AmI for
Living Spaces

Theme of the year 2018

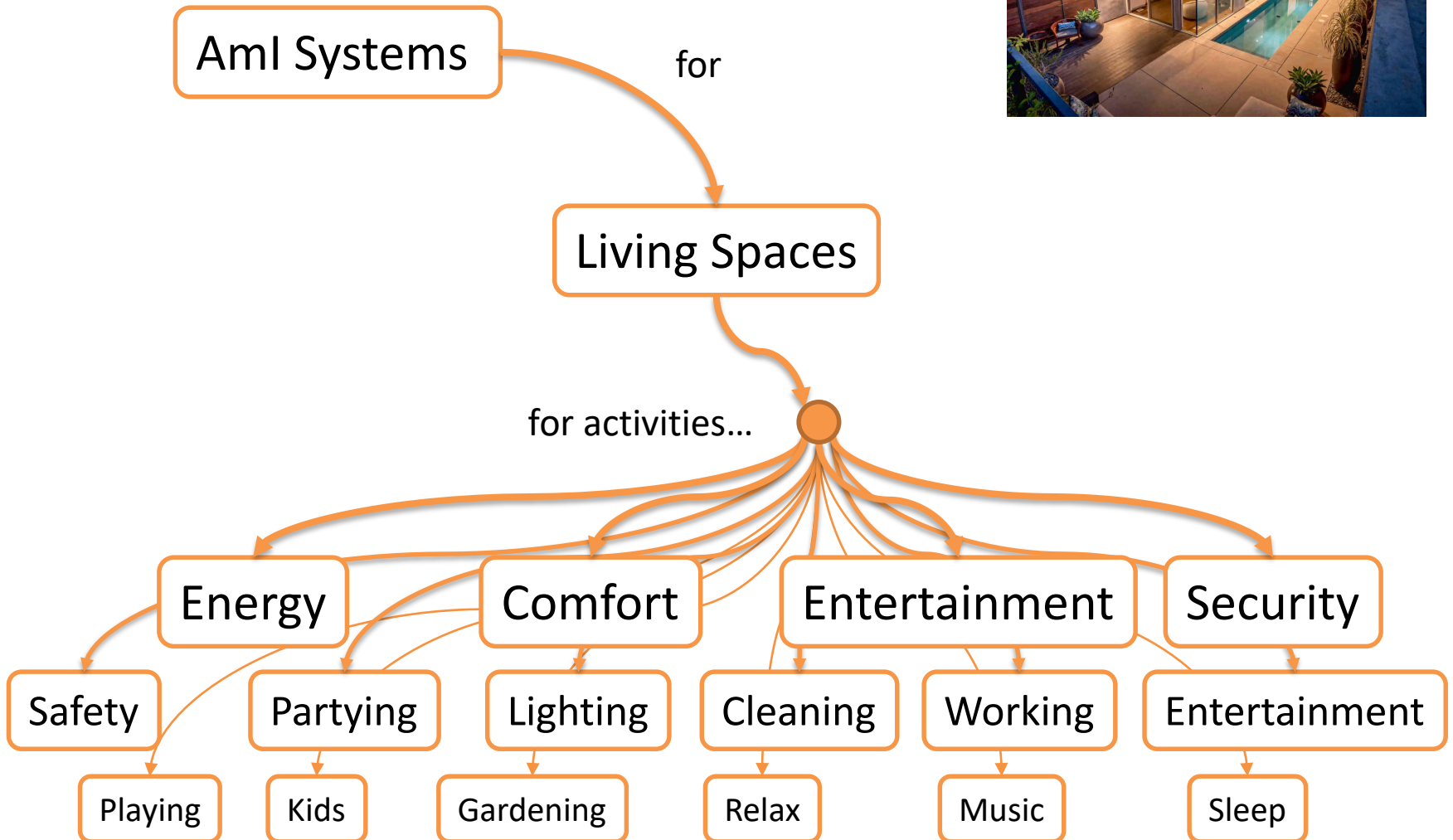Fulvio Corno

Politecnico di Torino, 2017/2018

Summary

- Definition of the Theme

- Essential features

- How to proceed?

- Analysis of survey results
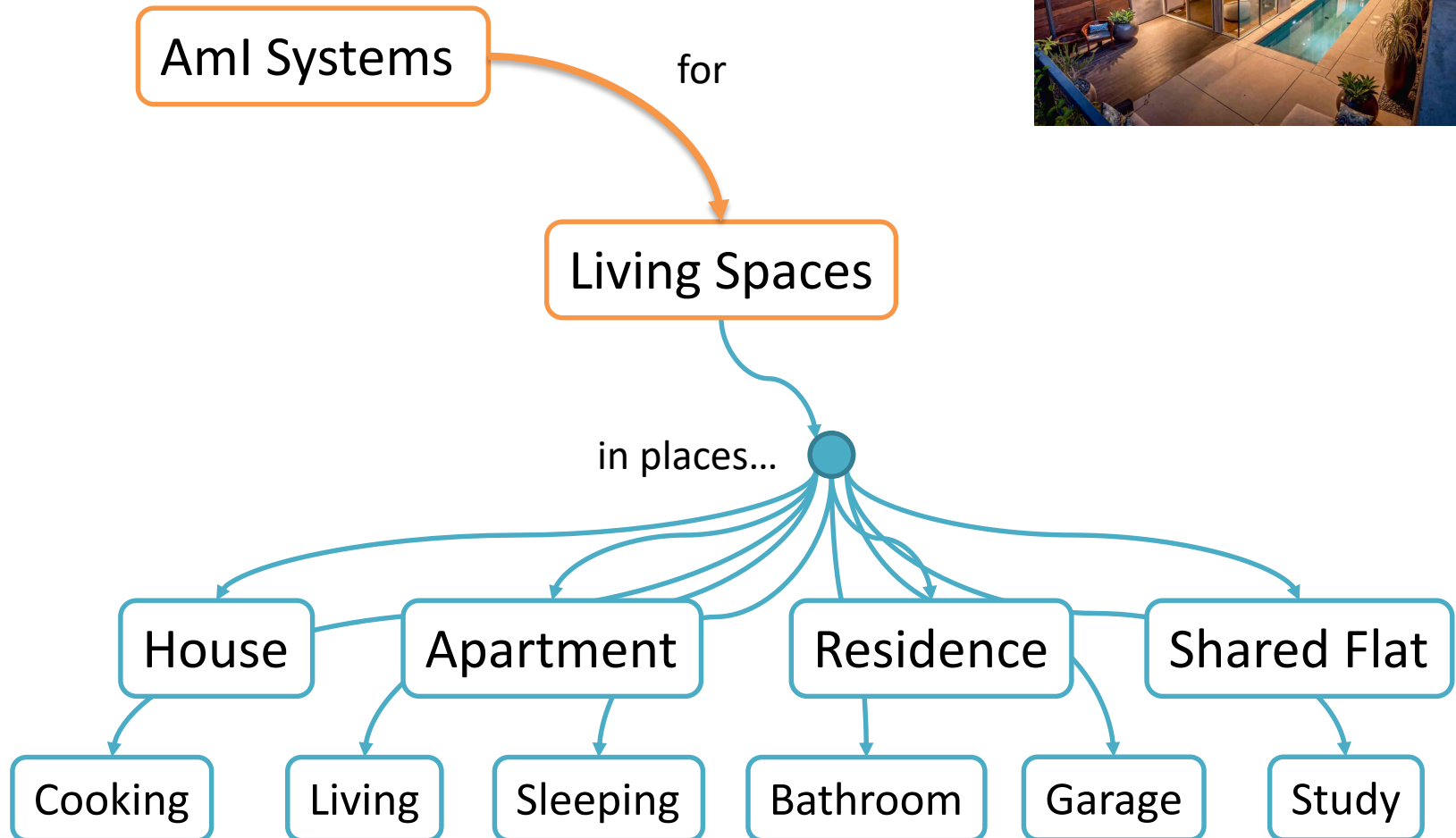
- Hints, ideas, suggestions

AmI for Sustainability

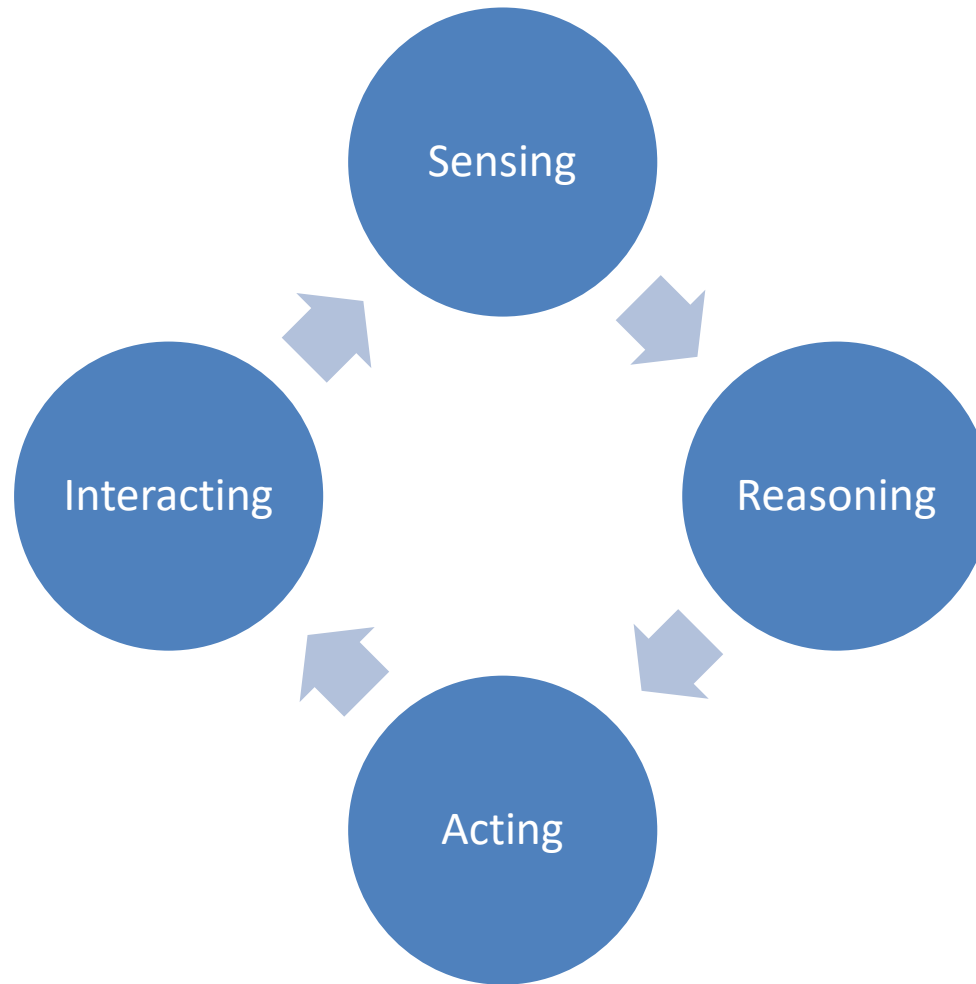# DEFINITION OF THE THEME

Theme of the year 2017

AmI Systems → for → Living Spaces

for activities...

- Energy
- Comfort
- Entertainment
- Security

- Safety
- Partying
- Lighting
- Cleaning
- Working
- Entertainment

- Playing
- Kids
- Gardening
- Relax
- Music
- Sleep

Theme of the year 2017

AmI Systems → for → Living Spaces

in places…

- House
  - Cooking
- Apartment
  - Living
  - Sleeping
- Residence
  - Bathroom
  - Garage
- Shared Flat
  - Study

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ESSENTIAL FEATURES
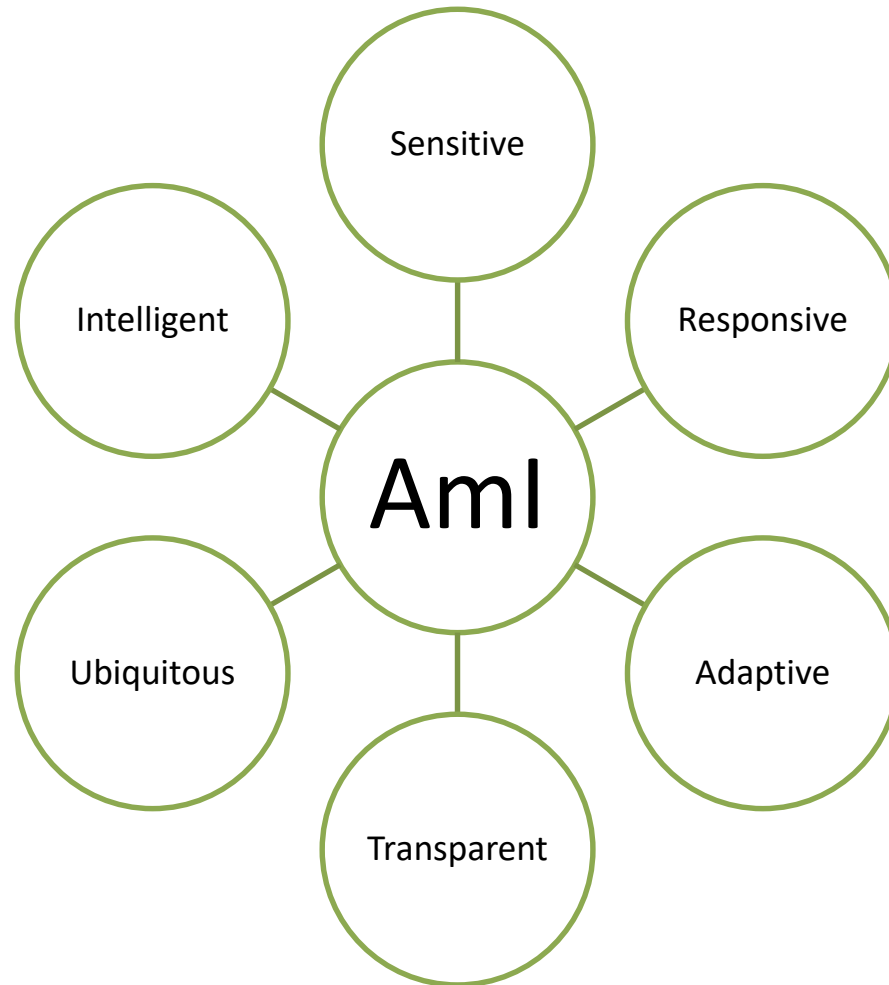
Include all 4 steps of AmI

Corollary

- No **mobile**-only nor **software**-only nor **cloud**-only nor **wearable**-only nor **hardware**-only nor **embedded**-only solutions

- No totally automated behind-the-scenes solutions (that don't involve the **users**)

- Should involve some **sensing** (environmental, user, social, cloud, body, …)

- Should involve some **actuation** (on the environment, user, social, cloud, …)

- Should not be simply deterministic (some form of **adaptation/intelligence** is needed)

About Cloud

- Integrating with cloud services (Facebook, Google Calendar, Twitter, IFTTT, …) or mobile services (location, activity, notifications, …) can be very useful

- May be used as "sensors" or "actuators"

- But: Must <u>not</u> be the <u>only</u> sensor and actuator

Try to incorporate most AmI features

Sensitive
Responsive
Intelligent
AmI
Ubiquitous
Adaptive
Transparent

Additional constraints (1)

- We can't modify the infrastructure
  - Walls, doors, hallways, …
  - Lighting, heating, cooling, Wi-Fi, Internet, …
  - Additional devices are ok
- Feasible with existing equipment
  - Devices available in LADISPE
  - Devices you own or you may lend
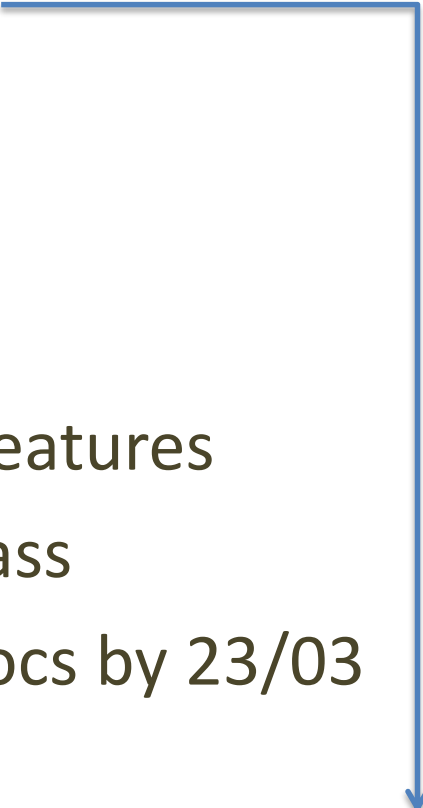 - Cheap devices that may be purchased

Additional constraints (2)

- Easy to demonstrate
  - Easy to show in a lab setting
  - Easy to be moved, installed elsewhere
  - No permanent installations required
    - Except in special "safe" places (Ladispe, some office, some department, …)

AmI for Sustainability

HOW TO PROCEED?

Immediate next steps

- By 18/03 (upload on Google Docs)
  - Group composition
  - Submitting ideas
    - Title
    - [very] short description
- Already think at AmI steps & AmI features
- Teacher validation during 19/03 class
- Final version on another Google Docs by 23/03

https://docs.google.com/document/d/17qU_jNRfiHvDXSH4cfhyw4EFIOTNuRMpW7WHDKaz_Gs/edit?usp=sharing

Submission Format

GROUP NUMBER XX

Team Members
- Team member 1, email, GitHub username, role in the project
- Team member 2, email, GitHub username, role in the project
- Team member 3, email, GitHub username, role in the project
- [Team member 4, email, GitHub username, role in the project]
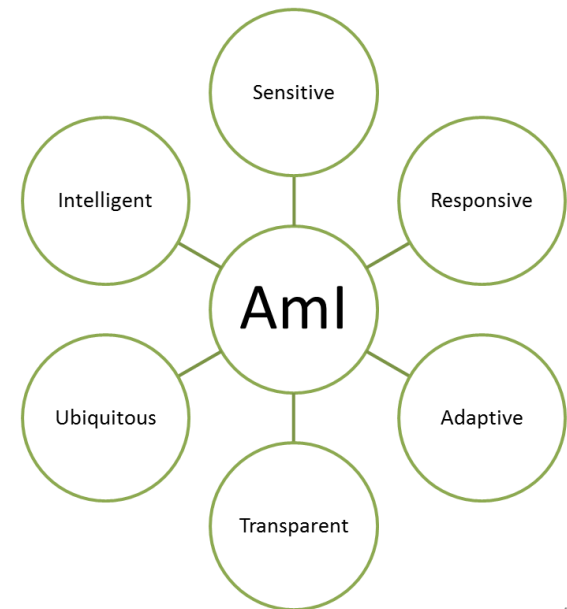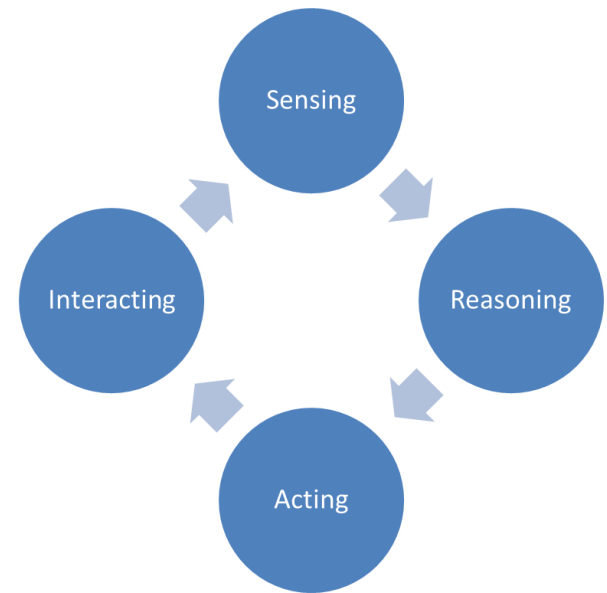
Project Acronym: XXXYYYZZZ

Project Title
this is the title

Description
5-10 lines describing the project from the user's point of view. Don't mention technologies nor devices.

Submission Format

GROUP NUMBER XX

Team Members
- Team member 1, email, GitHub username, role in the project
- Team member 2, email, GitHub username, role in the project
- Team member 3, email, GitHub username, role in the project
- [Team member 4, email, GitHub username, role in the project]

...onym: **XXXYYYZZZ**

s123456
Corno
Fulvio

Polito mail
or
Personal mail
(that you'll
check
regularly)

@fulcorno

One or more of:

SW developer (front-end, back-end, mobile, …)
HW developer
Physical designer
Etc.

Submission Format

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- [... GitHub username, role in the project
- ... GitHub username, role in the project]

Description
5-10 lines describing the project from the user's point of view. Don't mention technologies nor devices.

What are the benefits for the user?
What are the main features?
Why should they want it?
How does it blend in their life?

Really!

Amb

Final tips

- Be <u>creative</u>

- Exploit your skills or <u>passions</u>

- Concentrate on <u>2-3 key</u> features

- What will your <u>users</u> like?

- <u>Avoid</u> too much "integration" or "device support" or "data processing" work

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