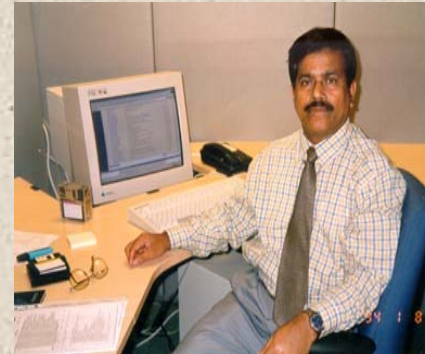


# The Digital Divide in the era of e-Commerce and Knowledge-Based Economy

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Nitya L. Karmakar Ph.D  
School of Management  
College of Business  
University of Western Sydney, Australia  
e-mail:n.karmakar@uws.edu.au



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# Internet: A New Business Paradigm

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**“Is the Internet a typhoon force, a ten times force, or is it a bit of wind? Or is it a force that fundamentally alters our business?”**

Andy Grove, Chairman of Intel

# Defining Digital Divide



**Digital Divide-** the gap among countries with regard both to their opportunities to access ICTs in general and to their use of Web Technology particularly for a wide variety of activities.

“The term ‘digital divide’ refers to the gap between individuals, households, businesses and geographic areas at different socio economic levels with regard both to their opportunities to access information and communication technologies (ICTs) and to their use of the Internet for a wide variety of activities.”



# Reasons for Digital Divide

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- 1. No possession of computers and network connections,**
- 2. Lack of elementary digital experience**
- 3. Lack of digital skills**
- 4. Lack of significant ICT usage opportunities**

**Two kinds of digital divide: one between citizens in industrialised countries and one between industrialised countries and developing countries**

# Internet Statistics as of March 31 2006

Regions	Number (Million)	% of Populati on	% User of World	Usage Growth(%) 2000-2005
Africa	23.6	2.6	2.3	423.9
Asia	364.3	9.9	35.6	218.7
Europe	291.6	36.1	28.5	177.5
Mddle East	18.2	9.6	1.8	454.2
North America	227.3	68.6	22.2	110.3
Latin America/Caribbean	80.0	14.4	7.8	342.5
Oceania/Australia	17.9	52.6	1.7	134.6
<b>World Total</b>	<b>1022.9</b>	<b>15.7</b>	<b>100</b>	<b>183.4</b>

# Top Internet Users in the World

Country	Users	Share (%)	Ref
USA	202,888,307	21.6	<i>Nielsen/NetRatings, June, 2005</i>
China	103,000,000	11	<i>CNNIC, June, 2005</i>
Japan	78,050,000	8.3	<i>C+I+A, March, 2005</i>
Germany	47,127,725	5.0	<i>Nielsen/NetRatings, June, 2005</i>
India	39,200,000	4.2	<i>C.I.Almanac, March, 2005</i>
UK	35,807,929	3.8	<i>Nielsen/NetRatings, June, 2005</i>



# Knowledge-Based Economy & E-Commerce

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The emergence of the E-Economy, information economy or knowledge based economy is one of the key challenges today.

- The management Guru Peter Drucker says knowledge is becoming the key personal and economic resource. He continues "*Knowledge is the only meaningful resource today. The traditional factors of production-land (natural resources), labour and capital- have not disappeared. But they have become secondary. Knowledge is now being applied systematically and purposefully to what new knowledge is needed, whether it is feasible and what has to be done to make knowledge effective.*"
- E-Commerce accelerates the growth of Knowledge-Based-Economy





# Knowledge-Based Economy(Contd.)

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In March 2000, at the peak of the e-economy, European Union Member States adopted a strategy which set out an objective for Europe to become “the most competitive and dynamic knowledge-based economy in the world by 2010, capable of sustained economic growth, with more and better jobs, and greater social cohesion”

Lisbon Strategy: “EU: Largest knowledge-based economy by 2010”



## Knowledge-Based Economy (Contd.)

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- Knowledge-Based Economy and Globalisation: result of huge investment in information and communication technologies (ICTs),
- Spending on ICTs worldwide topped \$US 2.1 trillion in 1999 & about 10% of GDP in industrialised countries exceeding \$US 3 trillion in 2003.
- **Currently 97% of the global "B2B" & 89% of the global "B2C" e-business revenues by developed countries as estimated by the IDC.**



# Gloomy Outlook for Developing World

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- According to UN and ITU reports, more than 90 percent of all Internet hosts are in developed countries where only 15 percent of the world's population resides,
- In November 2003, the International Telecommunication Union (ITU) published an interesting finding of all 178 countries and ranked each country (called the Digital Access Index) based on the affordability of Internet access, the proportion of Internet users with high-speed connections and raw availability of Bandwidth. The results were Sweden coming out on top and Nigeria on bottom



# Digital Divide-Global Status

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**“Visions of a global knowledge-based economy and universal electronic commerce characterized by the ‘death of distance’ must be tempered by the reality that half the world’s population has never made a telephone call, much less accessed the Internet.”**

*OECD (1999), The Economic and Social Impact of Electronic Commerce: Preliminary Findings and Research Agenda*



# India in Digital Age

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“India is well on its way to becoming a global economic superpower. Its economy has significantly outpaced much of Asia in recent years, its internationally competitive information technology and pharmaceutical industries are projected to grow dramatically this decade, and the country’s purchasing power is now the fourth largest in the world, after the United States, China and Japan.... With one of the largest scientific and technical work forces in the world, it is also an increasingly important business partner for many countries.” – Bill Gates, in The New York Times, International Herald Tribune, Tuesday, November 12, 2002, page 6



# India & New Economy

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- India's vast pool of English-speaking manpower coupled with its sound educational system and training programmes has helped transform the country into a global outsourcing superpower.
- The rapidly growing BPO industry has virtually turned the country into an electronic housekeeper to the world, taking care of a host of routine activities for multinational giants.
- In recent months, India has also seen the inflow of research and development and high-end technology jobs.
- India's software exporters achieved a revenue total of \$13bn for 2003.
- average annual software export growth rate for ten years from 1994/5 to 2004/5 is 38%.



# Globalisation and India

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- **US & Western European Firms firms moving to India for utilising new 'brain power'**
- **India world's 4<sup>th</sup> largest economy:World Bank**

**In terms of Purchasing Power Parity(PPP) based on 2002 figures:**

<b>USA:</b>	<b>\$10,414 billion</b>
<b>China:</b>	<b>\$5,792 billion</b>
<b>Japan:</b>	<b>\$2,778 billion</b>
<b>India:</b>	<b>\$2,778 billion</b>
<b>Germany:</b>	<b>\$2,226 billion</b>



# Opportunities for India

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- Agricultural Sector
- IT sector-30% growth rate/year
- Huge growth rate in GDP, currently over 8-10%/year
- Rapid increase in BPO (Business Process Outsourcing Services) & IT enabled Services
- Spirituality





## Bridging the Digital Divide-Delivering to the Remote Community

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- Although monumental task, many Govt & NGO organisations are utilising the Internet to development needs, bringing together abundant technological expertise with an estimated 700 million people in 600,000 rural villages through “cyber cafés” or “info-shop”.
  
- For example,
  1. In the Indian fishing village of Veerampatinam, weather reports downloaded from the Internet are broadcast over public loudspeakers at the beach. "Now we know when my husband should go out fishing," says Veeralakshmi, who listens to the reports before allowing her spouse to leave for work.
  
  2. In Embalam village, the “info-shop” is entirely managed by women who consult the Internet and broadcast current market prices for agricultural products. So the villagers have access to market rates, middlemen are not able to exploit the farmers or fishermen.



# Roadmap for Bridging the Digital Divide

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- Economic Strength being self-reliance
- Political Democracy
- Globalization through innovation, networking through ICT's integrating all fields of knowledge
- Development not at the cost destroying environment
- Zero tolerant for Corruption



## Roadmap for Bridging the Digital Divide(Contd..)

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- Online business & education,
- Establishment of some form of e-Government Program,
- Cheaper Mobile Phones to overcome the poor landline networks,
- Mass Computer Education and training,
- Proper utilisation of overseas aids.



# Opportunities for less developed countries

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- According to a study by management consulting firm A.T. Kearney, financial services companies are planning to move more than 500,000 jobs overseas in order to reduce operating costs by \$30 billion annually.
- Global technology giant IBM expects to save \$168 million annually starting in 2006 by moving several thousand high-paying programming jobs abroad, according to internal company documents obtained by the Wall Street Journal.
- US-based IBM says it plans to move up to 3,000 jobs from the US to developing countries.



## Looking Ahead

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"Imagine if the 3 billion people who live on less than \$2 a day could come into the market, not just as consumers but as producers too — imagine how big the market would be."

Professor Muhammad Yunus, and joint recipient of Nobel Peace Prize along with Grameen Bank for 2006 for their success in lifting the poor out of penury across Bangladesh, and providing the model for a global revolution of micro-credit.



## Looking Ahead(Contd..)

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" Technology has become the driving force of change in the modern world. It has altered our economic structures and the ways we communicate. Technology - even in small amounts - is helping communities overcome convention and tradition to take leaps forward "

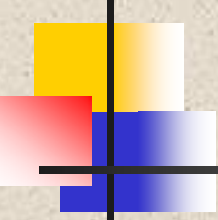
World Bank/Bill and Melinda Gates Foundation,Virtual Villages:  
Technology and the Developing World.



# Concluding Remarks

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- ✓ With the advent of Information and Communication Technologies (ICTs), access to knowledge has become a potent force for transforming social, economic and political life globally as well as narrowing the digital divide.
- ✓ One third of the world could be left behind if more is not done to provide developing countries with the skills, knowledge, and access to markets necessary to compete.
- ✓ Developed countries must do more to help alleviate the digital divide and poverty. The commitment to debt relieve of poorest African countries is undoubtedly a positive step.



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“But...there is a growing digital divide between those who have access to the digital economy and the Internet and those who don't, and that divide exists along the lines of education, income, region and race...The very information technology driving this new economy gives us the tools to ensure that no one gets left behind...” -Bill Clinton,1999

“There are three kinds of death in this world. There's heart death, there's brain death, and there's being off the network.”

*-Guy Almes,  
Chief Engineer, Internet2*

