

2004

a) i) EVIDENCE FROM AN OBSERVATIONAL STUDY OF USERS' HABITS IS EXISTING CONTEXTS OF COMPUTER USE, SHOWING DEFICIENCIES. HUMAN PERFORMANCE DATA SHOWING THAT USERS ACHIEVE TASKS FASTER WITH MUP

ii) I WOULD HAVE CARRIED OUT CONTEXTUAL INQUIRY, WITHIN USERS IS THE PLACE THEY WORK WITH COMPUTERS, RECORDING THEIR SURROUNDINGS AND INTERVIEWING THEM

FOR HUMAN PERFORMANCE DATA, I WOULD HAVE DESIGNED CONTROLLED TASKS DURING WHICH I COULD VARYABLE SPEED OF THOSE TASKS, ACROSS MULTIPLE TRIALS WITH A RANGE OF USERS (GOOD TASK WOULD BE MENU SELECTION)

iii) IN ANALYSING INTERVIEW MATERIAL, I WOULD TRANSCRIBE AND CODE, IN PARTICULAR LOOKING FOR BREAKDOWNS, OR PROBLEMS RELATING TO INTERRUPTIONS OR TASK SUTERINGS THAT MIGHT BE MORE COMMON IN AN INTERFACE DEDICATED TO ONE TASK

IN PERFORMANCE DATA, I COULD COMPARE ~~STANDARD~~ AVERAGE SPEED OF MENU SELECTION USING MOUSE AND VERSUS CURSOR KEYS. IF THE AVERAGE DIFFERENCE WAS LARGE COMPARED TO VARIATION BETWEEN USERS, THE DIFFERENCE WOULD BE MORE CONVINCING BECAUSE STATISTICALLY SIGNIFICANT

b) i) AN OBSERVATIONAL STUDY WOULD BE MORE RELEVANT, BECAUSE IT WOULD BE POSSIBLE TO FOCUS ON TASKS WHERE PEOPLE ALREADY USE SPEECH, RATHER THAN ANALYSE PERFORMANCE IN TASKS WHICH ARE BETTER ACHIEVED BY POINTING (LIKE MENU SELECTION)

ii) THE COGNITIVE DIMENSIONS OF MORRIS TECHNIQUE IS MOST LIKELY TO BE RELEVANT TO A SPEECH INTERFACE, BECAUSE IT DOES NOT ASSUME USE OF GUL, KEYBOARDS ETC

THE PROPOSED INTERFACE COULD BE ANALYSED ACCORDING

THE INFORMATION STRUCTURE AND WILL USERS NEED  
TO CHANGE THIS STRUCTURE. IF MODIFICATION IS  
REQUIRED, THE DIMENSIONS SUCH AS HIDDEN  
DEPENDENCIES & VISCOUSITY WILL BECOME IMPORTANT.

ONE DESIRABLE IMPROVEMENT MIGHT BE A VISUAL  
INTERFACE THAT ~~SHOWS~~ LISTS OF EFFECTS OF  
A PARTIALLY COMPLETED COMMAND (HERE  
REDUCING HIDDEN DEPENDENCIES)

ANOTHER MIGHT BE A METHOD TO DERIVE SHORT CUTS  
TO GO BACK TO A PART OF THE SPEECH  
INTERPRETER STATE THAT IS OFTEN USED. THIS  
REDUCES VISCOUSITY, BUT INTRODUCES A THREAT  
IN THE FORM OF ABSTRACTNESS.

COMPLETED IN 18 MINUTES

## MARKING GUIDE (PART 9 QUESTIONS 1)

- a)
- i) ONE MARK EACH, ASSUMING IT IS EMPIRICAL, AND THE NATURE OF THE ARGUMENT ARISING FROM THAT EVIDENCE IS CLEAR
  - ii) SHOW THAT THEY APPRECIATE AN EQUIPMENT NEEDED, STUDY DESIGN, MEASUREMENT OR RECORDING TO BE DONE. (2 MARKS EACH)
  - iii) GOOD OR STATISTICAL TECHNIQUES IS APPROPRIATE (2 MARKS EACH)

- b)
- i) ~~ONE~~ <sup>ONE</sup> MARKS FOR IDENTIFYING SOME DISTINCTIVE ASPECT OF SPEECH INTERACTION, ONE MARK FOR EXPLAINING WHY IT IS MORE RELEVANT TO ONE RATHER THAN THE OTHER
  - ii) ONE MARK FOR NAMING SUITABLE TECHNIQUE (PROBABLY COGNITIVE DIMENSIONS, ALTHOUGH PROPOSING TO CUSTOMISE ADAPTER TECHNIQUE MIGHT BE ACCEPTABLE)  
ONE MARK TO EXPLAIN WHY IT IS RELEVANT TO SPEECH  
ONE MARK FOR DESCRIPTION OF METHOD  
TWO MARKS FOR EACH DESIRED IMPROVEMENT: IF USING CDs, ONE MARK FOR NAMING THE DIMENSION, ONE FOR RELATING IT TO THE DESIRED CHANGE