

Programming of Interactive Systems

Anastasia.Bezerianos@Iri.fr

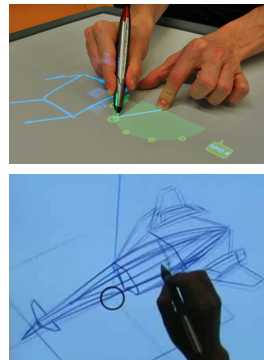
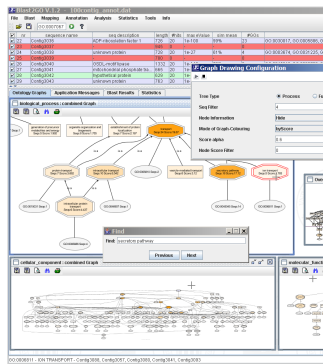
(Stacy Shu-Yuan.Hsueh@Iri.fr)

Week 1 : a. Introduction, Objectives, Definitions

Anastasia.Bezerianos@Iri.fr

(part of this class is based on previous classes from Anastasia,
and of T. Tsandilas, S. Huot, M. Beaudouin-Lafon, N.Roussel, O.Chapuis)

interactive systems



class details

TAs : programming exercises (Java)

Marking:

- 1 project (30%)
- 2-3 smaller assignments (5-10% each)
- 1 written exam (50%)

web site:

<http://www.Iri.fr/~anab/teaching/HCID-ProgIS-2017/>

Contact by Email: **[ProgIS]** in the title

class announcements and polls

Announcements:

1. Class will finish 8/11 but exam + project presentation in exam week.
2. TA labs **Wed @ 13:30 in E202 but no TA tomorrow**

polls:

1. Sign and verify your email
2. Mention if you can bring a laptop for class

If you have them, bring laptops next week!
Check class website for what you need to install

objectives

Discover programming interactive systems

Intro on the development of such systems:

- Definitions
- Prototyping
- Toolkit approaches, emphasis on Swing
- MVC Code organization
- Input and UI Programming in general
- Advanced Tools (e.g. State Machine based toolkits)

definitions

interactive system

software that interacts with its environment



human-computer interactive system

interactive system whose environment is one or more (human) users



User Interface (UI) - human computer interface

part of an interactive system that:

- represents its internal state on output peripherals
- captures & manages input from input peripherals

all hardware and software that allows users to control, supervise and communicate with an interactive system

Interactive System = interface + functional layer

Graphical User Interface (GUI)

Interface

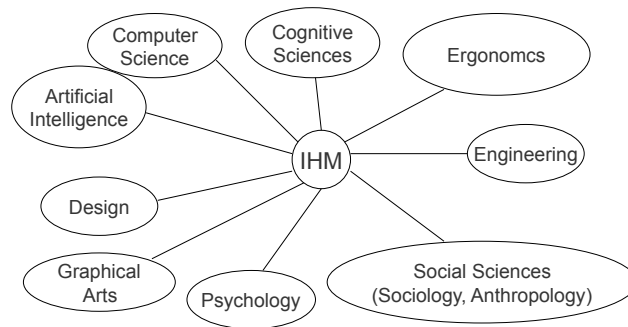
that uses *output* peripherals (screen, projector)

+ some *input* peripherals (mouse, pen) that provide *relative positions w.r.t.* the *output* peripherals
to allow reference to aspects on the interface using pointing (thus linking input/output)

human computer interaction

"HCI is a discipline concerned with the **design, evaluation and implementation** of interactive computing systems for human use and with the study of major **phenomena surrounding them.**"
(an) ACM definition

hci is multidisciplinary



interface = user interface

interactive system =
human-computer interactive system

engineers and computer scientists are *not* (by default) good interface designers: they (we) are expert computer users, and their (our) interest is the computer or the interface

what interests users is what the interface and the computer helps them do

we have to design **FOR** and **WITH** users.

importance

the quality of UI design and implementation is important as they are used in many domains, including critical systems (where lives are at risk)

importance

- Machine for paying for parking (Tullamarine airport in Melbourne)
- For a year, an airport employee was hired to help users!



Photographs courtesy of Penslope Sanderson



See any problems?
How did it come to this?

programming of IS

clearly just coding is not enough ...