

The Ptolemy Project: surgical community building in East Africa



Professor Massey Beveridge, Director, Office of International Surgery,
University of Toronto, Canada

A collaboration between the University of Toronto Office of International Surgery (OIS), the University of Toronto Libraries (UTL), the Association of Surgeons of East Africa (ASEA) and the College of Surgeons of East, Central and Southern Africa (COSECSA). Ptolemy is funded in part by the Canadian Institutes for Health Research (CIHR).

The Ptolemy Project provides surgeons in East Africa, with free access to the full-text electronic holdings of the University of Toronto Libraries, evaluates how they use the electronic health information available, and endeavors to help build the infrastructure of surgical education and research in the region. It is named after Ptolemy I (Soter) who founded the Great Library at Alexandria that brought together the written learning of the ancient African, Mediterranean, and Middle Eastern worlds. We believe that the medical problems of Africa will be solved in large part by African doctors who know the right questions to ask in order to obtain practicable solutions. Few doctors get paid to do research: they do it because they are engaged in a larger 'community of medical curiosity', which can provide a significant degree of relatively intangible rewards – the respect of colleagues, academic honours, invitations, and the like. Where such communities thrive, progress is made; but in east Africa where the surgical research community is beset by issues like understaffing, poor salaries and working conditions, and a pervasive lack of funding, all but the rarest individuals become demoralised and cease producing research. Preliminary results of the analysis of Ptolemy library usage are presented opposite. Recognising that access to the medical literature is fundamental, but not sufficient to strengthening the East African surgical community, the Ptolemy Project has provided hands-on library training for COSECSA candidates, is launching a Surgery in Africa Reading Course, is piloting a project to train leaders in surgical education from Africa, and now provides direct support to the College of Surgeons of East, Central and Southern Africa, the body newly responsible for the examination and certification of surgical trainees across the region.

The Ptolemy project recruits surgeons and now surgical trainees from across the East African Region as 'Research Affiliates' of the Office of International Surgery. As well, participants include a small number of affiliated researchers in non-East African countries ranked less than 65th on the Human Development Index. As Research Affiliates, participants become members of the university community entitled to use the library as described in the

contracts with the publishers limiting public access to the library holdings. As Ptolemy participants they consent to anonymous electronic tracking of their library usage. Beginning with 50 library accounts in December 2001, the number of Ptolemy accounts has increased to 150 2 years ago and beginning in July 2005, to 300. This may be seen in relation to the 400 surgeons who take care of the more than 200 million people who live in east Africa, or to the more than 50 000 active electronic library users at this University. Subjective, survey-based evaluations of the Ptolemy project showed an enthusiastic response, and we have recently commenced analysis of the data collected at the library.

Since we began recording download activity in July 2003, some 78 active participants have downloaded nearly 16 000 full-text articles from 1285 different journals. Access seems relatively fast as 61% of sessions lasted less than 15 minutes. Over the last 6 months (January 1 – June 30, 2005), 54 users have accessed 3406 individual papers from 581 different journals. Two of our most prolific users read ophthalmology and veterinary journals which skews the total results, but with these users removed the most popular journals accessed since 2003 were the *American Journal of Surgery* (401 papers), *Current Orthopedics* (359 papers), the *British Journal of Surgery* (276 papers), the *Journal of the American Association for Pediatrics* (265 papers), *Burns* (257 papers), and *Surgical Endoscopy* 225 papers). Respondents to earlier surveys indicated overwhelmingly that Ptolemy has helped improve their clinical practice, teaching and research activities. Text books and evidence based reviews (Cochrane) are available through Ptolemy but the vast majority of our participants choose to read journal articles.

The analysis of the data is ongoing but several points merit comment. Those who do use it, used it a lot, downloading an average of 63 papers each during the last 6 months, but clearly many are not using it at all. Only 54 of the 150 registered participants have actually downloaded papers in the last 6 months, and only 25 of these are based in East Africa. The list of participants is periodically culled to make unused accounts available to

new users but we have noticed a marked preference among persons registered but not using Ptolemy, to retain their accounts. Uptake of the resource available is clearly still problematical and may be related to poor internet access, lack of library skills, time or interest, the perception that the information is not relevant or to the absence of the habit of life-long reading.

Recognising that strengthening the East African surgical community requires more than simply offering access to the medical literature we have taken a number of actions. A research assistant based at the offices of COSECSA in Arusha, Tanzania has been providing hands-on training for new Ptolemy recruits, in particular COSECSA trainees, across the region but the impact of this training has been attenuated by a delay in getting permission from the library to activate these additional accounts. An African Ptolemy coordinator is being employed to continue this work and to make the programme more responsive to African needs.

Ptolemy has served as the platform for a number of surveys, one of which, the East African Surgical Initiative, Delphi Process (EASI-Delphi) revealed that four of the top ten priorities for surgical development in the region involved improving surgical education at all levels. This comes at a time when recruitment to surgery is dropping across the region and when young medical graduates perceive more rewards and a better lifestyle in non-clinical work and public health. In response we are developing a programme to train surgical educators from the region for leadership roles in their own countries.

In order to overcome the strict limitation on the number

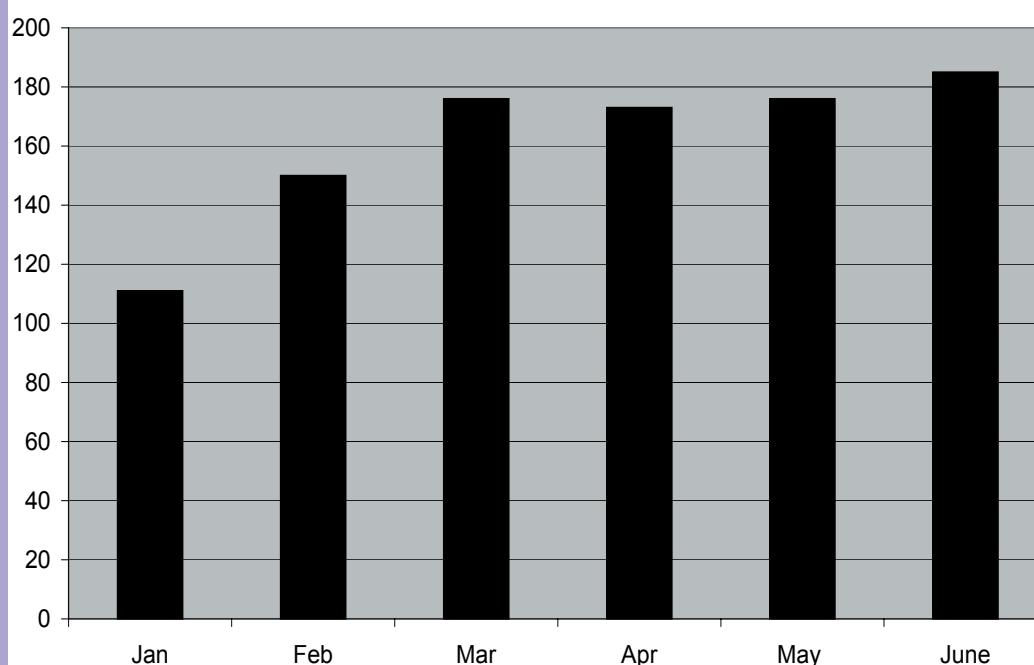
of full Ptolemy accounts (now just 300) we have started the Surgery-in-Africa Reading Course and Discussion Forum edited by Dr Brian Ostrow and Professor P Jani. This is intended to provide reviews of controversial topics relevant to African practice and to draw readers into looking at the background papers. Each review is extensively referenced and all the original papers are available in full-text form in the bibliography. The first two topics covered are 'When is primary anastomosis safe in the colon?', and 'Choice of inguinal hernia repairs in Africa'. Because of copyright issues interested individuals must sign up for the course in order to access the papers. Readers may register by emailing anne.sorvari@sw.ca.

Ptolemy is concerned with helping to build the surgical community in east Africa by providing access to the medical literature and analysing how that information is used, by building an electronic community for African surgeons to share their ideas and problems, by supporting COSECSA, and by training leaders in surgical education for the region. We believe that our greatest leverage can be achieved by introducing the next generation of African surgeons to the habit of life-long learning. It is a slow process but early evidence shows indications of progress. Ptolemy membership is currently limited to surgeons practicing in East Africa. If you fit this description and would like to join, please visit our website at www.utoronto.ca/ois.

Note

The COSECSA region includes Ethiopia, Kenya, Uganda, Tanzania, Malawi, Zimbabwe, Zambia, Mozambique, and recently, Swaziland and the Seychelles.

Number of Ptolemy Sessions by month, 2005



References

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