IFIP
WCCE 2005

Stellenbosch University
South Africa

in cooperation with ICOOL and UNITAR

Conference Programme

Friday, July 1st 2005

TCO	(14:00 - 18:00)	TC3 Officers Meeting	chair: Jan Wibe	Cillie 5003

Saturday, July 2nd 2005

TC 3 1	(09:00 - 12:30)	TC 3 Meeting (Session 1)	chair: Jan Wibe	Cillie 5003
TC 3 2	(14:00 - 18:00)	TC 3 Meeting (Session 2)	chair: Jan Wibe	Cillié 5003
TC 3 D	(20:00 - 23:30)	TC 3 Dinner		De Oewer

Sunday, July 3rd 2005

TC 3 3	(09:00 - 12:00)	TC 3 Meeting (Session 3)	chair: Jan Wibe	Cillié 5003
IPC 1	(12:30 - 16:00)	IPC Meeting	chair: Bernard Cornu	Cillié 5003
WG 3.5	(13:00 - 14:30)	IFIP Working Group 3.5 (AGM)	chair: Sindre Rosvik	Lettere 224
T1	(14:30 - 15:00)	Tea		Lettere Cillié
REG 1	(15:00 - 18:00)	Registration		Lettere
WG 3.4	(15:00 - 16:30)	IFIP Working Group 3.4 (AGM)	chair: Barrie Thompson	Lettere 225
WG 3.2	(16:30 - 18:00)	IFIP Working Group 3.2 (AGM)	chair: John Hughes	Lettere 223
WG 3.7	(16:30 - 18:00)	IFIP Working Group 3.7 (AGM)	chair: Adrie Visscher	Lettere 229
LLL	(18:00 - 19:00)	IFIP TC3 Task Force on LLL (AGM)	chair: Brian Samways	Lettere 230

Monday, July 4th 2005

REG 2	(08:00 - 12:00)	**Registration**		Lettere
WG 3.1	(08:30 - 10:00)	**IFIP Working Group 3.1 (AGM)**	chair: **Deryn Watson**	Lettere 223
WG 3.3 1	(08:30 - 10:00)	**IFIP Working Group 3.3 (Working Session 1)**	chair: **Paul Nicholson**	Lettere 225
WG 3.6 1	(08:30 - 10:00)	**IFIP Working Group 3.6 (Working Session 1)**	chair: **Gordon Davies**	Lettere 227
C1	(10:00 - 10:30)	**Coffee**		Lettere Cillié
WG 3.3 2	(10:30 - 12:00)	**IFIP Working Group 3.3 (Working Session 2)**	chair: **Paul Nicholson**	Lettere 225
WG 3.6 2	(10:30 - 12:00)	**IFIP Working Group 3.6 (Working Session 2)**	chair: **Gordon Davies**	Lettere 227
WG 3.6	(12:00 - 13:00)	**IFIP Working Group 3.6 (AGM)**	chair: **Gordon Davies**	Lettere 227
L1	(12:00 - 13:00)	**Lunch**		Lettere Cillié
O	(13:00 - 14:30)	**Opening Session**	chair: **Peter Waker**	Townhall

	Session Chairman - Peter Waker Organising Committee Chairman, WCCE 2005
13:00	Welcome to WCCE 2005
	Professor Bernard Cornu, Chairman International Programme Committee, WCCE 2005
13:10	Welcome to South Africa and Stellenbosch
	Mr. Bruce Kannemeyer, Municipal Manager: Stellenbosch
13:20	Welcome to Stellenbosch University
	Prof. Chris Brink, Rector, Stellenbosch University
13:30	Opening Address
	Mr. Mohamed Enver Surty, Deputy Minister of Education
14:00	ICT in Education - the global challenge
	Dr. Joseph Njimbidt Ngu, Acting Director and Programme Coordinator, UNESCO,
	International Institute for Capacity Building in Africa (IICBA)
14:30	Multimedia Rich Curriculum Delivery through Technology
	Mr. Mdu Gama, Director, Mustek Ltd holding company of Mecer SA
15:00	Tea
15:30	A Strategic approach to Enabling improvements in Teaching and Learning for ALL

16:00	Microsoft's Partners in Learning - Digital Inclusion
	Mr. Alfie Hamid, Education Progamme Manager, Microsoft South Africa
16:30	How Online Learning Can Reach a Global Audience
	Mr. Toby Burton, Vice President, Internet Business Solutions Group EMEA, Cisco Systems Inc.
17:00	Welcome from IFIP TC 3
	Prof. Jan Wibe IFIP TC3 Chairman
17:10	Welcome from ICOOL
	Professor Alain Senteni, University of Mauritius & Chairman ICOOL 2005
17:20	Welcome from Computer Society of South Africa
	Ms. Moira De Roche, President Computer Society of South Africa
	Professor Basie von Solms, Vice President IFIP & IFIP representative for South Africa

MR (17:30 **Welcome Cocktail**   Stellenbosch
–   Town Hall
19:00)
Sponsored by Stellenbosch Municipality Dress: Jacket & Tie / Smart Casual

Tuesday, July 5th 2005

IC D (08:30 **ICOOL DEMO**   Lettere
–   226
10:00)

DM 1 (08:30 **Demo Session 1**   Lettere
–   225
10:00)

    14   **Anette van Rooyen**, The Development of Interactive Learning Activities for ICT Integration
        Country: ZA
        Presenter: Anette van Rooyen

P (08:30 **Full Paper Session**   chair: Lettere
01.1 –   **P.G.**   230
10:00)   **Hogenbirk**

Pre-service Teacher Education

    75   **Eric Bruillard**, Study and design of new modalities of learning and work for pre-service teachers
        assisted by ICT.
        Country: FR, *Further authors:* Baron
        Presenter: Eric Bruillard

    28   **Avril Loveless**, Creativity and ICT as catalysts for change in Teacher Education
        Country: GB
        Presenter: Dr Avril Loveless

    136   **Jocelyn Wishart**, PDAs and handheld PCs: Does potential equate to practice in initial teacher
        training?
        Country: GB, *Further authors:* Andy Ramsden, Angela McFarlane
        Presenter: Jocelyn Wishart

P (08:30 **Full Paper Session**   chair: Cillié
01.2 –   **Gordon**   1028
10:00)   **Davies**

The future for Lifelong Learning

    408   **Mike Kendall**, Growing Importance of Lifelong Learning with ICT
        Country: GB *Presenter:* Mike Kendall & Tom van Weert

240 **Peter Williamson**, Crossing the Digital Divide in Little Bounds to the Digital Collection
Country: AU, *Further authors:* Kefford, Dr R.E., Steele, S.L., Vallis, K.G.
Presenter: Peter Williamson

275 **Tommy Nordeng**, BrainBank– a Topic Maps E-portfolio System for Meaningful Learning
Country: NO, *Further authors:*
Presenter: Tommy Nordeng

P 01.3 (08:30 - 10:00) **Full Paper Session**

chair: **Anne McDougall**

Cillié 3001

HE: distance education

48 **Dagrun Sjohelle**, Learning potential in net communication
Country: NO
Presenter: Dagrun Sjohelle

145 **Dolf Jordaan**, Software applications to support international collaboration between educational institutions in developed and developing countries.
Country: ZA, *Further authors:* Jon Gregson
Presenter: Dolf Jordaan

18 **Anne Fuller**, Distance education teaching and tutoring: Two evolving Australian models
Country: AU, *Further authors:* Penney McFarlane, Patricia Cretchley, Christine McDonald, Cam Le Lam
Presenter: Anne Fuller & Patricia Cretchley

P 01.4 (08:30 - 10:00) **Full Paper Session**

chair: **Judy Beal**

Wilcocks 201

Collaboration and interaction

92 **Geoff Romeo**, Using scenario planning to develop a shared vision for ICT in education
Country: AU
Presenter: Dr Geoff Romeo

269 **Thierry Nodenot**, Creating rich Collaborative Learning Scenarios
Country: FR, *Further authors:* Gaio, Mauro Bessagnet, MN Sallaberry, C
Presenter: Marie-Noelle Besagnet

258 **Steve Kennewell**, Interactive teaching with interactive technology
Country: GB
Presenter: Steve Kennewell

P 01.5 (08:30 - 10:00) **Full Paper Session**

chair: **Margaret Cox**

Wilckocks 323

Management of Learning

76 **Brigid Barron**, Designing a Computer Science Curriculum for Bermuda's Public Schools
Country: US, *Further authors:* Caitlin K. Martin, Eric Roberts
Presenter: Eric Roberts

289 **William Marion**, Preparation for Teaching a CC2001 Discrete Structures Course: A Joint Effort
Country: US
Presenter: William A Marion

P 01.6 (08:30 - 10:00) **Full Paper Session**

chair: **Paul Nicholson**

Geology

Learning Environments

126 **Denis Bouhineau**, Two years of use of the APLUSIX system.
Country: FR, *Further authors:* Jean-Francois Nicaud, Hamid Chaachoua, Marilena Bittar and Alain Bronner.
Presenter: Denis Bouhineau

104 **Giuseppe Chiazzese**, A tool to visualize surfing paths of students.
Country: IT, *Further authors:* Giovanni Todaro
Presenter: Giuseppe Chiazzese

279 **Tore Hoel**, Standardization as a professional conversation - the need for auxiliary means
Country: NO
Presenter: Tore Hoel

PN 1 (08:30 **Panel Session**
\-   **KALEIDOSCOPE: A European Network for Excellence in**
10:00) **Technology - Enhanced Learning**

chair: Lettere
Rosa Maria   229
Bottino

Panelists:

Martha Turcsany-Szabo
Ivan Kalas
Martin Owen
Rosa Maria Bottino
proposed by:

446 **Pierre Tchounikine**, KALEIDOSCOPE: A European Network for Excellence in Technology
Enhanced Learning
Country: FR

WS (08:30 **Workshop 1**   Lettere
01 -   227
10:00)

361 **Delia Kench**, Introduction to object oriented programming in Java using the GOGGA Class
Country: ZA, *Further authors:* Genevieve Wilcook
Presenter: Delia Kench

C2 (10:00 - **Coffee**   Lettere
10:30)   Cillié

DM 2 (10:30 **Demo Session 2**   Lettere
\-   225
12:00)

226 **Pascal Ravesteyn**, Business Process Integration Lab
Country: NL
Presenter: Pascal Ravesteyn

P (10:30 **Full Paper Session**   chair: Lettere
02.1 -   Deryn   230
12:00)   Watson

In-service Teacher Education

16 **Ann Trewern**, Describes how a government funded nation-wide professional learning community
initiative designed to strengthen teacher professional capacity in ICT
Country: NZ, *Further authors:* Nick Billowes
Presenter: Ann Trewern

13 **Andy Convery**, Exploring Teachers' Understanding of ICT Pedagogy in Practice
Country: GB, *Further authors:*
Presenter: Andy Convery

217 **Nicola Yelland**, Rethinking Curricula with ICT in the Knowledge Era
Country: AU, *Further authors:*
Presenter: Professor Nicola Yelland

P (10:30 **Full Paper Session**   chair: Cillié
02.2 -   Elisabeth   1028
12:00)   Stacey

LLL: Dealing with Special Students

287 **Wallace Chigona**, Investigation on the Use and Adoptability of Information and Communication
Technology (ICT) as a Tool for Improving Adult Fanctional Literacy in South Africa
Country: ZA, *Further authors:* 4
Presenter: Wallace Chigona

342 **Anthony Jones**, Changing Educational Provision for Stironic Illness
Country: AU, *Further authors:* Margaret Robertson, Anne McDougall
Presenter: Anthony Jones

295 **Gerald Futschek**, Rehabilitation of Prisoners via E-Learning
Country: AT, *Further authors:* Hakan KALINYAPRAK, Horst KARGL
Presenter: Gerald Futschek

P 02.3 (10:30 - 12:00) **Full Paper Session** chair: **Mikko Ruohonen** Cillié 3001

HE: theory and practice

31 Bodil Ask, The Pedagogical Touch on e-Learning
Country: NO, *Further authors:* Harald Haugen (male)
Presenter: Bodil Ask & Harald Haugen

109 Henk Plessius, Educating ICT in context
Country: NL, *Further authors:* Vodegel, Frans
Presenter: Henk Plessius

471 Maree Pather, Towards Interoperable Electronic Interaction among Entities in the EEeducational System
Country: ZA

P 02.4 (10:30 - 12:00) **Full Paper Session** chair: **Joe Turner** Wilckocks 201

What Works In The Classroom?

450 Tanya Harber Stuart, Interactive Whiteboards
Country: GB
Presenter: Tanya Harber Stuart

298 Jenny Masters, What Works In The Classroom? How an Exemplary Teacher Supports Children Using Computers
Country: AU
Presenter: Jenny Masters

313 Judy Beal, Students Online - What works?
Country: AU
Presenter: Judy Beal

P 02.5 (10:30 - 12:00) **Full Paper Session** chair: **Marta Turcsanyi-Szabo** Wickocks 323

Analysis of what is successful

134 Jianwei Zhang, Harnessing Technology during the Transition of Learning Cultures in the West and East
Country: CN, *Further authors:* Qi Chen
Presenter: jianwei Zhang

114 I.E. du Toit, The effect of ICT curriculum support on the mearsured skills levels of learners two sub - projects...
Country: ZA
Presenter: Isabel du Toit

491 Ann Lamont, Supporting Education through Technology:
Country: ZA, *Further authors:*
Presenter: Fatima Adam

P 02.6 (10:30 - 12:00) **Full Paper Session** chair: **Barrie Thompson** Geology

Enhancing interaction between students

368 M. C. Moraes, Enhancing interaction through improvisational interface agents
Country: BR, *Further authors:* A.C.R. Costa
Presenter: Antônio Carlos da Rocha Costa

371 Michelle Denise. Leonhardt, Doroty: An extension in the architecture of a chatterbot for academic and professional training in the field of network management
Country: BR, *Further authors:* Renato L.S. Dutra, Lisandro Z. Granville, Liane M.R. Tarouco
Presenter: Michelle Denise Leonhardt

394 Pascal Lando, Progetto: a Design Method for Distant Collective Project-Based Learning Activities Scenarios Patterns
Country: FR, *Further authors:* Anne Lapujade
Presenter: Pascal Lando

PN 2 (10:30 **Panel Session**
\- **ICT and Educational Management**
12:00)

chair:
Ian Selwood

Lettere
229

Panelists:
Adrie Visscher NL
Arthur Tatnall AU
Ronald Bisaso UG
Greg Baker AU
Dennis Spuck US
proposed by:

481 Adrie Visscher, Educational Management
Country: NL, *Further authors:*

WS 02 (10:30 **Workshop 2**
\-
12:00)

Lettere
227

63 Denric Blaauw, Developing investigative activities for innovative Science teaching int the e-LAB
Country: ZA

L2 (12:00 - **Lunch**
13:00)

Lettere
Cillié

R1 (12:30 **Reflexion Session 1**
\-
13:00)

chair:
Brian Samways

Lettere
230

DM 3 (13:00 **Demo Session3**
\-
14:30)

388 Lorenzo Dalvit, E-ncedo:
Country: ZA, *Further authors:* Sarah Murray, Alfredo Terzoli, Xiaogeng Zhao
Presenter: Lorenzo Dalvit

P 03.1 (13:00 **Full Paper Session**
\-
14:30)

chair:
Raul Sidnei Wazlawick

Lettere
230

E-Communities and Learning Theory

204 Mary Ulicsak, Designing a computer game to support collaboration and scientific enquiry skills
Country: GB
Presenter: Martin Owen

402 Jon Hoem, Personal Publishing and Media Literacy
Country: NU, *Further authors:* Schwebs, Ture
Presenter: Dr. Ture Schwebs

454 Linda Van der Loo, Mirandanet
Country: ZA, *Further authors:* Christina Preston, Rupert Wegerif
Presenter: Christina Preston

P 03.2 (13:00 **Full Paper Session**
\-
14:30)

chair:
Brian Samways

Cillié
1028

LLL: "Learning with Networks"

168 Kwok- Wing Lai, OOtagoNet: A videoconferencing network for
Country: NZ, *Further authors:*

389 Juan M. Santos, Semantic Brokerage in Standars-Driven e-Learning
Country: ES, *Further authors:* Luis Anido, Martín Llamas
Presenter: Luis Anido Rifon

251 Rosa Maria Bottino, On line Learning Networks: Frameworks and Scenarios
Country: IT
Presenter: Rosa Maria Bottino

P 03.3 (13:00 - 14:30) **Full Paper Session**

HE: ICT is everywhere

108 **Henk Plessius,** Educating ICT in a business context
Country: NL, *Further authors:* Pascal Ravesteijn, Leon de Bruin
Presenter: Henk Plessius

333 **Quintin Gee,** Building a Virtual University for Orthopaedics
Country: GB, *Further authors:* Leslie carr, Gránne Conole, Simon Grange, Wendy Hall, Gary Wills
Presenter: Quintin Gee

413 **Estelle Drysdale,** Adoption of a WebCT learning environment in lecture-based mining engineering education
Country: ZA, *Further authors:* Roger Thompson
Presenter: Estelle Drysdale and Roger Thompson

P 03.4 (13:00 - 14:30) **Full Paper Session**

Information, learning and thinking

379 **Pam Miller,** Factors that influence interaction of high school learners with information in a digitally enhanced environment
Country: ZA, *Further authors:* Johannes Cronje
Presenter: Pam Miller

363 **Maree A. Skillen,** Promoting thinking skills within the secondary classroom using digital media
Country: AU
Presenter: Maree Skillen

359 **Christine Bescherer,** LoDiC – Learning on Demand in Computing
Country: DE
Presenter: Christine Bescherer

P 03.5 (13:00 - 14:30) **Full Paper Session**

Teacher Education: theory & practice

334 **Joyce Pittman, Ph.D.,** Technology, Pedagogy and Professional Development
Country: US, *Further authors:* 1
Presenter: Dr. Joyce Pittman

120 **Andrej Blaho,** Object metaphor: From programming to building behaviours
Country: SK, *Further authors:* Ivan Kalas
Presenter: Ivan Kalas

9 **Andrea Bartlett,** Technology Use by Beginning Teachers who Created Electronic Portfolios
Country: US
Presenter: Andrea Bartlett

P 03.6 (13:00 - 14:30) **Full Paper Session**

Broadband, virtual experts and XML

116 **Ian Selwood,** Teacher Use of Broadband Technology
Country: GB, *Further authors:* Peter Twining
Presenter: Ian Selwood

340 **David Reid,** Collaborative IMS-LD
Country: GB, *Further authors:* Mark Anderson Mark Barret-Baxendale
Presenter: David Reid

399 **Paul Nicholson,** Virtual Experts: Who's online?
Country: AU, *Further authors:* Julia Walsh
Presenter: Paul Nicholson

PN 3 (13:00 **Panel Session** chair: Lettere
- **New Ways of Learning through ICT** P.G. 229
14:30) Hogenbirk

Panelists:
Alnaaz Kassam, CA
Mike Kendall, UK
Anne McDougall, AU
Bob Munro, UK
Theo Muntingh, NL
David Passig, IL
proposed by:

468 Pieter Hogenbirk, New ways of learning through ict
Country: NL, *Further authors:* see panellist
Presenter: Pieter Hogenbirk

WS 03 (13:00 **Workshop 3** Lettere
- 227
14:30)

256 Sigrid Schubert and Johannes Magenheim, Educational Standards of Informatics for International Student Assessment
Country: DE
Presenter: Sigrid Schubert and Johannes Magenheim

T3 (14:30 - **Tea** Lettere
15:00) Cillié

HP (15:00 **Full Paper Session on History on ICT in Education** chair: Wilckocks
- Sindre 323
16:30) Rosvik

What can we learn from history?

96 Georges-Louis Baron, ICT, Educational technology and educational instruments - Will what has worked work again elsewhere in the future
Country: FR, *Further authors:* Bruillard Eric
Presenter: Baron Georges-Louis

141 John Impagliazzo, History: A vehicle for teaching introductory computing courses
Country: US
Presenter: John Impagliazzo

403 Paul Nicholson, eLearning: 40 Years of Evolution?
Country: AU, *Further authors:* Anne McDougal
Presenter: Paul Nicholson

SP 1.1 (15:00 **Short Paper Session** Lettere
- chair: 230
16:00) Joe Turner

Collaborative learning

443 Laura Zurita, Towards a conceptual base for evaluation of e-learning platforms in a collaborative context
Country: DK
Presenter: Laura Zurita

483 Diane Mavers, Making Meaning with the Ressources of Animation
Country: GB, *Further authors:*
Presenter: Diane Mavers

486 Jinyu Zhang, Internetics Scheme: Six Years' Practice and Experience
Country: CN, *Further authors:*
Presenter: Jinyu Zhang

SP 1.2 (15:00 **Short Paper Session** chair: Cillié
- Paul 1028
16:00) Nicholson

Higher Education

170 Lawrence Williams, The STAR Project
Country: GB

100 Glenda Cox, Staff development workshops for Humanities educators: teaching with technology
Country: ZA, *Further authors:* Tony Carr, Laura Czerniewicz
Presenter: Glenda Cox

20 Anne Fuller, Encouraging participation in electronic discussion forums
Country: AU, *Further authors:* Penney McFarlane, Cam Le Lam
Presenter: Anne Fuller, Penney McFarlane

SP 1.3 (15:00 - 16:00) **Short Paper Session**
chair: **Rosa Maria Bottino** — Cillié 3001

Assessment and online environments

82 Franziska Keller, Personalization of Online Assessments on the basis of a taxonomy matrix
Country: CH, *Further authors:* Prof. Dr. Helmut Schauer
Presenter: Franziska Keller

231 Paul McKimmy, Proving our Outcomes : The Task of Implementing Electronic Portfolio Assessments
Country: US
Presenter: Paul McKimmy

404 Shaun Nykvist, Establishing a sense of community within an online learning environment using open source software
Country: AU
Presenter: Shaun Nykvist

SP 1.4 (15:00 - 16:00) **Short Paper Session**
chair: **Gordon Davies** — Wilckocks 201

Interactive learning

427 QUEK Geok Cheng LAK Yau Hui, Designing Interactive Resources for Singapore Schools
Country: SG
Presenter: QUEK Geok Cheng

386 Robert Gajewski, e-Learning in Polish Universities of Technology
Country: PL
Presenter: Robert Gajewski

69 Betty Breed, Effective Learning in Computer Programming: The Role of Learners´ Reflective Thinking
Country: ZA, *Further authors:* J.L. de K. Monteith ; E. Mentz
Presenter: Betty Breed:

WS 04 (15:00 - 16:30) **Workshop 4**
Lettere 227

242 Pieter Hogenbirk, Portraying professional development of teachers
Country: NL, *Further authors:* Theo Muntingh
Presenter: Pieter Hogenbirk

DM 4 (16:30 - 18:00) **Demo Session 4**
Lettere 225

418 Lori Rounds, Teaching Internet Safety with i-Safe America
Country: US, *Further authors:* Teri Schroeder (President and Founder, i-SAFE America)
Presenter: Lori Rounds, Teri Schroeder

P 04.1 (16:30 - 18:00) **Full Paper Session**
chair: **Marta Turcsanyi-Szabo** — Lettere 230

E-Inclusion

30 Birgitte Sorensen, Children's informal learning forms in the school context
Country: DK, *Further authors:* Oluf Danielsen
Presenter: Birgitte Holm Sørensen, Oluf Danielsen, Janni Nielsen

180 Lisa Seymour, The influence of demographic variables on web-based learning tool perceptions and adoption intent
Country: ZA, *Further authors:* Irwin Brown
Presenter: Lisa Seymour

445 Hermann Puhlmann, Essential ingredients of literacy in informatics
Country: DE, *Further authors:* Ludger Humbert
Presenter: Hermann Puhlmann

P 04.2	(16:30 - 18:00) **Full Paper Session**	chair: **Ian Selwood**	Cillié 1028

LLL: ICT and the Learner

347 Luis Anido, Integration of ICT into the Post-graduate Studies in a Conventional University
Country: ES, *Further authors:* Diego Conde, Juan Aguiar, Antón Fernández, Emilio González
Presenter: Luis Anido Rifon

67 Duan van der Westhuizen, The student at risk in online learning: The case for appropriate research
Country: ZA, *Further authors:* Elizabeth Henning
Presenter: Duan vd Westhuizen

439 Bent B. Andresen, Best Practice in Professional Development
Country: DK, *Further authors:* Brian Knudsen
Presenter: Bent B. Andresen

P 04.3	(16:30 - 18:00) **Full Paper Session**	chair: **Alain Senteni**	Cillié 3001

HE: creativity and learning

1 Ada Wai Wing MA, Fostering Creativity in a CSCL Environment
Country: HK
Presenter: Ada Wai Wing MA

107 Héléne Godinet, Scenario for Collaborative Learning in a Digtal Campus : What Works ?
Country: FR
Presenter: Helene Godinet

447 Nils Ole Nilsen, Digital Portfolios - a Method for Learning and Assessment in Higher Education
Country: NO
Presenter: Nils Ole Nilsen

P 04.4	(16:30 - 18:00) **Full Paper Session**	chair: **Brian Samways**	Wilckocks 201

Teaching and Learning with ICT

205 Mary Webb, Teachers' pedagogical decision making and practices in relation to the use of ICT for learning and teaching
Country: GB, *Further authors:* Margaret Cox
Presenter: Mary Webb and Margaret Cox

207 Anders Tveit, The integration of economic and human resource aspects by using computer bases tools
Country: NO, *Further authors:* Emanuel Blattner and Stig Ytterstad
Presenter: Anders Tveit, Emanuel Blattner and Stig Ytterstad

86 Gail Weldon, Integrating Education for Human Rights and Democracy with ICT
Country: ZA, *Further authors:*

P 04.5	(16:30 - 18:00) **Full Paper Session**	chair: **Asbjoern Rolstadaas**	Wilckocks 323

Case studies in using ICT in Teacher Education

305 Keth Vallis, An Immersion Model for Teacher Training in the Integration of Technology: The Impact on Teaching and Learning
Country: AU, *Further authors:* Dr. Rod Kefford, Steven Steele, Peter Williamson
Presenter: Keith Vallis

411 Nick Reynolds, A Constructivist Learning Environment in Undergraduate IT
Country: AU
Presenter: Nick Reynolds

99 Giovanni Fulantelli, A model to train teachers on the educational value of hypertexts
Country: IT
Presenter: Giovanni Fulantelli

P 04.6 (16:30 - 18:00) **Full Paper Session**   chair: **Erling Schmidt**   Geology

Digital Learning Resources

434   **Mark Pullen**, Presenting an Online Graduate Computer Science Program at Low Cost Using Open-Source Software
Country: US

175   **Lillian Cassel**, A Digital Library for Cyberlearning in the Sciences (originally: The U.S. National Science Digital Library)
Country: US, *Further authors:* Lee Zia
Presenter: Lillian N. Cassel

PN 4 (16:30 - 18:00) **Panel Session**   **What works and what does not work?**   chair: **Raymond Morel**   Lettere 229

Panelists:
Niki Davis UK
Andrea Karpati HU
Christina Preston, UK
proposed by:

219   **Niki Davis**, What works and what does not?
Country: US, *Further authors:* Andrea Karpati
Presenter: Niki Davis

GD (18:30 - 23:00) **Gala Dinner**   Outside Lettere

Sponsored by Mecer South Africa
Dress: Jacket & Tie / Traditional
Busses will pick up delegates from the front of Lettere Building at 18:30

Wednesday, July 6ᵗʰ 2005

IC D (08:30 - 10:00) **ICOOL DEMO**   Lettere 226

IC 1 (08:30 - 10:00) **ICOOL 1**   Lettere 223

IC 2 (08:30 - 10:00) **ICOOL 2**   Lettere 225

P 05.1 (08:30 - 10:00) **Full Paper Session**   chair: **John Hughes**   Lettere 230

Online Learning Environments

70   **Elizabeth Stacey**, Problem -based learning in an online environment.
Country: AU
Presenter: Dr Elizabeth Stacey

393   **Giuseppe Callegarin**, Distributed School Lab Experiments Through Web Services
Country: IT
Presenter: Giuseppe Callegarin

407   **John Pearson**, Evaluating E-learning Environments using the Online Learning Environment Survey
Country: HK
Presenter: John Pearson

P 05.2 (08:30 - 10:00) **Full Paper Session**   chair: **Adrie Visscher**   Cillié 1028

Lifelong Learning - the way ahead

263   **Sylvia Martinez**, Bridging the Digital Divide with Peer-Assisted ICT Instruction
Country: US
Presenter: Sylvia Martinez

237   **Cathleen Greiner**, A Changing Paradigm of Adult Learning: Accessible, Accelerated, Adaptable, Applicable
Country: US, *Further authors:* Serdyukova, N., Subbotin, I. and Serdyukov, P.
Presenter: Peter Serdyukov

484   **Brian Samways**, Concluding Discussion for Lifelong Learning Stream
Country: GB, *Further authors:*

P 05.3 (08:30 - 10:00) **Full Paper Session**   chair: **Arthur Tatnall**   Cillié 3001

HE: professional training

154   **Karin Levinsen**, Qualifying on-line teachers
Country: DK
Presenter: Rikke Orngreen

173   **Leng-Seow Tan**, Application of a web-based interactive homework system for a course in electrical engineering
Country: SG, *Further authors:* W. B. Tan, W. M. Tay
Presenter: Leng-Seow Tan

469   **M. Schwesig**, An E-learning experiment in manufacturing strategy
Country: DE, *Further authors:* Rolstadas, A. and Thoben K.-D.
Presenter: Asbjorn Rolstadas

P 05.4 (08:30 - 10:00) **Full Paper Session**   chair: **Torbjoerg Breivik**   Wilckcocks 201

Technology-enhanced learning for the future

97   **Peter de Lisle**, How has Intel Teach to the Future worked in South Africa?:
Country: ZA
Presenter: Peter de Lisle

138   **John Belcher**, Technology enabled active learning at MIT
Country: US, *Further authors:* Dori, Y. J., Dourmashkin, P., Liao, S-B.
Presenter: John Belcher

246   **Richard Ager**, The Digital Backdrop - using ICT to enhance whole class science teaching
Country: GB
Presenter: Richard Ager

P 05.5 (08:30 - 10:00) **Full Paper Session**   chair: **Anna Grabowska**   Wilckcoks 323

National and local approaches

59   **David Whyley**, Placing the learner at the heart of the sysytem - A city wide approach to the personalised learning agenda.
Country: GB, *Further authors:* Tim Westwood
Presenter: David Whyley and Tim Westwood

451   **John Scipio**, The KHANYA Methodology for ICT Implementation in Schools
Country: ZA

249   **Robert Munro**, Impact of ICT Initiatives in Scottish Schools
Country: GB

PN 5 (08:30 **Panel Session**   Lettere
     -       **History: A Vehicle for Teaching Introductory Computing**   chair: 229
   10:00)   Jan Wibe

Panelists:
John Impagliazzo US
Georges-Louis Baron F
Paul Nicholson AU
proposed by:

475 John Impagliazzo, Using history to teach computing
Country: US
Presenter: John Impagliazzo

WS 05 (08:30 **Workshop 5**   Lettere
   -   227
   10:00)

460 Leah Keino, Electronic learning portfolios
Country: US, *Further authors:* Niki Davis
Presenter: Leah

C3 (10:00 - **Coffee**   Lettere
   10:30)   Cillié

IC D (10:30 **ICOOL DEMO**   Lettere
   -   226
   12:00)

IC 1 (10:30 **ICOOL 1**   Lettere
   -   223
   12:00)

IC 2 (10:30 **ICOOL 2**   Lettere
   -   225
   12:00)

P 06.1 (10:30 **Full Paper Session**   chair: Lettere
   -   Rosa Maria 230
   12:00)   Bottino

Research and Formative Assessment

464 Margaret Cox, Effects of ICT: Do we know what we should know?
Country: GB, *Further authors:* Gail Marshall
Presenter: Margaret Cox and Gail Marshall

127 Jeanne Marie Ho, Informating Formative Assessment with Technology
Country: SG, *Further authors:* Peh, James and Seah, Whye Choo
Presenter: Jeanne Ho

183 Lori Breslow, Lessons learned: Formative assessments of EdTech initiatives at the Massachusetts Institute of Technology, 2000 - 2004
Country: US
Presenter: Lori Breslow

P 06.2 (10:30 **Full Paper Session**   chair: Cillié
   -   Johannes   1028
   12:00)   Magenheim

Computer Science and the setting of standards

37 Charmain Cilliers, The Impact of an Iconic Programming Notation on Low - Ability Introductory Programming Students
Country: ZA, *Further authors:* Andre Calitz; Jean Greyling
Presenter: Jean Greyling

355 Agostino Cortesi, The Quality Certification Mark for Italian University Degree Programs in Computer Science
Country: IT, *Further authors:* Enrico Nardelli
Presenter: Agostino Cortesi

376 Kechil Kirkham, The value of teaching using a live ERP System with resource constraints
Country: ZA, *Further authors:* Dr. Lisa Seymour
Presenter: Kechil Kirkham

P 06.3 (10:30 - 12:00) **Full Paper Session**

<div>chair: Ingeborg Solvberg</div>

Cillié 3001

HE: on-line learning

208 **Michael Hammond**, Using on- line discussion to support teaching and learning: opportunities and challenges
Country: GB, *Further authors:* Mongkolchai Wiriyapinit
Presenter: Michael Hammond

238 **Peter Smith**, Solving problems collaboratively online: Experiences of Australian and Chinese Heritage university students
Country: AU, *Further authors:* S.N. Smith, J. Coldwell, K.L. Murphy
Presenter: Peter J Smith, Swee N Smith

384 **Jane Nash**, To cross the digital divide, first leap the language barrier
Country: ZA, *Further authors:* Mullins, C., Speight, H. and Van Heerden, M.
Presenter: Jane Nash

P 06.4 (10:30 - 12:00) **Full Paper Session**

<div>chair: Gordon Davies</div>

Wilckocks 201

Technology and Learning Activities

12 **Andrew Fluck**, Authentication and e-learning
Country: AU
Presenter: Dr. Andrew E. Fluck

387 **Manuel Caeiro-Rodríguez**, Improving the Modelling of Heterogeneous Learning Activities
Country: ES, *Further authors:* Luis Anido-Rifón, Martín Llamas-Nistal
Presenter: Luis Anido-Rifón

139 **John Cuthell**, Seeing the meaning. The impact of interactive whiteboards on teaching and learning
Country: GB
Presenter: John Cuthell

P 06.5 (10:30 - 12:00) **Full Paper Session**

<div>chair: Leif Hokstad</div>

Wilckocks 323

National success stories

277 **Torbjoerg Breivik**, Action Plan for Norwegioan Language and ICT and the Norwegian Human Language Technology (HLT) Resource Collection
Country: NO
Presenter: Torbjoerg Breivik

166 **Kobus van Wyk**, Khanya - a success story of implemnting ICT in a developing country
Country: ZA
Presenter: Kobus van Wyk

332 **Arthur Tatnall**, The Formation and Role of State Centres of Computer Education in Australia in the 1980s
Country: AU
Presenter: Arthur Tatnall

PN 6 (10:30 - 12:00) **Panel Session**
Political/social importance of Lifelong Learning with ICT

<div>chair: Brian Samways</div>

Lettere 229

Panelists:
Mike Kendall UK
Tom van Weert NL
Peter Williamson AU
Sylvia Martinez US
Jianwei Zhang CN
proposed by:

357 **Mike Kendall**, Lifelong Learning Panel
Country: GB, *Further authors:* Tom van Weert
Presenter: Tom van Weert

WS 06	(10:30 - 12:00)	**Workshop 6**		Lettere 227

World E-citizens

457 Christina Preston, World E-citizens
Country: GB

L3	(12:00 - 13:00)	**Lunch**		Lettere Cillié
R2	(12:30 - 13:00)	**Reflexion Session 2**	chair: **Brian Samways**	Lettere 230
IC D	(13:00 - 14:30)	**ICOOL DEMO**		Lettere 230
IC 1	(13:00 - 14:30)	**ICOOL 1**		Lettere 223
IC 2	(13:00 - 14:30)	**ICOOL DEMO**		Lettere 225
P 07.1	(13:00 - 14:30)	**Full Paper Session**	chair: **Niki Davis**	Lettere 230

Tools for tutoring

193 Marianne Georgesen, Flexible teaching and learning
Country: DK
Presenter: Marianne Georgesen

248 Marie-Noelle Bessagnet & Judith Israel , Helping to Network (Groups of) Learners Using a Collaborative Learning System
Country: US, *Further authors:* Robert Aiken
Presenter: Marie-Noelle Bessagnet

383 Cédric Buche, Intelligent Tutoring system for procedural and collaborative training
Country: FR, *Further authors:* Le Gal, Querrec
Presenter: Ronan Querrec

P 07.2	(13:00 - 14:30)	**Full Paper Session**	chair: **Doug Brown**	Cillié 1028

Informatics, computer toys and drop-out rate

110 Hermann Puhlmann, Exploring Test Items in the PISA-style for Informatics
Country: DE
Presenter: Hermann Puhlmann

197 Mark Barrett- Baxendale, Adaptive individualised IMS Learning Design player
Country: GB, *Further authors:* David Reid, Paul Hazlewood, Mark Anderson
Presenter: Mark Barrett-Baxendale (subject to confirmation)

159 Keith Gibson, Dealing with the drop-out rate
Country: ZA
Presenter: Keith Gibson

P 07.3	(13:00 - 14:30)	**Full Paper Session**	chair: **Gerald Futschek**	Cillié 3001

Disseminating ICT skills in Higher Education

306 Oduronke Eyitayo, The Existing and Coming Generation of Computer Proficient Students: Implications for Teaching ICT Literacy at Higheer Institutions in Botswana
Country: NG, *Further authors:* Eyitayo, Adekunle.O
Presenter: Oduronke

311 Catherine Fulford, Diffusion of Innovations:
Country: US, *Further authors:* Rachel Rivers, Ariana Eichelberger, Curtis Ho, Gary Theal
Presenter: Catherine P. Fulford, Ph.D.

Time	Fri, 1st	Sat, 2nd	Sun, 3rd	Mon, 4th	Tue, 5th	Wed, 6th	Thu, 7th
08:00							
08:30				Registration			
09:00		TC 3 Meeting	TC 3 Meeting	WG 3.1.1 / WG 3.3.1 / WG 3.6.1	Paper 1 (6x) / Demo 1 / Workshop 1 / Panel 1	Paper 5 (5x) / Workshop 5 / Panel 5 / ICOOL	Paper 9 5x / Workshop 9 / Panel 9 / WSIS ICOOL 1
10:00				Coffee	Coffee	Coffee	Coffee
10:30			IPC	WG 3.1.2 / WG 3.3.2 / WG 3.6.2	Paper 2 (6x) / Demo 2 / Workshop 2 / Panel 2	Paper 6 (5x) / Workshop 6 / Panel 6 / ICOOL	Paper 10 5x / Workshop 10 / Panel 10 / WSIS ICOOL 2
12:00				Lunch	Lunch	Lunch	
12:30			WG 3.5	WG 3.6 AGM			
13:00			Registration	Opening Session	Reflexion	Reflexion	Closing Session
13:30							
14:00			WG 3.4				Lunch
14:30			Tea	Tea	Tea	Tea	
15:00	TC3 Officers Meeting	TC 3 Meeting	WG 3.2 / WG 3.7	Keynote Session	Paper H / Short Paper 1 (4x) / Workshop 4	Short Paper 2 (4x) / Workshop 8 / Panel 11.1 / ICOOL	WG 3.3 AGM
16:00					Paper 4 (6x) / Demo 4 / Panel 4	Paper 8 (5x) / Panel 8 / Poster Session / Panel 11.2	
16:30				Welcome Cocktail			
17:30			IFIP TC3 Task Force on LLL				
18:00					Gala Dinner		
19:00							
19:30							

In the context of the

WCCE *Cape Town* 2005

World Conference on Computers in Education

University of Stellenbosch
Cape Town, South Africa

6 July 2005
15:00—18:00

ROUND TABLE
&
WORKING SESSION

MOBILIZING EXPERTISE AND
RESOURCES FOR DIGITAL SOLIDARITY
IN EDUCATION

CONTRIBUTION TO THE BILBAO SUMMIT

Registration

Participants for the Round Table & Workshop can register on the WCCE 2005 Website for the full WCCE conference or just the one day. Full details are on the web site re: accommodation and airport transport if required.

<u>Fees</u>

Full WCCE Conference   Rand 4100 Approx €512

One day fee including
UNITAR Round Table
& Workshop   Rand 1400 Approx €175

Registration can be made on-line at:
http://www.wcce2005.org.za

WCCE 2005 Secretariat

SBS Conferences
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Bellville
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SOUTH AFRICA

email: registrar@sbs.co.za
Tele: +2721 914 2888
Fax: +2721 914 2890

Information is a strategic resource for local policy makers, who have become key players in bringing about sustainable development and meeting the increasing needs of their citizens. The effective use of knowledge through information and communications technology (ICT) can make a powerful positive contribution to accelerate community development and improve people's lives. Local authorities are at the forefront of implementation of ICT as a catalyst in the life long process of education and learning for the local population.

World Summit of Cities and Local Authorities

Cognizant of their leadership role in the Information Society , cities and local authorities worldwide have mobilized to make their voices heard and channeled their efforts in a movement which culminated with the First World Summit of Cities and Local Authorities on the Information Society, held in Lyon in December 2003. The results of the Lyon Summit were included in the World Summit on the Information Society (WSIS), held in Geneva later that same month. The second step in this process for local authorities is the Second World Summit of Cities and Local Authorities on the Information Society to be held in Bilbao (Bilbao Summit) November 9-11, 2005. Preparations for the Bilbao Summit are twofold: 1) strong political mobilization of key decision makers and 2) organization of thematic and regional conferences which could provide the strategic guidance around which local authorities intend to play their role in the Information Society and develop e-services for their population. The Bilbao Summit will be a platform for setting up public-private partnerships to catalyze development and access to ICTs for local communities. The result of the conference will be a Declaration and Plan of Action of Local Authorities which will be presented at the Second WSIS to be held in Tunis.

The Stellenbosch Conference: a major step on the way to the Bilbao Summit

The IFIP World Congress on Computers in Education (WCCE 2005) 4-7 July at the University of Stellenbosch is a major gathering, bringing together people interested in learning about the potential for ICT in education – academics and researchers, politicians and policy makers, businesses and the private sector, NGOs and international organizations. One half day will be dedicated to local authorities. The outcome of the one day meeting will include proposals for public-private partnerships, as well as recommendations will serve as a basis for the Bilbao Summit Plan of Action.

◆   Local decision makers, representatives from local communities and authorities

◆   Professionals in education and e-education, academics

◆   Researchers on knowledge management and researchers on new training methodologies

◆   Private sector players in the education field

There is a need for a new framework to improve the process and efficiency of education and training activities in line with the new possibilities of the Information Society. The Round Table on **Mobilizing Expertise and Resources for Digital Solidarity in Education** will address a new framework for partnership and identify bottlenecks, as well as recommend strategic actions to be taken in order to scale up good practices and efficiently mobilize all potential expertise and resources.

The panel will specifically address the following:
1.   The role and responsibilities of cities, local government and states in policy making, development, and implementation of education programmes
2.   The role and recommendations of experts on an appropriate model of training and education in the Information Society
3.   Strategic actions and implementation modalities to be recommended
4.   Building public-private partnerships to enhance efficiency and broaden the scope of existing programmes

15:00-16:30   ROUND TABLE

Introduction
◆   Bernard Cornu, IFIP
◆   Amadou Top, Vice President , Digital Solidarity Fund
◆   Michael Oliver Sutcliffe, Secretary General of the City of Durban

Panel participants will be representatives from:
◆   Major local authorities and national governments
◆   NEPAD network
◆   G3 cities (South Africa, Brazil, India)
◆   IFIP
◆   Private companies
◆   Digital Solidarity Agency
◆   Digital Solidarity Fund
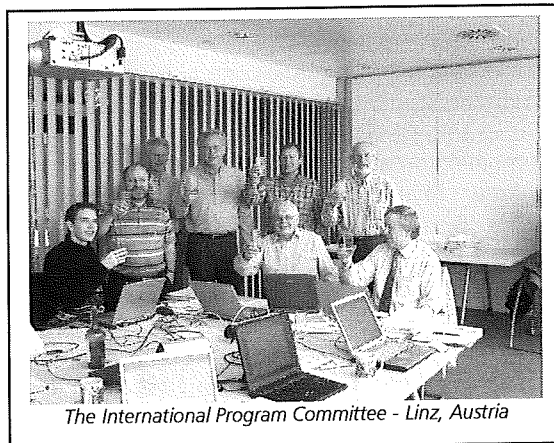◆   World Commission of Cities on Decentralized Cooperation

Break

16:40-18:00   INTERNAL WORKING SESSION

WCCE 2005

DAILY

Welcome to the friendliest city in SA

Yesterday afternoon's plenary session extended a warm welcome to over 600 delegates, speakers and exhibitors attending the WCCE 2005 Conference and Exhibition, representing over 40 countries from around the world. Deputy Minister of Education, Mr Enver Surty gave a humorous, yet challenging speech on the importance ICT plays in realising the goals and challenges of our educational, social, economic and political development. He reiterated how the responsibility in preparing our youth and society rests heavily on our shoulders. Dr Joseph Gnu, Acting Director for UNESCO International Institute for Capacity Building in Africa (UNESCO IICBA) agreed that the use of ICTs in education is a major challenge worldwide, but one which demands urgent attention particularly in Africa. UNESCO has been deeply involved in assisting African countries in addressing this challenge. The question is – what can YOU do? The answer? Over the next couple of days listen, observe, share knowledge and gain an understanding of "What Works".

The International Program Committee - Linz, Austria

Streams by topic

Still confused by which session to attend over the next few days? Here is a brief overview allocated by topic.

A. Learning Theory and Research
Stream 1 (24 papers)
3.1; 4.1; 5.1; 6.1; 7.1; 8.1; 9.1; 10.1
B. Teacher Education (21 papers)
Stream 1: 1.1; 2.1
Stream 5: 3.5; 4.5
Stream 4: 8.4; 9.4; 10.4
C. Management & Policies
Stream 5 (24 papers)
1.5; 2.5; 5.5; 6.5; 7.5; 8.5; 9.5; 10.5
D. Methods & Pedagogy
Stream 4 (21 papers)
1.4; 2.4; 3.4; 4.4; 4.4; 5.4; 6.4; 7.4
E. Lifelong Learning
Stream 2 (15 papers)
F. Higher Education
Stream 3 (24 papers)
1.3; 2.3; 3.3; 4.3; 5.3; 6.3; 7.3; 8.3
G. Informatics Education
Stream 2 (15 papers)
6.2; 7.2; 8.2; 9.2; 10.2
H. Software & Hardware
Stream 6 (12 papers)
1.6; 2.6; 3.6; 4.6
I. Professional and Vocational
Stream 3 (6 papers)
9.3; 10.3
J. History
Stream 3 (3 papers)
HP

The Stellenbosch Declaration – a WCCE 2005 Initiative

As well as providing a platform for sharing experiences and knowledge, we would like this conference to have significant outputs to a wider, global audience. Enter the Stellenbosch Declaration. The Declaration will be a three page document, addressing the principles, ideas, trends and recommendations considered essential for the future of ICT in education. We are asking for contributions from the Session Chairs, speakers and delegates.

The final Declaration will be presented and discussed at the Plenary Closing on Thursday, which will be attended by the IFIP President.

The Declaration will then be presented at the World Summit on the Information Society, which will be held in Tunis in November 2005.

Chairpeople to submit three ideas or recommendations from your sessions. **Speakers** to submit one idea or recommendation from your paper. **Delegates** may also make individual contributions.

Each idea must be a maximum of three lines and all contributions must please be submitted using the form provided, which can be collected at the Registration Desk.

Southern Hemisphere Connection

IFIP's Working Group on ICT in university education (WG3.2) now has a 'southern hemisphere' look. It is perhaps appropriate that it is in Stellenbosch, South Africa, that WG Chair, John Hughes from Australia and Vice Chair, Raul Wazlawick from Brazil worked with other members from Europe and the USA to prepare a programme of activities over the next three years.

While we might be in South Africa, the issues needing to be resolved are global and pervasive. What should be taught to computing students to make them effective professionals of the future?

How can information technology be used to make learning more effective across the whole university curriculum? In this global village, increasingly virtual, how can we learn from each other?
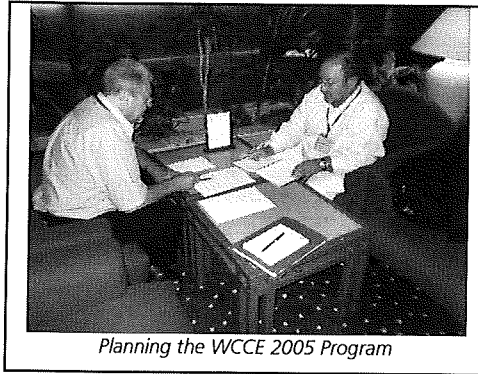
The program of activities therefore will look at international curricula in informatics and software engineering, reviewing progress in the major initiatives, identifying 'best practice' around the world, and identifying what makes an IT professional.

If you would like to submit something for tomorrow's newsletter, please contact Kirsten Moller via the Registration Desk.

8th IFIP WORLD CONFERENCE on COMPUTERS in EDUCATION

What, in the World, is Distance Education?

WG 3.6 held a seminar and their Annual General Meeting yesterday. Elizabeth Stacey and Gordon Davies invited 9 speakers from 7 countries to join the discussion on what is happening in distance education around the world. Many similarities were found between countries; students still preferred face-to-face classes to online, and blended learning combining on and off campus classes were prevalent in all countries.

Planning the WCCE 2005 Program

The final speakers (Mike Chiles – W.Cape Education Dept, and Kim Tucker – CSIR) gave a fascinating report on Africa, describing the conditions in South Africa and the challenges faced to provide distance education solutions to children affected by HIV/Aids, or in rural communities with limited resources and access to teachers.

Lifelong Learning now a SIG

At its TC3 meeting last weekend, the members approved the creation of its first Special Interest Group (SIG). It will be concerned with the role of both Informatics and the resulting Information and Communication Technologies (ICT) that enable each citizen and worker to adapt to the knowledge-based society and actively participate in all spheres of social and economic life.

The new SIG on Lifelong Learning will look particularly at the interaction between the different ways of acquiring and updating all kinds of abilities, interests, knowledge and qualifications.

If you wish to contribute to the new SIG on Lifelong Learning, or can recommend a colleague who is a leader or expert in their area, please visit our TC3 website at wwwedu.ge.ch/cptic/prospective/projets/ifip or contact SIG 3.8 Chair, Brian Samways.

Just some of the challenges facing the use of ICTs in Education in Africa

- *How do we develop a curriculum and learning architecture acceptable to our people?*
- *How can we develop and implement effective, flexible, affordable and sustainable delivery methodologies?*
- *What ICT networks exist in our countries for educational purposes?*
- *What are the costs, management and utilization implications of bandwidth used in our educational systems?*
- *What of the challenge of teledensity in Africa?*
- *What must we do to increase the number of computers in Africa?*
- *How do we redress the regional disparities in the use of computers?*

Dr. Joseph N. Ngu, UNESCO

Lost but not Found

Have you found a lunch ticket? One delegate went to collect his lunch yesterday but had lost his ticket. Of course he was told "No ticket – no lunch". The unfortunate delegate was none other than our Conference Chair, Professor Bernard Cornu!

IFIP / WCCE – A History

1970: Amsterdam, Netherlands
1975: Marseille, France
1980: Lausanne, Switzerland
1985: Norfolk, USA
1990: Sydney, Australia
1993: Teleteaching, Norway TC3
1995: Birmingham, UK
2001: Copenhagen, Denmark
2005: Cape Town, South Africa
2009: Brazil
Looking forward to seeing you there!

Gala Dinner SOLD OUT
(please remember your ticket tonight)

Quotes of the day

'School leavers have been exposed to more information than their grandparents were in a lifetime" – *Deputy Minister of Education, Mr Enver Surty*

"With more than 200 teachers sponsored to attend, hopefully they will be motivated to use computers in the classroom, thereby improving the standard of education in South Africa" - *Vice President, IFIP, Prof Basie von Solms*

"I am excited to learn from people from all over the world and hopefully take back some solutions which might address the many challenges facing both learners and teachers" – *Ministry of Education, Botswana, Ragton Mazhami*

Meet the IFIP President

IFIP President, Mr Klaus Brunnstein arrived yesterday in time to attend and participate in the afternoon sessions.

As Professor for Applications of Informatics, Hamburg University and an active member of IFIP since 1976, it is no surprise that he was elected President in 2002.

Dr Klaus Brunnstein

In 1976 he founded TC9 "Relationship between Computers and Society". Interestingly, Dr Brunnstein is an active educator with a vested interest in Data Protection and yet has never worked on TC 3 (Education) or TC 11 (Security). "TC3 is one of the finest TCs as it attracts young people and teachers, and has a multi-faceted forward vision. I feel it is one of the essential TCs and it is wonderful to be working with International Partners such as UNESCO and UNITAR."

Even with his busy schedule as President of IFIP, Dr Brunnstein says it is an honour to be invited to speak at this event of such significance. Dr Brunnstein will be addressing the conference on the role of education in the information society at the closing session today at 12:00 in Lettere 230.

The Online Learning environment:

A useful tool, some interesting research and a fascinating case-study .

John Pearson from the University of Hong Kong, together with Sue Trinidad, has developed a useful tool for evaluating the use of the online environment for teaching and learning. Students can respond to questions about ACTUAL practice and also complete their PREFERRED response. Discrepancies between these two indicators give teachers and institutions valuable data about the success of online learning.

Michael Hammond from the University of Warwick, UK, examined the literature about online learning and highlighted points such as the uncritical acceptance of a social constructivist model underlying online learning. His case study research found time constraints of business students affected their ability to take a deep learning approach in group work. They maximise their learning in minimal time with a focus on assessment tasks. He advises cautious optimism about teaching and learning online.

Peter Smith, (working with other colleagues)

reported their study comparing two groups of undergraduate third-year computer science students on campus. One comprising Australian first language English speakers and the other students of Chinese Heritage Culture (CHC) whose first language is Chinese but who were competent in English. Studying computer ethics in fully online student-facilitated small groups was found to be highly unpopular with all the students. The Australian students saw this as an issue of time taken and inefficiency with little challenging of ideas as it was too time-consuming to do so.

The CHC students found the Australian straight-forward style of posting immediately about the task confronting and intimidating and found it hard to join in the discussions. They felt cheated and marginalised and preferred face-to-face groups and more teacher-facilitation. Their messages were as frequent as the Australian students, but were more organisational and less intellectual in content with half the number of words written. Interestingly they socialised as much online as the Australians.

Dr. Elizabeth Stacey, Deakin University, Australia

WCCE 2005

WCCE Daily produced by Kirsten Moller
with many thanks to Elizabeth Stacey
for all her help

DAILY

Thursday 7 July 2005

Farewell, Totsiens, Hambani kakuhle, Hambakahle

(Goodbye in four of South Africa's eleven official languages – English, Afrikaans, Xhosa and Zulu)

Today we reach the end of the 8th IFIP WCCE. We learned a lot, experienced a lot, increased our networking and developed our "collective intelligence" together. Holding the WCCE in Africa, IFIP has been humanly and intellectually enriched. But the closing of WCCE is not an end, it is just the beginning! We will start new projects, applying what we learnt in Stellenbosch. We will continue networking our networks together. And the Stellenbosch Declaration will forward ideas and recommendations to decision and policy makers all around the world. I hope you enjoyed the WCCE and your stay in South Africa. I wish you a safe return home, and we all look forward to meeting each other again at future IFIP events!

Prof. Bernard Cornu, Chairperson, International Program Committee

Prof Cornu at the Gala Dinner

The Stellenbosch Declaration – a draft framework

Your thoughts and recommendations in brief – to be discussed and finalised at the Closing Session.

Digital Solidarity

▷ Infrastructure for global collaboration to share knowledge, experience and perspectives

▷ Equal and open access to digital information, content and media for all

▷ Approach to networks for digital communication and support to establish interaction and collaboration among students and teachers worldwide

▷ A Digital Solidarity Act - all stakeholders agree on the importance of fighting the digital divide and the principles for doing this

Learner and Life Long Learning

▷ Academic learning

▷ Professional, vocational learning

▷ Citizenship and social responsibility learning

▷ Non-formal learning
  o Through tradition and culture
  o Through social and cultural environment

Networking

▷ Network the Knowledge Society globally and locally and that it has a consequence on policies and on the way educational systems are organised

▷ Enable people to be part of networks in each community, country and internationally. All countries should take part in international educational projects

▷ Encourage and develop partnerships and involve all stakeholders

▷ Facilitate collaborative work, exchange, cooperation and new learning environments
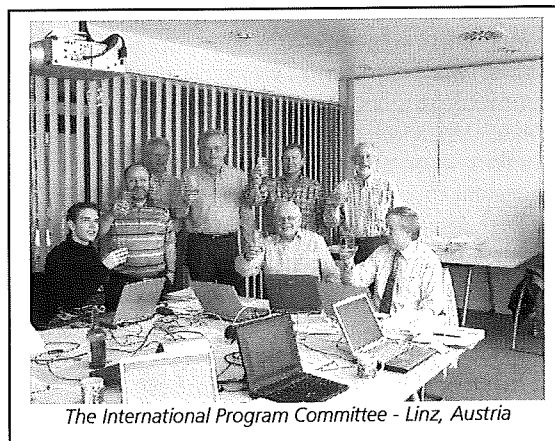
▷ e-Learning as a way for Education for All

Research

▷ Take into account all cultures in research, not only western

▷ Research results should be used by decision-makers

▷ Look at results critically, in terms of possibility of generalizing and different cultures

▷ Ensure public / private research is balanced and complementary

▷ Establish a mutual understanding between researchers and practitioners

▷ Conduct research exploring different learning settings, such as informal learning

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3.1; 4.1; 5.1; 6.1; 7.1; 8.1; 9.1; 10.1
B. Teacher Education (21 papers)
Stream 1: 1.1; 2.1
Stream 5: 3.5; 4.5
Stream 4: 8.4; 9.4; 10.4
C. Management & Policies
Stream 5 (24 papers)
1.5; 2.5; 5.5; 6.5; 7.5; 8.5; 9.5; 10.5
D. Methods & Pedagogy
Stream 4 (21 papers)
1.4; 2.4; 3.4; 4.4; 4.4; 5.4; 6.4; 7.4
E. Lifelong Learning
Stream 2 (15 papers)
F. Higher Education
Stream 3 (24 papers)
1.3; 2.3; 3.3; 4.3; 5.3; 6.3; 7.3; 8.3
G. Informatics Education
Stream 2 (15 papers)
6.2; 7.2; 8.2; 9.2; 10.2
H. Software & Hardware
Stream 6 (12 papers)
1.6; 2.6; 3.6; 4.6
I. Professional and Vocational
Stream 3 (6 papers)
9.3; 10.3
J. History
Stream 3 (3 papers)
HP

The Stellenbosch Declaration – a WCCE 2005 Initiative

As well as providing a platform for sharing experiences and knowledge, we would like this conference to have significant outputs to a wider, global audience. Enter the Stellenbosch Declaration. The Declaration will be a three page document, addressing the principles, ideas, trends and recommendations considered essential for the future of ICT in education. We are asking for contributions from the Session Chairs, speakers and delegates.

The final Declaration will be presented and discussed at the Plenary Closing on Thursday, which will be attended by the IFIP President.

The Declaration will then be presented at the World Summit on the Information Society, which will be held in Tunis in November 2005.

Chairpeople to submit three ideas or recommendations from your sessions. **Speakers** to submit one idea or recommendation from your paper. **Delegates** may also make individual contributions.

Each idea must be a maximum of three lines and all contributions must please be submitted using the form provided, which can be collected at the Registration Desk.

Southern Hemisphere Connection

IFIP's Working Group on ICT in university education (WG3.2) now has a 'southern hemisphere' look. It is perhaps appropriate that it is in Stellenbosch, South Africa, that W6 Chair, John Hughes from Australia and Vice Chair, Raul Wazlawick from Brazil worked with other members from Europe and the USA to prepare a programme of activities over the next three years.

While we might be in South Africa, the issues needing to be resolved are global and pervasive. What should be taught to computing students to make them effective professionals of the future?

How can information technology be used to make learning more effective across the whole university curriculum? In this global village, increasingly virtual, how can we learn from each other?
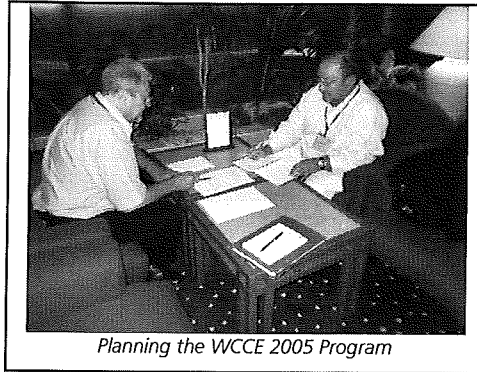
The program of activities therefore will look at international curricula in informatics and software engineering, reviewing progress in the major initiatives, identifying 'best practice' around the world, and identifying what makes an IT professional.

If you would like to submit something for tomorrow's newsletter, please contact Kirsten Moller via the Registration Desk.

8th IFIP WORLD CONFERENCE on COMPUTERS in EDUCATION

What, in the World, is Distance Education?

WG 3.6 held a seminar and their Annual General Meeting yesterday. Elizabeth Stacey and Gordon Davies invited 9 speakers from 7 countries to join the discussion on what is happening in distance education around the world. Many similarities were found between countries; students still preferred face-to-face classes to online, and blended learning combining on and off campus classes were prevalent in all countries.

Planning the WCCE 2005 Program

The final speakers (Mike Chiles – W.Cape Education Dept, and Kim Tucker – CSIR) gave a fascinating report on Africa, describing the conditions in South Africa and the challenges faced to provide distance education solutions to children affected by HIV/Aids, or in rural communities with limited resources and access to teachers.

Lifelong Learning now a SIG

At its TC3 meeting last weekend, the members approved the creation of its first Special Interest Group (SIG). It will be concerned with the role of both Informatics and the resulting Information and Communication Technologies (ICT) that enable each citizen and worker to adapt to the knowledge-based society and actively participate in all spheres of social and economic life.

The new SIG on Lifelong Learning will look particularly at the interaction between the different ways of acquiring and updating all kinds of abilities, interests, knowledge and qualifications.

If you wish to contribute to the new SIG on Lifelong Learning, or can recommend a colleague who is a leader or expert in their area, please visit our TC3 website at wwwedu.ge.ch/cptic/prospective/projets/ifip or contact SIG 3.8 Chair, Brian Samways.

Just some of the challenges facing the use of ICTs in Education in Africa

- *How do we develop a curriculum and learning architecture acceptable to our people?*
- *How can we develop and implement effective, flexible, affordable and sustainable delivery methodologies?*
- *What ICT networks exist in our countries for educational purposes?*
- *What are the costs, management and utilization implications of bandwidth used in our educational systems?*
- *What of the challenge of teledensity in Africa?*
- *What must we do to increase the number of computers in Africa?*
- *How do we redress the regional disparities in the use of computers?*

Dr. Joseph N. Ngu, UNESCO

Lost but not Found

Have you found a lunch ticket? One delegate went to collect his lunch yesterday but had lost his ticket. Of course he was told "No ticket – no lunch". The unfortunate delegate was none other than our Conference Chair, Professor Bernard Cornu!

TC3 New Member Recruit

To become a member of one of the TC3 Working Groups, please contact the relevant person below.

WG 3.1   Deryn Watson
Informatics education at the secondary level
WG 3.2   John Hughes
Informatics education at the university level
WG 3.3   Paul Nicholson
Research on education applications on information technologies
WG 3.4   Barrie Thompson
Vocational education and training
WG 3.5   Sindre Rosvik
Informatics in elementary education
WG 3.6   Elizabeth Stacey
Distance Education
WG 3.7   Adrie Visscher
Information Technology in Education Management
SIG 3.8   Brian Samways
Lifelong Learning

IFIP / WCCE – A History

1970: Amsterdam, Netherlands
1975: Marseille, France
1980: Lausanne, Switzerland
1985: Norfolk, USA
1990: Sydney, Australia
1993: Teleteaching, Norway TC3
1995: Birmingham, UK
2001: Copenhagen, Denmark
2005: Cape Town, South Africa
2009: Brazil
Looking forward to seeing you there!

Quotes of the day

"School leavers have been exposed to more information than their grandparents were in a lifetime" – *Deputy Minister of Education, Mr Enver Surty*
"With more than 200 teachers sponsored to attend, hopefully they will be motivated to use computers in the classroom, thereby improving the standard of education in South Africa" - *Vice President, IFIP, Prof Basie von Solms*
"I am excited to learn from people from all over the world and hopefully take back some solutions which might address the many challenges facing both learners and teachers" – *Ministry of Education, Botswana, Ragton Mazhami*
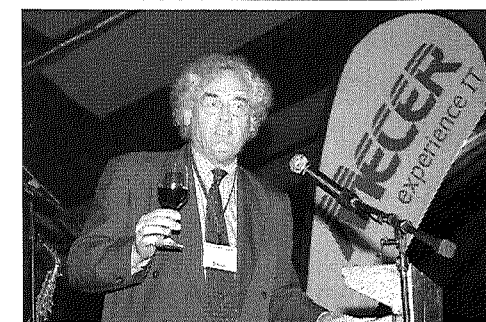
WCCE 2005

DAILY

Thursday 7 July 2005

Farewell, Totsiens, Hambani kakuhle, Hambakahle

(Goodbye in four of South Africa's eleven official languages – English, Afrikaans, Xhosa and Zulu)

Today we reach the end of the 8th IFIP WCCE. We learned a lot, experienced a lot, increased our networking and developed our "collective intelligence" together. Holding the WCCE in Africa, IFIP has been humanly and intellectually enriched. But the closing of WCCE is not an end, it is just the beginning! We will start new projects, applying what we learnt in Stellenbosch. We will continue networking our networks together. And the Stellenbosch Declaration will forward ideas and recommendations to decision and policy makers all around the world. I hope you enjoyed the WCCE and your stay in South Africa. I wish you a safe return home, and we all look forward to meeting each other again at future IFIP events!

Prof. Bernard Cornu, Chairperson, International Program Committee

Prof Cornu at the Gala Dinner

The Stellenbosch Declaration – a draft framework

Your thoughts and recommendations in brief – to be discussed and finalised at the Closing Session.

Digital Solidarity

▷ Infrastructure for global collaboration to share knowledge, experience and perspectives
▷ Equal and open access to digital information, content and media for all
▷ Approach to networks for digital communication and support to establish interaction and collaboration among students and teachers worldwide
▷ A Digital Solidarity Act - all stakeholders agree on the importance of fighting the digital divide and the principles for doing this

Learner and Life Long Learning

▷ Academic learning
▷ Professional, vocational learning
▷ Citizenship and social responsibility learning
▷ Non-formal learning
   o Through tradition and culture
   o Through social and cultural environment

Networking

▷ Network the Knowledge Society globally and locally and that it has a consequence on policies and on the way educational systems are organised
▷ Enable people to be part of networks in each community, country and internationally. All countries should take part in international educational projects
▷ Encourage and develop partnerships and involve all stakeholders
▷ Facilitate collaborative work, exchange, cooperation and new learning environments
▷ e-Learning as a way for Education for All

Research

▷ Take into account all cultures in research, not only western
▷ Research results should be used by decision-makers
▷ Look at results critically, in terms of possibility of generalizing and different cultures
▷ Ensure public / private research is balanced and complementary
▷ Establish a mutual understanding between researchers and practitioners
▷ Conduct research exploring different learning settings, such as informal learning

Decision Making Strategies

▷ Use the results of research
▷ Use a systemic approach
▷ Involve all stakeholders
▷ Promote regional and international cooperation
▷ Promote trust and security in the use of ICT

Teachers

▷ The new role and mission of teachers in the knowledge society
▷ Select good teachers and make the teaching profession attractive "Technology matters, good teachers matter more"
▷ Empower teachers with teaching skills and ICT
▷ Teacher professional development

Meet the IFIP President

IFIP President, Mr Klaus Brunnstein arrived yesterday in time to attend and participate in the afternoon sessions.

As Professor for Applications of Informatics, Hamburg University and an active member of IFIP since 1976, it is no surprise that he was elected President in 2002.

Dr Klaus Brunnstein

In 1976 he founded TC9 "Relationship between Computers and Society". Interestingly, Dr Brunnstein is an active educator with a vested interest in Data Protection and yet has never worked on TC 3 (Education) or TC 11 (Security). "TC3 is one of the finest TCs as it attracts young people and teachers, and has a multi-faceted forward vision. I feel it is one of the essential TCs and it is wonderful to be working with International Partners such as UNESCO and UNITAR."

Even with his busy schedule as President of IFIP, Dr Brunnstein says it is an honour to be invited to speak at this event of such significance. Dr Brunnstein will be addressing the conference on the role of education in the information society at the closing session today at 12:00 in Lettere 230.

The Online Learning environment:

A useful tool, some interesting research and a fascinating case-study .

John Pearson from the University of Hong Kong, together with Sue Trinidad, has developed a useful tool for evaluating the use of the online environment for teaching and learning. Students can respond to questions about ACTUAL practice and also complete their PREFERRED response. Discrepancies between these two indicators give teachers and institutions valuable data about the success of online learning.

Michael Hammond from the University of Warwick, UK, examined the literature about online learning and highlighted points such as the uncritical acceptance of a social constructivist model underlying online learning. His case study research found time constraints of business students affected their ability to take a deep learning approach in group work. They maximise their learning in minimal time with a focus on assessment tasks. He advises cautious optimism about teaching and learning online.

Peter Smith, (working with other colleagues)

reported their study comparing two groups of undergraduate third-year computer science students on campus. One comprising Australian first language English speakers and the other students of Chinese Heritage Culture (CHC) whose first language is Chinese but who were competent in English. Studying computer ethics in fully online student-facilitated small groups was found to be highly unpopular with all the students. The Australian students saw this as an issue of time taken and inefficiency with little challenging of ideas as it was too time-consuming to do so.

The CHC students found the Australian straight-forward style of posting immediately about the task confronting and intimidating and found it hard to join in the discussions. They felt cheated and marginalised and preferred face-to-face groups and more teacher-facilitation. Their messages were as frequent as the Australian students, but were more organisational and less intellectual in content with half the number of words written. Interestingly they socialised as much online as the Australians.

Dr. Elizabeth Stacey, Deakin University, Australia

www.wcce2005.org.za

DAILY

Good Morning, Goeie Môre, Molo, Sawubona

(Greetings in four of South Africa's eleven official languages – English, Afrikaans, Xhosa and Zulu)

Premier of "ICMS"

For WCCE 2005 in Stellenbosch, South Africa, a new software tool called Icms (IFIP TC3 conference management system) has been developed and used for the first time. This tool is based on the experience of running scientific conferences by the members of IFIP TC3 over the decades. It is being used for the first time with the excellent cooperation of Peter Aspinall, MD of SBS as the local organizer of this conference. Icms has been programmed by the team of *education highway* in Linz, Austria. The features of Icms cover all functions necessary to run a conference: displaying information for presenters, uploading presentations, facilitating the reviewing process and compilation for the program. Everything is done online and all members of a program committee are always working with the same status of information. Conference organizers who want to use Icms are welcome to contact IFIP TC3 at office@eduhi.at

Panel Discussion – WG 3.3 Research

Jonathan Miller, Chairman of the ICDL Foundation of SA, attended a lively discussion yesterday on the current state of research in ICT in education – what has worked and what hasn't. Research is showing that ICT is working for teacher education and creating communities of practice; providing access for special education needs, providing access to content for both teachers and learners and for enhancing vocational skills and knowledge. However, it is still unclear whether ICT has a major role within the primary and secondary education context or whether it should find its place in the informal education sector rather. In the end, is

There is some research into many studies of ICT in education for innovation and development that suggests the expenditure far exceeds the return. There are also concerns that research in the western tradition is only partially successful and that it is time we looked at other approaches like story telling and engaging teachers and practitioners in the research process. What certainly doesn't work is replicating things that we already know don't work especially in developing countries. While there may be gloomy stories, the research suggests that slow learners gain the most from ICT as do visual learners. Computers provide an authentic environment for foreign language learning and transform boring old physics and chemistry through 'virtual
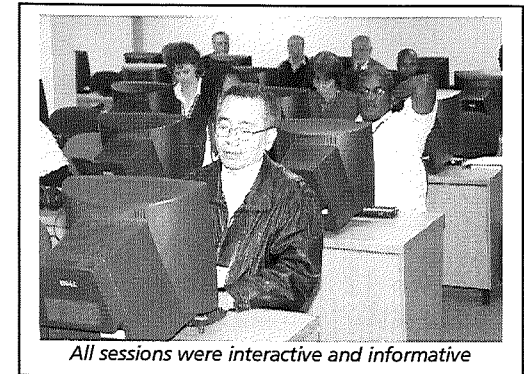
Special Students

A diverse group of students with special needs within ICT solutions were discussed in this session chaired by Elizabeth Stacey. Wallace Chigona researched the use of ICT as a tool for improving adult functional literacy in South Africa. ICT has the potential to be more motivational, interactive and culturally contextual than other technologies. He raised some of the issues for using ICT in rural and poorer regions such as safety, lack of infrastructure and the group discussed the issue of the cost of ICT which could take funds from the provision of teachers.

Researchers from the University of Melbourne, Australia, discussed the way ICT is providing the connection to their schools for chronically ill students who, though hospitalised for shorter periods, now spend a long time recovering at home. Laptops and server connections mean they can work with their teachers online and keep up socially with their classmates through secure chat areas. The social support also aids in their recovery.
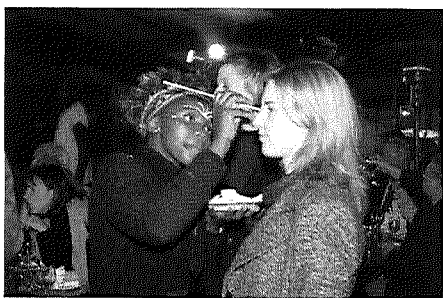

All sessions were interactive and informative

The final group of learners discussed in this session were prisoners in Austria who were involved in rehabilitation through e-learning. The team from the University of Technology in Austria first adapted software to secure the online communication so they could not connect to the Internet or with prisoners in other jails.
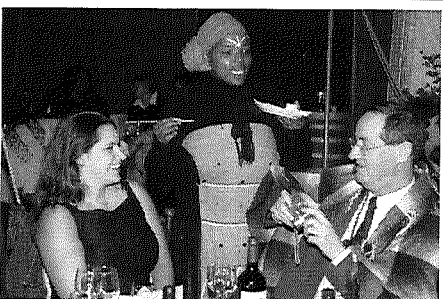
The prisoners worked in learning groups with a teacher only once a week, with mixed media, web-based courses, CD's, print etc and with tutors (often guards). They studied basic literacy and numeracy skills with computers and job specific skills. 83% passed, 25% were re-employed soon and 20% went on to further education.

Info-anxiety (Defn 1) – the gap between what we understand and what we think we are understanding
Info-anxiety (Defn 2) – the black hole between data and knowledge. It happens when information does not tell us what we expect or anticipate

experiments .

Festive fun – painting faces

African blankets were provided

The waiters wore traditional dress

A Feast – traditional African style!

Sponsored by Mecer Computers and Mustek, the WCCE Gala Dinner was a festive affair, with over 600 people enjoying traditional African food, music and dance in the magical setting of Moyo at Spier.

MC for the evening was former Miss South Africa and television presenter, Joanne Strauss, who added a touch of glamour to the informal occasion.

To kick off the evening's festivities, speeches were given by the CFO of the sponsors for the evening, Mustek, Mr Hein Engelbrecht, IFIC TC3 Chairman, Prof. Jan Wibe, International Program Committee Chair, Prof. Bernard Cornu and the Vice President of IFIP, Prof. Basie von Solms. All speeches were delightfully tongue-in-cheek, with Prof Cornu, in particular making numerous play-on-words, providing much amusement. (The World Conference on Computers in Education has been renamed the Wine Club for Collaborative Education.)

Prof Cornu's analogies to wine were in reference to the fact that the esteemed event took place on a wine farm and that people could network over a glass or two.

After the formalities, people were presented with an impressive spread. All types of African delicacies were on offer and rest assured, noone went hungry!

Delegates danced the night away to the beat of the African drum, acoustic marimbas and a foot-tapping jazz band.

Mecer and the organisers did an excellent job of providing an ideal platform for stimulating conversation and networking in choosing an exciting venue offering tantalising cuisine, traditional décor and superb entertainment.

As Prof. von Solms said, the error in the Gala Dinner's Program was perhaps intentional: IFAP – International Friends of African People.
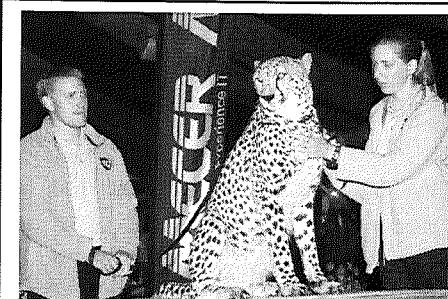

Prof Bernard Cornu – glass of wine in hand

Joanne Strauss – MC for the evening

0 to 80km/hr in 3 seconds

A surprise guest was none other than Joseph, the 3-year-old male cheetah from the Cheetah Outreach Program based at Spier. Liesel Smith from the Program introduced us to her feline friend, explaining the plight of the cheetah in Africa and how the sponsorship from Mecer has helped them tremendously in their efforts in educating the public.

Joseph, the cheetah