

Exercise from Paul Klee's Colour Class, author: Magda Langenstraß-Uhlig, 1925

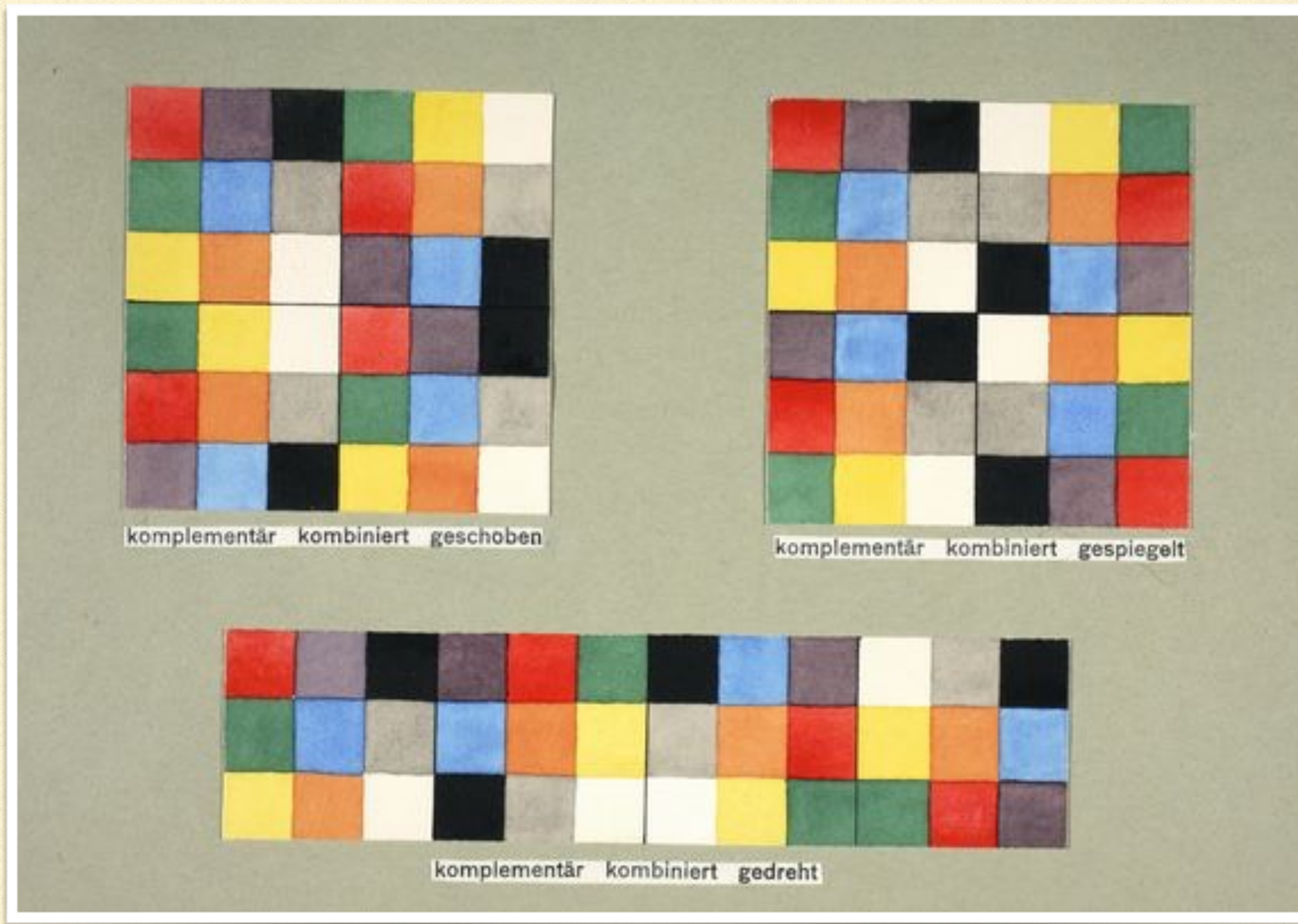


BASIC INTERACTION DESIGN FOR DESIGNERS OF AI INTERACTIVE SYSTEMS

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BASIC DESIGN



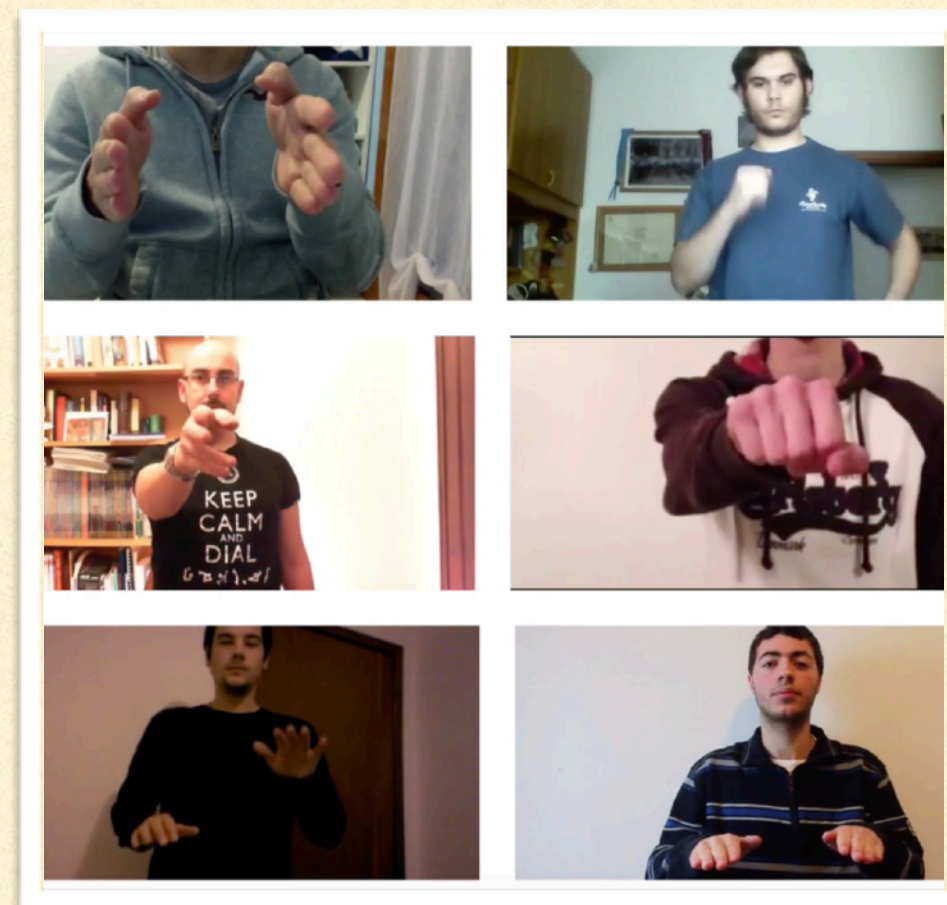
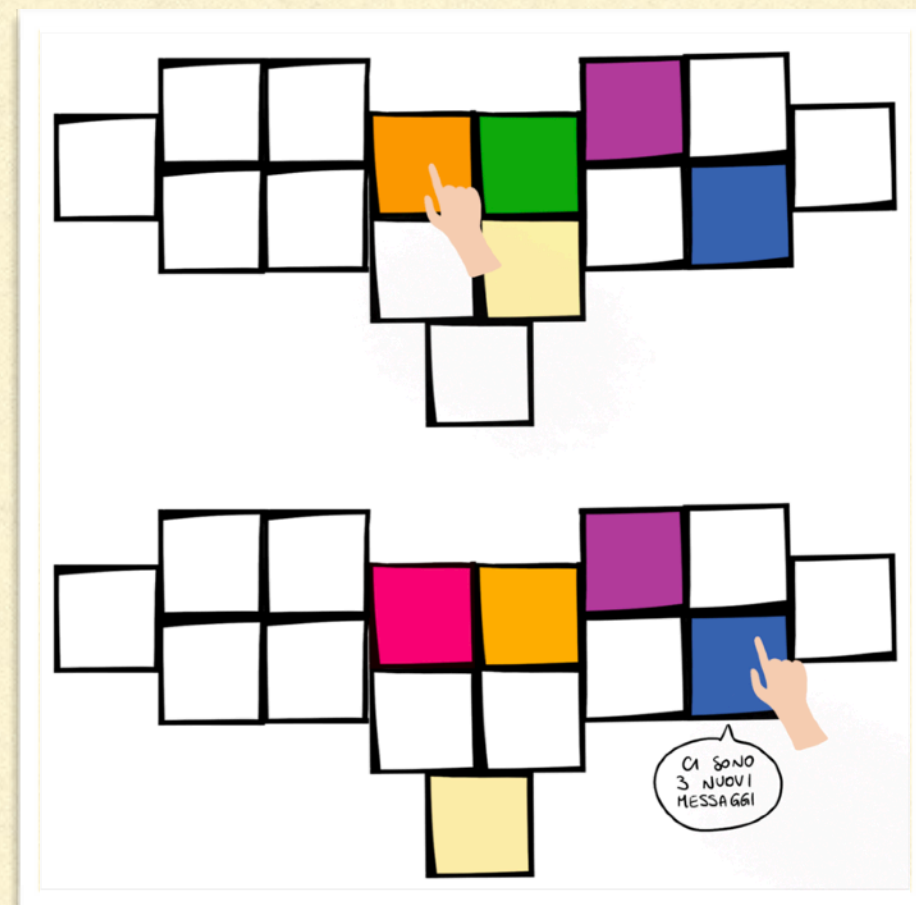
The **roots** of the methodology can be found in the courses for **freshmen students** held in the past century at

- **Bauhaus**
- **Ulm (Hochschule für Gestaltung)**

These courses were targeted to **stimulate design reasoning** on a **limited theme**, starting from a **set of constraints**

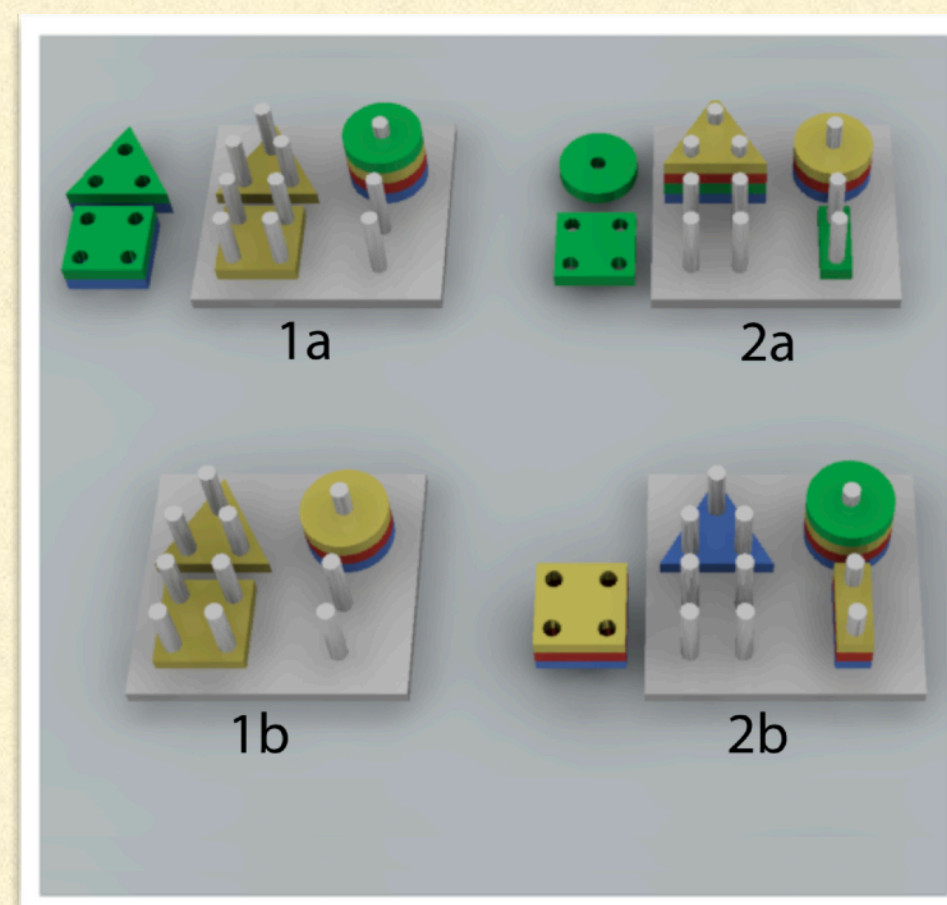
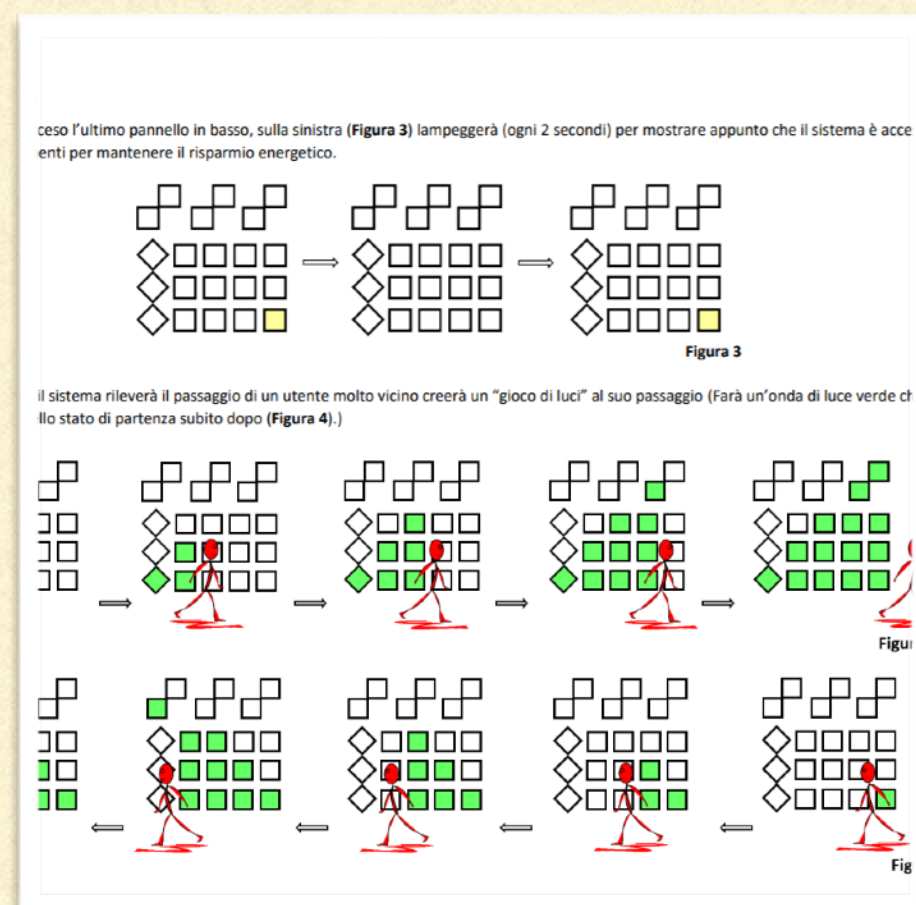
Corpus of exercises developed along the decades

BASIC INTERACTION DESIGN



Extension of the methodology to the domain of interaction with computers.

Same focus (freshman students, limited topic, set of requirements) and **same goal** (stimulate design reasoning).

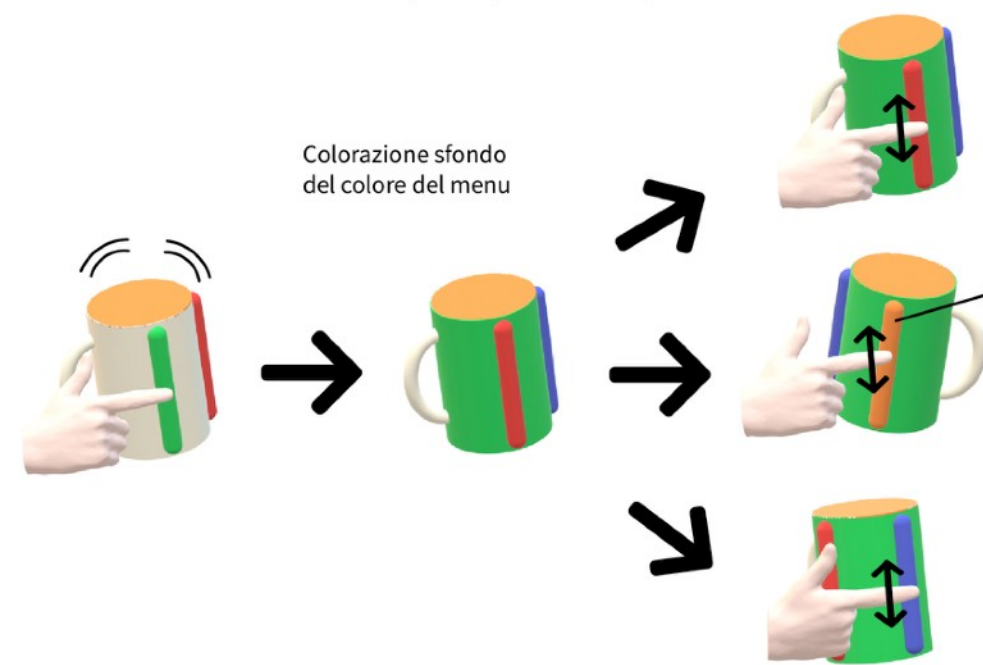


My personal teaching experience: **more than 1.000 students involved** in basic interaction design, with a **growing corpus of exercises** focused on different interaction paradigms

BASIC INTERACTION DESIGN - BENEFITS

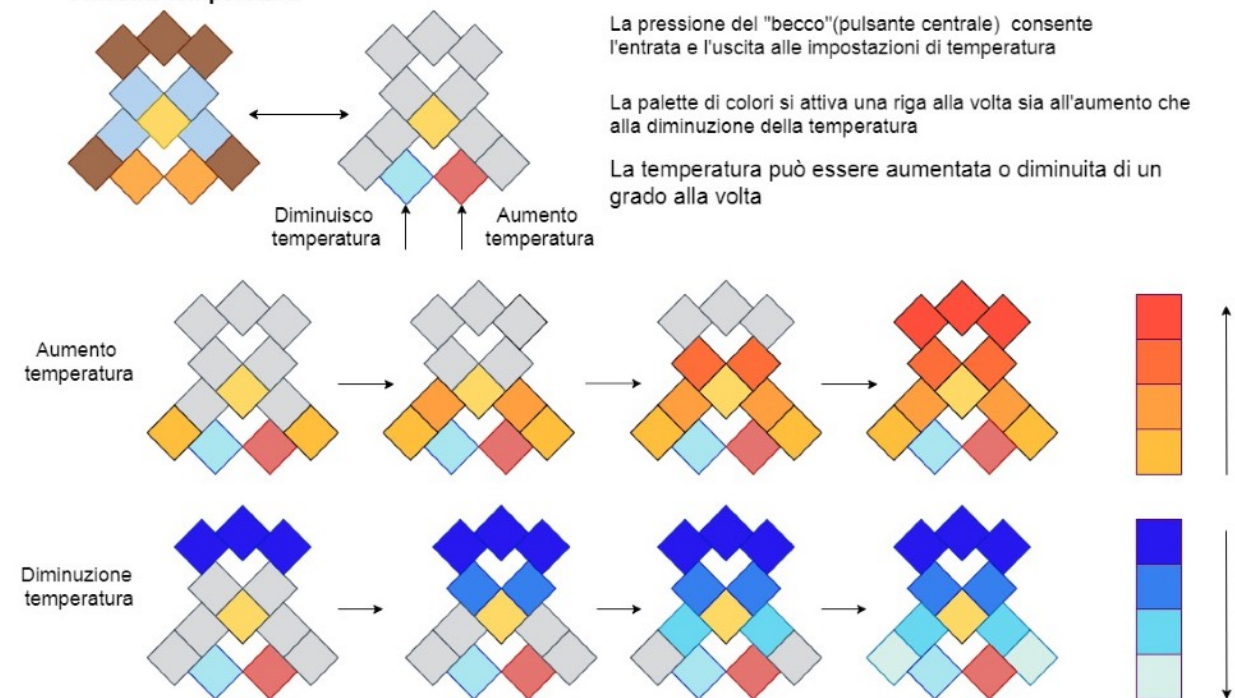
Dettagli delle notifiche: notifiche messaggi

Notifiche relative al corso selezionato e indicato dal colore della parte superiore del dispositivo.



- making the students aware of the **importance of complying with the project requirements** and considering them as an **opportunity rather than a limitation**;
- making them **understand the difference between hardware and languages** built on the top of them;
- making them **focus on critical issues** that along the years of HCI studies **led to define guidelines** for achieving usability and other relevant results;
- making them learn the **peculiarities of design**, which **differs from scientific thinking** in several respects, among which the necessity of defining **trade-offs**;
- improving their awareness that, **while different choices may lead to different design solutions, not all the solutions are equal** in terms of **meaningful language design and mapping**;
- increasing awareness of **sketching** and **storyboarding** as tools for thinking and sharing ideas;
- **preparing for more complex** interaction **design scenarios**

Finestra Temperatura



CAN THIS METHODOLOGY BE HELPFUL FOR DESIGNERS OF AI INTERACTIVE SYSTEMS?



The Boeing 737 Max

- **new challenges** to designers and **need to make apprentices aware** of the **different design issues**.
- particularly important in **critical situations** where the automatic processing of input data may lead to output choices which may hamper the safety of humans (e.g. recent Boeing 737 Max incidents)
- **Introducing basic interaction exercises** as part of the educational path of **designers** involved in **AI interactive systems** can **bring all the benefits described before**.
- **In addition, a number of important questions rise**, such as:
 - **Which** is the **interaction model** which should be taken into account for basic interaction design exercises targeted to AI interactive systems?
 - **Which** are the **additional issues** that apprentices should be guided to consider?

CAN THIS METHODOLOGY BE HELPFUL FOR DESIGNERS OF AI INTERACTIVE SYSTEMS?

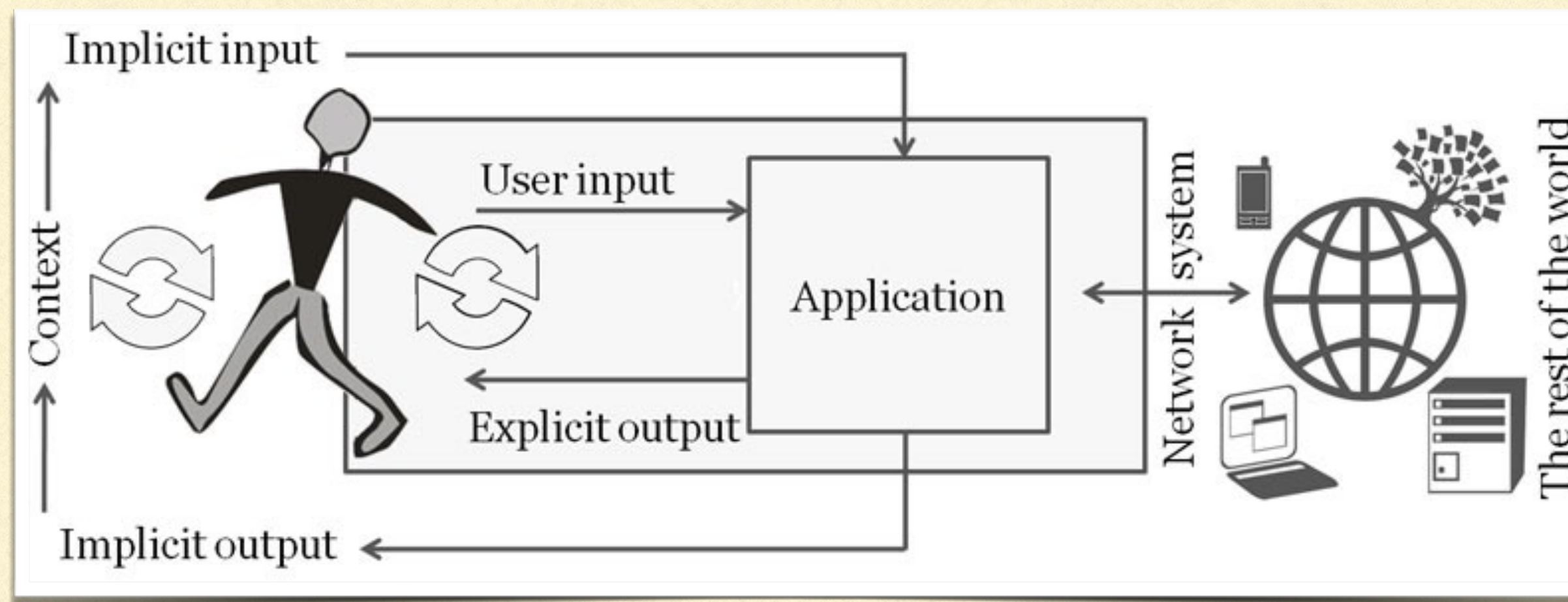


Illustration taken from
Albrecht Schmidt,
“Interactive context-aware systems interacting with ambient intelligence.”
Ambient intelligence 159 (2005).

- The **IHCI model described by Schmidt** can be a good start, because this model represents an ample set of interaction channels, including explicit and implicit interaction and the role of context, which plays a relevant part in many AI systems. However, the interaction model selected as a reference should **take explicitly into account the probabilistic behavior of AI** systems and its impact on the interaction experience.
- Concerning the **additional issues** to consider while proposing exercises to apprentices, the **principle of appropriate intelligence** and the **user awareness for AI intervention** should definitely occupy an important role in the design of exercises.

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ACKNOWLEDGEMENTS

- The images related to basic design examples are taken from the site <https://www.bauhauskooperation.com/the-bauhaus/training/curriculum/classes-by-paul-kllee/>
 - The images related to basic interaction design examples are taken from a selection of the proposals developed by the students of my courses at the Università Ca' Foscari Venezia (HCI for bachelor computer science students) and the Accademia di Belle Arti di Venezia (Interactive Systems for bachelor students in New Technologies for Art)
 - The Boeing 737 Max image is part of the Wikimedia Commons https://commons.wikimedia.org/wiki/File:N7379E_-_Boeing_737_MAX_9.jpg
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