

# Ethics related to aging in place with AAL *experiences and a model*

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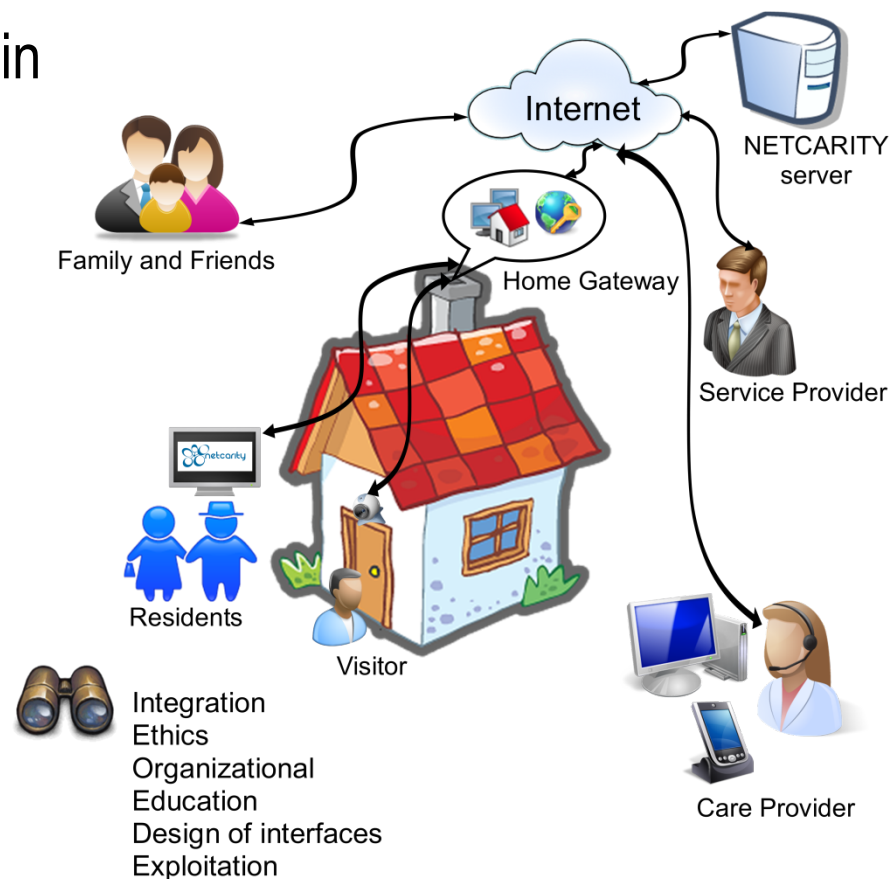
The Netherlands



# The NETCARITY project

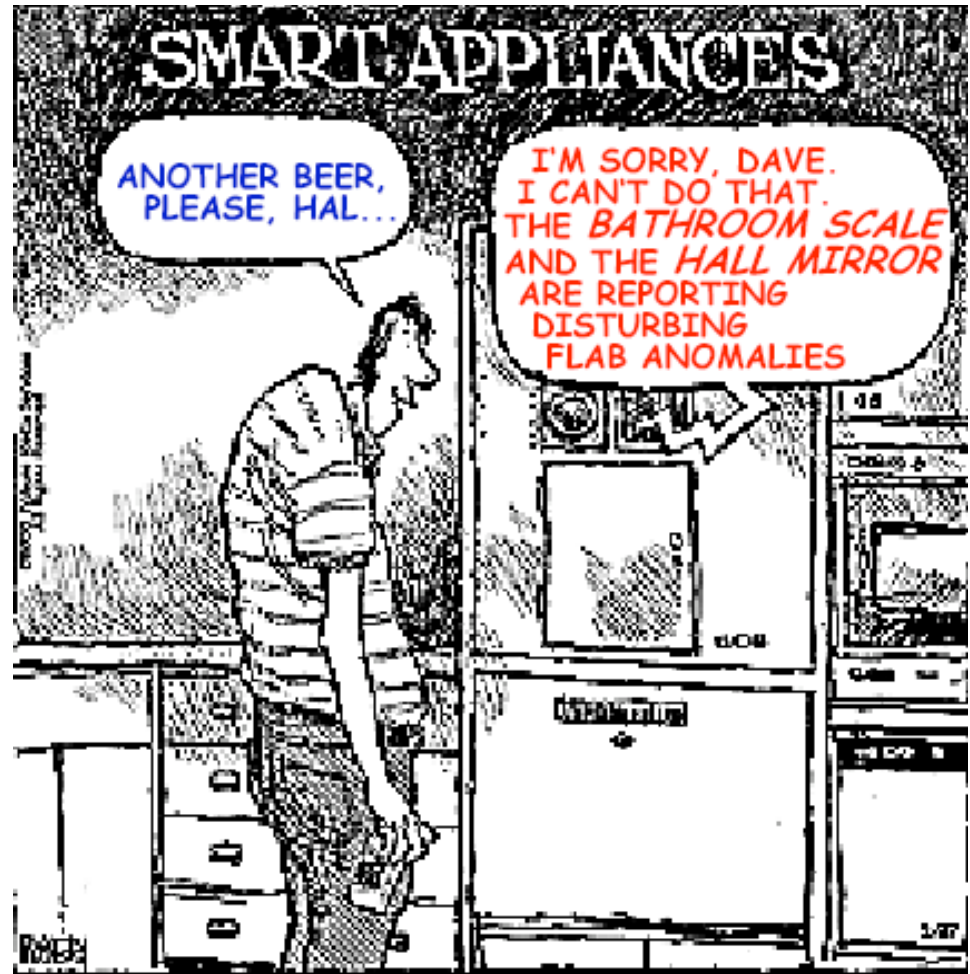
**NET**worked multisensor system for older people: health **CAR**e, safety and secur**ITY** in home environment.

- 4 year, €13 million EU project
- Inclusion, Assistance, Protection, Health
- Apply in real home environments
- Involve older people in innovation cycle



# Ambient intelligent environments and need for ethics

- Digitalization home environment
- User (behavior) profiles
- Interconnectedness
- Conscious & unconscious automatic information flows
- Disappearing boundaries between public and private



Cartoon by Jeff MacNelly

# Ethical experiences and trade-offs



Digitally 'closing  
the blinds / door'

Changing nature of home  
environment



Changing boundaries  
between wellbeing and  
medical considerations



Expectation management  
during UCD / research  
projects



Context and communication  
are crucial

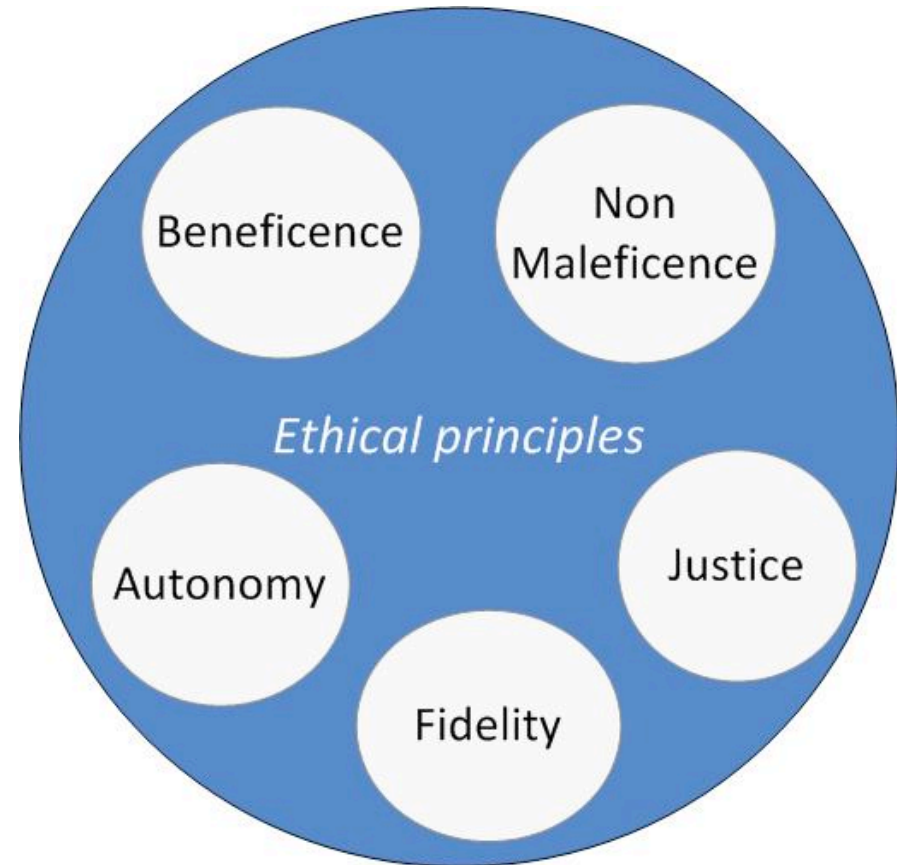
# Ethical Model - introduction



- Using ethics to give guidance
- Model provides more insight in potential ethical issues AAL projects
  - Based on Ethical Principles
  - Potential Risks that impede on these Ethical Principles
    - Risks are results from SWAMI project (6<sup>th</sup> FP)
    - Goal: to identify and analyse the social, economic, legal, technological and ethical issues related to Aml environments
  - Different levels
- Apply Ethical Model to NETCARITY services
- Use ethical inputs to update service

# Ethical Model – ethical principles (Beauchamp & Childress)

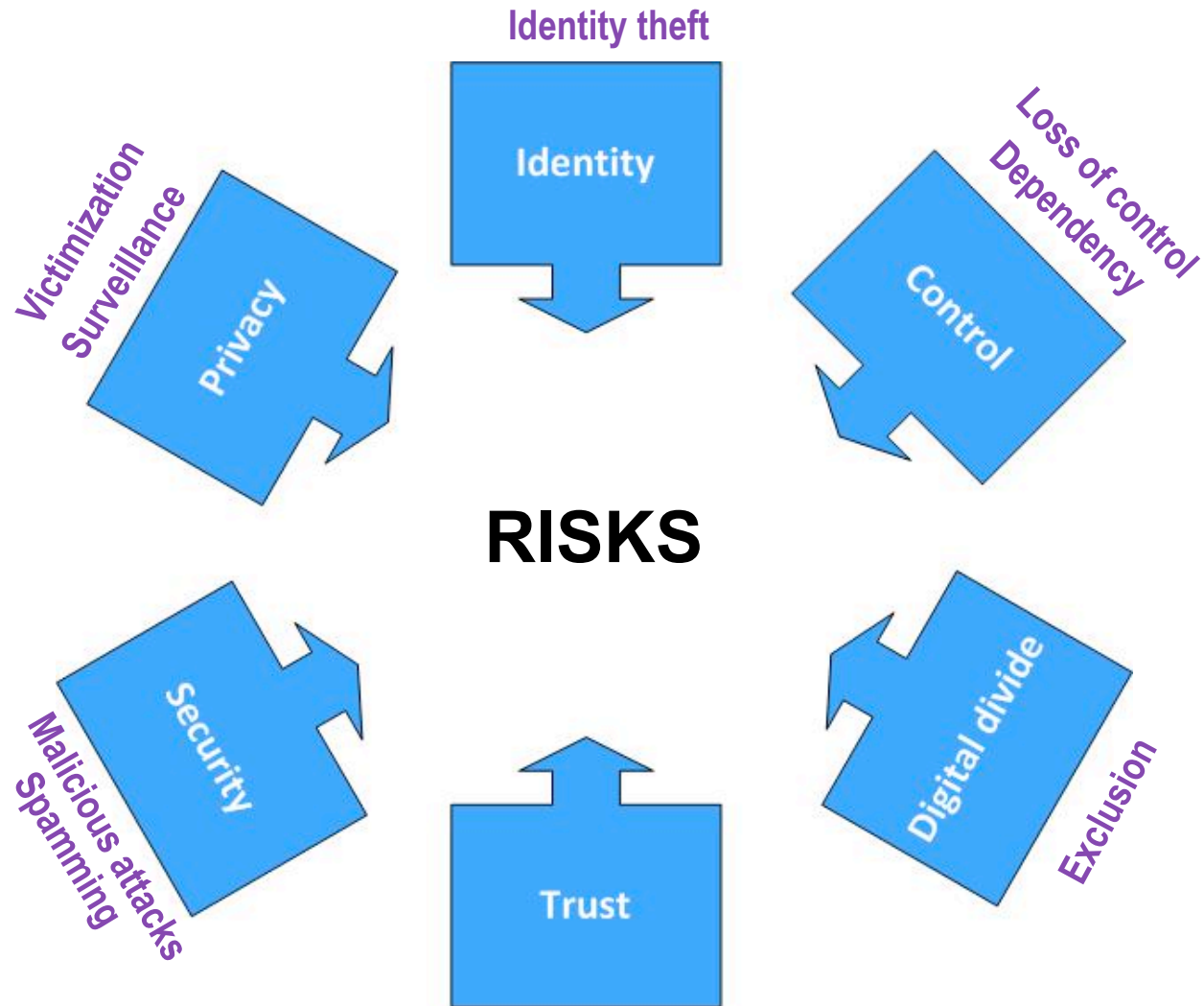
- **Autonomy:** self determination, people have the right to refuse or choose
- **Justice:** distribution of resources, who gets what (fairness, equality)
- **Beneficence:** act in the best interest of the person
- **Non-Maleficence:** first, do no harm
- **Fidelity:** act faithfully and honestly



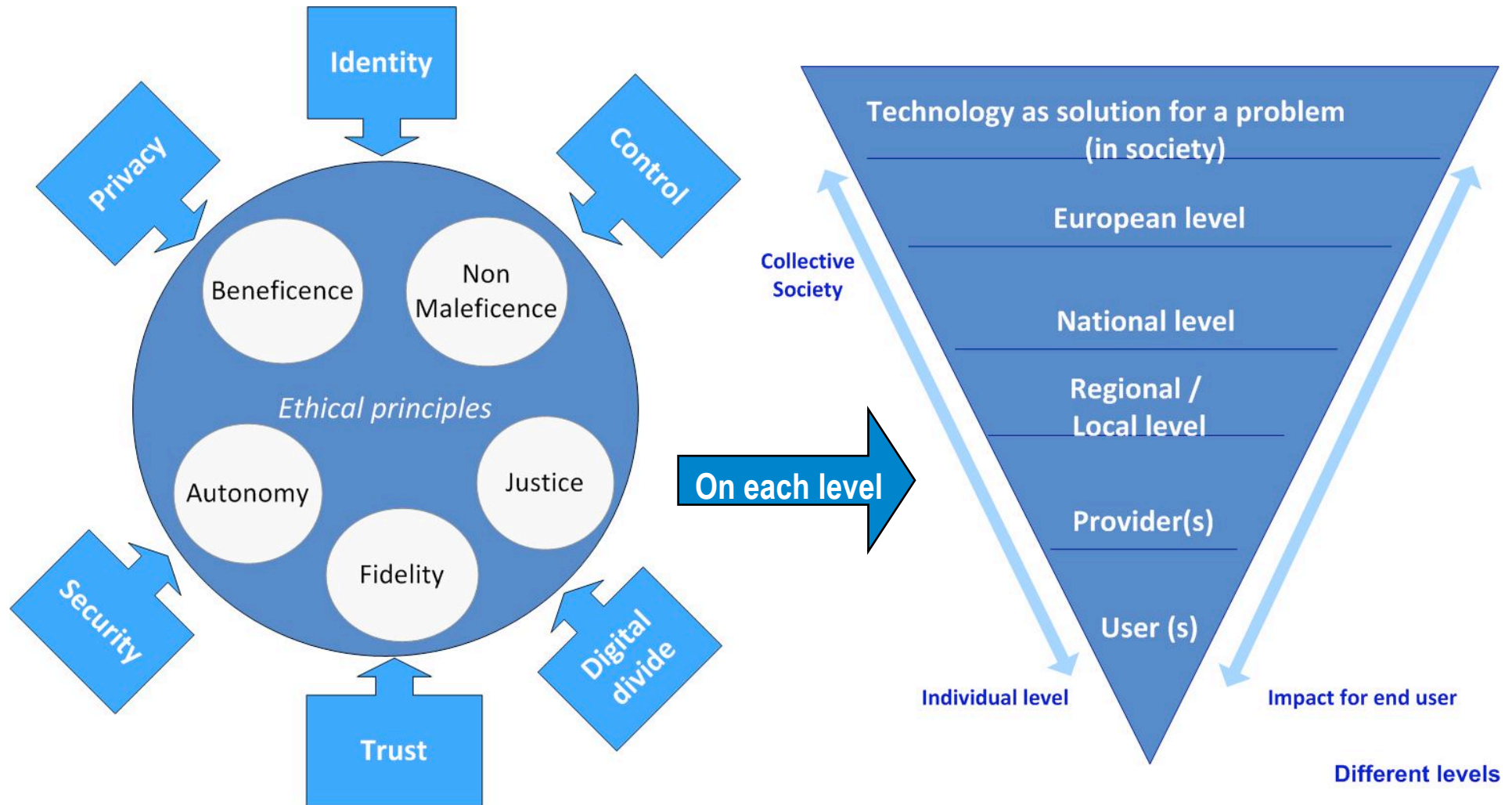
# Ethical Model - risks

SWAMI risks:

- 1.Privacy
- 2.Security
- 3.Identity
- 4.Trust
- 5.Loss of control
- 6.Dependency
- 7.Exclusion
- 8.Victimisation
- 9.Surveillance
- 10.Identity theft:
- 11.Malicious attacks
- 12.Digital divide
- 13.Spamming



# Ethical model - overview





# Ethical model - example of a general issue

**Level:** Technology as a solution for a problem in society

**Ethical principle:** Justice, Non Maleficence

**Risk:** Control (Dependency)

**Question:**

- Are we creating new dependencies of technology?

**Possible reactions:**

- The services are developed based on challenges defined by the older people. There is often a **trade-off** between **dependency** on technology and **perceived benefits** the service might bring.
- From another point of view it might even be unethical to not offer a person a technological solution when the benefits for that person are clearly present.



# Ethical model - applied to Wellness check

Service is targeted at health. Three sub-services:

- Reminding functionality to remind person that it is time for medical measurements (e.g. blood pressure, weight, glucose levels).
- Aid for the execution of the measurements (video contact with care employee)
- Older person will have insight into his own measurements.
- Collected data will be interpreted and if necessary there will be a follow-up.



Large medical component within this service making the role of the care organization very prominent.

Need to consider legal, ethical as well as organizational aspects.



# Ethical model - applied to Wellness check

**Level:** Provider, User, technology as solution for problem

**Ethical principle:** Beneficence, Non Maleficence

**Risk:** Trust, Control (Dependency)

## Questions:

- Might cause **incorrect re-assurance** when people think that values are alright, but actually they are not. **False sense of security** might be invoked.
- Possibly people become dependent on measuring their values. Once people start measuring there might be tendency to measure everyday and that people have the feeling that they cannot go out before **knowing their values**.
- What is the impact on the **nature of the home environment?**  
Home <> hospital



# Next steps – validation, refinement and update

- Test services and model in Smartest Home in Eindhoven
- Stakeholders
  - Older persons
  - Informal carers
  - Service centre, care consultants, employees care at home
- Examples of topics:
  - ADL Monitoring
  - Meaning of home environment
  - Important values for care delivery
  - Existing guidelines for care delivery
  - Current role and responsibilities and solutions
  - Risks and ethical principles at stake



**Thank you for your attention !**

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