

Smart Home Ambient Intelligence: voice assistants

a new limit for our freedom?

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Presentation Outline

Smart Home Ambient Intelligence: voice assistants
a new limit for our freedom?

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- Definitions

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- Applied concepts of Technological Mediation limiting our freedom
- Ethical concerns arising from loss of freedom

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Introduction

Technological Mediation

*While fulfilling their function, technologies do much more: they **give shape to what we do** and how we experience the world. And in doing so they **contribute actively** to the ways we live our lives (Verbeek 2011)*

- ▶ Technologies are not **neutral intermediaries**
- ▶ Technologies play an **actively mediating role**
- ▶ Artifacts are **bearers of morality** (Latour 1992)
- ▶ Morality is a matter of **human-technology associations**
- ▶ Two perspectives of mediation:
 - ▶ Perception
 - ▶ **Action**: I will focus on **human freedom**

Definitions I

Ambient Intelligence

***Ambient Intelligence** is an approach that combines two major technologies: Ubiquitous Computing and Intelligent User Interfaces (Brey 2005)*

Voice Assistant

*A **voice assistant** is a digital assistant that uses voice recognition, natural language processing and speech synthesis to provide aid to users through phones and voice recognition applications (WhatIs 2017)*

Definitions II

Freedom

Two forms (Brey 2005, 2006):

- ▶ Negative Freedom:

- ▶ act without obstruction or interference by others
- ▶ absence of limits and external constraints

example:

- ▶ **Positive Freedom (Human Autonomy):** I will focus on this

- ▶ mastery over your own life
- ▶ think freely, make your own decisions and act based on those

example:

Case Study: Google Home - Google Assistant Actions



Google Assistant Actions

I may talk very very briefly about the tools

Script

- 1) Developers design the whole conversational interaction.
Pre-defined templates. Ok lo lascio cosi.

Invitation/Inhibition structure

1) Developers define what actions are possible and what are not. The scripts of artifacts suggest specific actions and discourage others. Idea: the flow won't go on until the user has included in the answers the parameters

Behaviour Steering

- 1) suggestion chips
- 2) In future Google Assistant will propose in the conversation also ADS!!! And developers can see analytics to shape further the behaviour.
- 3) Idea: natural language “may hide” the behaviour steer but it is designed there! "Explicit vs implicit invocation".

Where is Technological Mediation?

1) Google Actions Policies and terms: designed towards privacy, content, branding, ... : what about technological mediation?

Technocracy

+ we may have the opposite problem: non technical people designing actions without having enough background!!!

Moral Laziness

commodification of morality

Moral responsibility of designers

What if in the future developers will shape morality???

Responsibility vacuum

Possible Remedies

Possible Remedies

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