



# Spreading the ICT gospel with Cisco Networking Academy Program

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# Cisco Networking Academy Program

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- **The Cisco Networking Academy is a dynamic educational program that teaches students relevant technology skills**
- **This increases students' competitiveness in the global marketplace and opens doors to different employment opportunities**



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Educators and policymakers agree that student learning occurs best when high-quality curriculum, instruction, and assessment are standards-based, aligned and reinforcing each other. The Cisco Networking Academy Program is NOT just a virtual class or an online course.

The Academy program provides students with the Internet technology skills essential in a global economy

- Prepares students for the demands of the workplace
- Leads to continued education and learning
- Preparation for industry standard certifications

The Academy program creates opportunities

The program contributes to countries' development through IT education and skills development

Creates short-term and long-term impact in communities, one student at a time

Develops a global economy through IT education

Empowers underserved populations with high quality IT education, promoting social and economic opportunities

Provides local business with skilled workforce (productivity and community sustainability)

Transcends geographic barriers to provide IT skill transfer worldwide

# Cisco's Solution: The Cisco Networking Academy Program

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**Public Private Partnership** between Cisco, governments, educational institutions and NGOs created to teach students how to design, build and maintain computer networks thereby equipping them with the skills to be economically active in an area of employment vital to the new Internet economy



# History of Cisco Networking Academy Program

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- Created as a solution for schools installing networks in the US
- **Challenge:** Schools lacked financial and human resources to manage networks
- **Solution:** Curriculum to train teachers, staff, and students to wire and maintain networks in their schools
- Academy program launched
  - August 1997 in the United States with 64 Academies in 7 states
  - Globally in 1998 – Argentina, Australia, Canada, and UK/Ireland



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A Cisco initiative helped schools design practical, cost-effective networks, but they lacked the financial and human resources to maintain them. Cisco worked with instructional designers and educators to develop a curriculum to teach educators and students how to design, build and maintain computer networks.

The Academy program launched in October 1997 with 64 Academies in the United States.

Students completed the Academy curriculum with practical skills and real experience. The program rapidly expanded to become an IT career development program.

Academies quickly spread to schools, colleges and universities, and other not-for-profit educational institutions around the world.

# Why is the Program Important?

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Creating **short-term and long-term impact** in communities, one student at a time

Cisco is **giving back to the community** – not just because it is smart for the business, but because it's the right thing to do.



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# The Best of Both Worlds-Business Leadership **AND** Corporate Responsibility

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**Cisco Systems® creates  
social and economic value**

**The Networking Academy  
program demonstrates that  
information technology is  
changing education**

**Global partners combine  
social  
mission with business  
objectives**



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# Consistent Quality Around the World

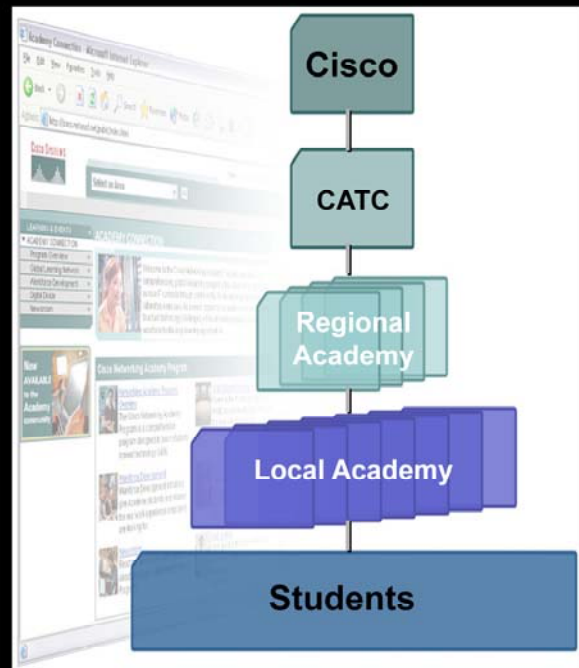
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- **Standardized curriculum ensures consistent quality globally**

**All Academy students, in any country, receive the same high quality education**

**Instructor-led online curriculum and hands-on labs**

**Measured through skills-based exams and online assessment**



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## OPTIONAL SLIDE

### Slide objective:

Quality is an important component of the Academy program

Cisco ensures quality in the program

The curriculum, training, certification, and on-going support ensure consistent quality among Academy programs around the world.

Instructors receive professional development on an ongoing basis

Cisco Academy Training Centers (CATCs)

- Train the trainer (train instructors)

- Contract with Cisco

- Receive training and support from Cisco

Regional Academies

- Train instructors

- Contract with Cisco

- Receive training and support from CATCs

- Market to and recruit Local Academies

Local Academies

- Teach students

- Contract with Regional Academies

- Receive training and support from Regional Academies

# Curriculum and Certification Mapping

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Curriculum	Certification
CCNP 1-4	CCNP
IP Telephony	<i>"Cisco IP Telephony Specialist"</i>
Network Security	Cisco Firewall Specialist
Fundamentals of Wireless LANs	Cisco Wireless LAN Support Specialist
CCNA 1-4	CCNA
HP IT Essentials II	CompTIA Server+ (when combined ITE 1 curriculum)
HP IT Essentials I	CompTIA A+

# Potential Career Paths

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# Cisco Networking Academy Program: Impact Since 1997

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COUNTRIES WORLDWIDE

**155 +**

STUDENTS WORLDWIDE

**1.9 Million +**

ACADEMIES WORLDWIDE

**11,000 +**



INSTRUCTORS WORLDWIDE

**32,000 +**

TOTAL EXAMS TAKEN

**48 Million +**

LANGUAGES

**9**

Source: Academy Connections – February 2006

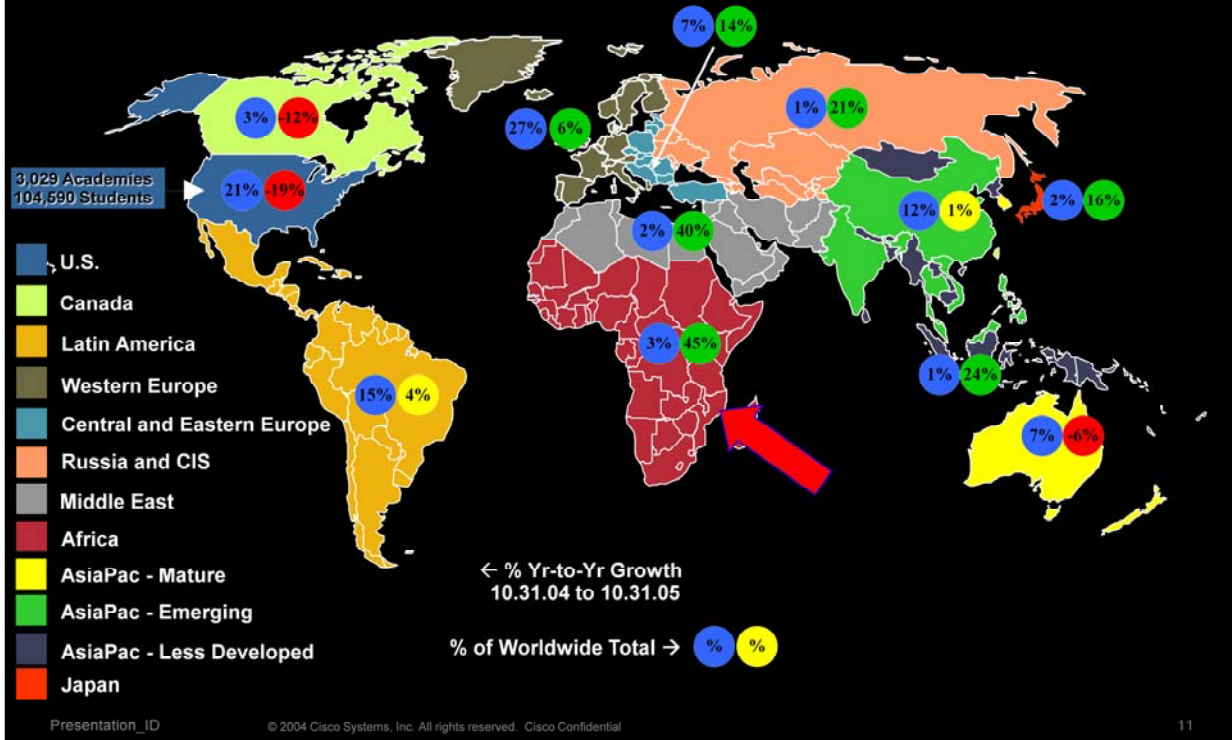
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# Participating Students by Region (450,000+ Students)

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The US is the single largest NetAcad Country

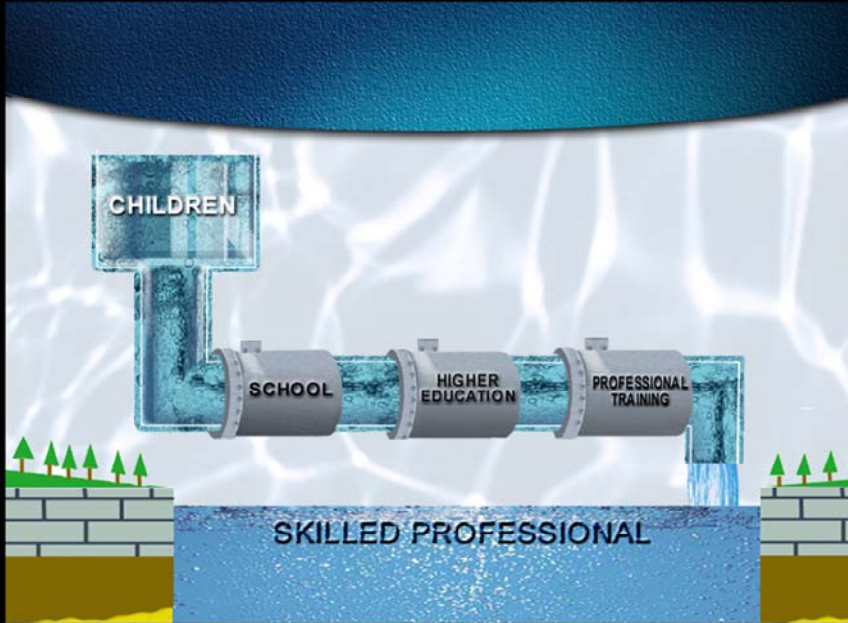
The US is the second largest Region behind Western Europe

Other countries throughout the world that have a mature NetAcad program are also experiencing a decline in Participating Students and Academies

Africa is the fastest growing Region – 45% YoY growth

# The **Current** Education Model

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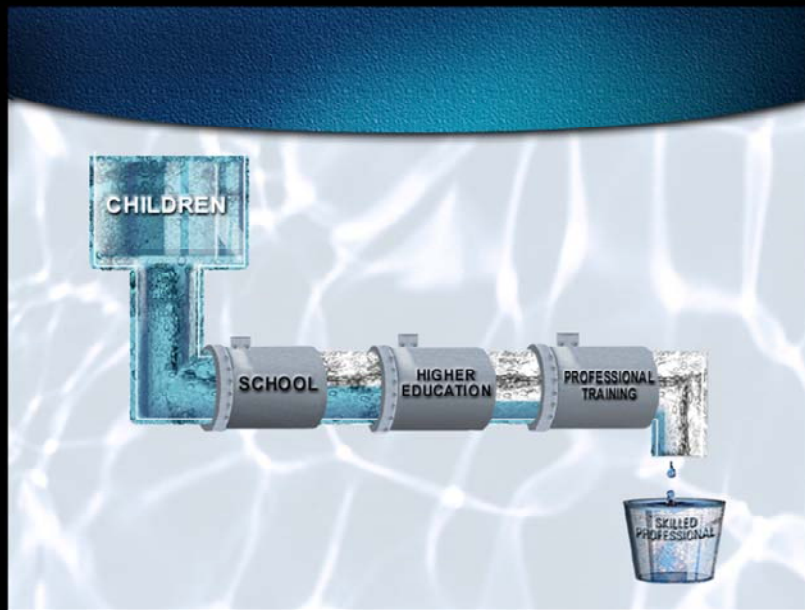
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# However ...

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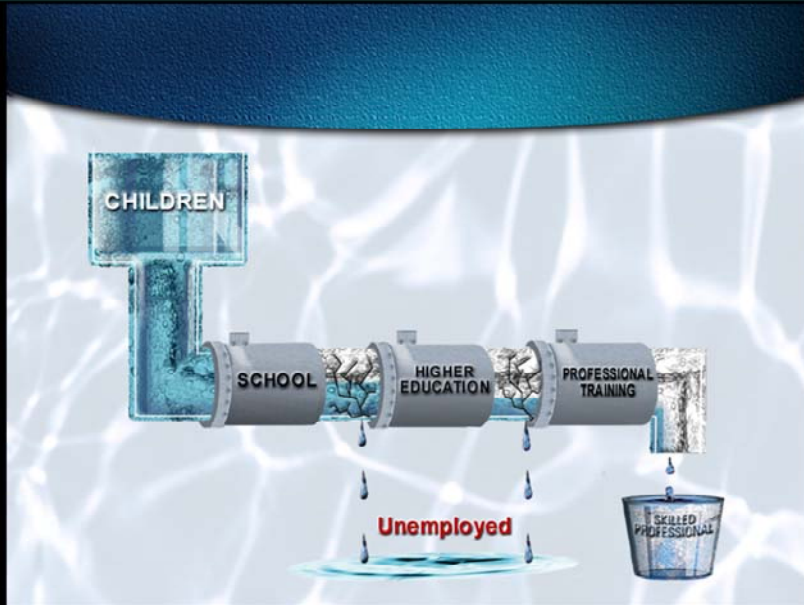
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# Plus ... Leakage and Wastage

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## IDC Skills Gap – South Africa 2006 – Networking Skills Challenge

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**TABLE 1**

Total Networking Skills in South Africa, 2005-2009, FTEs and Skilled People Estimates

	2005	2006	2007	2008	2009	CAGR
Demand	90,453	97,386	103,934	110,354	118,072	6.9%
Supply	72,841	77,279	81,417	85,280	89,586	5.3%
FTE Gap	17,613	20,107	22,516	25,074	28,486	12.8%
% FTE Gap of Demand	19.5%	20.6%	21.7%	22.7%	24.1%	
Skilled People Gap Estimation	70,500	80,400	90,100	100,300	113,900	12.7%

Note: \*The skilled people gap is estimated on the assumption that, on average, people with networking skills spend 25% of their time using these skills.

Source: IDC, 2006



***Slide objective: How does the Academy program happen?  
How is it possible? through partnerships***

The Academy program is delivered through educational institutions around the world

Universities, technical schools, community colleges, high schools, community based organizations and others

Content is developed and maintained through IT industry leaders

Cisco Systems, Hewlett-Packard, Panduit

Fluke: Provides state-of-the-art test equipment for Academy labs at discounted rates.

CompTIA: Provides certification and job placement opportunities for Academy students.

Cisco has partnered with education, business, government, and community organizations around the world to ensure that Academy students have maximum opportunities for success inside and outside of the classroom.

Successful partnering is a key component of the e-learning model, where content providers, educators, suppliers, and students are all important members of an educational ecosystem.

Cisco believes that partnering is a key success factor in the Internet Economy and has made partnering one of its top priorities.

-To extend its strength in the education field, WWE has been engaged in building a strong ecosystem since its inception.

Examples:

Fluke: Provides state-of-the-art test equipment for Academy labs at discounted rates.

CompTIA: Provides certification and job placement opportunities for Academy students.

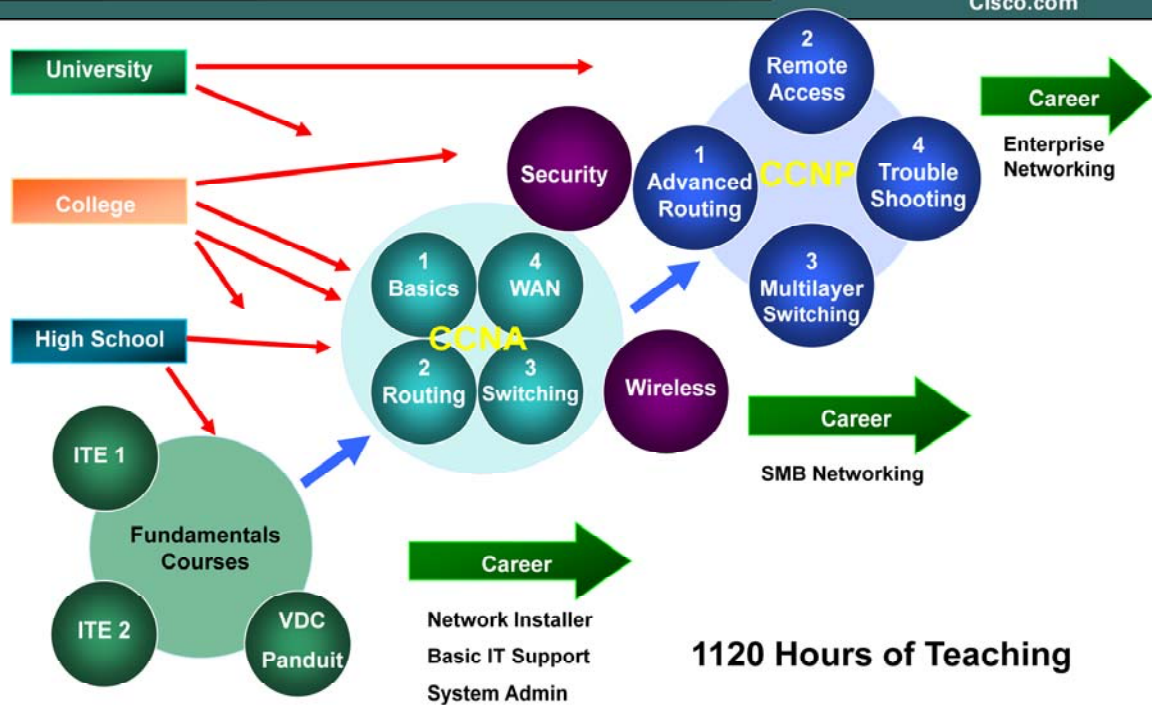
# Partnerships Worldwide

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# Many Pathways and Exit Points

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# Equalizing Opportunity

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- **90 Academies established in 32 of the least developed countries**
- **Women increasingly enroll in Academy classes and complete courses**
- **Academies established in poor communities with high minority populations**
- **Students with learning disabilities find multimedia alternatives help them keep pace**



E-learning, the combination of the Internet and education, eliminates barriers of time, distance and socioeconomic status. The Academy is crossing Digital Divides around the world by establishing Academies in disadvantaged regions and recruiting target populations. Cisco is not alone and our partners make key initiatives possible:

The LDC initiative partners with international development organizations and has established 90 Academies in 32 of the world's poorest countries.

The Gender initiative supports the recruitment and retention of women at all Academies. An Academy in the country of Jordan is helping women gain economic independence.

Academies have been established in economically disadvantaged regions with attention to recruitment and retention of minority groups.

Curriculum supports learning for persons with disabilities.

# Africa Success Stories and Current Projects



# Networking Academy Program in Africa June 2006

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250+ Academies  
14,600 Participating  
Students in Sub-  
Saharan Africa  
40% Yr/Yr Growth

# Kenya

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**14 Academies:**

**12 Local Academies**

**2 Regional Academies**

**Students:**

**July 2006 – 1,696 Participating**

**Curriculum:**

**IT Essentials, CCNA, Wireless, Security**



# East Africa

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**60 Academies**

**Students:**

**July 2006 – 14,394 Participating,**

**28% Female Enrollment**

**53% Growth/FY05**

**Curriculum:**

**IT Essentials, CCNA, Wireless, Security, CCNP**



# Participating Countries in Africa

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## West & Central Africa

- Benin
- Burkina Faso
- Cameroon
- Cape Verde
- Central African Republic
- Chad
- Republic of Congo
- Cote D'ivoire
- DRC
- Gambia
- Ghana
- Guinea
- Guinea-bissau
- Liberia
- Madagascar
- Mali
- Mauritania
- Niger
- Nigeria
- Sao Tome and Principe
- Senegal
- Sierra Leone
- Togo

## East Africa

- Eritrea
- Ethiopia
- Kenya
- Rwanda
- Seychelles
- Uganda
- Burundi
- Djibouti
- Tanzania

## Southern Africa

- Angola
- Botswana
- Lesotho
- Malawi
- Mauritius
- Mozambique
- Namibia
- South Africa
- Swaziland
- Zambia
- Zimbabwe

# Uganda, Makerere University

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- **Growth**
  - High Student Enrollment (2,000+ continuing students)
  - Advanced Curriculum (CCNP)
  - Diversified Curriculum (Wireless, ITE)
- **Private Sector Linkage**
  - Workforce Development Program
  - Private Sector Partners
- **Quality**
  - Softskills & Training for Instructors
  - Instructor Retention & Advancement Opportunities
  - Communication with other Academies
- **Sustainability**
  - Support of Administration & Gov't
  - Sustainability Plan
  - Stakeholders/Partnerships



**LDC Initiative Awards 2003-2005:**  
Highest Country Female Enrollment (Uganda)  
Highest Country Enrollment (Uganda)  
Highest Enrollment, Local Academy (Makerere University, ICS)  
Job Placement Award (Makerere University, ICS)

# Ethiopia 100 Academies

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## Objectives

- To provide a comprehensive ICT Education and Capacity Building program to the Ethiopian Government in the next 6-18 months
- To transform 600 schools across the country to Community Centres delivering ICT training, i.e. ITE, CCNA, i-Exec and Community Dev programs (Net Corps) in the next 6-24 months
- To deliver digitized E-Learning curricula developed by Education Media Agency in Ethiopia in the next 6-12 months
- To promote ICT sector development (SW & Content Dev) by way demand creation from Gov, Schools, Telco and SME in the next 12-24 months



# Addis Ababa Youth Association NetAcad Project

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## Story

- Create the ICT future work force for Ethiopia
- Train the instructors in ITE and CCNA
- Instructors will open ITE classes for youth in the sub-cities
- Train the AAYA youth to install, maintain and troubleshoot PCs in schools
- Instructors will manage the Internet Cafés in a way that will make the Internet community centers sustainable

## Strategic Partnership

- AAYA – Classrooms, project management, youth
- Cisco Systems – Labs, part funding, curricula, knowledge transfer
- CTG – Computers for the classrooms
- The Neta Project – Instructors, knowledge transfer
- The DOT initiative –TOT, funding, leadership \$ biz skills

Infrastructure professionals  
and ICT awareness in Addis Ababa



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## Back ground

Young people in developing countries make up the fastest growing segment of the world population. More than half of the five billion people who live in the developing world are under the age of 25.

Children and youth represent nearly 50% of the population in developing countries

85% of youth between 15-24 live in these countries

1.4 billion Children will be born into the world by 2010, 92 percent in developing countries. The number of new births will rise to 2.7 billion by 2025

Young people tend to be the most vulnerable part of society. Their voices are often the least considered when the global community discusses strategies and implements projects designed to improve living standards.

Some 238 million young people survive on less than \$1 a day, and account for 25% of the extremely poor in the world

Some 133 million 15 to 24 year-olds are illiterate

Another 130 million children are presently not in school

One third to one half of 15-24 year-olds are unemployed in many developing countries. Globally young people represent 41% of all unemployment

About half of new HIV/AIDS infections are in youth under 25

Almost 12 million youth live with HIV/AIDS. In the hardest hit countries, some 75% of 15 years-old are projected to die of AIDS in the future.

Ethiopia is one of the least developed countries of the world. The GNP is round USD 102 and health coverage is only 51%. Adult literacy rate is around 23% and primary school enrolment is less than 50%. Also the age distribution shows that 44 of the population are below 14 years while 42% are in the age group 15 and 49. This indicates that the young generation represents the largest proportion among the total population of the country.

Currently, this age group is further compounded by the emergence of HIV/AIDS and natural & man-made calamities. About 90% of reported AIDS cases are between the age of 29 and 49, which are the most productive ages from both an economic and socio economic stand point.

## Problem statement/Justification

Lack of effective and efficient access by the young people of the developing countries to Information technology is aggravating its current social, economical and political problems.

**“AIM MUST BE FOR PEOPLE EVERYWHERE TO HAVE ACCESS TO INFORMATION TECHNOLOGY”** Secretary-General Kofi Annan to the fifth meeting of the UN Information and Communications Technology Task Force in Geneva, 12 September.

Technology shapes the future, but ultimately it is people who shape technology, and decide to what uses it is put. Education and employment, trade and health, governance and tolerance — all these areas of life, and others too, can be transformed.

New technologies and applications continue to emerge. Current technologies are maturing, and old ones are finding new uses. We must ensure that the poor are not left further behind by all these dramatic changes, but can join in, and benefit from them.

Ultimately, our aim must be to ensure that people everywhere have access to information technology, and can use it to build better lives, for themselves and for their children.

Establishing an integrated information system and services can be mentioned significantly for the development of Ethiopia. It is noted that this service is very peculiar and unique in its nature that it can provide an exchange of youth voice, data and video communications among youth found in different nations, nationalities and peoples at a time.

Currently, in Ethiopia it is said that efforts made to alleviate youth problems are not under taken in an organized and coordinated manner. It is seen that there exists absences of organized youth focused data's, researches and studies electronically, poor networking knowledge of implementing organization, poor cooperation and coordination locally, nationally and internationally. Thus, focuses for filling the gaps should be done by establishing an integrated information system. This indicates that mainly or totally well organized information is the priority concern of the findings/gaps.

In the Policy document and strategic plan of the Ministry of Youth in Ethiopia, it is identified that information is the intersection point of all the strategies mentioned in the same document. Moreover as the age we are living is best explained as the information age, our best option for filling the identified gaps and for the realization of the implementation strategies of the youth policy, particularly establishing an integrated information system to the targeted society in an efficient and fast manner is mandatory.

Therefore, this project is expected to contribute to the efforts of the Ethiopian Government and non-government organizations to satisfy the increasing demand of information communication technology services of the Ethiopian community, specifically the youth.

## Objectives

# Special Projects

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## *Kibera Goes Online*



- Oldest and Largest Slum in Kenya and Africa
- Population of 1M in 20sq mtr area
- 30% of population are youth.
- Most of the people living there have no jobs, or the ones who do, work as low paid labourers

## *NetAcad in Defense - Egypt*



- 34 Defense academies in EMEA
- Based in Military universities and high schools
- Students build, design and maintain networks
- Faster skill development
- Develops problem solving and critical thinking skills



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