

NCCR Robotics 1st Symposium, 16th June 2011, Zurich, Switzerland

HRI in the home: A longitudinal ethnographic study with Roomba

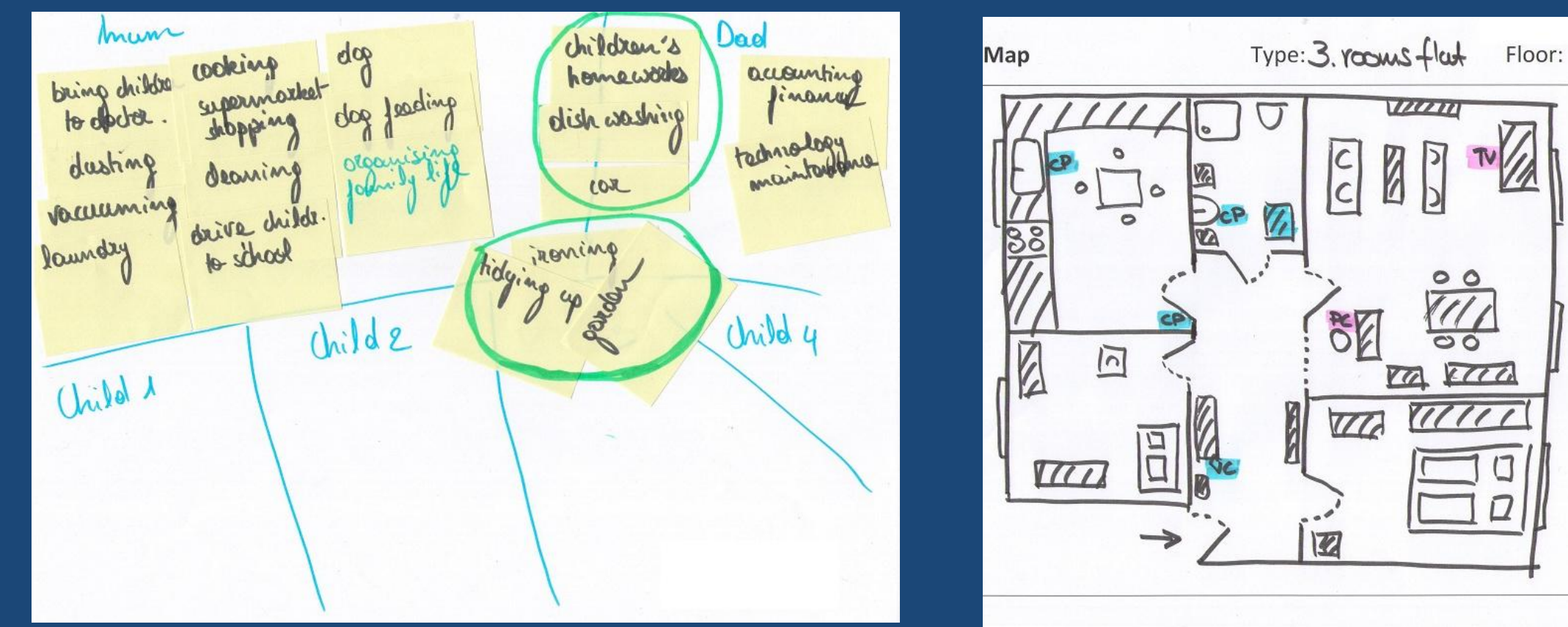
Sub-project 5.1: Robots for daily life – Interaction analysis

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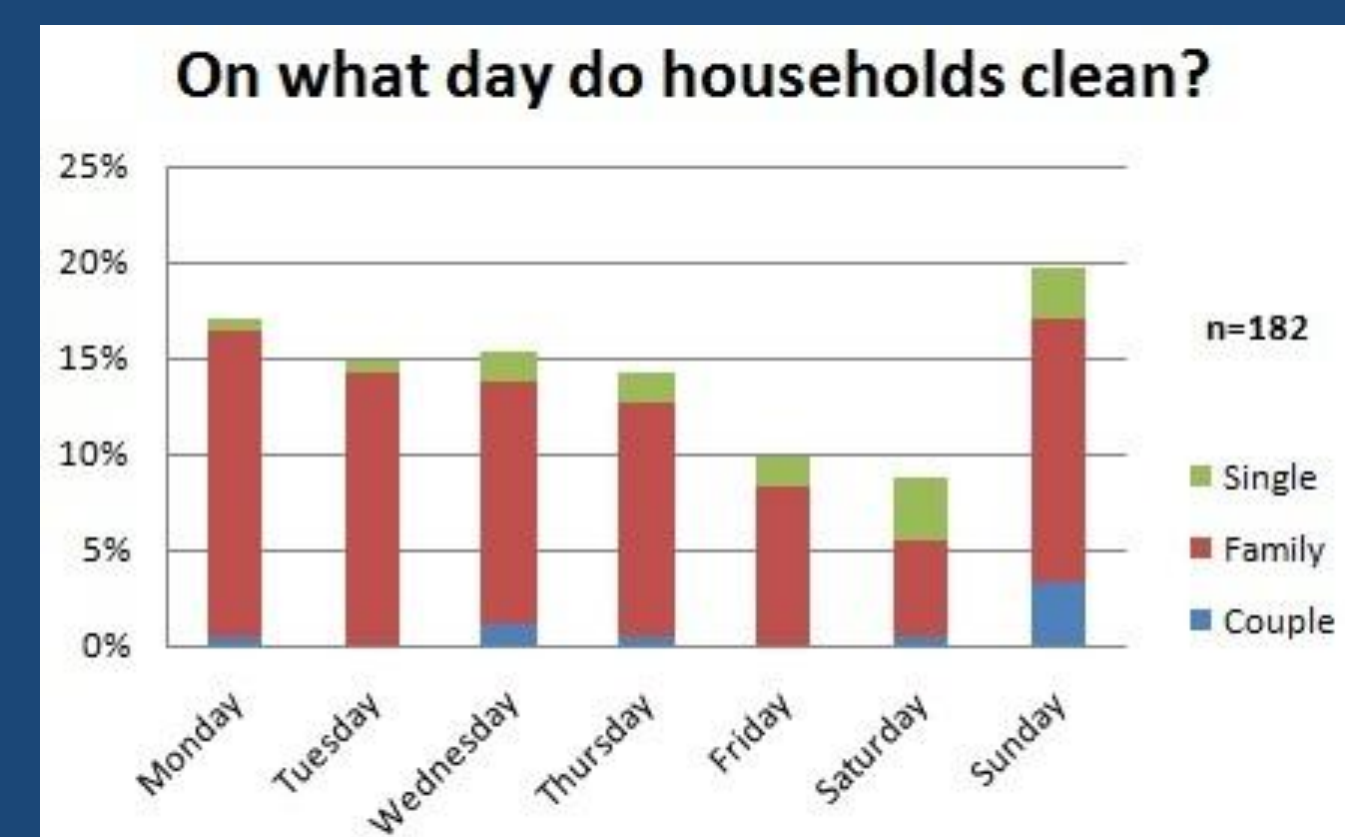
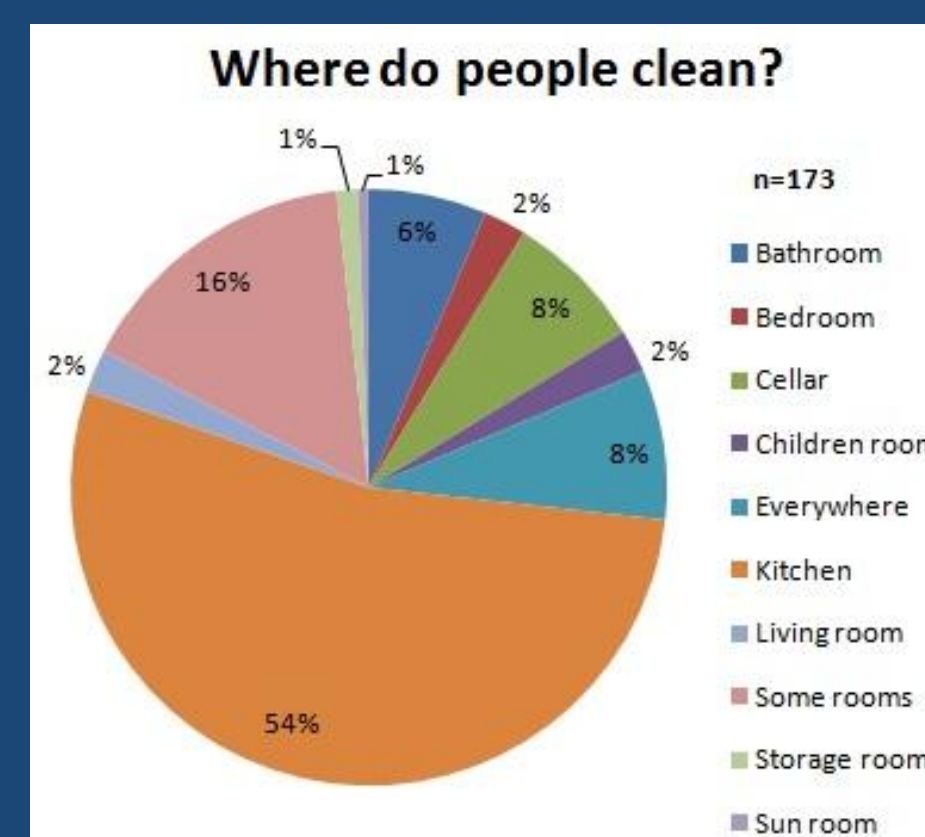
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Phase 1

Get to know the household during one week.



- Who does what, when, where, how, and why?
- What is the family's structure of daily life?
- Attitudes towards cleaning, technology and robots?

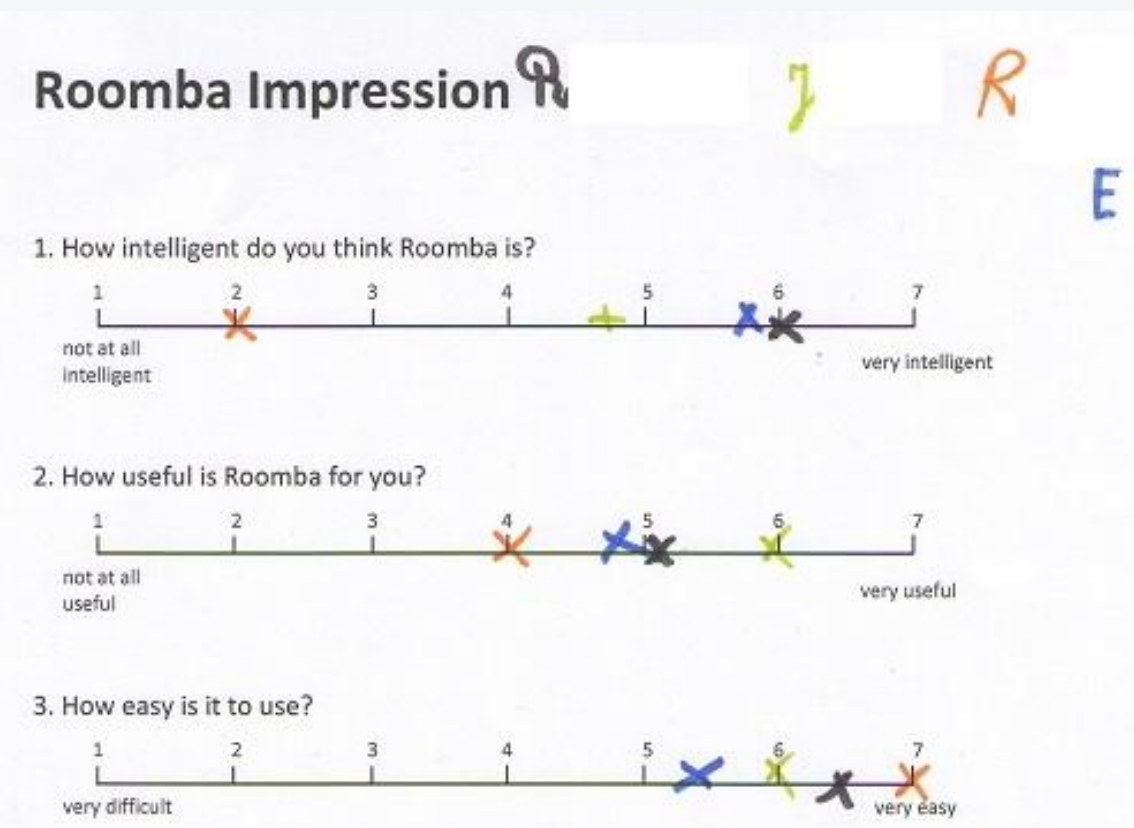


Phase 2

Give them a domestic robot and study initial reactions.

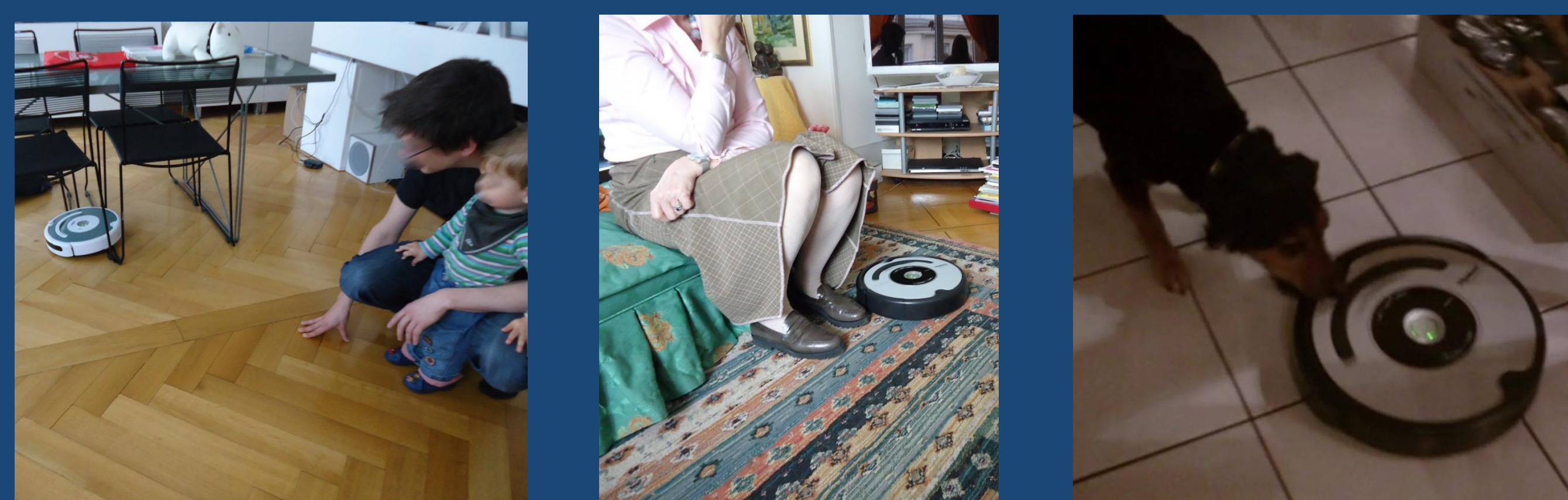


- What do people expect from Roomba?
- How do they initially react to Roomba?

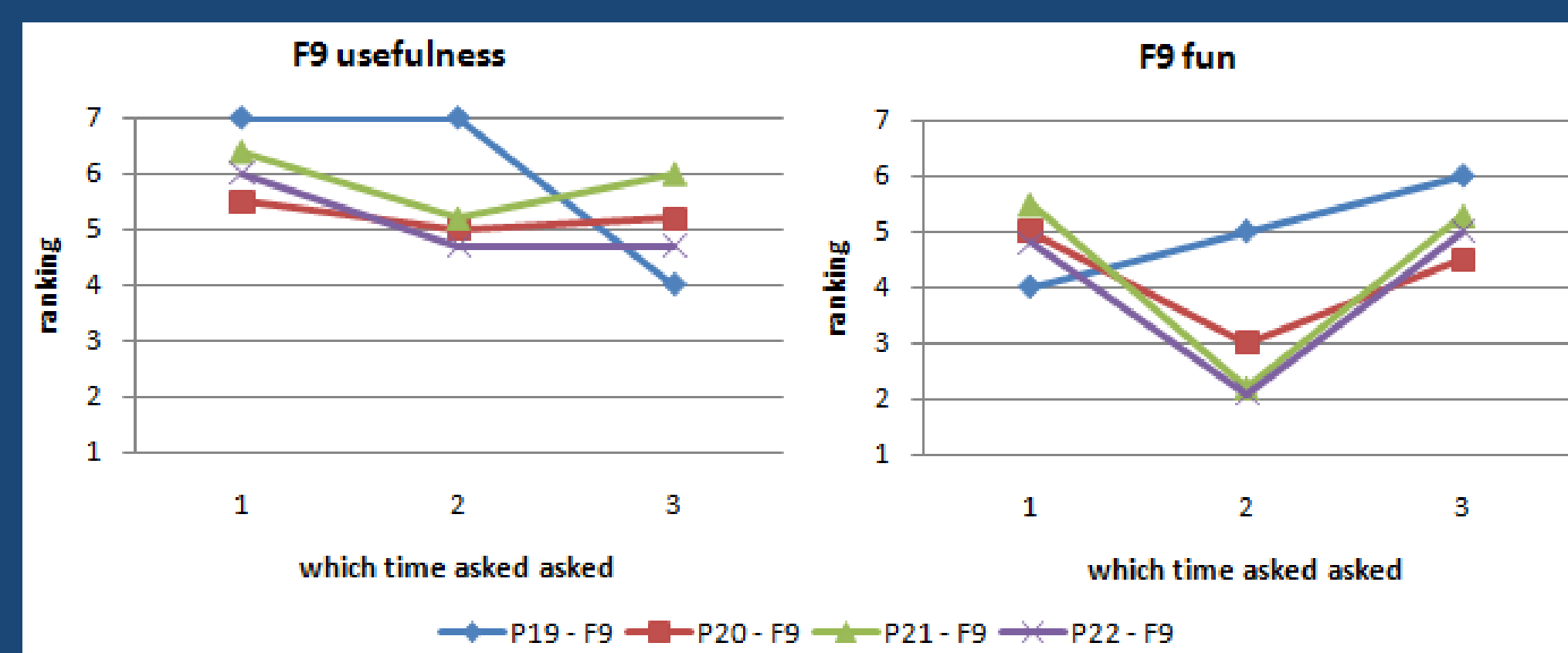


Phase 3

See how they explore the robot during two weeks.

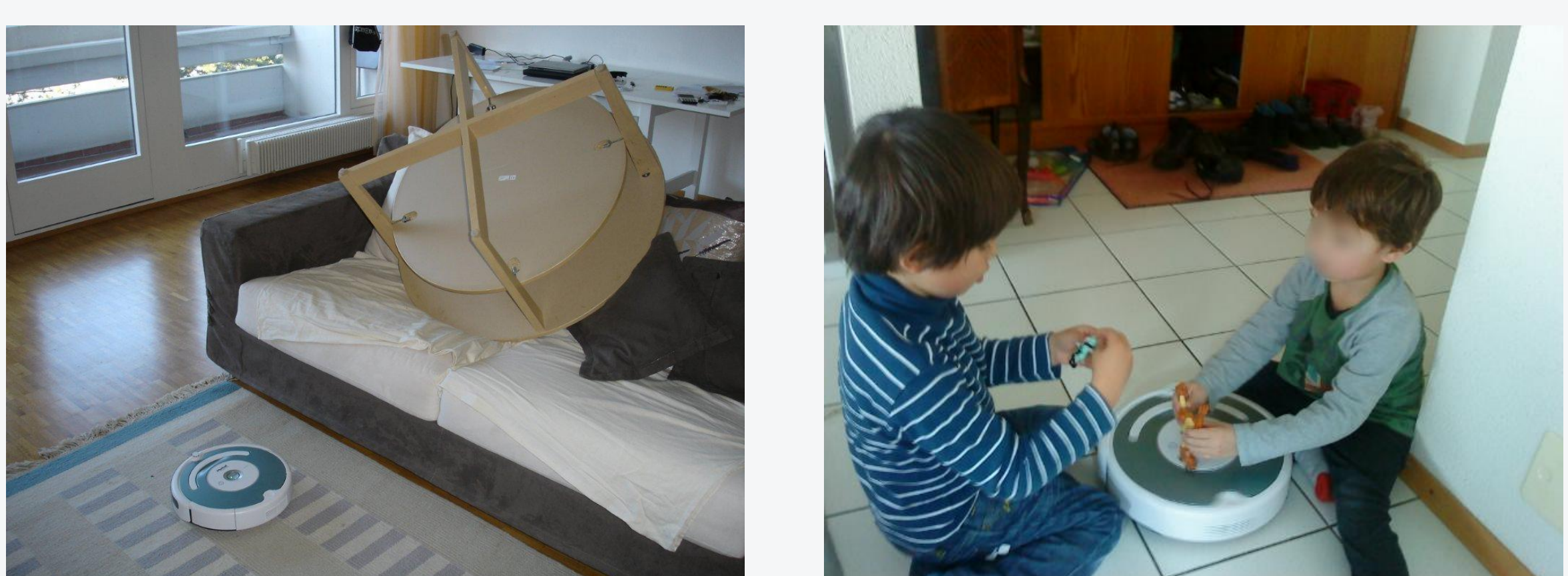


- How do different household members interact with Roomba?
- What else then cleaning to people do with Roomba?
- How do people describe Roomba?



Phase 4

Examine the use patterns of the robot during two months.

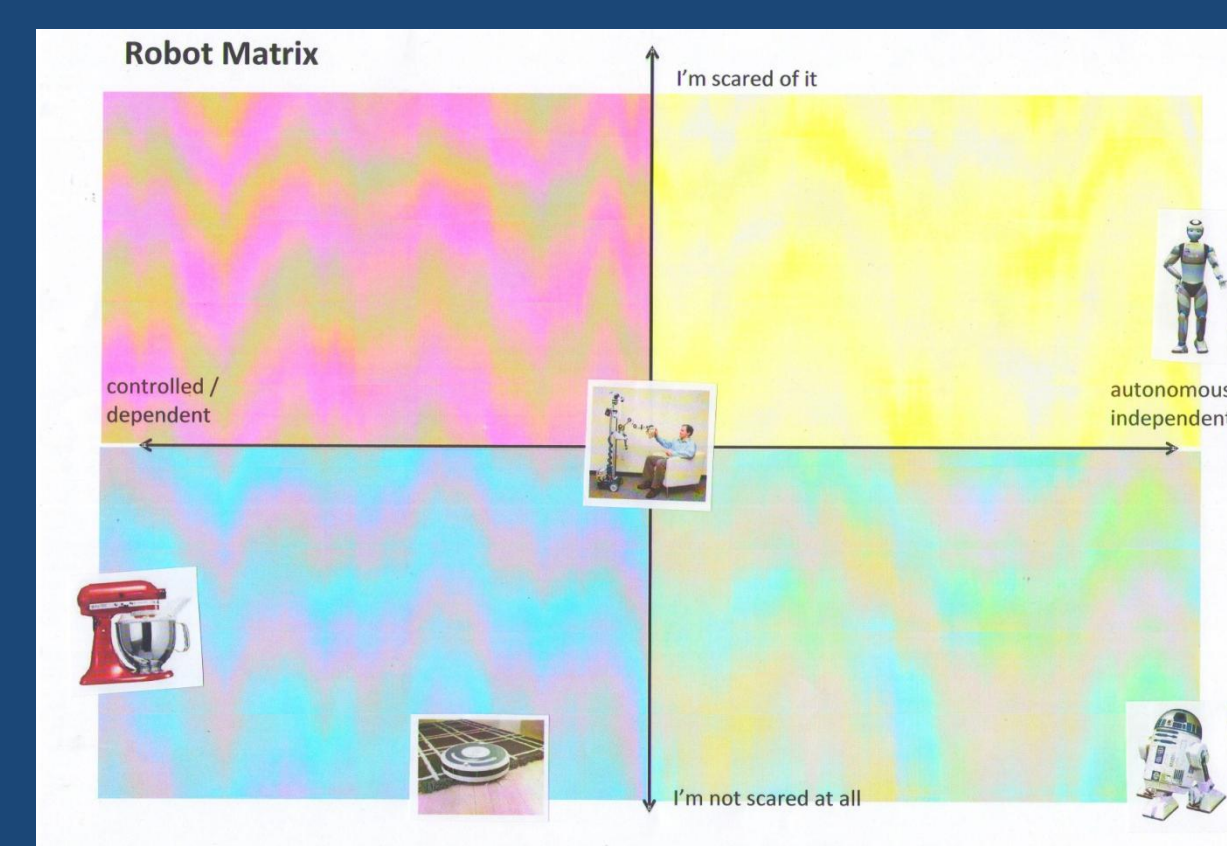


- Who uses Roomba for what, when, where, how, and why?
- How does Roomba impact the household?

Roomba wurde benutzt					Weitere Bemerkungen?		
Tag und Datum?	Uhrzeit?	Dauer?	Von wem?	Wo?	Was lief gut? Was war cool?	Was lief schlecht?	
Fr. 18.5	20:30	20'	Richard Julien	Schlaf- Zimmer			Kinder sind auf Bett herum- geschleppt um sich vor Roomba und seinen "Laser" in Sicherheit zu bringen
Sa. 19.5	7:00	30'	Reynald	Küche Salon Schlafz.	Eltern benutzen keine nach km.	geht von allein	braucht kein hilf!
Sa. 19.5	13:00	5'	Julien	Salon	Demo für Onseltern		
Sa. 19.5	17:30	10'	Julien	Salon	baute eine "Hütte" aus Kissen		ich mache video

Phase 5

Find out values the robot might hold for the household.



- How does perception evolve over time?
- What drives adoption/rejection?

Outputs

- How a robot impacts a household ecology and social aspects
- Process of adoption of a domestic robot beyond novelty effects
- What experiences shape people's perception of a robot

- What factors drive or hinder adoption of domestic robots
- What methods to study robot adoption in daily life
- How to design future personal service robots