Conception of a social network for family work

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A B S T R A C T

Families perform work in shaping the family's everyday life. Family work comprises, for instance, the production of a feeling of belonging, educational work, and the organization of the family's everyday life, including its health-relevant implications. Nowadays families are started by a generation of active users of digital media.

Based on a demand analysis, the prototype of a web application was therefore developed which can support family work and offers exemplary health-related functions. FamTIME was the winner of the AOK Leonardo advancement award for digital prevention 2012 and was developed by an interdisciplinary team at Fulda University of Applied Sciences from 2012 to 2014.

Demands on this web application were derived from an analysis of 14 interviews with 34 family members who were selected through theoretical sampling. The prototype developed was subsequently evaluated by 13 families.

The evaluation of the FamTIME prototype was able to show that families are basically interested in supportive digital media. Families have objectives such as economy of time, identification of common time slots and leisure-time opportunities, as well as the maintenance of everyday communication over distances. Besides usability, the families have high expectations with respect to the web application's individualization potential.

1. Background of the FamTIME research project

FamTIME was the winner of the AOK Leonardo advancement award for digital prevention 2012 and was developed in cooperation by the Department of Nursing and Health Sciences and the Department of Applied Computer Science at Fulda University of Applied Sciences from 2012 to 2014.

FamTIME is a web application that aims at reducing the strain on families, at supporting communication and at encouraging health-promoting activities. It constitutes media support for the media generation that is now starting families and integrates three functionalities: The family planner is an organizational aid that supports the search for the family's common time slots and integrates a search function for the creation of common health-promoting activities. FamTIME's network function is aimed at linking family members that live in different households and at supporting the communication with each other. The family platform provided by

FamTIME serves as an exchange forum. It offers social support at tackling the challenges of family life.

2. Family work and digital media

Digital media are used to a great extent in everyday working life, for example to organize collaborative work processes. If family work is understood as a set of tasks that is performed by individual family members or as a group, in order to implement an action plan through which family is constructed, comparable collaborative work processes in everyday family life become apparent. They can be supported by digital media as well.

The pluralization of life styles (Federal Ministry of Family, Senior Citizens, Women and Youth BMFSFJ, 2012) has changed the concept of family in the last decades. Thus a family is here understood as a self-defined social community with children under the age of 18, independent of marriage or kinship.

The concept of "doing family" now emphasizes the everyday actions and negotiation processes that take place within families (Theunert & Lange, 2012). Therefore it seems consistent to conceptualize this construction process as work. Family work comprises, for instance, the production of a feeling of belonging, educational

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work, and the organization of the family's everyday life, including its health-relevant implications.

At the same time, among other things, the demands on temporal and spatial flexibility of gainful employment, on compatibility of employment and motherhood or fatherhood, as well as on private or extra-familial promotion of the children's development have changed. Such demands create structural problems of time, such as budgetary pressure and problems of synchronization and use (German Bundestag, 2012: p. 4). The construction of family must be managed through synchronization and coordination activity among "generators of time intervals", such as gainful employment and the opening hours of child care facilities (German Bundestag, 2012: p. 68). Common leisure time in families is not only restricted by occupational circumstances, but also by additional obligations that result from child care or school attendance (German Bundestag, 2012: p. 39). The organization of time in families is thus influenced by factors that can take obligatory or voluntary forms (German Bundestag, 2012: p. 18).

The family study conducted by the statutory health insurance provider AOK in 2010 shows that families desire more common family time and need binding rules and rituals. At the same time, they have difficulty in constructing the family's everyday life in such a way as to reach these goals. In many families the consequences of a disturbed work-life balance can be felt. Contradictory social and professional expectations put families under increasing pressure (Ohlbrecht & Schönberger, 2010: p. 12). Parents more rarely perceive their leisure time as sufficient than the German average and feel additionally burdened. Family life can only be established "through an elaborate conjunction of routines, common ground, reliability, and flexibility", Theunert and Lange (2012: p. 18)).

As more and more people who have "grown up with the Internet" are now starting families, it seems obvious to examine the potential of digital media for the support of family work. Through digital organizational support, families are to be empowered to act more competently in organizing their family's everyday life. The addressees are families with heterogeneous structures from all social strata.

3. Demand analysis in families

In order to learn how families organize their family life, how they can be supported by FamTIME, and in which situations families use digital media, 14 narrative-generating guided interviews were conducted with 34 family members. The central question of the guideline was: In which situations in everyday family life could there be a demand for the use of the product to be developed, and which requirements need to be met in the process? The guideline developed according to the SPSS[1] principle by Helfferich (2009, pp. 178ff) contains two open questions to begin the narrative: The first question refers to situations that characterize life as a family from the perspective of the interviewees. The second question intends to elicit which family tasks FamTIME would have to support so that it could be used by the family. Predetermined follow-up questions ensure, in addition, that all topics that were previously identified as relevant are addressed during the interview. These questions refer, for example, to media use, a description of the family's everyday life, or the perceived potential for further development of digital media in the family context. Moreover, the guideline contains a final checklist on further relevant information about the family.

The data collection includes families with a least one child under the age of 18 living in the household. The selection of interviewees was based on the method of theoretical sampling used by

Grounded Theory (Strauss, 1991). For theoretical sampling, new interviewees are selected according to the principle of the largest possible contrast until theoretical saturation is reached. An attempt was made to include families into the sample which show the greatest possible differences in terms of family structure (among others: single parents, commuter families, unmarried couples, number of children), age groups of children, region of residence (urban/rural, east/west), social status, migration experience, and existing media competence (Table 1). The assessment of social status was a rough estimation based on the parents' education and occupation. No specific question regarding income was asked.

The interviews lasted between 0.5 and 1.5 h and were conducted in-person and at the homes of the families. The evaluation comprised open, selective and axial coding based on memory minutes as well as written theory-generating memos, according to the research style of Grounded Theory (Strauss, 1991). Resulting from the interviews, typical demands of modern everyday family life were thus reconstructed and related to the current state of knowledge in the literature. Another point of interest was the previous use of digital media.

Simultaneously, similar products on the market and possible stimuli for the development of FamTIME were researched. In correspondence with the objectives, only German-language offers were analyzed which seem of particular interest because they contain similar elements or functions as are planned for FamTIME. The analysis corresponded with the three central components of the concept: family planner, family network and family platform.

For each of these components, an existing product was selected which promised the highest possible gain of knowledge for the development of FamTIME. An interdisciplinary team analyzed the selected web application in terms of optical criteria as well as its functions and contents. The results of the analysis were presented to a larger and equally interdisciplinary team and discussed in this context. The leading question was to which extent the analyzed products might be suitable for use by families and which of the functions contained might be relevant for FamTIME.

3.1. Potential positioning of FamTIME in family work

The evaluation of the interviews was aimed at identifying processes within family work which may be approached and supported by a digital product such as FamTIME.

Families define themselves in making a normative claim to a sense of belonging, which is created through common activities. They meet this claim more or less well in their own view. Factors may be sympathy of family members for each other—which cannot be taken for granted, the identification of common interests and common time.

In the interviews, family work is explained in four forms, which are connected with each other:

- organizing everyday life in the family community,
- developing and exercising rituals that play a special role in everyday life,
- planning and performing common activities, and
- keeping in contact (despite spatial distance).

All four forms do not always involve all family members and, at the same time, may transcend the core family. Who belongs to the family is thus also a situational decision. Family work, moreover, comprises the building and maintenance of social networks in the family's environment. The interviews make clear that families, in addition to daily tasks and obligations, often have difficulty in maintaining their social contacts in the way they would like to do.

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[1] *"Sammeln, Prüfen, Sortieren und Subsumieren"*, i.e., "collect, examine, classify, and subsume."