Proposal for Family-Centric Social Network and Data Management
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<u>Problem</u>
The family as a social group lacks a platform for sharing, discovery and aggregation of information. The explosion of data in the context of family (as result of connected homes, electronic health information, etc.) has created a new opportunity for better management and social connectivity using a centralized interface and a marketplace for service providers.

<u>Analysis of Problem</u>
The problem stems from the inefficiency in sharing information among families and service providers.
   ● Most family-centric applications (i.e. 23snaps, eFamily, FamilyWall) provide storage services for multimedia and features such as activity, task and messaging
   ● Most applications lack the connectivity of popular social networks (i.e. Facebook, Twitter). Conversely, existing social networks may focus too much on the consumption of information and could be unsafe for children and unsuitable for family communication and sharing

In addition to sharing, it is difficult to discover and compare family services. Internet has enabled the discovery of many services online, such babysitting, house cleaning and yard services
   ● It may be difficult to choose a high quality provider from a large selection of results, leading to poor service
   ● Existing solutions lack trusted reviews in the user's network (ex. sittercity, HomeJoy)

Lastly, family-centric data reside within information silos, which prevent aggregation and reduce the usefulness of such data
   ● Service providers lack standardized methods to access family-centric data
   ● Based on the data held by a centralized platform, these services could improve marketing and reach their target demographic more efficiently

The current situation has some advantages in terms of security and privacy. Collecting information in a centralized platform increases the risks of exposing the data to a malicious third party providers or allowing improper access to devices at home.

<u>Suggested Solution</u>
The goal of this platform is to connect families and family-oriented services providers. The minimum features would include
   ● Social network for connectivity and creating trust among families for reviews
      ○ "friending" among families
      ○ platform for reviews and discussions of family service providers for discovery and selection
      ○ Sharing of contacts, events, photos and videos.

- Family, health and home management platform to centralize data
- marketplace for applications that could leverage the data collected by the platform

The management functionalities of the platform would allow users to install applications related to family, health and home. For example, the health portal would centralize HealthKit, test results and communication with healthcare professionals, and allow appointment booking for family members using third party providers. In this case, users receive the benefit of a centralized "command center", while providers would have access to their patient's activity levels, eating habits and medical history to provide personalized care. This exemplifies the benefits of aggregating family information that could be extended to other areas, such as utility, nutrition, education, government support, and more.

Experiment
Independent Variables: I would choose to vary the number of children, parent's age group, geography as the independent variables.

Dependent Variables: I would measure the number of services providers used monthly, the number of data sources connected and the family's social activities online (number of friends, "likes", comments, photos and videos shared etc.)

Participants: I would choose random samples of families within a small geographical area.

Method: The participants would be asked to use the platform in normal everyday life and note the changes in their daily habits and interaction with other families and friends. I would also polling the users when they take certain actions.

Results and Discussion: By varying the number of children, I would expect that higher number of children would lead to higher number of service providers used and more social activities online.

By changing the age group, I would expect that the more tech-savvy and younger families spend more time using the application and may prioritizing some services over others (i.e. babysitting vs. student driving insurance).

I would vary the geographical area by urban, suburban, and rural. I hypothesize that urban and suburban would show more activities on the application as compared to rural families.

The experiment result would drive product marketing in urban and suburban locations with young families and high number of children. It would also aid business development of initial service providers that targets the key demographic. It would be important for us to note how different groups view privacy and trust issues to design policies that promote greater adoption.