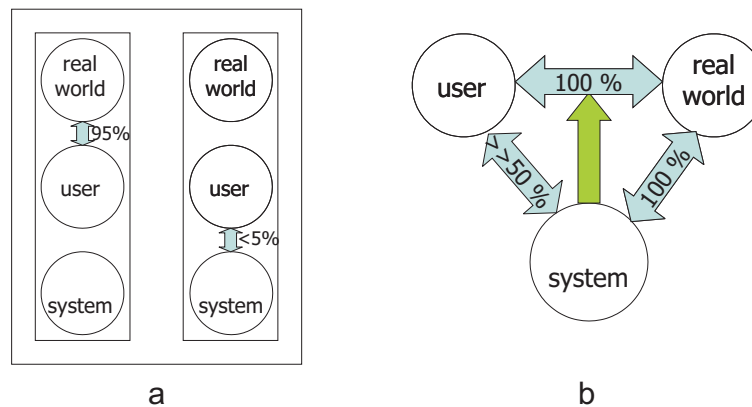


Problem Sheet 1

Submission Deadline: 19.11.2006

1 Problem

The figure given below shows two different computing paradigms by describing their differences in interaction.



- What are the two different paradigms described in the figure?
- Define both paradigms and explain why the human computer interaction is different.

2 Points

2 Problem

Steve Mann is one of the pioneers of wearable computing and has introduced the term of *Humanistic Intelligence* to describe his understanding of wearable computing.

- Explain the different alternatives of human computer interaction in Mann's theory and their limitations from your own perspective.

1 Points

3 Problem

The evolution of computer hardware, use, and users has significantly changed over the last decades. These changes are currently traded as the most challenging parts in wearable application design.

- Explain the main stages in the evolution of computers and their users over the last decades.
- What are the challenges of wearable application design that can be derived from this?

3 Points

4 Problem

Implement a graphical component (widget) for desktop computers that continuously informs the user about upcoming appointments. The widget's design should reflect the main properties of wearable computing and should not require user interaction in order to get the information.

The application to be developed in JAVA should fulfill the following requirements:

- **iCalendar format**

The calendar information for the widget should be in iCalendar¹ format. The calendar file for testing and simulating the widget's behavior is available at <http://www-agki.tzi.de/LV/W/problemsheets/p1.iCalendar.ics>.

- **Priority handling**

The widget should feature the handling of appointment priorities given in the iCalendar format and should provide different visual notification styles for them.

- **Before, During, and After**

The widget should inform the user continuously also during an appointment and should signal approaching a new appointment as well as reaching its end visually. Thus, there has to be some notion of time.

- a) Design and write the application according to the given requirements.
- b) Explain which properties of wearable computing have been implemented by which concept in your application.

4 Points

Note: The submission of problem sheets has to be done by e-mail to hwitt@tzi.de with the following subject: *[Lecture Wearable Computing WS0708] Problem Sheet No.{number}*. If problems require the implementation of software, it has to be submitted along with the problem sheet containing documented source code, compiled binaries, and 2 small scripts (for Windows and Linux) to run the application.

¹see <http://www.ietf.org/rfc/rfc2445.txt> for detailed specification