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OECD Global Forum on Knowledge Economy

Summary Record of the Joint OECD/UN/UNDP/World Bank Global Forum

Exploiting the Digital Opportunities for Poverty Reduction

OECD, Paris, 5-6 March 2001

See CCNM/GF/DCD/KE/M(2001)1 for a short 2-page summary of the issues and conclusions of the Forum.

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Exploiting the Digital Opportunities for Poverty Reduction

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REPORT[1]

Background

As the first event in the OECD Global Forum on the Knowledge Economy, the OECD Directorates for Development Co-operation and Science and Technology collaborated with the OECD Centre for Co-operation with Non-Members to organise this forum jointly with the World Bank, UN and UNDP. The forum was a major part of OECD's response to the Digital Opportunity Taskforce (DOT Force) established by the G8 at their Okinawa Summit in July 2000. It also linked to the work of the UN Economic and Social Council that is co-ordinating UN follow-up to bridging the digital divide as requested in the Millennium Summit Declaration. The forum brought together some 150 representatives of governments, civil society and the private sector—from both OECD and developing countries—and of international and regional organisations.

Objectives

- Examine the role of development co-operation to help countries exploit digital opportunities.
- Sensitise donors to the role of Information and Communication Technologies (ICT) in development and poverty reduction.
- Share information on donor initiatives to bridge the digital divide.
- Identify roles and priorities for all actors: governments, private sector, civil society, international and regional organisations - in developed and developing countries.
- Present OECD work and experience, making it accessible to developing countries.
- Assist the work of the DOT Force and the UN ICT Task Force.

Summary of main conclusions

- The need for ICT to be seen as a tool to help meet existing development objectives, in particular the international development goals, not as a separate sector.
- Developing countries require assistance with developing ICT strategies as part of their comprehensive development strategies and with establishing the appropriate regulatory environment for competition so that national and foreign private investment can play a major role, with necessary seed financing through public-private partnerships.
- There are already many examples of successful initiatives, using a mix of technologies, which need to be shared widely through a "clearing house" so that countries can learn from each other.
- Training, local content and languages are key to gaining the critical mass for success.
- The OECD has a major role to play:
  - sharing Members' experiences with the "new economy";
  - providing a forum to develop action plans, set benchmarks and monitor progress; and
  - co-ordinating donor programmes, with more use of ICT within them to reduce inefficiencies.

1. For more information, the agenda, presentations, list of participants, and links to other sites visit the Forum Website: www.oecd.org/dac/digitalforum.

Welcome

1. **Ms. Sally Shelton-Colby** welcomed the 150 participants, from a cross-section of countries and constituencies - government, business, trade unions, NGOs, regional and international organisations. She welcomed the strong representation from the UN Economic and Social Council (ECOSOC), the collaboration with the UN, World Bank, and DOT Force in preparing the meeting and the generosity of Canada, Japan, Sweden and Alcatel in co-funding the event.

1st Keynote Address

2. In her address, co-authored with Mr. Tadao Takahashi, **Mrs. Maria Inês Bastos** stated that, due to convergence, Internet technologies are the keystone of ICT and development today - providing essential ingredients to build large systems to support education, health, and finance. In the absence of universal education and literacy, the use of intermediary "operators" can enable illiterate people to have access to the Internet. While portals have a role in providing decentralised access to centralised information, there remains a need for large national ICT-based systems to provide local content and conform to local procedures.

3. In e-commerce, geography and the old economy still matter. Local services should be encouraged to migrate to the Internet to service local demand more efficiently. More effort should be made to bring the digital revolution to existing brick-and-mortar companies. Brazil's ICT policy targets grass-roots level commerce through newsstands and convenience shops stimulating ordinary people to enter the virtual world. Actions to promote ICT for development are not a linear list, but a set of interlocking actions covering capacity building, creating the infrastructure, and sector-specific and local actions. Mrs. Bastos concluded by emphasising the need to enable developing countries to participate effectively and in greater numbers in such events.

Session 1. The importance of ICT as a tool for development and poverty reduction

Session objectives: *Establish why information and communications technology is vital to development. ICT is much more than the Internet; it encompasses telephones, radio, television - any means of sharing information and knowledge more widely. And it is not a question of "either development or ICT", but of how to apply ICT in ways that address the needs of the poor and enhance growth and development opportunities to narrow the currently widening gaps between segments of the world population. Focus on information, knowledge, identity and shaping globalisation, not on computers and connectivity.*

4. Noting the poor and uncertain electric supply and the weak telephone lines in India, **Mr. Pradeep Mehta** described how wall newspapers or subsidised postcards offer a simple but efficient way to communicate with consumers in rural areas. In addition to printed media, a network of telephone booths provides access to the poor to gather or transfer information. More recently, information kiosks that include an Internet connection have been set up to access market or health information. In concluding, he noted that progress depended on: the availability of resources; the enabling environment - national and international; the types of media available; and the gap between people's skills and the technologies available.

5. **Mr. Andrea Goldstein** summarised a paper on electronic commerce and development that presents examples of developing country enterprises based on e-commerce and ways by which e-commerce can change enterprises. He noted business to consumer (B2C) commerce has limited magnitude, business to business (B2B) commerce has huge potential, in particular e-commerce in primary

commodities and service provision, e.g. data processing centres in India or the Philippines. He suggested a role for ODA in: 1) capacity building - assisting developing countries to develop regulatory capacity and participate in fora like WTO or WIPO where e-commerce policies will be negotiated; 2) financing skills development and trust building; and 3) assisting pilot e-commerce projects and attracting external investment funding.

6. To illustrate how ICT can directly help the poor, **Mr. Brian Hammond**, described how mobile phones enable fishermen in India to keep fully informed about fish prices throughout the day and sell their catch at the best prices. But not all boats have mobile phones, demonstrating the digital divide within countries. Commenting on the government of India's objective to connect all of its 600 000 villages by 2002, he stressed the importance of defining effective strategies and setting challenging goals.

7. With thanks to the IDRC for their research, Mr. Hammond presented a matrix of the ICT activities of some 86 donors - 14 DAC Members, 39 multilateral and regional bodies, 28 foundations and non-profit organisations and 5 others. The activities focus on donors developing ICT strategies for their programmes, helping developing countries develop their national ICT strategies, and infrastructure, which accounted for some $40 million by DAC donors in 1999. These ICT-specific programmes amount to at most $500 million annually at present, although this amount may well increase rapidly. For example, Japan has pledged US$ 15 billion (part of it as ODA) over 5 years and more may follow from the DOT Force and the UN ICT Task Force initiatives. These figures exclude the ICT component of development projects that goes uncounted precisely because this technology is often most effective when integrated into projects. Mr. Hammond noted that ICTs facilitate new forms of development co-operation, with an increasing role being played by non-profit organisations and foundations. In the private sector, Hewlett Packard is promoting partnerships to raise one billion dollars. Germany is working through chambers of commerce to promote e-business. Pride Africa is an example of an initiative created by the South for the South.

Session 2. Development Assistance in the Digital Age

Session objectives: *A frank assessment of the potential and imperative to make the fullest possible use of ICT in attaining development objectives, with strong support by the donor community through well-targeted and co-ordinated initiatives. Discuss the opportunity to revolutionise the "aid business" itself - to provide many more models of development assistance on a peer-to-peer basis - between the private sector and NGOs as well as governments, and South to South as well as North to South. Show linkages between ICT/knowledge on the one hand and wealth creation/sustainable growth/ employment/poverty reduction on the other. Include the role of ICT to build institutional capacity, promote effective governance and management reform.*

8. "Internet has enough cheerleaders", said **Mr. Richard Fuchs**, and it was time to stress more basic uses of ICT. The hierarchy of ICT needs started with facilities use. Actors then moved through information-gathering and network-building phases before using ICT to expand SMEs. If programmes tried to promote Internet use to jump to the last step, they would only help the "pioneers" who led the technical adaptation life cycle. IDRC's work had four dimensions: poverty research, people, partners, and opportunities. The Acacia programme in sub-Saharan Africa tapped into people's creativity and was open to novel ideas.

9. **Mr. Amos Tincani** outlined the wide range of goals, approaches and priorities for ICT within EU institutions. Key aims included more integrated aid strategies, regional convergence, and promoting good governance and poverty reduction. On a practical level, the EU was actively exploring the use of ICT for electronic conferencing, tendering, and statistical reporting.

10. **Mr. Robert Wade** claimed the World Bank was promoting ICT as a "techno-fix" to catapult countries over institutional difficulties. When this failed - as Mexican telecenters had done - the Bank blamed insufficient training, a lack of political will and "cultural constraints that reduced interest". These excuses recalled similar debacles with other "silver bullet" solutions such as tractors or cheap books. He maintained that the real point was that ICTs were of limited instrumental value in raising real incomes and reducing inequality.

11. Responding to Mr. Wade, **Mr. Keith Yeomans** pointed out that ICTs were not a tool, but an all-embracing environment that was changing the world. The wealth gap was widening partly because of ICT-driven globalisation, and it would widen further if developing countries were left behind technologically. Rather, donors should use ICT to promote disintermediation, "joined-up" government, greater participation, and new more effective relationships between donors, recipients, and other development actors.

12. Subsequent discussion brought out the following points:

- The income divide and the knowledge divide went hand-in-hand: the income-rich were also the information-rich.
- ICT strategies did not alter the basic aims of development, such as fighting poverty and promoting democracy.
- Getting value from ICT depended on government commitment and coherent human resource strategies.
- Training needed to adapt to recipients' needs, and to cultural and religious constraints.
- Designers should consider access though media other than PCs, e.g. mobile phones or television.
- Private sector buy-in was vital if ICTs were to achieve their development potential.
- There should be more input from civil society, and opportunities for telecenters to exchange information and lessons.
- ICT could transform the work of libraries, promoting lifelong learning and citizenship.

13. In general, participants recognised major challenges in using ICT to promote development. Donors must allow for cultural differences, including different attitudes to formal and non-formal information. Planners needed to consider costs - including opportunity costs - and not just assume that ICT would automatically bring efficiency gains. But there was also an inevitable unpredictability about the technology, which meant that in the end, success might depend less on planning than on partners' creativity and spontaneity in applying ICT to their specific needs.

Session 3. How ICT can help to achieve Education for All

Session objectives*: Show how the goals of gender equality in education by 2005 and universal primary education by 2015 are more likely to be attained through the imaginative use of ICT to promote learning. Cover the quality aspects, and the need to have access to lifelong learning and the development of ICT skills to benefit the whole economy.*

14. **Mr. Alain Modoux** introduced the session by highlighting that out of a world population of 6 billion, only 5% have access to the Internet (85% of whom live in industrialised countries) and of the 1 billion people excluded from the information society due to lack of basic literacy, 113 million are primary school children and 880 million are adults. Most of these illiterate adults are women. The world community has met several times to tackle the challenges of "Education for All". At the latest meeting a

year ago in Dakar, Senegal, participants re-committed to the goals for 2015 of universal primary education, improved adult literacy and gender equality in access to quality education.

15. In framing the debate, Mr. Modoux asked how ICT can be used to break through the boundaries of traditional education systems and accelerate progress towards education for all and lifelong learning, bearing in mind that ICTs are only tools. Educational change must be driven by needs and goals, not materials or technology. The Internet is an information and documentation system not an education system, and does not replace teachers.

16. **Ms. Fay Chung** began her presentation by quantifying the income, education and gender divides in Africa. She outlined the causes of poverty as: institutional weaknesses - governments, banking, leadership; weaknesses in the marketing system; lack of industrialisation - most poor countries do not produce manufactured products; poor education system; and lack of research and development. She underlined that poverty cannot be overcome without research and development. ICTs offer an effective way to link up research and development institutions in industrialised countries with those in developing countries.

17. Ms. Chung outlined various other fields in which ICT can play a key role:

- Electronic libraries: CD-ROMs, video and audio cassettes provide a low-cost and easily accessible form of technology.
- Community telecentres can benefit schools as well as local communities.
- Distance education programmes, including their use for teacher training.
- Developing a new generation of political, economic and technical leaders in developing countries, including through programmes to assist women leaders.
- Improving the dissemination of knowledge, for example in agriculture.
- New business opportunities and hence potential job creation and prosperity through e-commerce.

18. **Ms. Teresa Peters** explained how her organisation promotes Internet use where connectivity already exists. The focus on teledensity or connectivity can obscure the fact that many would-be users do not understand the technology or its utility. The approach of Bridges.org is to encourage the proper use of technology in order to maximise its potential to address social problems, and strengthen communities or democratic institutions, the free press and local economies. "It is not about technology, it is about people". ICTs need to be integrated into society and need to be supported by policy reforms. Technology training is a linchpin of every digital divide initiative, otherwise computers sit on shelves. The key issue is to make ICT relevant to people's lives. If they do not understand how ICT can affect them directly, not only are they not interested or curious, but often they are also afraid. Simple things such as keyboarding skills can hold them back. Bridges.org has a starter tool that teaches students practical computer skills while educating them about critical social issues that come hand-in-hand with technology mainstreaming. Ms. Peters stressed the importance of making content meaningful to the people who use the tool.

19. **Mr. Meddie Mayanja** presented his field experience in Uganda. The Nakaseke Telecentre is the first multipurpose community telecentre in East Africa. It was opened in 1999 with the aim of introducing ICT in a rural area. In Africa it is very difficult to talk about modern ICT without evoking traditional ICT. Furthermore, it is difficult to talk about the Internet when many people do not even know what a telephone is. The project has therefore tried to integrate both traditional and modern technologies. The telecentre has a library, computers that can access the Internet, CD-ROMs, and free programmes for children. Twenty-three schools and a hospital benefit from its facilities. The telecentre has a very important impact on the local community. People within it are redefining their learning system since the telecentre offers a variety of information resources. Moreover, the project tries to make the best possible use of indigenous and local knowledge by using video and TV to record local information and practices (for example in the

agriculture or traditional pharmaceutical sectors). Mr. Mayanja also noted the use of FM radio for information dissemination and education.

20. Main points from the discussion included:

- Both infrastructure and appropriate technical training needs should be addressed in parallel.
- Technological advances, such as new Internet platforms and search facilities, provide new opportunities for lifelong learning and empowerment.
- In response to questions about the financial viability of initiatives such as telecentres, the case studies provided examples of local cost recovery, with local demand for services key to sustainability. Early examples of successful impact are needed to gain broader support.
- Trade unions could be helpful in promoting ICT, notably in adult and vocational education.
- The role of distance education. Australia is launching an initiative and wishes to collaborate with other interested partners in this area.
- The needs of local populations and demand for education. Content should be a mix of universal and appropriate local knowledge. The curriculum needs to be relevant to local people and their immediate concerns but must also convey broader dimensions. The role of education in combating HIV/AIDS, and in promoting democracy, in addition to basic skills learning, was emphasised.
- Whether the donor community had the will to invest new resources in ICT projects in support of education.

Session 4. How ICT can help to achieve Health for All

Session objectives: *To show how the achievement of reduced infant, child and maternal mortality, and universal access to primary and reproductive healthcare by 2015 are more likely to be attained through the creative use of ICT for training health staff in the field, for providing guidance to mothers and adolescents, etc.*

21. "Technology does not need to be sophisticated, it can be simple but effective", said **Mr. Michael Scholtz,** quoting the example of pre-stamped/pre-formatted envelopes used to notify district health offices of the rising incidence of a fever, thereby reducing the response time to form a task force to tackle the disease. Tele-health applications have the potential to improve health by increasing the quality, relevance and amount of information available to the public and to health care workers. Mr. Scholtz suggested some guidelines to govern the use of ICT for health: 1) as in medicine, do no harm; 2) accurate diagnosis of the problem; 3) have a good idea of available solutions; 4) decide on which solution or combination of solutions is best suited to the situation; and 5) use information creatively.

22. He described the Health InterNetwork project - a public/private partnership being organised by WHO to equip over 10 000 new health information sites in over 100 countries. It will enable public health staff to access an extensive collection of authoritative health information, on-line community networking among public health users, and enhance the monitoring of disease as well as providing health statistics. New content and applications will address the specific professional, social and cultural needs of the countries covered. The pilot phase aims to ensure understanding of the problems before offering a solution and to measure the impact. By using the network to support high priority public programmes (e.g. HIV/AIDS) it is hoped to demonstrate the impact of ICT using the established indicators for the programmes.

23. **Mr. Eliazar Karan** remarked that in sub-Saharan Africa the average medical worker cannot afford to subscribe to peer review journals and other health information. In partnership with Satellite USA, Healthnet Kenya distributes electronic publications to medical workers for child health programmes and many others. Rural isolation in Kenya means professional isolation - information to complete diagnosis is not available as once you leave the cities the "knowledge life line" ends. This isolation is alleviated by e-mail at affordable prices - enabling health workers to participate in electronic discussion forums.

24. "One can provide technology, but without adequate training it remains ineffective." Regional training centres were established in 1999 to empower health professionals in East Africa to engage in global knowledge sharing. As the people trained go back to their local communities, they in turn promulgate the "knowledge life line" and promote the use of ICT in their work. The project is in a transition phase to financial sustainability, through generating income from services, courses and renting out the facilities for other training.

25. "It is a question of connecting those who know with those who don't", quoted **Mr. Willy Haftel,** while noting that in Bolivia, with only 1 nurse and 3 assistants for every 2 doctors, a major need was training and knowledge sharing to improve these ratios by a factor of 5 over the next few years. As an example of collaboration for sharing and transferring locally relevant knowledge, he mentioned the "Institute of High Altitude", which developed permissible limits for cardio-vascular surgery in high altitudes. These are available via the Internet to all high-altitude countries. If doctors just relied on U.S. or European studies, they would get the wrong results. But not all applications rely on the Internet. The National Service for Health Information, created in 1990, relies on radio and mailing diskettes - a techno mix - to compile statistics on mortality, birth rates, etc. from some 2 400 health centres.

26. **Ms. Judi Nwokedi** maintained that in South Africa, with a predominantly young population and a 68% increase in HIV prevalence in the 15 to 18 age group in 1999, the country's number one priority is to win the war against HIV/AIDS. Why use ICT? In the past 15 years, conventional approaches have not worked - there is 98.5% awareness of HIV and only 10% use of protection methods. Love Life targets young people between the age of 12 to 17 who are brand conscious, but lack income to meet their aspirations. Love Life presents popular culture to young South Africans as a way of realising their dreams. It uses the best commercial experience in advertising, communications and technology to provide:

- Youth Centres - where the young are attracted by the information services offered - the chance to surf the web, be part of chat groups, create their own sites. Once they have "bought into" the services, Love Life can sell its message and thereby influence their sexual behaviour patterns.
- Call Centres - a free line to get young people to engage in an open dialogue around sexual issues.
- Virtual Studios - helping to bridge the rural/urban divide by innovative use of media. Virtual Studio provides young people with opportunities to work within a radio station in remote villages providing a chance to sell their programming of local stories and experiences to national and international broadcasters, thus earning revenue and helping to make the project sustainable.

27. The main points raised in discussion were:

- The difficulty of demonstrating a positive cost-benefit for ICT in health. It is difficult to quantify quality improvements such as better decision making through use of ICT. But there were positive impacts, such as a telemedicine mobile phone centre in Senegal used to monitor high-risk pregnancies that had reduced the maternal mortality rate by half.
- The need to move beyond specific examples covering only limited aspects of health policies and services to a more comprehensive approach to see in which areas of the health system ICT can be most useful. Costa Rica is beginning to apply ICT in all national health programmes and Brazil is considering large national systems to support healthcare.

- Privacy and regulation of sharing health information are areas still to be resolved. Smart cards and tags offer enormous potential medical benefits, but at a cost to privacy. There is no legal framework to cover doctors in different countries exchanging information, let alone agreement on how to pay each doctor. Liability may arise if remote diagnosis is wrong when based on images of inadequate quality.
- The validity of information. Much health information is on the Internet, but this does not mean that it is reliable. To be valuable, information needs to be from reliable sources, usually having been peer-reviewed for scientific validity.
- The need for flexible and affordable ICT training. Economies can be achieved through collaboration on training such as Bellanet's TRAIN project, involving partnerships between organisations that collectively develop and maintain IT training modules. In Brazil, most training is done by television/video, offering the flexibility of modules about different diseases, etc.

28. Technology is no panacea to achieve health for all. It may be part of the solution depending on how many people have access and know how to use it well to extract valid information. Impediments include: cost - telephone rates in Africa are higher than in the US and Europe; the fast rate of technological change; and the overhead on medical staff as new technologies can impose new ways of working that are perceived to increase inefficiencies in an already demanding environment. Effective use of ICT in the health sector requires an analysis of the different technologies to use them strategically to solve existing problems and improve existing ways of working.

Reception - 2nd Keynote Address

29. **Mr. Jacques Dunogué** described how Alcatel is working with local partners in West Africa to promote innovative Internet services to meet local demands among poor and often illiterate people. In Senegal, three children's lives have already been saved by e-mailing children's weight to a database so that the paediatrician can call the 10% of children requiring close attention for a check-up. This service is self-financing with a waiting list of subscribers. Fishermen are improving their safety and revenue by accessing weather forecasts and transport schedules before putting out to sea.

30. Alcatel is working with the Mali government in an ambitious public/private project to connect 700 local authorities to central government in order to support decentralisation. Early results show popular appeal as the Web suits a community-based society. In Senegal, Alcatel is developing community cyber-centres which are cost-effective, where individual access would not be, and offer the support of trained staff.

31. Mr. Dunogué suggested ICT might be one of the most affordable investments to speed up economic, social and political development as the lack of information imposes costs. At present people have to move to get information, wasting time walking or time and money on transport. Donors have a key role in initial funding to provide the "spark to start the engine". He thought that this should be easy given the very small percentage of ODA spent on ICT at present.

Breakfast Showcase

32. Participants had a chance to network with each other and to see and discuss case studies of the use of ICT in development presented by:

- Alcatel, Initiative in Senegal
- PlanNet Finance, France
- Imfundo, United Kingdom
- Grameen Telecom, Initiative in Bangladesh
- Worldview International Foundation, Sri Lanka
- SatelLife HealthNet, Kenya
- Nakaseke MCT Pilot Project, Uganda National Commission for UNESCO

3rd Keynote Address

33. **Mr. Jacques Attali** mentioned four interlinked pillars for development: democracy and the rule of law; public infrastructure; technology; and a spirit of enterprise or micro-finance. ICT can help the current 7 000 mainly isolated micro-finance institutions (MFIs) in the world leverage more resources and boost their beneficiaries (from some 15 million people today to 100 or 200 million in seven years). This scaling up will require: more financial resources; more professionalism; and an enabling national legal framework and international banking environment. PlanNet Finance is positioned to foster professionalism (through training executive members of MFIs, assisting in creating the necessary national regulatory framework, exchanging best practices, and providing computer equipment); financing (through funding MFIs and micro-credit programmes, and rating - a key precondition to micro-finance); and on-line sale of products of MFI clients.

34. He concluded by noting that while the poorest may not have access to the Internet, the MFIs can act as a relay for development to reach them, with a multiplier effect. For training, Mr. Attali underlined the low running cost of on-line university programmes compared to bricks-and-mortar tertiary education.

Session 5. ICT for opportunities to the poorest people through micro-enterprise

Session objectives: *Show how access can enable even the poorest people in the remotest communities to earn a livelihood. For example, using a basic cellular phone to create a business, access crop advice and prices, sell crafts globally through e-commerce.*

35. "The Grameen approach to development was initially seen as revolutionary if not crazy", claimed **Mr. Mohammed Masud Isa**, noting that micro-finance mixed with ICT is a powerful tool. Traditionally technology and the finance system aimed at rich people, not the poor. The Village Phone project shows that ICT can be designed and used in a way that benefits the poor. Experience has shown high demand for telecommunication services - with Grameen Telecom users' willingness to spend from US$2 to $6 for a 3-minute phone call. The cellular telephone gives access to crop prices, market information, currency rates, helping the poor to improve their social and economic position. Moreover, by being able to contact the police station or MPs it is also slowly helping to transform the society and help people to regain their dignity through democratisation and empowerment.

36. **Mr. Solo Pittard** noted that the lack of infrastructure in Papua New Guinea is a major challenge in a mountainous country. As a result, both micro-finance and ICT are in their infancy, but a new Asian Development Bank (ADB) loan will create a Micro-finance Competence Centre to provide training to MFIs, develop services and provide revolving finance. Mr. Pittard illustrated the internal divide by contrasting two potato farmers - one without and one with electricity, telephone and fax. The first takes his chance on when to harvest and finds a glut when he eventually gets to market. The second can collect all the information in advance and harvest when the roads are open and he can get the best price.

37. **Mr. Raslan Ahmad** presented an initiative with the ultimate goal of realising a values-based knowledge society in Malaysia by 2020. It is a funding scheme for ideas, supporting small-scale, short-term ventures that showcase new possibilities for using ICT for community development. Using a tri-sector (public/private/community) approach, it is helping develop entrepreneurial communities and spread the adoption of ICT. The initiative has helped to develop TaniNet - an award-winning, community-inspired agricultural portal to provide an on-line agriculture information service for rural farmers and SMEs. The site is locally developed and rich in indigenous content. The lessons learned include the need for a project champion, a willing pilot community, access to project management skills, joint sharing of risks and rewards in a tri-sector partnership, clear value to the community, and addressing three “Cs” of equal importance - Community, Content, and Connectivity.

38. The following points arose in discussion:

- Despite the cost of cellular telecommunications in Bangladesh the demand is high because mobile phones offered members of the community a chance to improve their economic and social situation.
- The need for a specific and “nationally tailored” approach was re-emphasised; for example, the danger of the Internet and its predominant Western culture “polluting” the 700 languages of Papua New Guinea.

39. The main conclusions were:

- ICT may create opportunities for micro-enterprises, through access to information on potential markets, economic conditions, exchanging experience with other entrepreneurs, and fund raising.
- ICT may allow micro-enterprises to increase their productivity.
- ICT can help micro-enterprises to increase their sales, by allowing them to reach a larger audience, for example through e-commerce.
- In order to encourage development and efficiency for micro-enterprises, partners should:
  - Assist MFIs in obtaining the hardware and software, using and maintaining it.
  - Build different solutions for different countries and different levels of development.
  - Demonstrate to local decision-makers the power and use of ICT.

Session 6. ICTs to promote wealth and opportunity through private sector development

Session objectives: *Illustrate the role of the private sector in wealth and opportunity creation through the use of new technologies in developing countries. Discuss the enabling policy and regulatory environment foster improved and affordable access and promote economic growth through an ICT-assisted private sector.*

40. In stressing the importance of a strategic mission, **Mr. Raafat Radwan** shared the saying: "If the captain of the ship does not know where he is heading then all the winds are good or all the winds are bad". Egypt is incorporating ICT into its National Development Framework through a national ICT strategy and

enabling policies for human resource development, infrastructure, business development, and applications - with a focus on e-government as part of the national policy. Government has played a catalytic role handing over to the private sector when possible. When the Internet was introduced in 1993, the government offered three years free of charge to everyone. It was privatised in 1997 with more than 66 companies offering services. There are subsidies to provide service at lower cost in rural areas and a service that provides automatic translation of Internet content.

41. To develop human resources and with donor assistance, PCs have been introduced to almost all schools in Egypt. "21st Century Kids Clubs" let children learn by playing on PCs and connecting with children all around the world. Universities offer new ICT courses. Each year some 5000 IT professionals graduate, some 200 000 users are trained, and many government employees follow an ICT training course. Egypt is aiming for e-government with all government departments providing services and information via the Internet. A private/public/NGO partnership for development provides support for new start-ups through an Internet Technology Fund. Computers are provided for the handicapped to facilitate their inclusion in the development process. To avoid exclusion, illiterate members of the population access the Internet via voice recognition or e-government services by telephone.

42. **Mr. Martin Hilbert** described how, in Latin America, the private sector is taking a strong role in the development of e-commerce and so helping to pave the way for open and transparent government. Brazil is the "Internet powerhouse economy" of Latin America, with a highly sophisticated ICT sector. Two-thirds of Brazil's on-line shoppers shop inside Brazil, whereas in Latin America as a whole two-thirds shop outside the area.

43. In a region where the postal services are neither secure nor dependable, Brazilian banks saw the enormous potential for on-line banking. Aiming initially at those who could afford it, around 40% of Internet users were using on-line banking by early 1999. The banks then decided to offer free access to customers, with the cost offset by fees from account management and lower transaction costs. This free Internet service model started a chain reaction in the region and put pressure on traditional ISP providers to either lower their costs or offer free services. As a result, a large segment of the middle classes can now afford access. This provided the infrastructure for e-government services. For example, in 2000, more than 80% of tax returns were completed via the Internet.

44. While such services can be extended fast, economies still need to run through the diffusion and learning curves. Mr. Hilbert said that the curves cannot be "leapfrogged", but countries can choose which technology model best suits their circumstances. Most Latin America countries are in the early stages of both curves and so only a small and select percentage of the population can afford access at present.

45. **Ms. Pensri Guntasopatr** introduced the vision of E-Thailand for a knowledge-based economy with a focus on six areas: 1) e-society - ICT for education and public health development; 2) e-government - effective and transparent services in government organisations; 3) international support to the government in economic policy making and planning; 4) liberalisation of trade, services and investment; 5) e-commerce facilitation; and 6) national information infrastructure. The aim is to use IT to increase the competitiveness of ASEAN countries, promoting co-operation to reduce the digital divide within and among ASEAN economies. The government and the private sector needed to work together. The government needed to remove unnecessary rules that prevent progress of ICT and to pass laws to provide universal access, security and privacy in order to create trust and confidence in e-commerce. The private sector could then create the relevant communication facilities and software.

46. Ms. Guntasopatr set out six "calls for action" for countries to consider in reducing the digital divide: 1) co-operation to reduce the cost of international Internet connectivity; 2) proposals from participants for strategies for using ICT to help achieve development priorities; 3) ways to promote local

initiatives to set up community access centres, with an appropriate mix of telephones, fax, PCs and Internet; 4) work on low-cost open-source software, including for translation; 5) encouragement to political leaders to visit countries with successful models for bridging the digital divide; and 6) viewing the subject as a world challenge and promoting partnerships to achieve digital inclusion.

47. **Mr. Shashank Kansal** remarked that "leapfrogging" to an Internet economy does not work in the absence of a good telecommunications and institutional infrastructure. E-mail remains the main usage of the Internet. It requires good telecommunications, but also training to use a PC. The importance of sound institutions is demonstrated by the experience of credit cards, which did not work in Asia because the banking structure was inadequate. So initiatives have to be practical, to achieve what is possible. Business people can help create/train other entrepreneurs to stimulate growth and build up market size. For example, Mr. Kansal holds seminars in Nepal to teach people "how to do business". Government must have open policies, liberalising with appropriate regulation.

48. **Mr. Omar Bizri** gave a brief presentation on the activities of the United Nations Economic and Social Commission for Western Asia (ESCWA), which is targeting capacity building to tackle the constraints facing the adoption of ICT. A key element is to view ICTs as components in a process requiring rethinking of policies, strategies and institutional capabilities, rather than as an end in themselves. Action needs strong consensus and involvement of all stakeholders. By their nature, spreading use of ICTs demands extensive co-ordination, co-operation and sharing of experience, with corrective measures and iterative approaches in a dynamic environment.

49. The discussion raised the following points:

- The cost of Internet access in developing countries is high. Some delegates expressed the view that the differences between the financial arrangements for Internet traffic exchange and traditional settlement arrangements for switched circuit traffic was a contributing factor. On the other hand, it was noted that liberalisation was bringing down the cost of international connectivity and that telecommunication carriers in OECD countries are increasingly carrying international traffic, on an end to end basis, over their own infrastructure. These networks are already being expanded, such that service providers in developing countries have an increasing choice in terms of international connections.
- Telecentres can play a variety of roles. In Egypt they have replaced the fax machine for small businesses. They can provide training economically, which allows all people to benefit, and thereby help to spread knowledge about the Internet. For example, in one city where the first telecentre was created there are 500 companies with web sites - 10 times the national average.
- The Internet provides a tool with the potential for the poor to adapt it to their needs rather than having to adapt to it. In that way local content in local languages can be developed to reflect local needs and cultures.
- Success requires a business model that is sustainable. Governments might have a catalytic role and a need to ensure access for the remotest and poorest people. But this should be done in partnership with the private sector to seek out projects that make business sense, provide ways for people to make money and so become self-sustainable. The telecentres in Egypt are an example, with a cost recovery mechanism that will allow sustainability when the initial grant is over. The draft universal access law in Thailand is another example, allowing government to negotiate with all partners in an open, privatised market and supply a service to the poor even where no market incentive exists.

50. The main conclusions of the session were that national ICT policies and strategic planning are of the utmost importance. These will help to put in place sound local infrastructures and a regulatory environment to ensure that policies/initiatives are successfully implemented. The initiatives require

political support. The content must be relevant to local cultures and languages. Local groupings/partnerships should be encouraged and business models developed in order to ensure enhanced and sustained growth.

Session 7. Sharing experience and best practice on e-commerce and e-government

Session objectives: *Discuss ways of sharing - between OECD, emerging and developing countries - the knowledge gained to date for a successful move towards a digital economy and e-commerce. Emphasise "policy coherence" between ICT policies, development strategies, and broader economic and social goals. Note the strength of OECD work in this area, given the breadth of its policy work. Formulate concrete suggestions for contributions that the OECD could make in the near future.*

51. **Mr. John Dryden** presented an overview of OECD work on the Information Economy and electronic commerce. This work has followed the "blueprint" outlined at the 1998 Ottawa Ministerial, along the following four thematic lines:

- Building Trust: privacy, information security, authentication and consumer protection.
- Enhancing Access: both access by users (whether individuals or enterprises) to the infrastructure, as well as access to markets by competitors.
- Strengthening the Regulatory Environment: taxation, rules for trade (IT goods and services, Intellectual Property Rights, business law).
- Maximising and Sharing the Benefits: addressing market failure and promoting inclusiveness through SMEs, entrepreneurship, education and training, e-government, development co-operation.

52. The OECD is pursuing a wide range of activities relating to the digital divide, including: 1) measurement and indicators; 2) policy frameworks; 3) educational aspects; 4) e-government; 5) co-ordination of bilateral development aid; 6) co-operation with the DOT Force; 7) outreach to non-member economies. The two main policy messages emerging from this analysis are the importance of a telecommunications policy which promotes liberalisation and fosters competition, and the need for enabling policies to promote access and use of the new ICT, including building skills and promoting familiarity with and confidence in these new technologies. The OECD will continue to share information and build outreach through a variety of channels including its publications and website, conferences and seminars, and the work of the Centre for Co-operation with non-Members (CCNM).

53. **Mrs. Silvia Bidart** presented the situation of Argentina in terms of the growth of ICT markets, the development of the Internet and e-commerce, and the experience with deregulation during the late 1990s. She also highlighted the useful work undertaken by a private firm (McConnell International) which periodically assesses the "e-readiness" of countries. Mrs. Bidart concluded by pointing to the leadership role that the OECD could take to maintain the momentum, including sharing best practices with non-members, monitoring progress, and organising other similar events.

54. **Mr. Danilo Piaggesi** described the approach followed by the Inter-American Development Bank (IDB) in the Latin America / Caribbean region, which combines economic (e-commerce) and social (e-government) aspects. For Mr. Piaggesi, political will is the main driver for change, as highlighted in recent commitments by regional Heads of State to address the challenges of using ICT for development. The role of the IDB is to complement private sector initiatives addressing four main needs: appropriate regulatory frameworks; developing technical and business skills; securing adequate sources of funding; and promoting the development of locally-relevant content. Mr. Piaggesi expressed the belief that

dialogue and partnerships among the various stakeholders (public and private sectors, as well as civil society) are the best way to reach the over-arching goal of knowledge-based development. He suggested that policy-oriented bodies such as the OECD join efforts with action-centred institutions to address common challenges.

55. **Mr. Lisham Adam** gave a broad overview of the current state of e-commerce and e-government in Africa. Although the potential is great, Africa faces many challenges in developing ICT applications and e-commerce from both a technical (bandwidth, logistics, content) and a human resource (skills, attitudes) perspective. E-government is also at a very early stage of development with the main use of ICT being a one-way communication tool for public administrations to reach citizens. Many mechanisms for exchanging information already exist (e.g. the "Balancing Act" Website, various electronic mailing lists). The problem is that all this information does not necessarily reach policy makers. In the future, it is the capacity to produce content (and not the development of and access to the infrastructure) which will constitute the greatest challenge for African countries. Mr. Adam concluded by stressing the need to push for an enabling regulatory environment, the development of which could benefit from the experiences of OECD countries.

56. **Mrs. Gowrie Ponniah** focused on the important role that non-profit associations can play in addressing the challenges of ICT for development. She then outlined a series of suggestions for donors and governments including:

- Facilitating national ICT policy environments, including assisting developing countries in the development of appropriate regulatory frameworks.
- Supporting multi-stakeholder strategies.
- Showcasing examples of "best practice" in the use of ICT for poverty reduction, while taking into consideration that different strategies and models might be necessary.
- Promoting South-South dialogue, as well as North-South and South-North exchanges.
- Assisting in impact evaluations, including cost/benefit analysis of ICT investments.
- Lobbying for global initiatives to reduce costs taking advantage of media convergence, increasing bandwidth availability and Low-Earth Orbiting (LEO) satellites e.g. using the Iridium satellite for development instead of destroying it.

57. During the discussion, various participants highlighted the unique assets of the OECD, in particular its extensive body of work on both the ICT and the development policy areas, which could be leveraged to facilitate an exchange of information and experiences with developing countries. It was also suggested that the OECD take the lead in stock-taking and networking activities that would involve, in addition to the usual stakeholders, the global NGO community and the business community in the South.

58. Some key messages:

- E-commerce and e-government offer great potential to developing countries, but the challenges to overcome are many.
- All stakeholders (public, private, non-profit) at all levels (local, national, regional, global) must participate in policy discussions and formulation.
- OECD should continue and strengthen its co-ordinating role and expand its outreach activities so that developing countries can benefit from experience, while sharing their own examples of success stories.
- Given the rapid pace of change, there is a growing need to move forward from thinking to planning and executing.

Session 8. The way forward

Session objectives: *Draw out the lessons from the forum and the showcase examples to feed into the DOT Force and the UN ICT Task Force initiatives. Suggest policies and strategies for developing countries, regional and international bodies and donors to make full and effective use of ICT in their programmes for development co-operation and poverty reduction. Establish roles and priorities for all actors: governments, private sector, civil society, international and regional organisations - in developed and developing countries.*

59. **Ambassador Martin Belinga-Eboutou** drew attention to the 2000 Ministerial Declaration by ECOSOC entitled "Development and international co-operation in the 21st Century: the role of information technology in the context of a knowledge-based global economy". This is leading to the creation of a UN Information and Communications Technology Task Force with poverty reduction at the heart of its mission and sufficient autonomy to be effective in a rapidly changing environment. The ICT Task Force will focus on: 1) access and infrastructure development - involving the private sector where the climate is propitious to investment; 2) education - to familiarise developing country populations with ICT; 3) financing initiatives - with new and additional financial resources to help meet the costs, such as liberalisation of the telecommunications sector; and 4) establishing market mechanisms and legal frameworks that safeguard competition, in order to attract long-term private investment and encourage the spread of ICT.

60. The question is not if or when ICT should be employed. It is quite simply to exploit ICT in order to provide the very poorest with fresh opportunities. The Ambassador noted that ICTs have the potential to provide surprising solutions for traditional development challenges in health, education, rural development, gender equality and democratisation.

61. In July 2001 ECOSOC will again give ICT prominence - identifying the strengths and weaknesses of this new tool more effectively and providing a firm foundation for the new processes with partners from the public and private sectors and NGOs. The focus will be on helping Africa to become a genuine consumer and producer in the new knowledge-based economy. The Ambassador has proposed an international symposium and a fair in Cameroon. The symposium would bring together users, service providers, and telecommunications regulators and operators to examine connections between Africa and the world network. The fair would be devoted to new information technology and the transmission of information by radio, telephone or satellite. The intention is to gain more political and institutional support for these new communications instruments by providing African leaders with a fuller understanding of the advantages of ICT in order to foster the development of political, legal, fiscal and other conditions under which it can prosper. And also to encourage regional and sub-regional co-operation to enhance the infrastructures linking African countries to each other and the rest of the world.

62. Claming "Globalisation as the opportunity; Poverty reduction as the challenge", **Mr. Bruno Lanvin** described the work of the Digital Opportunities Task Force (the DOT Force). Its uniqueness lies in its ability to think "outside the box". For example, the private sector should revisit its traditional role, government should be able to accept new tasks, and NGOs be able to go beyond their traditional areas of concern. The DOT Force is tripartite (public/private/civil), high-level, fast-paced and informal. The DOT Force respects differences: in levels of development within and between countries; in degrees of urgency in addressing ICT issues; in the views/experiences/interest of the actors. Developing countries must be the motor, but success requires an effort across all sectors and large-scale initiatives, not just pilot projects.

63. The DOT Force is working on four main themes: 1) infrastructure; 2) human resources; 3) development of a legal framework and applications in areas of e-commerce and e-government; and

4) stimulating partnerships between the diverse components of civil society, exchanging experiences and best practices. Its work is guided by:

- **A**ccess - Infrastructure, costs, competition, regulation
- **B**asic Skills - Basic education, vocational training, entrepreneurship
- **C**ontent - Local values, languages
- **D**esire - Political will to embrace ICT
- **E**ngagement - Commitment of all components of civil society

64. Mr. Lanvin counselled four errors to avoid: 1) de-linking old and new economies - take into account things such as transport, customs, insurance; 2) not looking at information technology in its broader context, as part of a knowledge system for use of societies; 3) attempting "one size fits all" - adapt the success and failures of others to your own resources and constraints; and 4) the double cost of failure - the loss of opportunities to improve social and economic conditions and a backlash against globalisation.

65. Remarking that it was time to move "from words to actions", **Mr. Yasuhisa Kawamura** noted the urgency of addressing the widening digital divide. He reiterated the factors for strategies to be effective: 1) local ownership; 2) encouraging the private sector to invest; 3) tailor-made menus for each country; 4) paying attention to cultural aspects and language; and 5) developing multi-layered strategic alliances on a bilateral, regional and multilateral basis. He noted that the actors have a mix of complementary roles, which include:

- Developing country governments - establish ICT national strategies and promote direct investment policies.
- Donors - use their co-operation programmes to address the digital divide - both directly and indirectly - and make more use of ICT to deliver them.
- Private sector - promote technological transfer and human capacity building, cultivate business opportunities and co-operation with government, and enhance international partnerships.
- Civil society - pursue community level activities.
- International and regional organisations - strengthen co-ordination with institutions and donor countries in areas of research and project formulation.
- Foundations - make fullest use of private/public partnerships and help raise venture and seed funding.

66. Mr. Kawamura described Japan’s actions since the Okinawa Summit focused on policy and institution building, human resources development, infrastructure, and ICT within development assistance. Actions included: policy dialogue and project missions in seven South East Asian countries, with plans to extend to South Asia and African countries in Spring 2001; and Pacific regional workshops jointly with UNDP. Projects include: JNET - covering 30 ICT centres for distance education and training; Geographical Information Systems; training courses; customs; disaster prevention; and partnerships with and funding of World Bank, UNDP and UNESCO programmes.

67. "Timbuktu is no longer at the end of the world", announced **Ms. Rosa Cissé**, reporting that it now has an Internet site dedicated to rural development that will be replicated in the rest of the country once evaluation has been completed. With WorldSpace, Mali is testing mobile tele-kiosks to study the market, determine services that correspond to user needs, and see where and under what conditions fixed tele-kiosks could be installed. A major international conference - "Internet the Gateway to Development: Bamako 2000" - with over 1300 participants from 48 countries had helped to take the mystery out of the Internet and expose young people to the technology. Since then ICTs are beginning to modernise the

administration, including CyberBamako in the town hall, and there are plans to connect all 700 communes. The government is working on a national programme for ICT covering infrastructure with lower tariffs, local content, human resources, and development.

68. Ms. Cissé listed the conclusions she had drawn from the Forum, including the need for political will and ICT strategy, telecommunications reform, access for women and youth, training, focus on local needs, use of partnership, leveraging the private sector, evaluating and sharing good practice.

69. "We should fully exploit the power of new technology for the benefit of developing countries", quoted **Mr. Sid Kane** from Kofi Annan's Report to the Millennium Assembly. He suggested that the new economy provides an ideal opportunity for multilateral institutions to partner with the private sector - that is sensitive to market opportunities in the developing world - to maximise outcomes. The UN can play a pivotal role by providing a combination of vision and viable strategies. The ICT Task Force will provide an interface between the information technology community and the development community, bringing together the private sector, foundations and the donor community to develop innovative ways to bring ICT capacity to the developing world.

70. Mr. Kane noted it was worth exploring experiences with multi purpose community telecentres as a means of providing connectivity, capacity and skills formation as well as content development. They could offer a platform for applications such as telehealth, telelearning, and e-commerce. They are scalable and do not need major investment and so may attract companies not willing to make a large capital investment.

71. The Millennium Report created three public/private partnership initiatives to help increase the impetus to bridge the digital divide. The first is the Health InterNetwork, already described in Session 4. Secondly, the UN Information Technology Volunteer Service (UNITeS) - a global consortium of high-tech volunteers that seeks to mobilise volunteers both on-line and on-site to provide training on the use and the opportunities of ICT to benefit those marginalised by poverty and lack of access to basic services. Thirdly, First on the Ground - a UN/Ericsson partnership that aims to provide and maintain mobile communications equipment and expertise for humanitarian relief operations and workers.

72. In her summary remarks, **Ms. Shelton-Colby** noted that she was not convinced that the development community had embraced ICT in development - the "either/or" stage had not been passed. She added that there was a need to: check progress using benchmarks/indicators; examine the impact of investments such as the Grameen phone to measure its return on investment; encourage digital collaboration - building on strong and increasing South/South co-operation; and avoid the gender divide and the digital divide being mutually reinforcing.

73. The concluding discussion covered the following points:

- The need to consider costs more in the debate about ICT and development, to avoid a "mind set" that assumes there are major benefits and thereby poses the danger of distorting development priorities. While agreeing on the need for cost-benefit analysis in this area as in others, the Chairman noted that there were already telling benefits, for example growth through ICT-enabled micro-finance. He said that the widening divides in a globalising world were an extra reason to use ICTs, not to view them as an alternative to other priorities.
- To a request for closer trade union involvement in the DOT Force, it was noted that membership was limited, but for that reason wide consultations - in which unions are involved - are taking place in G8 and developing countries and by UN agencies.
- The need for speed and to move beyond task forces to action was underlined.

- Egypt offered to create a resource centre that would collect success stories in one place. These stories could then be used in a road show to convince developing country politicians of the possibilities.
- The suggestion of "modernising ODA" referred to the need for more innovation and imagination by donors and an end to thinking of ICT as a separate sector, more as an essential tool appropriate in most circumstances. ICTs also have a role in improving the effectiveness of aid management.

74. **Mr. Jean-Claude Faure** summed up the discussion, noting the degree to which the objectives are shared - a shared sense of urgency, shared ambitions, shared concern for more decisive and more dynamic actions, and much political will. He remarked on the convergence of initiatives in different inter-linked spheres. It was vital to make these initiatives an integral part of the development process and in particular of the poverty reduction agenda. The approach must be demand driven.

75. He noted the need to maintain the dialogue with a forum from time to time to bring all the actors together to take stock of progress. "Progress checks" to ensure that strategies are integrated into the common agenda and have the same guiding and operational principles. "Progress checks" to ensure that headway has been made in each sphere. For example, much has been said about partnerships with the private sector. Has this been done? How? What were the outcomes? Another example is best practices. What have we achieved? Have we created benchmarks/indicators to measure progress? Was the clearing house/resource centre created? Has it fulfilled a real need? Such dialogue would help to reinforce coherence in the different initiatives. And it would serve to highlight achievements, which would in turn act as a motor to keep the initiatives on course and moving ahead.