ANALYSIS of ICT-ENABLED YOUTH EMPLOYMENT in GHANA, KENYA, and SOUTH AFRICA

VOLUME 2: Annexes—Ghana

OCTOBER 2013

Supported by

Rockefeller Foundation
Innovation for the Next 100 Years

international youth foundation

TABLE OF CONTENTS

ANNEXES

EXECUTIVE SUMMARY

The International Youth Foundation (IYF) is pleased to submit this paper on the 'Analysis of Growth Sectors for ICT-enabled Youth Employment in Ghana' to the Rockefeller Foundation. This analytical paper is part of the broader, three-country study to assess promising growth sectors and digital (also referred to as Information and Communication Technology or ICT-enabled) job opportunities to address the high rates of youth unemployment in Sub-Saharan Africa. The Ghana study sought to identify specific ICT-enabled employment opportunities for youth in eight growth sectors, the skills required for youth to access these jobs at both the entry and mid levels, and training initiatives that address identified skills gaps. A total of 384 youth and 48 stakeholders from Accra and Kumasi participated in the study.

A dual-client approach was taken in carrying out this research, which entailed a targeted labor market assessment and a youth assessment to better understand:

- ICT-enabled employment opportunities and skills required for youth to access these positions;
- The characteristics, aspirations, and challenges of vulnerable youth (ages 16-29); and
- Training initiatives that could be leveraged for a digital jobs initiative in Ghana.

Key findings from the Ghana Study are presented below:

Definition of ICT-Enabled Employment: IYF has opted to utilize a broader understanding of ICT-related employment for youth that includes jobs where the output of work involves digital information and knowledge creation or transfer. In conducting the study, researchers drew on examples of ICT-enabled employment, as opposed to using a specific definition. By doing so, IYF aimed to better understand what youth and employers consider ICT-enabled employment.

Growth Sectors for ICT-Enabled Employment: Based on the literature review and initial consultations with stakeholders prior to the field work, IYF identified eight high growth sectors (Banking and Financial Services, Telecommunications, Information Technology, Oil & Gas, Education and Training, Media Marketing & Advertising, Hospitality & Tourism, and Healthcare Services). Using further research and feedback from youth, employers and stakeholders, the top four key growth areas recommended are:

- Banking and Financial Services,
- Telecommunications,
- Information Technology, and
- Media, Marketing and Advertising.

ICT-Enabled Jobs: Employers said that the demand for ICT jobs will continue to increase in Ghana at both entry and mid-levels, with entry opportunities largely for cross-sector positions that employ ICT tools for means of executing their functions (i.e., office worker/secretary, basic IT support at the entry-level). Also at the entry level, the study found a major gap where young people were not aware of ICT-enabled job opportunities despite their interest in these positions. Overall, youth were unaware of the availability of ICT-enabled jobs. In addition, youth thought they would need prior experience to secure entry-level positions – conversely more than half of the surveyed employers reported that that was not the case.

Quality of ICT-Enabled Jobs: The quality of ICT-enabled jobs was assessed based on the perspectives of both vulnerable youth and employers, looking at a set of selection criteria including adequate earning, benefits, and opportunities for advancement. The majority of working youth reported not earning sufficient income to cover basic expenses. Interestingly, self-employed youth reported better earnings. More than half of working youth reported receiving some form of benefits such as healthcare and pensions.

Skills Gaps and Training Needs: Overall, there is an ICT skills gap between what is taught in schools and what is necessary to obtain employment in available positions in the labor market. Youth interviewed reported feeling that they are disadvantaged due to a lack of exposure to ICT resources at younger ages. Most youth had completed senior secondary school before having substantive engagement with computers and technology. They explained that exposure to ICT, let alone computers, is minimal for the average Ghanaian. This widespread lack of exposure to ICT upon completing secondary school increases the challenges youth face in finding gainful employment. The entry-level technical skills required by employers in this study included: hardware maintenance, IT helpdesk support, software development, network administration, and multimedia design. Also, nearly a fifth of employers cited a lack of life skills as a barrier to hiring youth. This includes skills such as integrity, communication, and teamwork.

Recommendations

There is a growing demand for new entrants with the necessary ICT skills. However, skills mismatches and lack of information among the young people make it difficult for them to secure decent work. The majority of employers expect young entrants to have basic ICT skills, indicating unwillingness on their part to provide on-the-job training. As such, it is important to identify effective training models and scale up – as more young people gain entry into ICT-enabled positions, the more access they will have to greater opportunities into mid-level positions that offer generous benefits packages. These cascading results in ICT-enabled sectors, though, will only result from fruitful partnerships between local and international employers and stakeholders.

The study calls for the government and development partners to invest in systems to continuously share valuable training and employment information with young people interested in these jobs in order to minimize gaps. The study makes it clear that employers and key ICT stakeholders are willing and able to engage in cross-sectoral collaboration to promote ICT-enabled employment opportunities for young people. This would be their part in a strategy to stimulate growth and address youth unemployment.

Specific recommendations to increase access by young people in Ghana to the emerging opportunities for ICT-enabled positions include:

- Employer-led efforts to increase female applicants for ICT positions and internships;
- Offer qualifying exams to ICT jobseekers to assess degree of ICT knowledge;
- Leverage public-private partnerships to increase ICT exposure and usage by young people, earlier in the educational system;
- Advocate to develop solutions to infrastructural gaps that hamper BPO sector uptake;
- Mentorship and career guidance focused on appropriate requirements for employment in available ICT-enabled jobs;
- Promotion of business incubator programs to prepare youth for self-employment;
- Strengthen linkages with the private sector and other employers for internship and job opportunities; and
- Integrate life skills and general technical skills (such as customer service, sales and marketing) within the core curriculum.

1. INTRODUCTION

The Rockefeller Foundation has commissioned the International Youth Foundation (IYF) to conduct multi-country studies across South Africa, Kenya, and Ghana to determine the economic sectors offering the highest potential to employ youth. This paper focuses on identifying ICT-enabled employment opportunities for youth, the skills required for youth to access these jobs at both the entry and mid levels, and training initiatives that are helping to address identified skills gaps. In the Ghanaian context, IYF drew on secondary data to identify significant projected ICT-enabled employment demand within the ICT services sector, as well as demand in other non-ICT specific sectors. The assessment identified eight sectors as most promising for ICT-enabled employment opportunities for youth (see Table 1 for details). Informed by IYF's secondary research, Ivy League Consultants Africa carried out the primary research portion of the study, with substantial guidance and support from IYF.

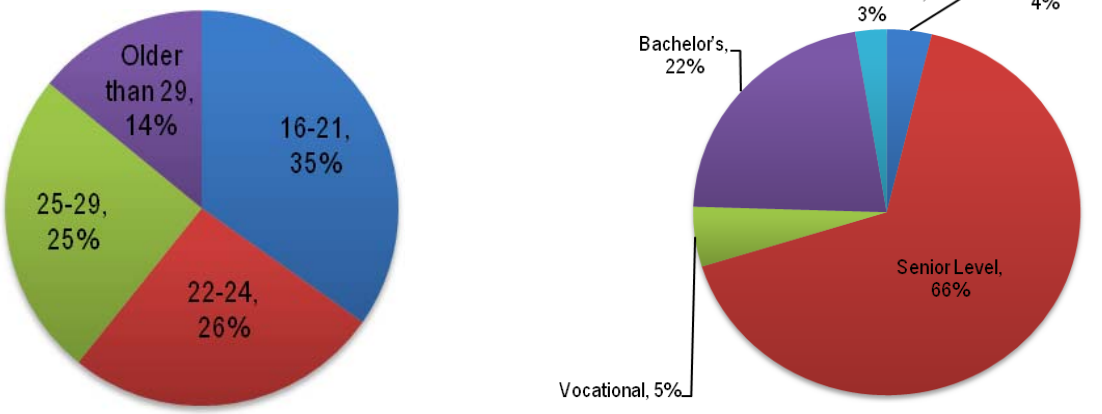
2. METHODOLOGY

Researchers administered key informant interviews with employers and training providers, and facilitated focus group discussions with young people, complemented with quantitative surveys. This study aimed to identify broad trends across the eight sectors in terms of ICT-enabled employment quality and skill gaps, complemented by perspectives from individual employers and youth, and verified by secondary data, when available. No single data point, however, should be taken as representative of the sector as a whole; rather, this study aimed to identify and highlight aggregate trends.

In carrying out the study, researchers used the following data collection methods and sample sizes:

- 36 employer interviews, complemented by a targeted labor market survey (see Annex A);
- 12 key informant interviews with training providers and government ministries (see Annex A);
- 40 focus group discussions with a total of 384 youth (ages 16-29), complemented with a quantitative youth survey. Of these youth, roughly two-thirds were unemployed and the remaining were self-employed, employed with salaried jobs, or engaged in short-term employment contracts.

Figure 1: Youth Sample



Researchers interviewed and surveyed 36 companies from the eight target sectors to understand entry- and mid-level job opportunities, quality of these jobs, skills required, and skills gaps (see Annex A). They include: Ecobank, Calbank, Samsung, Adintelecomm Ghana, Atlantic Computers, Zenith, Oil Channel, and Miklin Hotel. Of these 36 participating companies, 17 were large companies with over 100 employees and 19 were small and medium-sized businesses with 100 employees or less.

Researchers conducted additional interviews with key government ministries and training providers including: the Ministry of Communication, Ashesi University, Ministry of Employment and Social Welfare, Ghana Telecomm University, National Youth Authority, and Ghana Multimedia Incubation Center.

Table 1: Employer Sample by Sector	
Sector	**Number of Companies**
Banking & Financial Services	8
Telecommunications	4
Information Technology	8
Education and Training	2
Media, Marketing & Advertising	6
Oil & Gas	1
Hospitality & Tourism	4
Healthcare Services	2
Other	1
Total	36

Research Limitations

During the time of field work, Ghana experienced some socio-political tensions related to the Ghana Supreme Court validation of presidential elections, which prevented some youth from leaving their homes to participate in focus group discussions. As a result, researchers believe this also impacted the gender balance of the study which involved more men than women (roughly 70 percent young men and 30 percent young women).

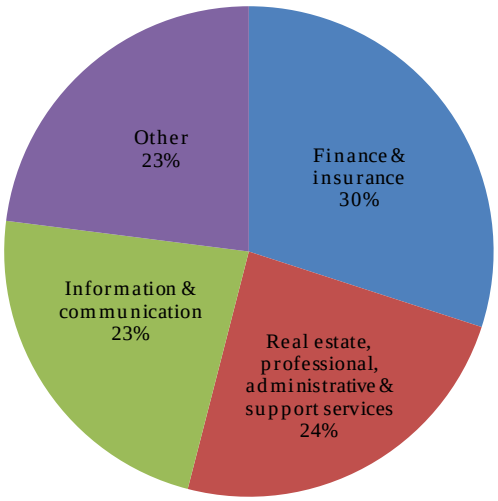
Additionally, it was challenging to engage employed youth in focus group discussions due to their work schedules. About half of the youth interviewed were unemployed, though their perspectives were still useful particularly around skills gaps and extrapolating challenges young people face in securing ICT-enabled jobs. The team however worked with employers and communities to reach out to and engage employed youth working in the eight target sectors. Most schools and ICT training and vocational institutes were closed for summer holidays. Therefore, researchers were limited in their outreach to set up interviews with schools and vocational institute officials during the study.

Although the team successfully interviewed a number of employers in the telecommunications sector, there was a more pronounced hardware presence (e.g., RLG and Samsung) as opposed to the pure telecom-mobile telephone service companies (e.g., Vodafone and MTN). Interviews with representatives from Vodafone, MTN, and others were rescheduled on multiple occasions until it was no longer possible to hold meetings within the designated timeframe.

3. COUNTRY CONTEXT

Ghana is known for its stable socio-political environment and rapidly growing economy. The nation is in the process of building its technological capacity in order to provide its youth greater access to quality jobs in the ICT field. Ghana's growing economy is fuelled by recent exports of oil, increasing foreign direct investments, and a booming agricultural sector. In support of these trends, the country's Gross Domestic Product (GDP) growth rates have not fallen below 7 percent since 2011.[1] A direct consequence of this trend has been the increase in the diversity of high-growth economic sectors. For example, the service sector contributed to almost half of the GDP in 2012, including subsectors such as: financial services, hospitality, and information and communication.

Figure 2: Percentage of Subsector Contribution to Services Sector Growth in First Quarter of 2013



Ghana continues to experience considerable growth in the service sector as the first quarter of 2013 reported an unprecedented growth rate of 12 percent. The main subsectors contributing to this growth included:

- Finance and insurance (30 percent),
- Real estate, professional, administrative and support services (24 percent), and
- Information and communication (23 percent).

Figure 2 further illustrates these numbers. Ghana's leading IT training institutions, IPMC and NIIT, support these claims by listing Telecommunications, Banking and Insurance, and Information Technology companies as the leading employers of their graduates.

[1] Ghana Statistical Service 2012; Bank of Ghana 2013

Recent studies from the International Labour Organization (ILO) highlight that youth in Sub-Saharan Africa are twice as likely to be unemployed as their adult counterparts – with an unemployment rate of 11.8 percent.[2] In Ghana, young people are those between the ages of 15 and 24, making up 33 percent of the population. However, they hold only 14 percent of the regular wage-earning positions.[3] Despite rapid economic growth in Ghana, youth unemployment is currently estimated at 25 percent. Researchers have expressed concerns about the country's capacity to sustain and provide quality opportunities for the population.[4]

4. ICT-ENABLED EMPLOYMENT: DEFINITION, GROWTH SECTORS, AND OCCUPATIONS

4.1. DEFINITION OF ICT-ENABLED EMPLOYMENT

There is no standardized definition for ICT-enabled employment, nor is 'ICT-enabled employment' the only term to describe these types of positions. The Rockefeller Foundation, for example, uses the term 'digital jobs' to describe employment "created through the application of ICT to a new or existing activity or process, [which] generally include performing information-based tasks that build the individual's capacity for future work."[5] Further, the Rockefeller Foundation notes that "a digital job can be distinguished from other jobs such as manufacturing because the core product produced by a digital jobs worker is information or knowledge, as opposed to physical objects or services." A 2002 study by Access Market International used the term 'ICT-users' when analyzing trends and skill gaps in South Africa's ICT labor market, with an 'ICT-user' defined as "an employee that uses a computer as an integral part of their job function." In carrying out this study, IYF opted for a broader understanding of the term, in order to identify ICT-related employment that may offer opportunities at-scale for youth. Researchers, however, did not offer a specific definition when conducting interviews and focus groups, and instead used practical examples drawing from the aforementioned definitions. The aim, therefore, was to better understand what employers and youth in Ghana consider to be ICT-enabled employment, and to understand where the main growth opportunities are based on their understanding, along with the skills required for these positions.

4.2. GROWTH SECTORS FOR ICT-ENABLED EMPLOYMENT

Based on the literature review and initial consultations with stakeholders prior to the field work, IYF identified eight high growth sectors for ICT-enabled youth employment. This informed field work planning and the sectors were further validated during field work. They include:

- Banking and Financial Services,
- Telecommunications,
- Information Technology,
- Oil and Gas,
- Education and Training,
- Media, Marketing and Advertising,
- Hospitality and Tourism, and
- Healthcare Services.

In terms of the top growth sectors, a consensus emerged after discussions with youth, employers, and other stakeholders. Oil and Gas, though mentioned frequently amongst respondents, was determined to currently have only indirect benefits through jobs in service based industries catering to the oil sector. In line with the findings from the secondary research, the top four key growth areas are:

- Banking and Financial Services,
- Telecommunications,
- Information Technology, and
- Media, Marketing and Advertising.

While the secondary research points to the Business Process Outsourcing (BPO) industry as promising;[6] several key informants noted delays in the BPO industry uptake due to macro-level infrastructural challenges in Ghana. These challenges include: power outages, telecommunications network failures, and masses of technologically underexposed

[2] ILO 2013
[3] AEO 2012
[4] Braimah 2006
[5] Harji, et al, 2012
[6] World Bank 2005; Bukartek 2007

youth, contributing to the BPO industry's underdevelopment in Ghana.[7] Key informants highlighted three specific constraints: a lack of a cost-effective and stable power supply; limited financial support available for local companies attempting to enter the sector; and internet connectivity issues in terms of speed and strength of radio, satellite, and cable signals. One key informant said, "Companies venturing into the BPO industry are required to invest significant capital in independent internet infrastructure, which is extremely costly. Also, the frequent power outages and incidents of internet downtime drastically affect the business." Additionally, despite the introduction of new technology to better manage the BPO sector, there appears to be a limited number of technicians adequately trained to maintain the BPO-associated hardware and software. Overall, the BPO industry has yet to realize its potential until these issues are addressed.

Despite broader infrastructural challenges in Ghana, there appears to be many ICT-related employment opportunities for young people. The literature review suggests ICT is seen as the key to ending underemployment amongst the youth in Ghana.[8] In recent years, training programs supported by non-governmental organizations (e.g., Africa ICT Right) and private training institutions (e.g., NIIT) have contributed to job creation.

From the perspective of various ICT stakeholders, banking and financial services and Information Technology emerged as the highest growth. Of all the respondents, ICT stakeholders offered the widest range of suggestions as to where they saw potential for ICT-enabled job opportunities; these additional suggestions included commerce, agriculture, and BPO.

4.3. ICT-ENABLED JOBS

Within the context of Ghana, ICT jobs are not evenly distributed across the country. Not surprisingly, both youth and employers reported that ICT jobs are primarily located in urban and peri-urban areas. The banking and finance sectors, the largest identified ICT-enabled growth sector, are geographically positioned within Accra and Kumasi. While to a lesser degree, hospitality and tourism jobs are often referenced in Accra more than Kumasi, as Accra is the capital.

Employer Perspectives

The team collected examples on the types of entry and mid-level positions available for youth in the reported high-growth sectors. Table 2 includes the summary of responses from employers and stakeholders related to ICT-enabled jobs.

Table 2: Examples of ICT Jobs Reported in High-Growth Sectors *(From the Employer Survey)*

Growth Sectors	Examples of Entry-Level ICT Jobs	Examples of Mid-Level ICT Jobs
Banking and Financial Services	Office Worker/Secretary, Teller, Basic IT Support, Simple Database Administration	Networking, Database Administration, Server Configuration and Maintenance, IT Security, Advanced IT Support
Telecommunications	Support Services, Office Worker/Secretary	Hardware, Networking
Information Technology	Office Worker/Secretary, Basic IT Support	Networking, Programming/Software, Hardware Installation and Maintenance, Server Configuration
Education and Training	Teacher, Office Secretary, Database Administration	Advanced ICT Teacher
Media, Marketing & Advertising	Office Worker/Secretary, Website Design, Basic Audio-Visual Support	Graphic Design, Audio-visual Support, Installation and Maintenance, Networking
Oil and Gas	Office Worker/Secretary, Accountant, Basic Database Administration	Networking, Hardware Installation and Maintenance, Advanced Accounting, Advanced Database Administration
Hospitality & Tourism	Office Worker/Secretary, Basic IT Support	Networking, Advanced IT Support
Healthcare Services	Office Worker/Secretary, Basic Database Administration, Basic IT Support	Networking, Database Administration, IT Security

Youth Perspectives

While employers and other stakeholders felt there are many ICT-enabled employment opportunities for youth, focus group participants overwhelmingly reported that there is a lack of ICT-jobs across all sectors in Ghana, highlighting a huge gap in information.

[7] Mathrani et al 2013; IFC 2013; Fine et al 2012; Rockefeller 2011

[8] IEG2012

When asked to name high growth sectors, the banking and financial services were mentioned most frequently by young people, followed by the telecommunications and IT sectors. Surprisingly, the mining sector was mentioned more frequently than oil and gas, especially among the focus groups in Kumasi, where mining is prevalent. Collectively, young people felt that the oil and gas sector has very strong potential; however, they were not clear on what oil and gas jobs are currently available on the market.

Young people's interest in the education and teaching sector was low due to their perception of low salaries for teachers, and limited teaching materials and classroom technological aids. Healthcare was cited frequently as a sector of growth by young people, citing hospitals, clinics and non-governmental health projects as job creators for youth.

Overall, youth did not have a good grasp on the labor market for ICT skills. They felt that banking and finance had the most opportunities, followed by mining, gas and oil, along with healthcare. Teaching was the least attractive option for youth.

5. QUALITY OF ICT-ENABLED EMPLOYMENT OPPORTUNITIES

Defining Quality Employment

As part of the dual-client assessment, the quality of ICT-enabled jobs was assessed based on the perspectives of both youth and employers. Researchers gathered both quantitative survey data and qualitative data from interviews with employers, stakeholders, and youth. Researchers drew on the criteria below when measuring quality employment for ICT-enabled employment in the target sectors.

While drawing on the International Labor Organization's (ILO) decent work framework, IYF measures quality employment elements using seven key criteria:

1) Adequate earnings and productive work: Jobs should provide adequate income, and employees should have access to job-related training to support and improve their productivity.
2) Social security: Adequate coverage of unemployment, health and pension insurance.
3) Stability and security of work: Employees have access to an employment contract of at least one year.
4) Opportunities for advancement: Employees have access to professional development opportunities.
5) Decent hours: Jobs should involve neither excessive nor insufficient hours. Hours are not involuntarily asocial and employees have access to paid maternity leave.
6) Equal opportunity and treatment in employment: Equal access (particularly in terms of gender) to specific jobs, pay and professional advancement opportunities.
7) Safe work environment: Safety within the workplace, and position-related safety issues outside of the workplace (e.g., safe travel to work/home for those working night shifts).

During focus groups, researchers asked youth about what constitutes a good job. Focus group youth found it difficult to describe a quality job. Many were not equipped with the knowledge and terminology of a 'quality job,' while young men seemed overly concerned with generating the maximum amount of salary without consideration of other job-related benefits. An overwhelming majority of youth stated that there are 'no jobs' or 'not enough jobs' in Ghana. Of the jobs that are available to youth, respondents perceived these positions to be low-level ICT jobs (e.g., front office skills, administrative and secretarial skills, general computer knowledge, and proficiency in basic Microsoft Office Suite software). Young people also communicated that there were fewer ICT jobs on the market requiring specialized skills.

The responses from youth were particularly insightful, especially from those employed and self-employed in ICT-enabled positions. Overall, young people felt that there are a limited number of ICT-enabled jobs that can be considered quality positions. Interestingly enough, that self-employed youth tend to be more satisfied with their income and prospects.

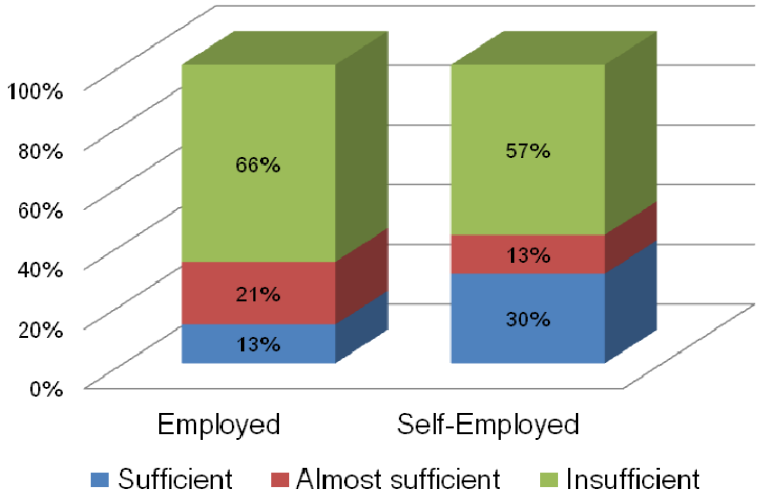
While youth differed from employers in opinions on whether and where ICT jobs are available, they both agreed on the quality of those jobs. Both employers and youth felt that the quality of these jobs improves as one progresses in a company. Not surprisingly, they thought that mid-level positions are of higher quality than entry-level positions in terms of salary, benefits, and career advancement. In particular, employers and youth cited mid-career jobs in networking, database administration and hardware as examples of quality employment.

Adequate Earnings

Among the youth who are employed or self-employed, 'income sufficiency' is a strong proxy for quality of jobs. Income sufficiency indicates whether basic financial needs of youth are being met through salary and/or benefits. Working youth reported that their incomes are largely insufficient to cover their basic expenses. Interestingly, more self-employed youth reported that their income was sufficient to meet basic needs – 30 percent compared to only 13 percent for employed youth (see Figure 3). Self-employed youth are able to better cover their expenses. Self-employed youth with a good

reputation for IT support, networking, hardware installation, and database entry seem to be able to consistently find work, based on the focus group discussions. In support of these findings, stakeholders suggested that self-employment is sometimes more promising than going through the employment track of having to look for one of the few existing ICT-enabled positions. More self-employed youth favor their status as self-employed because of higher income earned.

Figure 3: Is your income sufficient to cover your expenses?



The study asked why youth chose self-employment. Responses below:

- I could not find adequate opportunities – 23%
- I was qualified but did not have a connection to find a job – 20%
- Self-employment is a better source of income – 30%
- I prefer to work for myself – 27%

A Student Affairs Officer at the Ghana Telecom University mentioned that "certificate seeking students generally look to self-employ themselves in mobile phone repair or in setting up an internet cafe because these small enterprises often provide the initial level of income that youth are looking for." Overall, these findings suggest that remuneration for entry-level ICT positions is fairly low and that even those who choose to be self-employed may fare better than those in employed positions.

The study analyzed data by sector and found that youth employed in the education and training sector reported the lowest level of income sufficiency with 84 percent not satisfied with their income. Of the four key growth sectors, the study also shows that the banking and financial services sector provides youth with the highest salaries at the entry and mid-levels, with over 80 percent of respondents working in this sector earning above 1,000 GHC per month.

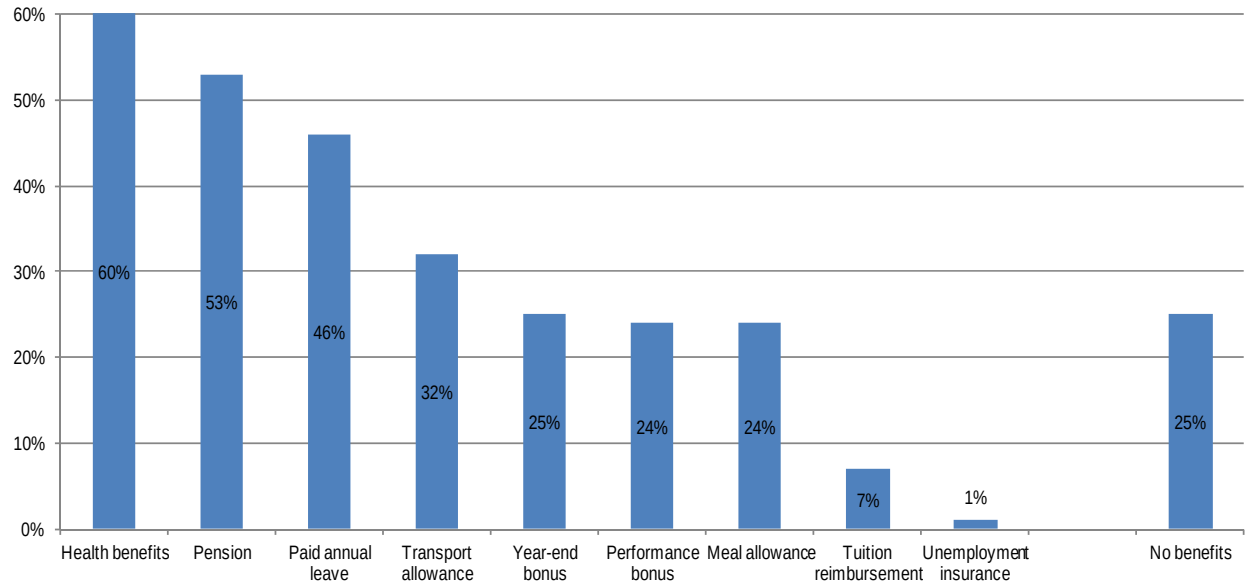
Table 3: Employed Youth's Take-home Pay

	Banking and Financial Services	Information Technology	Telecommunications	Media, Marketing and Advertising
0 - 250 GHC	0%	10%	0%	0%
251 - 500 GHC	0%	20%	0%	20%
501 - 750 GHC	14%	10%	43%	80%
751 - 1000 GHC	0%	50%	29%	0%
1001 - 1250 GHC	43%	0%	0%	0%
1251 - 1500 GHC	14%	0%	0%	0%
Above 1500 GHC	29%	10%	29%	0%
Total	*100%*	*100%*	*100%*	*100%*

Benefits, Job Security, and Workplace Happiness

Another important indicator of job quality is the benefits youth receive as they undertake these digital jobs. Figure 4 illustrates what types of benefits working youth are receiving. More than half of working youth reported receiving health benefits and pension funds which are the only legally enforced requirements in long-term contract work in Ghana. They must be offered to workers as required by the Labor Commission of Ghana. Other benefits that employers have opted to offer youth include paid annual leave (46 percent) and transport allowance (32 percent). Considering high youth unemployment and demand for these jobs in the labor market, it appears that employers do not feel the need to make these employment packages as attractive as they can, and as a result, the quality of these digital jobs overall is yet to be optimal.

Figure 4: Benefits Received By Employed Youth



Over 80 percent of employed youth reported having contracts of at least one year or more, as shown in the Table 4, below. This indicates that employers are offering some level of stability by extending contracts to youth, even though they do not offer a great deal of benefits.

Table 4: Employed Youth with Contract of At Least One Year

	Banking and Financial Services	Information Technology	Telecommunications	Media, Marketing and Advertising
Contract of at least a year	82%	92%	88%	75%
No contract of at least a year	18%	8%	13%	25%

Based on youth focus groups, workplace happiness is an important indicator of job quality. More than half of working youth reported being happy with their current jobs or work situation within the banking and financial services and information technology sectors. For the remaining sectors, despite the fact that many are unhappy or have low morale, few are looking to leave their jobs. This indicates the limited number of ICT-related jobs.

Table 5: Employed Youth, Workplace Happiness

	Banking and Financial Services	Information Technology	Telecommunications	Media, Marketing and Advertising
Happy	59%	58%	38%	38%
Unhappy	12%	17%	25%	25%
Neither	29%	25%	38%	38%

Employers were not able to articulate specific opportunities for advancement or growth within these jobs; however, they felt that having the necessary skill sets is an important contributing factor to career advancement – highlighting the importance of acquiring technical skills in the following areas to advance to mid-level positions: hardware maintenance, software development, network administration, and multimedia design. As shown in Table 6, most youth reported not receiving on-the-job training in the key growth areas, though of the four, banking and telecommunications had the highest reported youth who have received such training.

Table 6: Employed Youth Reporting On-the-job Training

	Banking and Financial Services	Information Technology	Telecommunications	Media, Marketing and Advertising
Yes	41%	18%	38%	13%
No	59%	82%	63%	88%

6. SKILLS GAPS AND TRAINING NEEDS

6.1. SKILLS AND EXPERIENCE VALUED BY EMPLOYERS

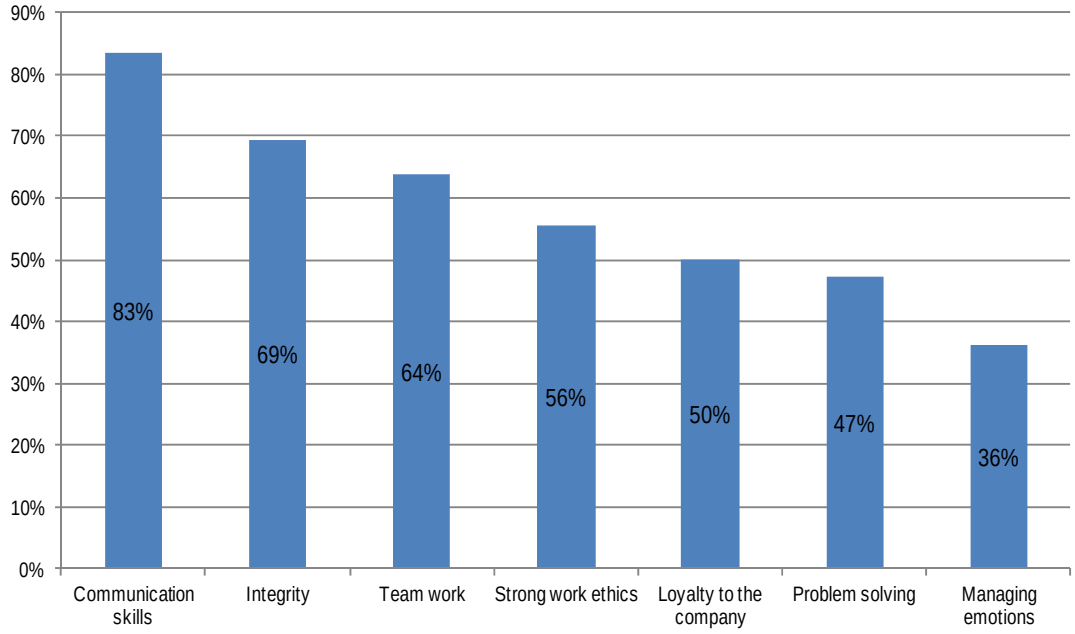
The study focused on both entry- and mid-level decent work opportunities for young people. As such, it asked employers about minimum educational requirements, levels of experience, and specialized IT skills required for the employment opportunities. As indicated in Table 7, for entry-level positions, more than half the employers said they do not expect new entrants to have prior experience – which very few young people know. Employers however want youth to specialize in software development, multimedia design, and network administration. For mid-level positions, the majority are looking for at least one to two years of minimum experience, with at least a bachelor's degree. These positions usually require more advanced ICT skills – hardware maintenance, IT support, and software development.

Table 7: Educational Background, Skills and Experience Required by Employers

How many years of experience required?	**Entry-Level**	**Mid-Level**
None	56%	6%
1-2 years	33%	44%
3-4 years	8%	33%
5-6 years	3%	11%
7 years and above	0%	6%
Minimum education requirements?	**Entry-Level**	**Mid-Level**
Secondary	20%	0%
Technical or vocational	17%	3%
Bachelor's	47%	81%
Master's or PhD	0%	11%
Other	16%	5%
Specialized IT skills required	**Entry-Level**	**Mid-Level**
Software development and service	25%	39%
Multimedia design and development	21%	31%
Mobile services	0%	8%
Hardware maintenance and service	8%	53%
Website development and maintenance	4%	22%
Network administration	17%	36%
Records management	4%	28%
IT help desk support	8%	42%

The labor market survey had questions about broader technical skills and life skills valued by the employers. Other technical skills mentioned were: sales and marketing, customer service, accounting, and administrative skills. In terms of life skills: communication skills, integrity, and team work are considered most important by the employers (see Figure 5).

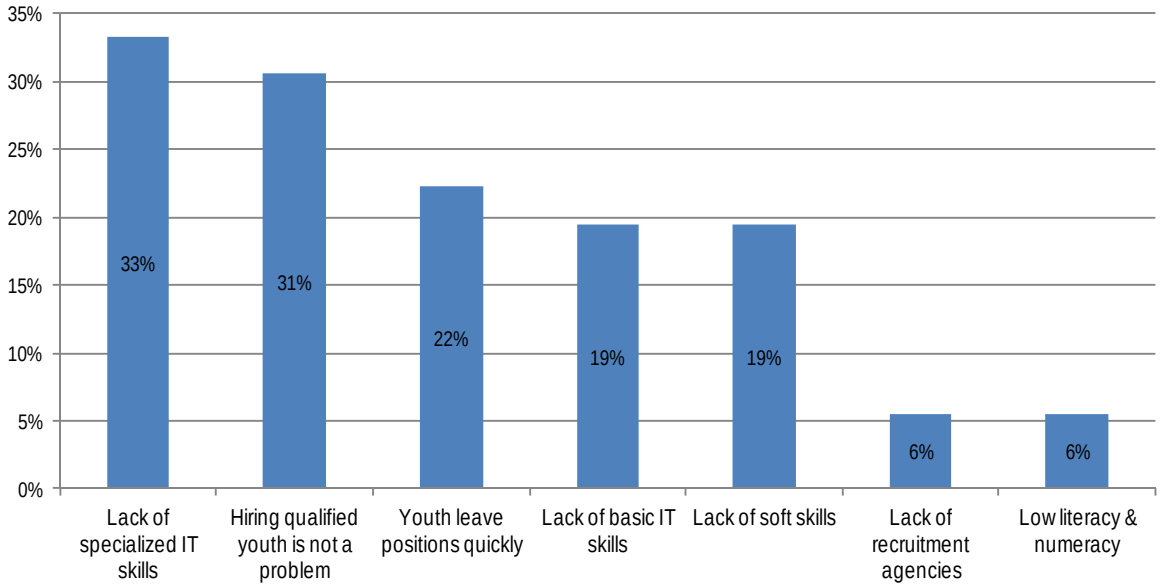
Figure 5: Critical Soft Skills Required By Employers



Another gap is that young people feel computer short courses and certificate programs are inadequate in finding ICT-jobs. They felt employers are looking for university graduates and specific ICT skill sets in most cases. Young people interviewed did not have a good understanding of these specific ICT skills that employers require for ICT-enabled jobs, especially for quality jobs.

The study asked employers whether they face any barriers in hiring young people for new entry-level positions and results are presented in Figure 6. A third of the employers reported young people's lack of specialized ICT skills as a major barrier. Conversely, 31 percent of the employers interviewed felt that hiring youth was not a problem. The next biggest barrier was that youth would leave shortly after being hired (22 percent), followed by a lack of basic IT skills and soft skills (both 19 percent).

Figure 6: Barriers Faced By Employers



6.2. TRAINING NEEDS AND CHALLENGES FACED BY YOUTH

Desired Skills by Youth:

- Computer skills – 35%
- Technical/vocational skills – 3%
- Life skills – 6%
- Reading, writing & mathematics – 6%

The study finds that young people are not prepared to take advantage of these ICT-enabled job opportunities that the labor market offers due to a lack of information and skills. One government official from the Ministry of Employment and Social Welfare said, "Young people are not prepared at all and that most of them need serious ICT skills. They need to be well-trained for employment opportunities."

A stakeholder from a leading training organization said, "Young people are not prepared because of the structure of the education system that is only based on theory, instead of both theory and practice," highlighting the fact that the issue is not merely young people's lack of technical skills but the need to consider the lack of practical skills imparted in the schooling system.

In addition to the issue of young people not understanding the skills that are in demand, there appears to be a misunderstanding between the youth and employers when it comes to methodology (e.g., what is meant by basic ICT skills). Young people interpret basic ICT skills to mean knowing how to use a computer or a laptop; browsing the Internet; and being familiar with the Microsoft Word and Excel programs. Employers expect employees to know how to operate a computer, along with more in-depth usage of Microsoft Office applications. Therefore, employers are looking for more depth in ICT skill sets beyond basic computer usage.

In support of the view that young people need specialized ICT skills, the College Director of NIIT, one of Ghana's most prominent ICT training institutions, reported that youth should have a working level of familiarity with database programs like ORACLE and with Integrated Development Environments (IDEs) like Microsoft's Visual Studio. This indicates that ICT employment necessitates a much higher level of ICT proficiency than the youth realize and that these ICT positions attain a higher degree of competitiveness. Overall, youth may have some knowledge of what it takes to be hired, but they are uninformed about the specific ICT skills that an employer desires, and what may be necessary of them to obtain a quality ICT-enabled position.

There seems to be a few underlying reasons for the many frustrations and gaps related to youth employment and ICT-enabled positions in the country. Human resource staff at employer companies or organizations may not be using effective means to identify top talent for these ICT jobs. There are weak linkages between training institutes and employers, which leads to skills mismatches and gaps.

Young people were asked about challenges faced in securing decent work opportunities. Many talked about the necessity of "knowing someone who can get you a job" even if they felt they were qualified for the jobs that were available. Another frequently cited frustration among youth was the high cost of internet in the country. Even if their peers have computers and high-quality trainers, many youth felt that the lack of internet access as a critical link and challenge for them to maximize their ICT potential. For some respondents, the Internet served as a way to connect virtually to like-minded youth interested in learning ICT skills and putting those skills into practice, especially in website design and HTML programming. Other respondents understood the Internet as a potential training resource with to the ability to individually look up information on Java and C++ coding. Unfortunately for these youth, the high cost of the Internet prevents them from researching/troubleshooting technical problems and expanding their knowledge of ICT-related skills.

One young person said, "Teachers in the classroom will write on the board that you must type 'control S' to save a document, but we don't actually get to press the keys because there are not enough computers.'

Young people reported feeling that the ICT courses are highly theoretical and they do not have the opportunity to go beyond textbook memorization of ICT concepts. This supports employers' perceptions that youth do not have the pre-requisite IT skills since they are not able to access ICT equipment and resources.

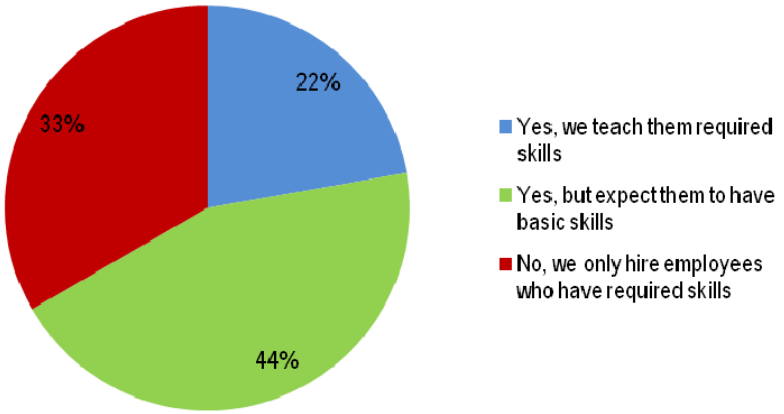
Vulnerable youth interviewed reported feeling that they are disadvantaged due to a lack of exposure to ICT resources at younger ages. Most surveyed youth had completed senior secondary school before having meaningful engagement with computers and technology. Many youth were accessing computers for the first time at the age of 21 and above. They explained that exposure to ICT, let alone computers, is minimal for the average Ghanaian. Some technical/vocational students even cited that basic ICT courses were challenging because they did not know how to type. This widespread lack of exposure to ICT upon completing secondary school increases the challenges youth face in finding gainful employment. Moreover, senior secondary students struggle to enter and pass courses in vocational/technical schools, much less

university/bachelor's ICT programs. Those who do obtain university degrees mostly come from more rigorous secondary school programs where parents and families have the capacity to pay for higher quality primary education and have had long standing access to basic resources such as computers and internet.

7. TRAINING INITIATIVES

One interesting finding from employer interviews is that most companies do not invest in training youth. This is in part because of their expectation that young employees come in with a set of skills required. About four out of every ten employers expect candidates to have basic IT skills while three out of ten employers expect candidates to have all the requisite ICT skills before hiring. Only 22 percent of surveyed employers reported training staff on the job (see Figure 7). Even when 'in-house' training is provided, it is often specific to the company's customized software, and not considered software that is transferable outside the firm. Similarly, only 20 percent of employed youth said they received on-the-job training.

Figure 7: Do You Teach ICT Skills To New Employees? (From the Employer Survey)



Based on the analysis of the types of training by sector, there are four key sectors training youth externally:

- Banking and financial services,
- IT,
- Media, marketing and advertising,
- Hospitality and tourism.

Employers offered relatively few training programs for the following reasons. First of all, for small and medium-sized companies, hiring external training providers or even training staff in-house was not cost effective, especially when there is a large supply of qualified youth. Secondly, the limited number of ICT-enabled positions available means that employers can select only the most experienced or most promising candidates. One HR Manager from a leading bank attested to this explanation by stating that "employers generally expect young employees to have ICT skills." Lastly, due to high turnover rates among young employees, employers may feel it is not worth investing time and resources in training junior staff.

Among the 22 percent of employers that provides on-the-job training, they generally tend to conduct internal training in an effort to introduce youth to their specific IT systems or business processes. There is a small group of companies who regularly hire external organizations to conduct training for new employees.

Interestingly, more than half of the employers (52 percent) claimed they would be willing to pay for training services to better prepare young people in the company. There is a high demand for ICT programs that deliver practical training at low cost to youth.

The government has launched various initiatives to increase young people's exposure to ICT and create employment opportunities. For example, the government unveiled the ICT for Accelerated Development (ICT4D) policy in collaboration with Ghana's largest telecommunication company, RLG. Though it is unclear how young people will be supported to secure employment upon graduation as this partnership aims to incorporate some of the basic ICT-related skills into the country's education system. Under the Better Ghana ICT Project, the Ministry of Environment, Science and Technology has partnered with RLG to distribute free laptops to students and schools with support from GETFUND. Youth and stakeholders reported mixed feelings about this initiative due to perceived corruption in laptop distribution and maintenance.

Another program is the partnership between RLG and the National Youth Employment Programme (NYEP), which enabled tens of thousands of youth (approximately 24,000 as of November 2012) to be trained in ICT-enabled modules. The Ghanaian Ministry of Manpower, Youth and Employment's project plans to engage 100,000 unemployed youth. This initiative appears to be well-received among youth and stakeholders.

In addition, Ghana's government has partnered with the World Bank to launch the e-Ghana initiative in an effort to stimulate economic growth and to create more ICT-enabled positions within the IT-Enabled Services-Business Process Outsourcing (ITES-BPO) industry. The initiative reaches out to Ghana Association of Software and IT Services Companies (GASSCOM) and establishes international BPOs in the country. Annex 3 details further training initiatives and programs in Ghana.

8. RECOMMENDATIONS

The following recommendations are based on the key findings in this study:

- **Defining ICT-Enabled Employment:** As there is a lack of early exposure to ICT by young people and knowledge of what skills ICT-enabled job opportunities entail, a concentrated effort should be placed to provide access to ICT tools and larger awareness of cross-sector career opportunities at the entry and mid-levels. Efforts should focus, in particular, on encouraging young women to apply for ICT positions.

  The study calls for the government and development partners to invest in systems to continuously share valuable training and employment information with young people interested in these jobs in order to narrow identified gaps. The study also makes it clear that employers and key ICT stakeholders are willing and ready to engage in cross-sector collaborations to promote ICT-enabled employment opportunities for young people, as part of their strategy to stimulate growth and address youth unemployment.

- **Sectors:** The BPO sector requires further support to overcome infrastructural and capacity gaps that have prevented the sector from growing in Ghana. As shown, there are promising youth employment opportunities across a variety of growing sectors such as Banking and Financial Services, Information Technology, Telecommunications, and Media, Marketing and Advertising. Other growth sectors that can provide direct and indirect ICT jobs include Education and Training, Healthcare Services, Oil and Gas, and Hospitality and Tourism. These sectors can move forward to provide the necessary skills training and experience for young Ghanaians that could later be utilized in the BPO sector.

- **Geographic Targets:** As the study focused on the Accra and Kumasi areas of Ghana, further research would be required in other peri-urban and rural areas. Though not covered in the study as a growth sector, the agricultural sector will require that young people working across various rural-based value chains utilize ICT tools for administrative, accounting, and marketing of commodities. In all regions, requisite ICT equipment, power, and connectivity infrastructure must be in place to foster an enabling environment for more youth to be exposed to ICT-enabled jobs as well as to create those jobs.

- **Career Advancement:** Efforts should focus more on hiring based on qualifying exams for ICT jobseekers to assess level of ICT knowledge. As mid-level ICT-enabled jobs have an increased perception of being quality employment, employers and training institutions need to provide more awareness of what entry-level opportunities exist and the accompanying career track from entry to mid-level. Highlighting career profiles and salary opportunities across sectors, such as in the banking and financial services sector, would also attract young people.

  Given the large number of unemployed within our study area, as well as rural Ghana, those interested in self-employment should be supported with additional entrepreneurship training and support services. Business incubator programs should be increased, for youth who utilize their ICT skills for self-employment.

- **Basic ICT Skills and Life Skills:** In addition to early ICT exposure, basic ICT training provided at all levels of education should ensure more access to computing devices, productivity applications, and skills training on functional typing. Economically accessible internet connectivity will also provide young people with the opportunity for self-learning using online tools and free courses.

  Young people must also be adequately trained in both technical and soft skills to take advantage of the new employment opportunities. Training providers and other educational institutions should integrate life skills and general technical skills (such as customer service, sales, and marketing) within the core curriculum. With employers listing communication skills, integrity, and team work as most essential life skills, employers and training providers can create sector specific curricula that highlight the use of these skills within ICT-enabled work settings.

- **Career Guidance:** Lack of knowledge about the broad ICT career opportunities in Ghana, inhibits young Ghanaians from pursuing ICT-enabled careers. Career guidance programs can help provide necessary information and support for transitioning from skills training to employment. First, by strengthening linkages with the private sector, training providers and other career guidance programs will be able to develop initiatives tailored for the current ICT needs of the labor market. Access to internships will also provide graduates with basic ICT skills, valuable on-the-job experience and networks that improve their opportunity to gain full-time employment. Conversely, employers can interact with current students via structured mentorship programs with local training institutions, allowing them to identify promising candidates.

  As Ghana's ICT needs continue to expand in more specialized ICT-enabled areas, particularly in the banking and financial sector and other growth sectors, more focused support and industry cooperation will be needed to provide short-term and continuous education opportunities that meet these skill needs. With many firms providing a minimum of one year contracts, yet not investing in in-house training, public-private partnerships can be developed that for young people the required training whilst companies commit to accommodating for class schedules or other support needed to allow for learners to obtain additional training.

- **Training Providers and Initiatives:** Training challenges in Ghana include the need to improve ICT-related education and provide it earlier in the educational experience of the young person, ensuring that necessary ICT resources are available in public education institutions, and implementing training programs that provide youth with the practical skills necessary for employment.

  Current and future training providers and initiatives will need to undertake a variety of strategies to increase placement outcomes. In addition to other recommendations mentioned above, training providers should also seek constant feedback on the quality of training and youth from employers. This involves instituting a comprehensive monitoring and evaluation system that is able to track graduates at completion, six months, and one year after training. Tracking quantitative and qualitative outcomes will provide data for improvements to be made in curricula, staff skills, private sector partnerships, and communication to young people themselves to ensure that training result in closing the current gap for ICT-enabled employment.

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ANALYSIS of ICT-ENABLED YOUTH EMPLOYMENT in GHANA, KENYA, and SOUTH AFRICA

VOLUME 2: Annexes—Ghana

OCTOBER 2013

Appendices

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Annex A: List of Employers and Stakeholders Interviewed

Employers Interviewed		
Company		Title of Company Representative Interviewed
1	Ecobank	Deputy Head, IT
2	Randcard	Chief Executive Officer
3	Nella Interactive	Director
4	Samsung	HR Manager
5	Soft Tribe	CEO
6	Atlantic Computer	Head of Administration/ HR
7	Woezer Travel & Tours	CEO
8	Admitelecom Ghana Limited	Managing Director
9	Sci Fi Web Technologies	Chief Technical Officer
10	Altimate publication	HR Manager
11	Ashesi	Head of Computer Science Department
12	Oak Plaza Hotel	ICT Manager
13	RLG	Head of Electronics, Plan Engineer
14	UBA	Head of IT Operations
15	Lister Hospital	Administrative Assistant
16	Oil Channel	Trader
17	Ostec	Managing Director
18	Zenith Bank	Head of HR
19	Truzeal Ghana Limited	CEO
20	Multiple Concepts Group Ltd.	HR/Administrative Executive
21	Jay Innovations	General Manager
22	Extreme Life	Managing Director
23	Flourish Multimedia Ltd	CEO
24	Fiesta Royale Hotel	Receptionist
25	Rostechz Group of Companies	Operations Manager
26	Expresso	HR Manager
27	The Abraaj Group	NA
28	SSNIT	Corporate Affairs Officer
29	Atlantic International Holding co. LTD	Head of HR/Administration
30	Dream Oval	Product Support & User Experience
31	Calbank	Operations Supervisor
32	Population Council	Finance and Administration Manager
33	Miklin Hotel	Customer Service Manager
34	SG-SSB	Head, Office Automation Services
35	IPMC	Head of Training
36	Metropolitan Life Ghana	Corporate Business Executive

Stakeholders Interviewed		
	Organization	**Title of Representative Interviewed**
1	Ministry of Communication	Director, Research, Statistics & Information Management
2	NIIT	College Director
3	RLG	Accountant
4	Ministry of Employment and Social Welfare	Assistant Director
5	KNUST	System Analyst
6	National Youth Authority	Director, ICT
7	Global code Limited	Chief Executive Officer
8	Africa ICT Right	Executive Director
9	Ghana Multimedia Center	ICT System Administrator
10	Ghana Telecom University	Student Affairs Officer
11	Curious Minds	Program & Public Relations Officer
12	Ashesi	Assistant Director of Career Services

Annex B: Data Collection Tools

1) Employer Survey
2) Youth survey
3) Employer interview guide
4) Key informant interview guide
5) Youth focus group discussion guide

1. EMPLOYER SURVEY

The researcher shall administer this survey during one-on-one interview with an employer. The researcher should note any qualitative information that the employer adds during the administration of the survey. If there is time remaining after the survey is completed, the researcher will ask the employer questions from the interview guide. Begin by asking employer if he/she understands the purpose of the interview. If not, explain how the study is trying to investigate prospects for quality youth employment in Ghana. The survey should take about 30–45 minutes to complete.

Name of Company: _____
Sector of Focus: _____
Name of Interviewee: _____
Title _____
Address: _____
Tel and Email: _____
Date of Interview: _____

#	Question and Code (C)	C	Notes
	Basic Information		
1	1= Banking and Financial Services; 2= Telecommunications; 3= Information technology; 4=Education and Training; 5=Media, Marketing and Advertising; 6=Oil and Gas; 7= Hotel and Hospitality/Tourism; 7= Healthcare Services; 9=Other:		
2	Total number of employees in your company		
	Recruitment Levels (overall)		
3	How many employees do you estimate that your company will recruit into **entry-level** positions (technical and/or supervisory) over the next two to three years? 1 = 1-3; 2 = 4-9; 3 = 10-19; 4 = 20-49; 5 = 50-99; 6 = >100; 7 = not sure		
4	How many employees do you estimate that your company will recruit into **mid-level** positions (technical and/or supervisory) over the next two to three years? 1 = 1-3; 2 = 4-9; 3 = 10-19; 4 = 20-49; 5 = 50-99; 6 = >100; 7 = not sure		
	ICT-enabled Occupations and Required Qualifications		
	Entry-level Positions & Required Qualifications		
5	In terms of projected recruitment levels, what are the most prominent **entry-level** occupations in your business that require IT skills? ***(List them)***		
6	Generally speaking, what is the minimum educational requirement for these occupations? 1 = None; 2 = Primary; 3 = JSS or Junior Level Education; 4 = SSS or Senor Secondary Education; 5 = Technical or Vocational Training; 6= University-Bachelors Level; 7 = University-Masters/PHD Level; 8 = Other:		
7	Generally speaking, how many years of experience are required for an applicant to be hired for these occupations? 1 = None; 2 = 1-2 years; 3 = 3-4 years; 4 = 5-6 years; 5 = 7 years & above		

8	Amongst those **entry-level** occupations listed above, what technical skills are required? (multiple selection) 1 = Sales & marketing; 2 = Customer service; 3 = Administrative; 4 = Accounting; 5 = Basic IT skills; 6 = Specialized IT skills		
9	If you selected 6 above, which specialized IT skills are required for these **entry-level** occupations? (multiple selection) 1 = Software development / service; 2 = Multimedia design and development; 3 = Mobile services; 4 = Hardware maintenance / service; 5 = Website development / maintenance; 6 = Network administration; 7 = Records management; 8 = Accounts payable / billing specialists; 9 = IT help desk support; 10 = Other:		
	Mid-level Positions & Required Qualifications		
10	In terms of projected recruitment levels, what are the most prominent **mid-level** occupations in your business that require IT skills?		
11	Generally speaking, what is the minimum educational requirement for these occupations? 1 = None; 2 = Primary; 3 = Grade 9; 4 = Grade 12 or equivalent; 5 = University; 6 = Technical or vocational; 7 = Other:		
12	Generally speaking, how many years of experience are required for an applicant to be hired for these occupations? 1 = None; 2 = 1-2 years; 3 = 3-4 years; 4 = 5-6 years; 5 = 7 years & above		
13	Amongst those **mid-level** occupations listed above, what technical skills are required? (multiple selection) 1 = Sales & marketing; 2 = Customer service; 3 = Administrative; 4 = Accounting; 5 = Basic IT skills; 6 = Specialized IT skills		
14	If you selected 6 above, which specialized IT skills are required for these **mid-level** occupations? (**multiple selection**) 1= Software development/service; 2 = Multimedia design and development 3 = Mobile services; 4 = Hardware maintenance / service; 5 = Website development / maintenance; 6 = Network administration; 7 = Records management; 8 = Accounts payable / billing specialists; 9 = IT help desk support; 10 = Other (specify):		
	ICT-enabled Positions & Required Soft Skills		
15	Amongst those entry-level and mid-level occupations identified in questions 8 and 13, what soft skills are most important? (multiple selection) 1 = Team work; 2 = Strong work ethics; 3 = Integrity; 4 = Loyalty to the company; 5 = Communication skills; 6 = Managing emotions; 7 = Problem solving; 8 = Other (specify):		
	Barriers to Youth Recruitment		
16	What barriers do you face in hiring qualified young employees for the occupations identified in questions 8 and 13? (multiple selection) 1 = Hiring qualified youth not a problem; 2 = High turnover; 3 = Lack of basic IT skills 3 = Lack of specialized IT skills; 4 = Lack of soft skills; 5 = Lack of recruitment agencies; 6 = Gaps in basic skills (literacy or numeracy); 7 = N/A (not hiring youth); 8 = Other (specify):		
	Training		
17	Do you teach computer/ICT skills to new employees on the job?		

	1 = Yes, we teach them required skills; 2 = Yes, but expect them to have basic skills; 3 = No, we only hire those with demonstrated skills; 4 = Other (specify):		
18	Are you paying or willing to pay for training services to better prepare young people to join your company? 1 = Yes; 2 = No If no, why/not?		
	Benefits		
19	Do **entry-level** employees receive any of the following employment benefits at your business? (multiple selection) 1 = Paid leave; 2 = Health benefits; 3 = Pension/provident fund; 4 = Year-end bonus; 5 = Performance bonus; 6 = Unemployment insurance; 7 = Tuition reimbursement; 8 = Transport allowance; 9 = Meals (or meal allowance); 10 = 13th check; 11 = No benefits; 12 = Other (specify): ..... 13 = don't know or prefer not to answer		
20	Do **mid-level** employees receive any of the following employment benefits at your business? (multiple selection) 1 = Paid leave; 2 = Health benefits; 3 = Pension/provident fund; 4 = Year-end bonus; 5 = Performance bonus; 6 = Unemployment insurance; 7 = Tuition reimbursement; 8 = Transport allowance; 9 = Meals (or meal allowance); 10 = No benefits; 11 = Other (specify): ..... 12 = don't know or prefer not to answer		
21	What would you estimate is the average monthly take-home pay for **entry-level** employees in the occupations identified above? (GHS) 1 = Unpaid; 2 = 4,001-8,000; 3 = 8,001-12,000; 4 = 12,001-16,000; 5 = 16,001-20,000; 6 = 20,001-24,000; 7 = >24,000; 8 = don't know or prefer not to answer		
22	What would you estimate is the average monthly take-home pay for **mid-level** employees in the occupations identified above? (GHS) 1 =Unpaid; 2 = 0-500GHC; 3 = 501-1000GHC; 4 = 1001-1500GHC; 5 = 1501-2000GHC; 6 = 2001- 2500GHC; 7 = 2501-3000GHC; 8 = 3001-3500GHC; 9=3501-4000GHC; 10=4001 and above; 11= Don't know or prefer not to answer		
23	Do you have a formal contract of employment with your **entry-level** employees? 1 = Yes; 2 = No If no, why/not?		
24	If yes above, what is the typical duration of your contracts? 1 = ≤1 month; 2 = 2 – 3 months; 3 = 4 – 6 months; 4 = 7 – 11 months; 5 = ≥12 months; 6 = Other (specify):		
25	Do you have a formal contract of employment with your **mid-level** employees? 1 = Yes; 2 = No; If no, why/not?		
26	If yes above, what is the typical duration of your contracts? 1 = ≤1 month; 2 = 2 – 3 months; 3 = 4 – 6 months; 4 = 7 – 11 months; 5 = ≥12 months; 6 = Other (specify):		

2. RAPID YOUTH SURVEY

[Note: Researcher to conduct one-on-one interviews with young people and complete this survey after focus groups]

#	Question and Code	C	Notes
Section I – Identification			
1	What is your age? 1 = 15-21; 2 = 22-24; 3 = 25 to 29; 4= Older than 29		
2	Gender 1 = Male; 2 = Female		
Section II – Education			
3	What is the highest level of formal education you successfully completed? ***Select only one.*** 1 = None; 2 = Primary; 3 = JSS or Junior Level Education; 4 = SSS or Senior Secondary Education; 5 = Technical or Vocational; 6 = University-Bachelors level; 7 = University-Masters/PHD Level; 8 = Other		
4	Are you currently enrolled in school or a training program? ***If no, skip to Q#6***. 1 = Yes; 2 = No		
5	If yes, what level? ***Specify to the extent possible.*** 1 = Primary school; 2 = Secondary school; 3 = University/tertiary; 4 = Technical/vocational; 5 = Short course (specify): ..... 6 = Other:		
6	Do you feel prepared to find work with your educational background? ***If yes, skip to Q#8.*** 1 = Yes; 2 = No		
7	If not, which skills do you feel are lacking? 1 = Computer skills; 2 = Starting my own business; 3 = Reading, writing & mathematical skills; 4 = Technical skills (specify): ..... 5 = Soft skills (specify: e.g., communication skills, team work): ..... 6 = Other (specify):		
Section III – Work			
8	What is your sector of work? 1 = Banking and Financial Services; 2 = Telecommunications; 3 = Information Technology; 4 = Education and Training; 5 = Media, Marketing, and Advertising; 6 = Oil and Gas; 7 = Hospitality and Tourism; 8 = Healthcare Services; 9 = Not applicable 10 = Other:		
9	Currently, you are, 1 = Employed full-time – salaried job (***move on to Q11*** *and complete Section III.A. only; and answer Q31*); 2 = Employed part-time – salaried job (***move on to Q11*** *and complete Section III.A. only; and answer Q31*); 3 = Self-employed, running a small, unregistered business or providing services for a fee (***skip to Q21****, complete Section III.B. only; and answer Q31*); 4 = Self-employed, owner of a registered business (***skip to Q21*** *and complete Section III.B. only; and answer Q31*); 5 = Supporting a family business (***move on to Q11*** *and complete Section III.A. only; and answer Q31*); 6 = Casual laborer (***move on to Q11*** *and complete Section III.A. only; and answer Q31*); 7 = Not working (**move on to Q31**, *end of survey*)		
10	What is your current position (**note** this is additional information)		
*Based on the employment status of young people, interviewer to choose either section III.A or section III.B (**not both**).* **III.A. For Employed youth**			

11	Do you receive any pay or compensation for your work? ***If no, skip to #14***. 1 = Yes; 2 = No		
12	How much was your take-home pay last month? 1 = 0-250GHC; 2 = 251-500GHC; 3 = 501-750GHC; 4 = 751-1000GHC; 5 = 1001-1250GHC; 6 = 1251-1500GHC; 7= Above 1500 GHC; 8 = Don't know or prefer not to answer		
13	To what extent are your earnings sufficient to pay your ongoing expenses (including, if relevant, contributing to your household expenditure, feeding your family, etc)? 1 = Insufficient; 2 = Almost sufficient; 3 = Sufficient		
14	Do you receive any of the following employment benefits? (***multiple selection, unless option 11 is chosen***) 1 = Paid annual leave; 2 = Health insurance; 3 = Pension/provident fund contribution from employer; 4 = Year-end bonus; 5 = Performance bonus; 6 = Unemployment insurance; 7 = Tuition reimbursement; 8 = Transport allowance; 9 = Meals (allowance); 10 = Paid maternal leave; 11 = Paid sick leave; 12 = No benefits 13 = Others (specify):		
15	What level of computer/ICT skills is required for your job? 1 = Basic (e.g., email, internet use, some familiarity with Microsoft Office for admin work); 2 = Intermediate (e.g., proficiency with Microsoft Office including Word, PowerPoint, Excel); 3 = Intermediate (e.g., call center-related ICT skills); 4 = ICT hardware skills (e.g., computer repair); 5 = Advanced ICT skills (e.g., networking, website design, software, mobile development)		
16	How did you learn these skills (***Multiple selection***)? 1 = School; 2 = On-the-job; 3 = Specialized IT course; 4 = Other (specify):		
17	Did you receive any ICT-related job training sponsored by your employer in the last year? 1 = Yes; 2 = No		
18	What ICT skills do you think you will need to learn to advance your career? (open ended)		
19	Do you currently have an employment contract of at least one year? 1 = Yes; 2 = No		
20	Overall, are you happy with your current work? 1 = Yes; 2 = No; 3 = Neither happy nor unhappy		
III.B. For self-employed youth			
21	Why are you self-employed? 1 = I can't find a job – no qualifications; 2 = I can't find a job – no connections; 3 = Can't find adequate opportunities; 4 = Better income; 5 = I prefer to work for myself; 6 = There was already a family business; 7 = Other:		
22	How are you utilizing ICT in your current operations? (open ended)		
23	What ICT skills do you think you will need to learn to grow your business?		
24	Were you able to break even and make profits after paying all business expenses last month? If no, skip to Q31. 1 = Yes; 2 = No		
25	If yes, how much did you make in net profits? 1 = ≤GHS500; 2 = GHS501 - 1000; 3 = GHS1001 - 1500; 4 = GHS1501 - 2000; 5 = GHS2001 - 2500; 6 = GHS2501 - 3000; 7 = >GHS3000		
26	To what extent are your earnings sufficient to pay your ongoing expenses (including, if relevant, contributing to your household expenditure, feeding your family, etc)? 1 = Insufficient; 2 = Almost sufficient; 3 = Sufficient		

27	What level of computer/ICT skills is required for your business? 1 = Basic (e.g., email, internet use, some familiarity with Microsoft Office for admin work); 2 = Intermediate (e.g., proficiency with Microsoft Office including Word, PowerPoint, Excel); 3 = Intermediate (e.g., call center-related ICT skills); 4 = ICT hardware skills (e.g., computer repair); 5 = Advanced ICT skills (e.g., networking, website design, software, mobile development)		
28	How did you learn these skills (**specify**)? 1 = School; 2 = On-the-job; 3 = Specialized IT course (specify):		
29	Are you confident that you will continue to operate this business in a year's time? 1 = Yes; 2 = No		
30	Overall, are you happy with your current work? 1 = Yes; 2 = No; 3 = Neither happy nor unhappy		
Note: All participants must answer this question			
31	Are you currently looking for a job? (*because you are not employed, not making enough money and need extra income, or looking for a new job)* 1 = Yes; 2 = No		

3. EMPLOYER INTERVIEW GUIDE

Based on the information already provided, ask relevant follow-up questions to better understand the issues related to ICT-enabled youth employment. Questions may include:

From your knowledge, what are the promising economic sectors (and sub-sectors) for ICT-enabled youth employment presently and in the near future?

Are employers willing to train youth to gain ICT skills? Or do they expect youth to possess some level of ICT proficiency? If so, what is it for entry-level and mid-level?

How can young people in this country be better prepared for these existing or upcoming ICT-enabled jobs?

Are you working with specific training providers who train your young employees (or training them yourself)? If so, which ones and why?

When it comes to hiring new employees, do you encounter different challenges in regard to male and female employees?

4. Key Informant Interview Guide

Name of Organization:	.....
Type of Organization:	Donor / NGO / Education Institution / Government (*circle one*)
Name of Interviewee:	.....
Title:	.....
Address:	.....
Tel:	.....
Email:	.....

Note to interviewer: Introduce yourself, the purpose of the study, and the goal of this interview. Depending on the focus of each organization, ask relevant questions.

What youth-oriented training activities or programs is your organization /institution supporting? *Prompt for project activities, donors, partners, etc.*

What do you think youth consider to be a quality job in this country? *Prompt for local definition of decent work.*

From your knowledge, what are the promising economic growth sectors/industries for youth employment presently and in the near future?

What are specific employment or enterprise development opportunities that exist within these sectors/industries for youth? Do you know of promising opportunities or occupations for youth that specifically focused on ICT-enabled employment?

How would you assess the quality of these employment opportunities? *Give examples such as fair compensation, benefits, career advancement, job security, etc.*

How well do you think Ghanaian youth are prepared for these positions?

What are the skills (both technical and soft skills) and qualifications required for these jobs? Do you know what types of ICT skills may be required? *Prompt for whether basic ICT skills are needed, or more specific technical skills.*

What would you consider be some innovative programs or policies in place to support youth employment and entrepreneurship in Ghana?

Is there anyone else in your organization or outside your organization that you think is well informed about these topics that I/we should get in touch with?

5. Youth Focus Group Discussion Guide

Facilitator welcomes group and thanks youth for their participation. Facilitator explains the process and purpose:

- We are here to conduct some research on decent work for youth. We want to have a discussion, which will be about an hour, to learn about the opportunities for youth employment, particularly for ICT-enabled jobs in certain sectors:
    - Provide a definition and examples of ICT-enabled jobs: those jobs that require some technological, IT, etc, related activities, such as using a computer, or Microsoft Word, or operating a switch board, or using the internet. This helps one perform another activity
    - ICT-enabled jobs in target: business process outsourcing (BPO), information technology (IT Help Desk support, IT maintenance, website development, and website developer), financial and banking services, telecommunications
    - What you think about these jobs and your experience seeking these ICT-enabled jobs in target industries. Particular questions are related to access to and quality these jobs, interest levels among young people, skill required (and how you have developed those skills or barriers faced), and career advancement opportunities.
- Your voices and thoughts will lead us to better support youth. Your information will be kept confidential. Your responses will not be shared with your employer or others in your workplace.
- We encourage everyone to be honest and open. Feel free to express different opinions. If you have any questions, feel free to ask at the end of our time. If you don't want to answer, you don't have to do so.
- We have a short, anonymous survey for you to fill out for about five minutes after the FGD to collect basic information about the group.

Ask each participant to provide a brief description; facilitator begins the process. Begin with a discussion of participants' understanding of "ICT-enabled" jobs, and some discussion around one or two examples to contextualize the conversation.

General Questions

1) Based on your knowledge, which industries or types of companies and enterprises are creating the most jobs for young people (29 years of age or younger)? Which industries or types of companies and enterprises are you most interested in?

2) What kinds of jobs can young people (29 or younger) find within these industries, companies or enterprises? What kinds of jobs would you ideally want? *Probe for both formal and informal, public and private sectors, and for both young men and women.*

3) What do you consider to be a good job? *If needed, give examples such as wages, benefits, contract type–based on our definition of "decent work".*

Specific Questions for Employed Youth

4) What are the fastest growing ICT-enabled job opportunities in your company or sector?

5) What ICT skills are most critical in your job function?

6) How and where did you learn those ICT skills (prior to joining the company or on the job)? Did you receive ICT training sponsored by your employer in the last year (specify what kind)? Challenges faced in learning these skills?

7) Are there other ICT skills you desire to learn to advance your career in your current field (specify)? Where are you planning to learn them? What opportunities do you see for career growth?

8) Are you happy with your current work (thinking about wage, benefits, job satisfaction, security, etc) – why/not? *Probing questions:*

    a. Do you feel you have the skills necessary to do your job? How did you get trained? If you don't feel prepared, what are some challenges you are facing at work?

    b. Do you think you have a stable job? Do you find your work fulfilling and rewarding?

    c. Does your job pay well? Do you get any benefits? If so, what kinds?

    d. Do you involuntarily have to work more hours than what you get paid for?

    e. Do you currently have an employment contract for at least one year?

    f. Are you confident that your employer will not require you to quit your job within a year? Why/not?

    g. Do you worry about your safety at work or on your way to and from work (e.g., coming home after late shifts)?

    h. What opportunities do you see for career growth? Do you think you have the necessary skills and experience to take these opportunities? If not, what types of support do you need?

Specific Questions for Self-Employed Youth

9) What is your experience running this ICT-enabled small business? What are/were some key challenges faced? *Probe for specific types of business and different experiences among youth.*

10) What skills are most critical in your ICT-enabled job function? How did you learn those ICT skills? Are there other ICT skills you desire to learn to grow your business?

11) Why are you self-employed? Do you prefer to be self-employed – why/not?

12) Do you consider what you are doing good business in terms of income, growth prospects, etc? *Probing questions*:

    a. Are you breaking even and making net profits – why/not?

    b. Do you consider your work stable? Fulfilling? How so?

    c. Are you confident that you will be able to continue operating in two years?

Specific Questions for Unemployed Youth

13) Are young people like yourself interested in jobs requiring ICT skills in call centers, or in the retail, ICT services and/or finance and accounting sectors? Which of these industries or companies are you most interested in? Why?

14) What kinds of ICT skills do you think you need to access these jobs? How can young people obtain these skills? *Probe for access to and quality of skills training programs, and gaps.*

15) More broadly, what other types of support or networks do young people need to better access these types of jobs?

16) What do you think about the quality of these ICT-enabled jobs based on your knowledge?
If needed, give examples such as wages, benefits, contract type–based on our definition of "decent work".

Annex C: ICT Training Initiatives, Sample Donor and Government-Supported Programs, and Training Institutions

General Initiatives			
Name	**Organizations Involved**	**Location**	**Description**
Peace Corps ICT Program	Peace Corps in Ghana	Nationwide	Trained over 5000 Ghanaian youth and adults in basic ICT skills
Africa ICT Right (AIR)'s initiatives	AIR, an Accra-based-Ghanaian non-profit dedicated to bridging the ICT divide	Nationwide, mostly rural Ghana	School PC Program, ICT Training Program for Teachers, Community Innovation Center (CIC), Content Development Program
Youth Enterprises and Skills Development Centre (YESDC)	YESDC is a private organization that collaborates with the public sector (i.e., NYEP and GYEEDA)	Nationwide	Many of its initiatives incorporate mobile phone repair and ICT training modules and "provision of simple equipments to facilitate their operations"
i2CAP (I Too Can Program)	Ghana-India Kofi Annan Centre of Excellence in ICT	Accra	"Builds programming skills among students in Senior Secondary Schools" and hosts computer programming competitions to showcase their skills
Donor Program			
Name	**Donor (Partners)**	**Location**	**Description**
Ghana Senior High Schools Internet Access Project	USAID (MOE, GES, GESCI and Vodafone)	Nationwide	Project activities included an "installation of connectivity" in 400 senior high schools and reevaluated how ICT is integrated into the curriculum
Government Programs			
Name	**Government Agency**	**Location**	**Description**
Community Information Centre Initiative	Ministry of Communications, through its agency Ghana Investment Fund for Electronic Communications (GIFEC)	Various	Construction of 230 Community Information Centres (CICs) in remote regions to provide internet access to students and the larger community as well as to "provide the opportunity for ICT formal and informal training in rural and deprived communities"
Better Ghana ICT Project	The Ministry of Environment, Science and Technology with the support and collaboration of Ministry of Education, the Ministry of Communication and the GETFUND	Nationwide	Distribution of free laptops to students and universities

The School Connectivity Project	The Ministry of Education and the Ministry of Communication through GIFEC	Nationwide	Provides educational institutions with high speed computers, printers, scanners, projectors and servers and linking them with internet access in order to provide ICT skills and knowledge to students among other things
Girls in ICT Program	Ministry of Communications	Accra	Training program for 160 school children drawn from sixteen basic schools in Accra that seeks to increase the number of girls studying ICT at all levels of education system in Ghana
The Library Connectivity Project	GIFEC in collaboration with the Ghana Library Board.	Nationwide	Provide computer, accessories and internet connectivity to ten Regional Digital Libraries, ten Mobile Digital-Cottages and roll fifty-three District Digital Library and Information Centers (DDLICs) in subsequent years
ICT Capacity Building	GIFEC	Nationwide	Intends to fund the provision of basic ICT Training to over four thousand (4000) people at underserved and unserved communities using the CIC facility by the end of 2013

Training Institutions			
Name	**Organization Type**	**Location**	**Organization Description**
Ghana-India Kofi Annan Centre of Excellence in ICT	Public	Accra	Offers training to ICT professionals, consulting services, and conducts research. Participants can choose from a broad menu of course offerings in networking, web development and software training with an emphasis to developing practical hands-on skills
NIIT Ghana	Private	Worldwide	Global company that has seven centers in Ghana, with a capacity of training more than 15,000 students per annum. Offers both short-term (ranging from 40-600 hours, in Cats Programs, meant for people who want to learn in-depth about a specific technology) and long-term programs (in network and software engineering)
Kwame Nkrumah University of Science and Technology	Public	Kumasi	Courses open to the general public as well as KNUST student in areas ranging from 2-4 weeks and on skill levels varying from beginner to specialized
Ashesi University	Private, Non-profit University	Eastern Region/Accra	Includes a Computer Science and Management Information Systems degrees. Utilizes an industry-responsive curriculum that offers concentrations to provide skills in industries skills for telecom, oil and gas, and light manufacturing

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