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# *Empowering Urban Disadvantaged Youth through ICT training:*

# *The Case of Nairobits*


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# ACRONYMS

| | |
|---|---|
| AED | Academy for Educational Development |
| CBO | Community Based Organisation |
| CDI | Committee for Democracy in Information Technology |
| CSR | Corporate Social Responsibility |
| FF | Ford Foundation |
| GER | Gross Enrolment Rate |
| ICT | Information Communication and Technology |
| ICCO | Interchurch Organization for Development Co-operation |
| IYF | International Youth Foundation |
| KCCT | Kenya College of Communication and Technology |
| MoU | Memorandum of Understanding |
| MYSA | Mathare Youth Sports Association |
| NGO | Non-Governmental Organisation |
| PPF | Programma Para o Futuro |
| SRF | Social Relational Framework |
| WK | Wolters Kluwer |
| WT3 | Website training course 3 |

# ABSTRACT

Many urban youth in slums have limited opportunities for education, training and employment. In recent years, ICT has increasingly been seen as a potential tool to create more opportunities for this group. Many NGOs have come into play, offering ICT training to disadvantaged youth. Usually this focuses on computer and internet training. Nairobits is an NGO in Kenya which in addition to the computer and internet training provides website training. This research is a case study of Nairobits with the objective to examine the opportunities created by website training for urban disadvantaged youth and to assess the approaches, achievements and limitations of Nairobits. The training is divided in two parts: WT3 and the media lab. The paper addresses to what extent this way of empowering contributes to the human development of urban disadvantaged youth and whether the intervention lifts these youth out of their marginalised position.

Primary data is collected via a questionnaire for the participants as well as interviews with staff, CBOs, managers of companies and a donor. The research shows that Nairobits' training in ICT empowers urban disadvantaged youth through an increase of human, financial and social capital. Regarding human and financial capital, there is however a significant difference between participants who received WT3 and participants who were also trained in the media-lab. For media-lab participants good opportunities are created to access relevant employment in the formal sector whereas the WT3 participants are acquiring non-website related jobs. On the basis of the findings, the study proposes recommendations for more responsive programming.

# 1
# Research Design

## 1.1 Introduction

This paper is a case-study of Nairobits, an NGO that offers website training to urban disadvantaged youth in Kenya.

The level of deprivation in Kenya is high with 47 percent of the population living in absolute poverty and unable to access basic services. The level of social inequality is high as well, with Kenya ranking as the second most unequal country in the world after Brazil (Okwany, 2004: 182). Like many developing countries, Kenya is experiencing rapid migration from rural to urban areas. Poverty in Nairobi has increased dramatically (more than two times faster than rural poverty) and an estimated three quarters of Nairobi's three million citizens are living in large uncontrolled settlements on the periphery of the city under serious poverty conditions (Okwany, 2005: 38). With inadequate state interventions, these slums are overcrowded and basic services are insufficient in both quality and quantity. Under these conditions, many urban youth in the slums have limited opportunities for education, training and employment.

Poverty that exists in the city has many aspects of dependency and vulnerability. "Vulnerability is not synonymous with poverty but means defencelessness, insecurity and exposure to risk, shocks and stress" (Wratten, 1995: 17). Under these circumstances survival strategies are dominant. Due to both direct and opportunity costs, education of children and youth is restricted, especially for girls who are more likely to help out with domestic work. According to Okwany (2004) the rigid formal system is not adequately reaching these populations and Nairobi has the second lowest enrolment rate of the eight provinces in Kenya. Indeed, UNICEF[1] states that Kenya has a national primary school completion rate of 44 per cent and that the participation in education within the squatter settlement is notably low. It can thus be concluded that the percentage of youth from the slums that completed secondary schooling is low as well. For this group, opportunities remain limited in relation to gaining employment. With restricted access to education and

[1] http://www.unicef.org/infobycountry/kenya.html

rising unemployment, many youth have little hope for the future. Many people in the slums will take any work that contributes to basic daily provisions and quite a number of youth are vulnerable to crime-related activities as a means of livelihood. Most training programmes, that target urban disadvantaged youth, provide traditional vocations. Vocations such as carpentry, mechanics, hairdressers and crafts, are strongly related to the informal sector. Mitullah (2003:4-5) describes in the Urban Slum Report on Kenya for UN-Habitat, that between 1998 and 2001 the contribution to informal sector employment grew by 176 percent, while this was -0.43 percent for the formal sector. It also mentions that unemployment is particular widespread among young urban dwellers and women. Undoubtedly, opportunities for these youth to enter formal market are limited. Nairobits' ICT training in making websites provides a unique opportunity in this respect for urban disadvantaged youth to have a chance to enter the formal market.

The digital divide is one of the most recent burdens for developing countries. Salih (2004: 49) mentions the challenges that need to be given serious consideration by countries in order to be prepared for the ICT development. He mentions language, illiteracy, internal digital divide, restrictive regulatory framework, poverty and the lack of infrastructure. Furthermore, he sees ICT as one of the major entry points. The discussion should not be focussing on the impossibility of the poor to afford it, but on how ICT can be used effectively to alleviate poverty (2004: 50).

The challenge of the digital divide has been recognized by several NGOs, which started offering training in computer skills. Youth is in this respect being mentioned as a relevant target group (Sesan & Mihyo, 2004). The Kenyan government also followed suit by bringing out an ICT policy[2] in 2004, which includes the objective of empowering disadvantaged youth with ICT skills. The World Youth Report of 2005 (World Youth Report, 2005: 28) from the UN states in relation to this: "Yet questions remain as to whether information and communication technologies can empower young people and improve their lives or whether they are deepening the already existing inequalities and divisions in the world."

[2] http://www.information.go.ke/policy/Ictpolicy.htm

## 1.2 Relevance of the research

The use of ICT for poverty reduction, and the concept of digital divide, has become an area of great interest over the past few years. The literature about whether the digital divide can bridge inequalities has created opposite views (Heeks: 2002). On one extreme there are the ones who believe ICT will fail to redress inequality between the rich and poor. Lack of resources, in their view, determines the poor's inability to leapfrog towards digital inclusion. On the other extreme there is a group that regards ICT as the solution to redress the inequalities. The relevance of this topic relates to the growing awareness of the global digital divide. Governments of developing countries are struggling to address the issues surrounding this divide. NGOs can play an innovative role and can act as the ground breakers in this area. In recent years the interactive trainings in basic computer and internet skills by NGOs has seen an increase, but specific skills such as web-site design training for urban disadvantaged youth are rarely provided.

In Sub-Saharan Africa 15 per every 1000 people use the Internet as compared to the 331 per every 1000 in Europe (World Youth Report, 2005). Emeagwali stresses: 'Africa must get onboard...Right now! Africa will be either on to the Information Age or off to the dark Agricultural Age...Africa is suffering from knowledge apartheid that forces its children to eat the crumbs from the dinner table of the information-affluent nations" (Emeagwali, 2001, cited in Sesan & Mihyo, 2004: 125). Sesan & Mihyo (2004: 129) add: "...there is no doubt that Africa has a lot of catching up to do as far as the Information Society is concerned, and in catching up, the continent must learn to look inwards to the vast resource potentials that dot her landscape including young people, their talents and skills".

In situations of exclusion and limited opportunities - as is occurring widely in slums- the provision of training in computer, internet and website skills is innovative and promises to open up new opportunities. Knowledge of computer skills in such basic areas such as extracting information from the internet can enhance improved decision-making whether for economic or political purposes. Having the skill to create websites provides the power to add ones voice into the global space. Nairobits is an NGO in Nairobi, Kenya, that is providing such training to slum-youth most of whom have secondary education. The

question at hand is how to put these benefits, if any, into the hands of the disadvantaged. Their position makes it not very likely for them to start an own business in which these new assets can be internalised. Opportunities seem therefore more available in the formal sector. It further raises questions to what extent this way of empowering is adding to the human development of slum-youth. Does empowerment with ICT for slum-youth actually mean a gain in opportunities? Is the intervention lifting these youth out of their marginalised position?

Due to the actuality of the digital divide, research in this field is justified by the lack of knowledge on the achievements and limitations of the role of NGOs that provide these trainings to slum youth. This research will concentrate on website-training, since it is the more innovative part of Nairobits' activities.

**Nairobits: an overview**

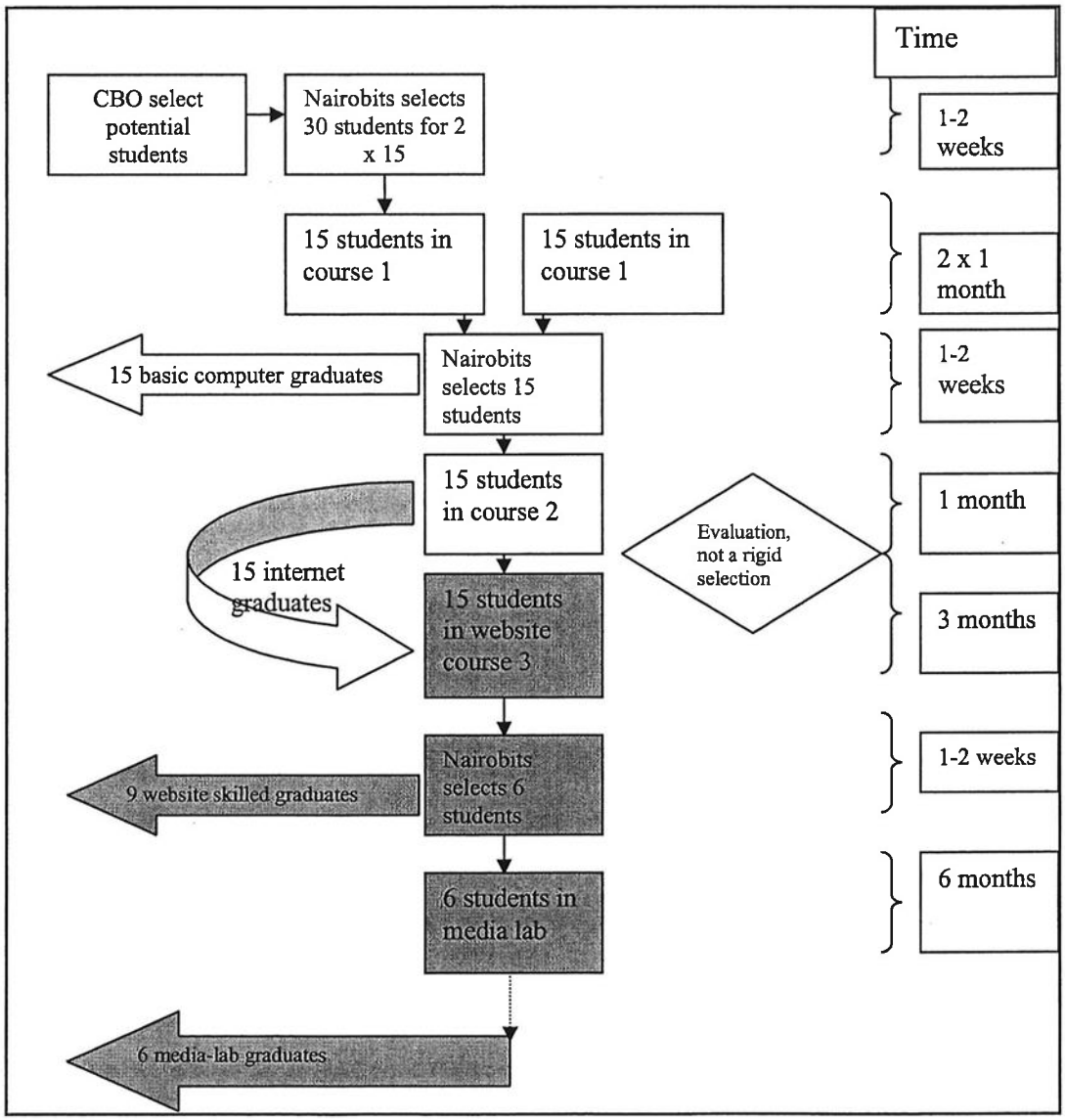
Nairobits was founded in 2000 by three initiators who were based in The Netherlands. Their aim was to provide young Africans from slum areas with technical and creative skills in web-design enabling them to express themselves through the internet. For this reason, a one-year curriculum was designed in which the participants learnt how to be a webmaster. In turn they were expected to train their peers. After the initial trial year in 2000, in which 20 youth from a Community Based Organisation (CBO) called Mathare Youth Sports Association (MYSA)[3] were trained, ideas were open towards a combination of training and selling websites. Originally it was the plan that the trained youth would train fellow members of the CBO, MYSA, which had about 10,000 members at the time. In the second year 6 more youth were added to the training (Nairobits Final Report Ford Foundation 2002).

During the first three years the strategy changed and a local focus was addressed by building a small organisation with local staff in 2002 and 2003. The main objective of the organization was to equip less privileged youth with multi media, social and business

[3] Mathare youth association was formed in 1987 and focuses on sports, community, self-help projects and leadership training programs by and for the youth of Mathare, the oldest slum in Nairobi. http://www.mysakenya.org/

skills. The objective of providing training is still combined with a business for website-related activities. Since 2003, four courses are provided: a basic computer skill course 1, an advanced computer and internet course 2, website training course 3 (WT3) and lastly the media-lab. Since 2003 a shift is made to also include participants from other CBOs. Participants who access the training are guaranteed to be trained in the first course. Participation in the other courses depends on selection and evaluation procedures. Figure 1.1 (below) is an overview of this process and how it was been carried out in 2003 and 2004.

**Figure 1.1 Process of training Nairobits**



The process of Nairobits starts with the selection of potential students for Nairobits training by CBOs. Out of these, Nairobits selects 30 participants that enter the first course of basic computer skills. Course 1 is then taught two times with in each course 15 students. Out of these 30 students, 15 graduates exit the program and 15 graduates are selected to pursue course 2 in internet skills. After this course, there is a less rigid selection and evaluation procedure and the group continues with course 3, the website training. After WT3, 9 graduates exit the program and 6 graduates are selected for the media-lab. The research concentrates on these last two groups within the WT3 and media-lab for 2003 and 2004 (which concerns the grey-coloured areas in figure1.1).

Objectives and results for 2003 that relate to the WT3 and media lab were as follows (Project Proposal 2002-2003). It was aimed to build up an e-learning environment, which means that the 3 courses would become available on line for students, decreasing the dependency on teachers. In the training, resources suitable for 25-30 participants per course would be the objective with a separate goal to train 8 youths in web-design skills. It was planned to supply the media-lab with 6 computers with space for 3-4 professional start-up web-designers. No specific targets were found on the number of websites for clients. Yet, it was aimed to develop a new content in which media-lab participants would make website for clients and WT3 participants would make websites for small idealistic organisation.

Assuming that the goals over the three year period in the strategic plan can be divided by 3 to get the yearly goals, then 30 people were planned to attend WT3 in 2004. In addition, another objective was to make 8 websites per year (Strategic Plan 2004-2006). Also a partnership with Outdare was planned to establish a constant flow of assignments. The objective in establishing a media-lab was repeated although with an extra space resulting in 7 computers. The plan was to select 6 different students twice in 2004 through an evaluation process and exam results followed by recruiting a coach for the media-lab. They further aimed to train 12 web designers ready to step into the ICT market in 2004 with sufficient skills, a network and preferably an internship or relevant job (Proposal Edukans 2004).

## 1.3 Objective

The objective of the research is to examine the opportunities created by Nairobits' website training for urban disadvantaged youth and to assess the approaches, achievements and limitations, of their innovative website training.

## 1.4 Research Question

The research question that this paper will address is divided in two:

1. What opportunities are created for the urban disadvantaged youth and obtained via Nairobits' training in website related skills?

2. What are the outcomes in terms of well-being and empowerment?

These questions entail examining whether opportunities are created for disadvantaged youth and if opportunities are indeed created how this is achieved. Nairobits approaches to sustainability, scale and efficiency are included in the examination to address the achievements and limitations of the training.

## 1.5 Methodology and limitations

The study relied on collected primary data next to secondary data of Nairobits. For secondary data only internal documents were available since no other research has been carried out, internally or independently. Primary data involved fieldwork carried out in Nairobi, Kenya for a month between the 12th of August and 12th September 2005. Before the fieldwork one of the managers has been interviewed in The Netherlands and a meeting has taken place with one of the donors[4], to gain general information on their

[4] Interchurch Organization for Development Co-operation (ICCO)

views on sustainability and efficiency of the organisation. For the same reason semi-structured interviews with the three trainers and the manager in Nairobi were carried out about their tasks and views on the training and organisation. In addition CBOs of which the participants are members and four managers of computer companies[5] which adopted participants from Nairobits in their organization, were interviewed using a semi structured interview. To gain insight on the method of teaching, observation in class was combined with looking into the on-line curriculum and taking in the views of ex-participants.

One of the limitations of this research is a lack of documentation within Nairobits. Information on participants before the training, concerning levels and background is not documented. Costs are not specified for different courses, which makes it difficult to address their level of efficiency. Furthermore, Nairobits relies for the first selection of the CBOs and makes a second selection via interviews. Documented information on the participants is limited to information like CBO-membership, gender, contact-particulars. In addition some brief information has been registered of what became of the participants after the training, but this information varies in content and does not express whether they use their acquired computer, internet and website skills. Since attendance levels are not recorded, it is not possible to get insight into the potential difference in attendance levels between females and males.

Another limitation is related to the stability in training content and strategy of the project. Since 2003 the WT3 and the media lab come into play and these have become sufficiently stable to deem the data comparable over the research period. Before 2003 Nairobits trained two groups, one of 20 and one of 6 youth, over a period of more than 2 years with the aim of setting up a business. Nairobits turned its focus on business to a focus on training when it became clear that the business was not working out. This was, among other things, due to the lack of funding in 2001, and the structure of too many staff members. Only 5 male participants were interviewed in this first group, who have not had the structured training like WT3 or media-lab, but did receive substantial website design training. Since the conditions and structure of their training was outdated, the

[5] Sahannet Ltd, 3Mice Ltd, Wananchi Online and Dotsavvy Ltd.

decision has been made to leave this group of 5 out of the sample. The rest of the youth interviewed consisted of 24 students in total, this concerned 12 ex-WT3 and 12 ex-media-lab students. One WT3 participant was a dropout. For the empowerment of the participants training this drop-out was excluded. Figure 1.2 shows the total number of ex-students trained in website skills between 2000 and 2004 versus the ex-students that participated in the research. A division in male and female participants is provided. Another point for consideration is that ex-participants that are employed within companies were easier to find than the ones that were in the slums, although contacts with CBOs to support the search were very helpful. The success in reaching the participants however varied.

**Figure 1.2 Number of trained participants in website-skills in Nairobits versus number of participants involved in the research.**

| Trained | Total | Tot male | Tot female | Questionnaire | Male | female |
|---|---|---|---|---|---|---|
| 2000-2002 | 26 | 19 | 7 | 5 | 5 | 0 |
| 2003 | 15 | 7 | 8 | 9* | 4 | 5 |
| 2004 | 15 | 5 | 10 | 14 | 4 | 10 |

* excluding one male filled in questionnaire, but no follow up via interview was possible.

The set up of the questionnaire (see annex A) is inspired by questionnaires from International Institute for Communication and Development (IICD)[6]. When collecting information sending out the questionnaire alone proved to be inefficient in receiving adequate data. Most of the data was not returned in time by the participants to facilitate a quick analysis in order to structure interviews and select areas that required further scrutiny. The interviews were therefore based on the questionnaire in which elaboration in certain areas was required. A focus discussion group was formed after a substantial amount of information was attained. The voice of WT3 was however hardly represented. From the eight participants that attended, seven had received the additional media-lab training.

In order to address the efficiency of the organisation, two other website design training centres were looked into for comparison; a government training centre, Kenya College of

[6] http://testsurvey.iicd.org/

Communication and Technology (KCCT) and one private training centre, Computer Pride Limited. The aim of gaining information on these two organizations was mainly to compare student teacher ratios in environments with computers and to have an idea about the costs to gain website skills if training is not provided for free. In many ways though, a straight forward comparison was not valid since Nairobits includes different skills.

Three CBOs[7] were visited to further understand the method of selection and the use of the skills within the CBO after the youth were trained.

A final questionnaire was sent within the last phase of the field work. This questionnaire aimed to reveal differences in conditions between employed youth from Nairobits and their colleagues who had similar jobs with a focus on some specific conditions. Conditions linked to entry salaries, lengths of internship and probation periods, and gender division of labour in terms of website designers versus website producers, were considered. During the field work, information of the students in the website companies seemed to reveal traces of students being given long internship periods and probation times, which makes their employed position rather insecure, while it ensures cheap labour for the employer. Furthermore, the questionnaire aimed to gain detailed information on whether gender inequality was being reproduced within the market. The response on the questionnaire was only sufficient to warrant cautious use of this data. Therefore it is not specifically included in this research.

The thesis is divided in five chapters. Chapter two presents a literature review and the theoretical frameworks used in the study. Characteristics and strategies of NGOs are demonstrated within the State-NGO framework. Furthermore, concepts of the livelihood framework, empowerment framework and gender framework are used to describe how ICT education by Nairobits enhances opportunities for disadvantaged youth. Chapter three examines the case-study of Nairobits. Sustainability, scale and efficiency of the organization and the training are addressed. Chapter four explores the impact of the website training on the youth in terms of human, financial and social capital. Lastly, chapter five presents the conclusion and recommendations that can be drawn from the case-study in relation to the theories.

[7] MYSA, Carolina For Kibera (CFK) and Social Initiative for Development (SID)

# 2
# Theoretical Framework

The research addresses the role of Nairobits in terms of sustainability and scale via the State-NGO framework. In addition a specific part of the livelihood approach will be taken into account to address the quality of the training. Related concepts are relevance, costs, equity and asset-enhancement. Asset-enhancement is translated via requirements in information technology training for youth as defined by the International Youth Foundation (IYF). Lastly, the Social Relational Framework (SRF) will be used to examine gender-equality. The research question on the impact of the website skill training on the participants is addressed via the theory of empowerment and the livelihood framework. The training is regarded as a tool for social and economic empowerment. This relates to the concepts of human, financial and social capital within the livelihood approach. These various frameworks are described below. The last paragraph of this chapter describes how the concepts of the frameworks are applied to the research.

## *2.1 State-NGO framework*

The NGO-State Framework, as described below, is used to address the delivery context of the NGO, Nairobits. The concepts of sustainability and scale are given specific attention within the research.

Kenya, like most African countries has seen a struggling process in delivering public services including education and training. A variety and combination of factors like dire economic and political crises, crippling debt burden, a bloated bureaucracy, institutionalized corruption, austerity measures and domestic policy failures have worsened the state's inability to translate resources into development (Okwany, 2004: 178). The failure of the state to adequately deliver services has resulted in a rapid rise in the number of NGOs in Kenya like in any developing country, especially in Nairobi.

Ndegwa (1996: 9) attributes this rise to three factors. The first factor is Nairobi's status as a regional centre for international organizations, complemented with a well-developed communication network. Secondly, Kenya knows a relative political stability, which has allowed NGOs to operate openly and widely. And lastly, since independence a spirit of *Harambee* (self-help) has been cultivated as a development ideology. This rise has been possible due to the channelling of donor-funds via the NGOs and not via the government. This shows the confidence that donors have in non-elected civil society actors instead of in the elected government. Edwards & Hulme (2002: 56) set out the differences between governments and NGOs as: 'Government structures are often rigid, hierarchical and autocratic. Power and control rest at the topmost level where programmes are designed and resources allocated.....they have a natural tendency to centralization, bureaucracy and control. NGOs, on the other hand, are (or should be?) distinguished by their flexibility, willingness to innovate and emphasis on the non-hierarchical values and relationships required to promote true partnership and participation'. Biekart and Fowler (1996: 110) mention further that although recent studies have made NGOs more modest about their performance they still claim to have a comparative advantage over official aid programmes concerning areas related to a better reach, innovation, low cost, speed and flexibility, inclusiveness and higher probity. Indeed, it should be noted that the difference between the theoretical potential and the real achievements of NGOs varies highly between NGOs and within a time-frame of one NGO.

The role and strategy of NGOs is thus determined by the NGOs themselves. This implies that whether they take an innovative or conservative view, work with, without or against government, or with other actors is directed by each NGO separately. Palmer and Rossier (1990, cited in Edwards & Hulme, 2002: 56) remark: 'NGOs cannot seek to replace the state, for they have no legitimacy, authority or sovereignty and, crucially, are self-selected and thus not accountable.'

NGOs often have a total lack of relationship with the state (Clark: 1991). In Kenya the relationship between NGOs and the state is often full of conflict and confrontational at times, as they compete for legitimacy as well as developmental and political space (Ng'ethe et al, 1992; Ndegwa, 1996 cited in Okwany 2004: 179). Their dependency on donor-funds further creates issues around accountability, autonomy and sustainability. They are not democratically elected and their accountability is divided between satisfying

beneficiaries and donors. Additionally, NGOs continuous struggle in competing for funds may distract NGOs from their core-mission. Their autonomy may further be challenged by donors' priorities that differ from their own and the risk remains that donors may redraw their funding, which usually results in the collapse of the activities of the NGO.

Korten (1987: 147) recognizes three generations of strategies of NGOs. The first generation concerns welfare and relief. This can be regarded as the implementation of government policies. The lack of service by the government is used as a reason for implementing self-selected services rather than a reason to influence government policies. The second generation concerns self-reliant small scale development whereas the third generation is building sustainable systems via advocating and lobbying for policy change within the government. This latter strategy of NGOs recognizes that governments have the structure to support sustainability and can scale up new initiatives. NGOs which purely implement services are subjected to continuous threats around sustainability and generally remain limited in their reach. Their dependency on donors determines their vulnerability in terms of sustainability and scaling up of their programmes. Without some commitment to a coordinative body the result is numerous NGOs having a small-scale reach and fragmented performance in quality and quantity of the selected services. Although Edward & Hulme (2002) correspond to the significance of well-established relationships with the government, they note that it implies accepting constraints and difficulties of the government system. They mention that the impact of NGOs is likely to be overruled or led by bigger players like bilateral and multilateral donors and that close interaction with government may have an impact on an NGO's identity (2002: 57, 58).

## 2.2 *Livelihood Framework*

The relevance of the livelihood framework for the research is two-fold. For examining Nairobits' website training the factors of relevance, costs, equity and asset-enhancement as described within the context of human capital is regarded. Equity is however replaced with gender-equality.

The livelihood framework is taking a people-centred approach towards development and looks into how development in terms of natural, physical, human, financial and social capital (Rakodi, 2002) is taking place. It addresses to what extent these capitals influence poverty. This relates to policy and reform levels as well as to the community and the individual. The five capitals that the livelihood approach entails are described below:

**Box 2. 1 Household Livelihood Assets**

**Human capital:** The labour resources available to households, which have both quantitative and qualitative dimensions. The former refers to the number of household members and time available to engage in income-earning activities. Qualitative aspects refer to the levels of education and skills and the health status of household members.

**Social and political capital:** The social resources (networks, membership of groups, relationships of trust and reciprocity, access to wiser institutions of society) on which people draw in pursuit of livelihoods.

**Physical capital:** Physical or production capital is the basic infrastructure (transport, shelter, water, energy, and communications) and the production equipment and means which enable people to pursue their livelihoods.

**Financial capital:** The financial resources available to people (including savings, credit, remittances and pensions) which provide them with different livelihood options.

**Natural capital:** The natural resource stocks from which resource flows useful to livelihoods are derived, including land, water, and other environmental resources, especially common pool resources.

(Source: Carney, 1998: 7 cited in Rakodi, 2002: 11)

Education and training influence human capital. 'Data linking household income to educational levels clearly demonstrate the importance of human capital as an asset' (Moser, 1998: 9). Training is linked to other aspects than education. Whereas education is regarded a universal requirement for all people, 'Training being closer linked with needs in the market in terms of employment is required to be both specialized and situation specific' (Rutherford et al., 2002: 126). In relation to the livelihood framework

Rutherford et al. (2002: 128) describe the following factors, which should be taken into account for training.

**Box 2. 2 Factors Influencing Training for Employment**

| | |
|---|---|
| **Relevance**: | To avoid the mismatch of supply of trained people and demand in local labour markets, training should respond to these market needs and result in work (employment, self-employment or enterprise). |
| **Cost**: | Since training may be expensive due to specialization (which defines the difference with education) and relative high unit costs, training can be made more efficient by greater cost sharing and by making better use of traditional knowledge and available facilities, particularly those of local enterprises. |
| **Equity** : | Training is often difficult to access and difficult to use for the disadvantaged who are in greatest need of work-related skills. Therefore training should reflect and accommodate the backgrounds and customs of those they serve. Schedules and structures must accommodate the circumstances and multiple obligations of the intended target group. |
| **Asset-enhancement**: | Training should be designed and assessed in terms of the degree to which they enhance the human (and social) capital of the participants. Skills should meet existing work opportunities and future opportunities. Asset-enhancement should be assessed in terms of increased income, greater flexibility, reduced vulnerability to crisis and enhanced access to economic support. |

Source: adapted from Rutherford et al. (2002: 128)

In connection to asset-enhancement in ICT skills for youth, a report of the International Youth Foundation (IYF) called 'What Works in Youth Employment: The Impact of New Information Technologies' describes highly specific training requirements particularly appropriate for youth in the new global employment context (2001: 43). In this way an indication can be given about the quality of the training in terms of the curriculum and content. These requirements are presented in boxes 2.3a and 2.3b.

Linking learning across boundaries and disciplines, thinking outside the box, recognizing patterns, questioning patterns and thinking critically partly relate to Freire's (1970/1996) system of problem-posing and interactive education to redress the marginalized position of the oppressed. As opposed to a banking-system, where teachers 'fill' the 'empty' students, in this sort of educational structure participants contribute as well. Quality and effectiveness further refers to more quantitative data of completion, attendance, drop-outs and repetition of trained participants.

**Box 2. 3a Training Requirements for Youth**

**Learn how to learn:**

- Learning skills (research, reading, writing, listening, intuiting, perceiving, connecting learning to existing knowledge, anaylsing, comparing, evaluating, advocating, imagining).
- Communication skills
- Facility with more than one language (particularly English, crucial in webcontent)
- Teaching/sharing skills

**Use All of the Senses:**

- Visualisation and imagination skills
- Sensory skills

**Learning by Doing:**

- Practical experience
- Space to make mistakes, support to reflect on and learn from mistakes, and space to succeed
- Application of knowledge
- Practice, practice, practice

**Link learning Across Boundaries and Disciplines: Thinking Outside the Box**

- learn about other fields, contexts and ways of thinking
- explore and understand multiple perspectives
- Pursue relationships across traditional disciplinary or cultural boundaries
- Bridge technical and non-technical information
- Apply knowledge, skills, and experience to new issues and circumstances

**Recognize Patterns, Question Patterns, and Think Critically**

- Critical thinking and making distinctions in a context of information overload
- How to evaluate and assess information-its quality, accuracy, relevance and limitations

**Make Choices, Make Decisions**

- Develop strategies
- Establish and apply criteria to guide decisions among choices
- Allocate resources
- Evaluate performance

**Box 2. 3b Training requirements for youth**

**Take Responsibility for Knowledge and Outcomes**

- Provide incentives for self-education
- Encourage speed with accuracy, depth and sound judgment
- Practice making decisions and dealing with consequences
- Learn from experience (one's own and other's)

**Learn from Others and Work with Others**

- Cultural proficiency and ability to navigate effectively in a multicultural world
- Human relation and training- particularly communication, mediation, conflict resolution, conflict prevention, respect, cultural awareness and sensitivity and skills, cooperation and collaboration, and teamwork.
- Mentoring and peer mentoring

**Gain Universally needed Knowledge and Skills**

- Personal Health
- Communication skills
- Management training
- Finance Knowledge and skills
- Civic Participation
- Cultural multicultural awareness
- Stress management and dealing with pressure

**Consider local to Global Context (from 'self' to larger context)**

- Civic awareness (local and global context) and community involvement
- Policy and advocacy training
- Global issues
- Cultural diversity

**Take Risks**

- Build incentive systems that favor and reinforce positive outcomes and discourage negative, undesirable outcomes
- Encourage youth to try general business and entrepreneurial activities
- Apply knowledge to new context
- Help youth to learn to analyze risk

## 2.3 The Gender framework

With this framework the research addresses the various gender issues in within Nairobits Kenya as well as the market. Furthermore, gender-equality in terms of enrolment, completion and curriculum is also addressed in relation to the training.

The Social Relational Framework (SRF) is a gender related framework that has been initiated by Kabeer (1994). This framework is most inclusive in terms of investigating gender-equality in organizations as well as relations between individuals. SRF regards a variety of organizations as potential actors of distortion as well as construction of gender transformation. In this framework, women are already regarded to be in development but on unequal terms. Where other frameworks such as the Gender Relation Framework and Moser's framework only regard the separation of relations and roles, the SRF also regards its social connectedness and takes in other social constructions that may even be ruling certain inequalities before gender. It further regards intangible resources like claims, rights and obligations as well as tangible resources. It also takes cooperation and conflict into account. To analyze an institution, Kabeer (1994) puts forward the following parts that need to be investigated:

**Box 2.4 Aspects of the Social Relational Framework**

| | |
|---|---|
| **Rules:** | Policy, documents and procedures. |
| **People:** | Who is excluded, included? |
| **Practice:** | Behavior, attitudes. |
| **Resources:** | How are these distributed? |
| **Power:** | Relations between individuals based on gender, in what way these relations are related to rules, resources and practices. |

The SRF takes the perspective that every element in an organization that contributes to gender inequality can be seen as potential to redress this inequality. Gender differences in education can further be indicated by gender-aggregated data on access, enrolment, content, curriculum and completion. Gender differences exist due to social, economic and political structures which are traditionally patriarchal. Women may be excluded from these spaces because of rigid social stereotyping in the division of labour. For example,

women are generally taking up more domestic work by which equal opportunities in comparison with men may be jeopardized.

## 2.4 Empowerment Model

In the research this empowerment theory for analysis is connected to the impact of the training onto human, financial and social capitals of the before-mentioned livelihood framework. Various indicators of employment are referring to human capital. Likewise, indicators of income refer to financial capital and indicators of confidence and participation refer to social capital.

Training can empower people. Empowerment is referred to by Schneider (1999, cited in Wils, 2001: 7) as the "means which are the basis of power" referring to knowledge, education, organization, rights and voice as well as financial and material resources. The impact of empowering urban disadvantaged youth concerns the specific objective addressed by Wils (2001:13) of greater equality of opportunities and a higher social status of these youth as being an excluded, disadvantaged group. One is free to choose the indicators for empowerment. Wils mentions among others the following indicators: greater choice of jobs, higher income, representation on prestigious committees, and recognition by outsiders. Empowerment is a means to an end, and not an end in itself (2001:11). He states that in this case one regards whether an autonomous and dynamic organizational base leads to effective participation in decision-making and whether such participation in turn leads to the political, social, economic or cultural changes hoped for.

Wils (2001:10) framework can be applied and filled in as is demonstrated in box 2.5.

**Box 2.5 Overview of the Empowerment Model**

| Empowerment of the excluded | | | Empowerment for what? |
|---|---|---|---|
| Inputs: Approaches to resources related to ICT skills | Organizational base of Nairobits for empowering slum youth with computer, internet and website-design | Slum-youth empowered with technical and social skills | - Increased choice in jobs<br>- Higher income<br>- Recognition by outsiders<br>- Representation on prestigious committees |

## *2.5 Applying the theories*

This paragraph discusses the strategies of the case-study related to the theories mentioned above. A schematic overview of the concepts of the theories is set out below in box 2.6.

**Box 2.6 Overview of Theories and Concepts Applied to the Case Study**

**Nairobits:** **NGO-State framework** ⟶ Sustainability and scale

**Livelihood framework** ⟶ **Human capital**

**Training factors:**
**2.** Cost - Efficiency
**3.** Equity - Gender equality - SRF
**4.** Asset enhancement – IYF

**Participants:**

**Empowerment theory - impact**

**Human capital** ⟶ Employment
**Financial capital** ⟶ Income
**Social capital** ⟶ Confidence and Participation

**Determining training factor:**
**1.** Relevance

The NGO-State framework provides the delivery context for assessing the NGO Nairobits and finds its application in the following chapter in terms of sustainability and scale. Examination of Nairobits demonstrates the extent to which they take a strategy of third generation NGOs. As mentioned, these NGOs pursue next to implementing activities a linkage with the government by lobbying and advocating for their service to enhance higher level of sustainability and scale.

Within the livelihood framework, human capital provides the concepts of relevance of the training, costs in terms of use of resources, gender-equality (instead of equity) and asset-enhancement. These concepts are used to examine Nairobits' training. The findings of IYF (2001) on requirements in ICT related trainings are compared with the website training of Nairobits to define asset-enhancement.

The Social Relational Framework is used to address gender-equality and gender sensitivity of Nairobits for enrolment, completion, curriculum and staff. Also the gender division of labor of the market is regarded.

The empowerment of human, financial and social capital is based on various indicators related to employment, income, confidence and participation. Thus the question of empowerment is addressed beyond the attainability of economic benefits. The relevance of the training is however based on the potential of acquiring related employment. Since relevance is connected with the outcome of the empowerment of the participants, which is described in chapter four, conclusions on relevance are made in chapter five.

In conclusion, the concept of youth needs some definition. The term 'youth' is contested as it is socially constructed and definitions vary widely across the globe. Youth as unit of analysis in this paper is conceptualized as the people living in slums in Nairobi between the ages of 19 and 25[8] years old who are being trained or have been trained by Nairobits.

[8] Nairobits targets youth between 17 and 21 years old to enter the training. The youth in this research were between the ages of 19 and 25 years.

# 3
# Organisation of Nairobits

This chapter discusses the sustainability of Nairobits concerning the organization as well as the skills training. Furthermore, the scale and efficiency of Nairobits is described.

## *3.1 Sustainability*

Cannon (2002: 363) describes three categories of sustainability: benefit, organizational and financial sustainability. Financial sustainability is a part of organizational sustainability and addresses the organisation's ability to raise resources from a variety of levels (local, national, international, private and public). This mix of resources should include increasing amount of local funding and earned income to become more independent from donors.
Benefit sustainability refers to the continuation of benefits that result from an activity, with or without the programmes or organizations that stimulated that benefit in the first place. For this type of sustainability, the research looks into the activities of Nairobits that stimulate the continuation of benefits.

### 3.1.1 Financial sustainability

**Donors**

One of Nairobits' goals is to make the organization sustainable. Therefore there is no phasing out strategy. In the five years of the organization's existence Nairobits has mainly depended on donor-funds. In 2001 however the survival of the organisation was challenged since Nairobits had difficulties to attract funds. Funds were insufficient to continue the training according to plans with the result that 20 students temporarily had to be trained on 6 computers in a small space. Creative methods were implemented to

handle the decrease in funds. However the creation of a local staffed organization, Nairobits Kenya, and restructuring the education contributed to the receipt of more funds. Apart from insecurities that are attached to the continuous search for funds, no real threat in the strengthening of the program has occurred since.

The main reason for the survival of the program has been the continuous achievement of acquiring donor-funds. Heeks (2002:1) points out: 'Donors, attracted by a combination of the hype and hope generated by ICTs, have altered their funding priorities and pushed ICTs up the development agenda'. Nairobits may have indeed benefited from these priorities. Apart from the stagnation problems in 2001, sufficient financial donor-support has been attracted to renew and maintain the training programme. One vital donor, ICCO, has supported the NGO since the beginning. They funded two times one year ahead and last time three years ahead. Reasons for funding were related to supporting innovative projects and organizational capacity-building. A common constraint for NGOs is the pressure to show attractive outputs as well as donor's allocations towards more tangible parts of the organisation. But where many educational NGOs have problems in receiving funds for running costs like administration and salaries (Smillie, 1997; Michael, 2004) this donor together with another main donor, Ford Foundation (FF), have been rather flexible in this respect. Rigid specifications for allocating funds were not requested by these donors. Smaller donors however have been claiming certain parts of the programme. Although ICCO has decided to pull out this year (2005), since they felt that sufficient organisational capacity was built up with their funds, Nairobits has currently covered the running costs via partnership with the private sector (is discussed later) and the funds from FF.

**Self-sustainability**

*Training fees*

Nairobits proposals have continuously addressed the goal for self-sustainability. Still, efforts have not been in the realm of local contributions by the participants; apart from compensation for transport and food via the CBOs. Not every participant receives support of their CBO. These participants then pay for themselves. This inconsistency in levels of financial burden to access the programme raises the question as to what extent a

contribution for the training could be requested. Nairobits relies mainly on CBOs, and has no direct contact with the families of the participants, to check or challenge the willingness and capacity of families to contribute financially to the training. Exploration of the financial ability of families and communities has not been addressed. The assumption that this financial capacity would not exist because the participants are from the slums, may be invalid. An argument for this statement could be that most participants already have received secondary schooling while most youth from slums have not. This can be an indication of a certain financial capacity being present. On the other hand it should be noted that a majority of the interviewed were partially supported for their secondary schooling by people or institutions (church, CBOs) outside their family. Furthermore, by including participation of family, the local demand and the legitimacy of the training would be enhanced.

*Internal Revenues*

Providing free training and running a business is challenging in achieving self-sustainability. Nairobits' main activities in attracting income are website production and acting as an Internet Service Provider (ISP) of internet connections to clients that are geographically close to the location.

Website-orders are fulfilled by the media-lab (in combination with the trainers) and by the trainers separately. Nairobits does however communicate with clients to take the training aspect into consideration for orders that are made by the media-lab participants. Still, with the aim for self-sustainability less flexible client-orders need to be considered also, which then are usually carried out by the trainers.

There is conversely a point of friction in this dual provision of business and training by the trainers. As long as the number, quality and time-frame (deadlines) of the website-orders are within the potential of the learning and practicing web-site participants, the objective to continue a high quality training of urban disadvantaged youth may be ensured. However, this does not necessarily mean self-sustainability will be reached. More website-orders, means more income, but can jeopardize the quality of the training in case deadlines are demanding a disproportionate part of the teachers' time. The capacity required by skilled teaching staff may then conflict with the capacity required for producing the website orders. In this way business in terms of demanded efficiency of the client-orders may challenge social aspects of training disadvantaged youth. A

maximum number of website-orders made by the trainers have as yet not been defined, but the strategic plan for 2004-2006 mentions the goal of 8 websites per year. Although no yearly information is received, for 2003 and 2004 combined, 7 new websites were made (2003, ICCO report). For 2004 up to (August) 2005, 8 websites were produced. Although this means that fewer revenues came in than planned, it also increases the likelihood that the training has not been jeopardised under these circumstances. Furthermore, Nairobits has made use of several volunteers to support the training in the past. Also participants from the media lab once in a while help out with training the other courses. This is however not structured and the influence of this for saving costs is likely to be modest.
From the audits available from the year 2003 and 2004 it can be noticed that Nairobits improved their self-sustainability from 8.43 to 17.64 per cent in relation to their expenses.

**Partnerships**

During the last two years Nairobits has successfully established partnerships with the private sector to enhance their sustainability. The relevance of this strategy for NGOs is addressed in the literature, although autonomy and integrity of NGOs should be carefully taken into account (Wazir, 2000: 266).

In 2004 a link was made with Outdare, a Dutch website company which has outsourced 4 website orders to Nairobits in the last year. The training element is taken into account for these orders so that the media lab participants can experience how to deal with real clients and orders.
Another more recent development (since May 2005) is the partnership with Wolters Kluwer (WK). The benefit of this partnership for WK is in line with their objective to contribute to Corporate Social Responsibility (CSR). The Memorandum of Understanding (MoU) for this partnership covers initially one year after which it can be renewed upon agreement by both parties. The support of WK for Nairobits contains a curriculum review, a strategic business development plan, an internship program (the provision of two internships a year with WK), a business plan for 'Nairobits goes to school' and an internal WK program in order to strengthen the sustainability of Nairobits. 'Nairobits goes to school' contains the provision of computer equipment in a number of

secondary schools in the slums and for Nairobits to train teachers in these schools with computer skills. The content of this MoU means that sustainability and capacity building is combined with an expansion of the activities of Nairobits. The priorities lie however in this first year on curriculum review, the internship program and budget support.
In this way, the sustainability of Nairobits is improved in terms of the diversity of their funds-base, which does not only rely on donors. Still, it should be noted that the difference in benefits for the two partners put Nairobits in a weak bargaining position. The MoU between Nairobits and WK is however set up with the co-operation of Bluelink BV[9]; an organisation which is experienced in establishing partnerships. They advise projects and set-up partnership with the aim to create a win-win situation. This may indeed improve the initial weaker bargaining position of Nairobits. But contributing to WK's CSR is not an objective that is exclusively linked with Nairobits. If WK would like to switch to another project which would suit their investments better, the bargaining position of Nairobits will still be insufficient. As with donors, it is still an unequal relationship. The stronger position of WK involves similar threats as with donors in the respect of adapting to WK's demands.

**Governmental Lobby**

Nairobits has no relationship with the state. Although the current third government which took over in 2002 is generally regarded as more responsive, Nairobits' strategy does not include influencing government policy. Some incidental contacts with government officials were made, and although initial interest seemed apparent from both sides, it has as yet not received sufficient priority to result in a successful follow-up. Priority on service provision without influencing policy is a strategy which does not contribute to a higher level of sustainability. Despite the funding difficulties in 2001 the focus has remained on provisioning with no attempt to engage in influencing policies. Also, the ICT-policy which the Kenyan Government published in October 2004 has made no difference in this respect. The draft ICT policy has been open for comments which are currently summarised on the governments' website[10]. The policy however ascertains the legitimacy of the work done by NGOs like Nairobits since disadvantaged youth are

[9] www.thebluelink.org
[10] http://www.information.go.ke/Comments.doc

mentioned as a target group for ICT-training and the importance of the role of civil society in relation to the implementation of the policy is explicitly mentioned[11]. Opportunities are present to co-operate with the government in future when (and if) 'Nairobits goes to school' will be implemented. The idea is to train formal school teachers of secondary schools in computer skills in urban poor areas. The plan for this is far from ready and still requires a lot of preparation and resources. In addition to this, the ideas have as yet only been articulated between WK and Nairobits, and thus without the views and plans of the government.

### 3.1.2 Benefit sustainability

Nairobits contributes to the sustainability of the training skills for the trained participants in varies ways. The benefits of some activities to enforce the sustainability differ between WT3 – participants and media lab participants.

**Availing computer resources**

The WT3 training (as well as course 1 and 2) is offered on Tuesdays, Wednesdays and Thursdays. On Mondays and Fridays Nairobits makes the computer resources available for the participants and ex-participants to improve on their skills, to search for jobs on the internet and to carry out work. The ex-participants who do not have a job, can maintain and improve their skills in this way. Assuming that the participants can not afford a computer with internet access and the various computer packages by themselves, this option provides a real advantage over participants having to maintain their skills via internet-cafes. Designing a website takes weeks and thus the costs via internet cafes, if they provide the software for building websites, are high. Furthermore, the expenses that the participants have to pay for transport to make use of the free facilities are easily compensated by having the option of working the whole day within Nairobits instead of in an internet café closer to their home. Since the construction is available for all current and ex-students, the relating benefits can be expected to decrease with the increasing number of ex-participants trained. Plans to increase the number of places within the

[11] http://www.information.go.ke/policy/Ictpolicy.htm (paragraph 3.3.8 Human Resource Development and 9.6 Role of the Civil Society)

current structure of the classroom are however verbally expressed, but are likely to be giving only a temporary benefit again.

**Managing market demand**

Nairobits has established some relevant relationships with the local website market within Nairobi. They regularly invite employers of website companies to presentations and graduations of participants of WT3 and the media lab. In this way interest and demand are stimulated. It is clear though that this demand concerns the media lab and not the WT3 participants (see also chapter 4). Companies seem to have confidence in the quality of the trained media-lab participants. One company manager remarked to the question on how to receive this quality workers in case Nairobits would not exist anymore: "I don't know, I just really hope they will be continuing their programme." Although this kind of reaction was not leading in the interviews with four employers, the recognition and appreciation of the quality of the (media lab) participants was expressed throughout the interviews. It is likely that this recognition is also related to the benefits related to lower costs during internships which Nairobits pursues. 'Although internships are not supposed to substitute for formal employment, employers often see them as an alternative to formal employment because they are a less costly way to hire staff'(Rusten, Ogasawara & Brady, 2005: 34). Nairobits students compete in the area of website-design with university and college students. Furthermore, there are specific government and private institutions that arrange website design courses, but in reference to the extent of research done, as yet none of these take in social aspects of disadvantaged citizens. Although for the participants the benefits of internship and improving skills is already an asset by itself, it may be worthwhile to find out whether companies, (whether in cooperation or separately) would be interested in contributing to the sustainability of this production of skilled workers. But as is stated by IYF (2001: 29): '...the number of companies competing for a relatively small pool of talent is far greater than the number of companies with sustained investments to expand the talent pool dramatically'. Nairobits has not been challenging the willingness and demand of the local market in this respect. Even so, they do support the media-lab participants in the negotiation for internships, salaries and other contract conditions of website-related companies.

**External training and educational facilities**

In Nairobits' Organizational Policy on Partner Organisations that is signed for agreement by each involved CBOs it is stated that these CBOs remain collaborators in ensuring that the skills acquired are put into useful purpose. However, it should be however noted that (based on the sample) at least about half of the participants are members of CBOs which are not equipped with computers. So for these latter CBOs it has as yet not been possible to internalise the trained participants into useful computer-related activities like computer training. Although CBOs have verbally expressed their ideas for searching funds for computers in their organisation (or to even start an internet café), the involved costs may be too challenging. Nairobits' efforts to assist CBOs in acquiring second-hand computers were documented (Nairobits Business plan 2003), but have as yet not seen a successful implementation.

## *3.2 Scale and efficiency*

In the five years of training, Nairobits has trained a total of 110 disadvantaged youth (this includes 15 students who are still within the WT3 at the time of research) at varies levels of training. Of these, 26 participants have been trained in websites between 2000 and the end of 2002, and 30 participants attended the website training between 2003 and 2004. Of these latter participants, two girls dropped out in 2003. Twelve participants of these 28 graduates in 2003 and 2004, received the media-lab training.

With 15 participants in WT3 a year, the scale is clearly small. The size of this target group (disadvantaged youth with secondary schooling) as well as the potential size of the market for website designers backs up this argument. Although no exact data is available, it can be said that producing websites is not restricted to the local market and has global market potential. Recognition is then an aspect that will have to be reached. A comparison with other training institutions regarding scale is not valid since the content of what is being trained differs too much from the content of Nairobits.

For the media-lab, Nairobits has recently however decided to increase the number from 6 to 9 participants. In addition plans have been verbally expressed to expand the number of seats in the big classroom. These plans, together with the idea of 'Nairobits goes to school' should increase the scale of the Nairobits training. This would on the other hand mean that the current capacity would be insufficient. Expanding resource needs may again challenge the sustainability. Apart from linking up with government, the aspect mentioned before to take a pro-active approach in investing additionally in CBOs can be seen as a complementary way to go to scale. The strength of such an up-scaling approach is shown by a NGO in Brazil, called Committee for Democracy in Information Technology (CDI)[12], which started 1994. Their funding base is however enormous. They include a similar target group (although only basic skills and internet), but work mainly via communities. Educational centres that are similar to CBOs are then put up which set a symbolic monthly fee or attract their own funds to maintain and pay their educators in place. The participants who can not pay contribute to school chores, to work off their fee. The centres are managed by the community members themselves. In this way an impressive international network has been set up. Again, it is hard to draw a comparison since Nairobits includes website design and other skills. But the communal strategy is clearly a strong approach for scaling-up the training.

As mentioned before, Nairobits seems to have created a rather unique provision of a social and technical training in combination with business. Having trainers, who in addition produce websites or are combining the training job with bookkeeping, purchasing or project management blur any comparison in efficiency with pure training. Still, student teacher ratios of Nairobits with two other website design trainings were compared with a governmental training, KCCT and a private training centre, Computer Pride Ltd. Even though 3 trainers teach participants in website skills within Nairobits, the courses are divided between them. This results in a student-teacher ratio of 15 to 1. Computer Pride Ltd (private) has a ratio of 12 to 1, and KCCT (government funded) has a ratio of 5 to1. A recent Brazilian report 'Programma Para o Futuru (PPF); Enabling Disadvantaged Youth to Build New Futures' which is carried out by the Academy for

[12] http://www.cdi.org.br/

Educational Development (AED)[13] concerns a computer-related programme including other skills[14] which keeps a student teacher ratio of 3 to 1 (Rusten, Ogasawara & Brady, 2005). In comparison with these three trainings Nairobits reaches the highest ratio. A high ratio may indicate efficiency but can also mean that the quality is compromised. Yet, e-learning material is put into place to reduce the dependency on trainers and ensure the level of quality. The media-lab has a student teacher ratio of 6 to 1, but the intensity of teaching for the trainers is rather low. The media-lab participants mainly work independently on improving their website skills via practice. It was verbally expressed by Nairobits that a teacher is only for 30 percent of the time involved in this part of the training. Nairobits as well as KCCT and Computer Pride Limited, further keep a student-computer ratio of 1 to 1. The Brazilian programme, PPF, showed a student-computer ratio of 2 to 1. They however only mention to have small focus on making websites (Rusten, Ogasawara & Brady, 2005). According to IYF (2001: 45) experiential learning is regarded highly significant for skill training. Therefore, a student computer ratio of 1 to 1 is justified to guard the quality of the practical element of the training.

In terms of cost-sharing, they have put their curriculum on their website which allows any other organisation or person to make use of their training. Nevertheless, there may be room for improvement to match the length of training with their own set goals. The three courses together add up to half a year, in case one course would be provided after the other. With the media-lab of half a year in a separate classroom, there could in principle be 2 rounds a year of each course. But in 2003 the timeframe of these 3 courses took 10 months and in 2004 it took one year. Evaluations and selections in between take time, especially within the first year of the new structure in 2003 when evaluation of the new developed curriculum required special attention. Nairobits also moved their activities into the new building in the first half of 2003. Besides, in 2004 there were other reasons (a burglary with loss of the computers, a training for artists, training for the trainers) why there was about a year in between the start of WT3 for one batch and the next. The current structures and practical procedure of training conflict with the yearly target of 25-30 places in each course.

[13] AED is an independent non profit organization committed to solving critical social problems and building capacity of individuals, communities and institutions to become more self-sufficient. They work within the USA and developing countries.

[14] The skills provided by PPF are social/life skills, technical skills, employability skills and basic education.

Not having a recognised certificate is further putting pressure on other activities such as the negotiation of internships and jobs to gain acknowledgement of the quality of the courses in the market. This is partly compensated with built up portfolios by each website trained participant. This portfolio, if satisfactory to the market, enhances the chances for job opportunities.
Furthermore, they have a professional staffed management within Nairobits Kenya as well as in Nairobits Amsterdam. This concerns people with relevant high education and master degrees which can be regarded a qualitative base of the organisation.

## *3.3 Gender equality*

Nairobits has only recently written a gender policy, but has included a gender approach since 2002-2003. Below the level of gender-equality is discussed for Nairobits' training and the website-related market.

### 3.3.1 The training

The programme has sharply turned its gender blind selection in the training since 2003. Before 2003 only 27 percent of the participants, who accessed the training was female. After 2003, Nairobits decided to deliberately ensure a gender balanced intake of the participants. Regarding the combined intake of 2003 and 2004 together they successfully carried out this approach throughout the re-intakes of various courses and even increased the number of females in the WT3 up to 67 percent in 2004. Within the slums, it seems that patriarchal structures exist. During the research Debby[15] (22) called to cancel the training for that day since she needed to take care of her sick mother. Lisa (19) mentioned that she was allowed to take part in the training by her parents as long as she would carry out her usual domestic tasks before and after the training. And a last-born male, Justin (20), who had only older brothers shared that he, usually, took up a big part of the domestic tasks for the family. These situations can function as social cultural barriers.

[15] Pseudonyms are used to protect the respondents' anonymity.

Although it is likely and generally thought of that these family circumstances would affect students' results, Farrell (1999) has pointed out that evidence on this has been meagre and too contradictory to be conclusive. Although family circumstances may be inconclusive about their influences on results, a low attendance level is however likely to influence results and thus requires attention. Since the organisation has not been keeping attendance levels, no clear information is available concerning a difference in attendance between female and male participants and to what extent this is due to social cultural barriers. And although a majority of the participants mentioned that their family had been 'supportive and excited' for them when they could enter the training, this does not give sufficient insight into the realities of this support during the training. As mentioned before, Nairobits does not co-operate with families of participants which limits their ability to influence and enable supportive environments.

The completion rate of WT3 in 2003 was 87 percent, since two females dropped out; one because of marriage and the other because of pregnancy. Related to the latter it may be worth mentioning a story of PPF (Rusten, Ogasawara & Brady, 2005: 27) in which a pregnant girl was about to drop out of the programme but was offered learning materials to continue the PPF programme at home. In addition, PPF peers and a social worker from the project went to her home to help with the studies and encouraged her to stay in the program. The result was that she finished the programme. Despite Nairobits attempt to find a solution they did not succeed in keeping the two girls in the programme. Besides, there is no possibility of repeating classes or courses. Therefore, drop-outs can not return to finish the course. Pregnancy among urban disadvantaged females is however a rather common feature, which requires attention and a flexible approach. Apart from the two drop-outs, all other participants who finished the website course have graduated.

The gender division of labour within Nairobits partly challenges the stereotypical patriarchal structures. The three Dutch-based initiators of Nairobits together with the manager in Nairobi are all female. Female participants however lack identification with female role models during the training since the trainers, who interact and have more exposure to the participants than the management, are all male. Moreover, the trainers have not received any gender training. Nevertheless, some female as well as male participants have expressed their appreciation for the teaching methods of the teachers which showed the teacher's function as a role model. As Martha (22) one of the

participants, stated 'if I see these trainers I think one day I will be like that'. Also guest lectures that are usually provided twice in WT3 as well as the media-lab have been offered by 3 women and 5 men. Still, 'having female teachers alone is not sufficient for girls, it is also important that teacher training enables gender sensitization and also enables teachers to reflect upon their gendered identities and ways to alter them' (Stromquist et al., 1998 as cited in Okwany, 2004: 194). Female teachers may indeed balance the role models for female participants, but whether male or female teachers, gender sensitization is as much, if not more, important. UNIFEM/UNDP (2004: 9) expresses in a report on bridging the gender digital divide also the need for gender sensitivity in ICT training to address gender issues. As is emphasized by Bourdieux (1990, cited in Krais 1993) mental structures in both men and women which come together in the 'habitus' (the embodied history, internalised as a second nature) are the root of reproduction of the gender order which is based on patriarchy. For deconstruction and reconstruction of mental structures, a critical and conscience mind is required to push entrenched patriarchal barriers and values. Therefore, male teachers advocating for and taking into account equal opportunities for females can deconstruct the reproduction of the gender order as effectively as female teachers advocating for these opportunities.
In Nairobits the curriculum of the training is gender-neutral. The lectures and assignments in the course are not specifically addressing gender issues. Participants can however decide on interest areas of their liking, since they have the freedom to choose subjects within a given structure of an assignment. It is further worth mentioning that some girls pointed out that they felt like role models for other younger female community members in the slums by not being married or having children at their age.

### 3.3.2 The market

The literature addresses that creation of new jobs often go together with the reproduction of a gender division of labour (Krais, 1993). The ICT and website-design market, although considerably male-dominated in reality, seems to have equal accessibility for both male and female participants. Income-wise the benefits seem similar. The before-mentioned report of UNIFEM/UNDP points out that ICTs have great potential to enhance individual careers of women because high demand in ICT skills creates opportunities for all individuals, regardless of gender, race, and creed (2004:24). Among the media lab

graduates of 2003 and 2004 the number of employed and unemployed participants were equally divided between men and women.

For the ones that do not make it to the media lab, jobs, if acquired, have seen a somewhat more gender traditional outcome. For the female participants the (often temporarily or irregular) jobs obtained after WT3 concerned domestic work, working in a jewellery store, as sales representative and promoting products, working in a children's home and hairdressing. Males have been more into small business related jobs.

## 3.4 Asset-enhancement

In this paragraph the criteria given by the International Youth Foundation (see chapter 2) are discussed. Although certain sub-requirements are overlapping, the amount of criteria is rather extensive. Since space is limited, it is not possible to elaborate on each criteria. Therefore a selection is made of asset-enhancement provided by Nairobits in their website training. In short, it can be said that most criteria are well addressed in the training. Less attention is given to issues around personal health, knowledge and skills of finances, stress management and dealing with pressures, policy and advocacy training and most aspects surrounding taking risks.

**Learning how to learn**

Learning how to learn is addressed by giving assignments that require participants to do research in their own neighbourhood. They have to find relevant information via their neighbours or other sources like the internet. In this way they connect new information to existing knowledge that they already have from their neighbourhood. Since they also visit other communities, they are able to consciously compare their situations. In different levels and areas the training concentrates on communication skills. These skills are learned in relation to customers; one is taught how to present the work and how to work with the information that is provided by customers, trainers, but also fellow participants. The training uses both Kiswahili and English. According to IYF (2001:44) bi-lingual

ability typically enhances employment possibilities, learning opportunities and both personal and professional development. Although basic education like literacy is not specifically addressed (most participants received secondary education) the combined use of Kiswahili and English in the training contributes to enhancement of the languages. In working behind the computer the participants are stimulated to share and teach each other with information about their newly learned skills.

**Use of senses**

In terms of using all senses, the web-site training stimulates mainly touch, sight and sound. Touch is addressed by key-board and mouse; sight and sound are stimulated in terms of the design of the website, in which both are linked to confirm the actions which people make on the website. When the initial technical skills are explained the making of the website itself adds up to using ones imagination. Making websites is an activity that requires high creativity and the training demonstrates the participants how to express oneself with the use of colours, forms, letter types, moving objects and music.

**Learning by doing**

A significant aspect in the ICT training is learning by doing. IYF strongly emphasizes the need for practice. In the media-lab experiential learning is provided substantially in terms of practice and repetition. This practical element is also mainstreamed throughout other courses, although to a lesser extent. As IYF states: ...[learning by doing] constantly introduces youth to new information, processes, stimuli, and challenges that push development, problem-solving, and knowledge growth. Trial and error, success and failure are all important aspects of learning by doing.' (IYF, 2001: 45).
Another important element in providing skill-training to youth is having assignments that are related to real life. In the media-lab the participant are given actual client orders (via Outdare or otherwise). While Nairobits staff will produce the website, details of the assignment are given to each of the participants in order to make their own version. The customer then chooses out of the various created websites and gives feedback about why one website was chosen and the others rejected. Apart from learning what the market demands, this interaction contributes to their sense of purpose as well as to their learning

in how to deal with rejections and criticism. As The Forum for Youth Investment (The Forum, 2003: 15) mentions: 'Young people need to be on pathways through development and engagement – pathways that connect experiences, supports and opportunities into a coherent journey and that provide direction, hope, achievable dreams and opportunities for meaningful action'. Nairobits regular invites business men who provide input on the weaknesses and strengths of the students. This complements the learning by doing.

**Other requirements**

Nairobits also subscribes to IYF's 'Thinking across Boundaries and Disciplines: thinking outside the box', 'learning from others and working with others' and 'Recognizing patterns, question patterns and thinking critically'. The students work on their own and in teams on assignments such as research. The Brazilian report of the AED about PPF, as mentioned before, emphasizes the importance of this method of project-based learning. Project-based learning focuses on teaching by engaging students in investigation and points to the relevance of applying new skills and knowledge, doing research, working in teams and creating products that demonstrate real-world capacity (Rusten, Ogasawara & Brady, 2005: 17). Contrary to Nairobits, PPF is including an e-mentor programme, in which each participant is linked to at least one mentor. These mentors are connected to the private sector and guide participants via email and instant messaging. In this way, participants learn to establish and use professional networks, while also learning to communicate professionally (Rusten, Ogasawara & Brady, 2005:24-25).

Based on observations and the interviews, the low hierarchy between the trainers and the participants is evident. Apart from instructing the technical parts on building websites, both students and teachers communicate on an equal basis. They are in this respect 'partners' as Freire (1970: 56) points out. He sees being partners as the basis from which teacher's efforts match with those of the students to engage in critical thinking and the quest for mutual humanization. These efforts are embodied in a profound trust in people and their creative power. Nairobits teachers stimulate students' participation and interaction. Based on observations and the remarks of participants, it can be concluded that questioning and criticising each others work is consciously and successfully brought about by Nairobits. They start each lecture with a game, which creates friendships, trust and an atmosphere in which critical questions about one's work can be effectively

discussed. Moreover, research into the levels of engagement of youth has emphasized that having role models is critical for the youth's development. (Irby, Ferber & Pittman, 2001; Tolman & Pittman, 2001 cited in The Forum, 2003: 20). The trainers of Nairobits are role models. Their backgrounds as well as their ages are similar to those of the participants. Besides, they were trained themselves by Nairobits in the first batch in 2000 and this makes them more aware of their role.

Nairobits uses Freire's (1970) argument of 'problem-posing' education creating critical thinkers, through brainstorm sessions, research and continuous discussions. Existing websites on the net are critically scrutinised for improvements. Whether personal assignments or in teams, each result is then presented to the rest of the group.

Although the content addresses local and global cultural history, gender issues are not taken into account (see par. 3.4.1). Nairobits' contribution to crossing cultural boundaries and disciplines are addressed somewhat more on a local than on a global level. Chang[16] emphasizes also the importance of the content and information having to be directly related to their lives, communities and cultures. Related to the creative training content, the curriculum intentionally makes a balance between awareness of participant's own and fellow-students' identity, culture and backgrounds and the global contexts of cultures. Furthermore, thinking outside the box is stimulated in the training by students' communication with students outside Kenya (Uganda, The Netherlands). The interviews show that the setting of cross-cultural interactions and collaborations is highly valued by the participants. As Erica (23) admits: 'My mind was just stuck. I thought only within one community'.

Social skills and having learned to appreciate different backgrounds was a common remark on the questionnaire concerning non-computer related skills attained. One Islamic participant expressed the appreciation of mixed classes in terms of females and males. Another Christian participant shared: 'in the beginning it was hard to share the same class room [with Muslims] and to interact, but I learned more about them, became friends and now, at times, we even share meals'.

[16] http://weber.infosoc.yzu.edu.tw/

**Portfolio**

On a specific note for website design, a big advantage is the establishment of a portfolio. As long as the certification is not recognised by national or international standards, which is momentarily the case, the relevance of having a high quality portfolio is considerable. Media-lab participants have in this respect a clear advantage over WT3 participants. WT3 provides students with one personal and one collectively made website, while media-lab students have 4-6 website in their portfolio. Since the first quarter of 2004, Nairobits planned to co-operate with some well known institutions (even internationally) with the objective to have participants obtaining certificates from these institutions[17]. As yet, results have not been attained. The ICT-policy of the government mentions the objective to set up a framework to evaluate and certificate ICT training programmes. A recognised certificate would severely enhance the assets of the participants since it would ensure an accepted standard in the market. If an international certificate can be attained, it can be expected that Nairobits position would be enhanced for the training as well as for their business.

Furthermore, the website-related packages within Nairobits seem to cover a broader market than the visited training centres KCCT and Computer Pride Limited, which mainly offer a specific package in a course. Out of the interviews with the managers as well as the current developments within Nairobits it became clear that a comparative advantage can be reached by including programming for websites. In this way the client can edit websites easily to their own liking at any time. Nairobits is momentarily building up the capacity of their teachers with these programming skills.

## *3.5 Conclusion*

The most critical part of Nairobits' sustainability is its lacking relationship with the government. Especially since the government brought out an ICT policy in October 2004 with specifically mentioning the same target group of disadvantaged youth, as well as the

[17] http://www.nairobits.com/newsletter3.html

importance of the role of civil society for the implementation of the policy, it would both benefit the youth as well as Nairobits to establish this relationship. Although a divers funding strategy is an advantage for Nairobits financial sustainability, donors as well as partnerships with the private sector can still pull out their funds at any point. Furthermore, co-ordination by a higher structure can avoid overlaps and gaps in targeting groups. Plans to train official teachers with ICT skills will need to take this structure into account. The influencing of the government policy would contribute to their legitimacy. Nairobits can in this regard be seen as a pilot project in which lessons learned can be brought into a wider perspective. Now that a demand for ICT skills for the disadvantaged youth is recognised by the government, Nairobits bargaining position might be stronger together with their sustainability.

Self-sustainability can hardly be expected especially with merely free training. More business can result in a higher level of sustainability but will at one point challenge the resources and as a result challenge the training. Increased efforts in terms of exploring the potential for financial contribution to the training by families, communities and companies would add to Nairobits' self-sustainability. The relevance of the training will however have to stand out. For these stake-holders a return of investment has to be likely before any financial contribution can be expected. Besides the rather expensive resources required for the training, the scale is small which limits the potential of taking in local contributions. To sustain benefits of the training via CBOs it is necessary that these CBOs are provided with computers. A more inclusive approach of community development by Nairobits may be required to realise these benefits. The availability of resources on Mondays and Fridays however enhances the sustainability of benefits for the participants themselves.

With a student teacher ratio of 15 to 1 for the WT3, Nairobits may address a high level of efficiency. Although quality can be compromised due to this high ratio, Nairobits has e-learning material to reduce the dependency on trainers and to contribute to quality of the training. The media-lab, with a ratio of 6 to 1 can be regarded efficient since for the greater part of that training, the participants are independently putting their knowledge into practice. The quality of the media-lab participants is recognised by the market. Nevertheless, the duration of the several courses combined with the existing resources

and how the procedures are put into practice do not match with their own set goals. This means that either the resources or procedures require an adjustment to meet Nairobits' objectives. Alternatively, to set realistic goals, less ambitious results could be objected. Furthermore, in case a recognised certificate can be attained it is likely that less effort will be required to negotiate for internship in companies, which would additionally improve the efficiency.

Gender-equality is successfully achieved for the intake of students throughout the various courses. However, the content and curriculum of the new educational structure has remained gender blind. Recent developments within Nairobits are directed to tackle this gap. Without registering attendance levels and without including a direct relationship with families and communities Nairobits has little influence on creating or improving on a supportive environment for the participants, whose family situation may interfere with the objectives of the training. Characteristics of urban disadvantaged youth such as pregnancy rates among girls require attention as well as a flexible approach. Furthermore, although power in terms of decision making within the organisation is in hands of females, trainers are male and did not receive any gender training. In this way, participants miss out on becoming more conscious of gender issues, by which gender-inequalities are likely to be reproduced. Conversely, the market of website-related employment seems equally open for female as well as male participants. More research is needed to gain information on whether there is a difference in job conditions between the genders.

In terms of asset-enhancement Nairobits has for the greater part met the requirements as they are defined by IYF. Strongly represented are the criteria 'learning how to learn', 'use of senses' 'learning by doing'. The importance of practice is combined with dealing with real-life orders in the media-lab. The practical element is however less strongly represented in the WT3. Furthermore, 'crossing boundaries and disciplines' and 'learning from others and working with others' are addressed especially in terms of cultural aspects as well as by the invitations of managers from the private sector who give information about their strength and weakness. But, this latter aspect occurs rather incidentally. An e-mentor programme, as is implemented in PPF in Brazil, in which participants are connected via email and instant messaging to people from the private sector, can improve

the participants' professional skills as well as enrich their rather homogenous network. Other developments of international certification and new curricula such as including programming skills are in process.

# 4

# Impact of the website trainings

In this chapter the findings about the impact of the website training for the participants are discussed. Respondents of this research are the participants who were trained in 2003 and 2004. The analysis for this chapter is based on the voices of the trainees and thus includes perceptions of these participants. The data was collected by means of a questionnaire that was filled in by these participants in combination with an interview to verify the obtained information. The sample was composed of 23 graduated participants. This chapter refers to indicators based on the empowerment model of Wils (2001). The indicators are related to human, financial and social capital of the livelihood framework. Differentiation is made between students who received education up to WT3 and the participants who were offered an additional website course in the media lab.

## *4.1 Employment*

The research looks into the employment situation before and after the training. The livelihood framework states that in order for skill training to be relevant it needs to respond to market demand and result in employment or self-employment. In this paragraph different indicators of employment are addressed which will illustrate the impact of the Nairobits training on the employment situation of WT3 and the media lab participants.

Before the training 39 percent of the participants were in jobs such as small business, sales promotion and fruit selling. The majority of the employed earned an irregular income.

### 4.1.1 Website course 3

After the training 36 percent were still jobless and 64 percent had jobs. Although different in content, these jobs were similar to the ones before the training in terms of security. Only 25 percent mentioned that their current job was a result of the training received. This can relate to computer-related skills as well as other skills learnt, but none of them used web-site related skills in their work. Of the total group that received the WT3, 72 percent still used their computer skills and 55 percent used their internet skills. Bill (24), being jobless, mentioned that he made eulogies or curriculum vitae's (CVs) for some people in the community, but this was usually done as a substitution for contributing to a funeral or as a friendly act. In addition Johanna (21), who is also jobless, mentioned that she wrote CVs for others in her community and worked out notes of meetings of her voluntary organisation for free.

Of those with a job, the majority were more involved in decision-making in their organization and could do their work more independently. Also their work motivation and confidence in their skills had improved. During a focus group discussion as well as during the interviews the tough selection procedure, in which 6 out of 15 participants can pursue the training in the media-lab, was often mentioned as a motivator to perform well in WT3. It is however questionable whether this would be used as an argument in the case that participants from WT3 would acquire good website-related jobs also. The chances to a good job are likely to be stronger factor than the selection procedure itself. Related to this, Martha (22) remarked: 'After course 3 you are as good as you are in course 1'. Also Debby (22) said she felt WT3 was rather basic and that the training was not enough to get a well-paid job.

It can be concluded that most of the participants did not get a better job but their improved skills contributed to the way they function in their jobs. In this way, their future job prospects have improved.

### 4.1.2 Media lab

From the participants that enhanced their website skills in the media-lab, 92 percent was able to attain a job after the training. Of this employed group, 90 percent (83 percent of all the media-lab participants) attributed the acquirement of their job to the training. This high result is self-explanatory through the fact that this group is involved in website-related jobs in computer companies in the formal market. The majority of them found it easy to secure employment after the training (although it should be noted that efforts to find a job have been mainly carried out by the staff of Nairobits who searched for internships for these participants). It is further worth mentioning that the majority had more than one option to receive work. Some have also changed jobs as a result of their own will and efforts. All the employed felt that the training had contributed to their ability to work independently and they had confidence in the work they carried out. In addition they felt equally treated and appreciated as their colleagues.
They also mentioned that their work motivation had increased due to the training and 60 percent mentioned that they were involved in decision making. A further 70 percent had passed on their acquired skills to others in their organization. About a third of this latter group felt that the demand for skills from colleagues conflicted with the work they were supposed to do. Assuming that these skills are relevant for the colleagues, this demonstrates that recognition is given to specifically acquired website skills learned in the training. General appreciation is also addressed in the fact that half of the participants working with their website skills were given bonuses in their work.

Consequently, the conclusion can be drawn that the media lab contributed to a higher standard of jobs and that the training had a significant impact on their level of employment. In this way empowerment of the participants' human capital is achieved.

## *4.2 Income*

In this section the situation before and after the training is looked at from an income perspective. Different indicators are used to find out the extent to which the financial

capital has been improved for the participants. Before the training 61 percent of both the WT3 and media lab participants were jobless and had no income. Indications of the incomes of the working people varied between 3,500 Ksh and 10.000 Ksh[18]. For 94 percent of this working group, this was an irregular income.

### 4.2.1 Website course 3

For the group that received the WT3 training, only 36 percent saw an improvement in their income stability, meaning that people that were jobless before the training acquired a job with an irregular or regular income and the ones that had an irregular income before the training acquired a job with a regular income.
Only 9 percent earned more income due to the training, but could still not support themselves. Another 18 percent were able to support themselves and partly their families and were further able to save some money, but this was not related to the training. In addition, 9 percent earned some income from separate assignments related to computer and internet skills outside their job.
From a randomly selected part of this group the incomes are available. Based on this data in combination with the sorts of jobs they mentioned to have acquired, it can be concluded that the incomes earned before the training are not significantly different from the incomes earned after the training.

It can also be deduced from the above that the participants have not seen a significant change in their income status due to the training.

### 4.2.2 Media lab

All of the media-lab participants that had a job related to the training (83 percent of the total) saw their status of no income or irregular income result in a regular income after the training. Of this group 90 percent earned more income due to the training, 70 percent were able to support themselves and 60 percent could save money. An impressive 90

[18] Minimum wage for Kenya was in January 2004 Ksh 3288 per month. See website: rru.worldbank.org/Documents/DoingBusiness/ExploreTopics/HiringFiringWorkers/Economies/kenya.pdf

percent of these employed participants could help their families financially via contributions to their basic needs. The recorded incomes for the jobs within the computer companies in Nairobi vary (as far as information could be attained) between 15,000 and 20,000 Ksh gross per month. Most of the internships took 3 to 6 months and compensations varied between 5,000 and 8,000 Ksh per month.
Half of the employed participants also earned some income from separate assignments related to website skills and 40 percent earned some income via separate assignments related to computer and internet skills.

It can be concluded that for a significant part of this group their income status has improved due to the training. Empowerment of their financial capital has thus been significantly achieved.

## *4.3 Confidence and Participation*

In this paragraph confidence and participation of the participants in new situations will be addressed. In this chapter also some voices will be quoted to clarify and support the information attained form the questionnaires.

### 4.3.1 Website course 3

All participants of the WT3 mentioned that the training contributed to their increased feeling of self-confidence. Activities in the training that were most often said to contribute to this were presentations, communication skills, interaction and gaining knowledge of participants from other backgrounds. Also, the starting up games at the beginning of every training day and the respectful way the teachers dealt with the students was mentioned as an important element which contributed to their confidence. Johanna (21): 'I couldn't make friends and was shy, but now I can actively start making friends'.

A little less than half of the participants expressed their confidence in terms of thinking beyond the slums by agreeing with the statement 'As a result of this training I am now thinking of getting a job abroad'. In the focus group discussion it was mentioned by some that the disappointment of not having reached the media-lab created insecurity about possibilities, which was also said to be linked with the smaller portfolio. However, the group was composed mainly of participants who had been selected for the media-lab. Their opinions (not based on experience) about the selection influencing confidence varied.

Of the total of WT3 participants, 81 percent said they had reached their initial goal for entering the training, which was mainly to gain computer knowledge. Some participants mentioned the goal for a job. Yet, answers seemed to reflect the people's current situation, meaning that for the ones that were jobless, they still felt their goal had been reached by gaining knowledge. Some had not achieved their goals since they had no website-related job. About 63 percent had been carrying out computer related activities within their family or community, which mostly meant training some members (often family) with basic computer and internet skills. Another 90 percent felt that the course had broadened their horizons and that people now looked up to them. People whom they felt looked up to them were mainly from their communities and families in the slums and new students of Nairobits. Most participants, as well as from WT3 as from the media-lab, regard Nairobits as a new 'family'; connections between ex-participants and Nairobits are rather strong, including friendships between ex-students and current students. Many pay regular visits at Nairobits after the training, mostly on Mondays and Fridays because of the availability of the equipment. Additionally, less than half felt that since the training they were more involved in household decisions and more than half said to have been invited to groups which used to ignore them. These groups were mainly groups (like other CBOs as well as fellow community members) within the slums, which could be seen as an expansion of their rather homogeneous social network. Andrea (23) mentioned to be participating more actively in meetings of her voluntary organisation and felt that she was taken more seriously by others.

Although confidence and participation improved the social capital for WT3 participants, an increase in participation is mainly occurring within the social homogenous network of the slums.

### 4.3.2 Media-lab

In line with the WT3 participants, all of the media-lab participants mentioned that the training had contributed to increasing their self-confidence. Within this group it was also expressed that expressing oneself in English in class had contributed to improved social skills. Similar answers as the WT3 participants were also given on training activities that had contributed to increasing their self-confidence. Related to this and to the respectful way the trainers treated the participants, some participants said the following.

Justin (20): 'They make you aware that being from the slum is not a disability, it is just a disadvantage...They give you the time to listen to you and you are appreciated for all your creations'.

Emily (23): 'I was rigid, never used to mingle with people but now I can make friends actively...I can associate with people with other cultural backgrounds and different personalities'.

Aisha (22): 'I used to be shy and never used to express myself, now I can'.

Sarah (21): '[Before the training] I could not stand in front of a group...'

Perspectives on thinking about getting a job abroad were somewhat higher (58 percent) than the WT3 participants. One of the participants had actually done an internship with WK in The Netherlands for a month and another mentioned having applied for a job in South Africa.

All media-lab participants mentioned that they reached their initial goal, which was the same as WT3 participants: to gain computer knowledge. It is however worth pointing out that 83 percent additionally mentioned a job as part of their goals, whereas in the WT3 group only a few mentioned that goal. It is therefore highly likely that the idea about the initial goals of media-lab participants may have been influenced by their own success as a group. About 41 percent had been carrying out computer related activities like training some members (often family) with basic computer skills. All media-lab participants expressed that people within their communities as well as new students now looked up to them, and 92 percent said the course had broadened their horizons. Lastly, 75 percent mentioned to be more involved in household decision-making since the training.

Thus, the social capital in terms of confidence and participation of the media-lab participants has been evidently improved. Participation in formal employment means additionally that their network has become more heterogeneous, which shows enrichment of their social capital.

## 4.4 Conclusion

The benefits of the training in terms of employment and income are clearly higher with an additional training in the media-lab. This means that in terms of human and financial capital, the media-lab has been more empowering participants than the WT3 course. Whereas WT3 shows some increase in quality of work with the employed participants, more tangible benefits are visible with the media-lab participants. Empowerment through an increase in social capital in terms of confidence and participation is evident with both groups, but again the media-lab participants have benefited more, since their participation in a formal market has contributed to a more heterogenic network which increases their professional opportunities.

# 5

# Conclusions and recommendations

This paper set out to explore the case-study of Nairobits, an NGO that offers website training to urban disadvantaged youth in Kenya. With many urban youth in slums having limited opportunities for education, training and employment, this research assessed the opportunities created by Nairobits' website training for urban disadvantaged youth as well as the approaches, achievements and limitations of Nairobits. The paper addressed to what extent this way of empowerment contributes to the human development of urban disadvantaged youth and whether the intervention lifts these youth out of their marginalised position. The collected primary data was applied to various frameworks. The NGO-State framework was used to describe the delivery context of Nairobits. With concepts from the SRF and training requirements set by IYF the quality and asset-enhancement of the training were assessed. The empowerment and impact of the training were examined via the concepts of human, financial and social capital of the livelihood framework.

The research shows that Nairobits training in ICT empowers urban disadvantaged youth through an increase of human, financial and social capital. Regarding human and financial capital, there is however a significant difference between participants who received media-lab trained and WT3 participants. For media-lab participants good opportunities are created to access relevant employment in the formal sector whereas the WT3 participants are acquiring non-website related jobs. As a result of the findings of the study, the following six recommendations are proposed to Nairobits for more responsive programming.

**Sustainability and scale**

1. Establish linkage with government to improve on sustainability and scale.

ICT training such as the website training of Nairobits for urban disadvantaged youth is an applicable method to address both poverty reduction and the digital divide. However, ICT

requires rather large investment and requires a long-term commitment from all stakeholders to be beneficial and to be sustainable. Nairobits has successfully improved its sustainability in recent years via diversity in partnerships. As stated by Wazir (2000: 263) NGOs should however not seek to substitute government and need to focus attention on the crucial weak link, namely, the demand dimension, involving advocacy and mobilization at the local level. This is a critical point for Nairobits, which has established no linkages with the government. Nairobits has valuable information on provisioning urban disadvantaged youth with ICT skills, which would complement the government. A linkage with the government prevents overlaps and gaps in provision of ICT for disadvantaged youth. Besides, as long as their existence is to a large extent dependant on donors Nairobits should acknowledge that they can not, but deal with a "dimension of vulnerability and unpredictability since donors priorities could well shift for independent reasons" (Wazir, 2000: 257).

Limited resources available further determine their outreach. As is rather typical for NGOs, Nairobits' reach is small-scale in relation to its target group of disadvantaged urban youth who have completed secondary school. This specific training may not be suitable for all youth within this group, but, as is the case with sustainability, co-operation with the government can also be beneficial to go to scale. For the ideas of scaling up by training teachers in secondary schools in slums, this co-operation is bound to be established while it will require a careful look towards the limitations of Nairobits' own capacity. Especially now the government has recognized ICT training for disadvantaged youth as a legitimate demand as well as the role of NGOs, it is strongly recommended for Nairobits to include a strategy for partnership with the government.

2. Establish a more inclusive and direct relationship with communities and families.

The vulnerability caused by the dependency on donors also adds to a case for self-sustainability by exploring and utilising existing capacity within communities. Although linkages with CBOs are present, collaboration is to a large extent focused on the selection of participants. As long as there is a lack of computers for a significant part of the CBOs, direct benefits of the training for the communities are questionable. Investments in CBOs may therefore be considered, to let ideas of computer trainings in the communities

flourish. In addition, a direct linkage with families enhances the possibility to create supportive environments. Taking a pro-active approach to include participation from families and communities in combination with establishing a link with government contributes to Nairobits' legitimacy. Also linking up with other NGOs in Kenya which have a relation or an interest in the provision of ICT training of urban disadvantaged youth would create a stronger bargaining position in relation to the government.

**Efficiency**

3. Review of procedures to streamline the timeframe of the various courses to Nairobits' goals.

Nairobits own set goals of numbers participants trained per year seem to conflict with the current practical procedures of the training. When the first three courses can be kept within a half year period, their goals could be reached. This may however require different structures of the trainings or selection procedures which may create other pressures on the current capacity. This would need further analysis. Unless these courses can be kept within a half year period, less ambitious goals would serve current practical procedures and resources.

In terms of other aspects of efficiency Nairobits seems to perform well. In comparison with the three trainings of KCCT, Computer Pride Limited and PPF Nairobits has a highly efficient student teacher ratio in WT3. While exact influence of a high ratio onto the quality of the training can not be measured, they have at least partly covered this risk with installing an e-learning curriculum onto the web. In addition, this positively contributes to efficiency in terms of sharing knowledge for other institutions or individuals that would like to take up such training. The lower student teacher ratio in the media-lab is efficient since students are working independently most of the time. Nairobits has identified the significance of a recognised certificate since the beginning of 2004. Since such a certificate would add to appreciation of trained participants within the market, efficiency might be gained by a reduction in current efforts to lobby and negotiate for internships for the participants.

**Gender-equality**

4. A gender sensitive curriculum and content of the training is required, which would include gender training for the trainers and keeping attendance levels.

In terms of gender-equality the project has successfully guarded the gender-balanced intake of the courses. However, since gender-sensitive content of the curriculum is missing, awareness of gender issues, stereotypical roles and their constraints are not challenged within the training. Nairobits is currently in process to address gender-aspects within the curriculum and content of the training. The teachers, being all male have however not attended a gender-training. Furthermore, attendance levels have not been registered. Keeping attendance levels combined with a direct relationship with the participants' family may be fruitful activities to address and redress potential social barriers. Still, based on the employability of the media-lab participants it seems that the website-related market is as accessible for women as men.

**Asset-enhancement**

5. Set up an e-mentor programme with people in the private sector.

As can be concluded from the research, Nairobits performs well on the various training requirements for youth and employment as set by the IYF. Experiential learning is emphasized by IYF and Nairobits takes up this practical element of learning throughout the trainings. Experiential learning is however addressed mostly within the media-lab.
Setting up an e-mentor programme with people in the private sector is recommended since it enhances the participants' professional communication skills as well as their professional network. It would also improve knowledge about the requirements in the market.

**Relevance**

6. Unless demand can be created for the WT3 participants in the market, it may be recommendable to merge WT3 with the media-lab training.

Website training can be related to a local as well as a global market for building websites. In this respect the relevance of the training seems to be guaranteed. However, as is stated by Rutherford et al. (2002: 128), to avoid the mismatch of supply of trained people and demand in local and global labour markets, training should respond to these market needs and result in related employment or self-employment. Self-employment is not a valid option for disadvantaged youth since resources to do so are not easily attained. To produce websites on a self-employed basis participants are dependent on the facilities that are available at Nairobits on Mondays and Fridays. Although in principle this gives the participants some space for freelance orders, the use of this option for self-employment is rather limited. The alternative of using of internet-cafes is a limited opportunity since the costs related to the required time to build a website are relatively high. Exploring more suitable opportunities for self-employment is advisable. For as yet, employment and not self-employment seems a more realistic goal.

The relevance of the media-lab training is evident, since a significant number of media-lab participants acquired a website-related job. For WT3 the relevance is inadequate since none of the WT3 participants is working with their website skills. The difference lies mainly within the levels of practice resulting in the acquired portfolio of the students. Although within the timeframe of 3 months experiential learning is provided in WT3, the results appear to lack sufficient quality to be suitable for the website market. Selecting the best people for the media-lab is logical in the need to build up a reputation and a comparative advantage within the competitive formal market. However, based on the findings from the questionnaire on the impact of the training, no alternative market demand is present for non-selected WT3 participants. Therefore, WT3 is as yet not finding its purpose, if one is not selected for the media-lab. In the present situation the relevance of WT3 is thus established within the additional media-lab course. In this respect human and financial capital are clearly benefiting media-lab participants over WT3 participants. Social capital in terms of confidence and participation increased for both groups, but, due to employment in the formal sector, participation of media-lab students occurs within a more heterogenic network. Thus, unless demand for WT3 participants can be created, it is advisable to direct these participants towards the media-lab in order to increase the relevance of WT3.

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# ANNEX A: Questionnaire

Questionnaire for all ex-participants of Nairobits' website training

---

1. Gender:
O Female
O Male

2. Religion:
O Protestant
O Roman Catholic
O Islam
O Other, (please specify).....

3. Ethnic Background:
(for example: Luo)
.....

4. I was selected for Nairobits via:
(Please give name of Community Organization; for example MYSA) .....

5. My age is:.....years

6. My highest level of formal education is:

O I have not received any formal education
O Primary Education graduated: O Yes O No
O Secondary Education graduated: O Yes O No
O Tertiary Education graduated: O Yes O No

7 . I attended the (3 month) website-training:
O last year (2004)
O two years ago (2003)
O three years ago (2002)
O four years ago (2001)
O five years ago (2000)

8. I passed the exam for this website training: O Yes O No
9. I have been also trained in the web-lab: O Yes O No

10. (if yes) I passed the exam for the final web-lab skills: O Yes O No

11. I live in (please, fill in the name of area in Nairobi):.....(example: Kibera)
12. Since (please give year since you lived in this area):.....

13. I live:
O with my family
O with non-family members
O other (please specify):.....

14. In my home we live with ....members (please fill in number, including you).
15.The house exists of .....room(s) (please fill in number of rooms).

16. Now I am (please click yes or no):
- earning a regular income O yes O no
- earning an irregular income O yes O no
- receiving remittance (money sent to you from O yes O no
a family-member or non-family member on a regular base)

17. Before the training I lived:

O with my family
O with non-family members
O other (please speficy):.....

18. Before the training at Nairobits I was:

- earning a regular income O yes O no
- earning an irregular income O yes O no
- receiving remittance (money sent to you from O yes O no
a family-member or non-family member on a regular base)

19. Before I started the training I was:
(you can choose more than one answer, if applicable)

O jobless
O in school
O working on the street
O working for my family (in or around the house)
O working in a Community-Based Organisation (CBO)
O working in a school
O working in national NGO
O working for a:
O Small company (1-5 employees)
O Medium-size company (6-25 employees)
O Large company (above 25 employees)
O in a fellowship programme in Kenya
O in a fellowship programme abroad
O other (please specify).....

20. What <u>was</u> your position in your institution before the training?

O Director
O Manager
O Administrative staff
O Technical staff
O Support staff
O Self employed
O Teacher
O Student
O Other .....

21. Did you have experience with computers before entering the Nairobits training?

O Yes, a lot (Please specify:).....
O Yes, a bit
O no

22. When I was selected for the training at Nairobits my family was:

O supportive and excited for me
O doubtful whether it would be benefiting me (in getting a job)
O resistant
O neutral
O other (please specify).....

23.What was your main reason to attend this course?

.....
.....
.....

24. Has this training helped you to achieve these goals?

O Yes
O No

25 a. If yes, can you explain how you have achieved the goals by attending this course?

.....
.....
.....

25 b. If no, can you explain why you have not been able to achieve the goals?

.....
.....
.....

26. Now (after the training) I am:

O working with my website design skills

O not working with my website design skills, but my work includes internet and computers skills that I learned at the training

O only still working with my internet skills, learned via the training

O only still working with my computer skills, learned via the training

O working with computer or internet skills that I already knew before the training

O not working with computers

O other (please specify).....

27. Now I am (you can choose more than one answer if applicable):

O jobless
O in school
O working on the street
O working for my family (in or around the house)
O working in a Community-Based Organisation (CBO)
O working in a school
O working in national NGO
O working for a:
O Small company (1-5 employees)
O Medium-size company (6-25 employees)
O Large company (above 25 employees)
O in a fellowship programme in Kenya
O in a fellowship programme abroad
O other (please specify).....

28. I have been in this job (or training or jobless) for ..... months (please give number).

29. What is your current position in your institution?

O Director

O Manager

O Administrative staff

O Technical staff

O Support staff

O Self employed

O Teacher

O Student

O Other .....

30. I selected my current job out of .....option(s) that I could choose from. (please give number)

31. Please mark the option that reflects how you feel about the following statements.

* for example, if you have no job or no income, some of the statements may not be applicable.

| | I strongly disagree | I disagree | neutral | I agree | I strongly agree | Not* Applicable |
|---|---|---|---|---|---|---|
| After the training it was easy to find a job | O | O | O | O | O | O |
| Due to the training I now have a better job than before the training | O | O | O | O | O | O |
| As a result of this training I am now more involved in decision making in my organization | O | O | O | O | O | O |
| This training has motivated me to work harder | O | O | O | O | O | O |
| I have been able to pass on the | O | O | O | O | O | O |

| | | | | | | |
|---|---|---|---|---|---|---|
| knowledge and skills I acquired from the training to other people in my organization | | | | | | |
| In my job I feel equally appreciated as my colleagues | O | O | O | O | O | O |
| The side effect of this training is that I spend more time helping others than the time I spend doing the work I am supposed to do | O | O | O | O | O | O |
| I feel confident about the work I deliver | O | O | O | O | O | O |
| The training has contributed to my ability to handle my job assignments independently | O | O | O | O | O | O |
| As a result of this training I have gained useful computer skills | O | O | O | O | O | O |
| As a result of this training I have gained other skills | O | O | O | O | O | O |

* for example, if you have no job or no income, some of the statements may not be applicable.

32. If you agreed to the last question ('Through this course I have gained other skills), could you please name these skills, knowledge or attitudes that emerged for you from the course?

1.

2.

3. (Please add, if more than three)

33. Please mark the option that reflects how you feel about the following statements.

* for example, if you have no job or no income, some of the statements may not be applicable.

| | I strongly disagree | I disagree | neutral | I agree | I strongly agree | Not* Applicable |
|---|---|---|---|---|---|---|
| Due to this training I now earn more money | O | O | O | O | O | O |
| Apart from my main job, I earn money via private assignments related to my websites- skills | O | O | O | O | O | O |
| Apart from my main job, I earn money via private assignments related to my computers skills / internet skills (excl. websites) | O | O | O | O | O | O |
| I received performance-related rewards (bonuses) in my current job | O | O | O | O | O | O |
| With this income I can fully support myself | O | O | O | O | O | O |
| With this income I now save money | O | O | O | O | O | O |
| My family has also indirectly benefited from this training | O | O | O | O | O | O |

* for example, if you have no job or no income, some of the statements may not be applicable.

33. If you agreed to the last statement ('Through my participation my family has also indirectly benefited from this training'), could you please explain (or give an example) how your family or community has benefited indirectly from this course?

.....

.....

.....

.....

34. If you had more than one job (or training/fellowship/school) after the Nairobits website training, could you please fill in the table below.

| Job /training after Nairobits | It was my choice to leave the job | Time in number of months | I use(d) Computer skills | I use(d) web-site design skills | I use(d) no computer |
|---|---|---|---|---|---|
| (please, specify job*, in order of occurrence) | Please fill in yes or no | Number | (please fill in "X", where applicable) | | |
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |

* can also be training, fellowship or school

35. Please mark the option that reflects how you feel about the following statements.

| | I strongly disagree | I disagree | neutral | I agree | I strongly agree |
|---|---|---|---|---|---|
| This training has broadened my horizon | O | O | O | O | O |
| As a result of this training I am now thinking of getting a job abroad | O | O | O | O | O |
| The training has contributed to my confidence | O | O | O | O | O |
| Since I took part in the training other people now look up to me | O | O | O | O | O |
| (indirectly) Due to this training I am now more involved in decision making in the household | O | O | O | O | O |
| As a result of this training I have been requested to join memberships/ meetings/ groups from which I used to be excluded | O | O | O | O | O |

36. I would like to receive a summary of the total results of this questionnaire:

O yes, send it to the following email address:.....

O no

Thank you for you co-operation.

Kind Regards,

Patricia Kneepkens
Institute of Social Studies
The Hague
www.iss.nl

PS Please, feel free to add information below of which you feel it may be relevant:

.....

..... .....