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ISSN 0258-3127

Printed by Qwerty Ltd, The Markham Centre, Theale RG7 4PE ©EASE 2012

From the Editors' Desks

The eleventh Annual General Meeting was held in Tallinn: the President's full report is on the website. Several members of Council stepped down and we appreciate all their contributions to EASE. So, my thanks to my two Vice-Presidents, Alison Clayson, who has done an excellent job coordinating Membership recruitment and retention, and Reme Melero, who has organized many successful seminars and will continue to do so. I am also grateful to Petter Oscarsson for his work on the Handbook, Edward Towpik for hosting courses in Warsaw and, of course, Mare-Anne Laane for facilitating such a fantastic Conference at Tallinn University of Technology.

For the new Council, the Vice-Presidents, Ana Marušić and Eva Baranyiová, were elected unopposed, as were the five Ordinary Members of Council: Paola DeCastro, Shirin Heidari, Izet Masic, Chris Sterken and Sylwia Ufnalska. I was re-elected as President, which means that Arjan Polderman continues as Past-President. I am very pleased that Rod Hunt will continue as Treasurer (this is not an elected post) and am looking forward to working with this team for the next three years.

Some good news was the Treasurer's

report that for the first time in several years we made a small surplus in 2011. This was mainly due to rigorous cost control. Our membership, which is our main source of income, fell from 538 at the end of 2010 to 462 at the end of 2011, but seems to have stabilized. If you enjoy being a member of EASE, as we hope you do, please spread the word to colleagues and help to make us an even better organization.

It was a pleasure to announce the award of an Honorary Life Fellowship to Elisabeth Heseltine for her services to EASE and the scientific community in teaching science writing (see p70).

We also announced the launch of Regional Chapters of EASE to facilitate interaction among editors within countries or groups of countries. There is more information on the website and anyone interested in establishing a Regional chapter should contact Ana Marušić or Eva Baranyiová.

Finally, EASE has now launched a freely available online Author Toolkit and my thanks to Tom Babor and Kerstin Stenius for driving this. The first elements are on the website and more will be added.

Joan Marsh

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Editorial

Authorship and contributorship in scholarly journals

Currently science editing is a discipline which covers various issues in science writing, ethical editing, peer review, publishing and scientometrics. Authorship in scholarly journals, and its abuses, is one of the key topics in this discipline and shapes its core values. The basic principles of authorship underlie the foundations of research, academic promotion and advancement in science. It's hardly possible to create knowledge and scientific products without following fair authorship criteria.

Though a universally acceptable definition of authorship does not exist, there are two main components of any definition which have gained wide recognition – credit and responsibility. Journal publications are the end result of creative work of individuals, or increasingly multi-expert research teams, who are aiming to gain credit from the scientific community and to contribute to knowledge creation. Traditional authorship models, largely based on the criteria of the International Committee of Medical Journal Editors (ICMJE), consider the authors' byline in the papers as the key for attributing credit. Securing a place in the byline is itself a credit, whilst taking the first place is often the reward for contributing the most to the multi-authored work.¹ However, credit brings with it responsibility, which is straightforward in solo work but quite complicated for multi-authored publications, the hallmark of science communication in our time.

A recent essay in *European Science Editing* questioned the objectivity of attributing responsibility based on the traditional model of authorship² and favoured the model of contributorship, originated 15 years ago by the former deputy editor of *JAMA*, Drummond Rennie, and strongly supported by the former editor of *BMJ*, Richard Smith.^{3,4} Apparently, the contributorship model fits well the current trends in multi-expert research cooperation and publishing, where contribution and responsibility are to be shared by generators of ideas, technical staff, research supervisors, and professional writers. Perhaps it can be the best option for fair and transparent authorship in papers on large trials, quantitative systematic reviews and meta-analyses. This alternative model disfavours instances of guest, gift and honorary authorship and encourages honest listing of all contributors, including those who might refrain from putting their names in the papers (ie ghost-writers).

Both traditional and alternative models emphasise responsibility as the virtue of research integrity. In most research institutions in the mainstream science countries the main responsibility is often attributed to the corresponding author or authors, predominantly principal investigators or senior researcher coordinators, permanently available for communication before and after publication. These are usually listed last in the traditional authors' bylines or named as guarantors in the contributorship model. Responsibility, however, should be shared by all contributors, and this is why recent guidance from learned associations suggests that

each author should take responsibility for a specific part of the work and, at the same time, should be familiar with the whole paper.⁵ Collective responsibility may prevent instances of research misconduct, such as plagiarism, early in the process of research and writing.

Despite the undisputed advantages of the alternative model, some principal issues with authorship remain unresolved. First of all, the extent of minimal and substantive contributions warranting credits remains poorly distinguished. How do you credit those who do not meet criteria of authors and substantive contributors but help produce a good quality article? Originators of research ideas give a start to the process of research. Laboratory technicians perform laboratory tests and supply a wealth of essential raw data for original research papers, despite the lack of theoretical knowledge and capacity to interpret the data. Skilled statisticians merely analyse the raw data but transform elementary facts into statistically significant results and evidence, a cornerstone of a publishable scientific article. Professional writers rectify writing and make the manuscript attractive for potential readers and future authors. Peer reviewers comment on the whole manuscript and suggest changes, increasing the chances of publication in a high-impacting journal. Do they deserve a mere acknowledgement or a place in the authors' byline? Will they all agree to accept a credit of minor contribution and continue working in a research team thereafter? A recent suggestion of movie-style listing of all contributors as a way-out is an option which stemmed from the contributorship model,⁶ but it is definitely not suitable in scholarly publications.

It should be stressed that there are different types of scientific articles. The traditional authorship model is still suitable for editorials, narrative reviews, small original papers, case reports and letters written by one or a few authors. Is it then necessary to "scrap" this model entirely for all types of articles? Is it possible to have both models as an interim measure, or to move gradually to the alternative model and eventually adopt it as the only option? To answer these questions, we will need yet another 15 years, if not more. In the meantime, inappropriate authorship will continue to blossom, devaluing the essence of authorship and distorting science.

Current authorship patterns are widely confounding the assessment of research performance and give credit to those who obtain funding and research grants, allowing individuals and research teams to survive and reshape scientific landscapes. A prime example is the *h* index, a reflection of research productivity and citability, increasingly accepted as a research performance indicator for individual authors, research groups and institutions in most countries.⁷ The traditional model with its limitations and particularly with the uncertainties of substantive contribution in multi-authored articles complicates the interpretation of the *h* index. The alternative model is not capable of providing a solution either. As a result, we still witness the growth of unjustifiably

multi-authored articles of all types. In fact, recent evidence from pharmacy and pharmacotherapy, a rapidly developing and influential field of science, indicates that the prevalence of honorary authorship is 14.3%, reaching 29.4% with articles authored by five or more individuals.⁸

Awarding undue credits to those who attain (honorary) authorship by merely holding a senior research post and obliging subordinates to put their names in potentially citable papers drives a circle of misconduct. Honorary authors benefit from the paper by artificially boosting their scientometric profile, obtaining new funds and perpetuating the vicious circle.

Is there a way out of the current situation? Authorship issues may find a solution if all individuals and professional bodies involved in scientific publishing stick to the rules of honest and transparent research reporting. Research institutions should accept policies encouraging fair authorship. Authors should avoid misconduct by familiarising themselves with the accepted rules and by adhering to their institutions' strategies. Editors and reviewers are in a position to spot instances of inappropriate authorship in journal submissions and suggest corrections. The latter is particularly possible when small papers with unreasonably long authors' lists enter the editorial process (eg case reports, editorials, narrative reviews and short communications). Publishers and editors may further improve authorship patterns by adopting available guidelines, publicising acceptable criteria in the instructions for authors, and requiring authorship statements from each author. Finally, regional and international learned associations may take the lead in resolving the issues by developing or updating editorial policies. Currently, most biomedical journals accept the ICMJE criteria of authorship, a part of the Uniform Requirements for Manuscripts Submitted to Biomedical Journals, last updated in 2009.⁹ Further guidance for medical editors is available from the policy statements of the World Association of Medical Editors (WAME, 2007),¹⁰ The American Physical Society (APS, 2002),¹¹ and The Ecological Society of America (ESA, 2000),¹² who have adopted their field-specific guidelines.

Position statements on authorship and acknowledgements, adjacent to the ICMJE criteria, are also clearly presented in the EASE guidelines (EASE, 2011)¹ and in the editorial policy paper of the Council of Science Editors (CSE, 2012).¹³

The adherence to the general and field-specific guidelines on authorship may be instrumental in curbing the conflicts globally and particularly in the emerging science countries, where a large proportion of journals still lack authorship policies and do not adhere to the accepted criteria.¹⁴

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Each author should take responsibility for a specific part of the work.

Original articles

Promising outcomes of an online course in research writing at a Rwandan university

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Abstract

Background: Researchers in developing countries often do not have access to training on research writing. The purpose of this study was to test whether researchers in Rwanda might complete and benefit from a pilot online course in research writing.

Methods: The pilot course was set up on Moodle, an open-source online learning environment, and facilitated by the author. The lessons and assignment were spread over six weeks, followed by a two-week extension period. Twenty-eight faculty members of the National University of Rwanda enrolled themselves in the course.

Results: Twenty-five of the 28 learners completed the course. After the course, these learners expressed high satisfaction, eg, 24 of them felt that they were ready to write a research paper for publication.

Conclusion: The high completion rate (89%) is noteworthy for two reasons: e-learning courses tend to have lower completion rates than classroom courses, and 76% of the learners in the pilot course had not taken an e-learning course before. This result and the positive feedback indicate that online courses can benefit researchers in developing countries who may not have access to classroom courses on research writing.

Keywords E-learning; online course; research writing; Moodle; high completion rate; Rwanda; AuthorAID; INASP

Introduction

Background

The under-representation of research publications from developing countries has caused concern.^{1,2} The reasons are many, and among them is the incomplete knowledge researchers in developing countries have regarding the reporting of research.

Early-career researchers generally find it difficult to write research papers. In developed countries, such researchers may receive support from their advisors (who may have mastered the craft of research writing), peers with more experience, and institutional writing centres. In developing countries, these forms of support may be in short supply. Inadequate preparation in research writing can harm the careers of researchers by preventing them from publishing their work, which – compounded with limited funding and time for doing research – may decrease their motivation to conduct further research.

AuthorAID is a concept aimed at supporting developing-country researchers in publishing their work in peer-reviewed journals.^{3,4} AuthorAID@INASP is a project run by the International Network for the Availability of Scientific Publications (INASP)⁵. AuthorAID is part of a larger INASP initiative called the Programme for the Enhancement of Research Information (PERii), which also addresses issues such as access to research information, library development, and evidence-informed policy making in developing countries.

The AuthorAID staff at INASP have organised many workshops on research writing in various developing countries since 2007. To expand AuthorAID's training initiative, we considered creating e-learning courses. We started with a pilot phase in which we planned to run a web-based, e-learning course titled "Writing a Research Paper for Publication". The National University of Rwanda (NUR) agreed to be a partner in the pilot phase. Teaching and research faculty at the NUR were encouraged to enrol. The course ran from 3 October to 27 November 2011, with 28 learners and one instructor (the author).

This paper explains the challenges faced, how the course was conducted, and the outcomes.

Challenges

E-learning offers the tempting combination of cost-effectiveness and scalability, but making e-learning work can be challenging. For us, the challenges were the following:

1. Low retention rate or high dropout rate, compared to classroom instruction, is a classic problem in e-learning and distance education: attrition or dropout rates are typically 10 to 20% higher (or more) in online courses compared to classroom courses.^{6,7,8}
2. In developing countries, e-learning faces additional challenges.^{9,10} Barriers to learning online include low-bandwidth or unstable Internet connectivity; lack of computers; and electricity outages. However, National Research and Education Networks (NRENs) in developing countries are improving. Rwanda has such an NREN, and the NUR is part of it.
3. The pilot e-learning course was to be conducted in English, a language that only recently became the medium of educational instruction in Rwanda.
4. The pilot course would be free of cost and not carry any official credit. While the former is meant to be an advantage, combined with the latter it may not be so. Learners who lose interest in the course may drop out because of the lack of both personal investment

and tangible benefits. The learners' satisfaction with the online course could be the key to a high retention rate.^{11,12} The social presence of the instructor and learners within the online course could also be critical for its success.¹³

Objective of the pilot course

Completion rate and learner feedback were to be the indicators of the success of the pilot e-learning course. The objective was to see a completion rate similar to that in AuthorAID workshops (about 90%) and positive feedback from the learners.

Methods

Online learning environment

Moodle was chosen as the online learning environment for hosting the pilot course. Moodle is free, open-source software¹⁴ that has found acceptance in many universities around the world.

In July 2011, the latest version of Moodle (2.1) was downloaded and installed by AuthorAID's technology partner, the Institute of Learning, Research and Technology (ILRT) in Bristol, UK. Moodle was made available at <http://aamood-demo.ilrt.bris.ac.uk/> (this URL may not be permanent). The basic, "default" theme, which has minimal CSS and images, was used so that users on low-bandwidth connections would not face long download times for pages.

Content

The foundation for the content was the lectures given at AuthorAID workshops, most of which have been written by Prof Barbara Gastel based on her book on scientific writing.¹⁵

The course consisted of nine lessons: (1) approaching a writing project; (2) publishing a paper in a journal; (3) the title and authorship; (4) tables and figures; (5) citations and references; (6) the abstract and introduction; (7) the methods section; (8) the results section; and (9) the discussion section. The lessons were spread over five weeks, from 3 October to 6 November 2011. In the last week of the course (7 to 13 November 2011), the learners had to do the assignment. Because the learners were to take the course alongside their teaching and research work, two hours a week was the prescribed time for course work. A screenshot of the course page is shown in Figure 1.

Moodle version 2.1 has 13 types of activities.¹⁶ An activity is something that involves the participation of the learner. In the pilot course, five activities were used: lesson, forum, database, feedback, and glossary. The lessons were created using the "lesson" activity. They were set up such that a learner could view a lesson only after completing the

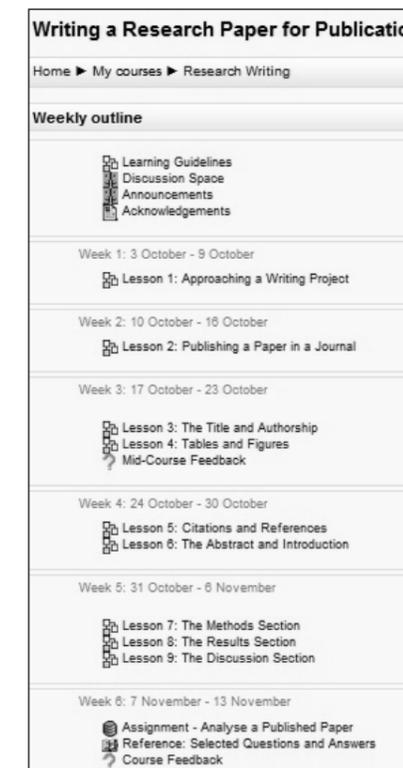


Figure 1. Screenshot of the course page in Moodle

previous lesson. Two considerations were used in creating the lessons: readability and sustaining learners' interest. To aid readability, (1) each lesson page usually had not more than about 100 words, (2) short sentences, normally 10 to 20 words long, were used, and (3) difficult words were avoided. To sustain the learners' interest, each lesson had a mix of content and thought-provoking questions. Of the 118 pages in all the lessons combined, 74 pages (over 60%) contained such questions. Most questions were multiple-choice, and some involved matching (eg Figure 2).

If a question was answered incorrectly, the learner could try again multiple times. When the learner selected the correct answer, an explanation was given, which began with a smiley to add some levity. For incorrect answers, an explanation was

Figure 2. Screenshot of a page in a lesson



sometimes given; in cases where the explanation could reveal the correct answer, the learner was simply asked to try again. This question behaviour was meant to (1) allow learners to think about questions until they arrived at the correct answer (while not being penalised, because the lessons were not tests) and (2) prevent learners from flying through the lessons without engaging with the content.

There was no test or quiz during the course. Because the course aimed to be an online form of the AuthorAID workshop, where there is no test, assessment was not a feature. However, there was an assignment at the end of the course: learners had to analyse published research papers in their field and enter some characteristics of the papers in a database that all learners could see.

Getting started

The success of an e-learning course may depend on making learners aware of the educational technology they are going to use, for example, with a “warm-up” period.¹⁷ Therefore, a preparatory course was set up for potential learners of the pilot course to become familiar with the Moodle environment and the course instructor. The main component of this course was a forum where learners introduced themselves.

Then, at the start of the pilot course, a five-page lesson called “learning guidelines” was provided. This lesson was made in the same style as the actual lessons of the course (with a mix of content and questions). At the end of this lesson, learners were asked to make a post on the course forum (called “discussion space”) explaining their learning goals.

The purpose of the preparatory course and the lesson with learning guidelines was to make learners comfortable with the two key elements of the course: the content (lessons) and interaction (forum).

Enrolment

We wanted to attract as many learners as possible to test the pilot course, so the course was open to academic staff in all departments, not just scientific researchers. Because the content had more breadth than depth, researchers from other fields could also benefit from the course.

On 10 August 2011, an announcement about the course was sent by e-mail to all academic staff at the NUR. The announcement contained a link for registration on the Moodle site; the site was set up to allow self-registration. At this time, only the preparatory course, not the pilot course, was available. On 23 September 2011, the author announced, in the “news” forum of the preparatory course, that the pilot course was ready and learners could enrol in it. Learners were advised to go through the “learning guidelines” lesson first. On 26 September 2011, a week before the course start date, this announcement was again sent by e-mail to all academic staff at the NUR.

Twenty-five faculty members from NUR enrolled themselves in the preparatory course. Of these, 15 enrolled themselves in the pilot course. Thirteen faculty members joined the pilot course without taking the preparatory course, leading to a total of 28 learners in the pilot course (22 men and 6 women).

Moderating the course

To have a strong online presence, the author maintained contact with the learners in three ways: the discussion forum, where learners could ask questions; the news forum; and e-mail. At the start of the course, the learners were told that they could post their questions on the discussion forum or send them to the author privately by e-mail. The author replied to questions within a day.

The news forum was used for making announcements. The author wrote to the learners about which lesson(s) they had to go through in a particular week, feedback forms being available, how to complete the assignment, and so on. In all, 12 announcements were made.

Whenever a post was made on the discussion and news forums, all the learners in the course received an e-mail alert with a copy of the post. This ensured that everyone was up to date with the posts, even if they were not checking the forums. They could not reply to the post by e-mail; they had to login to the system to do that.

The author used e-mail to motivate learners who were falling behind the course schedule. Once, he wrote an e-mail praising a learner who completed three lessons ahead of schedule.

Collecting feedback

Feedback was collected twice during the course: near the middle and at the end. The purpose of the mid-course feedback form was to see how the learners were faring. The learners could fill out both the feedback forms anonymously. They were not required to fill out the forms, but they were given an incentive to fill out the final feedback form: only after doing this did they receive instructions on how to claim their course completion certificate.

Results

Completion rate

The course was supposed to end on 13 November 2011. On this date, 16 out of 28 learners had completed the course. On 14 November, the author made an announcement in the news forum, informing the learners that there would be a two-week extension for them to complete the course. Nine learners completed the course in the extension period. Therefore, the course completion rate was 89.3% (25 out of 28 learners).

Feedback

Eighteen learners filled out the mid-course feedback form, whereas all the 25 learners who completed the course filled out the final feedback form and claimed their certificate. The learners’ responses to the multiple-choice questions in these forms are summarised in Tables 1 and 2. Some questions did not have any neutral options; these are marked with a dash in the “neutral” column.

After the course, the author e-mailed the three learners who had not completed the course. They were asked why they could not complete the course and whether they would be interested in taking it in the future. Two of them replied; both mentioned personal reasons that had made them

Question	Positive	Negative	Neutral
1. How has your learning experience been so far?	100%	0%	-
2. Each lesson has a number of questions. Do you like this format?	83%	0%	17%
3. How do you find the level of English used in the lessons?	100%	0%	-
4. How do you find the course schedule?	89%	11%	-
5. Has your environment been suitable for your study?	78%	0%	22%
6. Are you getting enough support from the course facilitator?	89%	0%	11%

Table 1. Mid-course feedback: Summary of responses to the multiple-choice questions from 18 learners

Question	Positive	Negative	Neutral
1. What was your knowledge of research writing just before you started this course?	64%	36%	-
2. What do you think is your knowledge of research writing now, after completing the course?	100%	0%	-
3. Do you feel you are now ready to write a research paper for publication?	96%	0%	4%
4. Do you think you can pass on the knowledge you gained from this course to others?	96%	0%	4%
5. If you had any questions during the course, did you feel comfortable asking those questions?	76%	0%	24%
6. If you asked any questions in the course - either on the Discussion Space or by e-mail, were they answered clearly and promptly?	88%	4%	8%
7. Would you have liked to work with the other participants in the course to complete exercises?	52%	24%	24%
8. Rate the quality of the interactive lessons.	100%	0%	0%
9. Rate the quality of the summary documents provided at the end of the lessons.	76%	4%	20%
10. Did the assignment in the course (analysing one or more published research papers) help you learn more about research writing?	100%	0%	-

Table 2. Final feedback: Summary of responses to the multiple-choice questions from the 25 learners who completed the course

indisposed and expressed interest in taking the course later. One of them started going through the lessons immediately after responding to the e-mail and completed the course within two weeks.

Interaction

Nineteen of the 28 learners made an introductory post on the discussion forum. Nine learners used the discussion forum to ask one or more questions during the course. Three learners e-mailed the author during the course with questions.

In the feedback form was this question: “If you had any questions during the course, did you feel comfortable asking those questions?” Nineteen learners answered “yes”, and six said “I did not have any questions”. No one marked “no”, which indicates that the learners were either comfortable asking questions or did not have questions. However, only 12 learners asked questions, although 19 learners made an introductory post. Perhaps this question was interpreted as “were you comfortable making a post on the discussion forum”.

Towards the end of the course, the glossary module was

used to present selected questions that learners had asked during the course and the answers.

Discussion

E-learning was new for most of the learners. Through the feedback form at the end of the course, it was found that 19 of the 25 learners (76%) who completed the course had not taken an e-learning course before. First-time e-learners find it especially difficult to complete e-learning courses.¹⁸ Yet, the course completion rate was high: at 89%, it is similar to the completion rate seen in AuthorAID workshops. Given the volume of academic literature devoted to the topic of attrition in e-learning, this high completion rate is noteworthy.

Of the 16 learners who completed the course by the original end date, 13 did so more than a week in advance. Only three learners completed the course in the last week. The low completion rate in the last week could have been because the author was away that week, conducting a workshop in Ethiopia. Reminders or encouraging messages could not be sent to the learners that week. Only one announcement was made in the last week (out of 12 made throughout the

course), and that message was about the author being away. The low online presence of the author in that week could have had an impact on the learners' progress in the course. As soon as the author returned and made a post about the two-week extension period, the remaining learners made steady progress. Eight of the nine learners who completed the course in this period did so in the first week itself.

Feedback from the learners (Tables 1 and 2) is positive and encouraging. In addition to the multiple-choice questions in the feedback forms, there were a number of short-answer questions, for example, "Please specify what you think you will do differently, including any specific plans on sharing of skills/knowledge, as a result of taking the course". The learners' responses reveal that they found the course very useful. Based on the feedback, the main point that requires further attention is enabling group work in the course. This was not a feature of the pilot course, in contrast to AuthorAID workshops that have group activities in which participants work on their own research writing. Such activities can be part of e-learning courses in Moodle, for example, the "workshop" module is meant for peer assessment.

As for interaction, 42% of the learners (12 out of 28) asked questions during the course, while 68% made at least an introductory post. The level of interaction was not high; however, no learner marked "no" to question number 5 in Table 2, so at least the learners were not uncomfortable asking any questions they did have. Two of the three learners who asked questions by e-mail presented a total of seven questions. In contrast, the nine learners who asked questions over the discussion forum usually asked one question each. This could indicate that learners prefer to e-mail the instructor directly when they have many questions.

Conclusion

The objectives of the pilot course were achieved: the completion rate was similar to that in AuthorAID classroom workshops, and the learners gave positive feedback. Therefore, e-learning is viable for AuthorAID's training objectives, and it may be so for others involved in teaching research or scientific writing to researchers in developing countries.

The success of the course can be attributed to the following: (1) providing a preparatory course and learning guidelines before starting the course at a gentle pace; (2) presenting content that sustained the learners' interest and was appropriate for their language level; and (3) keeping in touch with the learners throughout the course by answering questions promptly, writing about current and upcoming topics, and paying attention to those falling behind.

A training programme is successful if the learners accomplish something by applying their learning. Workshops (and in the future online courses) run by AuthorAID aim to equip researchers with the knowledge and skill to publish in peer-reviewed journals. AuthorAID workshops have indeed led to increased publications, and it is hoped that online courses will too.

Acknowledgements

Prof Verdiana Masanja and Mr Gilbert Munyemana at the National University of Rwanda provided encouragement,

support, and advice for running the course. Ms Julie Walker at INASP made strategic contributions, Prof Barbara Gastel reviewed the initial lessons in the course, and Ms Sara Gwynn critiqued this manuscript. The author is grateful to Penny Hubbard for her comments.

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Essays

Webometrics and journal websites

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Abstract Webometrics has emerged as a discipline to assess the circulation of information on the Internet. One of the metrics employed by webometrics is the so-called Web Impact Factor (WIF). A website is highly-visited if it contains information of interest to a target audience, provides high-quality services and is mentioned on more influential websites. A high Journal Impact Factor (JIF) itself may attract many links to a journal website. However, many other factors influence journal visibility and its webometric rank: website layout, speed and ease in finding information, structure of website and hyperlinks. Despite some positive applications of webometrics, it is still not clear whether web links can be used for scholarly purposes. Usage data change over time. Search engines cover only a small proportion of information. It is thus important to take into account both quantitative and qualitative aspects of webometrics.

Keywords Webometrics; periodicals as topic; link analysis; impact factor.

Current academic publishing is switching towards online format and distribution of information by means of electronic journals. Webometrics, informetrics, bibliometrics, blogometrics, scientometrics and cybermetrics are all relatively new disciplines quantitatively assessing the use of the contents of the cyberspace. Webometrics is concerned with the circulation of information on the Internet and is quantitatively assessing the use of information, amongst many other bibliometric and informetric tasks.¹ This relatively new discipline measures usage and structure of the websites, its pages, keywords, links and citations.²

Impact of websites

Despite its seemingly chaotic organisation, the web has regular features enabling mathematical characterisation of its functions.³ This is why it is possible to assess the rank of websites, the number of visits and links to the sites.⁴

Webometrics employs variables to investigate website usage: type of domain (ie .com, .edu, .org), variation in the uniform resource locator (URL), daily visits (eg page visitor counts), number of inbound links (ie number of external web pages or sites pointing to the elements of a given site) and number of pages per website.

There are three main types of applications: search engine results analysis, link relationship mapping and link impact evaluation.⁵ Search engine results analysis aims at assessing the comprehensiveness and consistency of commercial search engine results,⁶ in particular for their importance as an information retrieval tool by web users. Link relationship mapping is the analysis of the relationship between similar websites (eg measuring the number of links between pairs of sites). It includes link-based maps of topic areas intended to

reveal content similarities; this technique is primarily focused on website content. Link impact evaluation is important for websites, pages of academic institutions and electronic journals.

Ingwersen proposed the so-called Web Impact Factor (WIF).⁷ To calculate WIF, the number of webpages that link at least once to a page in site should be divided by the number of webpages in that site. The links are used for navigational purposes, and WIF can be viewed as a good measure of a website visibility. WIF takes into account the use of hypertext links measured by search engines. The highly popular Journal Impact Factor (JIF) measures citations over a certain timeframe (2 or 5 years). In contrast, WIF is a "snapshot" of the search engines at the time of measurement.⁸ The number of inbound links to electronic journals correlates well with JIF: journals with high JIFs tend to attract more links to their websites.⁹

There is a branch of webometrics specifically focusing on electronic journals. Webometric analyses may identify relevant articles, map a field of interest and evaluate research work.

Hyperlinks can be used for citation analyses. A number of studies have investigated the use of hyperlinks or downloads to e-articles to find out whether they can be used to predict citations. It was shown that download counts relates to the number of future citations of these articles, and thus downloads can be used as surrogates for measuring impact of e-articles and journals.¹⁰

Is there anything beyond a link?

Links to a website may indicate how useful is the website and which pages, or resources are the most popular. The number of inbound links and their annual increment can help predict the evolution of pages.⁴ Though the number of links may reflect the quality of web resources,¹¹ it still needs to be confirmed in large studies. A UK-based study on university websites showed that the proportion of website links relates to a university size and prestige rather than the quality of displayed information.¹²

Website survival can be assessed by a set of quality criteria.⁴ The quality criteria for a medical website were listed by the Health on the Net Foundation (HON), British Healthcare Internet Association (BHIA) and the American Medical Association (AMA).^{13–15}

Webometrics in practice

According to the Internet statistics, there were more than 2 billion users in 2011. However, millions of the users mostly visit a few selected websites.

Webometrics can be useful in practice to rationalise your efforts. For example, Webometric Analyst or Yahoo! Site Explorer can help the users to search and find most useful information.^{16,17} Webometric Analyst allows to obtain "Web Impact Report" of the number of times each set of words, phrases or documents have been mentioned online, a "Link

Impact Report⁹ of the number of web pages and sites that link to one or more web sites or pages using an URL citation, or a network diagram of the URL citation links between a collection of web sites. The results should then be analysed. A link analysis should be conducted once a website is created and periodically thereafter.²

Hit counts should be analysed to judge the popularity of web pages. A website can be highly-visited if it contains information of interest to a huge audience, provides high-quality services and is mentioned on more influential websites. A high JIF itself may attract many links to the journal website.¹⁸ There are, however, many other factors of visibility and webometric rank of a journal: website layout, speed and ease in finding information, structure of website and hyperlinks.

Journal websites may become more attractive by displaying information on journal subscriptions, editorial board members, instructions for authors. More can be achieved by providing access to abstracts and full texts of articles. The open-access model, even with a limited embargo period, can expand readership and citability of a journal. Journals with well-established and long-lived websites attract more visibility. Subject category may also influence visibility and the number of hyperlinks of a journal website. A comparative study on law and library and information science e-journals with the same values of JIFs demonstrated that the latter ones attracted more traffic due to a higher interest of professionals in library and information science.¹⁹

Some marketing tools can be used to increase website visibility and links from other sites. Networking links to Twitter, Facebook and LinkedIn are particularly useful for promoting a journal website by regularly distributing tables of content or even some interesting articles. Blogs and forums can also play the same role.

Webometric analyses are used to record how often journal articles are accessed and downloaded. Some publishers display information on most viewed or downloaded articles to further attract attention to these articles and the websites.

Having mentioned some positive aspects of webometrics, it is still not clear whether web links can be used for scholarly purposes. Usage data change over time. Search engines cover only a small proportion of information. Password-protected databases and websites are accessible by a limited number of people.²⁰ It is thus important to take into account both quantitative and qualitative aspects of webometrics.

Acknowledgements

The author is grateful to Frank-Thorsten Krell for critical reading and comments.

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Essential components of a medical editing internship

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Abstract The objectives of establishing a medical editing internship program are to offer education, training and practical experience to biomedical professionals aiming to pursue a career in medical editing. The essential components of such a program are described in this paper. Once established, the internship program can facilitate qualified education in biomedical editing and writing, as well as enhancing the reputation and academic standing of a training institution.

Keywords Education; internship; biomedical editing.

Introduction

A medical editing internship program should provide a setting for training editors skilled to support authors in writing and publishing their manuscripts in high-quality scholarly publications. The implementation of such a program is possible in universities that have a medical communications centre or a relevant department capable of providing electronic editorial services.¹ The ultimate aim of a well-structured program is to transfer essential knowledge and skills.² It is thus necessary to pay attention to the planning, supervision and follow-up of the programme.³

Objectives and design - The main aim of an internship is to train qualified medical communication professionals to be capable of rendering a full range of editing services.⁴ Trained editors should possess skills in medical nomenclature and understand the importance of evidence-based science editing.

Benefits - Interns acquire the experience necessary for science editing and editor-author communication. This experience is a milestone for professional orientation and an opportunity to build up their resume.

Duration - The editing activities can be carried out daily. However, the schedule can also be tailored to the participants' needs, with at least 2-days attendance per week. A minimum of one year is recommended for a long-term program, with the first three months as a probation period.

Participants and qualifications - To fully benefit from the program, the intern should have at least a bachelor degree in any biomedical field, some writing and editing experience, knowledge of the structure of different types of scientific papers, basic computer proficiency, and good interpersonal skills.

Qualities of a good mentor - A good mentor shares knowledge, skills and experience, and overcomes stylistic differences.⁴ He/she is a highly skilled medical doctor or biomedical expert with a good track record of publications in high-quality publications, extensive experience in lecturing in medicine and science editing, and successful mentoring of interns.

Importance of feedback - To reinforce strengths and maintain morale during the internship, feedback is necessary. It includes the assessment of areas requiring further improvement.

Essential components of an editing internship program

Substantive editing - Substantive editing of textual information,¹ tables⁵ and figures^{6,7} should be taught to help interns obtain professional copy-editing skills. These skills can then be used to contribute to high-quality journals.^{1,8}

Understanding types and structures of medical articles - It is imperative for interns to understand the structure and composition of different types of medical papers, such as original papers, case reports and reviews.^{9,10}

Critical appraisal of manuscripts - Activities aimed at developing skills in editing introductions¹¹, materials and methods¹², results⁹ and discussion sections^{9,13} of a manuscript enable better appraisal and critical evaluation of the scientific merit of the results and of the validity of the conclusions.

Creating and editing tables and graphs, and reporting biomedical images - The program must broaden the knowledge of the general structures of good tables⁵ and accurate graphs.⁷ Activities can be arranged to enhance skills for publishing biomedical images (ie diagnostic images in clinical medicine and analytical images in basic sciences).⁶

Interpreting common statistical presentations

The program should be designed to teach principles of research designs, statistical analyses and interpretation of statistical findings.^{14,15} Familiarity with specific statistical tests used, confidence intervals, *p*-values, and statistical power enables a more comprehensive appraisal of the results of a manuscript.¹⁶

Communicating with authors - Consultation with authors is an extremely important component for clarification of manuscripts and maintaining the author-editor relationship.¹

Ethical issues - A clear understanding of ethical issues such as authorship, scientific misconduct, conflicts of interest, or confidentiality is instrumental for holistic science editing.¹⁷ Distinctions between medical writers and ghostwriters should be presented.¹⁸ Also, information on authorship criteria,¹⁹ detection and avoidance of plagiarism²⁰ and ethics in medical writing (eg duplicate publication)²¹ must be imparted.

Online databases - Searching online databases such as

MEDLINE²² is an added skill. Guiding interns on how to use search engines and access biomedical information²³ is a pivotal component of the internship.

Acknowledgements

The author thanks Professor J. Patrick Barron and Dr. Serlie B. Jamias for their critical review of the manuscript and valuable suggestions.

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Updated EASE Guidelines for Authors and Translators of Scientific Articles

In June, EASE issued the 2012 edition of EASE Guidelines, available in 20 languages. The updated edition includes some new material, such as practical tips for junior researchers. Besides, EASE supports the global initiative Healthcare Information For All by 2015 (www.HIFA2015.org) by advising authors to make abstracts of their papers highly informative, reliable, and easily understandable.

If journal editors wish to help us spread the word about EASE Guidelines, they can mention them in Instructions to Authors, using a formula like:

Before submission, follow EASE Guidelines for Authors and Translators, freely available in many languages at www.ease.org.uk/publications/author-guidelines. Adherence should increase the chances of acceptance of submitted manuscripts.

EASE launches a free online Author Toolkit

Building on the success and popularity of the Author Guidelines, EASE is developing a suite of resources for authors. As Editors, it is to our benefit if authors are well briefed and well prepared, so that we can focus on assessing and preparing for publication manuscripts that are basically in good shape. The first items are available on the EASE website and comprise chapters from Publishing in Addiction Science, by kind permission of the International Society of Addiction Journal Editors. We welcome additional materials from EASE members: we can host them on our site or simply provide links. Please contact Joan Marsh (jmarsh@wiley.com).

Editing a scientific journal in Croatia: the case of *Biochemia Medica*

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Seven years ago, I joined the editorial board of *Biochemia Medica*, the English-language, peer-reviewed journal of the Croatian Society of Medical Biochemists (CSMB). Its 16th anniversary coincided with a major re-design¹ when two co-editors in chief were appointed, and I was offered a post of an assistant editor.

Our editorial policy was to gain international recognition in the field of laboratory medicine. For a journal from a small scientific community, this recognition could be earned by adhering to internationally acceptable publishing standards and by satisfying the following main indexing criteria: clear and unique aims and scope; timely and regular publication; quality of the journal content; quality of the editorial work; technical quality of the journal; international editorial board; visibility for the international scientific community.² Members of our editorial team invested a lot to meet these standards and indexing criteria.

Aims and scope of the journal

New journals are being continuously launched by either scientific societies or professional publishers. To get indexed by major online databases, a journal needs to find its *niche* and provide added value to the existing scientific literature. To achieve that, apart from covering common topics, we focused on some unique features, such as education, research methodology and quality management in clinical chemistry and laboratory medicine. Moreover, the journal launched a section on biostatistics to educate our readership on descriptive analysis, confidence interval, hypothesis testing, odds ratio, diagnostic accuracy, survival analysis, meta-analysis and many other related topics. The articles on biostatistics have actually become the most read, downloaded and cited items of the journal.

Timely and regular publication

Biochemia Medica publishes print and online issues three times a year, on 15th of February, 15th of June and 15th of October. To meet the deadlines, we standardised manuscript submission and publication workflow and regularly arranged editorial meetings.

Quality of the journal content

Quality is reflected in the novelty, originality and scientific validity of the published articles. Our team does its best to

attract great authors and encourages them to submit their work to *Biochemia Medica*. We frequently invite presenters at relevant conferences, PhD students, residents and Croatian scientists abroad to contribute to the journal. To assist our authors, we published a series of articles on biostatistics and research methodology.³ Moreover, we established constructive, comprehensive and author-supportive peer review to further increase the quality of the journal.

Quality of the editorial work

Biochemia Medica is an open-access journal. All articles are freely available in HTML and PDF format. A signed authorship statement and a copyright transfer form are required for any submission. The authors are responsible for research integrity and ethical authorship. They should ensure that all contributors listed as authors made a significant contribution to the work.

All submissions to the journal are handled by the editor in chief and assistant editors. For many years, we had a group of four enthusiastic editors only. This year three new assistant editors joined our team. Remarkably, work at the journal is unpaid, and editors did not pass any formal training courses on editing.

Reviewers of the journal are requested to report any suspected or obvious misconduct in the submissions. When research misconduct is reported by reviewers or readers, we follow the relevant flowcharts of the Committee on Publication Ethics (COPE) to solve problems. We have detected plagiarism in a few submissions. Fortunately, these plagiarised papers were tracked during the peer review and rejected. Nonetheless, we recently retracted a self-plagiarised publication from Iran. The case of self-plagiarism was brought to our attention by the editor of the *Journal of Gastrointestinal and Liver Diseases*. In 2009-2010, the authors published three overlapping articles, originating from the same study and reporting similar results. As a result, the article published in our journal was retracted, with an explanation sent to the authors and a decision to use duplication detection software for any manuscript processing.

To ensure integrity of research publications, we pay attention to the clarity of information placed in the 'Methods' and 'Results' sections of original papers. We also ask our authors provide details of ethics approval.

A major step towards more transparent disclosure of competing interests was the revision of our policy



in accordance with the Statement on Conflict of Interest for Authors.⁴ Our authors are now obliged to declare any potential source of competing interests that might have affected their work.

Finally, we switched to online manuscript submission and peer review along with launching a new website (www.biochemia-medica.com).

Technical quality of the journal

All accepted manuscripts undergo copyediting by one of our assistant editors, who checks for consistent use of terminology, units of measurement, abbreviations and nomenclature in laboratory medicine. PDFs of all copyedited articles are sent to the authors for proofreading before publication.

International editorial board and the journal visibility

Our editorial board members serve as reviewers and ambassadors of the journal. They are encouraged to promote the journal articles in their scientific communities globally. Half of the editorial and reviewer board members are international scholars. As a result of joint efforts, the journal receives an ever-increasing number of papers from Europe and elsewhere. The majority of our authors and the journal website visitors are from outside Croatia, mostly from the US.

Biochemia Medica was accepted for indexing by EMBASE/Excerpta Medica and Scopus in 2006. It got indexed by Science Citation Index Expanded two years later, got its first Impact Factor (IF) in 2009 and accepted by Medline/PubMed

in 2011. Related increased visibility of the journal led to the rise of high-quality submissions, more website visits and article downloads as well as higher citation rates. As a result, the IF of the journal steadily increased from 0.660 in 2009, 1.085 in 2010 to 1.343 in 2011.

Our next step forward is to join CrossRef and some of the learned associations for journal editors, particularly the COPE and the European Association of Science Editors (EASE). The latter will help us advance our editing skills by attending educational meetings, networking with colleagues, familiarising with updated guidelines and some other resources.

Acknowledgements

Comments and suggestions of Miguel Roig are greatly appreciated.

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EASE 30th anniversary

Interviews with Honorary Life Members



ELISABETH HESELTINE

Long-time EASE member Elisabeth Heseltine, perhaps best known for her training workshops on scientific communication, was elected an Honorary Lifetime Member at the conference in Tallinn.

Mini bio:

Elisabeth Heseltine started travelling early, leaving England at the age of 6 to go to school, first in Ottawa, then in Upper State New York and then on Long Island, where she had brilliant teachers of both science and English, which may explain how she became a scientific editor.

After 10 years at McGill University, she left with a BSc and an MSc in physiology for Cambridge (England), where she worked in the Pharmacology Department. One May morning, cycling to work, she realized that she had been at various educational institutes for 20 years, and decided to take a look outside. She worked as a researcher on 'Horizon', a science programme on BBC television.

Finding herself with two small children, she worked

at home for Leo Cooper Ltd, which published military history books. She then moved to France to live in various precarious structures, including an inflated dome (we are now in the early 1970s). To pay for the brown rice and soya beans, she got work doing scientific editing with the World Health Organization and particularly with the International Agency for Research on Cancer. There, she was told about EASE, and she attended the meeting in Pau. This began a life-long enthusiasm for EASE, which culminated in membership on the Council. By then, she had started running workshops in scientific communication ('running' being the operative word), and has travelled the world since, doing the workshops and also writing reports for meetings of United Nations agencies. A great life, but the garden suffers.

How did you become involved in EASE and what are your earliest memories?

I became involved with EASE through Dr Walter Davis, who was my predecessor as head of the unit of publications at the International Agency for Research on Cancer. My earliest memories are of EASE at Pau, where I met the the largest concentration of kindred souls that I had hitherto seen.

Do you have a favourite moment, memory, event, conference or entertaining encounter you'd like to share?

My favourite meeting was in Cambridge, where there were the most amazingly convivial parties every night and extraordinary talks by knowledgeable people, including the editors of journals like the *British Medical Journal* and *The Lancet*.

What was your most difficult/embarrassing or nerve-wracking experience?

The most nerve-wracking experience was certainly the first time I had to get up and say something. I wasn't yet used to public speaking, and I remember turning red and finding my voice trembling.

What was the most glaring typo or editorial "no-no" you ever spotted?

Editorial 'no-nos' happen to everyone. EASE publications have been mercifully free of them, as far I know and as befits the Association.



JOHN GLEN

Mini bio: I have been a University teacher – lecturer, then senior lecturer then reader – in the Department of Physics of the University of Birmingham. While I was still a research student at Cambridge I was recruited by Gerald Seligman, the founder and first editor of the *Journal of Glaciology* to

assist him in that task and I eventually succeeded him as editor.

How did you become involved in EASE and what are your earliest memories?

The Royal Society [of London] held afternoon sessions for scientific editors in Britain and I attended those, and when Editerra was founded my journal was one of those approached for membership and this is how I came to attend the First General Assembly of Editerra in Gent, Belgium.

Do you have a favorite moment, memory, event, conference or entertaining encounter you'd like to share?

I think the most significant thing I did was as an Editerra representative on the committee which was formed to formulate statutes and bye-laws for what became EASE. There were quite a number of controversial matters – Anders Martinsson for example was adamant that the new association should retain the name of Editerra!

What are the biggest changes in publishing and EASE you have witnessed over the years?

The greatest changes in publishing are of course linked to computers, both from the point of view of editing and publication of online journals.

Do you have any advice or lessons learned that you'd like to share with younger members of EASE?

My advice to younger members is to be versatile. I was lucky enough to have both a solid science background and also a real love of literature and the English language. My first stroke of luck was to be offered a position at the International Agency for Research on Cancer, where I met many well-known scientists, who started me off on running workshops. Having lived in France for 40 years, I now do some technical translation from French into English, so that is yet another string to my bow. I was also lucky enough to have a teaching post at a French university for some years, so that teaching adults became something else that I enjoyed doing. All these things together have made for a very busy, fruitful career.

What was your most difficult/embarrassing or nerve-wracking experience?

I think the most difficult time was when there seemed to be an attempt for the British to take over Editerra. I remember defending Arie Manten, as the person who had kept Editerra going in its early years. Another difficult time was when IFSEA attempted to recruit individual members in Europe contrary to its constitution, thus threatening EASE.

What was the most glaring typo or editorial "no-no" you ever spotted?

An Italian glaciological journal whose English abstract said that according to the author's theory a glacier had a "trick thread of a heart"! On looking at the Italian it became clear that "trick" was a straight misprint for "thick", "thread of a" described something that was cylindrical, and "heart" was of course "cuore" the Italian for both heart and core – in his theory a glacier had a thick cylindrical core!

What are the biggest changes in publishing and EASE you have witnessed over the years?

I think the biggest change has been the much greater inclusion of editors from eastern Europe. From the beginning we tried to include them but politics was against us in those cold war days.

Do you have any advice or lessons learned that you'd like to share with younger members of EASE?

My advice would be to get to know all you can about all the details of editorial and publishing procedures so you can really understand what everyone else is doing – and to root out inefficiencies and silly behaviour whenever you see it.

Reports of meetings

Editing in the digital world: EASE 11th general assembly and conference, Tallinn, Estonia, 8-10 June 2012

This year's conference took place at Tallinn University of Technology (TUT), who provided us with a wonderful lecture theatre and space to accommodate the informal networking and discussions around presentations and workshops.

Friday ... the conference opens

The conference started with a welcome from the Vice Rector of TUT who gave us a quick overview of the university which was launched in 1918 and is the second oldest in the country, providing courses in three languages (English, Estonian and Russian). He reminded us that we were in the home of Skype, and with free Wifi everywhere it was certainly true that the whole country was Internet-mad – an ideal place to hold a conference looking at the digital world!

First plenary: national journals in an international context

The plenary lecture was given by **Professor Júri Engbrecht** from the Estonian Academy of Sciences. He quoted Armin Toffler, saying that western civilizations were good at dissecting problems, but not so good at putting them together again, and the smaller countries can contribute greatly to this type of problem solving. He stressed the link between society and science and the need for the two to complement each other. He identified the problems of language in scientific communication and that the emphasis on the English language may be a help in some senses but can prevent complete understanding of principles and theories.

Following the formal opening of the conference we were treated to a reception to celebrate EASE's 30th anniversary at the impressive Town Hall where we were served a birthday cake large enough to feed the entire EASE membership!



Saturday ... the conference gets going

On Saturday the conference started in earnest with a plenary lecture on open access models from **Deborah Kahn**, BioMed Central. She stressed the importance of making research results available not only to all researchers but also to the general public whose taxes have often made the research possible. She clarified some concerns about article publication fees, saying that they were often waived for authors with no grant or institutional funding, and that

research has found that only 17% of authors pay personally – the vast majority have their APCs paid by the grant funders or their institution, and this is growing.

Parallel session A: From national to international

The first parallel session looked at how national journals responded to an international world, and how the international research environment impacted on them.

Mladen Juračić from *Geologia Croatica* stressed the need to learn from other journals in the region, and to balance local needs and interests with international research. He provided a history of the journal which, over the past 100 years has grown, changed its name and evolved into a tri-annual journal in English with an international editorial board. He concluded by stressing the importance of the editors in promoting the quality and visibility of the journal, and that since there are few people speaking Croatian, and a smaller number of these who study geology, there was very little future for a local Croatian-language journal.

Sioux Cumming from the International Network for the Availability of Scientific Information (INASP) presented the findings of a study of Bangladeshi journals to investigate how access to international research publications was affecting the researchers information habits – ie whether it increased the number of recent international publications cited in Bangladesh-published articles. INASP supports the hosting of online Bangladeshi journals through its Journals OnLine programme, and there are now 89 journals on the site. During 2011 it received around 70,000 visitors from around the world and provided approximately 1.5 million article downloads. Contrary to their expectations in the research, they found that in several cases there was a reduction in the number of recent international articles being cited – the reason for which requires further investigation.

Stephan Mertens from *Deutsches Ärzteblatt*, a medical journal run by the German Medical Council, described how the journal evolved from a German language journal into a split publication with German-only print issues, and two separate websites – one for the German language- and one for the English-language journal. Since 2003 the journal has received increasing submissions leading to a greater number of rejections (from 25% to 70%) and an increase in quality resulting in acceptance by Medline. The journal translates articles into English for the authors, who are very appreciative – particularly of the international visibility that this provides them.

Parallel session B: publishing data

Anthony Watkinson from the UCL Centre for Publishing (London, UK) opened this session with a broad overview of the current debate about data publishing and curation. Publishers have traditionally not been interested in data (simply connecting it to publications as “supplementary

data”), so the academic community has taken the lead. However the real ‘article of the future’ will be linked with data. Most publishers have made arrangements for archiving and preservation, but have hardly any archiving plans for supplementary material. Watkinson finished by urging libraries to play a stronger role in maintaining data repositories and supporting campus-based publishing.

Sarah Callaghan from the NERC Data Citation and Publication project (Oxford, UK) explained how NERC funds six large data centres in the UK. She explained that people who create datasets don't get the kudos or reward of a ‘publication’, which goes to those who use and analyse the data. Some scientists may be reluctant to share data, for all sorts of reasons, but funders want good value from their input, and scientists want acclaim. Both want protection as well as sharing. Callaghan promoted the role of data centres as making data available in a citeable, sustainable, organised, standardised format, whether or not there is a mandate to publish. Data journals are emerging; the latest is *Geoscience Data Journal*, published by Wiley on behalf of the Royal Meteorological Society. A data journal has a more complex editorial workflow than a traditional journal, with careful separations of repository-controlled and journal-controlled processes, and there remains some debate about what constitutes peer review of data. A new project (PREPARDE) has been set up to develop policies, processes and governance for data peer review. Callaghan closed with a quote from Jason Priem: “We share because we do science not alchemy”.

Christiaan Sterken (*Journal of Astronomical Data*, Brussels, Belgium) spoke about the difficulties of organising data. His field of astronomy generates huge amounts, which is often transformed multiple times for publication. The original data is seldom published and can't be reconstructed. Other problems are data loss (retirement, death, institutional reorganisation), falsification, clipping (selective reporting), calibration (conduct) and standardisation (reporting), and maintaining long-term time-based data. Sterken also emphasised the need for peer review of data to give a quality label.

Second plenary: Social media tools

After lunch we had the second plenary lecture from **Alan Cann** of the *Annals of Botany*. True to the topic of his talk, he was introduced with information from his social network profile and we found out that he liked marmite, but disliked celery! He gave an inspiring talk about the opportunities for journals provided by social networking tools. The journal's experimentation started by recognising that one part of the journal (the editor's choice) was very similar to a blog, so it was converted into one (www.aobblog.com). Then they built on this by developing a Facebook page. He stressed that the blog, in particular, provides a parallel content stream to the journal and reaches out to a different audience – they are younger and comprise more female readers. However, he recognised that there is no supporting revenue stream for these types of activity which may not cost anything (or very little) but do take considerable time to maintain. He concluded that “anyone not using social media is bonkers!”.

Parallel session C: science translation

John Bates (University of Tarragona, Spain) spoke of the relationship between reading difficulty and academic prestige. He raised the recurring question of why academic writing tended to be obscure, long-winded and vague, rather than clear, concise and accurate. He introduced the audience to ‘Dr Fox hypothesis’, referring to an experiment from the 1970s, where a professional actor, presented as a leading academic, delivered a witty and scintillating scientific lecture that was littered with nonsense and irrelevance but nonetheless stimulated and convinced the audience. The conclusion was ‘if you can't understand it, it must be good!’ There are incentives to create obscure, waffly, passive-voice prose: greater academic reward; a desire to dignify your subject (clear simple text = clear simple topic?); increased chance of funding, and bad models.

EASE vice-president **Eva Baranyiová** (Czech University of Life Sciences, Prague) discussed the growth of translation agencies of variable quality, and gave numerous, sometimes amusing, examples of confused or careless writing or translation. Two particular aspects of note were the inability of some authors or translators to appreciate the spirit of the language and its syntax, and the use of field-specific knowledge and terminology. Eva proposed more direct engagement with authors and more sharing of examples between editors.

If you have a large team of copy editors working on documents of variable quality, how do you assess the level of work? **Yateendra Joshi** (Cactus Communications, Mumbai, India) did not offer a magic formula, but proposed useful and imaginative metrics for quantitative assessment of copy editing, based on a matrix of operations (deletion, addition, substitution) versus level (character, word, phrase, clause, sentence).

Marek Pawelec (Krakow, Poland) introduced the audience to the concept of computer-aided translation (CAT). This isn't a way of replacing translators with machines, but it does help translators do a better job.

Parallel session D: digital tools

The fourth parallel session looked at tools for detecting misconduct, in particular how tools were being used by journal editors.

The first speaker in this session, **Rachael Lammey**, from CrossRef, described CrossCheck. CrossCheck has been running since 2008 and uses iThenticate software to check content on sites where publishers have authorised the system to access their content. Currently there are over 32 million items from more than 302 publishers being checked in the system. She considered the question of when to check articles – on submission or acceptance and the benefits and problems associated with each.

Ana Marušić, editor of the *Journal of Global Health* started her presentation by emphasising that there are a lot of grey areas in the duplication of research, and that when there are accusations or conflicts they cause a problem for the editors. She emphasised that there was a need for journals to have policies and to follow good practice processes from COPE, WAME, etc. She described using etblast which was used to develop the Déjà vu website of duplicated articles.

She concluded that it is the responsibility of journals to check for duplication and plagiarism so that readers can have trust in what they read.

The third presentation in this session came from **Sun Huh** who investigated the KoreaMed website to identify different types of duplicate publication. The reason for this was to provide categories that could be used to educate researchers and reduce instances in the future. His research showed that duplicate publications were not being reduced, and this is attributed to a lack of education and understanding of what is considered ethical. During his talk we also learnt the term IMALAS – reverse salami publication!

The session was closed by **Liz Wager**, whose report can be read on page 75.

Conference dinner

The conference dinner was held at the House of the Brotherhood of the Black Heads, where we were served delicious food in beautiful surroundings. As in all EASE events, there was no holding people back from entering lively and impassioned discussions and debates which continued late into the evening.

Sunday ... the discussion continues

Parallel session E: Improving peer review management

This session was run by **Elizabeth Blalock** from the *Journal of Investigative Dermatology* and **Michael Willis** from Wiley-Blackwell, both representing the International Society of Managing and Technical Editors (ISMTE). Unlike the other parallel sessions there were no invited speakers and the session was focussed on how to provide easily-understandable reports.

Michael asked the audience to consider why reports are required and what can be done with the data – analysing, interpreting and responding to it. To demonstrate how to present data powerfully we were shown Charles Joseph Minard's amazing map of Napoleon's march, published in Russia in 1812 – an inspirational way of graphically presenting information. This was followed by a demonstration of how to use graphic tools such as Google's fusion tables and word clouds. Discussion about what data to present and how to calculate them showed that there were divided opinions about how to calculate the acceptance rate: whether to take the papers submitted in a period and evaluate how many of them were accepted or to take the number of acceptances in one period against the number of submissions within that same period. To conclude the session Michael stressed that reports need to be consistent year-on-year, they need to be clearly presented and the source of data needs to be transparent.

Parallel session F: assisting scientists and institutes

Carol Norris (University of Helsinki, Finland) described her experiences teaching English writing to medical students. She noted that language, punctuation and spelling were not a problem for her students, but they did have problems with writer's block, poor organisation, choppiness, wordiness and plagiarism. Her solutions: no translating; write as if speaking; trust your ear; and get words down quickly. She went on to

describe two techniques she uses: competitive shrinking and co-operative editing. Students start by working together then compete to shrink the text. Online publishing might not have word limits, but readers do.

Ed Hull's experience with students in the Netherlands was similar: they think they need help with English but they don't; they need help thinking logically. Papers are rejected because they lack a 'nugget', ie something valuable (credible science that fills a gap) that is easy to pick up (easy to read and understand). Authors face two main problems: academic writing style and getting stuck in the details. Ed Hull favoured a three-step approach: (1) focus on a logical storyline (what was the question? What was the answer?); (2) revise to sharpen the storyline; (3) edit to correct English and improve readability. Ed spoke about connecting 'reader's world' with 'author's world', and authors (methods are important) and editors (content and structure not my job).

What's the difference between skilled and non-skilled writers? Skilled writers have heuristics for dealing with writing, and accept their garbage serenely. That was the conclusion of **Mary Ellen Kerans** (Spain), who looked at research insights from cognitive psychology, anthropology, and studies of writers and writing educators, and gave some valuable tips for working with different sorts of authors. Skilled writers build manuscripts recursively (cyclical, unexpected turns, returns, excisions) not linearly (plan, draft, rewrite, polish), which enables further understanding and discovery of unplanned ideas (find out about a subject by writing about it), and a fusion of planning, drafting, revising.

Ravi Murugesan gave an overview of AuthorAid (www.authoraid.info), set up by INASP in 2007 to help researchers in developing countries publish their work. He focused on AuthorAid's mentoring system, and gave some examples of how the system has worked well. Mentors can be senior researchers or editors, and the audience were encouraged to join the scheme. Editors can help with content (choosing target journals, study design, publishing strategy, manuscript critique), publishing in general (publishing process, timelines, decisions and how to deal with them), and writing (tutorials, critiquing, copyediting, language).

Patricia Volland-Nail (INRA, France) described MISTER, an educational programme for INRA PhD students in partnership with several French universities, where scientific writing and publishing are rarely taught. The programme is based on the concept of researcher as both user and producer of scientific information (ie a cycle). The MISTER programme contains four one-day modules on: (1) searching and collecting information; staying up to date; (2) managing information; (3) communicating and publishing (strategy); (4) writing articles.

Eric Lichtfouse, also from INRA, gave a talk with the splendid title 'Cows do not eat publications'. He explained how potential authors encountered language and cultural barriers (thinking differently as well as language) in both research and publishing. Their training now focuses on abstracts (80% of papers are rejected on the basis of an abstract) and how colours and contrast can be used to identify different sections of the research: the question, the method, and the answer. Trainees work on a clever one-

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 deterrent. 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

duplicate – 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.

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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.

Chris Bird, from the Wellcome Trust, said that although the trust encourages researchers who receive their funding to make work openly accessible, compliance is very low: about 5%. He claimed that OA and open science are good for the economy, and cited the Human Genome Project as an example, which has led to economic activity and job creation. “Researchers must believe that it is a good thing for research to be freely accessible,” he exhorted us, and I fully agreed.

Next, Prof Curry of Imperial College said that he, like most academics, had stayed away from debates in scholarly publishing for a long time. But when Elsevier extended support to the Research Works Act, he joined the OA movement. He stated that the public shouldn’t have to pay twice for research: the first time to make the research happen, and then to see the output. He also lamented that researchers focus too much on the impact factor, saying “Focusing on the impact factor is a lazy and easy thing to do.”

David Hoole from NPG took a balanced view. He explained that *Nature* has always focused on communicating science to the general public. NPG’s first OA journal – Molecular Systems Biology – was established in 2005, and he said that NPG was the first publisher to encourage green OA, or self-archiving. But he explained that *Nature* journals in general cannot easily

operate with an OA model: because of low acceptance rates (around 5%), much of the processing time and ensuing costs is in rejecting articles and not publishing them! Therefore, article-processing charges, which most OA journals levy on successful authors, would be excessively high.

Michael Jubb from the RIN put things in context: there’s no doubt that OA is good for researchers, the public, and the economy, but how can OA happen on a large scale? UK authors produce about 6% of the approximately 1.9 million articles published every year in journals, so there’s not a lot the UK alone, or for that matter any one country, can do.

After the four speakers had their say, Graham Taylor from the Publishers Association began defending the traditional model. His stand was that publishers are the stewards of scientific information, and they do the things others don’t do, many of which are onerous tasks. They are pragmatists, and, in his words, they are neither rogues nor philanthropists. As he spoke, the tweets from the audience made it clear that he was not the most popular speaker.

With many differing and yet well-founded views on OA, perhaps the only conclusion that can be reached at this point is that the debate on OA will continue.

Book review

New Perspectives on Technical Editing by Avon J. Murphy (ed.) ISBN : 978-0895033949 (2010) Baywood Publishing Company Inc, Hardcover, 210 pages, 35.5 GBP



book editor is also dealt with in detail.

Each chapter is written by an expert in the field: senior editors, university professors in technical communication, technical writers and linguists. The ever-evolving role of the editor is clearly elucidated in several historical reviews, and in the descriptions of the expectations for the future.

A very striking aspect of this book is its extensive collection of bibliographic resources: every chapter lists dozens of very useful references, and the closing chapter, and annotated bibliography, contain many not so well

This book presents a collection of 10 chapters dealing with diverse aspects of technical editing (ie, editorial planning, and analysis and structural changes made to other people’s technological documents): research in technical editing, trends and teaching of technical editing, copyediting, and technical journal editing. The role and function of the modern journal and

known references, and are most useful. All in all, the book is a treasure trove listing more than 400 references, in addition to numerous webpage URLs embedded in the texts.

The book is designed to help readers to understand current practices and norms in technical editing, and to help them to take action in editing as well as in teaching and educating would-be editors. The audience for this book thus includes editors and teachers, but also writers, researchers and students. A deep reading of this book will result in a better understanding of the difference between full technical editing and its much narrower component so well known as copyediting, and will convince any prospective editor that editing should not be undertaken if the people involved do not master the art of precision and accuracy in technical (as well as in human) communication, do not possess the technical know how and computer skills, or do not have a very broad knowledge base.

The language fluency of every contributor makes this book a pleasure to read, and this particular volume of Baywood’s Technical Communications Series is very well edited. The subject index covers almost 8 two-column pages.

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EASE-Forum Digest: March to June 2012

You can join the forum by sending the one-line message "subscribe ease-forum" (without the quotation marks) to majordomo@helsinki.fi. Be sure to send messages in plain text format; the forum software does not recognize HTML-formatted messages. More information can be found on the EASE web site (www.ease.org.uk). When you first subscribe, you will be able to receive messages, but you won't be able to post messages until your address has been added manually to the file. This prevents spam being sent by outsiders, so please be patient.

Calls to kill P-or-P following outrage at new citation gaming

One of the most interesting debates I have reported on the forum over the last 9 years began when Eric Lichtfouse asked for references to papers on elements that increase journal impact factors (IFs). He was also interested in papers on the increasing number of science journals.

Reme Melero cited a paper which focuses on Open Access journals but also refers to journal growth in general.¹ Helle Goldman suggested that anyone interested in how Open Access may influence citations should search Alma Swan or her unpublished paper "The open access citation advantage" (2010), which has a table listing numerous references on the topic. Judy Holoviak provided a link to a study conducted by the International Mathematical Union.² She noted that the report shows data from a number of fields and demonstrates mathematical difficulties with some of the indices that have been derived from the impact data, such as the *h* index.

But the debate gathered momentum when Will Huges expressed his concern about the practice of cartel citation reported in the Scholarly Kitchen³. Cartel citation was uncovered by Phil Davis in an admirable and painstaking investigation. He starts his report in 'the kitchen' by pointing out that self-citation is the easiest method by which authors can boost citations to their papers, and editors have also been known to increase their journal's IF by coercing authors into self-citing the journal. Some editors have also manipulated their journal's IF by publishing editorial "reviews" in which they just cite papers published in their journals over the preceding two years - the period Thomson Reuters uses for compiling their annual Journal Citation Report. These wheezes are relatively easy for Thomson Reuters to detect and can lead to journals being placed on "time-out" for self-citation.

The citation gaming uncovered by Davis, however, is more pernicious and difficult to detect. He discovered that *Cell Transplantation's* IF had almost doubled between 2006 and 2010. Most of the citations in the journal were to papers in *Medical Science Monitor* and *The Scientific World Journal*, neither of which had cited *Cell Transplantation* until 2010. In that year the editors of *Cell Transplantation* published a

review article in the first of the two journals citing 445 papers and another one in the second journal citing 96 papers that had appeared in their journal during the preceding 2 years. The editors could thereby at a low cost greatly influence their own journal's IF. Davis further highlighted that the practice is facilitated by overlapping editorial boards or through cooperative agreements between them and by the reviews being labelled as "editorial material", which is not peer reviewed. In response to the article Thomson Reuters have now set up an algorithm to detect citation cartels.

This report aroused outrage both from its readers online and in the EASE forum. The misuse of the IF was blamed on the Publish-or-Perish (P-or-P) phenomena by which scientists are assessed for promotion by the number of papers they publish in high IF journals. This in turn leads to editors' and publishers' obsession with high IF ratings for their journals. Tom Lang affirmed that it would be unethical not to publish research results. He thought the goal, however, should be to reduce the importance of P-or-P and the farce of the IF and other citation metrics. If publication quantity were no longer an issue he thought the unremarkable studies people write for promotion would go away. He suggested that promotion committees should read articles from candidates rather than just count them.

Calls initiated by Tom Lang were made for EASE to spearhead a campaign to stop P-or-P. The President of EASE, Joan Marsh, commented that EASE had started to address the topic with its statement on IFs.⁴ She thought the association could consider developing some general guidelines for editors adding the aside, "though many people think there are enough of those already". The question she posed was who we are trying to influence, fellow editors or scientists on university promotion panels? Whilst it may be possible for EASE to influence its target audience of editors, university scientists would be harder to reach and influence. Sylwia Ufnalska agreed that EASE is not strong enough to change the system on its own. Enlisting the help of sister organisations and science journals, for example from *The Guardian*, and campaigns targeting key universities might have a chance of success in banishing the P-or-P culture.

The proposal of joining forces to fight P-or-P reached the listserver of a sister organisation WAME (World Association of Medical Editors), where it evoked a counterview from an editor who argued fervently that it was not WAME's responsibility to take a stance on the matter.⁵ The journal editor's job was to fairly and competently vet submissions to ensure the best work is published, not to discourage people from submitting their work for publication. Peer-reviewed outputs are a legitimate tool to evaluate applicants and P-or-P was not so bad as is made out because it encouraged people to publish their research. He also thought that although there is much talk about too much being published, the volume could simply reflect the growth in research and changes in its conduct permitting higher productivity, including speed and quality. Signing a joint statement condemning P-or-P would not serve any

purpose other than to make the initiators and signers feel good about themselves. Furthermore it was sheer arrogance to tell university selection committees how to do their job. In any event most institutions and even funding agencies already ask applicants to send them their most significant papers.

Back at the EASE forum Eric Lichtfouse suggested raising awareness of the idiocy of the IF system among young researchers in the hope that they would introduce sane politics when they were later appointed to influential positions. This idea appealed to Ravi Murugesan, who is an AuthorAID training coordinator and conducts workshops in developing countries, especially Africa. He thought a lot of researchers fail to understand or care about how their research can translate into real impact, which he said was particularly important in Africa where funding is scarce and the concept of research is still being established.⁶ He put forward a concept of influence-or-perish whereby the long-term goal would be to influence policy by working with science journalists and public administrators.

Ed Hull was encouraged to open a discussion among his PhD students. Their feelings about the topic were heartfelt and passionate. He summarised the main messages from the discussion for the forum including "Our supervisors pressure us to publish in high IF journals". Another student said that they had to complete their research within a short time and that data-based research, eg epidemiology studies or literature reviews, can be written and published quicker than experimental and prospective studies. The significance of this for Ed was that it could open the door for conclusions based on biased/fraudulent data as illustrated by the "Staple case" in the Netherlands.

Eric, who also teaches scientific writing to PhD students, said he had received similar comments to those reported by Ed from his students. He advised his students to publish review articles and meta-analyses (another example of data-based research). He also made the interesting point that the average time for reading an article is now 24 minutes (down from 38 minutes 10 years ago). Taking this into account and that all sections of an article can be accessed directly in the article of the future,⁷ he advised his students that each part of an article should be "almost" understandable without reading the other parts.

Jim Hartley pointed out that Eric had originally asked how to increase journal IFs not for ways of increasing them by cheating. He however felt that there were so many objections to IFs that they are rendered useless for evaluating a person's contribution to research for promotion purposes or the value of a journal. He listed a sample of nine evidence-based objections (available on request). He thought scientists on promotion committees should be ashamed of themselves if they took IFs as read. A link to an upcoming article by Anne-Wil Harzing dealing with misapplying evaluation systems developed for "experimental" or "hard" sciences to social sciences was also provided to the forum.⁸ The conclusion of the research on 27 social science and science disciplines was that promotion and grant committees might award fewer points to review or proceedings articles than to original research articles, which might act as a promotion or funding barrier

to people in social sciences.

Retraction Watch

The Retraction Watch blog (<http://retractionwatch.wordpress.com/>) was set up in August 2010 by two American medical reporters Adam Marcus and Ivan Oransky. The blog provides regular information about retractions and the fate of authors whose articles are retracted. It's reader friendly and even entertaining. But retraction is a serious matter and Karen Shashok drew the forum's attention to the comments following one posting that took a frank look at the reasons why fraudulent research gets published and what could be done to stop this.⁹

Karen also alerted the forum to another interesting posting where an author successfully demanded a retraction of his article from a journal because he was unhappy with its change of policy.¹⁰ Although the journal had been open access when his article was published it was subsequently bought by a publisher that does not offer open access, and his article was put behind a paywall. The author retracted the article because he wanted to publish it in another journal that offered open access. Karen recommended a Website,¹¹ which helps authors find their way through the mire of what the publisher does and does not allow authors to do. John Hilton thought that the handling and status of retractions is problematic enough when it's due to misconduct or error without adding a new category of 'disgruntled/economic/political' retractions.

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Karen Shashok: kshashok@kshashok.com

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- 1 Laakso M, Welling P, Bukvova H, Nyman L, Björk B-C, et al. 2011 The Development of Open Access Journal Publishing from 1993 to 2009. *PLoS ONE* 6(6): e20961. doi:10.1371/journal.pone.0020961
- 2 <http://www.mathunion.org/fileadmin/IMU/Report/CitationStatistics.pdf>. Accessed 1 July 2012.
- 3 <http://scholarlykitchen.sspnet.org/2012/04/10/emergence-of-a-citation-cartel>. Accessed 1 July 2012.
- 4 <http://www.ease.org.uk/publications/impact-factor-statement>. Accessed 1 July 2012.
- 5 <http://www.wame.org/resources/wame-listserve-discussions>. Accessed 1 July 2012.
- 6 <http://www.nature.com/news/2011/110629/full/474556a.html>. Accessed 1 July 2012.
- 7 <http://www.articleofthefuture.com/about>. Accessed 1 July 2012.
- 8 <http://www.harzing.com/download/isi.pdf>. Accessed 1 July 2012.
- 9 <http://retractionwatch.wordpress.com/2012/04/09/endocrinologist-shigeaki-kato-resigns-amidst-university-of-tokyo-misconduct-investigation/#comment-12977>. Accessed 1 July 2012.
- 10 <http://retractionwatch.wordpress.com/2012/06/21/ski-resort-paper-hits-a-media-mogul-and-gets-retracted/#more-8259>. Accessed 1 July 2012.
- 11 <http://www.sherpa.ac.uk/romeo/>. Accessed 1 July 2012.

My Life as an Editor - Farrokh Habibzadeh



In the 1990s, when I was a medical intern, I used to go to the editorial office of the *Iranian Journal of Medical Sciences (IJMS)*, formerly *Pahlavi Medical Journal*, an international quarterly journal published by my *Alma mater*, Shiraz University of Medical Sciences. At that time, the journal suffered long delays, and I questioned why its editor could not publish it on time. After all, editorial work is not so difficult; it just needs a good command of the English language I thought, as did many other university professors back then. It took almost two decades to realise that the editorship craft is not an easy task. Indeed, it is one of the most complicated jobs.

For my broad research interests and strong skills in computer sciences and biostatistics, Dr Karim Vessal, founder of medical journalism in Iran and then the editor of *IJMS*, encouraged me to take the post of editorial assistant of the journal. Over the years, I greatly improved my editorial skills and was offered the post of deputy editor in 2002.

One of the turning points in my editing career was my attendance of the Fourth International Congress on Peer Review in Biomedical Publication held in Barcelona, Spain in 2001. It was mainly due to Professor Haghshenas, who strongly encouraged me to participate in the congress. Interestingly, before the congress, the only source of information about journalism was my mentor, Dr Karim Vessal, who, like many editors in the region at that time, earned his editorial skills and knowledge through trial and error. I was fortunate to receive a scholarship to participate in the pre-congress short course for editors run by Tim Albert and Harvey Marcovitch, big names in our profession. After the first day of the workshop, I found I was totally ignorant about modern journalism! While I was asking about the ways our journal could be indexed, they were talking about the quality and rightly emphasised that indexing comes after quality. If I wanted to take a message from the course, I had to look at the subject from another angle. The congress was fruitful. I forged friendships with many science editors, learned a lot about journalism, the World Association of Medical Editors (WAME) and the European Association of Science Editors (EASE). At that time, I also realised that the problems faced by editors in developing countries are quite different from those in developed nations. I used what I learned to improve the *IJMS* and ran several workshops. Two years later, I took post of the director of WAME and continued collaborating with the world community of medical editors. Later on, I became vice president of WAME, and took presidency this year.

During the past years, journalism has advanced in the Eastern Mediterranean region. The number of scientific journals has multiplied. The First Regional Conference on Medical Journals in the WHO Eastern Mediterranean Region was held in Cairo, Egypt, in 2003. Hundreds of biomedical science editors gathered there and decided to establish the

Eastern Mediterranean Association of Medical Editors (EMAME). As a founding member, I served at the EMAME as the chairman of the editorship committee and vice president. Supported by the WHO regional office, EMAME created a forum for regional editors to solve their problems through regular meetings and listserv discussions.

One of the major problems was, and still is, the lack of skilled reviewers in the region. To change the situation, I arranged several workshops on peer review and shared my own reviewer experience gained at journals such as *The Lancet* and *JAMA*.

As deputy editor of the *IJMS*, in 2002, I was asked to arrange *The Lancet* workshop on science writing along with two editors of *The Lancet*, Stuart Spencer and David Sharp. Successful collaboration with this journal and its editors allowed me to join the editorial board of *The Lancet* as a consultant. Last year, I was also assigned as the honorary editor of *The Lancet* Middle East edition. As an honorary editor, I write for and publish the editor's page, a monthly column on medical science and health care in the Middle East.

Furthermore, driven by the differences in medical culture and practice, I decided to launch *The International Journal of Occupational and Environmental Medicine (The IJOEM)*, a forum for sharing observations and experiences of researchers from the Middle East. The first issue was published in January 2010. Thanks to its enthusiastic staff, editorial board members, reviewers, authors, and support of the readership, we have made good progress.

As a regional consultant, I help to establish new journals and improve the quality of old ones. I try to act as a liaison to fill the North-South knowledge gap and to inform local editors about the international standards of the quality journal.

Medical journalism has changed dramatically over the past two decades. Manuscript handling is now carbon free, from any corner of the world through internet access. Thanks to digital technologies one can easily launch a good-looking journal, which is, however, quite different from publishing a quality journal. To have a good journal, an editor has to learn and adhere to a set of rules—*noblesse oblige*. Throughout my journey as an editor, I have learned that a good editor is not the one with an ambition. One should have a passion for the editorship craft, which has its own rules, tips, and tricks. For example, editors should be aware of data manipulations by pharmaceutical companies favouring their products, ghost authorship of the articles published under the names of prestigious scholars supporting pharmaceutical agents, etc. Poor knowledge and skills of medical editors may result in irreversible damage to public and health care. Editors should strive to reach excellence by researching and adopting rules of evidence-based journalism. They should also be skilled to treat poorly-written manuscripts, to communicate with other editors and authors, to acknowledge reviewers' efforts, and to respect readers by publishing readable and educational stuff.

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News Notes

News Notes are compiled by John Hilton (hilton.john@gmail.com).

Some of these items are taken from the EASE Journal Blog (ese-bookshelf.blogspot.com), where full URLs may be found.

The Finch report

The Working Group on Expanding Access to Published Research Findings, chaired by Dame Janet Finch, co-Chair of the UK Government's Council for Science and Technology (www.bis.gov.uk/cst), published its findings in June. The group's remit was to investigate how UK-funded research findings could be made more accessible. Its report (www.researchinfonet.org/publish/finch) recommended better, faster communication of research results through open access, with the aim of benefiting public services and economic growth, as well as improved efficiency for researchers, and more opportunities for public engagement with research. The report received a large amount of attention in both mainstream and social media and was generally supported by publishers, who broadly acknowledged that some kind of open-access model was the way forward. Coming only a few months after the widespread criticism of some publishers for their support of legislation designed to prohibit open-access mandates, this seemed like a significant shift in viewpoint. Indeed, a few days before the report was published, *Nature* editor-in-chief, Philip Campbell, acknowledged that open-access was "going to happen in the long run". However, the Finch report was criticised for its strong support of 'gold' OA (publisher-led open-access) over 'green' OA (institutional repository-based access), among other concerns.

Journal naming standards

What happens when a journal changes its name? The US National Information Standards Organization (NISO) has published draft recommendations for the presentation

and identification of e-journals. When a journal changes name, publishers are likely to list older articles on the newly branded journal website, with potential confusion for users and problems for librarians (the ISSN changes as well as the URL). Updates on this work will appear on a dedicated website (www.niso.org/workrooms/pej), which also provides valuable background for any editor facing or considering a journal name change.

Welcome to PeerJ

PeerJ (peerj.com) is a new publishing venture set up by Peter Binfield, previously of *PLoS ONE*, and Jason Hoyt, ex-Mendeley. *PeerJ* is a new open-access journal and pre-print service, initially limited to biomedical science, and opens for submissions in summer 2012. Like *PLoS ONE*, and the many other broad-based 'mega-journals', *PeerJ* will assess submissions for methodological rigour, not 'interest'. But what makes *PeerJ* different is its business model: *PeerJ* won't charge article processing or submission fees; its income will come from membership fees. "Pay \$99, publish for life" claimed the pre-launch publicity. It's a bit more complex than that, with various levels of membership and other considerations, but the basic model is free publishing for life for a one-off fee.

Open citations

The publishers of the two biggest science journals, *Nature* and *Science*, have announced that they will make available the reference lists of those journals' articles for use in an Open Citations project (opencitations.net) developed by JISC, the organisation that promotes digital technologies in British academic institutions. *Nature* Publishing Group had already launched its own linked data platform (data.nature.com) and developers portal (developers.nature.com) and is the first commercial publisher to contribute to the Open Citations project. The American Association for the Advancement of Science, the

publisher of *Science*, and Oxford University Press, have joined NPG in making the reference lists from a number of journals available for the project. The CrossRef Cited-By Linking service (www.crossref.org/citedby) will be used to integrate these publishers' reference lists with the existing database.

Towards open content mining

The use of technology to extract data and meaning by 'mining' journal content opens up new areas of research and new ways of answering research questions. Researchers in this emerging field have pushed for more co-operation from publishers, especially those researchers whose institutions already subscribe to journals but who aren't able to 'mine' those journals' contents due to uncertainties about copyright and licensing. The Open Knowledge Foundation (www.okfn.org) has published a draft content-mining declaration, with the three-pronged aim of educating researchers and librarians about the potential of mining, persuading publishers to make mining easier, and urging governments to promote and protect rights to mine. The declaration, published on the OKFN website in June (tinyurl.com/ease-news17), is based on three principles: right of legitimate access to mine; lightweight processing terms and conditions; and freedom to use mined information.

FundRef

FundRef is a new project that builds on a collaboration between publishers and funding agencies. The project, supported by CrossRef (www.crossref.org), aims to standardise how funding sources are reported in research articles. Funding statements in journal articles vary widely and make it difficult for funders to track the output of their funding streams. The project will explore how publishers and manuscript tracking system vendors can use standardised metadata for funding sources, based on a taxonomy developed at Elsevier.

The Editor's Bookshelf

Please write to annamaria.rossi@iss.it if you wish to send new items or become a member of the EASE journal blog (<http://ese-bookshelf.blogspot.com>) and see your postings published in the journal.

EDITORIAL PROCESS

Hartley J. Refereeing academic articles in the information age.

British Journal of Educational Technology 2011;43(3):520-528
The new technology (such as *ScholarOne*) used for submitting papers to academic journals increases the possibilities for gathering, analysing and presenting summary data on stages in the refereeing process. The author suggests that refereeing should be "open" in this information age - ie correspondence between editors, referees and authors should be open and available, and not private. Some of the issues involved in achieving this are outlined and discussed.

doi: 10.1111/j.1467-8535.2011.01211.x

Norman ER. Maximizing journal article citation online: readers, robots, and research visibility.

Politics & Policy 2012;40(1):1-12
This article covers some techniques that authors should consider when submitting to online journals, in order to: choose a search engine-friendly title, write accurate abstracts and inviting introductions, make the article easy to use and connect to, use media and links imaginatively, and disseminate the article after publication. These improvements are likely to be worthwhile in terms of maximizing an article's chances for better visibility, increased downloads, and higher citations later.

doi: 10.1111/j.1747-1346.2011.00342.x

ETHICAL ISSUES

Heidari S, Abdool Karim Q, Auerbach JD, et al. Gender-sensitive reporting in medical research.

Journal of the International AIDS

Society 2012;15(11)

Women are still underrepresented in clinical trials, and even in studies in which both men and women participate, systematic analysis of data to identify potential sex-based differences is lacking. This article suggests important steps that could be taken to address the gender imbalance: inclusion of a gender perspective in the next Consolidated Standards of Reporting Trials (CONSORT) guideline revision; sensitizing the International Committee of Medical Journal Editors (ICMJE) to emphasize in their Uniform Requirements for Manuscripts Submitted to Biomedical Journals (URM) the ethical obligation of authors to present data analyzed by sex as a matter of routine; and requiring journal editors to include gender analyses into their editorial policies.

doi: 10.1186/1758-2652-15-11

Sarewitz D. Beware the creeping cracks of bias.

Nature 2012;485:149
The increasing pressure to publish is worsening the bias towards false positive results. Evidence is mounting that research is riddled with systematic errors, and that biases are not random. A biased scientific result is no different from a useless one. Alarming cracks in the scientific edifice are showing up starting from the biomedical field, as research results are constantly put to the practical test of improving human health. But systematic errors are a problem for any field that seeks to predict the behaviour of complex systems. Left unchecked, this could erode public trust.

doi: 10.1038/nature11000

Scott-Lichter D. Authorship disputes: me first, me equally, me too, not me.

Learned Publishing 2012;25(2):83-85
Authorship criteria vary among journals. Some give detailed guidelines, others provide no definitions in their instructions for authors. Unfortunately, some recurring behaviours are inconsistent

with ethical scientific practice. Some examples refer to the authorship order (which often influences how the work is cited), to the guest and ghost authorship. Journal editors should define acceptable authorship criteria and encourage adherence to them. One approach that may help is requiring authors to fill the contributorship model of authorship, in which they outline their individual major contribution to the article.

doi: 10.1087/20120201

INFORMATION RETRIEVAL

Howard J. Citation by citation, new maps chart hot research and scholarship's hidden terrain. *The Chronicle of Higher Education* 2011, Sept. 11

A team led by two biologists and a physicist has set out to build a guidance system, a sort of Google maps of scholarship, to help researchers locate hot research, spot hidden connections to other fields, and identify new disciplines. The Eigenfactor algorithm should take into account the sources of citations. This tool should be freely available and run on a desktop or laptop computer.

doi: 10.1087/20110911

Masic I, Milinovic K. On-line biomedical databases - The best source for quick search of the scientific information in the biomedicine.

Acta Informatica Medica 2012;20(2):72-84
Biomedical databases can be grouped into three categories: bibliographic database, citation database and full-text database. Most important databases are located in famous university/academic centers. The authors describe about 30 online biomedical databases and how to make access and search articles in indexed medical journals.

doi: 10.5455/aim.2012.20.72-84

LANGUAGE AND WRITING

Gasparyan AY, Ayzvazyan L, Blackmore H et al. Writing a narrative biomedical review:

considerations for authors, peer reviewers, and editors.

Rheumatology International 2011 July 29
Writing and properly structuring a review article requires the author's deep knowledge and expertise in a specific field of science. Each section of a review article has to be constructed based on widely accepted rules and relevance evidence. The aim of this review is to analyze the main steps in writing a narrative biomedical review and to consider points that may increase the chances of successful publication and future impact, such as those related to authorship, title, abstract and keywords, introductory notes, search methodology, conclusions, acknowledgments, references, and where to submit a review manuscript. These steps can also be applicable to editorials and commentaries.

doi: 10.1007/s00296-011-1999-3

PUBLISHING

Amrein K, Langmann A, Fahrleitner-Pammer A, et al. Women underrepresented on editorial boards of 60 major medical journals. *Gender Medicine* 2011;8(6):377-387

Significant gender disparity is still present at many levels of academic medicine. Results from a sample analysis of 60 leading medical journals in different medical specialties, published in 2011, showed that women are still a minority on editorial boards, accounting for 16% of editors-in-chief and 18% of editorial board members. A great variability (between 0 and 71%) exists among the journals and specialties analyzed. Greater participation by women on editorial boards may improve the quality and diversity of the review process as reviewer behaviour is different in some aspects between men and women.

doi: 10.1016/j.genm.2011.10.007

Macrina FL. Teaching authorship and publication practices in the biomedical and life sciences.

Science and Engineering Ethics 2011;17(2):341-354
The examination of a limited

number of publisher's Instructions for Authors, of guidelines from two scientific societies, and of the policy document of the International Committee of Medical Journal Editors (ICMJE) provide the basis for articulating best practices in authorship in scientific research and teaching about authorship and publication practices. They relate, in particular, to the following issues: definition of authorship, police statements on duplicative publication, conflict of interests disclosure, electronic access, data sharing, digital image integrity, and subject's protection.

doi: 10.1007/s11192-011-0551-2

Marušić A, Bošnjak L, Jerončić A. A systematic review of research on the meaning, ethics and practices of authorship across scholarly disciplines. *PLoS ONE* 2011;6(9):e23477
This systematic review evaluates evidence about authorship issues and provides synthesis of research on authorship across all scholarly disciplines. It reviewed 123 articles reporting results from 118 studies. Four general themes were identified: authorship perceptions, definitions and practices; defining order of authors on the byline; ethical and unethical authorship practices; and authorship issues related to student/non-research-personnel-supervisor collaboration.

doi: 10.1371/journal.pone.0023477

RESEARCH EVALUATION

Hartshorne JK, Schachner A. Tracking replicability as a method of post-publication open evaluation. *Frontiers in Computational Neuroscience* 2012;6:8

To increase the reliability and accuracy of published articles, the authors propose tracking replications of published findings as a means of post-publication evaluation, both to help researchers identify reliable findings, and to incentivize the publication of reliable results. They laid out a proposal for how replications might be tracked via an online open access system, which core components are described,

including mechanisms for compiling the information, ensuring data quality, and incentivizing the research community to participate.

doi: 10.3389/fncom.2012.00008

Hönekopp J, Khan J. Future publication success in science is better predicted by traditional measures than by the h index.

Scientometrics 2012;90(3):843-853
Little is known about how future publication success can be predicted from past publication success. This article investigated how the post-2000 publication success of 85 researchers in oncology could be predicted from their previous publication record. The main findings were: rates of past achievement were better predictors than measures of cumulative achievement, and a combination of authors' past productivity and the past citation rate of their average paper was most successful in predicting future publication success. This combination of traditional bibliographic indicators clearly outperformed predictions based on the rate of the h index.

doi: 10.1007/s11192-011-0551-2

SCIENCE COMMUNICATION

McMahon TM, Powell JE, Hopkins M, et al. Social awareness tools for science research. *D-Lib Magazine* 2012;18(3/4)

This article discusses social awareness tools developed specifically for science researchers that facilitate collaboration, help manage article references, and offer options for presenting findings in new ways. The following tools are described: VIVO and Profiles, ScienceSifter, Mendeley, SAT and EXPAT, and SciVee. As scientists know little about such tools, librarians could play an important role to evaluate the many social awareness tools available, to recommend them, and to help researchers use them effectively.

doi: 10.1045/march2012-mcmahon

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Scientific communication centres: few in number, narrow in specialty

Science editors and educators of scientific writing provide support in a variety of ways to researchers writing for publication. Much of this support is provided outside the formal structure of institutions. Within institutions, “scientific communication centres” are rare. The operational details and benefits of one such centre were explained in an essay in the previous issue of *European Science Editing*¹ and in two related publications.^{2,3} Perhaps the most important benefit of such a centre is that the institution’s authors can be sure of receiving consultation that is personalised and of high quality, because the centre shares the research mission of the institution.

Some of the presentations at the recent conference of the European Association of Science Editors (EASE) in Tallinn, Estonia were on a related topic – how editors can help researchers with writing and publishing.⁴ At the conference Carol Norris explained how she teaches science writing in Helsinki by having students edit each other’s work, and Ed Hull from the Netherlands spoke about the three-step interactive editing approach, in which the language editing happens after the author has revised the paper by acting upon feedback on the flow and content. Training by editing can be coordinated by scientific communication centres, and researchers across departments may benefit as a result.

Unfortunately, these centres are few, and even when one is found, chances are it is within the premises of a medical institution. There are, of course, numerous research institutions that focus on many areas of science, and their research agendas and publication ambitions are similar to those of medical institutions. Why, then, are communication centres not common in research institutions? Budgetary constraints, no doubt, are a reason, but perhaps science editors should do more to convince administrators and researchers of the benefits. Editors at scientific communication centres can help authors by offering editorial services and training early-career researchers to draft “rough gems” of papers that need only language polishing to become publication-worthy.

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- 4 <http://www.ease.org.uk/ease-events/triennial-conference/editing-digital-world-tallinn/tallinn-programme/parallel-session-f> [accessed 18 June 2012]

The exemplary case of editing and indexing *Biochemia Medica*

Having published an article a couple of years ago in *Biochemia Medica*, I was pleased to read Ana-Maria Simundic’s paper.¹ I was impressed by the fact that the editorial staff of this journal has had no formal training on science editing and that they work on a voluntary basis (unpaid). Although journal editors of major publishers (eg Nature Publishing Group) tend to be salaried and a few medical journal editors can make upwards of \$100,000 per year,² I have to wonder how many of Dr Simundic’s peers who run journals from small scientific communities might also work on a voluntary basis and without much formal training.

I was also pleased by the relatively recent and rapid ascent of the journal in terms of major indexing organisations that now include *Biochemia Medica* in their listings. Surely, these accomplishments stem from expertly persistent editorial oversight regarding issues of scholarship and research integrity, such as authors’ declaration of conflicts of interest and authors’ contributorship. I was glad to learn of *Biochemia Medica*’s achievements. My sense is that the editor has every reason to be proud of her journal and, in spite of the competing climate in science publishing, I have no doubts that *Biochemia Medica* will continue to rise in stature and respectability. I believe that the scientific community owes the editors of *Biochemia Medica* a debt of gratitude for their tireless efforts on behalf of good science.

Competing interests I published an article in *Biochemia Medica* and was reader of the doctoral dissertation for Dr Lidija Bilić-Zulle, an assistant editor of the journal.

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