Article Summaries

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1 Computer Literacy: Essential in Todays Computer-Centric World - Gireesh K. Gupta

1.1 what is computer literacy ?

- Computer literacy can be defined as an individuals ability to operate a computer system, have basic understanding of the operating system to save, copy, delete, open, print documents, format a disk, use computer applications software to perform personal or job-related tasks, use Web browsers and search

engines on the Internet to retrieve needed information and communicate with others by sending and receiving email. In academics, a computer literate student should be able to apply the knowledge of computer technology to do research and perform tasks related to his major discipline [7].

- It is not enough to play games and surf the Internet to be computer literate. You do not need to be a good programmer or an expert in computer communications and networking [9], nor do you need a college degree in the computer field to be computer literate. Computer literacy deals with being able to use the computer applications rather than writing software [4]. A computer literate uses the computer technology to perform his job more effectively and efficiently.

1.2 Data on Computers-In-Use Globally

In this section there is numerical data about the usage of computers. But all numbers belong to the years between 2005 and 2007. It can be used or more up-to- date data can be gathered by using the references.

1.3 Benefits of Computer Literacy

Computer literacy can be very rewarding for people of all ages children, teenagers, adults, and senior citizens. Some of the benefits are described below.

- finding Information in the Internet: health, cooking, nutrition, entertainment, weather report, road maps and directions, etc.
- online shopping and online banking
- electronic commucication : e-mailing
- job searchong for 7/24

1.4 Objectives of CPS 100

1. Describe and discuss the importance of data as a business asset.
2. Identify the basic parts and functions of information systems.
3. Identify the devices that comprise a computer system and describe the functions of each.
4. Describe the role and function of system software.
5. Identify and discuss some of the issues faced by the CIS (Computer Information Systems) profession and society at large, including the topics of security, privacy of data, and intellectual property rights.
6. Identify and be able to discuss the effects computers are having on individuals, businesses, schools, homes, and governmental agencies, including databases and data communications.
7. Use a microcomputer system and its operating system.
8. Enter text into, revise text in, and print text using a word processor.
9. Use a spreadsheet to construct simple models using formulas, to dynamically revise the model, and to print the spreadsheet data.
10. Prepare a simple computer presentation.
11.**** Access remote computers to send and receive information.

2 Attitudes towards Computer Science-Computing Experiences as a Starting Point and Barrier to Computer Science

In which way do computing experiences shape attitudes towards computer science?

2.1 CS Programs - Student Enrollment Rates in Germany and US

It can be retrieved that some statistical information of students' low enrollment and high dropout rates in the computing classes in US and Germany from this part. It is also touching on the gender difference in the field.

2.2 Reasons for Low Levels of Interest

This was done mainly in gender research. For example, male and female high school students conceptualize CS as a male field [27], [29], putting off women [36].

2.3 Role of Computing Experiences

He surveyed students of a secondary-level computing course and observed that 92.9% possessed and used a computer at home, but the majority of students (over 58 percent) were unable to approximate a definition of computer science. (pp. 149).
Beaubouef and Mason state also that students often have misconceptions about the field of computer science. Many of them take a computer literacy course, do well in it, and believe that computer science is all about word processors, spreadsheets, or web browsers. ([3], pp. 103).

Teachers should take into account prior experiences of their students and be aware of students' preconceptions. Therefore more research is needed to understand such experience-based entry barriers ([8], pp. 153) and the effect of computing experiences on attitudes towards CS, including perceptions of the field as well as issues of self-confidence. -¿ That's why we should improve the lab exercises because most of the students already have experience.

2.4 Research Approach

We assume that **computing experiences** can foster interest in CS and motivation to pursue a career in this field if the experiences are rewarding and lead to a development of CS related skills and understanding.