Please note all CEC descriptions are provided by each instructor and are half day courses.

CEC 1. **Introduction to research metrics (bibliometrics and altmetrics) and researcher profiles**.
Venue: Science IT Room 2, 1st Floor, Main Building - **Monday 9.00 - 12.30**
Target audience: Delegates with some knowledge of research profiles and the use of bibliometrics and altmetrics to assess research impact but no in-depth experience of finding and using them.
Course Level: Introductory

Aims:
This day will offer an introduction to supporting health care researchers in enhancing the visibility of their publications and measuring research impact.
Delegates will become familiar with:
• methods for increasing the visibility of a researcher's academic identity and profile
• methods for increasing the visibility of an individual research publication
• some techniques and resources to track citations and key sources of citation data
• other ways of showing impact such as altmetrics (social media citations)

Learning Outcomes: *(Please describe the intended learning outcomes)*
By the end of the workshop, participants should be able to:
• Understand the ways in which a research profile might be raised with researchers, including the use of IDs such as ORCID
• Apply the knowledge to advise researchers with some hints and tips for maximising the impact of a publication
• Understand the language and jargon around citation impact measurements (bibliometrics)
• Understand how to find bibliometrics in the Web of Science and Scopus databases
• Apply the knowledge to teach the basic concepts of impact measurement to others
Description / agenda:
• Introduction to research impact measurement via metrics
• Tips for researchers to increase their visibility
• Measuring the impact of research via biblio- and altmetrics
• Lab work: Making an impact!: Bibliometrics, Researcher Identities and Altmetrics
Prior experience of searching in Scopus and/or Web of Science databases would be of value.
Keywords: *(Please list up to 5 keywords to describe your workshop)*
citations
bibliometrics
altmetrics
research metrics
researcher identity

Is preparation in advance by participants applicable?	No
Is the participants expected bring their own laptops or tablets to enable hands-on participation?	No
Preparatory Work (for participants) *[Insert details of any preparatory work delegates are required to complete in advance of attending the course].*	No
[Insert contact details for further information] weightmanal@cardiff.ac.uk	
Course Leader Details: [*Please provide a brief biography yourself less than 200 words*] Alison Weightman is the Head of Research and Academic Engagement at Cardiff University Library and Director of the Specialist Unit for Review Evidence (SURE). She has practical experience of finding and using research metrics both as a librarian and a researcher. Kate Bradbury is the research analytics expert at Cardiff University Libraries. She provides advice, promotes awareness and carries out analyses to maximise the value of the citation tools available for the University research community.	

CEC 2. Automation technologies for undertaking HTAs and systematic reviews
Venue: Science IT Room 2, 1st Floor, Main Building - Monday 13.30 - 17.00
Target audience: Information specialists and systematic review / HTA authors
Course Level: Intermediate

Aims:
  I.   To outline some of the ways in which these new technologies are being applied in practice - and how 'close' they are to being ready for adoption;
  II. To provide an opportunity for participants to try out a variety of open, online tools for themselves.
  III. To facilitate discussion on the role of the information specialists in undertaking critical evaluations and methodological development in this area.

Learning Outcomes: *(Please describe the intended learning outcomes)*
Participants should be able to: 1) differentiate between some of the ways that these technologies can help with study identification and classification; 2) be in a position to engage in debate and evaluation concerning the future use of these tools - and how they think that the field needs to develop; and 3) understand how specific tools might be useful in their own work.
Description / agenda:
The application of text-mining and machine-learning technologies to support the processes of undertaking health technology assessments (HTAs) and systematic reviews is evolving rapidly. Information specialists and librarians can contribute though evaluating and developing methods on how these technologies are implemented into evidence synthesis workflows. The processes impacted by these technologies include identifying studies through searching and screening, mapping and describing research studies, creating citation networks, capturing text and graphical study data for analysis and classifying PICO entities.
OUTLINE of session:

1) Opening presentation: to 'set the scene' with regards to the data deluge problem that systematic reviewers face, and the types of technologies which may help to alleviate this problem.

2) Interactive sessions: most of the time in the workshop will then be spent in interactive form. Each technology will be presented; there will then be a period where participants are able to try the tools themselves; and each mini-session will then close with discussion as to the pros and cons of the tools and how they might be used in specific use scenarios. The following technologies will be examined:

- text analysis for search strategy development; machine learning classifiers, built on large datasets, which classify citation records according to their study type (e.g. RCT, DTA, Systematic Review, Economic Evaluation);
- active learning / priority screening for citation screening (where the machine 'learns' iteratively from human decisions);
- building custom machine learning classifiers;
- using topic modelling and citation networks to identify and visualise clusters of related research (i.e. to 'map' research activity).

3) Open discussion: after exposure to the range of tools and technologies, participants will be ready to engage in discussion and debate as to their relative levels of maturity and readiness for use, and consider an agenda for further research and development.

Keywords: *(Please list up to 5 keywords to describe your workshop)*
Automation
Systematic review / HTA
Machine learning
Text mining
Search

Is preparation in advance by participants applicable?	**Not required, but some prior reading might help**
Is the participants expected bring their own laptops or tablets to enable hands-on participation?	**Yes, participants will need their own laptops**
Preparatory Work (for participants) *[Insert details of any preparatory work delegates are required to complete in advance of attending the course].*	**Not required, but participants might find it helpful to read the following before attending:** Thomas J, Noel-Storr A, Marshall I, Wallace B, McDonald S, Mavergames C, Glasziou P, Shemilt I, Synnot A, Turner T, Elliott J on behalf of the Living Systematic Review Network (2017) Living Systematic Reviews: 2. Combining Human and Machine Effort. *Journal of Clinical Epidemiology* Further information about how some of these technologies are being rolled out is given in this blog piece: https://blogs.technet.microsoft.com/machinelearning/2017/04/20/text-mining-to-improve-the-health-of-millions-of-citizens/
[Insert contact details for further information] **James Thomas: james.thomas@ucl.ac.uk**	

CEC 3. Synchronous Online Teaching – Keeping virtual classroom students engaged
Venue: Room 0.27A, Ground Floor, Haydn Ellis Building - Monday 9.00 - 12.30
Target audience: Medical Librarians who are responsible for teaching to their clients, bu can be anyone teaching synchronous online courses, whether Librarian or other
Course Level: Intermediate
Participants should have some background in teaching to library users.

Aims:
Training whether online or face to face is a major marketing and promotional tool to increase library users use of library resources.

Teaching online allows for more flexibility in course offering, can reduce costs and has much wider reach than traditional face to face classes. Online teaching lines up with the virtual library, in that now not only are library resources online, but the library instructor is too.

Learning Outcomes: *(Please describe the intended learning outcomes)*
This courses will focus on Synchronous Online Teaching.

1)   Articulate the basic principles of teaching
2)   Understand the challenges of teaching online
3)   Determine the similarities and differences between face to face and online teaching
4)   Learn how to mitigate the challenges
5)   Technology – the options and what are the choices
By the end of this course participants will be able to:

1) dispel some of the myths of online teaching,
2) improve the learning experience and environment for their students.
3) adapting their teaching style to an online environment.
Description / agenda:
Max 4 hours with a 15-25 minute break

Lecture method with 5-7 activities. While this course talks about online teaching, use technology is not mandatory. During the lecture, participants will concentrate on the presenter and the presentation. Various activities will allow the participants to "recreate" the online experience.

- A follow-up "voluntary" actual online course is then offered to all participants interested within a month of the face to face class, where each willing participant will be allowed to demonstrate a short "wowze them" librarian's trick. (example of a WOWze them short session - http://www.screencast.com/t/NjFkMDc1N Turning a WORD bibliography into an

EndNote Database), and at the same time allowing them to demonstrate their skills in teaching online

Keywords: *(Please list up to 5 keywords to describe your workshop)*
Online Teaching
Web-based instruction.
Computer-assisted instruction.
Distance education.
Teacher-student relationships**.**

Is preparation in advance by participants applicable*?*	**Preferably attend at least one webinar session of their choice if possible (to have the experience as an online participant).**
Is the participants expected bring their own laptops or tablets to enable hands-on participation?	**Participants are welcome to bring their own computers to the class. Computers should be internet ready as well as having appropriate microphone headset.**
Preparatory Work (for participants) *[Insert details of any preparatory work delegates are required to complete in advance of attending the course].*	
[Insert contact details for further information] **allent@who.int**	
Course Leader Details: [*Please provide a brief biography yourself less than 200 words]* Librarian for over 15 years within the unit of Library & Information Networks for Knowledge situated within the World Health Organization, Geneva, Switzerland. Tomas' current responsibilities in the WHO Library include Reference, In-depth Searching, Historical research as well as Training (both local and regional). With over 20 years of face to face teaching on both sides of the continent, Tomas has now moved online and has 5 years of teaching online within the global workforce of WHO. Tomas is originally from Manitoba, Canada with a Masters of Library and Information Studies from McGill University (Montreal, Canada). Tomas is an active member of the European Association of Health Information and Libraries (EAHIL) having been an instructor, speaker and presenter at many of the EAHIL conferences and workshops.	

CEC 4. **Developing effective publication strategies to raise Research Visibility, Impact and Citations**
Venue: Room 0.27A, Ground Floor, Haydn Ellis Building - Monday 13.30 - 17.00
Target audience: Anyone interested on online visibility and publishing strategies.

Course Level: Introductory/Intermediate

Aims: Do you want to enhance the profile of your institution's research? Or maybe raise your own professional profile? In both cases, this CEC will provide you with strategies and resources to promote online presence, and therefore increase your network and your impact.

Learning Outcomes: *(Please describe the intended learning outcomes)*
- *Remember* main concepts of Open Access, Social Media and Metrics.
- *Understand* the importance of personal profiles to raise visibility for researchers, institutions, and librarians themselves.

- *Analyse* the needs and gaps that can be improved, and how can profiles be enhanced depending on the context.
- *Apply* known and new resources to support a strategy to increase research impact.
- *Create* an effective strategy to raise visibility through consistent professional profiles.
- **Description / agenda:**

Visibility of research is a key issue to increase citations and subsequent impact of individuals and institutions. This CEC is planned as a practical session to put forward strategies, and demonstrate the use of tools and resources developed in the context of open science, social media, and bibliometrics.

Block 1 (30 minutes): Brief introduction on some main concepts:

- o Impact, bibliometric indicators and sources to obtain metrics.
- o Benefits and risks of OA and open research data.
- o Resources: personal digital identifiers, institutional research portals, professional/academic social media, research data management plans.

Block 2 (45 minutes): How to get a picture of your profile, and to discover the gaps that need to be improved:

- o Do I or my institution have a publication strategy?
- o Is the work well attributed, with a consistent author name and affiliation?
- o Are we publishing in the right places? What about predatory publishers?
- o How should be a plan to collect, describe, anonymize, storage and preserve my data?
- o Which would be the most accurate way to share my research?
- o What should we know about licensing, copyright and creative commons?

Exercise: How much do you know about the publication trends in your institution? Develop an analysis based on your CRIS or from a developed outputs dataset.

Block 3 (45 minutes): Publication strategies to promote research visibility:

- o How can I benefit from Open science?
- ▪ Reasons to opt for an open repository, choose the right one. Besides the institutional repositories, there are a remarkable number of open repositories: general (Zenodo) or subject based (arXiv, bioRxiv.org, etc.), data repositories.
- ▪ Prepare the document or dataset to be shared.
  - o Where should I promote my research?
- ▪ Using institutional research profile portals.
- ▪ Using personal digital identifiers (Orcid, Google Scholar, Scopus ID, Researcher ID)
- ▪ Using social media: ResearchGate/Academia.edu. Impactstory. Other.

Exercise: Develop personal digital identifiers and profiles, examining the main particularities

- - Block 4 (30 minutes): The participants will work in small groups, preparing a plan to increase research visibility.
- - Block 5 (15 minutes): Round up, reflexions, and conclusions.

Keywords: *Research visibility; Impact; Publishing strategies; Metrics; Open access*

Is preparation in advance by participants applicable?	No
Is the participants expected bring their own laptops or tablets to enable hands-on participation?	*Yes, it would be recommendable for some practical exercises*
Preparatory Work (for participants) *[Insert details of any preparatory work delegates are required to complete in advance of attending the course].*	*Although previous preparation is not necessary, to get the most of this course it would be suitable to think about the questions raised in Block 2*

[Insert contact details for further information]
Alicia F. Gómez-Sánchez – a.gomez-sanchez@herts.ac.uk
Rebeca Isabel-Gómez – rebeca.isabel.ext@juntadeandalucia.es

Course Leader Details: [*Please provide a brief biography yourself less than 200 words*]

Alicia F. Gómez-Sánchez
Alicia is Research and Scholarly Communications Information Manager at the University of Hertfordshire (UK). Prior to this she worked as Head of the Library and Information Service at the Spanish National Cardiovascular Research Centre (Madrid, Spain), and has being Associate Professor for years at the Universidad Autónoma de Madrid and the Universidad Alfonso X el Sabio (both in Madrid, Spain). She also worked for ABBOTT Diagnostika (Frankfurt, Germany).
She has an extensive experience in scientific information, management of research and institutional evaluation, and analysis of scientific production through bibliometric indicators. Her current lines of research focus on responsible metrics, open science, as well as developing strategies for publishing and disseminating research, with a particular interest on Biomedicine and Health Sciences.

Rebeca Isabel-Gómez
Rebeca works as Information specialist & knowledge manager at the Andalusian Health Technology Assessment Agency since 2012, before this, she has been working in the health information field along the last 17 years, developing her work on several libraries and information centers. In addition, she has a broad teaching experience in medical information, and is an active member in several research groups related to health information science.
Her current research interests include research methodology, developing search strategies (improving accuracy and sensibility), biomedical resources, dissemination of information and Open Science.

CEC 5. **PRESSing your search strategies and AMSTARing your systematic reviews: have a go session**
Venue: Room 1.08, 1st Floor, Optometry Building - **Monday 9.00 - 12.30**
Target audience: Any information professional involved in, or hoping to be involved in, health care systematic reviews
Course Level: Introductory/Intermediate

Aims:
1.   To use the PRESS checklist to help assess other systeamatic review searches
2.   To use this experience to help develop own systematic review searches
3.   To gain exerience of using the AMSTAR method to review a published systematic review
4.   To use this experience to gain confidence in writing systematic reviews

Learning Outcomes: *(Please describe the intended learning outcomes)*
- Increased confidence in using PRESS
- Increased confidence in writing own search methods and publishing own search strategies
- To be able to peer review a search strategy using PRESS
- To be able to critically appraise the search methods in a systematic review

Description / agenda:
The session will be split into two:
1.   Using the PRESS checklist to assess a published search strategy.
We will all start with the same published search strategy and feedback. The groups will PRESS a different second one and feedback.

The second part of this session will involve a discussion around how we, as information professionals, can use this experience to develop and publish our own search strategies.

2. Using the AMSTAR checklist to assess the methodological quality of a published systematic review.

We will all start with the same one and feedback. The groups will then assess a different second systematic review and feedback.

The second part of this session will be a discussion generally about writing and publishing systematic reviews and the role of the information professional within it

The workshop leaders will act as facilitators and encourage participants to share their experiences. They will also encourage participants to detail in a personalised action plan what they might do differently back at their workplace

Keywords: *(Please list up to 5 keywords to describe your workshop)*
Searching; systematic review; appraisal

Is preparation in advance by participants applicable*?*	No
Is the participants expected bring their own laptops or tablets to enable hands-on participation?	Laptops or tablets would be very helpful
Preparatory Work (for participants) *[Insert details of any preparatory work delegates are required to complete in advance of attending the course].*	*None*
[Insert contact details for further information] A.bethel@exeter.ac.uk	
Course Leader Details: [*Please provide a brief biography yourself less than 200 words*] *Alison Bethel. I have been a member of the Evidence Synthesis Team at the University of Exeter Medical School for 6 years. In that time I have been the information specialist on over 20 published reviews and provided advice for many more. With my colleagues I teach systematic review searching to undergraduates, postgraduates and researchers, we also run a workshop for information specialists on systematic reviews. My areas of interest include how we can better share our search results to ensure our searching is more evidence base and communication within our field.*	

CEC 6. Licensing for medical librarians
Venue: Room 0.27B, Ground Floor, Haydn Ellis Building - Monday 13.30 - 17.00
Target audience: Librarians in charge of negotiating licenses in a digital context
Course Level: Introductory**/**Intermediate /Advanced (*please indicate*)
The course will be introductory. There is no need for previous in depth knowledge, although some experience would be advantageous.

Aims:
The aim of this course is to provide medical librarians with the appropriate tools to understand the different connotations of license clauses and negotiate their terms with publishers.
Learning Outcomes:
• *Different license models*
• *Parts of a license*
• *Rights and obligations of Licensor, Licensee and Authorized users.*
• *Specific clauses:*

- Interlibrary loan
  - Course packs
  - Confidentiality
  - Remote access
  - Automatic renewal
  - Perpetual access
  - Title swaps
  - Taxes
  - Statistics
  - Governing law and courts
- *Review of applicable copyright laws*
- *Application of the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)*
- *Implication of Open Access policies in the licensing process*

Description / agenda:
This course will be divided into two parts.
The first part, which will last for approximately two hours, will consist of the following items.
- Licence agreement definition
- Study of a license content
- Identification of key clauses

The second part of the course will be interactive, lasting about 1 hour, and dealing with practical issues. Working in groups we will discuss the following questions:
1. Which of these clauses can be negotiated with publishers? What can be proposed or changed in a license?
2. Would it be possible to negotiate the inclusion of our organization's research output in the repository, in the licenses which are signed? What are the implications of Open Access in the licensing process?
3. Could the creation of a license model for medical libraries be practical?

Keywords:
Licenses, publisher, content owner, negotiation, clauses

Is preparation in advance by participants applicable?	**No, it is not applicable**
Is the participants expected bring their own laptops or tablets to enable hands-on participation?	**No**
Preparatory Work (for participants) *[Insert details of any preparatory work delegates are required to complete in advance of attending the course].*	***There is no preparatory work***
[Insert contact details for further information] **Laura Muñoz González: laura.munoz.gonzalez@juntadeandalucia.es**	
Course Leader Details: [*Please provide a brief biography yourself less than 200 words*] ***Laura Muñoz***, *Masters in Business Administration, and Masters in Strategic Management of Knowledge and Information. I have been working for the Digital Health Library of Andalusia,*	

Spain (Andalusia eHealth Library, Biblioteca Virtual del SSPA), for twelve years. I am in charge of the Strategic Management and Project Department, and licensing is one of the main tasks of my daily work.

Previously I worked for public and private companies, managing departments.

I have participated as a speaker in several Conferences and Congresses on Library Management and lately I co-chaired the Organizing Committee of the 2016 EAHIL Conference. I have also written some articles about licensing and economic library resources.

Veronica Juan, *Doctor in Medicine since 1997, Degree in Medicine since 1985.*

Doctorate in Medicine and Surgery by the Alicante University with a Dissertation on Scientific Documentation.

Official employee of Documentation Centers, Libraries and Archives since 1986, I am the Director of the Andalusian eHealth Library since 2005, depending on the Andalusian Health Ministry. I am in charge of the Digital Library of the Andalusian Health System which attends a population of 9 million inhabitants, with 100,000 Health Professionals. The Andalusian eHealth Library coordinates a network of 42 medical libraries.

I have taken part in several Conferences and Congresses related to Health Information since the first Health Information and Documentation Conference held in Spain in 1986. I am a member of EAHIL since 1986 and was the Chair of the 2016 EAHIL Conference.

I combine my work at the library with the academic one as a teacher for Scientific Documentation Courses and Masters at Hospital Research Units and Universities.

I have published several research works and participate in Investigation and Development projects about Health and Information Sciences. I directed three Doctorate Dissertations and two works for obtaining the Advanced Study Degree in Scientific Documentation.

CEC 7. Introducing electronic laboratory notebooks (ELNs): What are they and how can information professionals support their use?
Venue: Room 0.27B, Ground Floor, Haydn Ellis Building Monday 9.00 - 12.30
Target audience: The CEC is targeted at information professionals interested in electronic laboratory notebooks (ELNs) and in supporting biomedical researchers in active research data management.
Course Level: Introductory
The level will be introductory. Previous knowledge on ELNs, or biomedical research methods is not required.

Aims: For centuries, the research process in biomedicine is documented in paperbased laboratory notebooks. As nowadays more and more data are collected in digital form however, a growing number of researchers is considering the use of electronic laboratory notebooks (ELNs). ELNs offer the chance to foster active research data management, as they facilitate collecting, documenting and sharing data with the corresponding metadata, such as experimental parameters. Therefore, many universities and other research institutions are currently developing support services for ELNs. The aim of this course is to provide participants with basic knowledge on ELNs as an emerging technology. Following a presentation of three different approaches to establish ELN services, participants will explore and discuss possibilities of supporting the use of ELNs at their institution. In addition, there will be the possibility to try different ELNs hands-on.

Learning Outcomes: *(Please describe the intended learning outcomes)*
- Understand the role that (electronic) laboratory notebooks play in documenting the biomedical research process.
- Discuss the key characteristics, strengths and weaknesses as well as challenges during implementation of ELNs compared to paper-based lab notebooks.
- Compare and discuss institutional approaches for integrating and supporting the use of ELNs.

Description / agenda:
Introduction to ELNs
- What are (electronic) laboratory notebooks?
- Introducing important ELN functionalities, strengths and weaknesses, implementation challenges
- ELNs as building blocks of research data management
ELN case studies
- University of Göttingen: Establishing an ELN in the Collaborative Research Center 1002: Modulatory Units in Heart Failure – user's perspective
- University of Edinburgh: Offering an ELN as part of the university's RDM services – institutional perspective
- University of Marburg: Establishing ELN support services – insights from the beginning of the process
Concluding discussion
- Which ELN support services can information professionals centrally deliver? Which aspects remain in the researchers' domain? How can both sides work together?

Keywords: *(Please list up to 5 keywords to describe your workshop)*
research data management ; active data management ; electronic laboratory notebooks

Is preparation in advance by participants applicable*?*	**No**
Is the participants expected bring their own laptops or tablets to enable hands-on participation?	**No**
Preparatory Work (for participants) *[Insert details of any preparatory work delegates are required to complete in advance of attending the course].*	**No**
[Insert contact details for further information] **evamaria.krause@uni-marburg.de**	

| Course Leader Details: | [*Please provide a brief biography yourself less than 200 words*] |

Course Leader Details: [*Please provide a brief biography yourself less than 200 words*]

Evamaria Krause currently works in the Research Data Service Team at Philipps-Universität Marburg, Germany, with a focus on life sciences. She holds a PhD in Biology and an MA (LIS). In her LIS master thesis, she investigated electronic laboratory notebooks in the context of institutional research data management strategies.

Harald Kusch is researcher at the Department of Medical Informatics at the University Medical Center Göttingen, Germany, and is involved in the development of digital services for basic biomedical research. Since 2014 he coordinates a pilot implementation of an Electronic Lab Notebook integration as a module of a Research Data Platform into the IT infrastructure of University Medical Center Göttingen.

Dominic Tate is the Head of Library Research Support at the University of Edinburgh. Dominic and his teams provide help and support for the University's staff and students in all matters relating to research data management, scholarly communications and research publication, (including open access) bibliometrics and copyright. In addition, the teams manage the Universities research information systems and publications and data repositories.

CEC 8. Student-activating methods in information literacy
Venue: Room 1.40, (Beverton LT), 1st Floor Main Building – Tuesday 9.00 - 12.30
Target audience: Teaching Librarians
Course Level: Intermediate

Aims: Inspire teaching librarians to develop their pedagogy using student-activating methods, whether in an Active Learning Classroom or in a more traditional classroom setting.

Learning Outcomes:
Familiarity with a variety of pedagogical tools and activities that can be used to enhance student centered learning in information literacy instruction

Description / agenda:
This CEC deals with strategies useful for transforming traditional lecture-based information literacy instruction into more student focused and activating sessions. Questions that will be covered: How does one go about devising active learning activities for the fostering of information literacy in students? How does one alleviate fears about the teacher's diminished control over the course of events in the classroom, which might accompany the redirected focus from teacher performance to student engagement? How does one handle the fact that active learning activities usually mean that less content will be covered in-class as compared to traditional lecturing?
We will give hands-on examples with exercises and activities tailored to enhance student information literacy skills, for example choosing search terms, the critical reviewing and evaluating of sources, developing search strategies, and reference writing

Keywords:
Course development, Student centered learning, Active Learning Classroom

Is preparation in advance by participants applicable?	No
Is the participants expected bring their own laptops or tablets to enable hands-on participation?	Yes – smartphone or tablet or laptop will do

Preparatory Work (for participants)	Nothing
[Insert details of any preparatory work delegates are required to complete in advance of attending the course].	

[Insert contact details for further information]
eva.hessman@ub.gu.se
helen.sjoblom@ub.gu.se

Course Leader Details:
Eva and Helen are teaching librarians at the Biomedical Library at Gothenburg University, Sweden. They have fifteen years' experience of user education, and their professional focus is information literacy training for students and researchers within health sciences. They also work with researcher support services in matters relating to information retrieval, reference management, publication strategies and systematic reviews.
Starting 2013, Eva and Helen have worked with the transformation of the information literacy courses towards a more student-centered approach, and undertaken a project to reconstruct the classrooms from traditional computer rooms to Active Learning Classrooms.

CEC 9. Focusing on Engagement: Introducing Gaming into Library Instruction
Venue: Room 1.08, 1st Floor, Optometry Building - Monday 13.30 - 17.00
Target audience:
Librarians with instructional or planning responsibilites
Course Level: Introductory

Aims:
This course aims to:
- introduce students to the value of gaming as pedagogy
- provide a working outline for the implementation of games into the library classroom

Learning Outcomes: *(Please describe the intended learning outcomes)*
Participants in this course should leave the session achieving the following learning outcomes: a) understand the term "gamification" in relation to education; b) explain the use of gaming in the educational landscape at an introductory level and give examples of how gamification can be incorporated into educational activities; c) critically appraise learning objectives and content, and select appropriate incentives and gaming structures; d) construct clear rules and directions around their game; and e) identify what resources will be needed to successfully conduct their gaming activity.

Description / agenda:
Introductory didactic providing an overview of gaming and pedagogical theory (30 min)
Small group gaming activity (30 min)
Large group session debrief (15 min)
Break (15 min)
Didactic on the principles and practice of using games in instruction (15 min)
Brainstorm and small group activity (30 min)
Group sharing (30 min)
Closing comments, Q&A, and evaluation (15 min)
Keywords: *(Please list up to 5 keywords to describe your workshop)*
gaming, flipped classroom, information fluency, information literacy, evidence-based practice

Is preparation in advance by participants applicable?	Yes
Is the participants expected bring their own laptops or tablets to enable hands-on participation?	Yes
Preparatory Work (for participants) *[Insert details of any preparatory work delegates are required to complete in advance of attending the course].*	Pre-Test
[Insert contact details for further information] **jmg2015@qatar-med.cornell.edu**	
Course Leader Details: [*Please provide a brief biography yourself less than 200 words*] Jamie M. Gray is the Director of the Distributed eLibrary at Weill Cornell Medicine – Qatar. Previously, she served as part of the library leadership team at both Stanford School of Medicine's Lane Medical Library and the University of Washington Health Sciences Library. Her professional interests are varied and include interprofessional leadership, evidence-based practice, and the library's role in helping to address the social determinants of health. Nicole Capdarest-Arest is head of Blaisdell Medical Library at University of California, Davis, where she manages library operations and works closely with faculty, researchers, staff and students in the School of Medicine, Betty Irene Moore School of Nursing, University of California Davis Health Care System, Clinical and Translational Science Center, and the many affiliated research centers and institutes. Prior to that, Nicole has held roles as a clinical librarian at Stanford University School of Medicine and emerging technologies librarian at Arizona Health Sciences Library at The University of Arizona. Nicole has deep experience in education, both classroom and online, and has developed and delivered curricula around information fluency using novel and interactive teaching methods.	

CEC 10. Reporting of systematic review methods: assessing common pitfalls using the ROBIS (Risk of Bias) tool and how to avoid them
Venue: Room 1.08, 1ˢᵗ floor, Optometry Building - **Tuesday 9.00 - 12.30**
Target audience: Novice searchers and those new to systematic review work
Course Level: Introductory

To ensure systematic reviews (SRs) are transparent, methodical and reproducible, it is essential that search methods are well-conducted and clearly reported. Nevertheless many SRs fail to adequately report the search methods undertaken. Our own findings indicate that 80% of SRs which are rated overall as high risk of bias (RoB) using the ROBIS (Risk of Bias) tool have also been marked as high RoB in Domain 2 of the ROBIS tool which assesses the identification and selection of studies for the SR. Our research shows that although searching is the foundation of a SR, it is not always given the appropriate time, resources and expertise, and is often reported unclearly and inadequately.
The workshop aims to highlight how SRs fail to report effectively the work which is most often undertaken by an information specialist or librarian. By the end of the workshop, participants will know how to critically appraise the quality of search methods in a SR and how to prevent poor reporting of search methods by following some simple tips and guidelines.

Aims: This workshop aims:
- To emphasise the significance of search methods to the overall outcome of a systematic review

- To demonstrate how to use Domain 2 (Identification and Selection of Studies) of the ROBIS tool to critically appraise the search methods of a systematic review
- To illustrate how to report systematic review search methods effectively so as to avoid common reporting errors which can have an impact on the overall rating of a ROBIS assessment

Learning Outcomes: *(Please describe the intended learning outcomes)*
- To be able to apply Domain 2 of the ROBIS tool to critically appraise the search methods of SRs
- To use this experience to improve the reporting of search methods
- To be better able to support researchers undertaking SRs and avoid common reporting errors of search methods

Description / agenda: The workshop will be in three parts:
- A presentation explaining the ROBIS tool and Domain 2 of ROBIS; an explanation as to the significance of Domain 2 and how it impacts the whole SR; and a description of common, avoidable reporting errors often seen in ROBIS assessments of SRs
- A practical where participants will work in groups to critically appraise the search methods of systematic reviews using ROBIS. Participants will have a chance to re-write the search methods to avoid the mistakes and errors that have been picked up in the appraisal.
- Feedback where groups will report their findings and will present their re-written examples. The facilitators will conclude with a summary of the main learning points and will stress the significance of the search methods to the overall outcome of the systematic review and the importance of the contribution of the information specialist / librarian.

Keywords: *(Please list up to 5 keywords to describe your workshop)*
- Systematic reviews
- Critical appraisal
- Search methods
- Reporting
- ROBIS (risk of bias) tool

Is preparation in advance by participants applicable?	No
Is the participants expected bring their own laptops or tablets to enable hands-on participation?	No
Preparatory Work (for participants) *[Insert details of any preparatory work delegates are required to complete in advance of attending the course].*	None
[Insert contact details for further information] Shelley de Kock shelley@sytstematic-reviews.com Caro Noake caro@systematic-reviews.com	
Course Leader Details: [*Please provide a brief biography yourself less than 200 words]* Caro and Shelley are experienced information specialists who design and run literature searches for systematic reviews and health technology assessments undertaken by KSR and other contracted organisations. In addition, they critique the search methods of company SR submissions to NICE. Both Caro and Shelley are also involved in the production and maintenance of the KSR Evidence database.	

CEC 11. **Introduction to critical appraisal in health care research**
Venue: Room 1.08, 1st Floor, Optometry Building – Tuesday 13.30 - 17.00

Target audience: Librarians and information specialists with some knowledge of the different types of research design used to answer health care intervention-related questions but limited experience of assessing study design quality.
Course Level: Introductory

Aims: The aim of the workshop is to introduce health care librarians to the basic concepts of critical appraisal and to support the development of their skills to support researchers and facilitate clinicians in practicing evidence-based medicine.
Delegates should become familiar with:

• The use of post-publication critical appraisal, and why it is necessary
• Methods employed

This half-day workshop will concentrate on the critical appraisal of a research study exploring an intervention.
Learning Outcomes: *(Please describe the intended learning outcomes)*
By the end of the workshop, participants should be able to:

> • Understand what is meant by critical appraisal and why it is necessary
> • Understand the different types of experimental intervention study designs used in health services research
> • Understand where to locate checklists and guides for critically appraising these studies
> • Apply the knowledge gained from the critical appraisal of a research paper to appraise other similar papers
> • Apply their knowledge to teach others the basic concepts of critical appraisal

Description / agenda:
• What is critical appraisal and why is it necessary?
• Critical appraisal of experimental interventional research
Intervention study designs
Which design? [Group work]
Questions to ask when appraising an experimental intervention study
• Critical appraisal of a randomised controlled trial [Group work]
• Locating checklists and guides
• Open discussion
Keywords: *(Please list up to 5 keywords to describe your workshop)*
critical appraisal
critical reading
health care research
interventions

Is preparation in advance by participants applicable?	Yes
Is the participants expected bring their own laptops or tablets to enable hands-on participation?	No

Preparatory Work (for participants)	Yes, pre-reading of the paper to be critically
[Insert details of any preparatory work delegates are required to complete in advance of attending the course].	appraised. This will be sent out to delegates one week in advance of the workshop.

contact details for further information]
weightmanal@cardiff.ac.uk

Course Leader Details:

Alison Weightman is the Director of the Specialist Unit for Review Evidence (SURE) at Cardiff University; a largely grant funded unit whose staff specialise in carrying out systematic reviews, developing and teaching review techniques. She has 20 years' experience as a systematic reviewer and has a particular interest and expertise in reviewing, and developing systematic review techniques for complex health care topics.

Helen Morgan has 11 years' experience as an information specialist and systematic reviewer in SURE, predominantly gained in the public health and health technology fields. She has expertise in advanced literature searching, critical appraisal and synthesis of research findings.

CEC 12. From Systematic Reviews to Routine Information Skills: Two Sides of the Same Coin

Venue: Room 1.01B, 1st Floor, Haydn Ellis Building - Tuesday 13.30 - 17.00
Target audience: Academic/Research/Hospital librarians and information professionals
Course Level: Introductory/Intermediate

The skill sets, procedures, and knowledge of systematic reviews, and similar study types, can be tailored to every day work and research as a health information professional.

Naturally it's important for information professionals to be familiar with the research methodology of the medical field; especially when the study methodology pairs so nicely with our librarian and information professional expertise. Systematic reviews are an opportunity for librarians and information professionals to collaborate with our communities as well as cultivate our own research and management skills. Systematic reviews require project management, a research methodologist, instruction skills, citation management, and comprehensive search skills; which are all aptitudes that can be transitioned to other aspects of our work.

This three-hour CE course will briefly introduce different kinds of reviews along with their methodologies and expectations. Protocols, standards, and the overall process of systematic reviews will also be covered. The instructor's Systematic Review Contract Packet will also be shared and discussed. Most of the session will be focused as a hands-on, interactive workshop to heighten search strategy skills, including database searching and targeted Google searches, reference management software tips (Zotero vs. EndNote), and project management tips. All of these topics will be within the scope of conducting a successful systematic review, or other large-scale research project, and how all of these skills can be transitioned into other aspects of our work.

This course is most suitable for those who have conducted few systematic reviews as well as those who have not conducted any; however, all are welcome!

Aims:
The aim of this course is to bridge skillsets from those needed to manage a systematic review process to roles of every day librarianship, i.e. project management, searching for literature, instruction, etc. This course aims to generally educate attendees about the processes of different systematic reviews while enhancing and introducing new tactics and tools that can be used within the scope of conducting a heavy research project or within other roles and duties.

Learning Outcomes: *(Please describe the intended learning outcomes)*
1. Understand and be able to identify different types of systematic reviews, their methodologies, and protocols.
2. Apply search strategy techniques for several databases and evaluate for accuracy and possible biases through practice and think-pair-share activities.
3. Practice using the free, citation management software Zotero and be able to compare differences between Zotero and the cost-bearing software, EndNote.
4. Describe and compare project management & information skills among major, research projects (systematic reviews) and everyday librarianship through discussion and case-based activities.

Description / Agenda:
1. Different Reviews for Different Research Questions & Typical Workflow of a Standard Systematic Review
    a. What is a systematic review and what do you mean there are different kinds of systematic reviews?
 i.Including: realistic timeframe, ideal team, inclusion/exclusion criteria, and protocols/standards
2. Search Strategy & Technique
    a. PubMed and traditional database search strategies
    b. Targeted Google search and other grey literature search tips
~Short Break~
3. Project and Information Management
    a. What to save and how for publication (protocols)
    b. Citation management system (EndNote vs. Zotero)
    c. Research team management considerations
4. Taking these and applying to other aspects of our work
    a. Including, but not limited to: instruction, negotiating, better searches, & advocacy
    b. Brainstorming session

Keywords: *(Please list up to 5 keywords to describe your workshop)*
Systematic Review; Librarian & Information Professional Roles; Project Management; Citation Management; Search Strategy

Is preparation in advance by participants applicable*?*	Yes
Is the participants expected bring their own laptops or tablets to enable hands-on participation?	Yes
Preparatory Work (for participants) *[Insert details of any preparatory work delegates are required to complete in advance of attending the course].*	Please have Zotero Standalone downloaded onto your device prior to class. It's free, directions here: http://bit.ly/2DkNSlS

Course Leader Details: [*Please provide a brief biography yourself less than 200 words*]
Hanna Schmillen is the Health Sciences and Professions Librarian at Ohio University, liaison departments include: School of Nursing, School of Rehabilitation and Communication Sciences, School of Applied Health Sciences and Wellness, Department of Social and Public Health, and Department of Interdisciplinary Health Studies. Hanna has been a librarian at Ohio University since July of 2015. She graduated with her MLIS from the University of Denver in 2015.
Hanna has completed over 55 hours of continuing education contact hours on systematic reviews and evidence-based methodology in the last 2.5 years. In addition, she collaborates with three Ohio University faculty research groups and their systematic reviews; one of which has been published and two are in-process; with more in the works! Hanna has created a Faculty Development Series that focuses on educating Ohio University faculty and graduate students on systematic review processes that is new, but quite successful. Furthermore, she is also collaborating with three colleagues to explore the value and frequency of librarians and information professionals in systematic reviews in multi-disciplines.
Hanna is an active member of the Medical Library Association (MLA) and is currently a Rising Star in the MLA leadership program as well as a member of the Academy of Health Information Professionals (AHIP). She also had the honor of visiting China in the summer of 2017 to represent Ohio University Libraries in a Librarian Exchange Program in collaboration with Northeast Normal University (NENU) of Changchun, China. For a complete C.V.
In Hanna's free time, she enjoys kayaking, cooking/baking, hiking, reading, and spending time with her husband and dog.

CEC 13. Supplementary search methods: who, why, what, how and when
Venue: Science IT Room 2, 1st Floor, Main Building – Tuesday 9.00 - 12.30
Target audience: Librarians and information specialists who are involved in systematic reviews, or hoping to improve their knowledge of systematic search methods
Course Level: Intermediate

Aims: To highlight the importance of supplementary search methods in a systematic review; to share experiences; to gather ideas for identifying best practice

Learning Outcomes: *(Please describe the intended learning outcomes)* Improved confidence in systematic searching; improved knowledge about supplementary search methods
Description / agenda:
The workshop will start with an introduction to the different types of supplementary search methods. In small groups we will examine examples of systematic reviews and their protocols to see how supplementary search methods were carried out and described. We will facilitate small group discussions allowing everyone to share their experiences of supplementary searching: which methods are used and when, how it is carried out, by whom, if/how it is recorded and how the results are screened within the review team. Our own examples of formalising the supplementary search strategy in advance will be shared and discussed using scenarios. The small groups will report back and the results will be collated to give an overview of current practice and examine potential recommendations for best practice in the future.
Keywords: *(Please list up to 5 keywords to describe your workshop)*
Systematic reviews
Supplementary search methods

Citation searching

Is preparation in advance by participants applicable?	No
Is the participants expected bring their own laptops or tablets to enable hands-on participation?	Yes
Preparatory Work (for participants) *[Insert details of any preparatory work delegates are required to complete in advance of attending the course].*	None
[Insert contact details for further information] morwenna.rogers@exeter.ac.uk	
Course Leader Details: [*Please provide a brief biography yourself less than 200 words*] Morwenna Rogers is an information specialist with the Evidence Synthesis Team at the University of Exeter Medical School. Her main role is designing and running search strategies but she also helps the team in most other aspects of systematic review work. Since 2011 she has been involved in around 20 systematic reviews covering child health, dementia, implementation of healthcare interventions and school-based research. In addition she also helps to deliver workshops on finding health evidence and systematic review searching to students, clinicians and other information professionals, and carries out independent research into search methods. Morwenna has also worked as Library Manager at the Royal College of Psychiatrists and is a qualified indexer.	

CEC 14. Systematic Structured Searching of literature in medical libraries
Venue: Science IT Room 2, 1st Floor, Main Building - Tuesday 13.30 - 17.00
Target audience: Persons who assist medical researchers for systematic searching for literature at any level
Course Level: Intermediate
Intermediate knowledge of information retrieval (boolean operators, thesauruses tools, wild cards etc.) and of the databases PubMed and Cochrane Library
Systematic searching in medical libraries occurs often in lack of time and shortage of staff. This may not be a reason for abandoning the best practice of the Cochrane Handbook for Systematic Reviews. Therefore it is very important to be well organised, to have a secure structured method and to be aware of how broad the literature search can be done according to the research aims and the available resources of the purchasers.
The workshop is organised on the basis of practice Exercises. The course instructor shows after a brief introduction at first, how to conduct the research step by step. Than he lets the course participants practice in groups or by themselves. Unclear procedures are finally explained in the plenum. The course is intended for participants that couldn't be present 2016 in Sevilla.

Aims:
The workshop is aimed at teaching following skills:
• The method of structured systematic searching of literature
• Main search skills in Pubmed, Cochrane Library, Clinical Trials.Gov, WHO-ICTRP
• The handling with the search terms
• The handling with the search results in EndNote (if available)
• The compiling of the search protocol

Learning Outcomes: *(Please describe the intended learning outcomes)*
• Understanding the search topic
• Structuring the search topic
• Definition of the search terms
• Definition of the search strategy
• Adapting the search terms to the different databases
• Execution of the search in the most important databases
• Storing the search results in EndNote (if available and time is enough)
• Compiling the search protocol
Description / agenda:

Keywords: *(Please list up to 5 keywords to describe your workshop)*
Systematic searching, search protocol, literature searching, search strategy, search report

Is preparation in advance by participants applicable?	no
Is the participants expected bring their own laptops or tablets to enable hands-on participation?	yes this is an indispensable condition since this is practical workshop
Preparatory Work (for participants) *[Insert details of any preparatory work delegates are required to complete in advance of attending the course].*	*not necessary*
[Insert contact details for further information] grillimaurizio@posteo.de	
Course Leader Details: [*Please provide a brief biography yourself less than 200 words]* Maurizio Grilli (Italy, 1966) first studied German, Norwegian and English language and literature at the University of Bologna. Then he studied Hermeneutics at the University of Heidelberg. Finally, he completed the Master of Library and Information Science study program at the Cologne University of Applied Sciences. Between 2008 and 2014 he was library director at the High School for Health Professions in Bozen (Italy). He is currently employed at the Library for the Medical Faculty of Mannheim, University of Heidelberg. ORCID: www.orcid.org/0000-0001-7649-7242	