

Teaching materials and e-learning platforms

Date: January 12, 2012

Time: 09:30-11:30am

Location: G0545 UNIS Multimedia Room

Panel:

Moderator: *Simon Tauer*, Academic Council on the United Nation System

Jean du Preez (CTBTO)

Peter Colgan (IAEA)

Prof. Dr. Gerald Quirchmayr (University of Vienna)

Jean du Preez

CTBTO E-training platforms are only accessible for secure account users. These users are national councils, delegations, organizations and universities which are registered. The E-learning platforms are not open to everyone, to avoid misuse or criminal use of the data and information provided.

The concept is based on distance, global system and the training material is structured in an academic way. The E-learning training has to be passed before attending a face to face workshop. Interactive and visual material is used.

The concept makes workshops and trainings of professionals more effective and saves time, because the training starts before arriving at the workshop and a basic knowledge of all participants can be reached, so that the discussion quality at the workshop is improved.

The data keeps being updated steadily, and is always available for the users online. For countries where access to internet is not ensured, the material is also available on discs.

The technical advanced material is translated into various Un-languages.

CTBTO Capacity Development Initiative:

This platform is open for universities, research institutions, and students. Especially young users should be encouraged to take part in this initiative. The development of more user-friendly and accessible educational material on disarmament and non-proliferation documents is an important issue.

The goal is to establish a network of partnership and to reach the next generation, in Europe, USA and very important also in developing countries. Not only traditional networks should be included, but a broader field of stakeholders should be involved. High schools can use the data in school subjects, universities and NGOs are constrained to use the platforms. They should be inspired to advance their research and collect data. The broader participation in CTBT global monitoring facilitates the access to the many civil and scientific benefits. It is seen as an investment in next generation of disarmament and non-proliferation specialists. There is a need to expand the pool to attract new people, where new workers can be recruited.

To reach a broader clientele free courses are offered online and live streams can be downloaded. This is a very important development, because a lot of people and organizations cannot afford to participate at conferences or workshops. This tool is very beneficial for member states and organizations, especially in the developing world, because it offers a free access to knowledge and information. Online methods therefore pose opportunities to attract new people.

Example: Introductory and advances course in Vienna about atomic power in September 2011

Usage of the academic platform Moodle: enabled easy integration and online certificates.

Mixed tools were used. People who couldn't attend personally could follow the course online. 60 participants attended personally and hundreds online.

Homepage: <https://cdi.ctbto.org/moodle/course>

Advantages of the online teaching:

- powerful mechanism to reach students of developing countries, who cannot come to universities of Europe or USA
- incorporating CTBT technologies related topics in educational curricula worldwide
- promotion of joint research projects to further enhance and strengthen the technological base of the verification system
- broader the academic knowledge to broader job opportunities
- time effective
- up to date Information is offered
- expanding the pool of expertise
- infestation in the next generation
- access for all

Peter Colgan (IAEA)

IAEA Programme for nuclear security is preparing trainings to improve the security of the participating countries. The aim is to improve the training, and improve the teaching material and e-learning platforms.

Education can be supported by the IAEA-material, which can be used by universities. A Master Programme in Nuclear security of 22 Modules was elaborated by the IAEA.

The implementation of IAEA trainings aims to improve the stakeholder communication, to build up a network between universities, research institutions and international organizations on Nuclear Security. Professors can use the material in their lessons, or set up their own curricula.

The courses are offered around the world.

Training programme:

- general training
- specialized training
- training of trainers
- fellow-ships
- on-the-job training
- technical visit

Training activities:

- Nuclear Security Culture,
- physical security/protections
- information
- management
- radiation detection techniques.

Nuclear Security Support Centre (NSSC)

- development of human resources through the implementation of a tailored training programme
- development of a network of experts
- provision of technical support for lifecycle period
- computer based simulator training
- support of the overall operation capabilities of radiation detection equipment globally
- complementation in-class training
- computer based Simulator Training serves possibility to refresh any time after completing it and train old skills
- available in all UN languages.

The objectives are scientifically training, practical knowledge and information for organizations and universities. The International Security Network needs to get into education institutions. IAEA is developing material based on nuclear security series of documents.

E-learning and other modern training opportunities are important and the availability of the training package worldwide. But it needs itself security as no terrorists should have access to detailed information how radiation can be detected.

Prof. Dr. Gerald Quirchmayr

It is important to reach out the next generation. The UN-message is accepted worldwide and the UN offers a variety of materials like UN-data, Yearbooks, and Reports, which researchers appreciate. Some universities invite UN-staff to do presentations or hire former staff to teach.

E-learning is a good tool to bring UN Information to the students. Students find “the Un is cool”, and are interested. Young people like the new technologies, and e-learning gives a great opportunity to spread information. Online access to UN technological materials, data and information material is important, as it is easily accessible and can get re-used from many people. The websites of UN are very advanced.

At the same time it is useful to link the UN-material with material from other organizations. The quality of research can improve, using data of CTBTO or IAEA (especially in Physics and Chemistry).

UN should target to reach out to schools, being present in social media, attract school pupils at an early age who then could chose side subjects in school. Especially 17-18 year old youngsters can be reached with e-learning and other online tools to get information about further education or job opportunities.

Nowadays the academic platform Moodle enables a connection of ten-thousands of students. It is a long term, financially sustainable tool. Distance courses are offered, which improve the access of a broader audience and is time effective. Additionally only certain days have to be spent at face-to-face classes. That is especially the case in Australia where big distances demand new solutions.

At University of Vienna often a mixture between online courses and face-to-face teaching is used. Student study online and come to class well prepared what improves the efficiency of discussions in class.

Mobile appliances such as tablets offer great opportunities; people find it cool to play with new technology. These new developments should be widely included. We should adopt modern technology for innovation.

Moodle is good example for adaptable open source network software, but also social networks like Twitter or Facebook should be integrated, because the young generation likes it. The modern technology should be used to do the right thing. The outcome will be highly motivating.

It is good for universities to have the UN at the doorstep.