DEPARTMENT OF COMPUTER SCIENCE
UNIVERSITY OF TORONTO

CSC 318S
THE DESIGN OF INTERACTIVE COMPUTATIONAL MEDIA
Fall Term, 2002-3

Assignment 1
BRAINSTORMING IDEAS FOR TERM PROJECT

HANDED OUT: Wednesday, September 11, 4 p.m.
DUE BACK IN: **Tuesday, September 17, 6 p.m. to CSC318F Listserv**
WORTH IN MARKING SCHEME: 1 points
(Note: This will not be marked. You get a 1 if you turn it in on time, 0 otherwise.)

This term all students will work in multidisciplinary 4-5 people teams on a semester-long course project to carry out the user-centred, iterative design of prototypes of computational tools or systems appropriate to the needs of senior citizens. The job of each project team is to conceive, design, prototype, and evaluate a novel approach to technology that assists some group of senior citizens in some aspect of their lives, for example, in carrying out one or more of the tasks in which they are typically engaged.

THE PURPOSE OF THIS ASSIGNMENT
The purpose of this assignment is to help you conceive ideas for your term project and help you form the teams of 4-5 people that will be required for carrying it out.

THE TASK FOR THIS ASSIGNMENT
Conceive of **two (2)** applications of computer and communications technologies that fit the problem statement given above, that leverage the capabilities of digital media technologies, and that could contribute significantly to the quality of life of senior citizens.

THE DESIGN CONTEXT
Computer system, software, and interface designers typically think in terms of users who are:
• in their teenage to middle-age years
• intelligent, somewhat knowledgeable about technology, and reasonably resourceful
• not afraid of computers, and relatively strongly motivated to use the technology
• sitting at their desks
• blessed with good eyesight
• blessed with good hearing
• blessed with good sensori-motor control
• blessed with good English language skills
• blessed with sufficient time to problem solve when necessary.
Our design problem asks you to think about senior citizens, who represent a class of users (and the tasks for which they use computers) who will likely differ from this profile in one or more significant ways.

BRAINSTORMING HEURISTICS

If you have trouble coming up with ideas, you might use any or all of the following approaches to stimulate idea development (see also Lecture Notes 1, Hour 2).

1) Think about interesting opportunities for the elderly, e.g., increased leisure time and opportunities for recreation, reflection, travel, and contact with family.

2) Think about critical problems facing the elderly, e.g., declining health, deteriorating physical capabilities, failing memory, increased need for security, loneliness, lack of meaningful work, and worries about all of the above.

3) Think about typical tasks carried out by the elderly, e.g., grooming, dressing, eating, taking medications, walking, exercising, shopping, conversation, communication, recreation, enjoying grandchildren, financial management, and learning.

4) For various needs and tasks, think about relevant technologies and applications, e.g.,
• health — monitors for specific conditions, treatment advisors and reminders
• loneliness — email, computer conferencing, video conferencing
• learning — large-print electronic books.

5) Focus on the spaces within which the elderly typically are found, e.g., homes or apartments, senior citizen's homes or centers, doctor's offices, and specially-equipped vehicles.

6) Focus on instruments or aids used by the elderly, e.g., canes, glasses, hearing aids, wheel chairs, and cardiac monitors.

7) Focus on sensory modalities, e.g., sight, sound, touch, and mobility.

8) Consider devices used by all people, such as refrigerators, ovens, bath tubs, sinks, radios, televisions, automobiles, buses, and imagine such computerized machines of the future.

Do not take these ideas as prescriptions for what you should do. They are only one collection of ideas dealing with one class of users. You can come up with different and better ideas. There is room for many approaches and a great deal of freedom in devising a plan for your project.

WHAT YOU SHOULD HAND IN

Describe in one brief paragraph each idea. Include your name, email address, and phone number so that others may contact you to link up with you in a team.

Also describe any relevant special skills and background. For example:
1) Knowledge of some subject domain or work area other than computer science, such as medicine or psychology, could be helpful in defining and working on the project.
2) Experience in behavioural or design disciplines could be helpful in developing and executing your project concept.

Post your ideas to the course listserv by Tuesday afternoon September 17th. The posting should have a descriptive title, e.g., "Memory Aid", "Navigating Public Transit", or "My Family History", and not "Assignment 1", or "John Smith".

Scan the listserv between Tuesday night Sept. 17 and Thursday afternoon Sept. 19 so you can begin the process of team formation. This will happen in Assignment 2 (to be distributed on Wednesday, Sept. 18).