

Report on Special Interest Group on MeSH EAHIL + ICAHIS + ICLC Workshop Edinburgh, June 11th 2015



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The Special Interest Group (SIG) on Medical Subject Headings (MeSH) met on June 11, 2015 at lunch time in the beautiful venue of the Main Library at Edinburgh University. In every meeting room of the Main Library there is a portrait and the biography of a woman who studied in Edinburgh and especially distinguished herself in the field of science and/or medicine, despite prejudices and difficulties met at her own time (*Figure 1*).

The 2015 SIG on MeSH, saw the participation of almost thirty Workshop delegates from Belgium, Croatia, Denmark, Estonia, France, Germany, Italy, The Netherlands, Romania, Rwanda, Spain, Sweden, Tanzania, Turkey, United Kingdom and USA, who skipped their lunch or brought it with them in order to know more about important MeSH and PubMed developments. Most of the participants in the meeting were not MeSH translators, but rather information specialists and librarians interested in PubMed, medical terminologies, and more generally in National Library of Medicine (NLM) electronic resources.

After a brief welcome introduction by Maurella Della Seta – Chair of the SIG on MeSH, who invited the participants to present themselves – Dianne Babski, Deputy Associate Director, Library Operations, US National Library of Medicine, took the floor to explain various innovations planned in the near future. She started her speech talking about MeSH: often authors of scientific papers have difficulties in assigning the right key words taken from the NLM controlled vocabulary. NLM developed “MeSH on Demand”, a tool which assigns machine-generated terms to a block of text, using the NLM Medical Text Indexer (MTI) program¹.

Dianne Babski also announced the coming exciting news about MeSH, by the release of two beta versions (November 2014, June 2015) of MeSH RDF. RDF (Resource Description Framework) is a well-known standard for representing structured data on the Web². Systems that use RDF are often called



Figure 1. Portrait and biography of James Miranda Barry (c. 1789-1799, 25 July 1865, born Margaret Ann Bulkley) who graduated at University of Edinburgh Medical School. Main Library, University of Edinburgh.

¹ For more information and for trying this tool see <<http://www.nlm.nih.gov/mesh/MeSHonDemand.html>>. Last visited on July 31st 2015.

² RDF is a general framework for describing website metadata. It provides interoperability between applications that exchange machine-understandable information on the Web.

Linked Data because of RDF emphasis on well-described links between resources. The goals of this NLM initiative can be summarized as follows:

- provide authoritative MeSH RDF and ensure its maintenance and preservation;
- develop an infrastructure for publishing NLM linked data;
- increase NLM knowledge of how people and institutions use MeSH³.

A goal is to have MeSH RDF data in sync with MeSH XML, including the Supplementary Concept Records (SCRs). MeSH (Descriptors and Qualifiers) is updated annually, but there have been occurrences for additional updates.

Linked Data is Web 3.0 resource which allows to connect related data not previously linked. More specifically, Wikipedia defines Linked Data as a term used to describe a recommended best practice for exposing, sharing, and connecting pieces of data, information, and knowledge on the Semantic Web using URIs (Uniform Resource Identifier – string of characters used to identify a name or a resource on the Internet) and RDF⁵. MedlinePlus continues to be the consumer health information pillar, linking out to reliable web resources. NLM provides also a free service called MedlinePlus Connect⁶, that provides linking to consumer health information to systems such as patient portals and Electronic Health Records (EHRs). MedlinePlus is produced in English and Spanish, but also contains links to some topics in a variety of languages (see: <https://www.nlm.nih.gov/medlineplus/languages/languages.html>). Many NLM systems and pages are being responsively designed. This means that no matter how users view NLM resources, they will see the best view, whether a mobile device, tablet or regular computer screen.

The NLM Technical Bulletin is a good resource to subscribe to since you can find information on changes to NLM data and systems. Last but not least Dianne Babski talked about open access to research data. Based on the principle that government funded publications must be open to the public, NLM some years ago developed PubMed Central, a public access repository of scientific papers. An initiative called Big Data to Knowledge (BD2K)⁷ was launched by the US National Institutes of Health (NIH) in 2012, to harvest the wealth of information contained in biomedical Big Data. Biomedical Big Data include imaging, phenotypic, molecular, exposure, health, behavioral, and many other types of data. These data could be used to discover new drugs or to determine the genetic and environmental causes of human disease. The goal of the BD2K program is to build a common research platform, including well-structured data. The BD2K NIH Standards Information Resource (NSIR) Working Group is working towards establishing coordination and information center focused on biomedical data and metadata standards. It will bring together information about the diverse standards relevant to biomedical research. The NSIR will work closely with national and international standards bodies and resources to be complementary to other ongoing efforts. In the future, grant seekers creating data management plans will be pointed to this NSIR for guidance on which standards may be appropriate for their research. Standards referenced in NSIR will link to other relevant BD2K and NIH resources. Next year every researcher must have a plan on how to effectively share his/her research data.

With this exciting announcement the SIG on MeSH closed, also because the Edinburgh Workshop was full of interesting events, and other delegates were knocking at the door of the classroom, claiming space for their statements, without giving a chance to hold a discussion on the issues that had been considered.

³ NLM Technical Bulletin, 2015 May-June n. 404 <http://www.nlm.nih.gov/pubs/techbull/mj15/mj15_mesh_rdf.html>. Last visited on July 31st 2015.

⁵ "In computing, linked data (often capitalized as Linked Data) describes a method of publishing structured data so that it can be interlinked and become more useful through semantic queries. It builds upon standard Web technologies such as HTTP, RDF and URIs, but rather than using them to serve web pages for human readers, it extends them to share information in a way that can be read automatically by computers. This enables data from different sources to be connected and queried". Wikipedia, the free encyclopedia. < https://en.wikipedia.org/wiki/Linked_data>. Last visited on July 31st 2015.

⁶ <http://www.nlm.nih.gov/medlineplus/connect/overview.html>>. Last visited on July 31st 2015.

⁷ <https://datascience.nih.gov/bd2k>>. Last visited on July 31st 2015.

Maurella Della Seta had just the time to briefly talk about a possible future revision of the MeSH terms related to the issue of bioresources and biobanks (*Figure 2*). This is a topic of great actuality which is developing fast and is becoming an important emerging area of research in the scientific community. She also mentioned a future workshop (Toulouse, October 9, 2015) organized by the European Association of Science Editors (EASE) and by the Bioresource Research Impact Factor (BRIF) initiative, to discuss the role of journal editors to promote best practice in research, including the importance of MeSH key words in journal articles (more info at <http://www.ease.org.uk/ease-events/ease-brif-workshop-october-2015>).

See you in Seville, the next stop of our SIG group meeting.

La ricerca ha reperito 1 record

Codice Mesh	NLM Mesh Browser	Traduzione Italiana	Cerca in PubMed																																																									
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Figure 2. The Italian translation of MeSH (www.iss.it/site/mesh): record for Biological Specimen Banks