

## Chapter 2.7

# Media Life Cycle and Consumer–Generated Innovation

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### ABSTRACT

This study examines the innovation in communication media, based on empirical survey results from five countries. First, the authors create a general framework of the media life cycle by exploring the replacement of communication media used in daily life. The shift from voice communications to mobile e-mailing is at the forefront of the media life cycle in the personal communication area. This framework also implies future media replacements in other countries. Second, by comparing two empirical surveys, done in 2002 and 2003, of communication means used among Japanese family relations, the authors

discover that certain consumer clusters lead in the innovation of communication media. This framework and discovery can be useful to deal with the vacuum between conventional media studies and the latest information technology.

### DIFFUSION OF NEW COMMUNICATION MEDIA

The wide and rapid diffusion of the use of e-mail and mobile phones, called cell phones or currently smart phones in the U.S., has entirely changed the paradigm of human communications. We use e-mail and mobile phones as a part of our

everyday life. These two communication means, major products of information and communication technologies (ICTs) during the last two decades, are gradually replacing some conventional communication means, such as physical mailing or talking on fixed phones. These replacements can also change human behavior and may create new social norms and cultures. Obviously, the driving forces behind these replacements are the massive marketing activities of dot com companies and telecom operators.

However, there has been a relatively small number of social science researches on these areas because the technology changes so rapidly. Relentless and endless change of information technology is problematic for academic social science research, when it faces cutting edge technology. That kind of technology always threatens to overturn the conventional social context with rather destructive ways, and then it is difficult for scholars and academic researchers to examine the actual impact of each technology. But, we should not think that a new communication means supported by such a new technology is not a suitable subject for academic research. Looking at it from the viewpoint of social norms and cultural transition, even the newest communication means can be examined scientifically.

The most important point in the examination of the communication means and new technologies is, we believe, the innovation processes that occur while these technologies diffuse among users or consumers. Investigating the changes of interpretation in our society for each communication means and its technology is especially significant from a social scientific viewpoint. According to a common framework of innovation analysis, such as Rogers' (1995), innovation is not merely a technological matter, but the diffusion of a new understanding and behavior toward the technology. Moreover, Von Hippel (1988) examined a lot of examples in which certain user communities can act as sources of innovations. In fact, in some cases suppliers follow the innovations

created by users, instead of creating innovations by themselves. By investigating such innovation processes, we can examine the evolution of social norms and emergence of new cultures rather than merely tracing superficial trends of ICTs.

In this chapter, we would like to focus on the role of each user cluster throughout the innovation process that has taken place since new ICTs began affecting human communications. Inevitably, there are many different usage patterns by consumer cluster, such as age, class, family relation, and gender, with new electronic communication means, as well as those within conventional, face-to-face, communication means. Especially, the gender effects on the new communication usage should be considered more. As a matter of fact, many people point out that most ICTs have been developed by males, and thus, principles of these technologies have obviously been "masculine." Rogers also pointed out that especially in the ICT area in the middle 1980s, there was a significant difference of usage and innovation patterns by gender (Rogers, 1986), due to the gap of mathematical performance between male students and female students.

However, in the late 1990s, the situation began to change. Especially when useful graphical user interfaces (GUIs) were introduced into the ordinary consumer market, ICTs became much friendlier to all kinds of people. The wider the penetration of these new communication means has grown, the more supported they have become by ordinary people including women, instead of by masculine techno-fanatics. Based on these intuitive observations, we think that a certain kind of gender study in these areas will have a particular importance.

## **CENTRAL QUESTION AND HYPOTHESIS**

In this article, we focus mainly on the case of Japanese mobile phone usage. The Japanese mobile

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