Introduction

Communities frequently encounter design problems they have to deal with, be it their own representation in different media (e.g., the World Wide Web) or a design problem from the “real world” (e.g., urban planning). Major connotations with the term “community” are that there may be a great number of members and that the members of a community may differ according to their knowledge, experiences, abilities and intentions with great variety. This is especially true for geographic communities, where the only thing all members have in common is the place where they live, and which may have up to several million members.

Of course, geographical communities always have had to organise their design processes. As a part of political decision making in democracies, most “design decisions” are delegated to elected representatives in a city council, in a state parliament or in equivalent institutions in a federation of states. However, in some cases the integration of direct participation of community members into planning processes was intended or turned out to be helpful. This is especially true for urban and regional planning in Germany, where citizens are invited to participate in the planning process.

We refer to this procedure as an example for design processes in communities. We will discuss its background and its weaknesses regarding the aim of “good participation,” describe options for information and communication technology
(ICT) support of this procedure, present an idealised participatory design system for urban and land-use planning and finally describe experiences with the GeoMed system, which is an approach to tackle the problem.

The Community Design Problem

Whenever in Germany a new street or railway track is being built, whenever new housing, industrial or commercial zones are planned, planning procedures are applied which are supposed to assure that the interests of the public community are not violated. Those planning procedures incorporate several participatory opportunities for citizens: the construction plans have to be made available to the public for at least one month. They are supposed to be explained in a way that makes them comprehensible to all citizens. Authorities are to actively invite those known to be affected by the planned measures, as well as relevant stakeholder organisations (e.g., environmental protection organisations) and there have to be opportunities to influence the decision through written objections or at hearings. The procedures and their aims are prescribed by federal laws with varying levels of detail. The responsible authorities then decide on the project. They base their decision on the results of the participation procedures.

The practice of those procedures shows deficits with regard to the aims. “Making plans available” usually means presenting them in the town halls. The comprehensiveness of explanations is often questionable. Invitations to stakeholder organisations sometimes have been selective. And, finally, the level of participation activities among citizens can be quite low. The citizens involved often feel that the authorities did not consider their opinions to a satisfactory degree.

Apart from political and ethical considerations on democratic practice this sometimes causes serious problems for the administrations. Projects that “successfully” went through the participation procedures have been hindered, delayed or even stopped afterwards by trials and public pressure, initiated by discontent citizens and causing financial losses to the community. So, the improvement of participation procedures is a point of interest for the authorities.

Planning Paradigms and Participation

That special community design problem of planning is subject to several academic disciplines which also tried to develop a theoretical foundation for the problem. Planning theory in Geography and Urban Planning now tries to capture the dynamics of a planning process based on philosophical or sociological work on human communication. Healey (1992) spoke of “the communicative turn in planning theory” in the 1980s. Several views on planning have been developed:

Planning as cooperative action: Based on the observation of innovations in the practice of urban planning that have been induced by new forms of work and organisation, Selle (1993, 1996) developed a cooperative perspective on the planning process and aligned it to the “disjointed incrementalism” approach in the
Visual Complexity Online and Its Impact on Children's Aesthetic Preferences and Learning Motivation
www.igi-global.com/article/visual-complexity-online-and-its-impact-on-childrens-aesthetic-preferences-and-learning-motivation/214989?camid=4v1a

Sixth Sense Technology: Advances in HCI as We Approach 2020
www.igi-global.com/article/sixth-sense-technology/188479?camid=4v1a