
Values in Participatory Design

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”design should be understood as a concerned social and historical activity in which artifacts and their use are anticipated; an activity and form of knowledge that is both planned and creative and that deals with the contradiction between tradition and transcendence

– *P. Ehn 1988*

PART I: Why to involve users in design process and how?

Why?

Reasons for participation

- Reciprocal relationship between a technology and the social organization (Blomberg 1986)
 - * Technology exert pressures for change in social environment
 - * Social environment shapes meaning and evolution of technology
- User involvement is seen critical because:
 - * Users are the experts in the work practices supported by these technologies (Blomberg & Henderson 1990)
 - * Users ultimately will be the ones creating new practices in response to new technologies (Blomberg & Henderson 1990; Grudin 1993)
- Barki & Hartwick (1989)
 - * Participation: assignments, activities and behaviors that users undertake during the system development process
 - * Involvement: psychological state of the individual, defined as the importance and relevance of a system to a user.

How?

Participatory Design

- Approach that advocates involvement of users throughout the design process (Bjerknes & Bratteteig 1987; Ehn & Kyng 1987)
- Spans a rich diversity of theories, practices, analyses, and actions, with the goal of working directly with the users in the design of computer systems (Muller & Kuhn 1993)
- An attitude about a force for change in the creation and management of environments for people (Sanoff 2007).

Character of participation (Blomberg & Henderson (1990))

- **The goal is to improve the quality of working life** - tradition against the opportunities provided by the technology
- **The orientation is collaborative** - Focus and goals are actively negotiated and not assumed or imposed by one group
- **The process is iterative** - Design ideas to users in such a way that they begin to get a sense for what it would be like to use such a technology in their work

History

- Computers and democracy: a Scandinavian challenge (G. Bjercknes, P. Ehn & M. Kyng 1987)
- 1949 Tavistock Institute of Human Relations
 - * Field projects with British Coal Industry - "socio-technical system"
 - * "If the technical system is optimized at the expense of the human system, the results obtained will be sub-optimal"
 - * 1960 collaboration with Norwegian Institute for Social Research - principles for good design "design is an interactive and continuous process"
- Norwegian Iron and Metal Workers collaboration with Norwegian Computing Centre (Kristen Nygaard 1970)
 - * Designers: skill-enhancing and democratizing applications
 - * Workers: decisions regarding implementation and design
 - * Trade-union: educational programs for workers to make these decisions

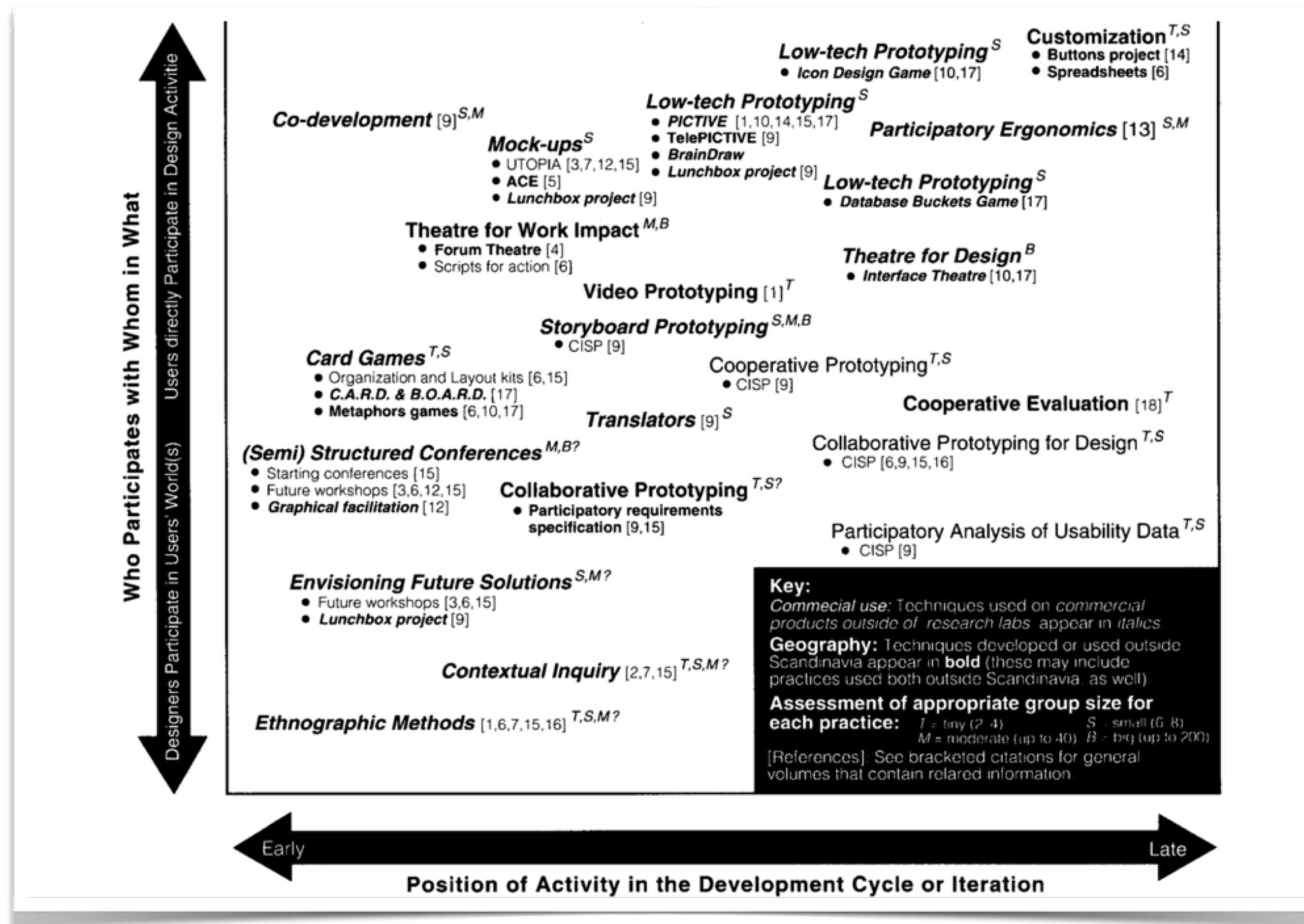
Two traditions of Participatory Design (Gregory 2003)

Scandinavian

- Deep commitment to democracy
- Discussion of values in design
- Conflict and contradictions are regarded as resources
- users act as fully empowered participants in the design process (Boedker et al. 1987, 1988, 1990)

American

- Tradition for "those who pay us have the right to make decisions.
- Design of individual features or systems



Various techniques for PD

Muller & Kuhn (1993)

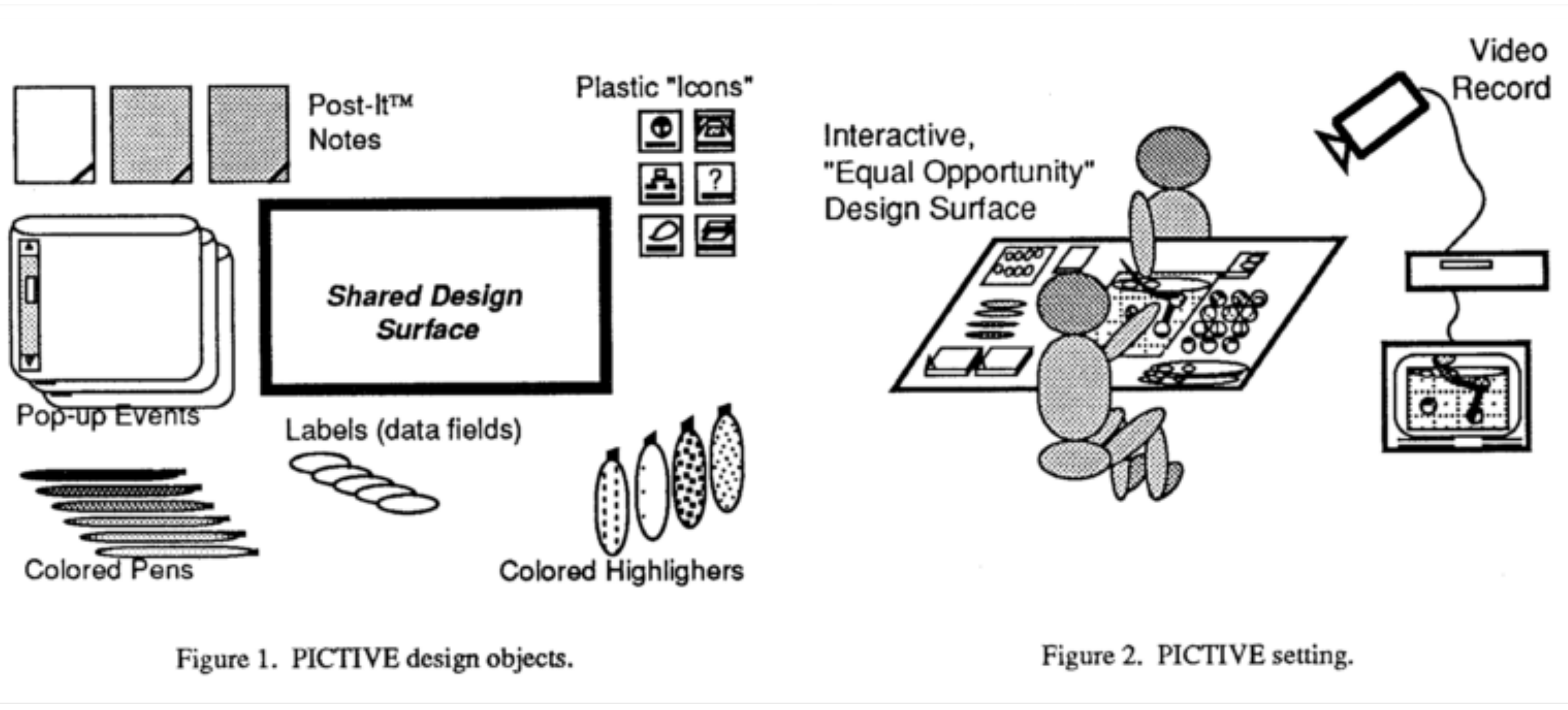
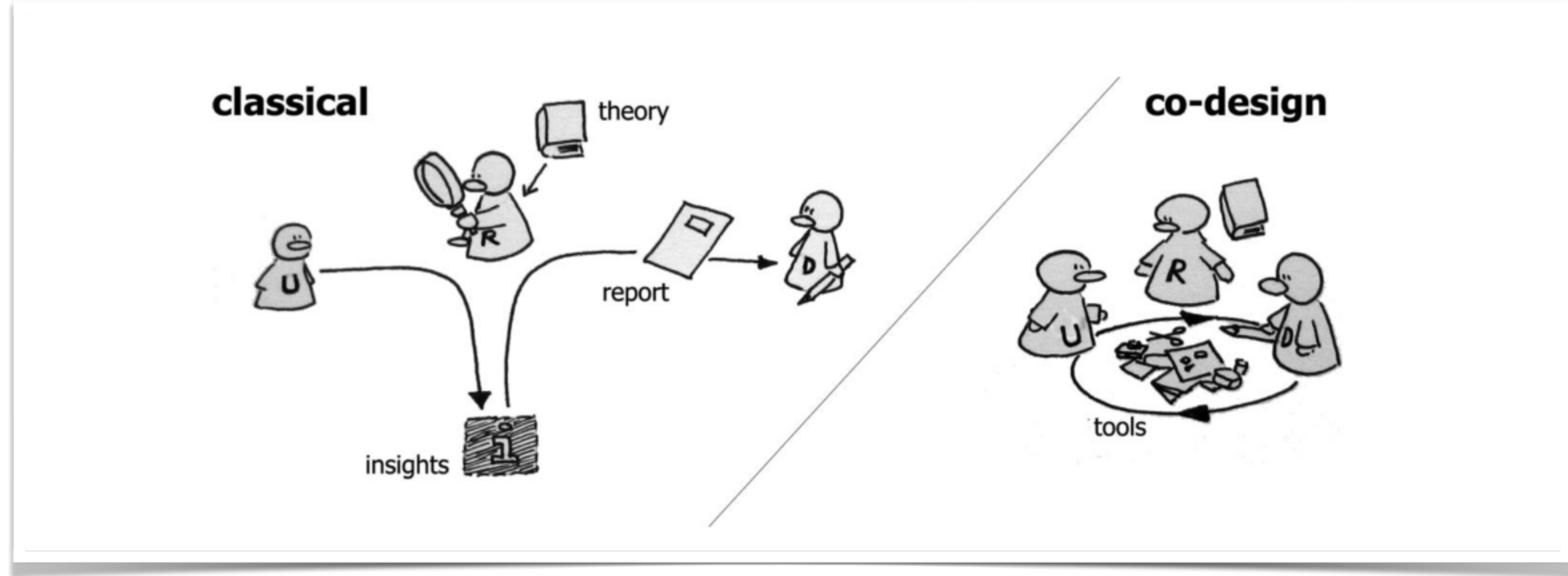


Figure 1. PICTIVE design objects.

Figure 2. PICTIVE setting.

PICTIVE -An Exploration in Participatory Design

Muller (1991)



Co-creation and the new landscapes of design

Sanders & Stappers 2008

Obstacles (Grudin 1993)

- If participatory design is mainly for UI design - difficulty to see big picture in software design
- Obstacles to identify appropriate users - who is the user?
 - * Developers can't focus on customizing products for individual users - the priority is on developing generic improvements to benefit scores of users
- Who makes the decisions among stakeholders (management, users, sales department, UI experts)?
- Design recommendations, whatever their source, must be steered through a software development process

PART 2: Lesson assignment

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PART 3: Values in design process

Definitions of values

- Values reflects desired modes of end-states. (Rokeach, 1973)
- Values are defined as core conceptions within individuals and society (Williams 1979)
- Desirable and trans-situational goals that serve as principles that guide one's lives (Schwartz 2012)
- Something that is important to a person individually or to a group of people (Friedman et al. 2006)
- Values can be used to predict or explain the acceptance and attractiveness of new systems or products in organisations or by masses of consumers (Isomursu et al., 2011)

Why values matter (Cockton 2006)

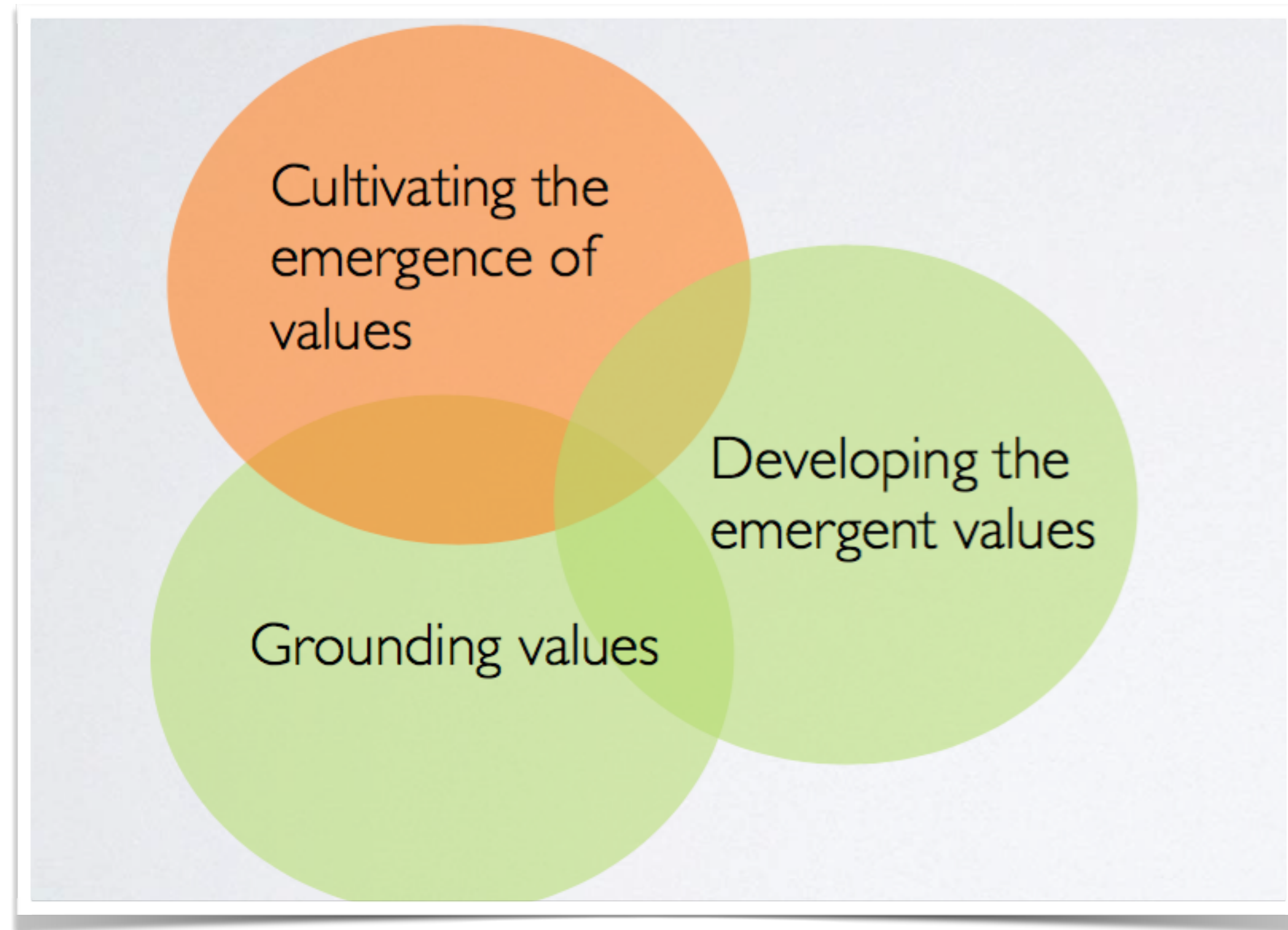
- Shape our decision making
- Guide our behavior
- Affect the judged importance

Values in Participatory Design

- PD is about negotiating values - a “moral proposition” realized through participation (Carroll & Rosson 2007)
- Values in the design process is seen as an ethos that respects people’s democratic rights (Ehn 1993)
- The ultimate aim of Participatory Design is a core engagement with values (Iversen et al 2010)

Various strands of engaging with values in HCI

- Value-Sensitive Design (Friedman 1996)
- Worth-centered Design (Cockton 2006)
- Values-led Participatory Design (Iversen, Halskov & Leong 2010)



Values-led Participatory Design

Iversen, Halskov & Leong (2010)

Values-led Participatory Design

Emerging values

Values are not there a priori, ready for designers to collect.

Rather values emerge from a dialogical process between stakeholders and designers.

Developing values

Developed using different tools, techniques and methods to establish a room for collective dialogue and reflection

Grounding values

Practitioners must support the users in their appropriation of the new found values into a meaningful new practice.

Grounding activities extend the scope of the PD process beyond the finalization of the design artifact into a new use practice.

Challenges (notes from INFORTE lecture of Bieke Zaman 2015)

- How to translate something abstract in something tangible?
- Who to negotiate with?
- How to deal with value conflicts / tensions, i.e. when one value undermines another (cf. security vs privacy)?
- When creating something that has no precedent, how to anticipate upon values and how to know whose to be involved?
- How to anticipate the consequences of design choices, e.g. in judging alternatives?

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