

Digital Bangladesh: Target & Present Scenario

Syed Ziaul Huque
Director
**Ahsania Institute of
Technology & Business**
Dhaka Ahsania Mission

DIGITAL BANGLADESH

- Bangladesh Awami League manifesto launched on 12 December 2008
- Vision 2021 includes a number of milestones relating to ICT
- The entire nation, particularly the young generation imparted whole hearted support for Digital Bangladesh

Vision 2021: Digital Bangladesh

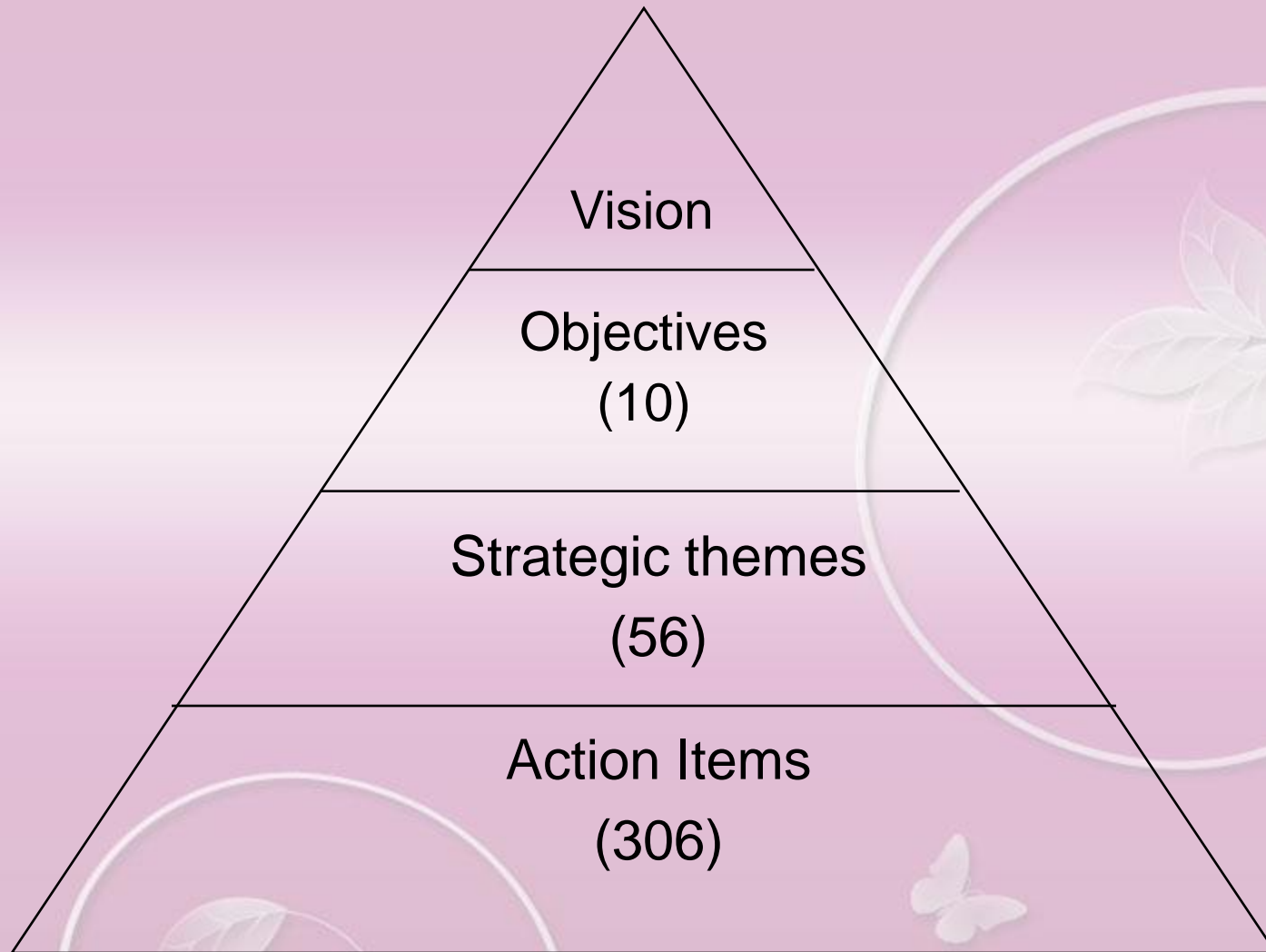
...by 2021, Bangladesh will reach a trajectory of high-performing growth supported by advanced and innovative technology with prices of commodities stabilized, income and human poverty brought to a minimum level, health and education for all secured and capacity building combined with creativity enhanced, social justice established, social disparity reduced, participatory democracy firmly rooted and capacity to tackle the adverse effects of climate change achieved

Information and communication technology will, by that time, take us to new heights of excellence giving the country a new identity to be branded as Digital Bangladesh

ICT Policy Development

- June 1997: Committee appointed by the Government Export of Software and Data Processing Services from Bangladesh
- September 1997: Committee submits report
 - 45 Recommendations
- January 1998: Recommendations accepted by Government
 - around 40% implemented
- January 2002: Revised Recommendations submitted to Government
- 2001: IT Policy Drafted
- October, 2002: ICT Policy adopted
- September, 2008: Revised ICT Policy Drafted
- March, 2009: ICT Policy 2009 approved

ICT Policy 2009



Vision of ICT Policy (2002)

- This policy aims at building an ICT-driven nation comprising of knowledge-based society by the year 2006. In view of this, a country-wide ICT-Infrastructure will be developed to ensure access to information by every citizen to facilitate empowerment of people and enhance democratic values and norms for sustainable economic development by using the infrastructure for human resources development, governance, e-commerce, banking, public utility services and all sorts of on-line ICT-enabled services

ICT Policy Vision

- Expand and diversify the use of ICTs to
 - establish a transparent, responsive and accountable government’;
 - Develop skilled human resources;
 - Enhance social equity;
 - Ensure cost-effective delivery of citizen-services through public-private partnerships; and
 - Support the national goal of becoming a middle-income country within ten years and join the ranks of the developed countries of the world within thirty years.

10 Objectives in ICT Policy

1. Social Equity
 2. Productivity
 3. Integrity
 4. Education and Research
 5. Employment Generation
 6. Strengthening Exports
 7. Healthcare
 8. Universal Access
 9. Environment, Climate and Disaster Management
 10. Supports to ICTs
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E-Government / Governance

- E-government is ICT driven public and development administrative system which means delivery of government services and information to people using ICT means.
- E-governance is the system to obtain government services through electronic means, enabling access to government information and completion of government transaction on an anywhere –any time basis

E-Government / E-Governance

- E-Government refers to the use of ICT to provide and improve government services, transactions and interactions with citizens, businesses, and other arms of government
- E-Government is defined as 'The utilization of the internet and the world-wide-web for delivering government information and services to the citizens. (United Nations, 2006)

Objectives of E-Governance

The objective of establishing e-governance is not just to computerize all the activities. It is to transform gradually the way the government operates. E=governance will transform the government

From	To
Entitlement	Outcomes
Regulator	Facilitator
Agency Focused	Citizen Focused
Protective	Collaborative
Administrative	Value Provider
Rule based	Knowledge based
Silos	Integrated

SMART Government

A government adopting electronic governance is a SMART government:

S	—	Simple
M	—	Moral
A	—	Accountable
R	—	Responsive
T	—	Transparent

Delivery Models

The primary delivery models of e-Government can be divided into:

- Government-to-Citizen or Government-to-Customer (G2C)
- Government-to-Business (G2B)
- Government-to-Government (G2G)
- Government-to-Employees (G2E)

Government Service delivery through ICT

Things to do:

- ICT Capacity Development
- Physical Infrastructure Development
- Legal Infrastructure Development
- ICT access opportunity for the citizen
- Development of ICT Personnel
- Development of ICT Industry

Mobile Phone Subscribers in Bangladesh

The total number of Mobile Phone Active Subscribers has reached 74.188 million at the end of April 2011.

The Mobile Phone subscribers are shown below:

Operators	Actives Subscribers
Grameen Phone Ltd. (GP)	32.640
Orascom Telecom Bangladesh Ltd. (Banglalink)	20.049
Robi Axiata Limited (Robi)	13.794
Airtel Bangladesh Ltd. (Airtel)	4.782
Pacific Bangladesh Telecom Ltd. (Cltiycell)	1.747
Teletalk Bangladesh Ltd. (Teletalk)	1.174
Total	74.188

Internet Service Providers

- 1st ISP : June 1996
- 1999: 10 ISPs
 - 8 in Dhaka and 2 in Chittagong
- 2007: 203 ISPs
 - 77 are nationwide ISPs.
 - service in 18 districts in Bangladesh
- 2009: Grameen Phone: 4.5 million subscribers using EDGE technology
- WiMax: June 2009

World Internet Usage and Population Statistics

World Regions	Population (2010 Est.)	Internet Users Dec. 31, 2000	Internet Users Latest Data	Penetration (% Population)	Growth 2000-2010	Users % of Table
<u>Africa</u>	1,013,779,050	4,514,400	110,931,700	10.9 %	2,357.3 %	5.6 %
<u>Asia</u>	3,834,792,852	114,304,000	825,094,396	21.5 %	621.8 %	42.0 %
<u>Europe</u>	813,319,511	105,096,093	475,069,448	58.4 %	352.0 %	24.2 %
<u>Middle East</u>	212,336,924	3,284,800	63,240,946	29.8 %	1,825.3 %	3.2 %
<u>North America</u>	344,124,450	108,096,800	266,224,500	77.4 %	146.3 %	13.5 %
<u>Latin America/Caribbean</u>	592,556,972	18,068,919	204,689,836	34.5 %	1,032.8 %	10.4 %
<u>Oceania / Australia</u>	34,700,201	7,620,480	21,263,990	61.3 %	179.0 %	1.1 %
WORLD TOTAL	6,845,609,960	360,985,492	1,966,514,816	28.7 %	444.8 %	100.0 %

NOTES: Internet Usage and World Population Statistics are for June 30, 2010.

Internet Usage in Asia

Sl. #	Country	Users (%)
1.	South Korea	81.1%
2.	Brunei Darussalam	80.7%
3.	Japan	78.2%
4.	Singapore	77.8%
5.	Taiwan	70.1%
6.	Hong Kong	68.8%
7.	Malaysia	64.6%
8.	Macao	49.5%
9.	Azerbaijan	44.4%
10.	Kyrgyzstan	39.8%
11.	Kazakhstan	34.3%
12.	Kazakhstan	34.3%

Internet Usage in Asia

Sl. #	Country	Users (%)
13.	China	31.6%
14.	Philippines	29.7%
15.	Georgia	28.3%
16.	Vietnam	27.1%
17.	Thailand	26.3%
18.	Maldives	22.2%
19.	Uzbekistan	16.8%
20.	Indonesia	12.3%
21.	Mongolia	11.3%
22.	Pakistan	10.4%
23.	Tajikistan	9.3%

Internet Usage in Asia

Sl. #	Country	Users (%)
24.	Sri Lanka	8.3%
25.	Laos	7.5%
26.	Bhutan	7.1%
27.	Armenia	7.0%
28.	India	6.9%
29.	Afghanistan	3.4%
30.	Nepal	2.2%
31.	Turkmenistan	1.6%
32.	Cambodia	0.5%
33.	Bangladesh	0.4%
34.	Timor-Leste	0.2%

Cost of Access

Monthly cost for 256 kbs data link in different countries (ISP to End user)

Country	Monthly Rent (256 Kbps dedicated line) in USD
Bangladesh	430
India	195
Pakistan	200
Philippines	160
USA	15

Submarine Cable

➤ 27 March 2004

SEA-ME-WE 4 Consortium

1.28 Tbps (Tb \Rightarrow 10^{12})

10 Gbps (Gb \Rightarrow 10^9)

➤ Length 22,000 k.m. extending from Singapore to Marseilles of France

➤ High Capacity Cable using DWDM Technology

Consortium Countries

Singapore, Malaysia, Thailand,
Bangladesh, India (Bharti), India (VSNL),
Srilanka, UAE, Pakistan, Saudi Arabia,
Egypt, Italy, Tunisia, Algeria, France
(French Telecom), France (MCIF).

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SEA-ME-WE-4 Submarine Cable



Fig. SEA-ME-WE-4 Consortium's Submarine Cable System

Submarine Cable Route

The total route of the submarine cable is divided into four major segments:

Segment 1 : Singapore to Mumbai

Segment 2 : Mumbai to Suez

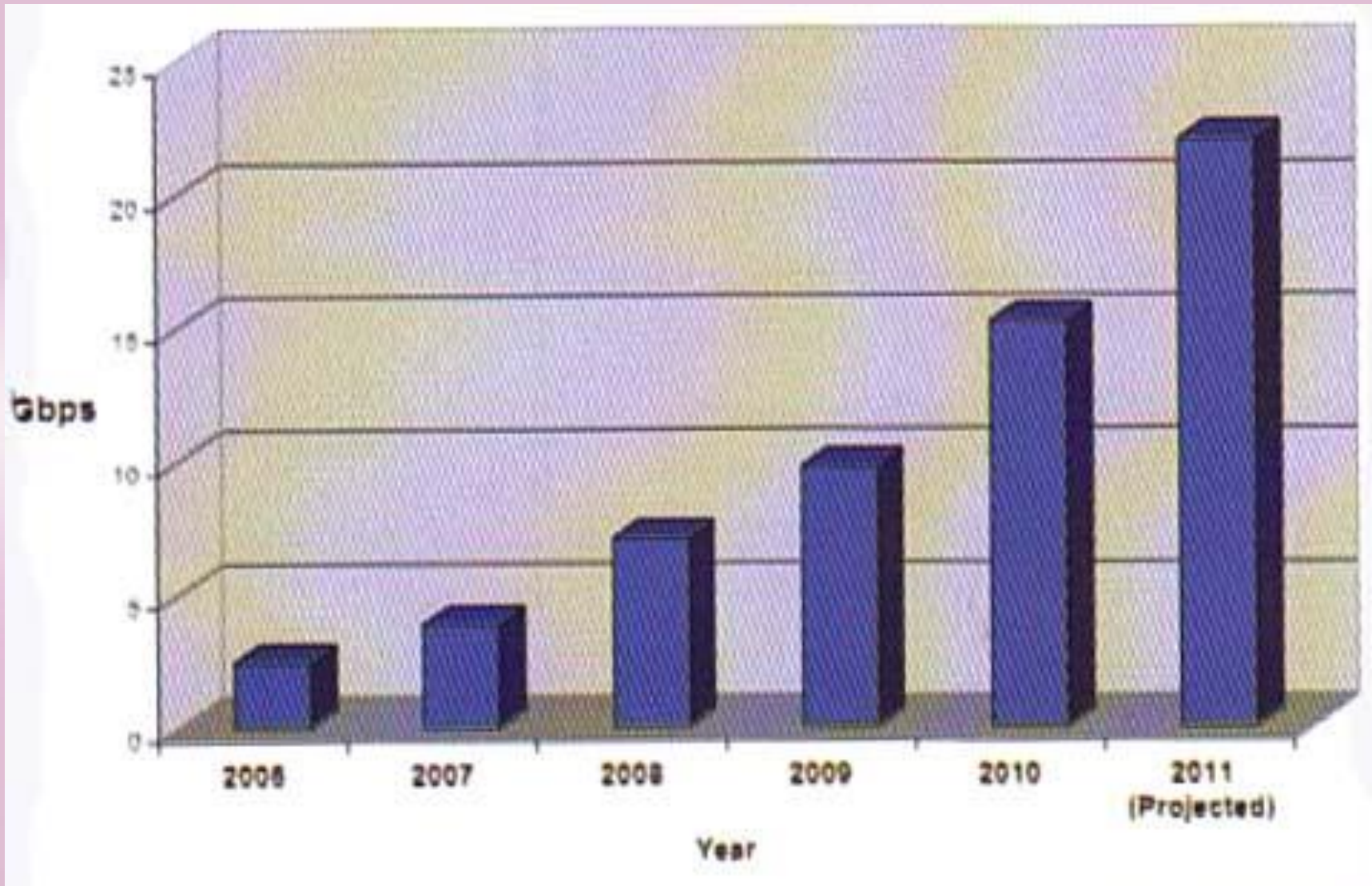
Segment 3 : Land Fiber optic cable between
Suez and Alexandria via Cairo

Segment 4 : Alexandria to Marseilles

Major Part by \Rightarrow M/S Alkatel Submarine Network
of France

Small Part by \Rightarrow M/S Fujitsu, Japan

Utilization of Bandwidth



Optical Fiber Networks (Existing)

14,776 KM

Optical Fibers
Network

Connecting

59 Districts

296 Upazilas



Progress: Policy and Legal

- National Telecommunication Policy 1998
- Bangladesh Telecommunication Act 2001
- International Long Distance Telecommunication Services Policy 2007
- National Information and Communication Technology (ICT) Policy 2009
- National Broadband Policy 2009
- The Right to Information Act 2009
- Bangladesh Telecommunication Regulatory Act (Amendment) 2009
- International Long Distance Telecommunication Services Policy 2010
- Bangladesh Hi-Tech Park Authority Act 2010
- Voter ID Platform as e-service delivery Platform

Broadband Policy

To achieve vision 1021, “Digital Bangladesh”, the government plans to extend the broadband internet and telecom facilities for the benefits of the rural people to reduce the gap of digital divide.

1. The broadband penetration rate will be increased for 7% (2011) to 30% within 2015
2. All the union councils will be needed to be brought under broadband network
3. About 1.75 million educational institutions will be provided with broadband connection by 2013

Budget Allocation

<u>FY</u>	<u>Taka (Million)</u>
2009–1010	1,000
2010–2011	1,120

Policy Implementation Mechanism/Leadership

➤ Digital Bangladesh Task Force handed by Hon'ble PM

22 other Members: Finance Minister, Minister for Planning, Minister of MOPT, Minister of Commerce, State Minister of MOSICT, 5 Secretary, ICT Experts from Govt./Autonomous Body and Universities / Private Sector

➤ Policy Implantation Member / Leadership

- Key Cabinet Members
- Secretary of Ministries
- 50+ e-Governance Focal Points
- 64 DC's and 483 UNO's
- ICT Leaders

E-Government : Existing Scenario

- Government forms site www.forms.gov.bd
- Registration of Companies and Societies www.roc.gov.bd
- Laws of Bangladesh www.bdlaws.gov.bd
- Passports www.dip.gov.bd
- Procurement www.cptu.gov.bd
- Electoral Roll Database <http://123.49.39.5/voterlist/>
- Chittagong Customs House <http://nbr-ctg.com/cchahomebeta/>

Achievement: Connecting Citizens and Government

Community Information Centers

- 3,000 by NGOs/Private Sector.
- 4501 Union-based Information Centers by Government of Bangladesh.
- 147 Upazila-based Information Centers by Government of Bangladesh.

Achievement: Connecting Citizens and Government

- Community Radio
- All 64 DC Offices, PMO and Cabinet being connected with video conferencing
- Inter-networking between Ministries and all Government bodies across the country through BanglaGovNet
- Massive content development initiatives
- Establishment of National Data Centre in Bangladesh Computer Council (BCC)

Achievement: Industry Sector

- Hardware affordable to middle class
- 500 software and ITES companies employing 25,000 people
- Exporting \$35M (steady 20-25% yearly increase) to 30 countries
- ITES sub-sectors identified as growth areas
- Access to Finance: EEF Fund, Venture Capital, and so on.
- Establishment of National Payment gateway (Central Bank)

Achievement: Infrastructure

- Cyber Centres in Universities and other academic institutions
- Computer labs in 1610 academic institutions in 2010' more in the pipeline in 2011
- ICT Incubates: 48 Companies
- Software Technology Park (STP) in the capital as well as in divisional headquarters
- Hi-Tech Park
- Country-wide Fiber-optic network
- Redundant submarine-cable connectivity

Hi-Tech Park

Government has given top-priority to knowledge-based industry to enter into the information age.

High-Tech Park: Kaliakoir, 120 hector.

Main features:

- Modern infrastructure and administrative support
- Modern facilities and amenities
- Single window government service including speedy customs and port clearances
- Marketing of the services and goods
- Uninterrupted power supply
- Incubation service
- Linkage with educational institutions
- State-of the art technology

Categories of Industries at Hi-Tech Park

- (i) Computer Hardware
- (ii) Computer Software
- (iii) Communications Hardware
- (iv) Communications Software
- (v) Agro-bio-technology and genetic Engineering
- (vi) Automobiles and Metal Industries
- (vii) New and advanced materials
- (viii) Medical Supplies and Devices
- (ix) Pharmaceutical and Clinical Products
- (x) Garments and Textile (R&D)
- (xi) Plastics

Categories of Industries at Hi-Tech Park

- (xii) Merchandising and Machinery
 - (xiii) Design of Electronic Products
 - (xiv) Manufacturing and Assembly of Electronic Products
 - (xv) IT Enabled Services
 - (xvi) Human Resource Development Institute
 - (xvii) Design and Consultancy
 - (xviii) Bioinformatics
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- The background of the slide is a light purple color with decorative elements. There are several white circular outlines, some containing stylized leaf patterns. A small white butterfly is also visible in the lower right quadrant. The overall aesthetic is clean and modern.

Achievement: Human Resources Development

- 5000+ graduates per year in ICT related areas
- ICT introduced in Secondary and higher level curriculum
- ICT introduced in polytechnic & vocational programmes
- National ICT Internship for ICT Graduates
- HRD Initiatives through School/College Labs
 - ✓ Teachers Training
 - ✓ Training of Government official/staff
 - ✓ ICT literacy development for common people

Conclusion

There are some constraints for the development of ICT in Bangladesh which have already been addressed. However, we will have to overcome all these constraints to become an ICT driven nation with ICT excellence to transform our poverty and disaster prone country into Digital Bangladesh, a prosperous Bangladesh, which our Father of the Nation Bangabandhu Sheikh Mujibur Rahman dreamt of.

JOY BANGLA