page 'micro-article' template with boxes representing the key components of a good research paper.

Parallel session G: publication bias

Selective reporting of 'positive' results is an on-going concern in biomedical publishing, and **Anne Brice** from the James Lind Initiative explored to what extent medical journals encouraged authors to or discouraged them from submitting their work, regardless of direction or strength of effect. Their analysis of editorial policies of 120 top medical journals was disappointing. While some journals encouraged the publication of negative findings to some degree, only five of the 120 journals featured unqualified encouragement with a specific reference to bias. Another finding of this study was how hard it was to find the information: no-one reads 'information for authors'. She ended with a call for co-ordinated action by editors and publishers to make policies more visible, raise awareness, and encourage submission of study protocols.

Another way that medical journals can help to prevent publication bias is to require registration of clinical trials. **Liz Wager**, ex-chair of the Committee on Publication Ethics (COPE), reminded the audience that before the publication of the ICMJE standards in 2005 it was a requirement of US law, but it took the action of journals to make a real difference. Non-registration was seen as a problem with the pharmaceutical industry, but in fact the failing lay equally with industry and academia. Liz Wager looked at a random sample of 200 journals and found that about 70% of journals did not require registration (although 40% of those did require authors to abide by the Helsinki declaration), and that only 2% of journals actively encouraged registration.

The final speaker in this session, **Ana Marušić**, from the *Journal of Global Health*, spoke about preventing publication bias. She started her talk by considering what journals and their editors can do to ensure the integrity of the scientific record, and looked at the requirement for medical trial registration that journals include. She presented the OPEN (to Overcome failure to Publish nEgative fiNdings) project that worked with opinion leaders in Europe to address publication bias by evaluating, advocating and implementing policies and recommendations.

Parallel session H: bibliometrics

The first speaker, **Tom Babor,** from the International Society of Addiction, discussed his own research which showed how different author groups participated in research, and how many of them write just one article in their lifetime. His findings also showed that almost 90% of research in this area was published in English, which led to concerns about the lack of ability to publish in local languages, which may reduce the utility of the articles within their locale.

The second speaker, **Jenny Neophytou** from Wiley-Blackwell, spoke about how publishers use bibliometrics – and in particular how they should definitely not be used! She indicated that using bibliometrics can help publishers to compare their journals against others, show how disciplines are changing and where the research is coming from and whether their journals are successfully reaching authors (and readers). She identified a lot of problems in data – for example variable institution and author names, unknown data sources.

Christiaan Sterken talked about the Hirsch index and namesake authors. He showed how publication data is used to evaluate candidates and how name confusion can dramatically affect careers. He discussed the Hirsch Index and how this can be useful but also be misinterpreted to place undue importance on a researcher's output.

Final plenary

The final plenary talk was given by **Linus Svensson** from the Oikos Editorial office. He described the structure of the organisation behind the journal, and used his talk to stress the fact that editorial offices not only deal with editorial issues, but also have to manage a wide range of duties, including administration, finance, ethical and legal issues. He also emphasised the need to plan for the future and identify risks so they can be avoided. Using experiences from Oikos, he asked how journals should make decisions over problem issues, such as duplicate publication, typesetters going bankrupt, or computer systems being hacked. His talk was a fitting end to the meeting as he made us all remember that the issues that editors normally focus on are not the only ones needing to be dealt with on a daily basis.

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EASE Conference - report on session: 'Digital tools for detecting misconduct'

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The digital age has brought new opportunities for misconduct such as copy-and-paste plagiarism and image manipulation. However, the same technology also provides tools for editors to detect misconduct. One of the most widely used is CrossCheck, which was described by Rachael Lammey from CrossRef (the organization that developed it). CrossCheck combines the text-matching software iThenticate (produced by iParadigms) with a publications database provided by the publishers who use the checking tool. This allows the software to compare text against the full text of publications that are only accessible to subscribers, and would therefore not be accessed by a simple internet search. Screening submissions may not only detect plagiarism and redundant publication but may also act as a deterrant. However, the similarity reports need careful interpretation. Although CrossCheck can be set to ignore text in quotation marks and in the

reference list, the raw percentage of similarity should not be used to set an arbitrary limit. For one thing, it is important to check whether authors have re-used work written by other authors (ie committed plagiarism) or their own work. There may also be legitimate explanations for re-use of identical or similar text, for example to describe standard methods or data sources. False positives may also occur if preprints or conference abstracts have been posted on the web (however, it is possible to set CrossCheck to ignore individual sources in such cases).

The latest tool produced by CrossRef (which also created the system for linking references via digital object identifiers, called DOIs) is CrossMark. This allows publishers to indicate the most current, publisher-curated version of a publication and to alert readers to any changes to the original version such as corrections or retractions. Clicking on the CrossMark logo will allow readers to check whether they are using the most up-to-date version, even if they have downloaded it and stored it as a PDF on their own computer. This should reduce the problem of authors citing work that has been retracted.

Editors and researchers in Croatia have used CrossCheck, and a number of other text-matching systems, to assess the prevalence of plagiarism in manuscripts submitted to the *Croatian Medical Journal*. The former, and founding editor of this journal, Ana Marušić, presented their findings and described how the journal used such screening tools. Bazdaric and colleagues analysed all submissions during 2009 and 2010.[1] Of the 754 submitted manuscripts, 105 (14%) were flagged as containing matching text by the software and, of these, 63 (8%) were found, after manual checking, to be plagiarised and 22 (3%) were found to contain "self-plagiarism". The Croatian team concluded that manual verification is essential and that use of more than one text-matching software (such as CrossCheck, eTBLAST and WCopyfind) can be helpful.

One limitation of current text-matching algorithms is that they only work for text in Roman characters and cannot be used with other alphabets such as Arabic or Chinese. However, Professor Sun Huh from Hallym University in Korea (and Chairman of the Committee on Education and Training of the Korean Council of Science Editors) described an interesting study assessing duplicate publication in Korean Medical Journals.[2] Kim and colleagues checked a sample of 455 articles indexed in KoreaMed and identified 27 articles (6%) that had been duplicated – one published four times, and the rest twice. Based on this study (which was started in 2004), they concluded that a more precise classification of redundant publication would be helpful and a further analysis of 100 papers has been performed. Professor Huh and colleagues propose a classification distinguishing copying in different languages, the same language, and salami publication (when a single data set is published several times). Another variant is "imalas" publication (which participants discovered was not a Korean term but simply 'salami' backwards!) which occurs when researchers publish an initial paper followed by others with extended sample numbers or study periods. Professor Huh and colleagues have also produced a case book on duplicate publication (in Korean) which is being used by academic societies for training.

Classifying misconduct was the theme for the final presentation (from Liz Wager, former Chair of the Committee on Publication Ethics – COPE). As the other speakers had noted, information provided by electronic tools for detecting text similarity should be interpreted carefully. Editors might hope that they could use such tools automatically and immediately recognise plagiarism or redundancy, however there may be legitimate reasons for finding that text similarities exist between documents. COPE's flowcharts were created before such tools were widely used, but recommend different courses of action for major and minor plagiarism and for redundant publication. However, they do not provide precise definitions of these terms. Therefore COPE issued a discussion document (available at www.publicationethics.org) setting out the problems and proposing some possible new definitions that were discussed at the end of the session.

The presentations and lively discussion emphasized the usefulness of tools such as CrossCheck for detecting misconduct but also highlighted the need for journals to develop policies about when to use such tools and how to interpret their findings.

References

1 Bazdaric K, Bilic-Zulle L, Brumini G, Petrovecki M. Prevalence of plagiarism in recent submissions to the *Croatian Medical Journal. Science & Engineering Ethics* 2012;18:223-239. doi:10.1007/s11948-011-9347-2

2 Kim SY, Hahm CK, Bae CW, Cho HM. Duplicate publications in Korean medical journals indexed in KoreaMed. *J Korean Med Sci* 2008;23:131-133. doi:10.3346/jkms.2008.23.1.131

A debate on open access

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On 25 May 2012, I attended a debate on open access (OA) organised by the Science Communication Forum at Imperial College in London. The large hall in which the event was held was nearly full, perhaps because of the provocative title: "Open Access: Is it open season on traditional scientific publishing?"

There were five people on the panel: Chris Bird, Senior Lawyer at the Wellcome Trust; Stephen Curry, Professor of Structural Biology at Imperial College London; David Hoole, Marketing Director at Nature Publishing Group (NPG); Michael Jubb, Director of the Research Information Network (RIN); and Graham Taylor, Director of Educational, Academic and Professional Publishing at the Publishers Association.