Group Project Guidelines

2nd Semester 2004/2005

Overview

The group project is part of the course requirement, which carries 15% weight of the overall course assessment. The main purpose of the project is to give students opportunities to practice the knowledge learned in this course in a comparatively larger scale. For better learning, and also due to the different backgrounds of our students in each section, each group needs to either choose project topic from the recommended project list attached, or propose your own IT related topic for investigation subject to approval of the instructor. All projects need to carry out the following tasks:

1. Identifying a problem for investigation (stating the rationale and objective of doing the project)
2. Determining information needs for carrying out investigation
3. Information searching (stating the information sources and access methods)
4. Information evaluation and analysis
5. Report writing on the findings
6. Project oral presentation

To facilitate better communications with your instructor about the project, a project proposal need to be submitted. The proposal would reduce the chance of misunderstandings and misconceptions of the project, and it will allow your instructor to give you suggestions at a very early stage before it is too late. Information on the project proposal is provided in the “project proposal.pdf” at WebCT. For detailed arrangement of the proposal submission, please consult your respective instructor.

Requirements

• This is a group project with 4-6 members.
• Each group should remain with the same group members as in doing the case studies.
• Typed group report should be prepared in the specified format (report length is expected to be 15-20 pages), as shown in the “report guideline.pdf” at WebCT.
• Each group (including all the members) needs to orally present their project in English in weeks 12-14, and answer questions from other students. Group presentation sequence shall be determined in random.
• Submission dateline of your group project report is end of the semester for all groups.

Assessment (Total: 15%)
• Typed proposal 3%
• Typed report 5%
• English oral presentation 7%
Recommended Project List

1. The Development of Wireless Networking

The term wireless networking refers to technology that enables two or more computers to communicate using standard network protocols, but without network cabling. Strictly speaking, any technology that does this could be called wireless networking. The current buzzword however generally refers to wireless LANs. This technology, fueled by the emergence of cross-vendor industry standards such as IEEE 802.11, has produced a number of affordable wireless solutions that are growing in popularity with business and schools as well as sophisticated applications where network wiring is impossible, such as in warehousing or point-of-sale handheld equipment. In this project, you are required to investigate the past history of the development of wireless networking. You also need to present current wireless networking technology (e.g. IEEE 802.11) and discuss the current and future commercial uses of wireless networking technology.

2. Smart HK ID Card

Starting from 23 June 2003, the Immigration Department have been issuing a new generation of identity cards, the multi-application smart identity cards, to the general public at the existing Registration of Persons Offices. Apart from immigration application, a smart identity card can also support other value-added non-immigration applications, including e-Cert and library card. Holders of smart identity cards are able to enjoy a variety of government electronic services in a safe and secure manner. In this project, you are required to investigate what new technology have been introduced into the smart identity card (e.g. security and fingerprint technologies) and what government electronic services can be provided through the smart identity card.

3. e-Home

From lighting and climate control to home cinema and video surveillance, a growing range of home networking, remote control and automation technologies promise unprecedented control at our fingertips. In this project, you are required to find out the various systems in an apartment (e.g. refrigerator connected to the Internet, remote air-conditioner), how they differ, and how they can be cooperated to work together in harmony. You also need to discuss these systems in terms of the technologies required, availability, and costs.

4. The art of searching

Search engines are the most important tools for any one who want to look for information from the Internet efficiently and effectively. There exist a very large number of search engines on the web. Engines such as Google and AltaVista are very powerful general purpose search engines. However, sometimes it is more convenient to use search engines designed for specific purposes. For example, to search for KMB bus route information it is far much better to use the search engine at the KMB website than to use Google. Even a given search engine in itself often have a lot of
parameters that one can fine-tune to improve the quality of the results. Although the Internet is just at our fingertip, and although most web surfers know how to use a search engine, few of them know how to use a search engine well. In this project, the students are expected to investigate some general and special purpose search engines and recommend which to use under various kinds of information needs. They are also expected to look into the details of a few of them, such as Google or AltaVista, and compare their strengths and weaknesses, and also the way to fine-tune the parameters for better search results. It is hoped that this project will enhance their search techniques, and raise their awareness in the importance of search engines in the Internet of today and tomorrow.

Reference sites:
- http://library.albany.edu/internet/choose.html
- http://www.noodletools.com/debbie/literacies/information/5locate/adviceengine.html

5. Intellectual property: pros and cons

The protection of intellectual property has raised much concern in recent years, partly because of the worsening piracy problem for software and multimedia materials. Nowadays any one with Internet access can easily download, duplicate and distribute copyright-protected materials. While the concept of intellectual property has been promoted and enforced by the Government in recent years, it is obvious that intellectual property is not being respected by many educated people, especially on the end-user level. On the other hand, protection of intellectual property can potentially harm the flow and sharing of information on the Internet and have a negative effect on the development of human civilization. In this project, the students are expected to study the current laws of intellectual properties protection in Hong Kong, China and other western countries, and comment on the pros and cons of such laws. They should also suggest ways to balance between the interest of the authors and the general public.

Reference sites:
- http://www.gnu.org/philosophy
- http://www.opensource.org/

6. Use of IT in secondary school education

The use of IT in teaching and learning means far more than transforming printed materials to digital form and using PowerPoint for in-class presentations. It should also include the wise use of communication channels (e.g. ICQ, discussion boards), the utilization of various kinds of textual, visual, and audio resources and information from the Internet, etc. In this project, the students are expected to study and comment on how IT is being used in Hong Kong to aid teaching and learning in secondary schools. They are also expected to suggest and evaluate new ideas in which IT can be used to improve the effectiveness and efficiency of teaching and learning.
7. Accessibility of Government websites in Hong Kong

In order to bridge the digital divide so that information technology could benefit more members of the public, the information from any website should be readily accessible by users in various languages, using various devices, operating systems and software configurations, and maybe with various kinds of handicap. This is referred to as the accessibility of the website and is especially important for Government websites. In 2004, the Hong Kong Observatory received the Web Care Award in recognition of achieving primary level web accessibility. In this project, the students are expected to survey on a number of Government websites and comment on their accessibility. They should also point out the importance of accessibility on the Internet and give practical suggestions to improve the accessibility of these Government websites.

Reference site:
- [http://www.hko.gov.hk/webcare_e.htm](http://www.hko.gov.hk/webcare_e.htm)
- [http://www.anybrowser.org/campaign/](http://www.anybrowser.org/campaign/)
- [http://www.anybrowser.org/campaign/abdesign.html](http://www.anybrowser.org/campaign/abdesign.html)
- [http://www.w3.org/WAI/](http://www.w3.org/WAI/)

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