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TECHNISCHE
UNIVERSITÄT
WIEN
Vienna University of Technology

ROBOTS AS HELPERS

Robot Helpers at Home

Dusting

Braitenberg Vehicles (1974)
Cheap, simple

Surveys: "Four C's – Clean ..."
... bath, kitchen, toilet, windows



iRobot



Samsung



Braava



HOBOT

Toys and Therapy



Aibo



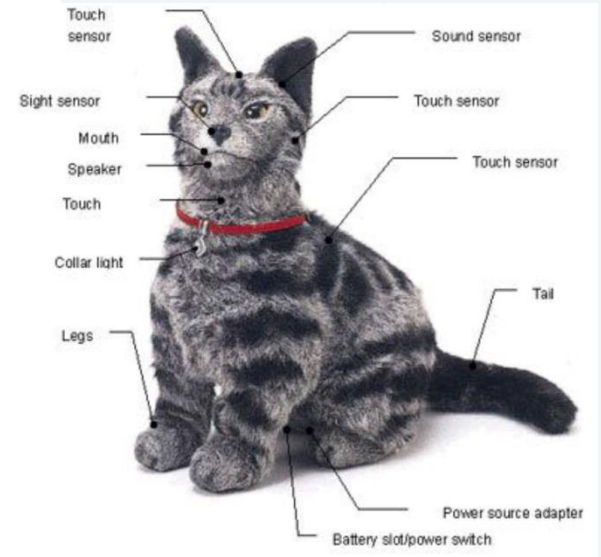
Pleo



Paro



JustoCat



Megadroid

Mobility



Exoskeletons

ReWalk



[HAL; Japan]

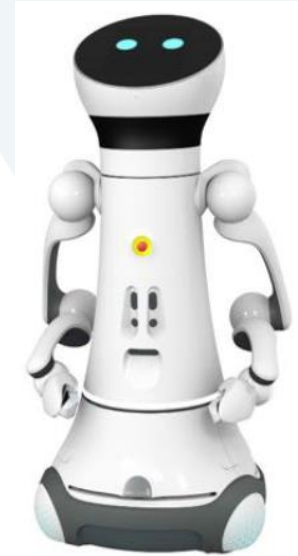
Tidy up!



Hobbit (TU Wien)



HSR (Toyota)



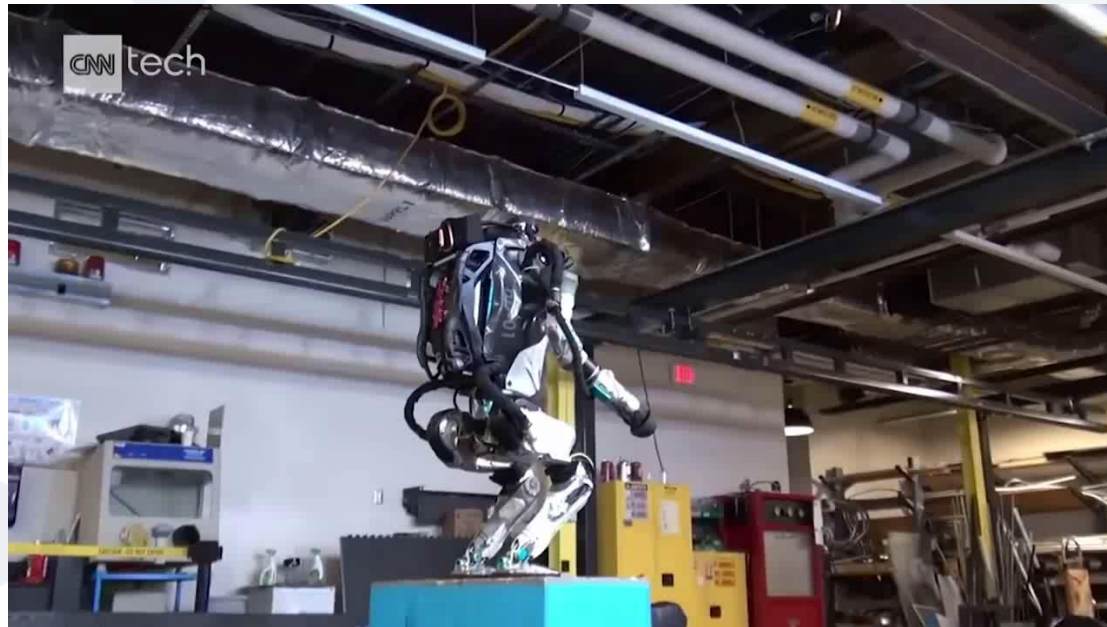
Care-o-bot (FhG IPA)

Geminoids (Twin-Robots)



H. Ishiguro, Japan

Impressive Robots



Care Robots?

Activities of Daily Living (ADL)



[Katz, 1963]

Care Robots?

Instrumental Activities of Daily Living (IADL)

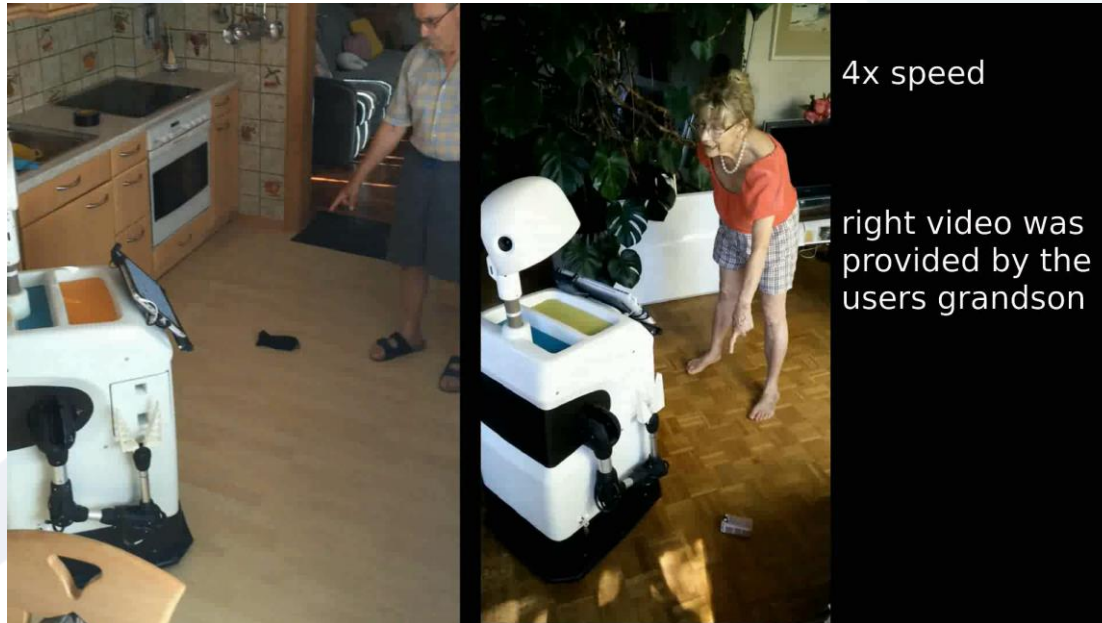


[Lawton, 1969]

Robot as Helper at Home?



Service Roboter zu Hause



Henry @ Haus der Barmherzigkeit



Robot Helper



Robots are Machines

- Robots are machines
- Robots must be trustworthy
- Robots must be designed to be trustworthy

- Robots can help
- Help does not mean „do everything“
- Help means „Assist to stay active“

We Build the Robots

- More skillful robots
- More skillful builders

- Rapid change of technology
- Needed qualifications change
- **Learn skills, not content**

**Builders = designers,
sociologists, engineers,
scientists, managers, etc.**

Critical
Thinking

Creativity

Communi-
cation

Initiative

[21st century Skills]

Robots as Helpers

Let's build the robots we want



[Fließ, Staake: Robots,
Robots Everywhere!]

