

GTZ Online Symposium and Workshop:

“Enhancing Sustainability and Effectivity of Training and Education by Online Learning”

Online Symposium: 30 September to 1 November 2002

Workshop: 21 and 22 October 2002

DRAFT 5.0

<http://www.crystal-elearning.net>

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1.) Workshop mission statement

GTZ project managers from 15 countries in 4 continents will learn about new e-learning concepts for international development cooperation.

Up-to-date and cutting-edge case studies will be presented and discussed collaboratively on an Internet based Symposium and face to face at a two day workshop in Eschborn, Germany.

This “blended” event from 30 September to 1 November 2002 will result in an increased e-readiness of GTZ employees with regards to requests and requirements from the emerging knowledge societies in the South.

This event will respond

- **to the need in the South of building national learning infrastructures and**
- **to the first initiatives already evolving.**

The results will be a road map for integrating e-learning into existing or planned GTZ projects:

- **a short-list of possible e-learning projects in the countries of the workshop participants;**
- **an overview on international initiatives relevant to GTZ e-learning projects;**
- **a symposium documentation on major building blocks of e-learning projects, such as an open source based content management system, instructional design workflows, and local content production and deployment in the South.**

This programme is a timely response to the need of building national learning infrastructures and to the first initiatives already evolving.

2.) Workshop overview

German development cooperation in the area of vocational education and training supports many initiatives such as the “Thai German Institute”, a training and service center for productivity in Thai industry, or the reform of the vocational education system in Malaysia.

In all endeavors it is important to enable the southern partners to become self-sustained with regards to content and content services development. One important theme in this symposium is therefore “content”.

GTZ addresses in its vocational education and training programmes three main areas:

- **The management of vocational education and training systems**
- **Teachers & Trainers**
- **Curricula and Media, Instructional Design**

In the workshop all three areas will be dealt with through the case studies presented and the hands-on sessions. Tangible results for the work in the field, for project evaluation and proposals as a draft “GTZ e-learning reference list” will be produced collaboratively by the participants and facilitators. Already in the preparatory online phase – the Online Symposium - the participants will work towards this documentation.

	Curricula & Media, instructional design	Teachers & Trainers	Management of vocational education and systems	Infrastructure; IT and applications	References
Tangible results: draft documents	1. List of instructional models 2. Skill profile of course production teams 3. Course production workflow model	4. Skill matrix for trainers	5. Skill matrix of institution's staff	6. Overview of IT requirements 7. Overview of application services	8. List of references for project proposals and consultancy in the field

There are five workshop components:

- **Achievements, reality check and key issues**
- **Case studies: best practices**
- **Future GTZ projects: country needs and shortlisting**
- **In-depth analysis of relevant case-studies**
- **Hands-on study of applications and content development**

While on day one the focus is on presentations, day two will deal with in-depth analysis of the case-studies, hands-on studies, short-listing of future GTZ e-learning projects and drafting the “tangible result documents” including the list of references.

The workshop starts with a description of the current landscape of e-learning and major global “ICT for development” initiatives. In addition to her overview on some large scale “ICT for development programmes” Barbara Phillip will then elaborate on the critical issue of “Technological Minimalism and Sustainability Strategies”.

Then follows a set of case studies, two from Germany and one from Africa.

The German cases will document the strong and competitive basis German development cooperation can build and rely on when including e-learning as a component into its projects. E-learning made in Germany has come of age and offers competitive and sound organisational models, platforms and excellent reference projects.

The African case study represents a major current effort in the South: to develop authentic southern content and services for further professional education which need to be competitive on international knowledge markets.

On the second day parallel working groups will

- **deepen the insights of the participants into the rich experiences behind the presented cases and draw conclusions for their own development cooperation projects;**
- **get a better understanding about Open Source based enabling applications for knowledge building, and**
- **start to define e-learning needs and potential projects in their region.**

All workshop components will be prepared collaboratively during the online preparatory phase – the Online Symposium - through study letters, resources, tasks and expert guidance.

The online follow-up phase after the meeting in Eschborn will support first steps of the transfer of workshop results to development cooperation projects.

3.) Workshop component I: Achievements and reality check

e-learning: promises, issues, perspectives

Presenter: Edgar Wang, New Media expert, Bonn

e-learning is coming of age. The hype goes – the net grows. This is also true for e-learning. From the first trials in the 80ties to the hype of the late 90ties and the recent shake-out of many e-learning dot-coms - despite the recent turmoils in the e-learning community there is a tremendous uptake of this new way of learning both in the North and the South.

In the USA nearly 90% of all colleges provide online courses and online support. Corporate Training today is unthinkable without the use of e-learning.

Edgar Wang will give the workshop introductory talk and shed some light on where elearning is positioned today, focussing on the situation in Germany and the United States:

- E-Learning as Part of the Internet Revolution: The Promises for Education and Training
- E-Learning as Part of the New Economy: Market Analyses and Forecasts
- The Development of the E-Learning Industry (Companies, Events)
- Shake-out and Consolidation
- Lessons Learned: No Technology without Learners
- Measuring the ROI of E-Learning
- Governments' Response to E-Learning
- E-Learning: Where Do We Stand today?
- The Necessity of E-Learning

Reality check: Actors and emerging knowledge networks in the South

Presenter: Dr. Barbara Fillip, Knowledge for Development, Arlington, USA

In the South it is obvious to most governments that traditional brick and mortar institutions will not be able to provide education and training for those who have been cut off, which is still the overwhelming majority of the population.

Sir John Daniels, General Director for Education at UNESCO, rightly insisted that the 15 million teachers needed for the ambitious goal of “education for all” cannot be achieved by traditional means: “you’re not going to train 15 million just by adding a few seats in traditional teacher training establishments.”

Today there is a consensus about the important role of ICTs for development.

Multi billion US\$ “ICT for development” programmes with a focus on education, training and stimulating southern knowledge societies are being launched. The Japanese “Comprehensive Development Package” with US\$ 15 billion and the Australian “Virtual Colombo Plan” with US\$ 750 million are two prominent examples for this new understanding.

The massive investments demand more coordination and cooperation within the donor community than before. Some agencies cooperate therefore more closely in the planning phases and in the field.

Barbara Phillip will talk about the major ICT for development initiatives, efforts to create national learning infrastructures and examples of cooperative efforts of European donor agencies:

- Needs in the South and how donors respond
- National Learning Infrastructures – from the North to the South
- Coordinated approaches in the donor community

E-learning for the South: Technological Minimalism and Sustainability Strategies

Presenter: Dr. Barbara Phillip, Knowledge for Development, Arlington, USA

For E-learning strategies to be both effective and sustainable in the South, a balance between appropriate choices in technologies, costs and effectiveness must be achieved. The key is to start with the learning objectives and the characteristics of the target audience and design an e-learning program that makes the most of available technologies while always keeping in mind the environment of the learners. Dr. Phillip will base her remarks primarily on her experience developing and delivering a course on “Information and Communication Technologies for Developing Countries” that is taught online to a dispersed group of participants around the world. Key issues will include the following:

- Creating South-North knowledge networking channels
- Moving towards Technological Minimalism
- Course Development and Cost-recovery strategies

Dr. Phillip will conclude her remarks with some thoughts about developing a sustainable model for E-learning in the South and how small-scale efforts can (and should) complement some of the large scale plans of donor agencies.

4.) Workshop component II: Case studies and best practices

Three relevant case studies

“e-learning for Vocational Education” and tele-akademie in Germany, SANTREN in Southern Africa

will be studied. Representatives of the respective organisations present the case studies in such a way that lessons learnt can be drawn and are matched with the requirements of development cooperation.

The case studies will document that

- Germany has much to offer with regards to sound and rich pedagogical concepts and significant experiences in organising and deploying online learning; that furthermore web-based training made in Germany include cutting edge applications which allow to stimulate one of the most important tasks of today's emerging knowledge societies in the South - the creation of southern contextual and authentic content.

It will be shown how

- development cooperation projects in the South are already focussing on the competitive global knowledge market and how best-practice cases can be used to further enhance development cooperation projects of GTZ.

E-Learning for Vocational Training/Education in Germany

Presenter: N.N.

Background:

The growing influence of ICT has not only changed enterprises, workplaces and economical structures. Its impact is also felt in the field of vocational training. New professions are emerging, old professions have to adapt.

Germany's vocational education and training system has been one of the pillars of Germany's economic strength. In order to maintain its role and to fulfill its mission, vocational training has to accommodate to the ongoing economic and technological changes.

It is no surprise that e-learning initiatives for trainees and instructors have seen a rapid increase in the past few years.

Big enterprises have to rely on e-learning to ensure the consistency and homogeneity of their vocational training, carried out at different localities. The Chambers of Industry and Commerce and other networks use e-learning to support small and middle-sized companies to reach the required training standards. Vocational schools are using e-learning in order to familiarize their students with the use of new media.

The proliferation of new industry standards will result in a continuous increase of e-learning activities.

There are even enterprises which implemented learning management systems specially designed for initial vocational training, e. g. Allianz AG.

ZWH (Zentrale Stelle für Weiterbildung im Handwerk) as a representative of more than 70 Chambers of Handicrafts and various IHKs have rolled out e-learning programmes in 2001. The Federal Ministry of Education and Research and the Federal Ministry of Economics and Technology are financing a couple of vocational training projects with the aim of promoting the use of ICT.

As vocational training has always been a key activity area of the GTZ, a case study will be presented at the workshop which offers insights into the practical advantages, problems and necessities of e-learning for vocational training.

Tele-akademie

Presenter: Dr. Thomas Jechle, Director, tele-akademie, Furtwangen

Background:

The tele-akademie in Furtwangen, Germany has been a pioneer in e-learning for years. Operating out of the beautiful but remote Black Forest Mountains of Southern Germany, it delivers e-learning courses on such diverse topics as “Java Programming” and “Instructional Design”. These courses have been implemented within major German corporations so successfully that in November 2001 the tele-akademie was rated as the best academic e-learning provider in Germany by the “Stiftung Warentest”.

Since 1999 the tele-akademie is engaged in supporting developing cooperation projects with e-learning. For DSE/CDG the six-months learning programme “E-Learning Training & Management” with face-to-face and Internet based components was implemented in Africa and Asia. For the “Southern African Network for Training and Research on the Environment – SANTREN” a training programme on “Instructional Design and Web Publishing” was implemented with workshops in various countries of southern Africa and web-based instruction.

Rationale:

This case study provides insights how the tele-akademie grew out of a granted project to an advanced and well established e-learning institution of a German “University of Applied Sciences” (Fachhochschule) that produces and distributes e-learning courses for HRD departments as well as for development cooperation programmes.

With its elaborated workflows and pedagogical e-learning frameworks the German tele-akademie could become the blueprint for the much requested e-learning academies and training portals in the South.

Task:

The workshop participants discuss the relevance of a German tele-akademie for the South and define core elements of a blueprint for a virtual academy appropriate for the South.

The SANTREN knowledge network in southern Africa

Presenter: Prof. Thomson Sinkala, University of Zambia, Lusaka

Background:

The “Southern African Network for Training and Research on the Environment – SANTREN” is a network of research and educational institutions in the SADC. It was formed in 1995 as a training project of the Carl Duisberg Gesellschaft (CDG), the Institute of Environmental Studies (IES) of the University of Zimbabwe, DANIDA from Denmark and various universities within the SADC region.

In 2000 SANTREN started to produce its first online courses on environmental management with the help of an open source based Internet publishing system. Prior to this a face-to-face and online-training on instructional design and Internet publishing had enabled a core team of various Geologists from different SANTREN member institutions to become online-course authors and to master Internet publishing.

After this important ground laying phase of distributed local capacity building SANTREN is now establishing a Virtual Academy, with courses on Environmental Management, Mining and other subjects.

Rationale:

This case study provides an insight how a regional knowledge network in Africa is enabled to produce and publish authentic local content. Because this content is contextual and relevant to a larger international community of experts in the mining industry it has a distinct competitive advantage to comparable contents from the North.

Task:

The workshop participants discuss examples of “authentic local content”, the market entry barriers for content of the South and suggest approaches and methods to overcome them.

5.) Workshop component III: Parallel working groups

All three working groups require pre-booking at the beginning of the preparatory phase.

- **Hands-on “Instructional design aspects of online learning”**
Dr. Thomas Jechle, tele-akademie of the University of Applied Sciences Furtwangen

Since 1995 the tele-akademie is the further education department of the University of Applied Sciences Furtwangen. Its task is to organize courses in the area of scientific further education and to design and evaluate the use of electronic media running these courses. Fulfilling this mission the tele-akademie developed an instructional design process that is based on reliable instructional models as well as recent learning theories. Main point of this process like the distinction between scenarios and the four basic elements of online learning have already been subject of the online phase before this workshop.

This hands-on workshop is intended to deepen aspects as well as continue discussions and the work on projects-drafts that arose during the online phase.

- **Hands-on “Internet publishing”**
Facilitator: Mr. Sebastian Hoffmann

Background:

The management of intellectual capital (information / knowledge, training) via the internet is a key factor in vocational online training. Production of knowledge and therefore “interaction” with people (e.g. learner, trainer, manager) plays an important role in all training project processes and has a mayor impact on the quality of delivery.

In this working group an open source based Internet publishing system already implemented as a facilitating “workbench” in a number of development cooperation projects will be demonstrated.

Through its pragmatic deployment it has been achieved:

1. to re-use knowledge products of South-South networks
2. to reduce projects costs per project team member, especially for initial training set-up.

Participants gain practical insights through hands-on on-line excercises with a powerful major learning content management application, that is a fundamental building block when enabling southern knowledge owners to start up with content services.

Methods and results:

During the online phase of the symposium participants will use applications based on this learning content publishing technology. During the face to face phase participants will have a look “behind the scene” and publish information as authors on the training portal. These changes will be put live immediately and serve as a resource base for the final online phase and further GTZ training projects.

- **National needs and possible e-learning projects of GTZ**
Facilitator: Mr. Leopold Reif

In this working group “National learning infrastructure” programmes of selected countries will be identified and possible e-learning proposals drafted.

Background:

In almost all southern countries “National learning infrastructures” are in the planning process and/or at different implementation stages. Development cooperation needs to be linked to these programmes and initiatives. These programmes might be “Schools on the Net”, the networking of universities and SMEs, a national educational portal or an e-government programme that needs an e-learning component.

Identifying programmes and stakeholders that should be partnered with is however not an easy undertaking. Government reform processes create a dynamic which needs to be understood before acting. The same is true for the ICT sector. GTZ experts in the field have insights into these dynamic processes with various degrees of indepth. The workshop intends to create a data base on relevant initiatives of building knowledge societies and identify projects that GTZ should initiate.

Methods and results:

This working group will be established already at the preparatory phase and will include investigative activities of the participants in their countries. A first analysis and data base will be provided at the beginning of the preparatory phase and will be further enhanced by the experts in the field. The results of this collaborative effort will be further consolidated at the

workshop in Frankfurt. This will then become an important in-put for the final short list of GTZ future e-learning projects.

- **In-depth analysis of SANTREN**
Facilitator: Prof. Thomson Sinkala

The Southern African Network for Training and Research on the Environment (SANTREN) is made up of professionals from research and educational institutions in the SADC region, whose main objective is demand-oriented contribution to the improvement of information and the training courses in the SADC region in order to support efforts towards environmentally sustainable development. It was formed and launched in September 1996 in Ndola, Zambia, as a collaborative programme with initial funding from the Carl Duisberg Gesellschaft e.V. (CDG) of Germany. Since 1996, SANTREN has been developing mostly case study - based courses, initially for face-to-face delivery.

However, the recent liberalisation of economies in the SADC Region, with its attendant stiff competition, has led to many companies and institutions shedding-off a large number of personnel. Employers are therefore finding it increasingly constrained whenever they have to release the remaining lean personnel for off-base activities. Where possible, organizations would prefer internet-based learning which enables employees to study from their offices or base-cities.

Following a positive response to a survey undertaken in mid-2000 in the SADC Region on the need for internet-based courses, SANTREN is aiming to use the on-line learning method to disseminate various environmental courses to stakeholders in the Region.

Currently, there are few training courses on Environment offered in the region, and even fewer that are case study - based. The competitor courses are mostly offered by universities and specialised consultancy companies. These courses, however, are largely face-to-face and require travel and upkeep costs. This leads to few people being accorded the chance to attend such courses. The SANTREN e-Learning's approach to delivering courses in the region has very minimal competition at present as this mode of course delivery is still not pursued by many, especially on environmental issues. Furthermore, our respective course Core Groups offer concentrated core of experts in the region who are already enjoying networking and exchange of information, a rare undertaking for the cause. In this regard, SANTREN faces little competition.

In the road to formation of the SANTREN Virtual Academy, join me in the In-depth analysis of the network. There are many stumbling blocks which the network has to deal with, but we believe we are not an island. I therefore invite you to join us in shaping the future of e-Learning in the region.

- **In-depth analysis of the tele-akademie**
Facilitator: Dr. Thomas Jechle

Based on the case study of the tele-akademie presented the day before this in-depth analysis will provide a more detailed insight in organizational and management aspects of the tele-akademie. Based on a workflow-model for the development of online courses typical tasks and problems of a virtual academy are presented and discussed: needs assessment and program development, different models of online-learning, instructional design options, marketing and public relations, demands on technical devices, quality-of-online-learning debate, evaluation, community building and others.

6.) Profiles of speakers

Dr. Barbara Phillip:

Barbara Phillip is President of Knowledge for Development, LLC, a small company whose mission is focused on helping developing countries take advantage of Information and Communication Technologies, in particular through E-Learning and knowledge networking. In 1999, she developed a course on “Information and Communication Technologies for Developing Countries” that was first taught in a traditional classroom setting in Washington, D.C. In 2001, she started teaching the course online to an increasingly global group of participants. While continuing consulting assignments related to distance education, she is now focusing on developing a broader global E-Learning program that will consist in a series of new courses that will specifically address the training needs of development NGOs in the North and the South. She also hopes to help organizations in the South to increase their own capacity to develop e-learning programs.
<http://www.knowledgefordevelopment.com>

Sebastian Hoffmann:

Sebastian Hoffmann is an independent consultant for international e-learning / ICT projects and works in a partnership with Leopold Reif. He studied Media Computer Science at the University of Applied Sciences in Furtwangen, Germany (1992 - 1996). Together with a multidisciplinary team of engineers, pedagogues, and psychologists he conceptualized and initiated one of the first e-learning providers in Germany - the Tele Akademie at the University of Applied Sciences, Furtwangen (1996 - 1997). As project manager he conceptualized and developed a Web-based knowledge building architecture, which includes technologies for e-learning, collaboration and knowledge management based on open-source technologies (1998 - 2001). He played a significant role over the past five years in the support of e-learning projects in Germany. Since 1997 Sebastian has been involved in strategic e-learning consulting for large national and international corporations and organizations in southern Africa and India.
<http://www.hoffmann-reif.com>

Dr. Thomas Jechle:

Thomas Jechle is Director of Studies at the tele-akademie of the University of Applied Sciences Furtwangen.

Within a team of specialists he designed one of the first (1996) and most successful academic internet based courses in Germany titled “Expert for New Learning Technologies”. A main characteristic of this course is the strong emphasis on tutorial support and the communicative as well as collaborative aspect of online learning.

As Director of Studies he is in charge of the academy management, development of the course programme and the acquisition and coordination of partnership-programmes. He has been involved in several national and international e-learning projects. His fields of main interest are instructional design of online-learning and educational technology.

<http://www.tele-ak.fh-furtwangen.de/>

Leopold Reif:

Leopold Reif is a consultant for international knowledge networks, enabling applications and Human Resources Development and works in a partnership with Sebastian Hoffmann.

In 1992 he launched the first large scale corporate cross-border telematic training network financed by the European Commission. At Deutsche Telekom he was involved in the development of a national learning infrastructure from 1995 to 2000. In 1996 he was one of the first Telecom experts to introduce e-learning in Asia through a series of conferences and projects. In 2001/2002 he helped to launch a knowledge network for IT consultants in five southern African and 6 Asian countries countries with enabling applications for distributed collaboration, research and publishing.

<http://www.hoffmann-reif.com>

Prof. Thomson Sinkala:

Thomson Sinkala is an Associate Professor at the University of Zambia, School of Mines. He holds a Bachelor of Mineral Sciences degree from University of Zambia (1981), Teknisk Licentiate degree from University of Lulea, Sweden (1986) and Teknisk Doktor degree from University of Lulea, Sweden (1989).

His experience includes the following: Operations mining engineer in the Zambia Consolidated Copper Mines (June 1981 – July 1983) ; **R**esearch Engineer at University of Lulea, Sweden - www.ce.luth.se/abt/publ.html (August 1986 – September 1989); **A**ssistant Professor at the University of Lulea, Sweden (October 1989 – May 1990); **D**eputy Director International Projects in the Swedish Geological, Sweden, responsible for the SADC Region (June 1990 – January 1993); **R**esearch Coordinator, School of Mines, University of Zambia (May 1995 – May 1999); **C**onsultancy and research coordination and supervision in Sweden, Zambia, SADC Region and internationally (since 1985);; **L**ecturing in Sweden, Zambia (www.unza.zm/units.html) and internationally); **H**as over 70 publications in various fields.

In the area of **e-learning**, he is currently Head of SANTREN e-Learning Program (www.santren.com), and has been involved in developing strategic and business plans (www.santren.com/live/santren/content/e505/e623/index_eng.html) for the network. He has also promoted the CDG’s on-line course in the Southern Africa on “Corporate Environmental Management in a Globalised Economy” conducted via Global Campus 21 (<http://allafrica.com/stories/200104180395.html>). He is Coordinator of Zambia Centre for Bridging the Digital Divide (www.zamdigital.org.zm). He is also Managing Director of Thomro Investments Limited which is promoting bridging of the digital divide, e-literacy and e-commerce (www.thomro.co.zm/e-commerce.shtml).

Edgar Wang:

As an independent new media consultant, Edgar Wang has been involved in a couple of e-learning projects, i.e. the development of www.global-learning.de into Germany's most important e-Learning information portal. He is known for his critical, differentiated attitude to e-learning as documented in various books and journals.

His professional experiences include intercultural and project management seminars in Germany and the People's Republic of China. 1993 - 94 he was in charge of the professional training of the interpreters at the Ausbildungs- und Förderungszentrum Tianjin, then the biggest vocational training project of the GTZ in China.