# Women's Potential and Advantages in the Field of Computer Science and Technology at Shandong University of Technology 

Weiyi Ma<br>School of Computer Science and Technology<br>Shandong University of Technology<br>Zibo City, Shandong Province, China

Jing Li*<br>School of Computer Science and Technology<br>Shandong University of Technology<br>Zibo City, Shandong Province, China


#### Abstract

Women's potential and advantages in the field of computer science and technology has been a progressively heated topic for scholars to deliberate currently. In this paper, the objective of the study is to explore the indispensable and significant role of women in the prospective development of computer field and put emphasis on figuring out the methods to exploit women's superiority into full play. The statistics of women that engaged in the computer career is obtained using the online questionnaire survey at Shandong University of Technology, in which participants also give their perspectives of women's main advantages in computer science. The results reveal that there are four majors in computer science that women mainly choose to learn, some of them are even more suitable for women to pick up than men based on the character. It was concluded that women are indeed able to have outstanding performances in computer science with their tremendous potential and advantages.


Keywords:- Women, Potential, Advantages, Computer Science and Technology.

## I. INTRODUCTION

Over the past decade, on account of the traditional concept of choosing computer to learn in the university is not a wise decision for most women, a small majority of women choose to study the major of computer science and technology has always been a common phenomenon that people would not attach great importance to [1].

However, along with the remarkable and amazing achievements of computer science and technology, as well as the more and more imperious demands for a variety of professionals who are able to contribute to the blooming of computer technology and the digital society, the investigations of exploiting women's potentials and advantages in computer science (CS) are cultivating people's interests, furthermore, the passion for exploring and solving this problem is rapidly increasing both at home and abroad.

That is to say, how to exploit women's superiority into full play has already become a heated topic which is waiting to be researched for promoting the amazing and excellent evolution of CS [2]. Therefore, this paper is organized below.

First and foremost, we will describe women's potential and advantages in the field of computer science and technology, making it possible for the readers to put emphasis on the incomparable capacities only belong to women. Afterwards, there will be a significant discussion on the indispensable and significant role of women in the perspective development of computer industry. Last but not least, we will give an overview of four popular majors that are more suitable for women than men to pick up.

It is generally acknowledged extremely few researches were concluded in this aspect, that is, standing in the unique perspective of women to ponder questions, which absolutely gives the opportunity for the author to alternately explore the situation and try to give effective solutions [3]. In this case, the research scope is still wide enough to explore, so we can not only get to the root of the dilemma, but also try our best to evaluate the suggested solution based on the existing phenomenon. Besides, in this paper, we mainly discuss the case at universities in China, so we limit the field of survey at the campus of Shandong University of Technology.

As a result, the questionnaire of combining online and offline will be used at Shandong University of Technology to analyze the woman's outstanding performances in CS with their tremendous potential and advantages. All the statistics and results of the investigation will signal the way forward for the women's options of future careers, which, will be definitely beneficial for women to have more outstanding performances in CS with their tremendous potential and advantages.

## II. METHODOLOGY OF INVESTIGATION

For the method, we take Shandong University of Technology as an example to get the statistic. The form of questionnaire that combines online and offline is used at Shandong University of Technology to analyze women's potential and advantages in the field of computer science and technology. Primarily, based on the principle of justice and equity, the online questionnaire is posted on the Internet and social networking software, making it possible that people of different genders and ages, like students, student's relatives or teachers are able to do it freely, furthermore, sufficiently share their point of views about whether women are supposed to
choose the major of computer science and technology to study or work.

At the end of the survey, we manage to select some typical answers provided by 300 people to be part of the samples. What's more, in the case of offline questionnaires, who are chosen randomly are mainly the female undergraduates who major in computer science, women who had already graduated from the major of computer science and teachers who have rich teaching experience in the filed of computer realm, mostly ranging from age 18 to 50 . After all, these women are more entitled to show their own opinions on behalf of the unique perspectives of women. That is to say, only by interviewing them can we have a better command of the potential and advantages of women on account of their real experiences in life.

In spite of these samples may not have the ability to cover all ages and careers, but these are the combination of the common ideas and conventional thinking that most people have. As a result, the statistics of the data universally represent the general population.

## III. ANALYSIS OF THE RESULTS OF INVESTIGATION

The results of this investigation show that the future prospect of women that study computer science and technology is wonderful according to the statistic that we have collected early.

First of all, some significant consequences had been concluded after analyzing the data of online questionnaires. People age over 60 who has the stereotype of computer is a tough course all hold no brief for women to learn this major. However, except a small amount of unsupported opinions, there are more and more people believe that women can also have the excellent ability to learn and work in the computer industry on account of the profound and great influence that women have contributed to the progress of the society.

What's more, the results of the offline questionnaire that mainly aimed at female participants can't be neglected here either. Initially, $70 \%$ of female students at Shandong University of Technology say that they appreciate the decision of choosing computer science and technology, which not only makes them catch up with the unbelievable rapid development of the information age, but also cultivate their interests.

Besides, $92 \%$ of the female employer who had graduated from the major of computer science and now works in the companies of computer field say that computer science is a major which is not only has the high employment rate, but also offers the respectable income, and there are multiple jobs for women to choose, which are all suitable for women to do and master.

Additionally, teachers who are interviewed all say for certain that women are absolutely able to exploit their superiority into full play in the future jobs after the four-year study in the university. Besides, because of the advantages of character, some jobs in the computer field are even more appropriate for women to do than men.

In conclusion, multiple regression analysis reveal that women will definitely play a crucial role in computer science and technology.

## IV. DISCUSSION

To sum up, after analyzing the results and findings we got before, it's a striking fact that women are playing a more and more crucial role in the computer industry, which means that women's potentials and advantages in computer science and technology are also undeniable and marvelous. From the present findings, more and more people hold the firm believes that women are also able to make progress and achieve good grades if they study computer. What's more, allowing their daughters to study computer related majors have also become a hot option for numerous parents, which builds a solid foundation for the increasing number of girls who choose to study computer. However, because of the shortage of sample size at the campus, we are not able to get more opinions from sufficient people of different ages, making it impossible that the total accuracy of final results. Above all, as time goes by, the future prospect of women who studied computer science and technology will definitely be brighter and brighter.

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