

Specialty Corner

Produced by:
PISSA

Contributors: Z I Lockhat, C de Vries, A Scher,
O Schulze, A du Plessis, F Potgieter, J Lotz

Videoconferencing: University of Pretoria, University of Stellenbosch and University of the Free State

by Prof Z I Lockhat

The Department of Radiology at the University of Pretoria is now fully equipped with state-of-the-art digital technology, and we are totally immersed in the bits and bytes of the digital world and the PACS system.

Against this canvas, the videoconferencing experience linking the University of Stellenbosch, University of Pretoria and University of the Free State was most appropriate and suitably timed. The event was meticulously planned by our resident computer aficionados, Dr A du Plessis and his counterparts, Dr O Schulze from the University of Stellenbosch and Dr F Potgieter of the University of the Free State. It proved to be a phenomenal success.

Professor Savvas Andronikou's lively and inimitable discussion on paediatric fluoroscopic procedures was highly informative and enlightening. A technical report has also been compiled by Dr A du Plessis, detailing problems encountered and suggestions put forward.

The long-term ambition among the universities involved is to set up a national curriculum, to conduct regular teaching and interactive discussions. The success of this videoconference technically and educationally is a landmark at our institution and should pave the way for future multimedia transmissions and interaction among local and possibly international universities.

The Bloemfontein experience of the telelecture on paediatric radiology

by Prof Coert de Vries

After lots of planning, testing and checking of equipment we arrived expectantly for this

occasion at the University of the Free State's teleconference room. This is a dedicated room for teleconferencing with the necessary computers and video screens, as well as 6 ISDN lines for telephone link-ups. We received the PowerPoint presentation a day before and downloaded it from the Internet. The downloading took about 7 hours from a home computer. The PowerPoint presentation was then loaded by memory stick onto the videoconference room computer. When the necessary dialogue links were made, we could see the faces of the people in Cape Town and Pretoria, hear their voices and greet a few friends. Initially there was microphone feedback, but this was remedied when microphones at the other end were switched off. Only the presenter's microphone should be switched on during the presentation. The PowerPoint presentation was advanced manually on our side to correspond with the lecture. It was an excellent lecture, well-received and many good comments ensued afterwards.

We need to be realistic and acknowledge the problems of the limited band-width of 6 ISDN lines. It is difficult to send diagnostic or lecture-quality images from a PowerPoint presentation across a telephone network. It requires lengthy download procedures and produces questionable quality. Courier transport or even postal CD dispatch may result in quicker and better quality presentations. Despite these minor reservations, it is essential that we continue with this novel and highly promising experiment in teaching radiology.

Impression of the first interdepartmental videoconference

by Prof Alan Scher

I was pleased to be able to be present at the first interdepartmental videoconference. That this facility is now available and functioning is due to the efforts of Dr Otto Schulze and Prof Jan Lotz. I was surprised at the clarity of the videolink, in that the audiences in Bloemfontein and Pretoria could clearly be seen and identified. As would be expected, there were the usual technical glitches, but overall the videoconference was a definite success and our two sister departments seemed to enjoy and benefit from Prof Savvas Andronikou's excellent presentation. I was a little surprised that at the end of the lecture, there was not all that much active questioning and comments from the departments at Bloemfontein and Pretoria. I think

that this is because it is a novel concept for all of us, and as we become more used to videoconferencing, I am sure that the process will become more relaxed and interactive.

With the dwindling number of academic radiologists in South Africa, I feel that this will go a long way towards maximal utilisation of the areas of expertise present in different departments.

Interuniversity videoconference: the technical solutions and challenge

by Otto Schulze, André du Plessis and Francois Potgieter

In our experience the infrastructure to accommodate videoconferencing is established at most universities but it is normally under-utilised. All it took was some technical know-how and the vision to use it.

At each of the three sites we had a radiology registrar and a technician orchestrating the test runs leading up to the videoconferencing. Each site had a multimedia terminal which enabled them to manipulate the audiovisual signals generated locally, receive from the remote sites and transmit to the remote sites.

Problems we encountered during the test runs included poor-quality audiovisual signal when using a 64 kb ISDN line compared to a 128 kb ISDN line. Secondly, there was doubt regarding the quality of X-ray images in PowerPoint presentations and delay in transition because of the large size of the images.

These problems were solved by moving to another site with a 128 kb ISDN line at the University of the Free State and by posting the PowerPoint presentation on a website to be downloaded by the different universities before the videoconference and displayed independently during the lecture.

Problems encountered during the videoconference included an audio feedback loop which distorted the presenter's audio signal. This was solved by asking all the universities to turn off their microphones during the presentation and only to turn them on again when they wanted to ask a question.

After the videoconference, suggestions were made that we should re-evaluate the viability of transferring the PowerPoint presentations via the videoconference. Secondly, that we include the presenter's face as a 'picture-within-a-picture' embedded in the PowerPoint presentation. Thirdly, that we

should change the display to voice-activated, so that the video signal reflects the person talking, i.e. the presenter or the person asking a question.

Despite these minor problems, I believe that we have made the first steps into a new era of education, which appears to be very promising. It is a given that as we do more videoconferencing sessions we will only improve with experience.

The future

by Jan Lotz

Technically and financially the linking of radiology departments in South Africa has proven a viable exercise. A 4-year modular course in theoretical radiology has been developed over a number of years. The course was successfully implemented, with

the blessing of Prof Coert de Vries, at the University of the Free State. Registrars of this university are now in their third year of the mammoth task of recording each module, with illustrations on computer disc.

Is there a need and will the time come when interested South African universities will join with their fellow registrars in using a modular South Africa curriculum for the FCRad and MMed qualifications?

Technically this has now become possible and academically the modules prove to be of the highest standard.

Interested parties are welcome to contact us, and if all goes well, we hope to start a synchronised national course in the near future.

Acknowledgements

1. Registrars of the University of the Free State. The quality of existing modules is

excellent and stands as a tribute to the endeavours of motivated young people. We now need to improve and expand with our colleagues in the rest of the country

2. Otto Schulze, André du Plessis and Francois Potgieter for keeping the technical initiative together and afloat. They were assisted by other individuals, too many to thank individually.

3. Imaging Benefit Company The Imaging Benefit Company (Sec 21) is a registered non-profit organization established to further the education and training of radiologists in South and Southern Africa. The company is funded entirely from contributions from private radiology practices and industry: Drs Schnetler Corbett and Partners Inc, Drs Scribante and Partners Inc, Drs Cronje and Partners Inc, Medical Imaging (Windhoek).

Systemic Disease and The Kidney

– a handbook for clinicians

Roal van Zyl-Smit

SAMA member price: R 269,00
Non-members: R 289,00

All prices include VAT and Postage

Systemic Disease and the Kidney – a handbook for clinicians – is available only through the SAMA – HMPG Bookshop, where SAMA members enjoy special discounts on all purchases.

To order: Tel: (021) 530 6520 / 6551 • Fax: (021) 531 4126 / 3359 • E-mail: books@samedical.org