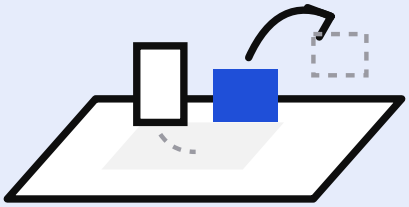
Specialty

Tangible interaction

Designs interfaces in which digital information is coupled to physical objects and surfaces, so it can be handled with the hands instead of a screen and a mouse.



In Spanish
Interacción tangible

Origin
Ishii and Ullmer (1997)

What problem it addresses

On a screen everything is handled the same way, with a finger or a cursor, even though hands can do much more: grasp, turn, stack or place.

Principles

Information you can grasp
Each physical object represents a piece of information and is used to control it.

Space as interface
Tables, walls and windows can show information and respond to what is done on them.

Background information
Light, sound or movement tell what is happening without asking for attention.

Applications in design

✓ Use it like this
Prototype with real objects from the start: how they are grasped matters as much as what they show.

✗ Avoid
Turning into an object something that is better done with a button.

👁 Don't fall for it
Objects get lost, break and take up space: also think about where they are stored.

Connections

Builds on

- Calm technology

Uses these methods

- Prototyping

Related to

- Industrial design

Authors and works

1997	**Hiroshi Ishii and Brygg Ullmer**	Proposed tangible interfaces and demonstrated them with prototypes, such as a table where building models were moved to navigate a campus map.

Sources

Original sources

- Ishii, H., & Ullmer, B. (1997). Tangible bits: Towards seamless interfaces between people, bits and atoms. In Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI '97), 234–241. ACM. View source (https://doi.org/10.1145/258549.258715)

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