

Thinklets for E-Collaboration

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INTRODUCTION

A ThinkLet is a named, scripted collaborative activity that gives rise to a known pattern of collaboration among people working together toward a goal. ThinkLets are design patterns for collaborative work practices (Briggs, Kolfshoten, Vreede, & Dean, in press; Briggs & Vreede, 2001). A thinkLet is the smallest unit of intellectual capital necessary to recreate a known pattern of collaboration. ThinkLets are used by facilitators and collaboration engineers as (1) predictable building blocks for collaboration process design, (2) as transferable knowledge elements to shorten the learning curve of facilitation techniques, and (3) by researchers as parsimonious, consistent templates to compare the effects of various technology-supported collaboration practices. ThinkLets have a rigorous documentation scheme that specifies the information elements needed to adapt the solution it embodies to the problem at hand. This scheme is derived from the design pattern concept of Alexander (1979; Alexander, Ishikawa, Silverstein, Jacobson, Fiksdahl-King, & Angel, 1977). The collection of thinkLets forms a pattern language for creating, documenting, communicating, and learning group process designs. The term thinkLet was coined by David H. Tobey in 2001 when he said "They are like apples...except they are thinkLets."

BACKGROUND

In this section we explain the evolution of the ThinkLet concept. The underlying concept of thinkLets; facilitation techniques, is much older than the term itself. In 1953, for example, A. F. Osborn published a group

creativity technique called Brainstorming (Osborn, 1953). His brainstorming method specifies roles and rules for a group to follow in order to generate creative solutions for the problem at hand. Nominal Group Technique, (Delbecq, Ven, & Gustafson, 1975) and Brainwriting, a technique developed in Germany, are two more examples of reusable, repeatable techniques for idea generation.

In 2000, researchers at the University of Arizona and Delft University of Technology in The Netherlands observed that facilitators who used group support systems (GSS) tended to work with a small collection of very effective techniques they had either developed for themselves or learned from mentors. People using these systems routinely reported group project labor savings of 50% and project cycle time reductions of 60% to 90% (Nunamaker, Briggs, Mittleman, Vogel, & Balthazard, 1997; Post, 1993; Vreede, Vogel, Kolfshoten, & Wien, 2003), but people who did not know the techniques were not able to reproduce the successes of others. Researchers set out to collect and document these techniques in sufficient detail that people could reproduce the patterns of collaboration being created by others. They focused on identifying the minimum set of information required to easily transfer techniques from one person to another, and to allow users to produce the pattern of collaboration the technique was meant to invoke in a predictable way, and on a recurring basis.

The first approach to documenting thinkLets captured four elements: (a) the name of the thinkLet; (b) the specific software tools used; (c) the specific configuration of those tools, and (d) a script of everything the moderator and participants were required to do and say in order to complete the activity. The approach

worked well for users of the particular software tools, but similar patterns could also be created with other tools, and technology. Therefore a new, technology independent conceptualization was developed. Below, this approach is discussed in more detail.

By 2001, researchers had begun to develop a structured approach to using thinkLets to design collaboration processes for high-value recurring task, and transferring those designs to practitioners to execute for themselves without the ongoing intervention of professional facilitators. The approach came to be called Collaboration Engineering.

APPLICATIONS OF THINKLETS

ThinkLets serve as a pattern language for collaboration process designs (Vreede, Briggs, & Kolfshoten, in press). As such, they have become useful to several populations of users: facilitators, collaboration engineers, practitioners, technology designers, and trainers. For facilitators, thinkLets provide a collection of useful, well-tested, predictable interventions that they can draw upon to conduct processes for groups. Facilitators also use thinkLets as a compact, powerful pattern language for discussing, comparing, and transferring process designs among themselves. A thinkLets-based design created by one facilitator can be readily executed by another who knows the same set of thinkLets.

Collaboration engineers use thinkLets as building-blocks for creating reusable collaboration process designs to be transferred to practitioners to execute for themselves without the ongoing intervention of professional facilitators (Briggs, Vreede, & Nunamaker, 2003; Vreede & Briggs, 2005). Because thinkLets are well tested and fully documented, their likely effects on a group and the levels of skill required to execute them well can be known at design time. Collaboration engineers choose among thinkLets to optimize for ease-of-execution, ease-of-learning, predictability of outcome, and robustness (the degree to which the design can accommodate a wide variety of circumstances, problems, and stakeholder interests) (Kolfshoten, Briggs, Vreede, Jacobs, & Appelman, in press; Vreede et al., in press).

Practitioners can become skilled at executing thinkLet-based collaboration processes after a short training because a component-based learning approach reduces their cognitive load.

Designers of collaboration technology use the collection of thinkLets as a basis for specifying a system's capabilities that are required for a specific (set of) thinkLets. Such capabilities could be an extension to group support capabilities based on the mechanics of collaboration as described in Baker, Greenberg, and Gutwin (2001).

Collaboration engineers, practitioners and facilitators all find that their learners can ramp up to competence far more quickly by learning and practicing a collection of thinkLets than by apprenticing to an experienced professional. In the 1990s the general rule of thumb was that a facilitator who wished to use group support systems required at least a year of apprenticeship before going into the field solo. Trainers using a thinkLets based approach now report that trainees with as little as two days training can conduct simple but successful solo engagements using GSS.

THE STRUCTURE OF THINKLETS

Many books and websites describe useful, well-tested facilitation techniques (FacilitatorU, 2005; Jenkins, 2005). A key distinction between such techniques and thinkLets is in the degree to which they have been formally specified to offer the features and functionalities described above. The current documentation convention (Kolfshoten, Briggs, Vreede, Jacobs, & Appelman, in press; Vreede et al., in press) for a thinkLet includes the following elements:

Identification

Each ThinkLet must have a unique name. These names are typically selected to be catchy and amusing so as to be memorable and easy to teach to others (Buzan, 1974). The name is also selected to invoke a metaphor that reminds the user of the pattern of collaboration the thinkLet will invoke, and visualized with an icon. The names, combined with the metaphor and icon constitute the basis for a shared language. Facilitators can use these names to discuss their collaboration process designs. This makes discussions much more efficient, since facilitators can now discuss the advantages and disadvantages of the use of techniques without explaining these techniques over and over.

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