

FUTURE SEARCH CASE

THE FUTURE OF ICT IN YEMENI HIGHER EDUCATION

Dr. Han Rakels, *Perspectivity*

A review of ICT initiatives in Yemen led to stakeholders voicing concern that the approach to ICT development had been haphazard and risking waste of investments, duplication of efforts, and other levels of inefficiencies. The purpose of this Future Search was to build a shared vision on utilizing ICT resources for the 10 state universities and community colleges in Yemen and develop a national ICT policy and master plan.

1. General Background

Context

Yemen is a country that has politically and socially been isolated for a long time. It has been very dependent on external support. It suffered from the closure of the Suez channel (1967 – 1975). The reunion of northern and southern Yemen in 1990 were indications that big changes were on their way. However, the pro-Iraqi attitude during the Gulf war (1990/91) led to withdrawal from all Saudi-Arabian support and the civil war of 1994 further worsened the internal situation. With IMF support it is now slowly recovering from the economic crises and is facing challenges of how to be a member state of the global society. Yemen is on the list of priority countries of the Netherlands Ministry of Foreign Affairs to receive support for development.

A review of ICT initiatives in Yemen led to stakeholders voicing concern that the approach to ICT development had been haphazard and risking waste of investments, duplication of efforts, and other levels of inefficiencies. Evidently, a common need had arisen to strengthen the nation-wide capacity to plan for phased growth in ICT, before rushing into specific solutions and projects. Particular interventions may be more effectively implemented once a nation-wide policy and master plan is in place. The successful use of ICT in education depends to a large extent on a supportive policy environment and framework at the national level. A national policy will help ensure that educational policy-makers, administrators and practitioners are acquainted with the multi-faceted opportunities, challenges, and constraints of employing ICT resources for education.

It was the explicit desire from government and institutions that the policy-making process be participatory. This was the first time ever that a Future Search was held in Yemen and a number of special features characterized this Future Search to suit various, cultural, organizational and content-based aspects.

Objectives

The purpose of this Future Search was to build a shared vision on utilizing ICT resources for the 10 state universities and community colleges in Yemen and develop a national ICT policy and master plan.

‘Yemeni institutions of higher education need to deploy information and communication technology to strengthen academic performance in contribution to the sustainable development of the national and global society.’

Vice-Minister for Higher Education, Dr.

Mohammed Mottahar

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Date, Venue and Funding

From April 18th – 22nd, around 70 people gathered in the port city of Aden, for a Future Search Conference to address “The Future of Information and Communication Technology in Yemeni Higher Education”.

Note: The first University in Yemen was established only in 1970 in Sana’a and the second in 1975 in Aden!!

The Conference was financed through Dutch development cooperation funds and hosted by the Ministry of Higher Education and Scientific Research of Yemen, in the person of Dr. Mohammed Mottahar, Vice Minister.

Stakeholder groups

The key success factor to a Future Search is to bring the right people together, the stakeholders that make up the “whole system”, which are the persons that need to be involved to accomplish the Conference task. They were invited on the following general criteria: People with authority, (decisive mandates), with means / resources (managers, sponsors, donors), with expertise (expert or specialized knowledge), with information (e.g. externals) or with a need / concern (people that will be affected by the impact of the outcomes).

The final selection of stakeholders is a very important step in the preparation of the Conference and requires a thorough understanding of the methodology.

The planning team decided on the following eight stakeholder groups after careful deliberation:

- University / college vice chancellors
- Government officials
- University / college administrators (finance, personnel, registry)
- Library specialists
- Yemeni ICT experts
- University ICT managers
- Academicians (lecturers, researchers)
- International experts (Dutch, Tanzanian)

2. The Conference – what happened!

The past

Timelines from 1990 – now were made to describe milestones on personal and global level and within the higher education sector, regarding ICT. Findings were shared and implications explored.

At a personal level people mainly brought in personal aspects of their lives (birth, marriage, work, death) and the need of family satisfaction for job satisfaction and vice versa, including the need for personal and professional growth which all shared.



Exploring the past

At a global level the main political, social, economic and technological events were mentioned, such as the various crises and wars in Yemen and the Arabic region, but also happenings in Europe and Central Asia, which all hampered or contributed to development. Yemen has been prone to many of these events from the recent past. At the same time growth is seen and the role ICT plays in linking to the world.

At the level of ICT in Yemeni higher education, some milestones have been the growth of the sector with more and more institutions and new departments (including ICT), establishment of the MHESR and the increase in various (ad hoc) ICT facilities, services and training within the universities and colleges as well as in society as a whole.

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The present

External Trends

As a first step in exploring the present, a mind-map was made to picture the present trends in society, social, economic, technological, political, environmental, etc., that were believed to shape the future. This was a whole group brainstorm, creating a shared picture of the world we live in. Among many, key trends that stood out concerned the increasing demand for ICT to support academic processes, the needs to train staff, the growing number of ICT courses and colleges, the growing social awareness on ICT and its uses and the need for regulation.



Trend mapping

Stakeholders' perspectives

Stakeholders discussed in their groups which external key trends were of most concern and how they respond to them. They considered what they are doing in the present and what they are not doing but ought to be doing.

Some of the main issues and needs pointed out by the groups were: the need to improve and coordinate network infrastructures (LANs and WANs); the need for office automation, e-mail/internet access and computer laboratories; the shortage of competent technical staff, ICT specialists and need for training of end-users; the need for funding even while government is providing more support – and the necessity to further work with the increasing interest of the donor community; the desire for various types of e-library/reference services; the need for management information systems (finance,

student, others) and train leaders; the need to organize and manage ICT resources more efficiently (including data security); need for ICT use in government (information/statistics) and co-ordinating efforts and strategies by government; need for policies, guidelines, standards and regulations (including ICT staff retention issues).

Prouds and sorries

Stakeholders were tasked to consider how they feel about what they are currently doing. What are they proud they are presently doing; what are they sorry about they are presently doing or not-doing?



Exchanging prouds and sorries

Selected prouds:

To be participating in this conference and have all Yemeni universities and government together interacting; To be sharing experiences in this Conference in a diverse setting; To be working (jointly) towards development of ICT; to be participating in developing ICT infrastructure, departments; to be participating in skills and competences enhancement programmes; to be serving the community; to be serving students with information/references; to have established MHESR and adopted the law of Yemeni universities.

Selected sorries:

To not be taking available opportunities and taking a non-active attitude; to have lagged behind in establishing plans in introducing ICT in general; to not be utilizing network capacities; to be ignoring national

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expertises; to not have acquired specific MIS; to be employing non-qualified people for specialised assignments; to not have worked for integrated efforts and did not coordinate well; to have not streamlined processes and procedures; to have participated in establishing new colleges/courses.

The Future

The (mixed) groups were tasked to imagine a future they want to work towards. Putting themselves 10 years into the future, they visualize “ICT in Higher Education” in year 2014 and gave expression to their dreams by presenting the future scenarios in a creative manner.

Dreams that were presented included: Global education and e-learning with students at the centre of the education process and teachers as coaches; decentralised and automated administration processes; networks and infrastructures in place; e-libraries that are interconnected; wide and efficient information access, including fast e-mail/internet access; various management information systems up and running (especially student records, finance); software applications widely accessible and software development ongoing; financing schemes for development; PC's widely and readily available and accessible; e-government; training centres in place; staff retention schemes in place; policies and regulations operational.

Some of the main issues that groups envisaged had to be addressed to realise the dreams were: poor coordination of local efforts, lack of national guidance, absence qualified human resources, resistance to change; differences between universities; scarcity of qualified staff; malpractices in system implementation and security issues; competition between universities.

Solutions: optimisation of (financial) resources; cost-sharing; learning from best-practices elsewhere; planning for development; seeking involvement of stakeholders; training; national coordination; coordination and decision-making by consensus building; financing schemes; sharing resources.



Open and appreciative atmosphere

3. Common Ground

The common ground is what all participants agreed on. They assessed together what had been the issues and topics that had been recurring throughout the Conference and would make up the core ingredients of a national ICT policy. They were eventually categorized in the following clusters:

8 CLUSTERS

- **Government co-ordination capacity:** Government facilities (housing), national management information system, coordination and promotion of institutional strategic development, policies and guidelines (including ICT staff retention schemes).
- **E-learning:** E-learning and distance education facilities and platforms.
- **E-Library:** Library information system. Local content development. Digitizing of content.
- **Management information systems:** Streamline administrative processes. Student and employee databases. Student records information system, finance information system.
- **Office computing and computer facilities:** 1 pc per 10 students as target; computer laboratories; offices computerisation; e-mail/internet and standard applications
- **End-user training:** Training of staff
- **Data communication infrastructure:** National network infrastructure and services, including high-speed Internet access.
- **ICT-Support Services:** Dedicated ICT resources management centres, help-desk support, software development, technical support and maintenance.

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It is important to note that all participants agreed on these matters as issues for a common approach. One should understand, however that this does not imply that all universities or colleges would have to develop at a same rate or same level. While the approach may be common, implementation might be de-centralised and phased. The common ground that was agreed does on the other hand suggest that institutions have agreed on a certain level of interdependency to ultimately achieve more efficiency and higher effectiveness. This is to be further specified in the ICT master plan and the institutional ICT policies.



Finding common ground for policies and plans

4. What Happened Next?

Next steps

Task forces were formed around the thematic clusters that made up the common ground. These task forces made a first attempt to plan for action. It was agreed that the “whole system” would reconvene before mid-October 2004 to discuss progress made and take further actions. This is what happened and in a Master Planning Workshop many planning details were addressed. Meantime, a team of international experts applied their experience in ICT policy development and translated the considerations and outcomes of the Conference, which have been briefly summarized in this case, into a draft National ICT Policy for Higher Education, complimented with other background information. This draft was presented and submitted to the Ministry on April 26, 2004 for approval and formulisation.

MAIN GAINS

- Shared vision and policy framework
- Task forces established for follow-up
- Inspired decision makers ('guaranteed' support for policy)
- High level of ownership of participants (Future Search principles)
- Mutual respect among stakeholders (understanding)
- Informed ICT people (learning through exchange)
- Informed higher education community (TV, website, CD, proceedings)

Consequently, in a period of 3 months (including all the planning and preparation) the National Policy was in place. In 10 months also the Master Plan was there to operationalise the policy. Everything co-created and supported by the entire sector. Knowing that the relations between government and the academic world were far from optimal before the future search, it was a remarkable fact that they had now their noses pointing to a shared future they all agreed.

To implement the plans roughly 18 million US\$ was needed. To obtain these funds a donors conference had been scheduled. However, it was cancelled well before the set date, because all the needed funding was already acquired: The vice-minister visited some potential funders and was convincingly able to show how the plans had come about. This resulted in him having all the needed funds mobilised in a few months only.

Some weeks after the future search, the Vice-Minister for Higher Education wrote us a letter, reflecting on the process (see next pages).

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Letter from the Vice Minister

From: Dr. Mohammed Al-Mottahar
Vice Minister for Higher Education and Scientific Research

To: Dr. Han Rakels, Future Search Facilitator

“...on the Future Search Conference



Planning, preparation and introduction

Future search was an effective tool in enabling us to realise the workshop objectives. The presence of a future search expert who has been involved in the planning of the workshop, in terms of clarifying workshop outcomes, identifying the type of people who will participate in the workshop, ensuring that they represent the crucial mix of stakeholders, that will represent the whole system, was crucial. Furthermore, the future search specialist was very particular about the number of participants in each of the eight groups to ensure good representation of the whole system in both mixed and homogenous group, which enhanced the realization of the workshop outcomes.

The planned presentation of written and hand-out type of materials in a vivid way, at the beginning of the workshop, attracted the participants attention to the new methodology and increased their readiness to understand its basic concepts, principles, importance of important stakeholders involvement, methodology, and applications and ways of action.

The planning and the introduction of the future search methodology was conducted in such a way that it was reasonable to energize the participants, and at the same time, without jeopardizing the achievement of the workshop objectives by becoming an end in it-self. Generally, there was a good equilibrium between the process (future search) and the content (workshop).

Participants appreciation

The methodology as such was well appreciated by participants for a number of reasons:

- the novelty of the concept was highly appreciated. Participants were eager to learn about it and understand it.
- the existence of an expert that deals entirely with the process aspects of the workshop, which is unusual to them.
- the marked difference between future search and the traditional ways of conducting workshops that they have experienced in the past.

Despite the good introduction to the future search concept and methodology at the beginning of the workshop, participants were not feeling at ease, especially when they began to deal with the first workshop exercise that dealt with the aspects that deals with the past, for example, writing about important events that happened to them, at the personal and family level, international level, and at the ICT level in higher education between the years 1990-1994, and between 1995- 1999, and between 2000-2004. Some of the participants expressed their feeling of ambiguity and even frustration about the process and about the relation between the events at the three levels. how they interact and influence each other (continue reading on page 7).

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But after a little while, they began reluctantly to answer the questions and they began to realize the relation between the three levels and once they saw their colleagues began to write their answers on the big sheets of papers on the walls. The level of enthusiasm increased at each additional level of participation, especially when they began to write their contribution about the present trends of ICT (positive and negative), and about the future vision of ICT in Yemen higher education system.

Experienced differences and success factors

The most striking differences in comparison to traditional methodologies are:

- the level of interest and enthusiasm of participants during the workshop from eight in the morning to two thirty in the afternoon, which is unusual in many traditional workshops.
- the continuity and high level of attendance during the five days of the workshops in comparison to traditional workshops.
- the representation and involvement of the whole system in the room in a well-planned and effective way.
- the team-work spirit that prevailed and continued is higher than in many traditional workshops.
- the level of achievement was higher than in many traditional workshops.
- the level of satisfaction about the workshop was very high as expressed by most of the participants.
- the participants expressed their high interest of involvement in future related activities.

The key success factors as I perceive them are:

- whole system approach adopted by the future search methodology and good guidance in its applications by the expert.
- good planning and involvement of a good mix of representatives of key stakeholders.
- using the future search as a tool to bring individuals or participants to a high level of spirit sharing and creative involvement during the workshops.
- participants gradually began to develop from isolated individuals into an effective group or a system that can develop a unified vision that is important for future effective implementation.
- good coordination between consultants dealing with process (future search) and consultants dealing with workshop content.

Impact and future use

The long-lasting impact from the methodology is difficult to assess at the present time. However my impression is that the success of the future search methodology in comparison to the traditional ways of conducting workshops will increase the pressure to adopt the same methodology or at least will create a strong pressure to innovate the ways of conducting traditional workshops. The participants' satisfaction in the future with traditional workshops will decrease after their experience with the future search methodology. Furthermore, some participants expressed their satisfaction with the future search methodology by asking for conducting local workshops to learn and master this new methodology. Others talked about the necessity of developing a local team of experts in future search methodology to increase the benefits of its use to a wider array of organizations at both public and private levels.

We will definitely use future search in the future. Not only that we intend to conduct future search workshop to a number of local consultants, at both government/public and private sector, to master the future search approach methodology and to diffuse its use in Yemen and may be in the Arab World.”