Chapter 8.2
Women in Computer Science in Afghanistan

Eva Maria Hoffmann
Technische Universitaet Berlin, Germany

ABSTRACT

In Afghanistan, the development of information technology (IT) as an industry and an educational field is still quite young, but this provides the country with an opportunity – especially for women - to participate actively in the process of rebuilding, and to strengthen their role in Afghan society. This chapter gives an overview of the situation at Afghan universities and the women who are studying Computer Science there. Afghan female computer science students are young, open minded and very motivated. Nevertheless they are often limited by social boundaries within Afghan society. The situations and circumstances of these female students are largely unknown; hence a survey has been done to discover more about these women's world. Female students from Kabul and from Herat University have been interviewed and the data from these interviews is presented here as a foundation for designing measures aimed at integrating Afghan women into the world of IT in the near future.

INTRODUCTION

For 20 years, Afghanistan was isolated from the world. The reign of the Taliban had a strong impact on the nation's history. The many years of war and the reign of the Taliban have left an unstable nation, politically as well as economically and socially. By now, as civil reconstruction processes have begun, progress is clearly visible in all sectors. In every area there are projects conducted and supported by the international community.

Just a few years ago there was little use of modern technology in the country. Recently information technology (IT) has spread, but only a few modern and complex systems exist. Heterogeneous IT structures that have grown in

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industrialized countries over the past years can in parts be useful and adapted to the situation in Afghanistan. For example, the Open Source movement has the potential to gain a greater share of the market in Afghanistan than in western economies, since Afghan users and their technology still have the potential to be shaped due to a lack of prior experience or commitment to prior technical structures (Ghosh, 2004).

This, however, will require a sustainable strategy. To quote the Afghan Ministry of Communication*: "[...] Afghanistan will use Communications and ICTs to improve Government and social services expeditiously and foster the rebuilding process, increase employment, create a vibrant private sector, reduce poverty and support underprivileged groups."* (Ministry of Communication, 2003)

Currently, the IT sector and the use of computer technology are generally dominated by men. Many obstacles prevent women from using these technologies. For example, using computers and computer technology demands prerequisite literacy, and less than a third of the total population can read and write. Of that literate population only 12% are women. Therefore, less than 2 million women have the necessary entrance requirements for IT training or other forms of education. A second obstacle in Afghanistan is English language skills: most of the IT applications are only available in English. (CIA, 2009)

The living conditions of most Afghanis prevent free access to digital technologies. Infrastructural basics like stable power supply or reliable Internet access are not available nationwide, especially not in rural areas. Since only a small percentage of households own their own computer, most people go to Internet cafés and public computer centers. Here again, women face difficulties due to their restricted freedom of movement. They cannot access these centers as easily as men, as they are mostly not allowed to leave their homes on their own, and in addition, they are not always allowed to be in the same room with unrelated men or strangers.

Despite these obstacles, many Afghan women are curious and very interested in IT and its applications, and this is reflected in the high numbers of female students studying courses related to computer science and information technology.

Based on my work as a lecturer at Herat University, this paper presents a picture of the most recent developments in the area of Computer Science (CS) in higher education in Afghanistan. The current status of the subject at Afghan universities will be described and a group of female students has been researched to get a deeper understanding in their lives as students. On the basis of interviews and questionnaires the aspirations, problems and motivations of the female students have been captured. It is intended that the results of the research can be later used for the development of measures to empower Afghan women in the area of IT.

Current Developments at Afghan Universities

One of the most important elements of the reconstruction process in Afghanistan is education. Education statistics are a measure of the progress of the nation. The future of the nation will lie in the hands of the next generations of the academic offspring.

The vision of the Afghan Ministry of Education is described in the concept of national education: *"Our vision is to facilitate the development of vibrant human capital by providing equal access to quality education for all and enable our people to participate and contribute productively to the development, economic growth and stability of our country."* (Ministry of Education, 2006) Hence, a modern, effective and reliable educational system is to be established. The most important goal of the development of the whole education system is the assured supply of a free basic education, an increase in the quality of education, a steady-