ABSTRACT
Governments have a variety of channels at their disposal to interact with their citizens. Having realized that the electronic service channels are not successful for all citizen-government interactions, governments are now searching for the ideal mix of channels to serve their clients. In order to be successful, knowledge is needed on citizen behavior. First, to be able to fulfill citizens’ needs and second, to be able to influence citizens to use the preferred channels, i.e. the cheapest channels. However, citizens’ channel behavior is complex, consisting of multiple stages and differentiating largely between different groups of citizens. This research aims at increasing the knowledge on citizens’ channel behavior and the possibilities to influence this behavior.

Categories and Subject Descriptors
K.4.0 [Computers and Society: General]

General Terms
Management, Design, Human Factors, Theory

Keywords
Service channels, multi-channeling, channel choice, citizen initiated contacts, e-government.

1. INTRODUCTION
In the 1990’s, the Internet was conceived as a promising channel for the improvement of the internal efficiency and for its relationship with citizens. Given the (technical) characteristics of the Internet and inspired by the commercial success of the private sector during the dot-com hype, it is no surprise that the public sector rapidly embraced the Internet as the means to improve public service delivery using the term e-government, derived from e-commerce [1].

Nowadays, virtually all governmental agencies have websites receiving numerous visits of citizens searching for information. Electronic transactions have the potential to be very successful, for instance more than 80 percent of all Dutch citizens file their taxes electronically. However, despite the number of visits on webpages, the number of contacts via the telephone has also increased in many organizations and only a few report decreasing numbers of visitors on front desks. Clearly, citizens have adopted the Internet as a service channel and still continue to use the means of interactions they already had. These observations lead to the following questions;
- What channels do citizens use in general?
- Which channels are chosen in specific situations?
- What factors determine the choice of a channel by citizens?
- What are the possibilities to influence citizens’ channel behavior?

Our main objective is to improve our understanding of a) citizens’ channel behavior and b) the possibilities to influence their behavior.

2. CHANNEL BEHAVIOR
Building on the work of media theorists, we can decompose channel behavior in a number of steps. Trevino, Webster and Stein [2] define the concept ‘Media behavior’, as the product of general use and specific choice. General use refers to an individual’s broad pattern of medium usage over time. Choice refers to an individual’s specific decision to use a medium in a particular communication incident. Usage and choice can also be seen as ‘employing the communication medium for a certain task (usage)’ and ‘picking of a medium’ (choice). We extent this interpretation with an extra step of ‘channel evaluation’ in which citizens evaluate their channel choice. The experience influences both channel perceptions, as argued by Channel Expansion Theorists [3] and future channel choices [4]. We propose the following simplified model of channel behavior (Figure 1). Clearly, channel behavior in real life is far more complex, for example because citizens can use multiple channels at the same time.

Figure 1. The channel behavior model
3. RESEARCH APPROACH
This research consists of three main activities. First, we explore the factors that determine a citizen’s channel choice. Second, we investigate what channels are used by citizens. Third, we assess the organization’s possibilities to influence channel behavior. We have implemented a multi-source and multi-method research approach. That is, each research question has its own research method that is implemented in different settings. For instance on channel choice, we have surveyed customers (citizens) from the Dutch IRS, several Dutch communities (cities) and the Social Security bank. In general, methods such as literature research, interviewing, case study research, focus groups and surveys are used. The combined result of these three activities provides an answer to the two research objectives mentioned above.

3.1 Channel Choice
Channel choice refers to the actual choice of a medium to interact with a governmental agency. Although some studies have been conducted investigating channel choice, the body of usable knowledge, especially in the public sector is low[4]. Moreover, although the first qualitative studies of channel choice in the public sector have just appeared[4], we lack large scale quantitative studies assessing channel choice determinants in multi-channel, multi-organizational and multiple service settings.

In this research we will conduct three different quantitative studies on channel choice that will help us understand how citizens perceive the different channels and why they choose certain channels in certain situations. The studies will be conducted in different organizational settings and therefore offer the possibility to compare between organizations and enhance the generalizability of the findings.

3.2 Channel Usage
We determine two aspects of channel usage, namely the general channel usage and channel usage related to specific citizens’ goals. We analyze channel usage based on multiple sources of objective quantitative data.

In order to map general channel usage, we review trends and developments of citizens’ behavior over time. Our preliminary results show that citizens mainly use the traditional channels. We also notice that citizens have a tendency to use multiple channels during the service delivery process. On a more specific level, i.e. considering the citizen’s goals, we find that citizens mainly use the digital channels for simple tasks such as gathering information or downloading forms. The traditional channels are generally used for complex problems, questions or if citizens are insecure. Several marketing studies emphasize the need to study the cross-channel influence during the service delivery process[5].

In the government domain we have not come across these studies. Hence, with the research on channel usage we aim to answer some of these questions.

3.3 Influencing channel behavior
It is in the benefit of governmental organizations that citizens use the most cost-efficient channels (in most cases the electronic channels)[6]. Governmental agencies will therefore try to pursue their clients to use those cost-efficient channels. Different strategies can be followed to influence citizens’ behavior; in marketing, the 4p’s (price, product, place & promotion)[7], are well known. In public administration settings, communication, financial and legal instruments are examples of instruments that can be used. However, it is unclear which of those instruments helps in influencing citizens’ channel behavior and which instruments is the most effective. Through both qualitative and quantitative research, we will explore and test the possibilities of the different influencing strategies.

4. CONCLUSIONS
Citizens channel behavior is complex and very little knowledge exists on the different aspects constituting this behavioral process. Current studies are fragmented and aimed at small parts of the process. By studying both channel choice, channel usage and influencing strategies we aim at unraveling citizens’ behavior as well as giving organizations a toolkit to change citizens’ behavior in directions desired by organizations.

5. ACKNOWLEDGMENTS
This paper results from the ‘Kanalen in Balans’- project (‘Channels in balance’ – www.kanaleninbalans.nl) of the Telematica Instituut, a combined research initiative with partners from government and academia, comprising the Dutch Ministry of the Interior and Kingdom Relation, the Dutch Ministry of the Economic Affairs, SVB, UWV, IB-Groep, ING, DVP, the University of Twente, and Delft University of Technology. The project aims to find solutions for the multi-channel management problems of governmental organizations. In particular the project addresses channel synchronization and channel control.

6. REFERENCES