The objective of the study in this chapter is to identify a small number of relatively homogeneous groups of Dutch Internet users (both broadband and narrowband), based on their usage pattern. Using individual and behavioral characteristics, we further investigate the nature of the different groups. The Uses and Gratifications approach is employed as a starting point for an online questionnaire (N=2404) that was conducted. Cluster-analysis and logistic regression were used for data analysis. We were able to identify five clusters of different Internet users based on patterns of behavior. Results show that the Internet users in our sample consist of a large group that more or less conducts the same online activities. Results also show that narrowband and wideband users differ in their Internet behavior.

According to Anderson, Gale, Jones, and McWilliam (2002), broadband users make more frequent use of a wider range of applications. In a recent study, Dwivedi, Choudrie, and Brinkman (2006) also found that broadband consumers differ from narrowband users in terms of the variety of Internet use. In the research conducted by Wales, Sacks, and Firth (2003), respondents universally said that they were not driven to broadband by any single application. Rather, they found that broadband enabled them to use standard Internet applications (e-mail, chat, browsing) more efficiently.

Different from Wales et al. (2003), there are researchers that do mention killer applications (an application that is so useful or desirable that
it justifies the underlying technology). Choudrie and Dwivedi in a recent study (2006) found the adoption of broadband is driven by a combination of factors, the first being relative advantages (e.g., faster access), the second utility outcomes (work purposes), and the third hedonic outcomes (entertainment).

While narrowband Internet is adequate for many current residential applications, some applications will be hard to use and cause annoyances by the users. In order to keep those annoyances to a minimum, many users that use peer-to-peer applications (including games, sending and receiving of large files, and pornography) will find they require a broadband connection. These applications are said to be the killer applications for broadband to the home (Firth & Kelly, 2001; Thierer, 2002; Wales et al., 2003, Anderson et al., 2002).

Clearly, many different kinds of people use the Internet for a variety of things. The question however is which kinds of people use which kinds of Internet applications to gratify which needs? Can groups of Internet users be recognized that have similar needs and therefore are for example typical ‘gamers’ or ‘serious information seekers’? And what kind of people are they? Do broadband users form a specific cluster based on their Internet usage that is very different from narrowband users?

The objective of this study is to identify a small number of relatively homogeneous groups of Internet users based on their usage patterns. Insights into these patterns make it possible to better understand and predict (broadband) Internet usage. Adding demographics and the kind of Internet connection (broadband vs. narrowband) to these patterns of uses make this information even more valuable. Among others, Vermaas and van de Wijngaert (2007) and Choudrie and Dwivedi (2005) have suggested that demographics, such as gender and education, might be of importance with regard to the adoption of broadband.

With this information, Internet service and content providers can offer their target groups applications that better fit the needs of each of those groups, more specifically with regard to broadband service development. Moreover, we aim at contributing to the further development of approaches or theories explaining the motivation for media usage in regard of Internet usage.

The questions that are to be answered are:

1. Which individuals can be grouped based on their Internet usage patterns?
2. How can the clusters be characterized (demographics, Internet experience, and type of connection)?

Using the answers to these questions, we intend to establish insight into differences between different groups of Internet users. This insight into, for example, more basic and more advanced users may help us to understand how broadband will evolve in the course of time.

THEORETICAL BACKGROUND

Uses and Gratifications

An extensively used approach that addresses the motivation for media usage is the Uses and Gratifications (U&G) approach. This theoretical framework has been applied to various mass media such as television, radio, and books (Katz, Blumler, & Gurevitch, 1974; Katz, Gurevitch, & Haas, 1973). U&G is not as much a theory as it is an approach with a number of basic assumptions that can be used as a starting point for various types of research. The basic idea of the U&G approach is that people use media in order to gratify needs.

U&G research generally generates lists of needs that precede certain media usage. There are many examples of needs that motivate the use of media. Katz et al. (1973) give the following categorization of need gratifications, which are based on social and psychological functions of the media: cognitive needs (acquiring information, knowledge, and understanding), affective needs (emotional, pleasurable, or aesthetic experience), personal integrative needs (strengthening credibility, confidence, stability, and status), social interactive needs (straightening contacts with family, friends, and so forth), and tension release needs (escape and diversion). McQuail (1987) suggests