

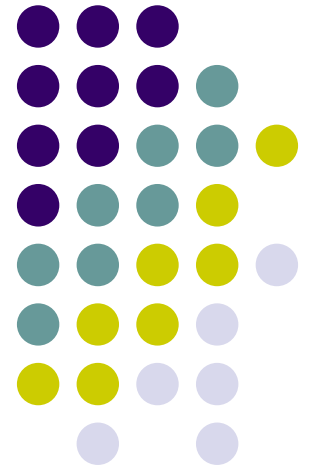
HOMEWORK:

Find your way in the jungle of perviquitous systems

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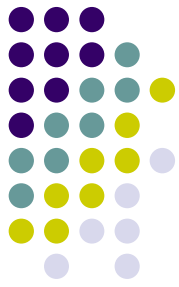
<http://www.di.fc.ul.pt/~pju>





“X axis”:

- Nomadic
 - you go from place to place, but you are not quite on-line in between
- Mobile
 - you go from place to place, *and* you are on-line in between



``Y axis":

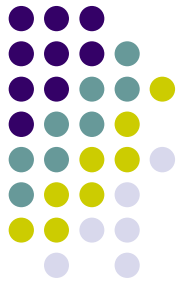
- Ubiquitous

- you compute wherever you are, desirably with seamless power and connectivity.
 - e.g. GLOBAL COMPUTING Initiative of the EU.

- Pervasive

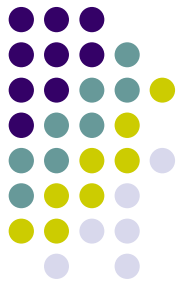
- computers exist everywhere, they *permeate* the environment, the objects you use, you yourself.
 - (i) may be an enabler of 'ubiquitous';
 - (ii) generates considerable amount of information, picture as metaphor ``event sprays", we have to learn how to cope with.
 - e.g. DISAPPEARING COMPUTER Initiative of the EU

“Y axis”:

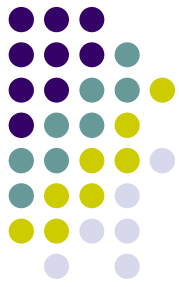


- Ubiquitous
 - you compute wherever you are, desirably with seamless power and connectivity.
 - Orthogonal to nomad/mobile. Gives a dimension of scale to the latter (many places to migrate to, many paths where I can move through and be on-line)
 - e.g. GLOBAL COMPUTING Initiative of the EU.
- Pervasive
 - computers exist everywhere, they *permeate* the environment, the objects you use, you yourself.
 - Essentially, the effects, seen from the same level of abstraction as ubiquitous was mentioned, are:
 - (i) it may be an enabler of 'ubiquitous';
 - (ii) it generates considerable amount of information, picture as metaphor “event sprays”, that we have to learn how to cope with.
 - e.g. DISAPPEARING COMPUTER Initiative of the EU.

Relation to embedded systems:



- This world will become what may be called "complex embedded systems" or more appropriately **"systems of embedded systems"**:
 - ad-hoc collections of largely wireless and mobile entities
 - active environments of pervasive and inconspicuous devices, that can also be moved as we move furniture
 - will be formed by recursive collections of **small-scale embedded systems** as we know them today
- e.g. Embedded CO-OPERATING OBJECTS Initiative of the EU.



- Navigators group:
 - <http://www.navigators.di.fc.ul.pt/>