## Report from the workshop: "Finding Online Information in Mathematics", held in Phnom Penh, Cambodia, 8-12 August 2011

Anders Wändahl Member of the EMS-CDC anders@golonka.se

As an intitiative from the European Mathematical Society Committee for Developing Countries (EMS-CDC), a workshop was held in Phnom Penh, Cambodia, on the topic on how to find and access online information resources in mathematics. The workshop was funded by the EMS-CDC and the IMU Developing Countries Strategy Group in collaboration.

The local partner was Dr. Chan Roat of the Ministry of Education, Youth and Sport, and the venue was the National Institute of Education, Phnom Penh.

Facilitator of both workshops was Anders Wändahl, librarian at the Karolinska Institutet in Stockholm, as well as a member of the EMS-CDC.

All materials and hand-outs for the EMS-CDC workshops are available at a dedicated webpage <u>http://workshop.ems-cdc.org/</u> where it can be freely downloaded and used.

## Content

- Use of <u>bibliographic databases</u> specific for mathematics; Zentralblatt MATH, MathSciNet, arXiv as well as more general resources like OpenJ-gate.
- Access to <u>pre-/post-/e-prints;</u> arXiv and special topic archives.
- Access to <u>fulltext journals</u>; Open access, retroactive digitization, subsidized access, document delivery. Examples of resources covered: JSTOR, INASP-PERii, HINARI, OARE, AGORA, eIFL, DOAJ, Open Science Directory, eJDS, Bordeaux*thèque*.
- Access to e-books, OpenCourseWare, tools for writing.
- Individual applications for the document delivery services eJDS and Bordeauxthèque.
- Institutional applications and setup of different subsidized information resources.

The bottom line of the exposé of resources is that low income country scholars have access to more information resources than they normally are aware of (but also that they will have to work hard for their treats). The aim of the workshops is that they should be as participatory as possible, and that hands-on experience is the key to learning and understanding.

The workshop in Phnom Penh was supposed to be for mathematicians only. When I arrived in Phnom Penh I learnt, however, that many of the participants represented completely different fields like economics, business management and even entomology. The first day was therefore spent giving an introduction to where and how to get scholarly information in general, using multidisciplinary databases and journal collections. Many of the participants from the non-mathematics fields participated all four workshop days, in spite of the fact that not their special area of interest was covered.



The ultimate goal for every lesson was to demonstrate a resource live with a projector on the wall, and that the participants then should perform a number of exercises on their own. Alas, the connection to internet was from time to time so poor that this pedagogic approach could not be completed as planned. Some of the information sources had to be explored together on the screen, and we tried to discuss every step thoroughly in order to clarify what was happening.

The evaluation performed after the workshop indicates that some of the participants was disappointed over the fact that their special area of researched was not covered in detail. If you read the full evaluation report you can also see that this fact is reflected in the comments.

Link to full evaluation report with participant's comments:

https://websurvey.textalk.se/en/report.php?reportID=39674&fullscreen=1





## 10. To what extent is your overall impression that the workshop was successful?

During our stay in Phnom Penh, Dr. Leif Abrahamsson and I also had the opportunity to pay a visit to the Ministry of Education, Youth and Sports, for a brief meeting with the minister H.E. Im Sethy.



## Conclusion

My impression is that the knowledge about online information resources in mathematics is rather low among Cambodian mathematicians. In order to be a part of the scientific community you must have a good view of what is happening at the research frontier in your field. You must also be able to find, acquire and read the research papers relevant to your research. One – and maybe the best way to raise the awareness of what is available for low income country researchers in terms of databases, journals and books - is to dedicate a few days exploring all the resources available. Ideally this should be done "hands-on" as training is the key to learning and understanding.

My view is that the workshop performed in Phnom Penh in August 2011 shows that this approach is a good way to accomplish these goals, however, the participants should ideally be from one field only (mathematics) in order to be able to keep a focus and to elaborate in detail on the different information resources.