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## Design as an Inspirational Paradigm for Artistic Research

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## Artistic Research (AR) and Interdisciplinarity

Research on art  
Research for art (e.g. Sound and Music Computing - SMC)  
Research in art (artistic research)

How about research **with** art?

Can art (music) contribute to science?  
Can art (music) be a research partner in an  
interdisciplinary fashion?

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## Artistic (vs. scientific) research

We believe that **art** can play the role of a **laboratory** for developing new perspectives of comprehension of the (technologically re-designed) world.

A research **crosscut** following the **path of intuition and creativity** instead of that of strictly logic thinking, free from systematic constraints and providing knowledge from a different however valid perspective.

In particular, we believe that **interactive arts** can be a fundamental actor in the development of a sustainable relationship with technology.

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## Artistic (vs. scientific) research

- Qualitative strength of artistic representation  
Aesthetics / appearance →
  - creates evidences
  - generates study – cases
  - produces counterexamples
  - questions the world through paradox

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## An example: interactive arts

David Rokeby / "phy-gital" experience (early 80's) [1]

- what happens when we place our **bodies** at the conjunction of physical and digital spaces?
- he considers this hybrid space as one of the fundamental features of life in a digital culture.
- (publicly accessible) interactive installations as **external loop of consciousness**

[1] D. Rokeby, "Adventures in Phy-gital Space"  
Keynote Lecture, *11th New Interface for Musical Expression Conf.*,  
Oslo, 2011

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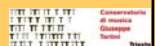


## Interaction Design An interdisciplinary research field

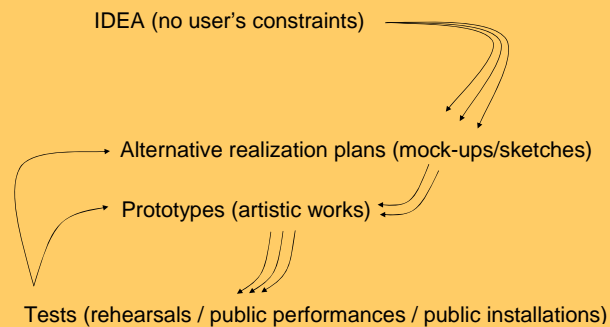
"interaction design research has for some decades developed theoretical approaches, methods, tools, and techniques" and "many of them have intellectual roots in other academic areas, such as science, engineering, social science, humanities, and in the traditional **art** and design disciplines" [2]

[2] Erik Stolterman "The Nature of Design Practice and Implications for Interaction Design Research",  
*International Journal of Design*, 2008

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## A design approach as a paradigm for AR



## A design approach as a paradigm for AR

1. multiple **alternative realization** of an idea
2. evaluation-based **cyclic iterations** for the refinement of a "product"
3. **fast sketching** and mock-up realization for preliminary testing
4. working in **team**

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## A design approach as a paradigm for AR

### Brainstorming: a bunch of golden rules

- There must be a leader
- Generate ideas but not criticize them!
- Everyone has to generate at least one stupid idea (without declaring that it is stupid!!)
- After a collection phase, it follows a selection by voting of good ideas before discussion

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## An example: **sonic** interactive arts

- modify/enhance the perception of some aspects of the external world or of one's own identity/characteristics by "giving voice" to these aspects
- tackling a theme (e.g. gesture sonification) via alternative realizations (in a designer fashion)

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## Elementary Gestalts for Gesture Sonification (EGGS)

- the performer/user does neither follow a musical piece, nor control the execution of a musical piece, nor generates any music by her/his movements
- the performer/user **listens to her/his gesture** and, **enactively, modifies** and controls her/his action according to the produced sound
- sound is a **representation** of her/his movement, a sonic consequence and a continuous feedback, in no way external to the gesture itself
- sound as enhancement of the performer's/user's **proprioception**

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## Elementary Gestalts for Gesture Sonification (EGGS)

- Public interactive installation – *Visual Sonic Enaction* (Catodica, Trieste, 2009)
- Interactive performance – *Swish 'n' Break* (SMC, Barcelona, 2010)
- Public interactive installation – *Sonic Walking* (FKL soundscape symposium, Florence, 2011)
- Interactive performance – *Body Jockey* (NIME, Oslo, 2011)
- Interactive performance – *un-plugged pLoden* (ICMC, Ljubljana, 2012)

[www.visualsonic.eu](http://www.visualsonic.eu)

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