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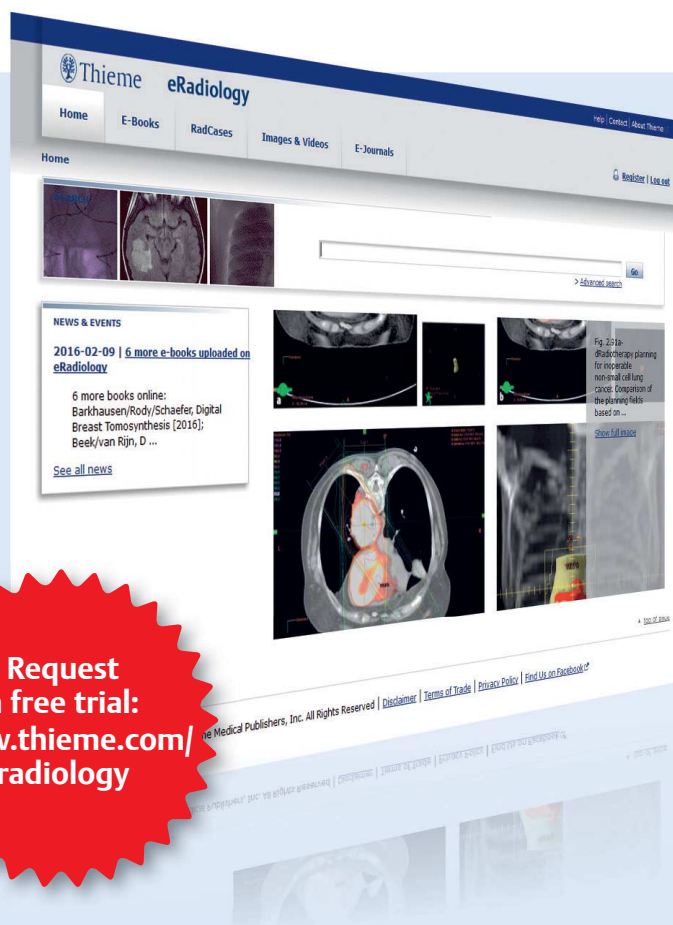
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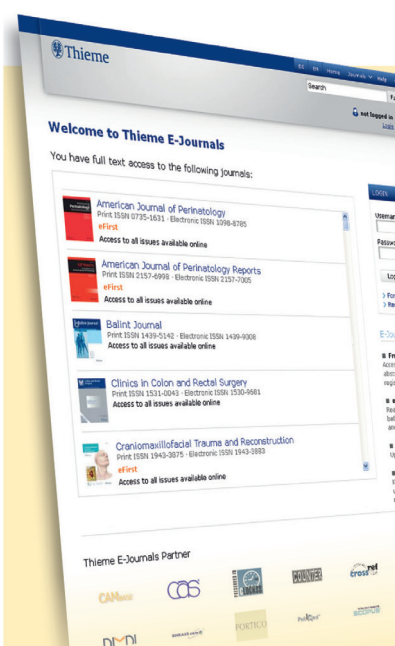
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Keep your eyes open, with open access

Federica Napolitani

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Dear EAHIL friends,

Open access (OA) has really become a global issue with an impact on many areas of science communication. Whoever is involved in scholarly publishing, be it a researcher, a publisher or a librarian, needs to confront the complex, and sometimes controversial, ongoing debates. After almost fifteen years from the first OA petition, in fact, “there is a general lack of consensus regarding the advantages or disadvantages of open access at multiple levels¹.”

Why is that? With the intent to try and give an answer to this question, the Editorial Board of *JEAHIL* decided to dedicate not one, but two monographic sections of the journal to this subject: *Open science 1 – open access* (in the present issue) and *Open science 2 – research data* (March 2017). Fiona Brown (University of Edinburgh,) and Katri Larmo (University of Helsinki), members of the Editorial Board, and editors of both issues, managed to collect four very interesting papers which I invite you to read in the following pages. The first is about an example of a large scale implementation of open access by Anna Krzak and Dominic Tate; the second examines the policies of self-archiving in the health sciences journals field by Pilar Toro-Sánchez-Blanco; the third describes an open access resource in veterinary science (the IVIS website) by Irma Revah, and the last is an interview by Matti Myllykoski of the famous Jeffrey Beall, father of the list of predatory publishers, titled “Open access in the eyes of its sharpest critic”.

In addition to the monographic section on open access, I am very pleased to present you with an excellent research paper we are proud to publish on *JEAHIL*: “An international study of consumption and contribution to social media by medical students”. This original article by Lucie MT Byrne-Davis (University of Manchester, UK) and co-authors from Australia, Kuwait, Canada and Egypt, reports the results of a survey conducted on 741 students from 8 institutions across 5 countries with the intent to “explore and describe how medical students use social media in countries across the world, including the extent to which they consume and contribute”.

The ethos of collective user participation, also discussed in the paper, are somewhat connected to the theme of the open access discussed in the previous pages of this *JEAHIL* issue.

The Seville Conference is very close, and by the time most of you will be reading this Editorial, it will probably have already ended. During the Conference, I will be chairing the Editorial Board of the Journal where, among the other items in the agenda, we will discuss adopting the Open Journal System (OJS) for *JEAHIL*. I am personally very much in favour of using this journal management and publishing system developed by the Public Knowledge Project to improve access to research. It will take time and effort, but it will certainly be an improvement for *JEAHIL*. If any of the EAHIL members are acquainted with the system and would like to be involved, please contact me or any of the Editorial Board members.

¹ Tennant JP, Waldner F, Jacques DC et al. The academic, economic and societal impacts of Open Access: an evidence-based review [version 1; referees: 4 approved, 1 approved with reservations] F1000Research 2016, 5:632 (doi: 10.12688/f1000research.8460.1)

Marshall Dozier, in her *Letter from the President*, is informing us about some important EAHIL matters like the celebrations for the 30th EAHIL anniversary (2017) and the EAHIL elections in 2016. Also, be sure not to miss any of the columns which keep everyone informed and updated; such as the ones by Benoit Thirion and Letizia Sampaolo, the News from EAHIL SIGs, the News from US MLA (by Carol Lefebvre) and the News from NLM (by Dianne Babski).

Please find the themes of the future issues below . If you would like to see a particular topic covered in the journal, do let us know.

JEAHIL next issues:		
2016		
Issue	Theme	Deadline
3	Memories from Seville Conference	5 August
4	Open science 2: Research data	5 November
2017		
1	No-theme, Deadline	5 February
2	Open science 2: Research data	5 May

I wish you a happy reading
Federica

MONOGRAPHIC SECTION

Open science: open access

Edited by

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Open science: open access



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Librarians and information professionals have always been concerned with ensuring, as far as possible, that our users have access to the information they need. As access to online information increased, and publishing models changed, it seemed that access to information did not necessarily increase. Librarians found that where we could, to some extent, share print resources and allow “walk-in access” to our collections, as we moved to an “online preference” model in purchasing resources, licences restricted who could access our subscribed resources. With the Budapest Open Access Initiative of 2002 librarians hoped that this would change. Volume 1 of *JEAHIL*, in 2005, had an issue which focussed on open access and at the time we may have expected the publishing landscape in 2016 to be different. Whilst there have been many positive developments over the fourteen years since the Budapest Initiative, there continue to be barriers to access to information. It seems that the Ranganathan principles are as pertinent as ever. When Walt Crawford and Michael Gorman updated Ranganathan's Five Laws of Library Science, “Protect free access to knowledge” applied more to ensuring “uncensored libraries” (1). Today, we could perhaps argue that it applies to ensuring open access to our intellectual output.

This issue of *JEAHIL* highlights what is being done to increase access and the editors are grateful to the authors for sharing their experiences and expertise. We have four interesting and thought-provoking papers in this issue. Anna Krzak and Dominic Tate report on the work being done to increase the adoption of open access at the University of Edinburgh, which is a requirement of UK higher education funding. Non-compliance runs the risk of papers not being included in the next UK research evaluation exercise, and could therefore have research funding implications for universities and research organisations.

Pilar Toro-Sanchez-Blanco describes the work of the Andalusian eHealth Library Repository in evaluating the self-archiving policy and embargo periods of 396 biomedical sciences journals in which researchers and staff at the Virgen Macarena Hospital have published. They are working to ensure compliance with open access regulations and funding body requirements whilst encouraging researchers of the benefits of compliance.

PREFACE

From the veterinary medicine perspective Irma Revah explains the establishment and work of IVIS, the International Veterinary Information Service. IVIS is a not-for-profit resource which makes clinically relevant veterinary information available for free to people working and studying in all areas of animal health. And finally, Matti Myllykoski's interview with Jeffrey Beall, a sharp critic of open access and author of *Beall's list of potential, possible, or probable predatory scholarly open-access publishers*, gives us a different outlook altogether. Matti's skilfully set questions combined with Jeffrey's interesting points of view and colorful rhetoric really make the interview captivating to read.

We look forward to compiling another issue focussing on open science next year, and welcome papers on this theme.

REFERENCES

1. Crawford W, Gorman M. Future libraries: dreams, madness and reality. Chicago: American Library Association; 1995.

APPENDIX. OPEN ACCESS FACTS

by *Katri Larmo and Fiona Brown*

WHAT?

There are many definitions for open access, but simply put, open access means a free and unrestricted availability of scholarly information, such as peer-reviewed journal articles, conference papers and datasets. The various elements of open access are written into public statements, such as the Budapest Open Access Initiative, the Bethesda Statement on Open Access Publishing, and the Berlin Declaration on Open Access. The open access movement has proved its power with the implementation of open access policies for many funding agencies and governments in the recent years (e.g. NIH, Wellcome Trust, European Commission, WHO, Bill and Melinda Gates Foundation). Openness in science can be seen as a continuum, and the moment the focus is towards opening research data and methods as well.

WHY?

Open access benefits researchers, institutions and society as a whole in many ways:

- more visibility, impact and transparency for research;
- increase in citations and downloads compared to non-open access journals;
- more possibilities for innovations for universities, research institutions, societies, firms and citizens;
- reasonable in terms of public economy: publicly funded research should be open for everyone;
- global equality in access to information.

HOW?

There are two main routes to publish openly:

- publishing in open access journal (gold open access);
- self-archiving in an open repository (green open access).

Many journals also offer a possibility to buy an article open in a subscription based journal (Hybrid open access). This is controversial because of the double dipping; the author pays for the open access and the library pays for the subscription.

BRIEF HISTORY

The open access movement began in the 1990s, as the internet made it possible. In 1994 professor Steven Harnad published the “Subversive Proposal” in which he stated that researchers should self-archive their research articles and make them free for all. The proposal played an important role in launching the open access movement. Already before that a preprint service ArXiv had been founded by physicist Paul Ginsparg’s initiative. The end of the nineties saw many advancements on openness, such as founding of BioMed Central (BMC), the first commercial open access publisher, and founding of E-Biomed, which in 2000 evolved to PubMed Central.

In 2002 the first global open access initiative, Budapest Open Access Initiative, was signed, Creative Commons Licenses launched and Sherpa/Romeo service established. More open access initiatives followed in 2003: Bethesda Statement on Open Access Publishing and Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities. The same year the Directory of Open Access Journals (DOAJ) was launched by Lund University, to increase the visibility of open access journals and to make it easier for authors to select the suitable journal.

Unfortunately also a negative by-products arose: exploitative open access publishing that charges publication fees without providing proper peer review or the editorial services. In 2010 librarian and researcher Jeffery Beall came up with the term predatory publishing and created Beall’s List of potential, possible, or probable predatory scholarly open access publishers (see an interview of Jeffrey Beall in this journal).

Important player to increase the visibility of open access journals was the release of Public Library of Science PLoS, established in 2000 by a Nobel laureate and former director of the US National Institutes of Health (NIH) Harold Varmus. PLoS Journals proved to be a success, and by 2011 PLoS One had become one of the largest peer-reviewed journals in the world.

USEFUL WEBSITES

Directory of Open Access Journals DOAJ <https://doaj.org/> peer reviewed open access journals

Beall's List <https://scholarlyoa.com/publishers/questionable>, predatory open access publishers

SHERPA/RoMEO www.sherpa.ac.uk/romeo/ publisher copyright policies & self-archiving

SHERPA/JULIET www.sherpa.ac.uk/juliet/ research funders' open access policies

SHERPA/FACT www.sherpa.ac.uk/fact/ funders & authors compliance tool

SPARC www.sparc.arl.org international alliance of academic and research libraries, working to create a more open system of scholarly communication

SPARC Europe www.sparceurope.org

The Open Access Citation Advantage by SPARC Europe www.sparceurope.org/oaca_list/

Large scale implementation of open access: A case study at the University of Edinburgh's College of Medicine & Veterinary Medicine

Anna Krzak and Dominic Tate

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Abstract

Journal papers and conference proceedings accepted for publication from April 2016 must be deposited in an institutional and/or subject repository within three months of acceptance, and following this must be made open access, in order to be eligible for submission to the next Research Evaluation Framework in the United Kingdom. This paper describes the programme to facilitate this at the University of Edinburgh's College of Medicine and Veterinary Medicine.

Key words: access to information; medical informatics; research support.

Introduction

LOCH (Lessons in Open Access Compliance for Higher Education) is a Jisc-funded pathfinder project which aims to research and share best practice in the implementation of open access in the UK Higher Education Sector. LOCH is led by the University of Edinburgh in co-operation with partners at Heriot-Watt University and St. Andrews University, which are all research-intensive universities based in Southeast Scotland (1).

The University of Edinburgh is undertaking a programme to facilitate the widespread adoption of open access (OA) to journal articles and conference proceedings across the entire University, in line with current UK higher education funding council policy. This case study details the approach taken by the University's College of Medicine & Veterinary Medicine.

Open access & research assessment in the UK

The Research Excellence Framework (REF) (2) is the UK's system for assessing the quality of research undertaken in UK higher education institutions. REF exercises are undertaken every seven or eight years, and the results of these exercises have a direct impact on an institution's research funding over the coming period. Since April 2016, journal articles and conference proceedings must be deposited in an institutional or subject repository *within three months of the date of acceptance* and made open

within 12 months (STEM subjects) or 24 months (AHSS subjects). There are a limited number of exceptions which can be used in the few cases whereby there is a good reason for not meeting the deposit and access requirements. Otherwise, papers which do not meet the requirements will not be eligible for submission to the next REF.

This new REF OA Policy (3) has tied the OA agenda to research assessment – something which will have implications for university funding – and this has significantly increased the importance of OA to UK universities. In the context of this development, institutions have needed to work quickly to raise awareness of OA and to increase compliance with OA policies. The pace of change has increased significantly and universities are working to very tight deadlines to ensure as many of their journal articles and conference proceedings as possible are eligible for assessment.

College of Medicine & Veterinary Medicine

The University's College of Medicine & Veterinary Medicine (hereafter referred to as the College) is a research-intensive organisation and one of the world's leading centres for medical and veterinary medical research. The power of College's biomedical and veterinary research was reaffirmed by the College's 2014 REF results where 84% of its research activity was rated internationally excellent or world leading (3* and 4*) (4). Medicine, the

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University of Edinburgh's largest REF submission and one of the largest in the UK, achieved excellent results and retained its position as a UK top five Medical School, as defined by research power. Veterinary and agricultural research at Edinburgh in partnership with Scotland's Rural College (SRUC) has been ranked as most powerful in the UK.

The collaborative nature of the College structure means that administrative boundaries between disciplines do not play a huge role in College's life. To reflect this, the College has undergone a process of restructure that brought together the three medical schools (Biomedical Sciences, Clinical Sciences and Molecular, Genetic and Population Health Sciences) into a single Edinburgh Medical School. The new Medical School is significantly larger than other schools in the University and it is divided into three Deaneries. Veterinary teaching and research is performed at the Veterinary School which incorporates the Roslin Institute.

The aim of the restructure has been to strengthen the existing working relationships between diverse areas of research and teaching, and to provide a platform suited to the extensive collaboration across research themes.

Traditionally, College academics identify more with their research centres and institutes, rather than schools. At present, there are six Research Institutes which bring together 16 interdisciplinary Research Centres. In addition to this, there is also a Division of Health Sciences which comprises eight sub-units.

Implementation of the open access policy for the next REF within the College

The complex structure of the College necessitates and highlights the importance of coordination and synchronisation of all those involved in supporting the implementation of the REF OA policy. The College's Open Access Coordinator has been working closely with the College Research Administration Office, the Scholarly Communications Team (based in the University Library) and key contacts from all College research centres to develop a single, comprehensive implementation plan detailing all of the activities necessary to comply with the policy and achieve increased compliance with other funders' open access mandates – especially MRC (5) and Wellcome Trust (6).

Planning

The guiding principle of the REF OA policy is that journal articles and conference proceedings with ISSN must be openly available in order to be eligible for submission to the next REF. This must be achieved by depositing a copy of the Author's Accepted Manuscript (AAM) into an institutional or subject repository *within three months of acceptance* and made open access as soon as possible after that. This is a massive challenge and, like many other UK HEIs, Edinburgh started the implementation process as early as possible to allow time to introduce the practical measures to facilitate and advocate for OA and to monitor compliance in advance of the official REF policy start date. In doing so, the College has employed a project-based approach which takes some of the component parts of project management, for example developing a responsibility matrix.

The University's institutional repository and CRIS, (Elsevier's PURE system), is be used in favour of subject repositories as this allows for easier monitoring and mediated input. Because PURE is intended to be used for the REF2020 submission, the duplication of effort can be avoided.

The implementation project deliverables are:

- compliance with REF OA Policy – ensuring that research papers are eligible for the next REF;
- increased compliance with research funders' mandates, especially MRC, BBSRC and Wellcome Trust;
- increased proportion of published research outputs that are available open access;
- increased awareness of OA and its benefits.

The REF OA policy places a responsibility on authors to deposit their work and comply with the policy requirements. The College's expectation is that academics will, in any cases, continue using their disciplinary knowledge to select the most effective channels for their research. Researchers are of course free to choose where to publish, how much to publish, and how often to publish.

However, it is important that the academics try to ensure that their chosen publication venue will allow them to comply with the REF OA policy and with their funders' OA requirements before they submit an output for publication.

Implementation arrangements

In managing the deposit of the author’s accepted manuscripts into PURE a locally mediated approach seems to be the most popular approach with the Medical School (Figure 1).

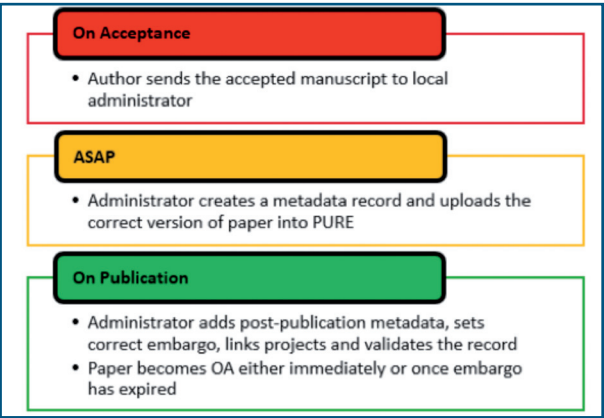


Figure 1. Mediated deposit.

With this approach, the author forwards the final accepted manuscript to a designated administrator as soon as possible after being notified of acceptance by a publisher. The administrator creates a metadata record and uploads the document to PURE. On publication, the administrator amends the record with post-publication metadata, applies correct post-publication embargo and validates the record. The correct version becomes OA either immediately on publication or on expiry of any embargo period. Within the Veterinary School the authors are asked to create the initial metadata entry in PURE and upload their manuscript on acceptance (Figure 2).

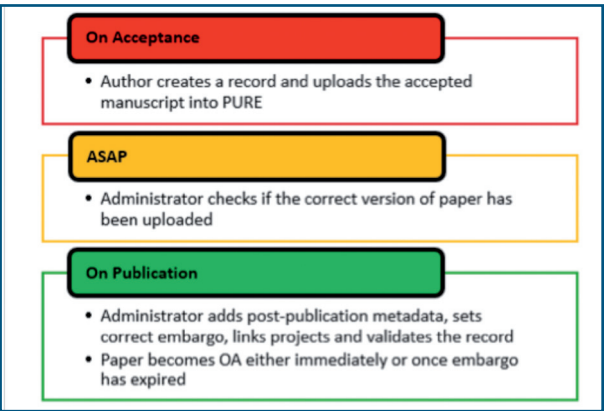


Figure 2. Direct deposit.

A team of local administrators pick up all newly created records and update them on publication. Both approaches are author-centred and have the same goal - to minimise the administrative burden on researchers and to help achieve full compliance with the policy.

As administrators have no means of discovering papers before publication, authors must take responsibility for taking the first steps immediately on being notified of acceptance.

Open access workflow

As mentioned above, at the heart of the College’s implementation arrangements is a local deposit process enabled by a team administrators, PAs and secretaries in each Research Centre/Unit. The local administrative staff are the first points of contact for any deposit-related queries from academics. The fact that these administrators are a part of each Research Centre’s everyday life means that they can be very effective and have access to all academics. They are also au fait with their colleagues’ research and publication activities.

Supporting for administrators and authors

The College’s Open Access Coordinator is employed by the College Research Office but spends two days per week working in the offices of the Scholarly Communications Team, which is based in the University Library. This arrangement has proven mutually beneficial in building relationships between staff in the Library and the College Research Office and has led to streamlined processes for OA support and for managing article-processing charge payments, where these are necessary.

The scale of the work on OA means that many existing administrative staff have now been enlisted to support OA processes in some way, even though they may be entirely new to the world of libraries or publishing. Comprehensive training had to be devised and delivered for all these staff, starting with the fundamentals of academic publishing. Sessions cover OA-related terminology, a detailed overview of the REF OA policy, other funders’ OA policies and the implementation arrangements for the College. In addition, staff are shown how to: create metadata records in PURE, upload fulltext documents, apply correct post-publication

embargoes, update metadata and validate records. A range of resources and reference materials have been circulated amongst the administrators now working to support OA.

The Open Access Project Coordinator continues to provide ongoing support to all administrators to ensure that the staff are equipped with skills and capabilities to perform depositing and validating records in PURE.

With the assistance of the Scholarly Communications Team, separate sessions covering details of the REF and other funders OA requirements have been organised for the academic staff from almost all Research Centres. Experience has shown us that sessions for academics about OA work best as a short 10-minute presentation incorporated into a regular departmental meeting. Separate/voluntary outreach sessions about OA tend to have a poor turnout – it is much better to present the requirements to a captive audience and then offer one-to-one follow up sessions as necessary. Experience has shown us that academic staff often do not ask questions in departmental group sessions so it is important to offer a channel for more individual support in addition to group presentations.

Challenges in implementing the REF OA policy

The following issues are affecting the College's ability to implement the REF OA policy:

- the policy introduces a new point of intervention – the point of acceptance. The research support administrators have no reliable mechanisms of discovering papers prior publication unless the authors advise them of this fact. The College has planned a comprehensive support system around the requirement to deposit on acceptance, but the ultimate responsibility for the timely deposit of manuscripts always lies with the academic author;
- in order to accommodate the policy, changes to existing workflows and processes are required. This means successfully introducing a new routine of timely depositing manuscripts into PURE and/or communicating the fact of acceptance to admin support staff;
- the policy has no scope for retro-active compliance – if academics do not take action on

acceptance, there is a real risk the paper may not be eligible for submission to REF;

- author engagement with the policy is not yet as high as it should be. Staff have been notified of the arrangements via all-staff emails and monthly compliance reports are produced for senior management;
- the research-intensive nature of the College results in a significant volume of research papers. Current estimates are that the College produces approximately 2000-2400 potentially REF-able papers each year. The REF policy means that records need to be checked on acceptance and normally once again after publication. Managing all these publications in a timely manner and maintaining high quality metadata is a labour-intensive task. The College relies entirely on the existing staffing levels to deal with all the related processes;
- the policy environment is unnecessarily complex with research funder policies differing amongst themselves and to those of the REF and the University. This causes extra confusion for authors and their support staff;
- the complex organisational structure and geographical layout (over multiple sites across Edinburgh and the Lothians) means that the implementation of the policy presents a big challenge in terms of ensuring that everyone is aware of the requirements.

Conclusions

Whilst the University of Edinburgh has been engaged with the OA agenda for over a decade, the transition towards full OA has undoubtedly been slow. Early university and research funder OA policies often lacked any sanctions for non-compliance, so were seen as “toothless” and could easily be ignored by busy researchers.

Associating OA with the high-profile agenda of research assessment has undoubtedly helped to create an increase in awareness of OA, as well as increased deposits in institutional repositories. At the same time, this has created unprecedented volumes of work for library and research support staff working with OA.

It is of critical importance that we continue to convey a really upbeat, positive message about the value of OA to authors during this time of transition.

There is a potential risk that the association of OA with research assessment causes authors to lose sight of the good things that OA can do for them – all this could easily be perceived as another exercise in bureaucracy. At the same time – we have a duty to alert authors to the potentially serious consequences non-compliance with the policy. Staff in the University Library and the College of Medicine worked extremely hard to prepare for the REF OA requirements ahead of their implementation in April 2016. There is, still, much work to do, and many conversations to be had – but success with this new policy could prove to be a real milestone in the transition towards open access, and the UK could be in a position where a vast majority of journal articles and conference proceedings are available on an open access basis.

*Submitted on invitation.
Accepted on 5 May 2016.*

REFERENCES

1. LOCH Lessons in Open Access Compliance for Higher Education blog [internet]. United Kingdom: LOCH. 2015-2016 [updated 2016 April 29; cited 2016 May 3]. Available from: <http://libraryblogs.is.ed.ac.uk/loch/>
2. REF 2014 [internet]. United Kingdom: Research excellence framework, 2014. [cited 2016 April 18]. Available from: <http://www.ref.ac.uk/>
3. Open access research [internet]. United Kingdom: Higher Education Funding Council for England, 2015. [cited 2016 April 18]. Available from <http://www.hefce.ac.uk/rsrch/oa/>
4. University of Edinburgh REF 2014 results [internet]. United Kingdom: Research excellence framework, 2014. [cited 2016 April 18]. Available from: <http://results.ref.ac.uk/Results/ByHei/176>
5. Open access policy [internet]. United Kingdom: Medical Research Council, 2016. [cited 2016 April 18]. Available from: <http://www.mrc.ac.uk/research/research-policy-ethics/open-access-policy/>
6. Open access at the Wellcome Trust [internet]. London: Wellcome Trust, n.d. [cited 2016 April 18]. Available from: <http://www.wellcome.ac.uk/about-us/policy/spotlight-issues/Open-access/index.htm>

Self-archiving policies in the health sciences journals field: a perspective from an institutional repository

Pilar Toro-Sánchez-Blanco

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Abstract

Being respectful with copyright and author rights has been always a priority for the Andalusian eHealth Library in the management of the Repository. Legal criterion is one of the key aspects to accept content in it. However, learning the self-archiving policy of scientific health science journals may be difficult sometimes, despite the valuable help of databases such as Sherpa/Romeo and Dulcinea. This paper examines access policies and self-archiving conditions; use of Creative Commons (CC) licenses; and article processing charges (APCs) of these journals, and compares their implementation in three business model: open access (OA), subscription-based and hybrid journals. The ultimate purpose is to find objective reasons that help our authors to ensure compliance with open access legislation and funding body requirements.

Key words: self-archiving; open access; scholarly publishing business model; health science, repositories.

Background

Spanish legislation on science (1), together with recommendations from the European Research Council (2), are at the core of the development of the [Andalusia Health Repository](#). It is the open-access institutional repository of the Andalusia Public Health System. It intends to gather all the scientific output generated by its professionals, resulting from their medical care, research and management activities.

Being respectful with copyright and author rights has been always a priority for the Andalusian eHealth Library in the management of the repository. Legal criterion is one of the key aspects to accept content in it. However, learning the self-archiving policy of scientific health science journals may be difficult sometimes, despite the valuable help of databases such as [Sherpa/Romeo](#) and [Dulcinea](#). Therefore, since the set up of the repository, many of these journals' self-archiving policies have been collected in an internal database. It includes those journals where articles, written by our professionals, have been published. The gathered information includes: if an article may be self-archived in our institutional repository; which version is authorized; specific conditions (embargo

period, Creative Commons licenses, statements, etc.); and date that policy was accessed. This database is used for the repository administrators to check a journal's policy before approving a submission. As of now, the database contains information from more than 2200 journals, mainly in the health sciences field, and it is continually updated to incorporate journals and change of policy for existing ones.

However, the great amount and variance of conditions on self-archiving and embargo periods founded in these journals do not seem to follow a clear pattern.

Now, on the occasion of research aimed at knowing how many articles could be self-archived in any of their versions in the Health Institutional Repository, we gathered more detailed and exhaustive information about the self-archiving policy of 396 scientific journals published by 114 publishers (3). These journals are those where professionals at the Virgen Macarena Hospital, one of Andalusia's district hospitals, published articles from 2011 and 2015.

This paper examines access policies and self-archiving conditions; use of Creative Commons (CC) licenses; and article processing charges

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(APCs) of these journals, and compares their implementation in three business model: open access (OA), subscription-based and hybrid journals.

The ultimate purpose is to find objective reasons that help our authors to ensure compliance with open access legislation and funding body requirements.

Objectives

The objectives are:

- to learn if the type of business model in the Health Sciences journals field is a determining fact on self-archiving and copyright policies;
- to compare article processing charges and use of Creative Commons licenses between open access and hybrid journals;
- to assess embargo periods in relation to Spanish national law and European Research Council's open access policies.

Method

Firstly, the information about journals' self-archiving policy with reference to institutional repository was collected from different sources: specialized databases, such as Sherpa/Romeo, Dulcinea, or DOAJ; and journal and publishers' homepages.

Secondly, the information for each journal was classified into the following categories: business model (OA, hybrid and subscription-based journals); use of Creative Commons licenses; APCs; and, embargo periods.

Finally, the data in each category was compared depending on the business model. With regard to APCs, as they were given in different currencies such as, US dollars, British Pound or Swiss Franc, they were converted to Euros to compare them (4).

Results

Business model

As regards the ability of a person to read a scientific article freely or after paying a toll, 83 of 396 journals included in this study are OA (21%) and 313 are subscription-based journals (79%). However, 277 of the latter group are considered to be hybrid (5) (88%) as they offer authors an option to make their article free immediately upon publication by paying a fee. According to this, the distribution is the following: 21% of the total journals are open access,

9% are purely subscription-based, and 70% are hybrid journals (*Figure 1*).

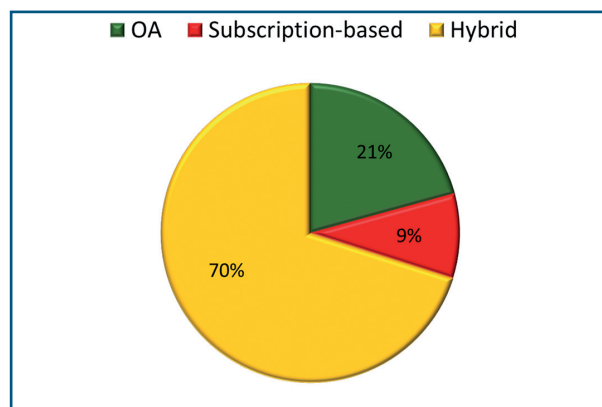


Figure 1. Journals for type of business model.

Self-archiving policy

To self-archive an article, in any of its versions, the author(s) must retain re-use rights.

With reference to the permission for reusing the publisher's version of articles, there are two stages or degree of OA (6): gratis ("free online access") and libre ("free online access plus re-use rights"). In the present study, 72 of 83 of OA journals are considered libre OA and the other 11 are gratis OA. That it is to say that as many as 13% journals don't allow reuse and, consequently, the self-archiving of articles in our institutional repository.

With regard to subscription-based journals, they do not usually give permission to self-archive the published article, but 12 exceptions have been found. 7 permit self-archiving in a non-commercial open access repository after 6 or 12 months embargo. 1 journal deposits articles automatically in PubMed Central after 12 months embargo; and 4 more allow self-archiving on an author's personal website. In other words, only the first 7 journals allow self-archiving of the publisher's version in the repository.

In the field of hybrid journals, publishers offer authors the opportunity to make their article freely available immediately upon publication if they pay a fee. As a result, the self-archiving policy depends on whether the author pays this OA option. The published article may be deposited in the repository because the author retains reuse rights. In contrast, when OA option is not paid, publishers establish the

self-archiving policy, and their policies vary enormously in terms of authorized version(s), embargo periods, and websites or repositories where are permitted to self-archive the articles. The exceptions for the general rule are represented by 7 of 277 hybrid journals that allow self-archiving of the published article without paying a fee, under certain conditions and after 12 months embargo. However, 3 of these journals allow self-archiving only on author's personal or employers' website, but not in a repository.

Use of Creative Commons licenses

CC licenses (7) are a set of copyright licenses that always reserves the rights of attribution and integrity of the work, but grants permission to reuse, share, distribute, remix and build upon. Depending on the business model of the journal, two different uses may be found: libre OA journals understand licenses as the method of expressing their copyright and sharing policy and the chosen license is applied to the whole content of the journal. In contrast, articles in hybrid journals are not published under a CC license, unless the author has chosen the OA option. Regarding gratis OA journals, as they don't permit reuse, none of the 11 journals included in this category uses CC licenses. On the other hand, the majority of libre OA journals use CC licenses, but some of them (10%) do not. The most used license in this group is Creative Commons Attribution (CC BY) as Figure 2 shows.

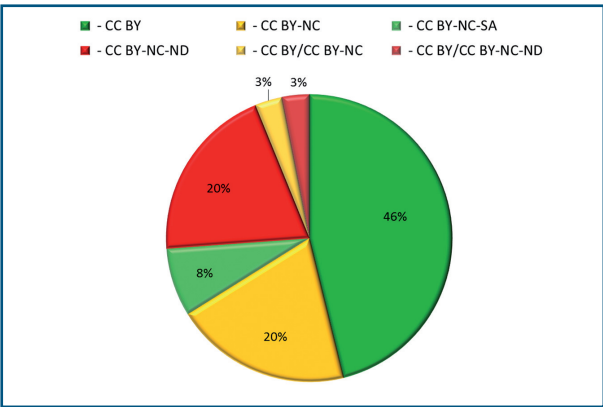


Figure 2. CC licenses used by libre OA journals.

As regards subscription-based journals, only 1 of them permits self-archiving under Creative

Commons Attribution Non-Commercial Share Alike License (CC BY-NC-SA) after 12 months embargo. Most of hybrid journals' publishers specify the CC license that the author must choose to make their article open access, unless the funding body requires another one. It may have an influence on the article processing charges, as will be seen later on. With regard to the licenses, commercial publishers tend to recommend the most restrictive ones (Creative Commons Attribution Non-Commercial License (CC BY-NC); CC BY-NC-SA; Creative Commons Attribution Non-Commercial Non Derivative License (CC BY-NC-ND), such as Elsevier (99 journals included in this study), Wiley (54), Oxford University Press (15), Taylor & Francis (9), SAGE (7), Karger (7), or Mary Ann Liebert (5), although CC BY may be used if funding body requires it. On the contrary, other publishers, such as Springer (29 journals), allow that open access articles are published under CC BY License. In comparison, a large number of OA journals publish their articles under the most liberal Creative Commons license (CC BY), while hybrid journals usually impose non-commercial CC licenses to be chosen by authors (CC BY-NC-ND and CC BY-NC-SA).

Article processing charges

As it has said previously, the APCs have been converted to Euros and the exact amount has been rounded up in order to facilitate comparison. 3 of 11 gratis OA journals charge authors fees of between € 250 and € 1192, while fees for 40 of 72 free open access journals range from € 95 to € 2550. However, the prices for hybrid journals vary even more widely and tend to be more expensive, ranging from € 400 to over € 4100. While 46% of OA journals charge authors from € 1501 to € 2000, only 10% of hybrid journals are in the same range. In contrast, while 2% of OA journals have a fee from € 2501 to € 3000, 52% of hybrid journals are in the same range. More importantly, some hybrid journals have different fees depending on the CC license that the author assigns to their article. There may be a gap from € 200 up to € 1400 between the most restrictive license (CC BY-NC-ND) and the most liberal one (CC BY).

As other studies has stated previously (8), it is clearly visible that APCs for hybrid journals are usually higher than for OA journals (*Figure 3*).

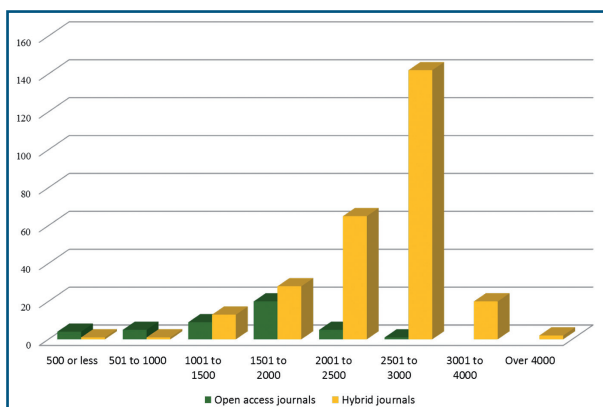


Figure 3. Comparison between APCs for OA and hybrid journals.

Embargo periods

On the whole, subscription-based and hybrid journals impose a period of time from the article publication until it may be archived, in most cases using one of the author's versions, in a web site or repository.

In this study, with the exception of 32 of 277 hybrids journals, the remaining 245 impose a period of embargo between 6 months and 3 years: 131 journals (53%) impose 12 months; 101 journals (41%), between 12 to 24 months; and 3 (1%), 3 years.

Regarding subscription-based journals, 2 of 34 permit self-archiving of the published article in a non-commercial open access repository after 6 months embargo; and 4 of them, after 12 months. One journal deposits the publisher's version automatically in PubMed Central after 12 months; and one more gives permission to archive it in agency repositories when the research has been funded by them.

Conclusion

With reference to self-archiving an article in the repository, libre OA journals are the most advantageous because the author retains copyright; whereas in hybrid journals, they only do if they pay an expensive fee. In contrast, in hybrid and subscription-based journals, the author relies heavily on publisher's self-archiving policy and embargo periods.

Finally, and taking into consideration that the European Research Council establishes that research outcomes funded by its programs should be made publicly available no later than 12 months after publication, and Spanish National Law, no more than six months, the embargo period must be a critical point that authors must weigh before submitting an article to a journal.

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REFERENCES

1. Science, Technology and Innovation Law 14/2011. Spain. [Cited 2016 April 30]. Available from: <https://www.boe.es/buscar/act.php?id=BOE-A-2011-9617>
2. European Research Council. Scientific Council. Open access guidelines for researchers funded by the ERC [Internet]. 2013 [cited 2016 April 30]. Available from: http://erc.europa.eu/sites/default/files/document/file/ERC_Open_Access_Guidelines-revised_2013.pdf
3. Gómez-Blázquez I, Toro-Sánchez-Blanco P. The Virgen Macarena Hospital's research output in the Andalusia Health Institutional Repository [poster]. In 15th EAHIL Conference. Knowledge, Research, Innovation...eHealth; 2016 June 8, Seville. In press.
4. Currency base: 2016 April 16.
5. Björk B-C, Solomon D. Open access versus subscription journals: a comparison of scientific impact. BMC Med [Internet] 2012;10:73 [cited 2016 April 19]. Available from: <http://dx.doi.org/10.1186/1741-7015-10-73>
6. Harnard S. How to reformulate effective policies to open access research worldwide [Video on the Internet]. In Opening Science to Meet Future Challenges; 2014 March 11, Varsaw [cited 2016 Apr 20]. Available from: <https://www.youtube.com/watch?v=HKZCNeJPNPg&feature=youtu.be>
7. Creative Commons licenses: <https://creativecommons.org/licenses/>
8. Van Noorden R. The true cost of science publishing. Nature 2013; 495: 426–429 [cited 2016 Apr 20]. Available from: <http://www.nature.com/news/open-access-the-true-cost-of-science-publishing-1.12676>

The IVIS website: open access resource for veterinarians, veterinary students and scientists

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Abstract

The International Veterinary Information Service (IVIS) is an independent not-for-profit educational organization, founded in 2000 with the aim of developing a library of veterinary e-books open access to veterinarians, veterinary students, technicians and animal health care professionals worldwide. This paper describes how IVIS was established, how the organization works and how it has developed over the years as it meets its mission of helping veterinary students and veterinarians with limited access to information as well as providing up-to-date quality information to the veterinary community.

Key words: open access; e-books; e-library; veterinary; IVIS.

The International Veterinary Information Service (IVIS) at www.ivis.org, is an independent, New York-based, not-for-profit educational organization that was founded in 2000. As an Internet-based resource for clinically relevant information dedicated to the improvement of animal care, IVIS is available for free to veterinarians, veterinary students, technicians and animal health care professionals worldwide. Financial support is generated through donations by individual users, corporate sponsorship and communications about veterinary meetings and short-courses. Currently, IVIS counts about 170,000 registered active members from around the world (to be considered active, the member must have visited the IVIS website at least once in the past six months), making the IVIS user community very likely the largest in its kind in the field of veterinary medicine.

The IVIS organization and its website were created in 1998 with the aim to develop a library of veterinary e-books that would be made available using Internet technology. At its creation, the founders of IVIS vowed to make this an open access website that would not only be of use for practicing veterinarians and academicians but first and foremost be available to veterinary students and veterinarians around the world, including those who

had limited access to printed material due to geographical or financial constraints. Over the past 16 years, IVIS has succeeded, not always without a struggle, to maintain the open access and in such has continued to fulfill its societal mission of helping veterinary students and veterinarians with limited access to information as well as bringing up-to-date quality information to the entire veterinary community. Even though it is an open access website, it was clear from the start that it was necessary to be able to identify and track visitors when navigating the IVIS website to make improvements in navigation and search features. Registration as an IVIS user has always been easy, quick, requiring a minimum of information and provides continued access to the entire website without the need for renewal.

As this was one of the first of its kind and the first soon-to-be e-library in veterinary medicine, the software was written from scratch. The beta-version was completed in 1999 and the first featured e-book was published in November 1999, the title was *Recent Advances in Canine Infectious Diseases* edited by L.E. Carmichael.

Since then, we have developed and published several books in the traditional domestic species as well as in less-known species in the western world such as

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yaks (*Recent Advances in Yak Reproduction* by Zhao and Zhang), buffaloes (*Bubaline Theriogenology* by Purohit), camels (*Recent Advances in Camelid Reproduction* by Skidmore and Adams and *Pictorial Guide to Traditional Management, Husbandry and Diseases of the One-Humped Camel* by Dioli) and South American camelids (*Principios de la reproducción de los camélidos sudamericanos* by Hanzen *et al.*; this book is only available in Spanish and French).

The mission of IVIS is to develop, organize and deliver up-to-date, reliable, expert information in all disciplines of animal health care and veterinary medicine to practitioners, students and veterinary technicians worldwide. At its conception, IVIS was created as a not-for-profit organization and as such had no obligation towards investors. Secondly, IVIS was created independent from any university or learning institution. It was felt that this was important at the onset because it would prevent having IVIS labeled as part of a particular university. This made it easier to involve teachers and scientists from several institutions and include their material. Not being associated with one institution, one country, one region, was important to give IVIS a place in the worldwide veterinary community.

Mindful to stay independent, IVIS does not have a faculty body and is not accredited to offer courses or grant degrees, or provide continuing education credits. Academics are free to use IVIS resources in their teaching programs, subject to the provision that the source of the material be identified as that of the International Veterinary Information Service. IVIS currently provides access to over 45 520 topical documents organized into electronic books each edited by highly qualified experts; proceedings of veterinary meetings, and journals maintained on the IVIS server, as well as several veterinary-oriented information databases including the IVIS Calendar searchable by location, species and/or organization, listing over 1 000 meetings, courses (on site and on line), and webinars worldwide. IVIS also offers links to other on-line Proceedings; lecture notes of short courses; continuing education resources including course lecture notes, manuals, and catalogues of links to web-based auto tutorials, links to abstracts of publications in veterinary journals; a catalogue of hundreds of Internet sites that are relevant to veterinary medicine. An online veterinary

educational course catalog from 5 international providers is also offered.

IVIS works together with local organizations to communicate, modify and improve the information provided in its website. Likewise, members submit the Internet addresses (URLs) and descriptions of links to veterinary information and educational resource websites that they have found to be special and useful.

IVIS depends in part on its members to make the educational and professional community aware of the IVIS initiative (viral growth). This is done by informing colleagues, through ad placement in Journals and other veterinary websites, and by distributing the website URL in email messages, as well as by using the internal email function provided in IVIS to share individual book chapters and other documents with fellow students and colleagues. IVIS counts on current student members to invite newly enrolled students to discover the website and its many priceless resources. Twice a year, IVIS holds a "Student Membership Campaign", once for the Northern Hemisphere and once for the Southern Hemisphere, hoping to reach as many students as possible worldwide. Current student members can share their own experience using the IVIS website validating the services offered and confirming that all services are offered for free. It is particularly important to attract student members as they are the future professionals.

IVIS is also very active in social media, with a Facebook page, a LinkedIn page and a Twitter account. These portals are regularly updated announcing new publications recently made available on line and providing information about upcoming meetings and courses related to veterinary medicine. This has proven to be a very effective means to reach out to students and colleagues of all ages.


IVIS continues to be interested in adding additional e-books and proceedings, which may be proposed by practitioners and veterinary organizations. IVIS receives many requests to publish books and reviews on all sorts of topics and species written by members who wish to share their work with the veterinary community through open access.

In 2001, IVIS created the Spanish Initiative where Spanish-speaking faculty and other professionals are invited to provide Spanish translations of any of the IVIS book chapters currently available on line. The idea is to provide translations by qualified individuals with a recognized interest, experience and expertise in their subject area. The goal is to translate publications into Spanish as a mean to provide up-to-date expert information to students and practitioners in Latin America, many of whom have no readily available alternative access to such information. Spanish translators are IVIS members who volunteer their services to translate IVIS publications. In 2005, because of the great success


of the Spanish translation initiative among IVIS members, it was decided to expand translations into French, Portuguese, Chinese, Dutch, and Russian. Journals in other languages (Spanish, German, Italian, Greek, and Polish) were also added to the collection of Journals published by or hosted in IVIS.

It is our hope that through IVIS, we will be able to continue to educate in order to better serve our animal clients, their owners, and perhaps also improve life in our communities.

*Submitted on invitation.
Accepted on 5 May 2016.*



International Veterinary Information Service



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Open access in the eyes of its sharpest critic

An interview of Jeffrey Beall

Matti Myllykoski*

Helsinki University Library, Helsinki, Finland

* Matti Myllykoski is chief information specialist and a critical friend of open access

Abstract

Jeffrey Beall is famous for his website Scholarly open access (<http://scholarlyoa.com>). There he actively keeps up a critical list of predatory open access publishers who shamelessly use the golden open access model for easy financial profit. Beall has become known as a critic of open access publishing in general and as a proponent of the traditional publishing model. This interview aims at giving an overall picture of his views and opening doors to the ongoing dialogue between the friends and opponents of the open access publishing model.

Key words: periodicals as topic; peer review; research publishing; scientific misconduct.

Jeffrey Beall has made a quarter of a century career as an academic librarian. He is located in Denver, Auraria Library. He has published extensively on metadata and information retrieval, but he has become famous for his website Scholarly open access: Critical analysis of scholarly open access publishing (<http://scholarlyoa.com>). On his page, Beall actively keeps up a critical list of predatory open access publishers who shamelessly use the golden open access model for easy financial profit. These publishers charge high fees to authors of the articles and publish almost anything without a proper peer review system as well as give their numerous journals hollow and misleading titles. Usually such a publisher hides behind an impressive name that hints at a serious academic institution, which, in turn, can finally be located in a private address in a developing country, very often in India, Pakistan or Nigeria. Openness and transparency cannot be counted among the virtues of these publishers.

In summer 2016 Beall's list covers 1028 "questionable, scholarly open-access publishers" as well as 1065 independent OA journals. There are also two new lists, one on the journals using misleading metrics (2016: 44 journals) as the other on hijacked journals (2016: 113 journals). The value of Beall's work is obvious, because even DOAJ (Directory of Open Access Journals) has not – until

quite recently – monitored closely the quality of the journals it puts in the directory. Beall accompanies his listings with sharp comments that these publishers and their journals deserve. He has also published a list of the criteria that he uses in monitoring predatory open access publishers. Some of the journals listed by Beall are published in good faith, but their content is very poor. Very often these journals are published in the developing countries and they have neither economic nor intellectual resources to do any better.

Beall's interest in questionable OA publications began when he published a review of the publisher named Bentham Open in 2009 (<http://eprints.rclis.org/13538/1/s8.pdf>). This publisher is still on Beall's list and is still active. Beall's actions have, in some cases, made the targets of his critiques very upset. In May 2013, the India-based OMICS Publishing Group threatened him with a demand of billion-dollar compensation. The linguistic formulation of the threat included a hilarious feature: "... you will be completely exposing yourself to serious legal implications including criminal cases *lunched* [italics mine] against you in INDIA and USA." OMICS is still on Beall's list, and there is no doubt about the true nature of the activities of this publisher.

Beall has become known as a critic of open access publishing in general and as a proponent of the

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traditional publishing model. He has openly supported Elsevier against its critics. A furor was raised by his article “The open-access movement is not really about open access” (tripleC: communication, capitalism & critique, 2013; <http://triplec.at/index.php/tripleC/article/view/525/514>), in which he claimed that “the real goal of the open access movement is to kill off the for-profit publishers and make scholarly publishing a cooperative and socialistic enterprise. It’s a negative movement”. This statement led to a strong reaction from the open access protagonists; these reactions can be easily found on the Net. In the United States, the battle for and against open access has been, particularly in past two years, much more vehement than in Europe.

In 2013, John Bohannon’s article “Who’s afraid of peer review?” appeared (<http://www.sciencemag.org/content/342/6154/60.full>), in which he exposed the lacking or dysfunctional peer review system of a great number of open access journals. Bohannon sent a scientifically flawed article to 304 journals. From these 157 agreed to publish it without further ado and 98 journals discarded it. Of the remaining 49 journals 20 had closed down, and 29 journals did not respond to the offer. Bohannon’s successful scam hit DOAJ very hard, and he could state that 45% of the DOAJ publishers that completed the review process, accepted the bogus paper. As for Beall’s list, 82% of the journals listed there accepted the propose article, but 18% understood to reject it. In 2015, DOAJ went through a serious quality evaluation process. By now, some 6 % of the DOAJ journals are still on Beall’s list.

Interview

MM: Matti Myllykoski

JB: Jeffrey Beall

MM You seem to think that, in a way, all scholarly open access is more or less problematic. Using carefully formulated criteria, you list questionable, that is “potential, possible, or probable predatory scholarly open-access publishers”. Some say that your trigger finger is very sensitive and that you may include some journals or publishers which work honestly, albeit on a modest scientific level. What is the right way to read your list and get your point?

JB The mission of my lists is to help scholarly

authors avoid becoming the victims of predatory and questionable publishers and journals. I would ask that researchers accept and use the lists as advice or recommendations on which journals and publishers may not be good venues for their work. I am certain that honest researchers want to submit their work to only the best scholarly publishers, and I aim to help them avoid the counterfeit and questionable publishers that may look legitimate but are not.

The open-access movement has enabled and facilitated the creation of hundreds of corrupt open-access publishers, but open-access advocates are largely silent about their abuses, while every day more and more researchers, especially those in poor and developing countries, are victimized by predatory publishers.

MM You have made a case about some ideological features in the open access movement. You name it anti-corporative and even socialist. While some responses from the OA movement take your claim rather personally, I assume that you are not attacking individuals but talking about a perilous overall trend in that movement. What do you precisely mean? Does an ideological bias in the OA movement open a wild and uncontrollable slippery slope from economically and scientifically honest open access publishers to completely unethical predators? Does the traditional publishing model (still) alone guarantee the scientific quality of publications?

JB No publishing model guarantees scientific quality. It’s no secret that higher education in the West is dominated by “progressive” thought. This domination fosters the implementation of policies that restrict the freedoms of individuals and organizations. I think that the open-access movement is a manifestation of this tendency towards authoritarianism and the denial of individual freedoms. Open access “mandates” are an example of this, an application of coercion by the powerful over those with less power.

Moreover, it’s evident that the open-access movement has a big, personal hang-up with the publisher Elsevier, and many open-access advocates share in a collective fetish that centers on destroying the publisher. It’s a very unhealthy, perhaps even pathological, collectivist groupthink.

MM I know many European advocates of the golden open access model who see here an alternative

publishing model that is good for competition and transparency of the publishing costs. Many publishers are in dialogue with the open access movement and have already implemented open access as one part of their publishing strategy. What do you think about promoting this kind of parallel development?

JB To fully answer this question, I need to separate the theory from the practice. In theory, open access sounds like a good idea. Researchers have grants or institutional funding that they can use to pay author fees, and then all research is published open-access and made freely available and freely licensed for re-use in future articles. The publishers are honest, charge low fees, and uphold high publishing standards. Everybody is happy and the system works perfectly. Human knowledge progresses quickly.

In practice, this is only a dream. We have hundreds of dishonest open access publishers that only want to earn as much money from researchers with the minimum effort and investment possible. It is difficult to tell the honest ones from the dishonest ones. Every day, the publishers send out thousands of spam email messages that waste researchers' time. They cheat on peer review because they want to accept as many papers as possible to increase their revenue. Researchers have to spend extra time sorting through good and bad articles. Much pseudo-science is published and included in academic search engines.

While there are some open access journals and publishers who are honest, many are too expensive for authors to use, especially authors from middle and lower income countries and authors without grant funding. Others have lowered their standards and do "peer review lite" in order to be able to accept more papers and earn enough revenue to keep the company profitable. These mega-journals begin to seem more like repositories than scholarly journals. Because open-access advocates are trying to "sell" open access to researchers, they neglect to mention the negative aspects and only describe the benefits, effectively tricking researchers into supporting open access publishing when it may not be in their best interest.

In terms of costs, gold open access focuses the costs on the authors of each published issue, usually a small number. The subscription model spreads out the costs among many subscribers, allowing for a

greater investment in quality publishing for the readers and authors.

MM From European academic perspective, the difference between honest and dishonest open access publishers seems to be rather clear. The indicators which you follow in exposing the dishonest ones – and there are, as you demonstrate, hundreds of them – make easily evident who is just trying to make profit at the cost of open science. This is your invaluable service to all of us, including those who promote fair open access publishing. The honest publishers, in turn, are strongly tied to traditional and well-trusted academic institutions. They have a board of distinguished experts, and their peer review policy and practice are sustainable. To be sure, there are borderline cases and surprises, as, for example, John Bohannon's hoax reveals. However, the scientific communities in Europe and Northern America are able to make a distinction between good and worthless publications. As we well know, there are also examples of toll access publishers who do not pay enough attention to the quality of the articles in their journals.

In what way is the existence of countless predatory open access journals an argument against the Open access as a way of publishing? I think that your argument against open access movement as a whole becomes more valid if you can show how quality of scientific publishing in European universities declines as they adapt to the open access publishing models. Saying this, I absolutely agree with you that the negative side of the open access has not received enough attention. DOAJ, in particular, is facing a great challenge in clearing their directory from predatory journals.

JB I think that the future of scholarly publishing will see a mix of publication models for journals. I think the platinum model (free to authors and free to readers) is the best open access model because it eliminates the conflict of interest the gold model has. I have published scholarly articles in platinum OA journals. Still, platinum OA focuses the costs of publishing on a single funder. Platinum may not be able to compete well with subscription journals because it often operates on a tight budget. Individual platinum OA publishers may not be able to offer as many value-added features that benefit authors and readers, as top subscription journals do, because they may lack sufficient resources to

develop and offer them. We will likely continue to have gold OA journals in the future, as well as subscription journals.

One problem is that the practice of payments from authors has fostered the creation of many scams, beginning with predatory journals. But because gold open access “legitimized” the system of payments from authors, there are many publishing-related scams that now exist. These include fake impact factor companies, hijacked journals, and predatory author services companies (such as copyediting and translation companies). It seems like every criminal now wants to earn money from researchers by providing a corrupt service to them. The researchers with grants are the most targeted.

Another problem with the abundance of gold open-access journals is that too many scholarly articles are now being published. This makes it difficult for researchers, because they have to spend extra time sorting through the search results when they are doing research. They have to determine which articles are worth examining and which should be discarded. There are more to discard now, and this takes time. Researchers completing systematic reviews also need to be extremely careful to eliminate low quality articles.

Regarding DOAJ, the truth is that it never really recovered from the 2013 Science sting, in which 45% of the journals sampled from DOAJ accepted a bogus science article. The directory’s officials have always been too political in their motives and DOAJ has floundered. It naïvely over-relies on publisher-supplied data, so much of the data in the directory now is untrustworthy and outdated.

MM As for your own black list of OA publishers and journals, there are some borderline cases. Some 18% of the journals you listed passed Bohannon’s test and thus seem to have higher scientific standards than you have suggested. On the other hand, you have not included in your list some journals which have some characteristics of predatory journals but have some other features which make them a bit better, e.g. practice of post-publication review. Knowing that you have carefully listed the criteria you use in evaluating scholarly open-access publishers and journals (<https://scholarlyoa.files.wordpress.com/2015/01/criteria-2015.pdf>), I still ask you: how would you evaluate the challenge of such borderline cases? Which are the most difficult characteristics of

publishers and journal which at the same time may or may not be added to your list?

JB Let’s remember that Bohannon’s article was published almost three years ago, and the data was gathered before that. In the fast-paced and constantly-changing world of scholarly publishing, that’s a long time. Also, my analyses of publishers and journals are broader than examining how they handled a single article. Any analysis has to be comprehensive and not look at just one event.

What I’ve tried to do with borderline cases is to adjust my practice so that borderline cases are not added to the lists. If I find a particular publisher or journal to be borderline, I don’t add it to the list. The lists are reserved for the worst of the worst. In most cases, the decision to add a publisher to the list is easy because the predatory characteristics are so obvious. They use fake impact factors, they promise a one-week peer review, their articles contain lots of plagiarism – in most cases I think all reasonable people would agree with my decision to add the publishers and journals to my lists.

MM You have also doubts about at least some forms of the green OA. What do you think of European institutions that use parallel publication of toll access articles in institutional repositories as a solution to the growing demands of OA publishing within EU?

JB I think green open access, which is more aptly called coercive open access, has largely failed. A small cadre of activists has been promoting it for almost 15 years, yet it has never taken off – it’s largely unsuccessful. On top of that, many academic libraries have invested millions of dollars and countless hours of staff time in digital repositories, yet the return on these investments has been meager. In fact, the money would have been better spent on licensing intellectual resources. Green open-access has been a failure from the start, but political correctness prevents people from telling the truth about it.

MM What do you think about initiatives like Knowledge Unlatched? Do you think that the OA movement and the publishers could co-operate in developing new publishing models? What would that mean for scientific libraries?

JB If people and organizations want to publish e-books for free, then that’s great. If they’re high quality, my library will include them in its online

catalog. The real question that is being missed here is: What will happen when we remove the incentives to produce new knowledge? If activists succeed in destroying the profit motive in publishing, then human and scientific progress will suffer significantly.

MM Here is a table (*Table 1*) on which you might find interesting (thanks to Janne Pölönen). There may be some minor mistakes about the exact numbers, since the official statistics is based on information provided by scholars themselves. Be as it may, the amount of open publications is 13194, and of these 727 (5.5%) has been published in publications which you have exposed as predatory or suspicious.

MM OA movement has a global agenda in making scientific knowledge accessible to all – a goal which is misused by predatory publishers. How could the traditional model, which you find better, be used for the common good that the OA movement has propagated?

JB Author fees are now the norm for many components of scholarly publishing. These fees favor well-funded researchers and discriminate against those with little or no research funding. In fact, there is evidence that the fees are silencing researchers in many parts of the world.

The Research4Life program provides free or highly-discounted access to thousands of subscription journals to universities and research institutes in

Finnish Peer-reviewed Scientific Publications in 2011-2014	All peer-reviewed publications	OA peer-reviewed publications
Not on the Beall's list	97502 (99%)	12467 (94%)
On the Beall's list	1112 (1.1%)	727 (5.5%)
All	98614 (100%)	13194 (100%)

Table 1. *Publishing in predatory journals among Finnish scholars*

I assume that most Western European scholars are relatively well aware of predatory OA publishers and the problems involved with them. Would you disagree? What kind of scholars fall prey to the open access predators?

JB If you are arguing that predatory publishers and journals are not really a problem, it's probably because you're from Western Europe, where nanny governments make decisions for everyone and deploy entrenched bureaucracies to control every aspect of the research and scholarly publishing processes. It may also be a result of ethnocentrism, as predatory publishers are destroying research cultures in many parts of the world, such as the Global South, but their effects have not been as strongly felt in the West. Many Westerners selfishly and wrongly conclude that because predatory journals are not a problem for them personally they are not a problem at all.

developing countries. In the past researchers in these countries had free publishing and free access to research; now in many cases they must pay to publish, often out of their own pockets.

The subscription model has a quality-control feature built into it. If a journal publishes low-quality articles, libraries will cancel their subscriptions. In this way, consumers – subscribers – provide a group quality-control function. With open-access journals, there's no subscription to cancel, so the validation function is lost, a result clearly demonstrated by the proliferation of thousands of predatory and low-quality journals.

Note
The interview was made at Denver in June 2015 and after that through e-mail exchange in Fall 2015.

Some data were updated at May 2016.

An international study of consumption and contribution to social media by medical students

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Abstract

Understanding how students and educators use social media, and their perceptions of its benefits, may lead to opportunities for successful integration of social media to benefit all those involved in medical education. We aimed to explore and describe how medical students use social media in countries across the world, including the extent to which they consume and contribute. 741 students from 8 institutions in 5 countries answered a 16-item questionnaire. The majority of students were using some form of social media, with the most popular application being Facebook. Social communication and entertainment were the most cited reasons for using social media. Students reported valuing social media for educational reasons and, in particular, information and resource sharing between peers. Institution-student interactions were not common amongst medical students and whilst some students reported wanting more of this, others reported that they did not. The paucity of student-institution interactions on social media did not vary across institutions. Although some students could see benefits to increasing use of social media by medical schools, others had concerns about this. Of particular concern were confidentiality and professionalism online and the perception that the medical schools might not do it well. Medical schools should have a clear rationale for engaging further in social media, mindful of what students want and of the need for the engagement to be conducted professionally.

Key words: social media, undergraduate medicine, social learning

Introduction

“Web 2.0” is a group of online technologies that are user-centric and evolve with collective user participation, i.e., they go beyond the consumption of information to the collective sharing, dissemination and critique of content. Current students in higher education are generally highly familiar with Web 2.0 technologies and are thought to be proficient in mastering them (1). Social media platforms are products of Web 2.0 and include applications such as Facebook, Twitter and

YouTube. Whilst using these platforms, individuals become active participants in these environments by publishing personal information, which may include their interests, hobbies, photos and relationships. Some studies have attributed the successful adoption of social media in education to the current generation of students and their affinity to Web 2.0 technologies (2). These web based technologies offer the opportunity to transcend the geographical and time barriers which previously prevented high frequency, global communication.

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There are numerous examples of educational uses of social media. Dissemination of educational content and assignment tasks, and managing events have been made more efficient through social media technology (3). Many educators have migrated from the traditional classroom environment to the social media environment for content delivery (4). Others have displayed live “Twitter chats” during lectures to allow anonymised discussion and have used Twitter to convey reliable information sources to students (5). A systematic review found that use of social media tools was associated with improved academic performance, positive development of professional attitudes, enhanced learning engagement and greater collaboration between peers and medical professionals (6).

Despite this, the variability of student participation raises concerns from faculty about the effectiveness of social media in medical education because some students participate frequently and others not at all (6). In addition, students and faculty both expressed concerns about privacy, and that social media can be distracting and therefore might negatively affect academic performance (7). It has been reported that medical students may be unaware of how to safeguard themselves from the ethical and professional implications of everyday social media use (8).

Despite these concerns, students can work together on social media to achieve their learning goals, through what has been referred to as the “informal curriculum”. This involves students employing learning behaviours and study strategies that are not made explicit in the formal curriculum. The informal curriculum is more opportunistic and idiosyncratic than the formal. It takes place in clinical settings, random patient encounters, or even corridor interactions with registrars and consultants (9). The informal curriculum is crucial to medical students in overcoming perceived gaps in the formal curriculum, in particular via collaboration with peers to share educational content and to enhance the overall learning experience (10).

Although there are many potential uses of social media for the education of health professionals, questions remain about how learners use the technologies and how they perceive their use (11). Understanding how students and educators view social media use is important if social media is to be integrated into medical education programmes.

These perceptions and experiences could be institution or nationality specific and therefore, if generalizable conclusions are to be made, a wide range of institutions would need to be involved. Previous research has concluded that the motivations for using social media, such as communication, entertainment, and seeking friends, are the same across cultures (12).

We aimed to discover which social media platforms medical students use and for what purpose, and specifically how they use social media in their studies. In particular, we wanted to examine whether students were primarily consumers of social media content or whether their use of social media was in line with the Web 2.0 ethos of collective user participation. We also wanted to explore how students used social media to interact with their peers (local and global) and their medical school. Lastly, we investigated whether the perceptions of medical students about their medical school's use of social media was accurate.

Methods

Participants

Participants were medical students, in any year of study from medical schools in Europe, North America, Asia and Australasia.

Procedure

The study was an international multi-centre survey. Thirty-two medical schools in 9 countries were contacted via email and social media by the authors. Next, academic staff from 21 of these medical schools, who expressed an interest in participating, were contacted via email. Of these, 12 sought and received local ethics approval. Once agreed at institutional level, students and staff were recruited by email and local announcements, as was usual for each institution. Data were collected over a 10-month period using an online survey on Google Docs, ending in each institution when returns had been zero for approximately one month.

Materials

We developed a 16-item online questionnaire, based on a review of existing literature. We conducted an initial search of the literature, using search terms “social media” “social networking” AND “higher education” in Google Scholar (no publication date

delimiter). This returned 137 results. We screened these for relevance and seven were fully reviewed. A second search in Medline, EMBASE and AMED using search terms “medical education” AND “social media” OR “Facebook” OR “Twitter” with publication date from 2004-2014, written in English, yielded 12 papers. Screening for relevance identified four papers for full review. A final search in PubMed, using search terms “social media” AND “medical education” in titles and abstracts (publication date 2004-2014) yielded 24 papers that were screened for duplication and relevance. Three of these papers were included in the review. Question stems were generated after a literature review and refined after informal piloting with a convenience sample of medical students at a UK medical school. Questions consisted of multiple answer stems or open ended responses. The questions were divided into three themes: 1) demographics; 2) everyday use of social media; 3) learning with social media. Questions under the second theme were designed to evaluate non-educational interactions on social media (for example, chatting with friends, uploading and sharing holiday photos, etc.). Questions under the third theme were focused on educational interactions: where the result of the interaction may have aided the user in their medical education (for example, discussing problem-based learning cases with peers via Facebook).

Analyses

Quantitative data were summarised and presented as percentages. Qualitative data were analysed thematically, using constant comparisons. Two

coders worked together discussing themes as they arose, and going forwards and backwards through the data, looking for disconfirmatory and confirmatory statements for each theme. Coders were blind to institution and nationality of participants during the coding process. Blinding was removed afterwards so that participant quotes could be identified and presented in the results.

Ethics approval

Ethics approval was granted by the Committees on the Ethics of Research on Human Beings at The University of Manchester, United Kingdom (Ref. no. 14100) and each local medical school ethics committee.

Results

Participants

871 students from 21 medical schools submitted responses. One-hundred and thirty medical students from thirteen medical schools were excluded from our study because either they had a poor response rate per institution (< 1% of the student body responding), they advertised the study on social media (thus introducing significant potential for bias into the sampling) or because their medical school had not successfully gained ethics committee approval for participation. Eight medical schools were included in the analyses.

Demographic characteristics of sample

A total of 741 undergraduate medical students from eight medical schools were included in our study. These schools came from the UK (1 school), Australia (4 schools), Canada (1 school), Saudi Arabia (1 school) and Kuwait (1 school). *Table 1*

	Mean age (SD)	Age Range	Female n(%)	1st	2nd	3rd	4th	5th	6th	7th	Intercalation	U	P
Total (N=741)	22.83 (3.8)	17-54	447 (60)	125 (17)	146 (20)	195 (26)	151 (20)	70 (9)	46 (6)	5 (1)	3 (<1)	567	174
Australia1 (n=101)	20.95 (2.8)	17-44	58 (57)	17	13	53	5	8	5	0	0	46	0
Australia2 (n=112)	21.37 (1.9)	17-29	71(63)	17	14	23	19	22	17	0	0	3	106
Australia3 (n=74)	24.49 (5.1)	19-48	42 (57)	32	20	9	12	0	0	0	1	57	11
Australia4 (n=109)	26.54 (5.6)	21-54	65 (60)	26	32	19	32	0	0	0	0	141	3
Canada (n=68)	25.00 (2.8)	20-34	41(60)	21	22	11	14	0	0	0	0	85	2
UK (n=144)	22.19 (1.8)	18-29	87 (60)	6	10	48	57	17	4	0	2	22	52
MiddleEast1 (n=87)	21.33 (1.6)	19-26	66 (76)	0	20	14	10	21	17	5	0	112	0
MiddleEast2 (n=46)	20.76 (1.4)	18-24	17 (37)	6	15	18	2	2	3	0	0	101	0

Table 1. Age, gender, year of study and graduate status of participants

U = undergraduate, P = postgraduate, SD = standard deviation

summarises the demographic characteristics of the participants, including age, gender and year group.

Social media use

Facebook was the most popular social media website for browsing among medical students, followed by YouTube, Instagram, Twitter, Tumblr, Pinterest, Google Plus and Flickr. Only 9/741 (1%) students stated that they did not use social media at all (see *Table 2*).

Participants favoured Facebook for posting on social media, followed by Instagram, Twitter, Tumblr, Pinterest, YouTube, Google Plus and Flickr. 35/741 (5%) students stated that they did not post on social media (see *Table 2*).

Purpose of social media use

Students most common reason for personal use of social media was “social interaction” (604/741: 82%), followed by “entertainment” (583/741: 79%) and then “seeking information” (529/741: 71%).

We confirmed that all medical schools included in our study had an active online presence on social media, evidenced through their open-access social media accounts and written confirmation from e-learning leads at each medical school. However, only 259/741 (35%) of students reported that their institutions had an active social media presence. Many medical students were unsure as to whether their medical school was active on social media (297/741, 40%). Those medical students who were either unsure or strongly believed that their medical school was active on social media were then asked to specify the application. The application that most students believed their medical school used was Facebook ($n = 337$, 45.5%), followed by Twitter ($n = 266$, 35.9%), YouTube ($n = 85$, 11.5%), and Instagram ($n = 54$, 7.3%). A full description of the applications that students thought their schools were using and the applications they were actually using is in *Table 3*. The majority of medical students had never replied to a post made by their medical school on social media ($n = 547$, 73.8%).

Educational use of social media

Most medical students opted to use Facebook for educational purposes because they could communicate with their peers (599/741: 81%) and engage in group discussion with open or private

settings (471/741: 64%). Other popular reasons for using Facebook as an educational tool included seeking information (421/741: 57%) and sharing information (316/741: 43%). A small minority of students also cited professional networking (146/741: 20%), receiving feedback (35/741: 5%), and reflecting on clinical experiences (30/741: 4%) as educational benefits. Only a very small number of medical students contacted their tutors or lecturers on Facebook (44/741: 6%). Over a tenth of students (106/741: 14%) did not use Facebook for education reasons.

Similarly, very few students communicated with their tutors or lecturers using Twitter (43/741: 6%). In contrast to Facebook, the majority of medical students did not use Twitter at all for educational purposes (484/741: 65%). Those who did use Twitter mostly did so in order to seek information (118/741: 16%) or to communicate with their peers (111/741: 15%). Other reasons for using Twitter in an educational capacity included sharing information (70/741: 9%), following Twitter hash-tags related to their learning objectives (70/741: 9%), professional networking (63/741: 9%), receiving feedback (30/741: 4%) and reflecting on clinical experiences (19/741: 3%).

Qualitative analysis

We asked participants two free text questions: “Do you believe social media has a place on the medical curriculum?” and “Please describe in a few words your most recent interaction on a social media website”.

In answer to the first question, over two-thirds of students stated “yes” that “some” social media had a place on the medical curriculum (467/741: 63%), a minority of students answered “no” (111/741: 15%) and around one-fifth of students were unsure (162/741: 22%). We analysed the responses thematically, looking specifically for the ways that participants spoke about their use of social media for educational purposes, including their perceptions of its usefulness, barriers to use, their reasons for using it and their perceptions of the role of their medical school in relation to educational use.

Themes

Some social media was thought to be useful and appropriate for peer to peer communication, including:

Social media and medical students

	Do you believe social media has a place on the med curriculum? N(%)			Have you ever replied to a post by your med school? N(%)			Posting and browsing on platform			Reasons for using social media n(%)		Educational reasons for using platform		
	Y	N	Not Sure	Yes	No	Not sure		Browse regularly* n(%)	Post regularly* n(%)				Facebook* n(%)	Twitter* n(%)
Total (n=741)	467 (63)	111 (15)	162 (22)	100 (14)	547 (74)	50 (7)	Facebook Twitter YouTube Instagram Pinterest Flickr Tumblr Google+ Other Don't use	644 (87) 247 (33) 571 (77) 349 (47) 83 (11) 7 (1) 85 (12) 42 (6) 56 (8) 9 (1)	481 (65) 150 (20) 18 (2) 240 (32) 32 (4) 5 (1) 38 (5) 12 (2) 27 (4) 35 (5)	Seek information Share information Social interaction Entertainment Relaxation Comment/discussion Follow friend' posts Network/career Other	529 (71) 434 (59) 604 (82) 583 (79) 429 (58) 333 (45) 525 (71) 144 (19) 10 (1)	Communicate with peers Communicate with tutor Group discussion Seeking information Sharing information Feedback Reflection Networking Follow hashtags Don't use Other	599 (81) 44 (6) 471 (64) 421 (57) 316 (43) 35 (5) 30 (4) 146 (20) - 106 (14) 8 (1)	111 (15) 43 (6) - 118 (16) 70 (9) 30 (4) 19 (3) 63 (9) 70 (9) 484 (65) 3 (1)
Australia1 (n=101)	57 (56)	12 (12)	32 (32)	4 (4)	77 (77)	4 (4)	Facebook Twitter YouTube Instagram Pinterest Flickr Tumblr Google+ Other Don't use	100 (99) 19 (19) 78 (77) 49 (48) 11 (11) 1 (1) 15 (15) 1 (1) 7 (7) 1 (1)	75 (75) 8 (8) 1 (1) 31 (31) 2 (2) 1 (1) 8 (8) 1 (1) 3 (3) 5 (5)	Seek information Share information Social interaction Entertainment Relaxation Comment/discussion Follow friend' posts Network/career Other	75 (74) 65 (64) 91 (90) 79 (78) 61 (60) 48 (48) 75 (74) 18 (18) 1 (1)	Communicate with peers Communicate with tutor Group discussion Seeking information Sharing information Feedback Reflection Networking Follow hashtags Don't use Other	98 (97) 5 (5) 89 (88) 73 (72) 54 (54) 4 (4) 6 (6) 23 (23) 1 (1) 0	4 (4) 2 (2) - 6 (6) 3 (3) 1 (1) 1 (1) 3 (3) 3 (3) 78 (77) 1 (1)
Australia2 (n=112)	80 (71)	13 (12)	19 (17)	21 (19)	75 (67)	8 (7)	Facebook Twitter YouTube Instagram Pinterest Flickr Tumblr Google Plus Other Don't use	104 (93) 14 (13) 94 (84) 46 (41) 13 (12) 0 21 (19) 3 (3) 7 (6) 2 (2)	81 (72) 9 (8) 1 (1) 26 (23) 5 (5) 0 15 (13) 0 3 (3) 9 (8)	Seek information Share information Social interaction Entertainment Relaxation Comment/discussion Follow friend' posts Network/career Other	84 (75) 70 (63) 92 (82) 93 (83) 79 (71) 58 (52) 81 (72) 23 (21) 3 (3)	Communicate with peers Communicate with tutor Group discussion Seeking information Sharing information Feedback Reflection Networking Follow hashtags Don't use Other	105 (94) 6 (5) 94 (84) 81 (72) 55 (49) 8 (7) 7 (6) (35) - (5) (2)	2 (2) 0 - 4 (4) 1 (1) 1 (1) 4 (4) 3 (3) 93 (83) 1 (1)
Australia3 (n=74)	34 (46)	16 (22)	24 (32)	3 (4)	62 (84)	5 (7)	Facebook Twitter YouTube Instagram Pinterest Flickr Tumblr Google Plus Other Don't use	71 (96) 7 (10) 47 (64) 15 (20) 2 (3) 0 7 (10) 2 (3) 3 (4) 2 (3)	34 (73) 3 (4) 0 12 (16) 0 0 1 (1) 1 (1) 3 (4) 6 (8)	Seek information Share information Social interaction Entertainment Relaxation Comment/discussion Follow friend' posts Network/career Other	48 (65) 40 (54) 56 (76) 53 (72) 41 (55) 36 (49) 50 (68) 12 (16) 2 (3)	Communicate with peers Communicate with tutor Group discussion Seeking information Sharing information Feedback Reflection Networking Follow hashtags Don't use Other	72 (97) 2 (3) 61 (82) 63 (85) 43 (58) 6 (8) 3 (4) 19 (26) - 2 (3) 1 (1)	1 (1) 0 - 1 (1) 1 (1) 0 2 (3) 61 (82) 1 (1)
Australia4 (n=109)	60 (55)	21 (19)	28 (26)	9 (8)	89 (82)	5 (5)	Facebook Twitter YouTube Instagram Pinterest Flickr Tumblr Google Plus Others Don't use	103 (95) 19 (17) 81 (75) 33 (30) 12 (11) 1 (1) 17 (16) 5 (5) 8 (7) 1 (1)	82 (75) 7 (6) 1 (1) 22 (20) 5 (5) 0 5 (5) 3 (3) 3 (3) 4 (4)	Seek information Share information Social interaction Entertainment Relaxation Comment/discussion Follow friend' posts Network/career Other	72 (66) 60 (55) 87 (80) 78 (72) 59 (54) 51 (47) 74 (68) 16 (15) Other 0	Communicate with peers Communicate with tutor Group discussion Seeking information Sharing information Feedback Reflection Networking Follow hashtags Don't use Other	101 (93) 4 (4) 77 (71) 76 (70) 57 (52) 4 (4) 5 (5) 20 (18) - 7 (6) 2 (2)	3 (3) 1 (1) - 8 (7) 4 (4) 0 3 (3) 4 (4) 6 (6) 88 (81) 0
Canada (n=68)	50 (74)	5 (7)	13 (19)	16 (24)	47 (69)	5 (7)	Facebook Twitter YouTube Instagram Pinterest Flickr Tumblr Google Plus Others Don't use	66 (98) 28 (41) 53 (78) 32 (47) 13 (20) 0 7 (10) 8 (12) 1 (2) 1 (2)	52 (77) 14 (21) 1 (2) 25 (37) 1 (6) 1 (2) 2 (3) 1 (2) 0 1 (2)	Seek information Share information Social interaction Entertainment Relaxation Comment/discussion Follow friend' posts Network/career Other	56 (82) 43 (63) 54 (79) 58 (85) 43 (63) 34 (50) 48 (71) 14 (21) 1 (2)	Communicate with peers Communicate with tutor Group discussion Seeking information Sharing information Feedback Reflection Networking Follow hashtags Don't use Other	63 (93) 2 (3) 47 (69) 51 (75) 36 (53) 2 (3) 5 (7) 10 (15) 13 (19) 3 (4) 1 (2)	9 (13) 7 (10) - 20 (29) 11 (16) 4 (6) 4 (6) 8 (12) 13 (19) 42 (62) 0
UK (n=144)	84 (58)	29 (20)	30 (21)	9 (6)	127 (88)	5 (4)	Facebook Twitter YouTube Instagram Pinterest Flickr Tumblr Google Plus Others Don't use	143 (99) 55 (38) 106 (74) 60 (42) 26 (18) 2 (1) 6 (4) 6 (4) 5 (4) 1 (1)	106 (74) 28 (19) 2 (1) 47 (33) 13 (9) 1 (1) 0 1 (1) 3 (2) 3 (2)	Seek information Share information Social interaction Entertainment Relaxation Comment/discussion Follow friend' posts Network/career Other	97 (67) 87 (60) 122 (85) 117 (81) 85 (59) 57 (40) 112 (78) 25 (17) 3 (2)	Communicate with peers Communicate with tutor Group discussion Seeking information Sharing information Feedback Reflection Networking Follow hashtags Don't use Other	122 (85) 4 (3) 73 (51) 51 (35) 45 (31) 3 (1) 3 (1) 24 (17) - 22 (15) 1 (1)	16 (11) 8 (6) - 21 (15) 10 (7) 1 (1) 0 8 (6) 15 (10) 92 (64) 0
Middle East1 (n=87)	68 (78)	6 (7)	13 (15)	22 (25)	52 (60)	8 (9)	Facebook Twitter YouTube Instagram Pinterest Flickr Tumblr Google Plus Others Don't use	14 (16) 75 (86) 73 (84) 78 (90) 5 (6) 0 5 (6) 12 (14) 12 (25) 1 (1)	6 (7) 56 (64) 1 (1) 53 (61) 2 (2) 0 2 (2) 1 (1) 10 (12) 3 (3)	Seek information Share information Social interaction Entertainment Comment/discussion Follow friend' posts Network/career Other	64 (74) 39 (45) 69 (79) 77 (89) 38 (44) 28 (32) 56 (64) 24 (28) 0	Communicate with peers Communicate with tutor Group discussion Seeking information Sharing information Feedback Reflection Networking Follow hashtags Don't use Other	7 (8) 1 (1) 4 (5) 3 (6) 4 (5) 0 1 (1) 3 (3) - 64 (74) 1 (1)	39 (68) 12 (14) - 45 (52) 31 (36) 15 (17) 11 (13) 27 (31) 18 (21) 13 (15) 0
Middle East2 (n=46)	34 (74)	9 (20)	3 (7)	16 (35)	18 (39)	10 (22)	Facebook Twitter YouTube Instagram Pinterest Flickr Tumblr Google Plus Others Don't use	43 (94) 30 (65) 39 (85) 36 (78) 1 (2) 3 (7) 7 (15) 5 (11) 3 (7) 0	25 (54) 25 (54) 11 (24) 24 (52) 1 (2) 2 (4) 5 (11) 4 (9) 2 (4) 4 (9)	Seek information Share information Social interaction Entertainment Relaxation Comment/discussion Follow friend' posts Network/career Other	33 (72) 30 (65) 33 (72) 28 (61) 23 (50) 21 (46) 29 (63) 12 (26) 0	Communicate with peers Communicate with tutor Group discussion Seeking information Sharing information Feedback Reflection Networking Follow hashtags Don't use Other	31 (67) 20 (44) 26 (57) 21 (46) 22 (48) 8 (17) 0 8 (17) - 2 (4) 0	17 (37) 13 (28) - 13 (28) 9 (20) 9 (20) 0 7 (15) 10 (22) 17 (37) 0

* Respondents may have selected more than one answer to this question; † Medical school is confirmed to be active on this social media application; - option not given for this platform.

Table 2. Social media use in medical schools

	Facebook		Twitter		YouTube		Instagram		Flicks		Tumblr		Google Plus		Other	
	A*	B**	A	B	A	B	A	B	A	B	A	B	A	B	A	B
Australia1 (n=101) No social media	21 (21)	5 (5)	7 (7)	19 (19)	3 (3)	23 (23)	4 (4)	22 (22)	0	26 (26)	0	26 (25.7)	0	26 (26)	2 (2)	24 (24)
Australia2 (n=112) Fb, Tw	68 (61)	3 (3)	9 (8)	62 (55)	15 (13)	56 (50)	2 (2)	69 (62)	0	71 (63)	0	71 (63.4)	0	71 (63)	1 (1)	70 (63)
Australia3 (n=74) Fb, Tw, YT, I, F, T, G Other	33 (45)	3 (4)	11 (15)	25 (34)	2 (3)	34 (46)	0 (0)	36 (49)	0	36 (49)	0	36 (48.6)	1 (1)	35 (47)	0	36 (49)
Australia4 (n=109) Fb	63 (58)	7 (6)	14 (13)	56 (51)	13 (12)	57 (52)	0 (0)	70 (64)	0	70 (64)	0	70 (64.2)	0	70 (64)	1 (1)	69 (63)
Canada (n=68) FB, Tw, YT	46 (68)	13 (19)	48 (71)	11 (16)	6 (9)	53 (78)	11 (16)	48 (71)	0	59 (87)	1 (2)	58 (85.3)	0	59 (87)	2 (3)	57 (84)
UK (n=144) Fb, Tw, YT	68 (47)	47 (33)	85 (59)	30 (21)	40 (28)	75 (52)	2 (1)	113 (79)	0	115 (80)	1 (1)	114 (79.2)	1 (1)	114 (79)	2 (1)	113 (79)
MiddleEast1 (n=87) No social media	7 (8)	57 (66)	58 (67)	6 (7)	5 (6)	59 (68)	33 (38)	31 (36)	1 (1)	63 (72)	0	64 (73.6)	2 (2)	62 (71)	2 (2)	62 (71)
MiddleEast2 (n=46) Fb, Tw	31 (67)	12 (26)	34 (74)	9 (20)	1 (2)	42 (91)	2 (4)	41 (89)	0	43 (94)	0	43 (93.5)	2 (4)	41 (89)	3 (7)	40 (87)

*Thought their school was on that application; **Thought that their school was not on that application. The actual applications used per school are shown in the left column
Fb: Facebook; Tw: Twitter; YT: YouTube; F: Flickr; I: Instagram; T: Tumblr; G: Google+

Table 3. Number (%) of medical students who thought (group A) and did not think (group B) that their medical school was active on specified social media

- a) connecting with other students
“It helps us connect as a cohort and keep up to date with opportunities to socialize and go to educational events. Also to share lecture slides when they are not posted prior to a lecture.” (Student 280, Australia3)
“It is also a forum for students who are going through the same learning experiences to connect and share experiences, to broaden the scope of an individual student’s experiences and education” (Student 423, Canada)
- b) sharing information
“My medical school year group frequently uses our class Facebook page to share information.” (Student 290, Australia4).
- c) sharing resources
“I think free open access medical resources are very useful to disseminate high quality, peer reviewed, and up to date information. These resources seem to often be created by people who connect via social media and they are definitively shared on social media. Some of our lecturers used Twitter to answer student questions and highlight key learning points. While many questions are too complex for the limited space twitter provides, highlighting key learning points and linking to articles/etc. was very useful. I often follow my profs (especially those in fields I enjoy) on twitter because they post useful information/links/papers relevant to their field and I find it complements my in-class learning well.” (Student 434, Canada).
- d) discussing points relevant to their current learning.
“we use Facebook in our PBL group to discuss bits of the case we are unsure of before our closing case session” (Student 547, UK).
- Some students could see a purpose for greater involvement of their medical school on social media: “It is more convenient to use than any other forms of communication currently employed by universities.” (Student 129, Australia2); “The contact methods in use by the medical school are Byzantine and often hopelessly out of date” (Student 350, Australia4).
- This was tempered by student concerns about medical school involvement on social media. Specifically, they were concerned that:
- a) the medical school would not be proficient in their use of social media, that is, they would use it poorly and there was no reason for it. “I think that students use social media well to communicate and share information with each other, but generally faculty staff do not use these resources well.” (Student 1, Australia1). “A medical school getting on social media sounds like some social media consultant charlatan has convinced them that they

need to spend money on it and for what benefit? So they can seem cool?" (Student 388, Australia4).

b) The lines between professional and personal boundaries would be blurred by medical school involvement in social media, and this would be intrusive

"Social media is also a very personal and relaxed place, and therefore in order to be professional on social media most students would have to either create multiple accounts or not use it to relax and post social events" (Student 1, Australia1). "I believe the involvement of medical schools / staff in social media would effectively integrate social and educational issues to detriment; blurring professional boundaries." (Student 31, Australia1). "Social and educational platforms should be kept separate." (Student 131, Australia4). "I get enough information about the course from emails, I don't need it clogging up my Facebook news feed" (Student 583, UK).

c) The formal use of social media by medical schools could compromise student use due to faculty expectations relating to professional behaviour.

"Occasionally there will be a post that expresses the frustration that we all feel - and the freedom to do this openly is an important part of the dynamic that exists." (Student 50, Australia1). "(...) social media is not appropriate for direct teaching or learning or in depth discussion... learning and discussion must take place in an environment where there is no recording of an individual's contribution otherwise there is the risk of embarrassment, breach of privacy (patient details) and the perpetuation of incorrect information." (Student 340, Australia4).

The elements of social media that students reported finding useful were:

links and resources from the internet that were not necessarily developed by their own medical school; pieces of official information found online and passed onto them by colleagues; discussions about educational issues and topics with their peers / small group discussions / reflection and debriefing; past exam questions / quizzes; extra-curricular medicine / social or society events.

Social media was seen as an informal addition to the medical programme, with some supportive uses, as opposed to a core tool. "It's not a credible tool for learning new information and should only be used as a supplement" (Student 415, Canada).

We asked participants to describe their most recent interaction on a social media website, with the aim of capturing a "snapshot" of their lives on social media and to establish how likely a student may be using social media for educational purposes at a given time. The response rate to this question was 647/741 (86%). The themes we identified were coded as educational (E) or personal (P). Sometimes the descriptions of the interactions indicated multiple purposes for the interaction and so were coded into more than one category; there were 670 themes coded from the 647 interactions. Only 13% of interactions had an educational element, whilst 92% had a personal element. Table 4 provides the themes identified from the total number of responses in addition to their frequency and percentages.

Response	n (%)
Active engagement on social media for personal use (P)	448 (70)
Passive engagement on social media for personal use (P)	142 (22)
Information/resource dissemination (E)	26 (4)
Peer group collaboration (E)	23 (4)
Communicating with peers (E)	10 (2)
Reading online content (E)	8 (1)
Searching and collecting online content (E)	6 (1)
Watching videos of lectures (E)	7 (1)

Table 4. Students' descriptions of their most recent interaction on social media (n = 637)

P: personal use; E: educational use; some descriptions were coded for multiple types of activity therefore total number of activities is more than the total number of participants.

Discussion

We aimed to explore which social media platforms are used by medical students internationally. We found that Facebook was the most popular social media website for both personal and educational use amongst students in all medical schools except the medical school from Kuwait, where Twitter was the most popular platform.

Facebook and Twitter differ in the extent to which users may enforce privacy settings. Facebook provides controls that can easily be tailored so that different viewers can see different levels of information. This is not true with Twitter, which offers only the option to make the whole account public or private and to "block" people who you do not wish to view your posts. The overwhelming preference for Facebook over all other choices could result from medical students valuing the fact that

they can control how they are viewed by others on social media and indeed students' concerns about professional boundaries on social media were highlighted by our findings. However, it is also possible that the preference for Facebook is due to the predominance of Facebook as a social media platform per se. That is, that students use Facebook as their main social networking site and/or that so many students use it that others join simply because that is where they all. It might also be that Facebook is more popular due to the higher level of functionality: on Facebook it is possible to write longer posts, create separate groups etc.

Our qualitative findings also showed that some medical students considered that social media provided vital resources and that there might be a benefit for greater faculty involvement in this space. However, other students expressed some concerns about this. Students indicated that, due to the risk of confidentiality, ethical issues or simply not using the platforms well, educators should have minimum interactions with students on social media. Interestingly, our literature review found that postgraduates welcome social media connections with educators far more than do undergraduate medical students. Our study cannot definitively determine the reason for this dichotomy due to the unequal numbers of undergraduate and postgraduate respondents and the fact that we were not sampling postgraduates deliberately, but one possibility might be that postgraduate medical students foster less hierarchical professional relationships with their supervisors than undergraduate students, and therefore feel more comfortable opening their social networks to their educators. The degree and nature of medical students' reluctance to communicate across the teaching hierarchy using social media is a relevant question for future research. Not only would further exploration assist faculty in determining how best to use social media platforms to enhance education, it would also help educators to understand how students view their relationships with faculty members.

Our results show that medical students are far less likely to share educational content than they are to use educational content. This is significant because Web 2.0 promotes an environment of sharing and exchanging user-generated content to an open community, but our findings do not support the

assumption that current undergraduate students are archetypal "Web 2.0 learners". This supports previous assertions that it would be a mistake to assume that the current generation of students are inherently adept at using Web 2.0 tools and that therefore universities must change teaching practices to cater for them (13).

The limitations of this study included a low overall response rate to the questionnaire. Further, the students who chose to answer were more likely to have a strong opinion on the use of social media. We minimised the impact of this potential bias by recruiting through usual institutional communication routes (email and institutional notice boards), rather than via the social media platforms we were studying. In conclusion, our study is the first to have explored social media in medical education on an international scale. Although almost all students that responded were active users of social media, they consumed more than they contributed. They were generally unaware of the social media presence of their institution and were wary of intrusion into their social space by educators and institutions. There are challenges, therefore, for educators who wish to occupy social space online with their students. For now, educational use of social media seems to be student-centric and an addition to the informal medical curriculum.

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REFERENCES

1. McGee JB, Begg M. What medical educators need to know about "Web 2.0". *Med Teach* [Internet]. 2008 Jan [cited 2016 May 7];30(2):164-9. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/18464141>
2. Hollinderbäumer A, Hartz T, Uckert F. Education 2.0 -- how has social media and Web 2.0 been integrated into medical education? A systematical literature review. *GMS Zeitschrift für medizinische Ausbildung* [Internet]. 2013 Jan [cited 2016 May 7];30(1):Doc14. Available

- from: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3589682&tool=pmcentrez&rendertype=abstract>
3. Rosmala D. Study of Social Networking usage in Higher Education Environment. *Procedia – Soc Behav Sci*. 2012;67:156-66.
 4. Bahner DP, Adkins E, Patel N, Donley C, Nagel R, Kman NE. How we use social media to supplement a novel curriculum in medical education. *Med Teach* [Internet]. 2012 Jan [cited 2016 Apr 27];34(6):439-44. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/22449268>
 5. Forgie SE, Duff JP, Ross S. Twelve tips for using Twitter as a learning tool in medical education. *Med Teach* [Internet]. 2013 Jan [cited 2016 May 7];35(1):8-14. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/23259608>
 6. Cheston CC, Flickinger TE, Chisolm MS. Social media use in medical education: a systematic review. *Acad Med* [Internet]. 2013 Jun [cited 2016 May 7];88(6):893–901. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/23619071>
 7. Junco R. Too much face and not enough books: The relationship between multiple indices of Facebook use and academic performance. *Comput Human Behav* [Internet]. Elsevier Science Publishers B. V.; 2012 Jan 1 [cited 2015 Dec 12];28(1):187-98. Available from: <http://dl.acm.org/citation.cfm?id=2064112.2064416>
 8. Avcı K, Çelikden SG, Eren S, Aydenizöz D. Assessment of medical students' attitudes on social media use in medicine: a cross-sectional study. *BMC Med Educ* [Internet]. BioMed Central; 2015 Jan 15 [cited 2016 Mar 30];15(1):18. Available from: <http://bmcomeduc.biomedcentral.com/articles/10.1186/s12909-015-0300-y>
 9. Wear D, Skillicom J. No Title. *Acad Med*. 2009;84(4):451–8.
 10. Zhang J, Peterson RF, Ozolins IZ. Student approaches for learning in medicine: what does it tell us about the informal curriculum? *BMC Med Educ* [Internet]. BioMed Central; 2011 Jan 21 [cited 2016 May 8];11(1):87. Available from: <http://bmcomeduc.biomedcentral.com/articles/10.1186/1472-6920-11-87>
 11. Greenhow C, Robelia B, Hughes JE. Learning, Teaching, and Scholarship in a Digital Age: Web 2.0 and Classroom Research: What Path Should We Take Now? *Educ Res* [Internet]. 2009 Jun 9 [cited 2015 Nov 25];38(4):246-59. Available from: <http://edr.sagepub.com/content/38/4/246.full?patientinform-links=yes&legid=spedr;38/4/246>
 12. Kim Y, Sohn D, Choi SM. Cultural difference in motivations for using social network sites: A comparative study of American and Korean college students. *Comput Human Behav* [Internet]. 2011 Jan [cited 2016 Mar 24];27(1):365-72. Available from: <http://cityusr.lib.cityu.edu.hk/jspui/handle/123456789/10846>
 13. Kennedy G, Dalgarno B, Gray K, Judd T, Waycott J, Bennett S, et al. The Net Generation are not big users of Web 2.0 technologies: preliminary findings [Internet]. Faculty of Education - Papers (Archive). 2007 [cited 2016 May 7]. p. 517-25. Available from: <http://ro.uow.edu.au/edupapers/920>



15th EAHIL Conference 6-11 June 2016 Seville, Spain

In previous issues, we talked to you about Seville, the Conference venue and some aspects of the organization of the Conference: such as dates of interest, social events and Continuing Education Courses. Conference is coming and we are pleased to announce that the 15th Conference programme is finally completed. You can find it at “Programme at a glance” on our conference website.

TIME	MONDAY 6 JUNE	TUESDAY 7 JUNE	WEDNESDAY 8 JUNE	THURSDAY 9 JUNE	FRIDAY 10 JUNE	TIME
8:00	Registration	Registration	Registration	Registration	Registration	8:00
9:00	CE Courses	CE Courses	Welcome Opening Ceremony	Visits	Parallel Session G Research II	9:00
10:00	EAHIL Board Meeting	JEAHIL Meeting	Opening Lecture		Parallel Session H Scholarly	10:00
11:00			Coffee Break	Coffee Break	Panel Session	11:00
12:00		Sponsor Session	Parallel Session A Education I	Parallel Session C Education II	Parallel Session I Cooperation	12:00
13:00	Break	Break	Parallel Session B Innovation I	Parallel Session D Innovation II	Parallel Session J Management & Leadership	13:00
14:00			Lunch	Lunch	Lunch	14:00
15:00	Sponsor Session	Sponsor Session	Lunch	IPC Workshop 2017		15:00
16:00	CE Courses	CE Courses	Sponsor Session	Sponsor Session	Sponsor Session	16:00
17:00	EAHIL Board Meeting	EAHIL Council Meeting	Poster Presentation & Exhibition	Parallel Session E Research I	Closing Lecture	17:00
18:00				Parallel Session F Metrics, Open Access, Technology	General Assembly	18:00
19:00					Awards and Closing Ceremony	19:00
20:00		First Timers' Welcome Reception	Welcome Reception			20:00
21:00						21:00
22:00					Closing Dinner	22:00
23:00						23:00

The opening lecture is entitled ‘On the value of knowledge’ and is about the key role that medical libraries (and librarians) play in healthcare knowledge management. The closing lecture is entitled ‘Challenges of Open Science and Open Research Data in Health Sciences’.

Regarding oral presentations, there are 56 distributed in 8 parallel sessions as follows:

Knowledge, Research, Innovation ... **eHealth**

Parallel Session

Presentations

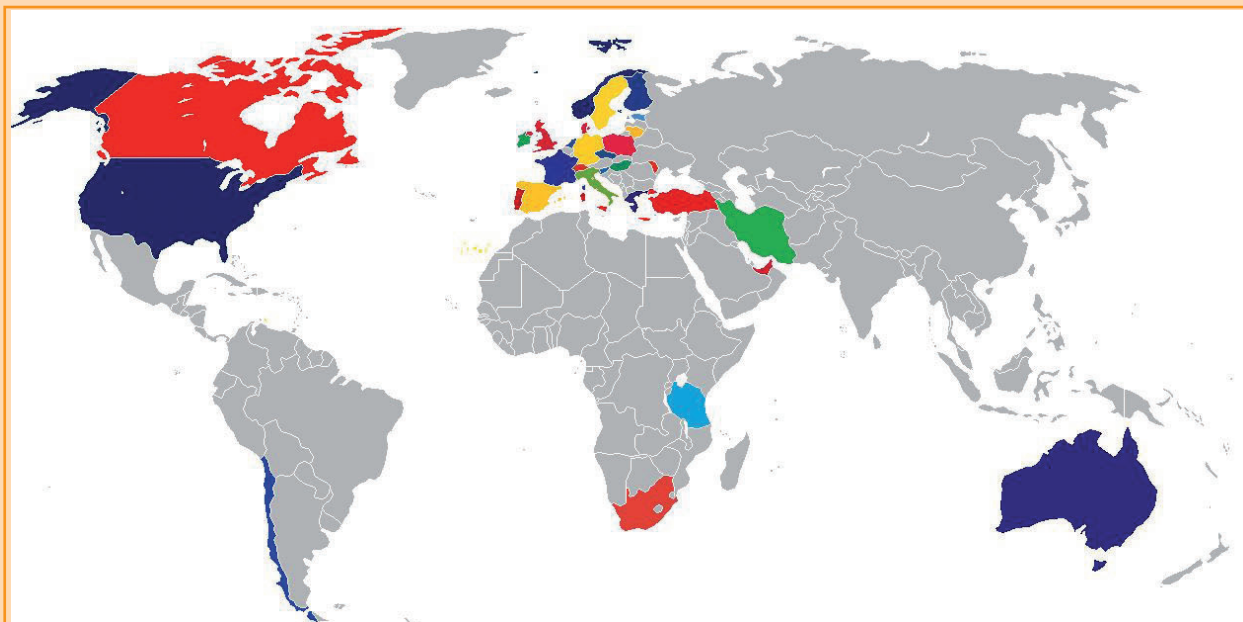
A. Education I	5
B. Innovation I	5
C. Education II	5
D. Innovation II	4
E. Research I	8
F. Metrics, Open Access & Technology	9
G. Research II	4
H. Scholarly Dissemination	4
I. Cooperation	7
J. Management & Leadership	5



15th EAHIL Conference 6-11 June 2016 Seville, Spain

There are also 46 posters. In addition to the poster session, presenters will have the opportunity to highlight the main aspects of their research within 60 seconds at the so-called Minute Madness session.

As we said in March issue, there will be a worldwide representation at the Seville Conference. You may see where the attendees come from on this map:



Most of visitors have chosen The Museum of Popular Arts and Traditions of Seville, The Museum of Fine Arts and the Institución Colombina as places to visit. As we indicated in the December issue, the Welcome Reception will be held at the Real Alcazar Palace, one of the oldest palaces in the world. Visiting it at night is an amazing experience that you should not miss. The Closing dinner will be at Hacienda Los Ángeles located about 14 km from Seville. This hacienda is a beautiful example of Andalusia rural architecture to enjoy as the final event.

There are few days left until the Conference and we are working hard on the last details.



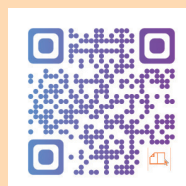
<http://www.eahil2016.com>



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Letter from the President



Marshall Dozier

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Dear Colleagues,

By the time you have this issue in your hands or on your computer, we'll be very close to the 2016 Conference in Seville – I hope to see as many of you as possible there!

In this letter I'll highlight a few EAHIL matters, with requests for your active input:

EAHIL is turning 30 years old – how shall we celebrate?

2016 and 2017 are significant milestones for our Association. The First European Conference of Medical Libraries was held in Brussels 1986, as result of planning and collaboration over the previous few years. The event was a success, and as a result, the European Association for Health Information and Libraries (EAHIL) was established and formally constituted in 1987. This year we have our 15th Conference, and over the years we have also had more than 10 Workshops.

How do you think we should celebrate this anniversary period? I'd love to hear your ideas – please get in touch.

EAHIL elections in 2016

The outcomes of the voting for the next President and Board will be announced on 10 June at the General Assembly in Seville. Then, later this year, we will have nominations and voting for Council members for each country where there are vacancies. The terms of our newly elected President, Board and Council members will begin in January 2017.

In advance of the call for Councillor nominations, I would like to ask for your help in recruiting new EAHIL members to ensure the best possible representation for your country. Here are a few targets to aim for.

Each member state of the Council of Europe is eligible to elect councillors, provided that there are at least five voting members based in the country:

- fewer than 5 voting members = 0 councillors
- 5-29 voting members = 1 councillor
- 30-54 voting members = 2 councillors
- 55 and over = 3 councillors

According to a snapshot of our membership from the start of 2016, we have several countries very near the threshold of qualifying for their first, or for an additional, Councillor to have a total of...

- one Councillor – here are the numbers of new members needed for these countries: Ukraine (1), Cyprus (2), Serbia (2), Belarus (3), Macedonia (3), Slovak Republic (3) and Bulgaria (4)
- two Councillors – these countries are close, and need the number of new members indicated here: Poland (1), Lithuania (2), Hungary (4), Latvia (5), Russian Federation (5), France (6)
- three Councillors – these countries are close, and need the number of new members indicated here: Portugal (7), Denmark (13)

Call for expressions of interest to host future events

The EAHIL Board would be very pleased to consider proposals or informal expressions of interest from members who would like to host future conferences and workshops.

After this year's conference in Seville, the next two events will be in Dublin (2017) and Cardiff (2018).

Events from 2019 onward are still to be fixed, though I'm very happy to say we've had some excellent expressions of interest submitted.

Please send expressions of interest or proposals to the secretariat email address (EAHIL-SECR@LIST.ECOMPASS.NL) by the end of 27 May 2016 for consideration in June.

We welcome contact about ideas for future events at any time of year. If it helps to have a deadline, the Board will meet again in February 2017, and proposals for discussion at that meeting are welcome by the end of January 2017.

To help you with developing your proposal...

Please feel free to contact any Board member to discuss your ideas informally (<http://eahil.eu/about-eahil/executive-board/>).

There is some event-organising guidance on the EAHIL website at <http://eahil.eu/conferences/arrange-conference/>

A bit more information on support for organisers: EAHIL funds two registration fees for Local Organising Committee members to facilitate attendance of EAHIL events in advance of their own event, to gain insights/experience in the run-up to their own event.

Access to a collection of resources and examples from previous EAHIL events is given to organisers of future events, and ongoing support is available from Board members.

All best wishes for a lovely summer,

Marshall

US Medical Library Association report for EAHIL



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Mosaic '16: Toronto, Canada, 13-18 May 2016. Conference report.

As you will know from my previous columns, the US Medical Library Association (MLA) conference was held jointly this year together with the Canadian Health Libraries Association / Association des bibliothèques de la santé du Canada (CHLA / ABSC) and the International Clinical Librarian Conference (ICLC). This is only the second time that MLA and CHLA have held their conferences jointly, the first / previous time being in Vancouver in 2000.

Those of you who read my report last year of the 2015 MLA conference in Austin, Texas, may recollect my mentioning major thunderstorms during the conference which went some way to alleviating the drought which had persisted in Texas since 2008. You will not, therefore, be surprised to hear that it snowed in Toronto (yes, snow in May), having been warm and sunny a few days earlier. This might not have mattered except for the block booking of tickets that the conference organizers had acquired for the local baseball game (the Toronto Blue Jays versus the Tampa Bay Rays). Although the ground is covered, some of us were concerned about the possible temperatures but fortunately it had warmed up again by the time for the game! (Toronto lost, by the way but “Mosaic '16 medical librarians” flashed up on the screen as visitors that evening.)

The conference theme this year was “Mosaic: be part of the bigger picture”. The conference started, as ever, with a wide range of Continuing Education courses on the Friday and Saturday. This year there were 24 CE courses with 345 participants. A colleague and I presented two courses, which regrettably meant that I was not able to attend anyone else’s courses, so cannot comment further on those! Many of the courses were very popular and some sold out very quickly. Courses were grouped into “suites” allowing delegates to select complementary courses including consumer health information, data management, the librarian’s role in the practice of evidence-based health care, the librarian’s role as an expert searcher in health care and library administration and management.

At the conference itself, there were c. 1,800 delegates from 22 countries. This is a very good turn-out given that many US librarians have difficulty getting funding to attend events over the border. There were 335 delegates from Canada and over 80 delegates from outside of the US / Canada, 56 of whom were from 5 European countries. Approximately 200 papers (including lightning talks) and 250 posters were presented. As ever, the conference was supported by an exhibition with about 90 exhibiting companies.

The key opening plenary speaker this year (the Annual John P. McGovern Award Lecture), which recognizes significant national or international figures who speak on a topic of importance to health sciences

librarianship, was Ben Goldacre. Many of you will have come across his work. In the Mosaic '16 programme he was described as “an award-winning writer, broadcaster and medical doctor who specializes in unpicking scientific claims made by scaremongering journalists, government reports, pharmaceutical corporations, public relations companies, and quacks”. He was trained in medicine at Oxford and London, and currently works in Oxford at the Centre for Evidence-Based Medicine. He is also a founder of the AllTrials campaign to require open science practices in clinical trials. He gave a fascinating and engaging lecture covering a wide range of issues. To read more about him and his work see:
https://en.wikipedia.org/wiki/Ben_Goldacre

The closing keynote was, again, an excellent presentation by Ellen Jorgensen, co-founder and director of Genspace, a non-profit community laboratory dedicated to promoting citizen science and access to biotechnology. In 2011, she initiated Genspace's award-winning curriculum of informal science education for adults, and in 2014, Genspace was named one of the World's Top 10 Innovative Companies in Education by Fast Company magazine. Her talk, “Biohacking: you can do it, too,” at TEDGlobal 2012 has received over a million views.
https://www.ted.com/talks/ellen_jorgensen_biohacking_you_can_do_it_too?language=en

Both the above plenaries are available as part of the e-Conference package, see below.

During the main part of the meeting, Betsy Humphreys, who has served as Acting Director for the US National Library of Medicine (NLM) since the announcement of the retirement of Donald Lindberg, who had held the post for over 30 years, opened the annual NLM Update by welcoming the announcement of Patricia Flatley Brennan as the incoming NLM director. Patricia Brennan trained as nurse and will be the first woman and the first non-medical doctor to hold this prestigious position. She is past-President of the American Medical Informatics Association, a member of the National Academy of Medicine (formerly the Institute of Medicine) and a fellow of the American College of Medical Informatics, the American Academy of Nursing, and the New York Academy of Medicine.
https://www.nlm.nih.gov/news/new_nlm_director_patricia_brennan.html

I regret that I was so busy with my own commitments this year that I did not have a chance to visit the NLM booth, which usually has a vast range of presentations on NLM and related products and services, many of which rank highly in quality and relevance compared with the oral sessions in the main programme. All presentations are recorded and will be made available on the NLM web site shortly after the meeting:
https://www.nlm.nih.gov/pubs/techbull/ma16/ma16_mla_invite.html#theater

Please note that the “e-conference” registration is still available post-conference. The cost for “Individual e-Conference Registration” is 159 USD (the reduced rate for EAHIL members). Please note that this is an individual rate, not be shared with your colleagues. If you wish to obtain an e-conference site licence for more than one person, please complete the e-conference site licence registration form at the link below. Once you have registered for the “e-Conference”, you can listen to recordings and follow the slides of the plenary and parallel sessions as well as the oral sessions and other content.
<http://www.mlanet.org/p/cm/ld/fid=427>

The standard MLA Awards Luncheon (a ticketed event) was replaced this year with the Presidents' Awards Dinner, as an open event included in the registration fee, to celebrate the 40th anniversary of CHLA / ABSC. It was held in the Canadian Room at the Fairmont Royal York Hotel, a very splendid venue. For many of us, the highlight of the evening was when the recently appointed MLA Executive Director, Kevin Baliozian, stunned the audience by bursting into perfect French when reading a resolution to CHLA / ABSC. Those of us who at that point had not (yet!) got around to reading his LinkedIn entry, were not

aware that he describes himself thus: “I am a dual national (USA and France), have resided in Europe and the USA, speak (or reasonably manage) five languages (English, French, German, Spanish and Portuguese)”. In my experience, an American who speaks good French is a rare finding, so this surely has to be a good omen for future relations between MLA and EAHIL!

This was, as always, a very successful, well-organized and enjoyable meeting and thank you to all MLA staff, the Meeting Co-Chairs, the Joint MLA/CHLA/ABSC/ICLC Planning Committee (JPC), the Local Assistance Committee, all exhibitors and sponsors and others who made it such a success.

Future MLA annual meetings - dates for your diary:

MLA 2017, Seattle, Washington, 26-31 May 2017

MLA 2018, Atlanta, Georgia, 18-23 May 2018

MLA 2019, Chicago, Illinois, 3-8 May 2019

Membership of MLA

MLA offers International Membership to individuals at a reduced rate for those health information professionals who live outside the United States or Canada. The current annual subscription rate for International Membership is 130 US dollars. For details of what this includes, see the link below.

<http://www.mlanet.org/p/cm/ld/fid=447>

News and publications from MLA

The latest issue of the *Journal of the Medical Library Association (JMLA)* (Volume 104 (2) April 2016) is now available on open access together with open access to back issues of the JMLA (and its predecessors back to 1898) from:

<http://www.ncbi.nlm.nih.gov/pmc/journals/93/>

Preprints of the forthcoming issue of the *Journal of the Medical Library Association (JMLA)* are available (for members only) by selecting **JMLA Journal** then **JMLA Preprints** under the **Publications** option when you login to the MLA web site with your username and password.



MLA News is MLA's members-only newsletter, featuring the latest resources, professional advice, and association news. It is published ten times per year and is accessible under **Publications** when you login with your username and password. **MLA-FOCUS** is MLA's members-only email newsletter, published at least twice a month.

Report from the European Veterinary Libraries Group (EVLG)



Michael Eklund, chair EVLG

SLU University Library,
Uppsala, Sweden
michael.eklund@slu.se



Raisa Iivonen, vicepresident EVLG

University of Helsinki, Helsinki, Finland
Raisa.iivonen@helsinki.fi

New Board for 2016-18

The European Veterinary Libraries Group (EVLG) is seeking nominations for the EVLG Board for the term 2016-2018. President, vice-president, secretary and web-manager should be nominated for our General Assembly. Please send nominations directly to the president.

The EVLG at EAHIL Conference in Seville

The EVLG will have their SIG meeting at the 15th EAHIL Conference to be held in Seville. Our meeting (the General Assembly of EVLG) will be on Thursday afternoon, 9th June, 14.30-15.30 at Room C. The EVLG meeting is open for all who are interested in animal health communication!

The EVLG General Assembly

The Assembly will be chaired by our vice-president, Raisa Iivonen. During the meeting we will discuss the following subjects:

- EVLG Board for 2016-18;
- subcommittee reports:
 - report for the change of bylaws (Anne-Cathrine Munthe);
 - report for the management of EVLG membership (Derek Halling);
 - report for the EVLG history (Trenton Boyd);
- the ICAHIS 9 in Budapest 2017. Among other things, discuss exact date.
- the EVLG presence on webpages, mailing lists and social media.

Making the streets of Seville hazardous

In the evening the Vetlibbers will have their own evening in a Seville restaurant, to be decided later. Many important decisions and discussions will be taken there as well as some real great fun. Please join!

National Library of Medicine report for EAHIL



Dianne Babski

Deputy Associate Director, Library Operations
National Library of Medicine
National Institutes of Health
US Department of Health and Human Services
dianne.babski@nih.gov
<http://www.nlm.nih.gov/>

Patricia Flatley Brennan New NLM Director

The US National Institutes of Health Director Francis S. Collins, M.D., Ph.D., named Patricia Flatley Brennan, R.N., Ph.D., as the director of the US National Library of Medicine (NLM). “Patti brings her incredible experience of having cared for patients as a practicing nurse, improved the lives of homebound patients by developing innovative information systems and services designed to increase their independence, and pursued cutting-edge research in data visualization and virtual reality,” said Dr. Collins. “This combination of skills makes her ideally suited to lead the NLM in the era of precision medicine, as the library becomes the epicenter for biomedical data science, not just at NIH, but across the biomedical research enterprise.”

Dr. Brennan comes to NLM from the University of Wisconsin-Madison, where she is the Lillian L. Moehlman Bascom Professor at the School of Nursing and College of Engineering. She also leads the Living Environments Laboratory at the Wisconsin Institutes for Discovery that develops new ways for effective visualization of high dimensional data.




Dr. Brennan has been a pioneer in the development of information systems for patients. She developed ComputerLink, an electronic network designed to reduce isolation and improve self-care among home care patients. She directed HeartCare, a web-based information and communication service that helps home-dwelling cardiac patients recover faster, and with fewer symptoms. She also directed Project HealthDesign, an initiative designed to stimulate the next generation of personal health records. Dr. Brennan also conducts external evaluations of health information technology architectures, and works to repurpose engineering methods for health care.

She received a master of science in nursing from the University of Pennsylvania and a Ph.D. in industrial engineering from the University of Wisconsin-Madison. Following seven years of clinical practice in critical care nursing and psychiatric nursing, Dr. Brennan held several academic positions at Marquette University, Milwaukee; Case Western Reserve University, Cleveland; and the University of Wisconsin-Madison.

New NLM Learning Resources Page Launched

We’ve recently launched a new Learning Resources Database (<https://learn.nlm.nih.gov>), making it easy to find educational resources in one place. You can find videos, tutorials, and handouts on a variety of products such as PubMed, ClinicalTrials.gov, Unified Medical Language System, and many more. Use the open text search or the Subjects and Products filters to quickly find resources.



Learning Resources Database

Use any of the following fields to search or browse resources.

All Fields Search:

SearchApply FiltersReset Filters

Subjects and Products:

☐ Bioinformatics

☐ Clinical Medicine

☐ ClinicalTrials.gov

☐ Consumer Health

☐ DOCLINE

☐ Disasters and Emergencies

☐ Drugs and Chemicals

☐ Environmental Health

Results for: **Date Last Revised From 2016-01-01 To 2016-16-05** .

Display 1 to 10 of 34 results.

1234

1. **Using NCBI Data with Tools that Predict the Functional Impact of Genomic Variants**

Description: You will learn how to find and download relevant variant data from NCBI and how to use 10 different tools that predict variant functional consequences from these data.

Format: Silverlight Video / Webinar

Subjects: Bioinformatics, Genetics and Molecular Biology

Archived: No

Date Last Revised: 15-May-2016

2. **DOCLINE: 2016 MLA Update**

Description: Elisabeth (Lis) Unger, the DOCLINE Team Lead from the National Library of Medicine presents an update on DOCLINE for the 2016 Medical Library Association annual conference. For more information, see <https://www.nlm.nih.gov/docline/>.

An application programming interface (API) is available to auto-populate new or updated NLM learning resources on your web site using jQuery to query a JSON API. There are sample URIs and code in the developer documentation that can be copied and incorporated into your web pages (<https://learn.nlm.nih.gov/documentation/technical/rest-uris.html>).

Sample URIs:

The Base URI is <https://learn.nlm.nih.gov>.

Sample URIs

Sample URI	Use case
/rest/learning-resources/all	Retrieves all learning resources.
/rest/subjects/all	Retrieves all subjects used to categorize learning resources.
/rest/learning-resources/L00079080	Retrieves one learning resource by identifier.
/rest/learning-resources/search?query="Searching PubMed"	Searches the title, description, and subjects of learning resources for the string 'Searching PubMed'.
/rest/learning-resources/search?subjects=S019080,S020080	Retrieves learning resources by subject identifier(s).

Sample pages:

Page	URL
MeSH Tutorials and Webinars	https://www.nlm.nih.gov/bsd/disted/mesh.html
LinkOut for Libraries Training and Educational Resources	https://www.nlm.nih.gov/bsd/disted/linkout_for_libraries/loforlib.html
UMLS Video Resources	https://www.nlm.nih.gov/research/umls/user_education/learning_resources.html
NLM Catalog Quick Tours	https://www.nlm.nih.gov/bsd/disted/catalog.html
VSAC Tutorials	https://www.nlm.nih.gov/vsac/support/videotutorials/videotutorials.html

[Collected during Mars to April 2016]



Benoit Thirion

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<http://www.cismef.org/>
Contact: Benoit.Thirion@chu-rouen.fr

The goal of this section is to have a look at references from non-medical librarian journals, but interesting for medical librarians. Acknowledgement to **Informed Librarian Online**

FREE ACCESS

1. Mohd Shoaib Ansari. **Evaluation of role of Traditional Knowledge Digital Library and Traditional Chinese Medicine Database in preservation of traditional medicinal knowledge** DESIDOC Journal of Library & Information Technology vol. 36, no 2 (2016)

The purpose of the paper is to describe the importance of traditional knowledge in the field of medicine. It particularly discusses the importance of traditional Medicine knowledge in the developing countries and the challenges involved in preservation and protection of it. It evaluates the role of the Traditional Knowledge Digital Library (TKDL) and Traditional Chinese Medicine (TCM) database with protection and preservation. The paper outlines the theoretical aspect of knowledge preservation, especially with reference to the protection from bio-piracy. The TKDL and TCM database codified traditional medicinal knowledge and made them available in international languages. Both the databases have rich collection of traditional medicine system for the help of researchers and medical professionals. The paper discusses the theoretical and conceptual understandings of traditional knowledge, and its preservation and protection
<http://dx.doi.org/10.14429/djlit.36.2.9479>

2. Prem Chand Sharma, Raj Kumar. **Print Vs E-publications: Usage preference by health professionals of Dayanand Medical College and Hospital, Ludhiana (Punjab)** DESIDOC Journal of Library & Information Technology vol. 36, no 2 (2016)

Library is a repository of reading material for use. During the last two and half decades, there has been a tremendous growth in information and communication technology (ICT) which has swayed not only publishing industry but also on the readers as well. With the development in ICT, books and journals are published in print and electronic formats. However, both of the formats have advantages and disadvantages over each other. Old generation still prefer to read print books and journals, whereas new generation prefer online text. Advent of new reading devices like Kindle, Nook, I Pad, and smart phones have made e-reading easy. Various surveys across the world have been done to know the preference of the users towards print and e-text and it has been concluded that for comprehensive reading, print books and journals are used whereas for casual reading or research projects, online books and journals are required. Keeping in view the users preference, it is assumed that print and e-version of books and journals will go simultaneously
<http://dx.doi.org/10.14429/djlit.36.2.9363>

3. Gooden AM. **Telemedicine: A guide to online resources**
College & Research Libraries. News March 2016 77:135-139
With rising healthcare costs and new insurance standards, healthcare has been out of the reach for many for far too long. Now that telemedicine is making a bigger splash in the pool of healthcare options, healthcare is finally becoming accessible for the masses.
<http://crln.acrl.org/content/77/3/135.full>

4. Arroyo SS. **Reference desk is not dead yet: A perspective from the National Medical Library of Cuba**
Community & Junior College Libraries vol. 21, Issue 1-2, 2015
There persists an intense debate on whether or not the traditional reference desk should be in academic libraries. Yet, despite many anti-desk studies, the place of the reference desk still remains. This paper aims to review the current significance of the reference desk for some libraries, as well as the importance of choosing the proper reference model that fits each institution. Furthermore, it points out that eliminating or reforming the reference desk requires careful analysis by both librarians and administrators. The paper also characterizes reference service at the National Medical Library of Cuba.
<http://www.tandfonline.com/doi/full/10.1080/02763915.2016.1149002>

5. Jonathan DeForest Eldredge. **Evidence based health sciences librarians**
Evidence Based Library and Information Practice vol. 11, no 1 (2016)
Evidence Based Library and Information Practice has become the most visible and enduring institution of our international EBLIP community of practice (Wenger, 1998; Eldredge et al., 2015). Congratulations to the hundreds of colleagues dedicated to creating this inter-sectoral and international peer-reviewed forum that has been so open to exploring many diverse viewpoints while embracing the critical importance of evidence! Librarians from every sector know that EBLIP decision making consists of taking into account the users' preferences, one's professional expertise, and the best available evidence. Regardless of one's specific library sector, our practices are heavily influenced by our common librarian (and I would suggest our EBLIP) ancestor John Cotton Dana. He insisted on turning our profession away from the physical trappings of libraries. Dana instead focused on our shared cause with our user communities (Dana, 1916a; Dana, 1916b). Academic, public, special, and school librarians alike, for the past century, have continued to assess their users' information needs and to find ways to meet those needs. Librarians want to remove all barriers between their users and the desired information.
<https://ejournals.library.ualberta.ca/index.php/EBLIP/article/view/27382/20210>

6. Bramer WM *et al.* **Comparing the coverage, recall, and precision of searches for 120 systematic reviews in Embase, MEDLINE, and Google Scholar: a prospective study**
Systematic Reviews (2016) 5:39
Background: Previously, we reported on the low recall of Google Scholar (GS) for systematic review (SR) searching. Here, we test our conclusions further in a prospective study by comparing the coverage, recall, and precision of SR search strategies previously performed in Embase, MEDLINE, and GS. Methods: The original search results from Embase and MEDLINE and the first 1000 results of GS for librarian mediated SR searches were recorded. Once the inclusion-exclusion process for the resulting SR was complete, search results from all three databases were screened for the SR's included references. All three databases were then searched post hoc for included references not found in the original search results. Results: We checked 4795 included references from 120 SRs against the original search results. Coverage of GS was high (97.2%) but marginally lower than Embase and MEDLINE combined (97.5%). MEDLINE on its own achieved 92.3 % coverage. Total recall of Embase/MEDLINE combined was 81.6% for all included references, compared to GS at 72.8% and MEDLINE alone at 72.6%. However, only 46.4% of the included references were among the downloadable first 1000 references in GS. When examining data for each SR, the traditional databases'

recall was better than GS, even when taking into account included references listed beyond the first 1000 search results. Finally, precision of the first 1000 references of GS is comparable to searches in Embase and MEDLINE combined. Conclusions: Although overall coverage and recall of GS are high for many searches, the database does not achieve full coverage as some researchers found in previous research. Further, being able to view only the first 1000 records in GS severely reduces its recall percentages. If GS would enable the browsing of records beyond the first 1000, its recall would increase but not sufficiently to be used alone in SR searching. Time needed to screen results would also increase considerably. These results support our assertion that neither GS nor one of the other databases investigated, is on its own, an acceptable database to support systematic review searching.

<http://systematicreviewjournal.biomedcentral.com/articles/10.1186/s13643-016-0215-7>

ABSTRACTS ONLY

1. Loan FA *et al.* **Analytical study of open access health and medical repositories**

Electronic Library vol. 34 Issue 3

Purpose: The study assesses open access repositories in the field of the health and medicine (H&M) available in the Directory of the Open Access Repositories (OpenDOAR) by analysing their various facets like geographical distribution, language diversity, collection size, content types, operational status, interoperability, updating policy, and software used for content management. *Design/methodology/approach* In order to achieve the objectives of the study, the Directory of Open Access Repositories (OpenDOAR) was selected as the source for identifying the Health & Medicine repositories. The required data were manually collected from April, 01 to April, 30 2014 and analysed using various quantitative techniques to reveal the findings. *Findings* The results revealed that the OpenDOAR lists 254 repositories in the field of the Health & Medicine (H&M) contributed by the 62 countries of the world, topped by the USA (15.4%) followed by Japan (7.9%) and the United Kingdom (7.5%) respectively. The majority of the repositories are institutional 187 (73.6%) in nature, having less than 5,000 items (161, 63.4%) in the collection and mostly consisting of articles (76.0%), theses (49.6%), unpublished documents (33.1%), and books (31.9%). The linguistic assessment shows that the majority of the Health & Medicine repositories accept contents written in English language (71.3%) followed respectively by Spanish (16.1%) and Japanese (7.5%). The updating policy of these repositories isn't up to the mark as only 67.0 percent of the H&M repositories has been updated from 2008-2012, but still the majority are still operational (91.7%) and are compatible (67.3%) with the Open Archive Initiative Protocol for Metadata Harvesting (OAI/PMH). About 30 software brands, both commercial and open source, have been used by administrators for creating these repositories and managing their contents. DSpace is the most popular software used by 88 (34.7%) repositories followed by EPrints (43, 16.9%) and Digital Commons (18, 7.1%). *Research limitations/implications* The scope of the study is limited to the Health and Medical repositories listed in OpenDOAR and hence the generalization is to be cautioned. *Practical implications* This study is helpful for library and information professionals serving health and medical professional across the globe. *Originality/value* The current study is the first attempt to analyse the health and medical repositories in open access sites.

<http://www.emeraldinsight.com/doi/abs/10.1108/EL-01-2015-0012>

2. Helwall M *et al.* **Guideline references and academic citations as evidence of the clinical value of health research**

Journal of the Association for Information Science and Technology vol. 67, Issue 4, pages 960-966, April 2016

This article introduces a new source of evidence of the value of medical-related research: citations from clinical guidelines. These give evidence that research findings have been used to inform the day-to-day practice of medical staff. To identify whether citations from guidelines can give different information from that of traditional citation counts, this article assesses the extent to which references in clinical guidelines tend to be highly cited in the academic literature and highly read in Mendeley. Using evidence from the United Kingdom, references associated with the UK's National Institute of Health and Clinical Excellence (NICE) guidelines tended to be substantially

more cited than comparable articles, unless they had been published in the most recent 3 years. Citation counts also seemed to be stronger indicators than Mendeley readership altmetrics. Hence, although presence in guidelines may be particularly useful to highlight the contributions of recently published articles, for older articles citation counts may already be sufficient to recognize their contributions to health in society.
<http://onlinelibrary.wiley.com/doi/10.1002/asi.23432/abstract>

3. Thelwall M et al. ResearchGate articles: Age, discipline, audience size, and impact

Journal of the Association for Information Science and Technology Article first published online: 28 Mar 2016

The large multidisciplinary academic social website ResearchGate aims to help academics to connect with each other and to publicize their work. Despite its popularity, little is known about the age and discipline of the articles uploaded and viewed in the site and whether publication statistics from the site could be useful impact indicators. In response, this article assesses samples of ResearchGate articles uploaded at specific dates, comparing their views in the site to their Mendeley readers and Scopus-indexed citations. This analysis shows that ResearchGate is dominated by recent articles, which attract about three times as many views as older articles. ResearchGate has uneven coverage of scholarship, with the arts and humanities, health professions, and decision sciences poorly represented and some fields receiving twice as many views per article as others. View counts for uploaded articles have low to moderate positive correlations with both Scopus citations and Mendeley readers, which is consistent with them tending to reflect a wider audience than Scopus-publishing scholars. Hence, for articles uploaded to the site, view counts may give a genuinely new audience indicator.
<http://onlinelibrary.wiley.com/doi/10.1002/asi.23675/abstract>

4. Harzing AW et al. Google Scholar, Scopus and the Web of Science: a longitudinal and cross-disciplinary comparison

Scientometrics February 2016, Volume 106, Issue 2, pp. 787-804

This article aims to provide a systematic and comprehensive comparison of the coverage of the three major bibliometric databases: Google Scholar, Scopus and the Web of Science. Based on a sample of 146 senior academics in five broad disciplinary areas, we therefore provide both a longitudinal and a cross-disciplinary comparison of the three databases. Our longitudinal comparison of eight data points between 2013 and 2015 shows a consistent and reasonably stable quarterly growth for both publications and citations across the three databases. This suggests that all three databases provide sufficient stability of coverage to be used for more detailed cross-disciplinary comparisons. Our cross-disciplinary comparison of the three databases includes four key research metrics (publications, citations, h-index, and h1, annual, an annualised individual h-index) and five major disciplines (Humanities, Social Sciences, Engineering, Sciences and Life Sciences). We show that both the data source and the specific metrics used change the conclusions that can be drawn from cross-disciplinary comparisons.

<http://link.springer.com/article/10.1007/s11192-015-1798-9>

5. Bushman B et al. Transforming the Medical Subject Headings into Linked Data: Creating the authorized version of MeSH in RDF

Journal of Library Metadata Volume 15, Issue 3-4, 2015

In February 2014, the National Library of Medicine formed the Linked Data Infrastructure Working Group to investigate the potential for publishing linked data, determine best practices for publishing linked data, and prioritize linked data projects, beginning with transforming the Medical Subject Headings as a linked data pilot. This article will review the pilot project to convert the Medical Subject Headings from XML to RDF. It will examine the collaborative process, the technical and organizational issues tackled, and the future of linked data at the library.

<http://www.tandfonline.com/doi/full/10.1080/19386389.2015.1099967>

Publications and new products



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Dear friends,

In the last issue, we dealt with one of the marks of a great leader, i.e. the ability to get his or her team to pull together and to feel they are a part of something special. Well, one of the best tools to reach the goal can be brainstorming. Brainstorming is an essential component of your library activity, and can definitely improve your overall efficiency if you can manage to keep your participants focused and on track. It is an inherently creative and free flowing process therefore things can quickly spiral out of your control. Fortunately, there are ways to ensure that your brainstorming session is well organized and yields maximum results.

Enjoy these five points to conduct a successful Brainstorming Session and some other suggestions. Enjoy the read!

1. Develop a set of guidelines

The ultimate goal of your brainstorming session is to gather as many ideas as possible, even if those ideas do not come to fruition later on during the development phase of your project or activity. However, in order to make the idea gathering as effective and organized as possible, you must create a set of guidelines that all participants are expected to follow; how the ideas will be expressed, participant's roles, and the topics that you will be covering should all be included in these guidelines. Make sure everyone has a copy of the ground rules beforehand and stress the importance of sticking to them during the brainstorming session.

2. Be clear about the scope of the brainstorming session

You are looking for a specific set of thoughts and ideas that will help you address a problem or challenge. Therefore, when defining the scope of your brainstorming session, try to be as specific as possible and develop a checklist for all of the issues you would like to discuss in advance.

3. Act as a moderator

Managers should act as moderators during the brainstorming session, as they are knowledgeable about the topics being discussed, effective communicators, and conflict resolvers. They should also be completely unbiased about the topic and not interject their own personal opinions.

4. Watch the clock

Brainstorming sessions can seem to go on forever, especially if you are covering something that might be controversial. Therefore, it is beneficial to create a time window for every subject you will be discussing, as well as a general time limit for the entire session. For example, notify the members of your team that they will be given five minutes to talk about the first topic before you move onto the next. Set a timer and switch to the second subject when it goes off. This ensures that you will have enough time to cover all of the topics and it prompts each participant to be more active during the discussion. If they know that they only have a short span of time to share their input, then they will only share their best ideas.

5. Let everyone have his or her say

Every member of your team should have the opportunity to share his/her own input, or else you may be missing valuable information. Keep in mind that each individual is going to bring their own unique insights, experience, and expertise to the brainstorming table. Thus, it is important to make everyone in the team feel included and emphasize that their opinions and thoughts matter. Even those who may be more introverted or reserved should have their say, so encourage them to speak up by taking judgements and criticism.

Regardless of who is participating to the brainstorming session or your primary objectives, you can use these five tips to conduct an effective meeting. Just bear in mind that planning is an essential part of the process (inspired by eLearningIndustry).

JOURNAL ISSUES

Health Information and Libraries Journal: Contents of June Issue 2016

Editorial

Big Data – What is it and why it matters

Tattersall A, Grant MJ

Review Articles

Regenerative implantable medical devices: an overview.

Yu SH, Li FY, Wang HM

Original articles

The impact of clinical librarian services on patients and health care organisations

Brettle A, Maden M, Payne C

Graphical content of medicinal package inserts: an exploratory study to evaluate potential legibility issues R.

Pires C, Vigário M, Cavaco A

Inter-rater reliability of h-index scores calculated by Web of Science and Scopus for clinical epidemiology scientists

Walker V, Alavifard S, Roberts S, Lanes A, Ramsay T, Boet S

Regular features

Dissertations into practice

Barriers to the use of the library service amongst clinical staff in an acute hospital setting: an evaluation

Thomas G, Preston H

International perspectives and initiatives

International Trends in Health Science Librarianship Part 18: The Middle East (Iran, Qatar and Turkey)

Zeraatkar K, Ayatollahi H, Havlin T, Neves K, Şendir M

Teaching and Learning in Action

Providing patient information and education in practice: the role of the health librarian

Truccolo I

FROM THE WEB

- **Quiz: Test your open access knowledge!**

Since its inception fifteen years ago, open access as a publishing model has steadily increased, particularly in the International Association of Scientific, Technical and Medical Publishers (STM) publishing world. To celebrate Open Access Week 2015, a quiz was put together for users on BioMed Central blog (http://blogs.biomedcentral.com/bmcblog/2015/10/22/quiz-test-open-access-knowledge/?utm_campaign=BMC24483CAN&utm_medium=BMCemail&utm_source=Teradata) to find out how much they really know about this form of publishing and what it actually means. Test yourself and see how well you do in this quiz with fifteen questions for fifteen years of open access.

- **A peerless review? Automating methodological and statistical review**

A reviewer's subject knowledge and ability to put research findings into a wider context are invaluable, and even if peer reviewing is a human system with all of a human's fallibilities, it is the primary mechanism for ensuring the integrity of the published literature. Nonetheless, there are some things reviewers are simply not best placed to check. Daniel Shanahan, an Associate Publisher for Medical Evidence who joined BioMed Central in 2013, asks whether text mining could be used to automate some aspects of the peer review process to address some of its limitations; he also introduces a new pilot to evaluate the software. One of the most interesting questions this poses is: How will authors respond to an automated review? (<http://blogs.biomedcentral.com/bmcblog/2016/05/23/peerless-review-automating-methodological-statistical-review/>).

- **The Internet Archive**

Without cultural artifacts, civilization has no memory and no mechanism to learn from its successes and failures. Libraries exist to preserve society's cultural artifacts and provide access to them. Therefore, if they are to continue to foster education and scholarship in this era of digital technology, it is essential for them to extend those functions into the digital world, including television or radio, for which no comprehensive archive exists, yet. This is the main aim of **The Internet Archive**, (<http://archive.org>) a non-profit library of billions of free books, movies, software, music, and more located in San Francisco and founded in 1996. It means to build an Internet library, to "search the history of over 484 billion pages on the Internet". Its purposes include offering **permanent open access** for researchers, historians, scholars, and the general public to historical collections that exist in digital format. The Archive has been receiving data donations, also non-English, from several important collections from all over the world. Mainly, it is working to prevent the Internet - a new medium with major historical significance - and other "born-digital" materials from disappearing into the past. Collaborating with institutions including the Library of Congress and the Smithsonian, they are working to preserve a record for generations to come. At present, the size of the Web collection is such that using it requires programming skills. However, tools and methods that will give the general public easy and meaningful access to the collective history will be soon developed.

- **The Malware Museum.** Relive the horror of watching your computer catch a '90s-era virus.

Getting a computer virus these days is a very different experience than it was during the 1980s and '90s. Today, malware operators are stealthy, writing programs that will lurk silently in your computer, waiting for the opportunity to steal your credit card information or hold personal data hostage in exchange for an exorbitant fee. However, during the early decades of the internet, virus creators more often aimed to destroy every computer their programs infected. They announced their victory to their victims with taunting animations, some of which can now be viewed online in the **Malware Museum**. Thanks to cybersecurity expert Mikko Hyppönen and computer historian Jason Scott, visitors can watch these viruses do their thing without worrying about destroying their computers. Read more at <https://archive.org/details/malwaremuseum&tab=about>

NEWS

Redesigned National Guideline Clearinghouse (NGC) Coming Soon!

The NGC Web site (<http://www.guideline.gov/>) is being redesigned for release this summer. Responsive Web Design (RWD) techniques will provide a better viewing experience across a wide range of devices, from desktop and laptop computers, to tablets and mobile phones. In addition to the new design, NGC will feature updated searching capabilities by using filters and facets for refining the search results, and updated browsing capabilities for the Browse by Topic and Browse by Organization pages. The redesigned NGC Web site will be more intuitive, with an improved, new look and feel, but will maintain the same great content that has defined NGC for many years.

NCBI launches new Twitter account for NCBI Bookshelf

NCBI has a new Twitter feed - @ncbibooks - to announce new books and documents available on the NCBI Bookshelf. An online resource providing free access to the full text of books and documents in life sciences and health care, the Bookshelf currently provides access to over 4,500 titles. The Bookshelf is continuously expanding with new materials as well as receiving updates to existing books & documents. Between May 16, 2016 and May 20, for example, 19 new titles were added. Among the new titles are several Agency for Healthcare Research and Quality reports (for example, a comparative effectiveness report on imaging for pretreatment staging of small cell lung cancer), health technology assessments and systematic reviews from Canadian Agency for Drugs and Technologies in Health, and National Institute for Health Research (UK), and World Health Organization guidelines on daily iron supplementation. Keep on top of the newest releases by following us on Twitter at @ncbibooks!

FORTHCOMING EVENTS

June 21, 2016, 4 PM EST/ 3 PM CST/ 1 PM PST

Policy Guidelines International Network North America (G-I-N/NA) Webinar

Register in advance:

<https://cc.readytalk.com/registration/#/?meeting=yx5dgg55xc71&campaign=zsdjh375fh8> External Web Site

July 6-8, 2016, Shanghai, China

8th Shanghai International Library Forum. Libraries: Enabling Progress

For further information: <http://www.libnet.sh.cn/silf2016/english/>

September 27-30, 2016, Philadelphia, USA

Guidelines International Network (G-I-N) 13th Annual Conference

For further information: <http://www.ginconference.net/>

October 6-7, 2016, Madrid, Spain

ISA – Interoperability Solutions for European Public Administrations

4th International Open Data Conference

For further information: <http://www.iodc2016.es/en>

2017, Philadelphia, USA

9th International Evidence Based Library and Information Practice (EPLIB9) Conference

INSTRUCTIONS FOR AUTHORS JEAHIL

JEAHIL is the official Journal of the European Association for Health Information and Libraries (EAHIL). It publishes original articles, reviews, theme issues and brief communications in the field of health information and libraries. It also publishes news from EAHIL and from other medical library associations, meeting reports, product reviews, opinion and discussion papers and news items. The aim of the European Association for Health Information and Libraries is to unite and motivate librarians and information officers working in medical and health science libraries in Europe. EAHIL encourages professional development, improves cooperation and enables exchanges of experience amongst its members.

Manuscript submission

Manuscripts should be submitted by the corresponding author electronically to the Chief Editor, Federica Napolitani, federica.napolitani@iss.it, accompanied by a presentation letter. Articles presented for publication on JEAHIL must be original and will be submitted to qualified referees before publication. Authors of submitted papers must accept editing and reuse of published material by EAHIL including electronic publishing on the EAHIL website. Reproduction of articles or part of them should be previously authorized.

Manuscript preparation

- Manuscripts should be written in good English and as concisely as possible to allow a clear understanding of the text. They should be typed double-spaced and with wide margins - font size 12 points, Times New Roman.
- The title should be followed by the complete name of the Authors, by their affiliation in English (town and country included) and by the "Address for correspondence" (author, address, email of the corresponding author).
- The recommended length for original articles is about 1000-2000 words (4-8 A4 pages) with no more than 20-25 references.
- Original articles should be accompanied by an abstract of up to 120 words and should also include key words, up to a maximum number of five MeSH terms (www.nlm.nih.gov/mesh/MBrowser.html).
- Avoid numbering in titles and subtitles; write titles in bold, subtitles in italics. Latin or foreign words should be in italics.
- Abbreviations should be spelled out in full the first time they occur in the text, followed by the shortened term in parentheses.
- All references in the text must be numbered in brackets and listed at the end of the article. They should be written in Vancouver style according to Uniform Requirements for Manuscript Submitted to Biomedical Journals (www.icmje.org/).
- For sample references refer to: www.nlm.nih.gov/bsd/uniform_requirements.html
- For abbreviations of periodicals refer to PubMed Journals Database (www.pubmed.gov).
- Extended quotations and illustrations previously published should be authorized for reproduction in JEAHIL by the Authors and previous Publisher.

Tables and figures

Tables and figures should always be accompanied by a legend, and be understandable without reference to the text. Numbered in Arabic numerals they should be cited in the text in round brackets and be of appropriate size for reproduction.

Submission in electronic format

All manuscripts should be submitted together with an accompanying letter in electronic format. The text should be written in Word or RTF format. Figures and photos (in separate files) should be saved in JPEG, GIF or TIFF and have a resolution of at least 300 dpi.

Please note

These Instructions to Authors are in accordance with the Uniform Requirements for Manuscripts Submitted to Biomedical Journals, published by the International Committee of Medical Journal Editors (www.icmje.org/).

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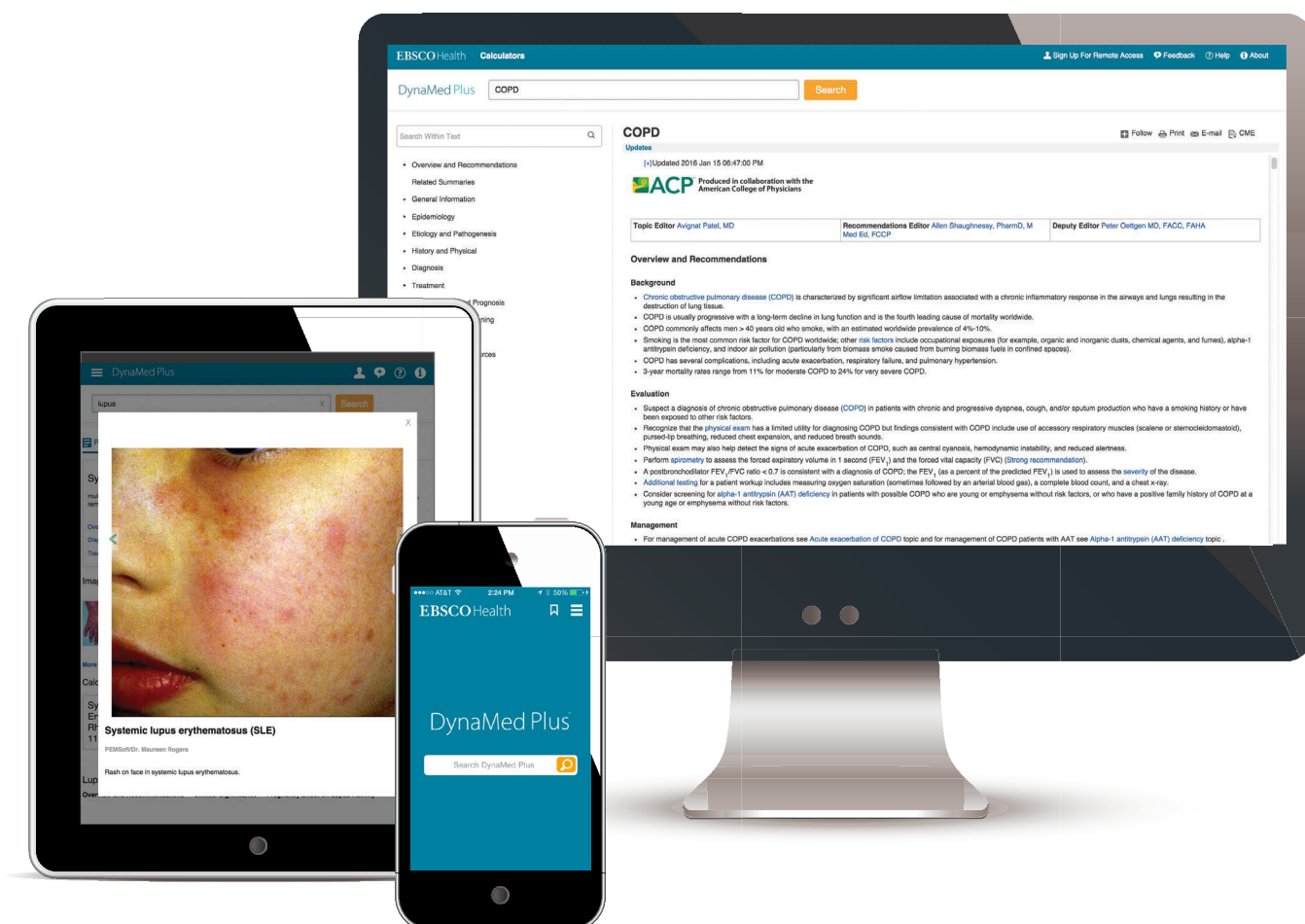
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