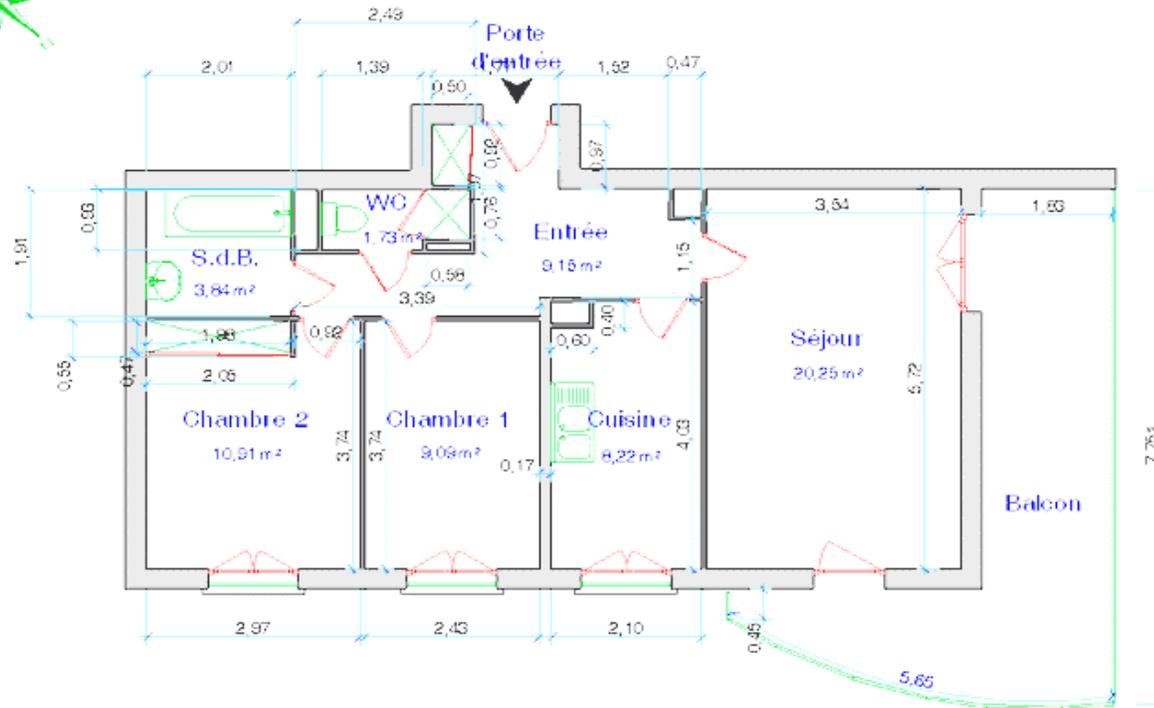
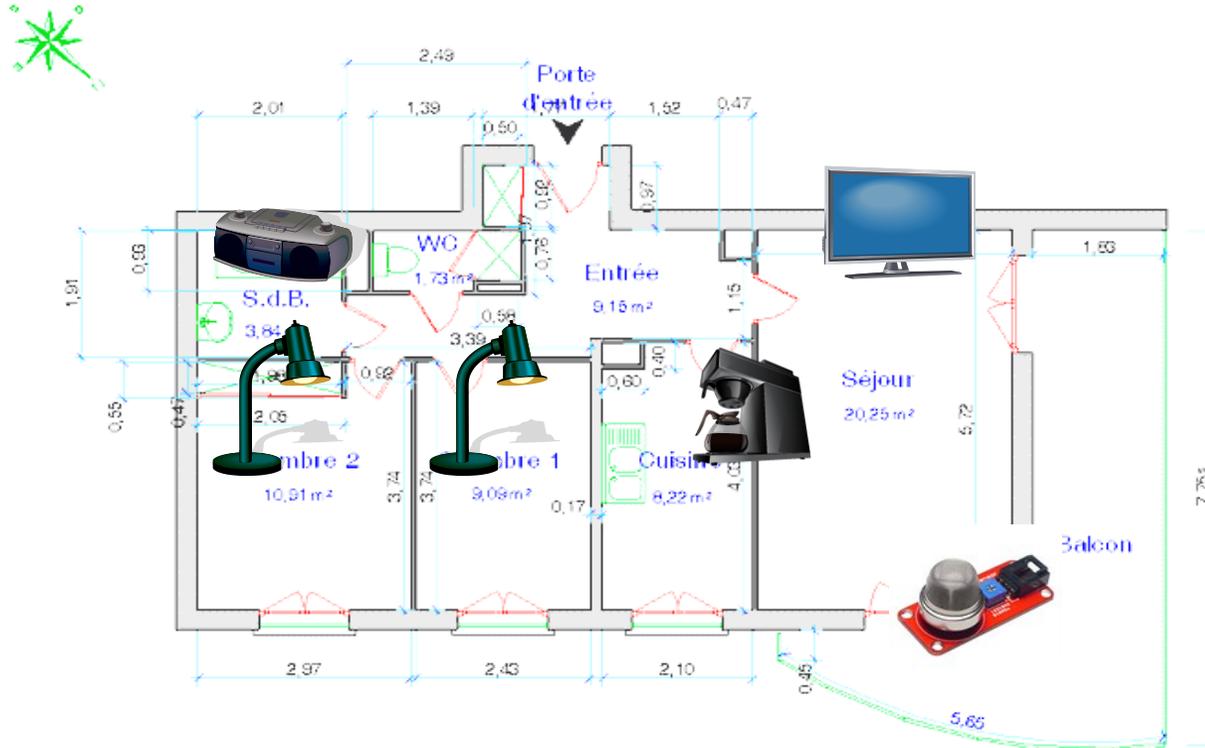


# What is an Ambient System ?



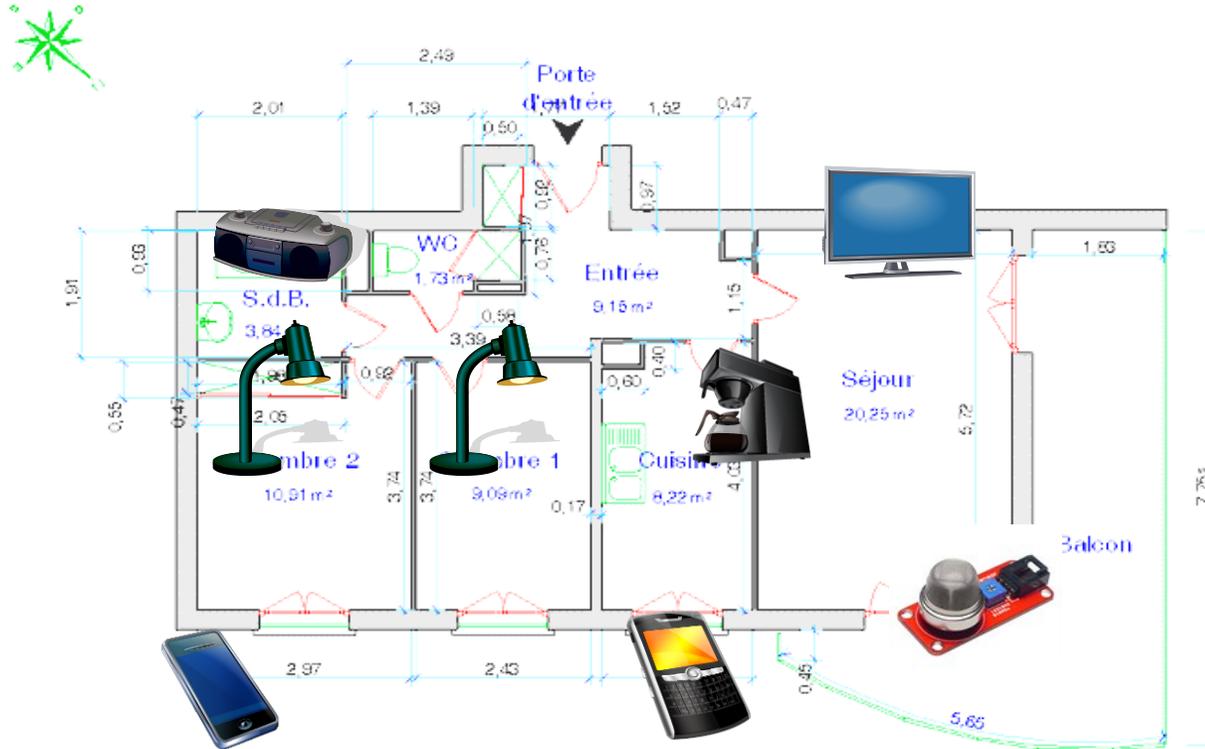
- A Physical Environment

# What an Ambient System consists in ?



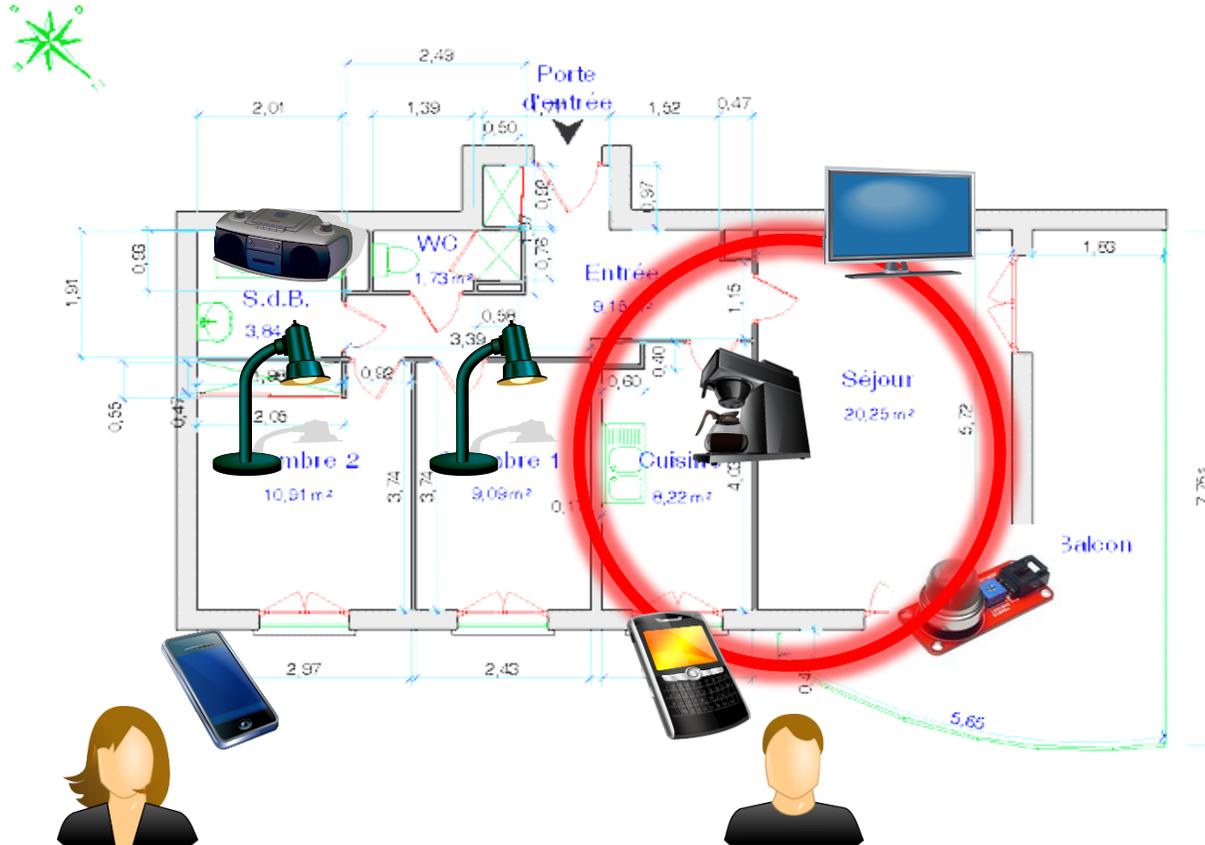
- A physical Environment
- Some Devices (sensors, actuators but often more sophisticated equipments)

# What an Ambient System is ?



- Physical Environment
- Some Devices (sensors, actuators but often more sophisticated equipments)
- Sometimes some Device to interact with Users

# What an Ambient System is ?



- Physical Environment
- Some Devices (sensors, actuators but often more sophisticated equipments)
- Sometimes some Device to interact with Users
- And users ... expecting some Ambient Services

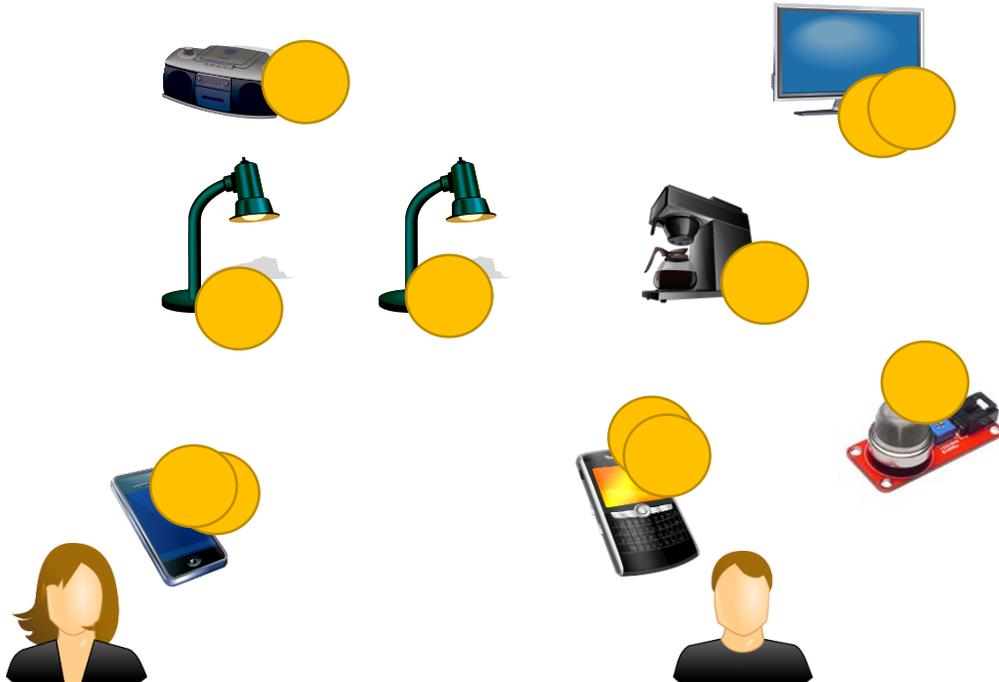
# What is software platform in an Ambient System?

- A set of available devices



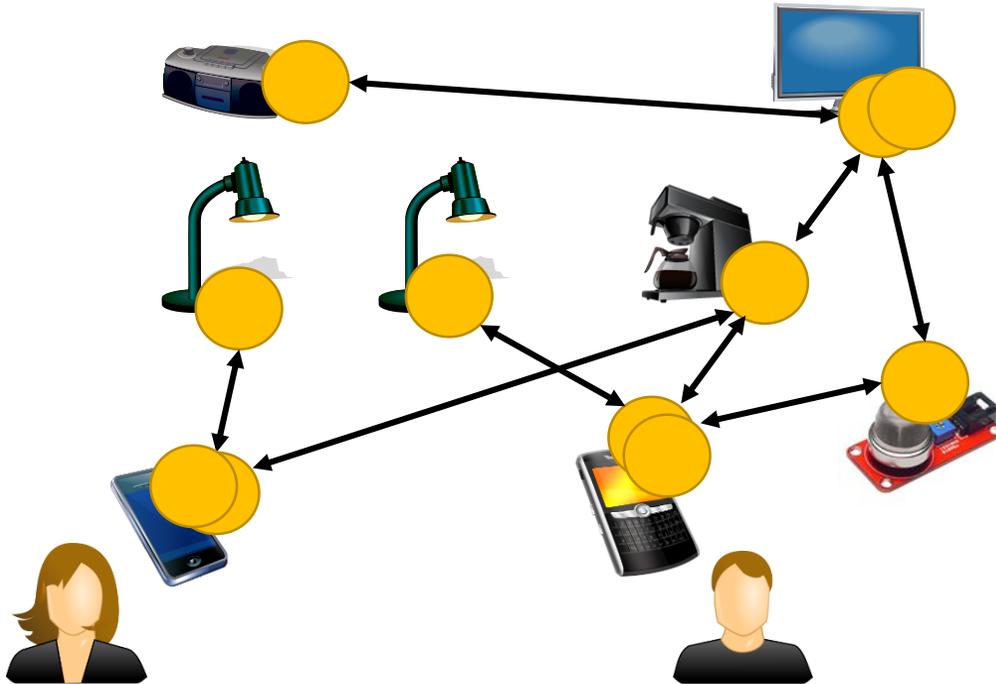
# What is software in an Ambient System?

- A set of available devices
- A set of software services provided by the devices



# What is software in an Ambient System?

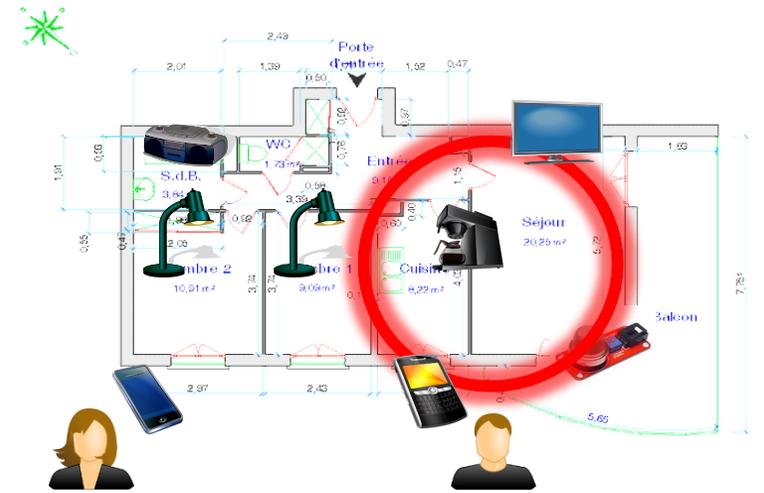
- A set of available devices
- A set of software services provided by the devices
- Ambient Services for Users as software services composition



# One of the main Challenge

The set of available devices are always changing and ...

Ambient services expected by the user must be always available



We call that challenge "Continuity of service"

- How to adapt permanently and reactively the software composition
  - to the set of the available services (through devices)
  - to the user needs

- **Our final purpose** : new middleware to facilitate the design of ambient services in spite of these constrains.

# Our approach to design dynamic and reactive adaptation

- Every user is **mobile** with **his own needs**
- A Multi-Users approach need a **distributed description of the potential adaptations**
- Our Approach is based on adaptation schema (AS)

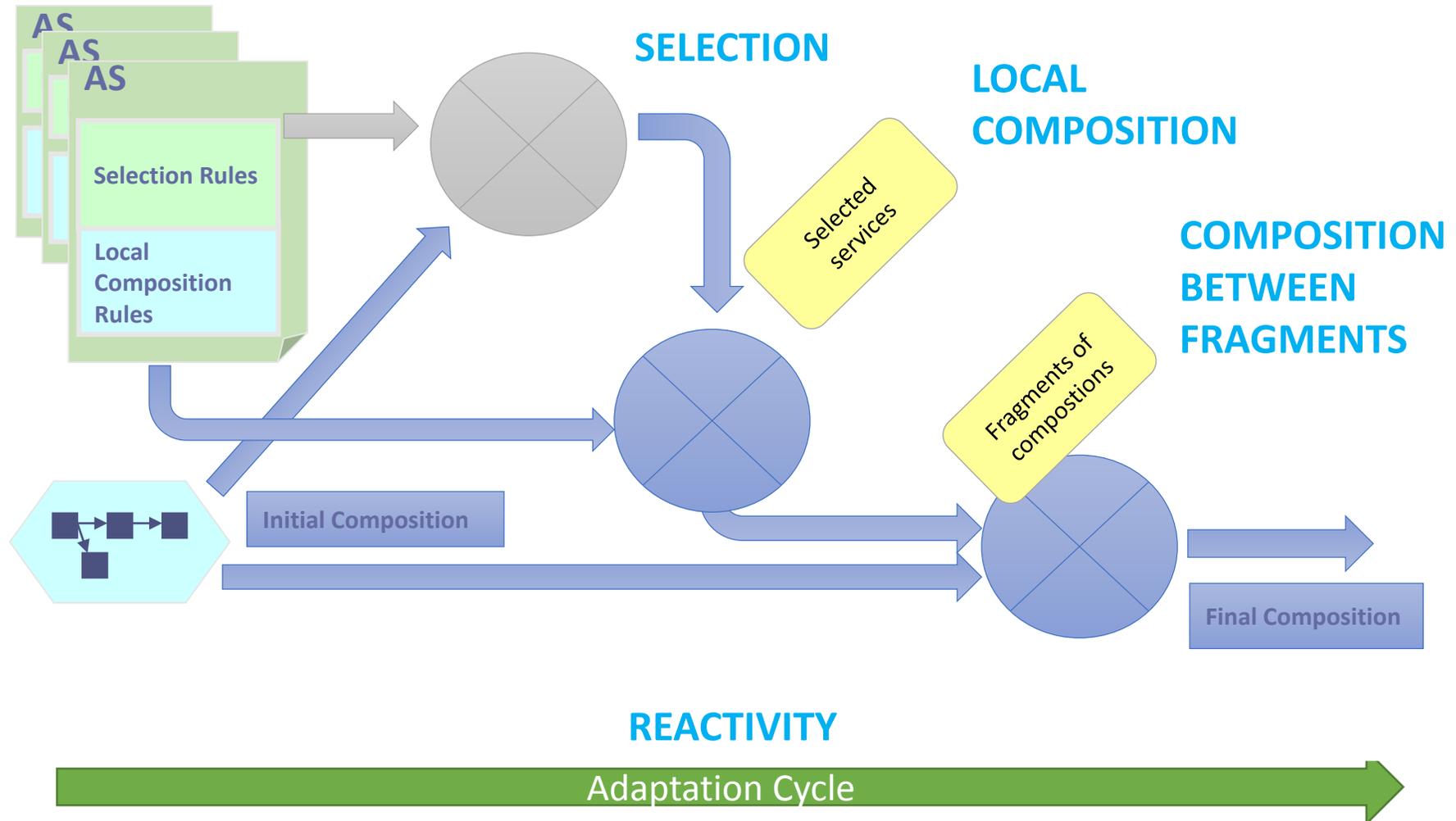
AS = [Rules to select services, Rules for local services composition]

# Our approach to design dynamic and reactive adaptation

- Our Approach is based on a set of adaptation schema (AS)



# Dynamic and Reactive Adaptation Cycle



# Semantics and Selection of Service for Device

(R. Daikhi, G. Rocher)

- When partly unknown devices appear ?

Light = light in the kitchen  
Switch = switch in the kitchen



- *Potential Master thesis ...*
- *Semantic Service Selection*
- *Collaboration with O. Corby*

# Main Reference

[2013] Gaëlle Calvary, Thierry Delot, Florence Sèdes, **Jean-Yves Tigli**, editors. “Computer Science and Ambient Intelligence” 335 pages, ISTE Ltd and Wiley & Sons Inc, March 2013, ISBN 978-1-84821-437-8

[2012] Gaëlle Calvary, Thierry Delot, Florence Sèdes, **Jean-Yves Tigli**. “Informatique et Intelligence Ambiante : des Capteurs aux Applications (Traité Informatique et Systèmes d'Information, IC2)” Hermes Science, July 2012, ISBN 2-7462-2981-1

