GEARING UP INTERNET LITERACY AND ACCESS FOR STUDENTS (GILAS)

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The Situation

The National Secondary Assessment Test (NSAT) conducted by the Department of Education in 2005 showed that the average Filipino high school student has an achievement rate of only 47% in a system where the theoretical passing mark is 75%. In a country where only 33 graduate from high school out of every 100 students who start out in public elementary schools, this does not speak well of the effectiveness of the public education system. Severe underinvestment in the public education sector in the last two decades is certainly a major culprit, with the government's budget for education translating to only the equivalent of US$114 per student per year, the lowest in the ASEAN region. With very little resources at its disposal, the Department of Education is hard pressed to resolve basic resources backlog problems that have accumulated over the years. For Fiscal Year 2005 for example, the running count of shortages were as follows: 57,930 classrooms, 2.24 Million desks and chairs, and 20,874 school teachers.

The Problem

While the Department of Education slowly tries to address more basic problems that plague the basic education system, advances in digital technology are rapidly changing the shape of our everyday lives. Ever-increasing categories of day-to-day activities are becoming exclusively Internet accessible only. Government services and commercial transactions closed over the World Wide Web increase exponentially every year. Online resources provide a plethora of information available at the click of a button, making it the easiest and most efficient way to do most kinds of research. Access to communication is slowly making traditional postal service obsolete – and when you consider VOIP and video conferencing, Internet protocol is slowly dominating all forms of communication. All these technological revolutions in turn demand significant changes from our basic educational system as the Filipino youth suffer the additional risk of being in a world that is increasingly digital.

Internet literacy, or Information Literacy, as others call it, has become an imperative today, and that imperative will only increase going forward. Companies of today have raised the bar for new hires (indeed even colleges have likewise raised their standards for new admissions), requiring proof of Information Literacy as part of the minimum qualifications.

Sadly, the Philippine government remains heavily burdened by the task of improving on even more basic resource shortages in the system as the digital divide in the Philippines grows unacceptably wide. Before January 2005, only about 308 (below 6%) out of the of the country's 5,940 public high schools had facilities that give students training for and access to the Internet. In contrast, most private schools in the country provide both access and formal training on computers and Internet- based research for their students.

It is clear that massive intervention from the private sector is needed in the digital education of the nation's poor, whose only access to education lies in the public high school system.

The Internet as a Solution

Bridging the digital divide by making the Internet accessible to public school students will provide a cost-effective solution for the youth to become more competitive and skilled as they face an increasingly globalized world. The Internet marginalizes those who do not have access to its vast wealth of knowledge and opportunity. Thus, very simply, the solution to the de-marginalization of the Filipino youth is to provide them widespread access to the Internet. By providing it to secondary level educational facilities, training and literacy can then commence at a faster pace and on a wider scale.

The benefits of a school having an Internet-connected computer laboratory are numerous. Access to the World Wide Web alleviates the plight of the public high school system in two direct ways:

1) It directly addresses the shortage and inadequacy of public school learning materials such as library selections, textbooks and audio visual resources by providing a wealth the ocean of information that the Internet offers with its online libraries, databases and journal archives.

2) Providing Internet access to public school students eases the problem of high student-teacher ratios and engages students in alternative means of education, as the promotes self-study and independent research outside the classroom, and the Internet is able to give teachers interactive and effective teaching supplementary materials. Also, this has a potential to accelerate student learning by collaborative activities with other students in Internet-connected schools.

However, the value of bridging of the digital divide in the Philippine public schools will benefit the students most after they finish their schooling. Having access to Internet-connected computer laboratories in school will equip these students with the skills necessary to compete for employment in an increasingly technology-driven world market by developing their computer skills, their ability to manage transactions online, and their technological know-how.

Government Initiatives to Address the Digital Divide

In the year 2002, the government, through the Department of Trade and Industry (DTI) saw the establishment of computer laboratories as a potential solution to the country's deteriorating public education standard, and acted upon it by providing computer laboratories to a total of 2,096 out of the 5,940 public schools in the Philippines through its Personal Computers for Public Schools (PCPS) program. It was able to provide recipient schools with facilities that have at least ten computers each, but it was unable to benefit schools in remote areas in the country, and did not include Internet connectivity. However, most of these computers are still in good working condition today, and provide a relevant platform on which to build an Internet access and literacy program.

Private Sector Intervention

To address the need for Internet connectivity in public high schools, Ayala Foundation Inc. launched Youth Tech, a program aiming to connect selected beneficiaries of the PCPS project in August 2000. Supported by Ayala Corporation, Ayala Land, Globe Telecommunications, Mitsubishi Corporation, the Department of Trade and Industry, and Senator Ramon Magsaysay Jr., and groups like Intel and Foundation for IT Education and Development (FIT-ED) who worked alongside Youth Tech to provide computer training for teachers from beneficiary schools.

In 2003, a consortium of 28 private corporations and foundations called ConnectEd.ph was organized primarily to provide direction, pool resources, and scale-up the provision of information technology-related services provided by the private sector. By the end of 2004, the consortium accomplished an aggregate of 308 schools, with Ayala Foundation connecting 189 (61% of total consortium's output) public high schools under its Youth Tech Project. The accomplishment benefited a total 94,500 students and 945 public school teachers on the basics of the Internet and local area networking.

However, 308 schools hardly scratched the surface of the country's 5,940 public high schools.

Project GILAS and the Multi-Sectoral Approach to Scaling-Up

Realizing the need to mobilize funds, scale up, and accelerate the provision of computer and Internet access to the 5,940 public high schools in the Philippines, the project "**Gearing Up Internet Literacy Access for Students**" (GILAS) was started in January 2005, aiming to provide Internet connectivity to all public high schools by the year 2010.

GILAS is the Phlippines' first and biggest multi-sectoral initiative geared towards connecting *all* of the Philippines' 5,940 public schools to the Internet. The project is a partnership among government agencies such as the Department of Education, the Department of Trade and Industry; the country's leading telecommunication firms such as Smart Communications, Globe Communications, Bayantel, PLDT, and Digitel; computer companies Microsoft, Apple, IBM, Intel; Corporate organizations such as the Makati Business Club, the American Chamber of Commerce, Philippine Business for Social Progress; and non-profit foundation Ayala Foundation acting as its coordinating secretariat. Mr. Jaime Augusto Zobel de Ayala II, Chairman and CEO of the Ayala Corporation, and Senator Manuel Roxas II, the original architect of the PCs for Public Schools program, are providing leadership for the consortium as Working Co-Chairs of the Steering Committee for GILAS.

The GILAS Steering Committee, which is composed of top executives of its partner companies and organizations, directs the project's efforts by deciding on which regions of the country are to be tagged as priority areas, assessing networking and connectivity solutions for particular areas, and other issues. Working under the discretion of the Steering Committee are the GILAS fundraising team and operations team, each headed by a separate director. The fundraising group is responsible for garnering donations and resources necessary to connect schools to the Internet, engaging both the public and private sector for support for the project, managing donor funds. The operations team works on the ground to physically and logistically supply beneficiary schools with the standard Internet connectivity packages provided by GILAS. Close coordination is maintained between these two teams in order to carry out the simultaneous functions of amassing funds for providing beneficiary schools with Internet access.

The GILAS Package

GILAS will provides Internet connection to public high schools and computer training to teachers to schools with existing computer laboratories. If a target high school does not yet have a computer laboratory, the project also facilitates the funding and procurement of at least ten computers for the school. Since its predecessor project Youth Tech was launched in the year 2000, a total of **875** public high schools have been connected to the Internet[1]. Of this number, Youth Tech-GILAS has been responsible for connecting 650 schools, benefiting roughly 780,462 public high school students, concentrating on those in their senior year, and 17,460 teachers.

Students are able to receive instructed access to the computer laboratories on an average of 2-3 hours per week, depending on the population of the school. Computer lessons are usually integrated with a current topic from other major subjects such as Physics, History, Mathematics, etc., serving as supplementary learning tools. The Internet is also able to provide an alternative learning environment for the students, focusing more on student-driven and independent learning. Furthermore, the project also benefits teachers from public high schools, who are now also able to access educational resources and materials to enrich their lessons.

The standard connectivity package consists of the following:

Hardware & Software Installation	Internet Connectivity	Training and other support services
- Servers - LAN cards - Cables - Other components	Provision of Phone Lines to schools without phone lines. Unlimited free Internet usage for the one year	- Training for teachers and administrators - Training for principals on networking and resource mobilization - Formulation of a basic

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[1] Data as of 15 August 2006

		curriculum and a year-long lesson plan to ensure the optimal use of the facility

Public high schools are chosen to be beneficiaries of GILAS based on a set of criterion that we believe will ensure sustainability of the project. Among the more important qualifying parameters are:

1) The presence of infrastructure (telephones, computers, Internet Service Providers),
2) Support from the local government and the local community,
3) The presence of private sector donors
4) The recipient school's capability to sustain the project

Program Cost

There are two types of public high schools that need help:

1) Public high schools that already have at least 10 computers each fall under this first category. These schools will need an amount of PhP 100,000 (US$ 2,000) each to network the computers, and link them to an Internet service provider.

2) Other schools are of the second type, and currently have no digital facilities whatsoever. In addition to the amount above, these schools will need PhP 200,000 (US$ 4,000) to cover the cost of purchasing 10 units of PCs. This will mean a total cost per school of PhP 400,000 (US$ 6,000).

Given these figures, US$ 12,000 for example will be enough to connect 6 schools of the first type (roughly 1-2 municipalities) or 2 schools of the 2nd type.

Raising Funds

As the year 2010 draws nearer, GILAS is driven to raise funds to achieve its goal of 100% public high school connectivity in the Philippines. The project is unique, as it is a social consortium where even competing companies are working together to connect public high schools to the Internet. GILAS has also been able to rally support from Filipinos abroad who believe that Internet literacy is the Filipino youth's key to improving their lives and future careers. Not only has GILAS been able to engage the private sector to donate, but Ayala Foundation, acting as Secretariat to GILAS has been encouraging local governments to match funds raised from the private sector. There has been some success in this regard and cities and provinces where the mayors and governors are co-funding the program as prioritized for connectivity. Their involvement will also ensure the sustainability of the program after installation. Another unique facet to the GILAS project is how it is able to engage both the public and private sector to invest in improving the human and physical capital of the public education system, subsequently furthering the educational development of the Filipino youth.

Sustainability of the Program

While beneficiary schools are guaranteed one year of free access to high-speed Internet, after the year is over, the schools themselves have to take over the maintenance of the Internet subscription for the students in the years to come. Thus, just as much as GILAS has partners from government agencies, private corporations and organizations, beneficiary public schools themselves are active partners in the ongoing campaign for Internet literacy. Many schools come up with the funding to keep up their connection with the help of their local mayor or provincial governors, supportive alumni, and parents. Other schools are able to turn their computer laboratories into Internet cafés over the weekends and charge an hourly fee to their computer users. The independence of these schools to sustain their Internet connection thus allows GILAS to focus on providing funding for the schools that remain without Internet or computer laboratories.

Issues and Challenges

The task of connecting all of the Philippines' 5,940 public high schools is no easy task. GILAS deals with several issues in the realization of its goals, mainly having to do with the viability of providing for the technical requirements of connectivity. First and foremost is the availability of public sector funds and private sector donations. GILAS requires roughly PhP 1.7 billion to accomplish 100% public high school connectivity in the Philippines, and in the first year and a half has garnered only a little over PhP 48 million[2]. The Philippines is a country with several foundations and non-profit organizations in the field of development and education, many of which deal with more basic deficiencies and problems, thus putting GILAS at great competition when finding sponsors and donors. For many in the Philippines, the Internet is seen as a luxury, as a great majority is unable to access it. GILAS however recognizes that although there are a plethora of basic need issues that need to be addressed in the public school system – such as a shortage of teachers, school buildings, classrooms, desks, and books – if no one will step up to address the digital divide that separates our students from a better future, then the Filipino youth will get left further and further behind by their peers from other countries, for whom ICT literacy is a standard.

Another issue that GILAS faces in their undertakings is the fact that many areas in the Philippines are remote and without access to landline telephones, or cell phone signal. This creates difficulty for the Internet Service Providers, as for the most part it is not commercially viable for them to invest in the technologies and systems to provide for Internet connection, as these areas are rural, and computers are not commonly used. GILAS tries to find solutions to providing Internet access to schools in these areas, by investing in other technologies (i.e. wireless broadband, etc.) that is most cost-effective, given the number of schools and other determinable factors.

The urgency of achieving 100% connectivity in public high schools in the fastest time allowable is great, as the Department of Education has yet to formally integrate ICT learning into the secondary level public education curriculum. However, they are unable to do so, as

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[2] As of 15 August 2006

all public high schools in the country need to be provided with Internet-connected computer laboratories before they can push through with this. Without an integrated ICT curriculum, GILAS-connected schools are unable to fully maximize the learning potential of their computer laboratories, and because of this, many principals may find it an unnecessary burden to continue financing their Internet subscriptions once their free year is over. This creates a greater drive for GILAS to push for funding from the public and private sector in order to give greater value to their previous efforts and to truly provide the Filipino youth the high way into a World Wide Web of resources and opportunities.