, said researchers, or their institutions, could cover the cost of publishing research at the beginning of the production cycle through so-called article processing charges.

In most cases, she argues, libraries and researchers share public funding, and paying up-front would eliminate the need to charge at the end.

Green and gold

There are two types of open access; green and gold. The Commission policy is to support both and one form is not favoured over another. According to the Commission, both forms are valid and complementary approaches to make open access effective, fair and affordable for researchers and business.

Green open access describes a situation where research results are made freely available, after an ‘embargo period’. The scientific publishers can recoup their investment by selling subscriptions and charging ‘pay per download’ fees while an article, or series of articles, is under embargo.

Gold open access, meanwhile, is where an article is made freely available – immediately. The cost is shifted away from the readers of scientific journals, who no longer need to pay to see a newly published article, onto the university, research institute, or funding agency to which the researcher is affiliated.

More info

The European Commission's Open access webpage

[Report to The Danish Agency for Science, Technology and Innovation \(FI\) and Denmark's Electronic Research Library \(DEFF\)](#)

[The Association of European Research Libraries \(LIBER\)](#)

[Prof. Tim Gowers' blog](#)