

A Study on factors providing strangeness in IPTV

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Abstract: Number of IPTV users in Korea increases. IPTV would make viewers feel strange due to different features of it such as its contents, interactive operation, special devices (ex: special remote control, set-top box) which are not available with conventional TV. Whether it is intended by a producer or not, such features cause viewers to feel strange because the viewers are unfamiliar with them. Amusement, curiosity, immersion, fear, feeling of rejection come with new aspects of IPTV which are different from ‘automatically formed images’ of conventional TV.

The subject of this thesis is to define factors of IPTV that make viewers feel strange in a positive sense and factors that make viewers feel strange in a negative sense to make IPTV a more attractive media to viewers.

Key words: *IPTV, Strange, strangeness, familiar, interactive, User, Contents, Set Top BOX, Automatic images*

1. Introduction

IPTV service is provided worldwide, and interest in IPTV increases in Korea and more and more people subscribe to it. Pre-IPTV service was first tried in Korea in 2006 and full IPTV service started from late 2008. By the advent of IPTV, viewers who used to be ‘passive receivers’ of the contents of conventional TV, now became ‘active selectors and users’ of varied contents of IPTV. As it is still at an early stage, IPTV service is not properly recognized by users and quality of service should be improved, and it’s most natural that users feel strange with a large part of the service. The strangeness users of IPTV feel has a positive side and a negative side. Handling and controlling complicated remote control and STB box (a remote control of IPTV is much more complicated than that of conventional TV) causes the negative side of strangeness, but wide range of contents and amusement provided by them cause the positive side of strangeness of IPTV. The negative side should be improved technically and the positive side should be more developed. For that purpose, the factors that make viewers feel strange with IPTV are investigated

2. Two aspects of ‘strangeness’ or ‘making strange’

Basically ‘feeling strange’ belongs to viewers while ‘making strange’ belongs to producers or contents providers, however, this thesis focuses on the strangeness the viewers feel whether producers and contents providers intend to create strangeness or not.

There are two aspects of strangeness; first, viewers receive contents without being immersed into them and so they can maintain objectivity and critical sense and generate new meanings as receivers of the contents. Second, amusement can be gained in an active manner by stimulating curiosity and providing ‘flow experience’. Seemingly these two aspects are facing towards opposite directions, but both are aiming at achieving new meaning and experience via strangeness. And it is noted that boredom, commonness, repetitiveness, ‘automatically formed images’ and strangeness and ‘new images’ coexist. Background of the two aspects shall be more investigated.

2.1 Strangeness which helps find new meaning through objectivity and criticism

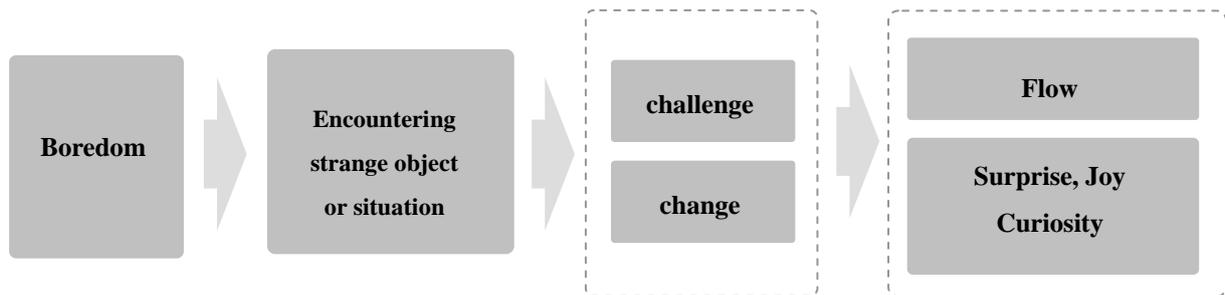
‘Making strange’ can be called in various ways such as de-familiarization, distinction. It was first used by Russian formalists to create strangeness to set pattern of automatization by modification, exaggeration and contradiction, and such techniques can be seen in modern plays. Brecht called it ‘alienation effect’ through which viewers could keep distance from what they saw in a play and maintain their objectivity and critical sense, whereby acquiring a new meaning. V. Skovskij said “Technique of arts is to make an object look strange, to make it look complicated to slow down the speed of recognition. The process of recognition itself is the purpose of art, and so the process should be prolonged.”.[1] Conclusively, it comes down to ‘making strange’, ‘objectivity and criticism’ and ‘finding a new meaning’. Picture.1



Picture.1

2.2 Strangeness which provides amusement and curiosity through challenge and change

It is not easy to have amusement and curiosity in boring repetitive everyday life, but strangeness can create immersion and curiosity. A good example is a computer game. People who like computer games feel pleasure as they step up higher stages and sometimes they have ‘flow experience’. ‘Flow’ means a condition in which a person is fully immersed in performing his duty with a sense of full involvement [2]. And strangeness in everyday life can create universal human curiosity to see something surprising and rare and unexpected. [3]. A strange change is felt strongly when it is not expected or it is different from what is expected. Haeenzhal et al.(2000) said a product should contain elements that make it look interesting, mysterious and surprising. Picture.2



Picture.2

Strangeness which helps find new meaning through objectivity and criticism, and strangeness which provides amusement and curiosity through challenge and change, neither of them are fully positive. If strangeness is carried too far, it may result in negativity and exclusivity and unbalance rather than creating mysterious and surprising effect.

3. Methodology of research

3.1. Conditions of research

The first condition for the research is commercialization of IPTV. IPTV service can be defined as a service of providing audio, data, video and conventional TV via IP network.

In terms of QoS guarantee level, attributes of network and terminal unit, the most influential factors are real-time broadcasting, authorization of hybrid connection with existing broadcasting system, and whether IP network is to be limited to a network which guarantees QoS or a public network is allowed. [4] Apart from technical attributes, it is required that IPTV should have real-time broadcasting. IPTV without real-time broadcasting is considered as pre-IPTV. In foreign countries, IPTV was commercialized earlier than Korea and Verizon FiOS TV is a good example.

When a research for this thesis was in progress, only KT started providing real-time broadcasting service in late 2008 and led the way in switchover of VOD-centered pre-IPTV to IPTV. For surveying reaction of users, IPTV should have met such requirements.

3.2 Object and method of research

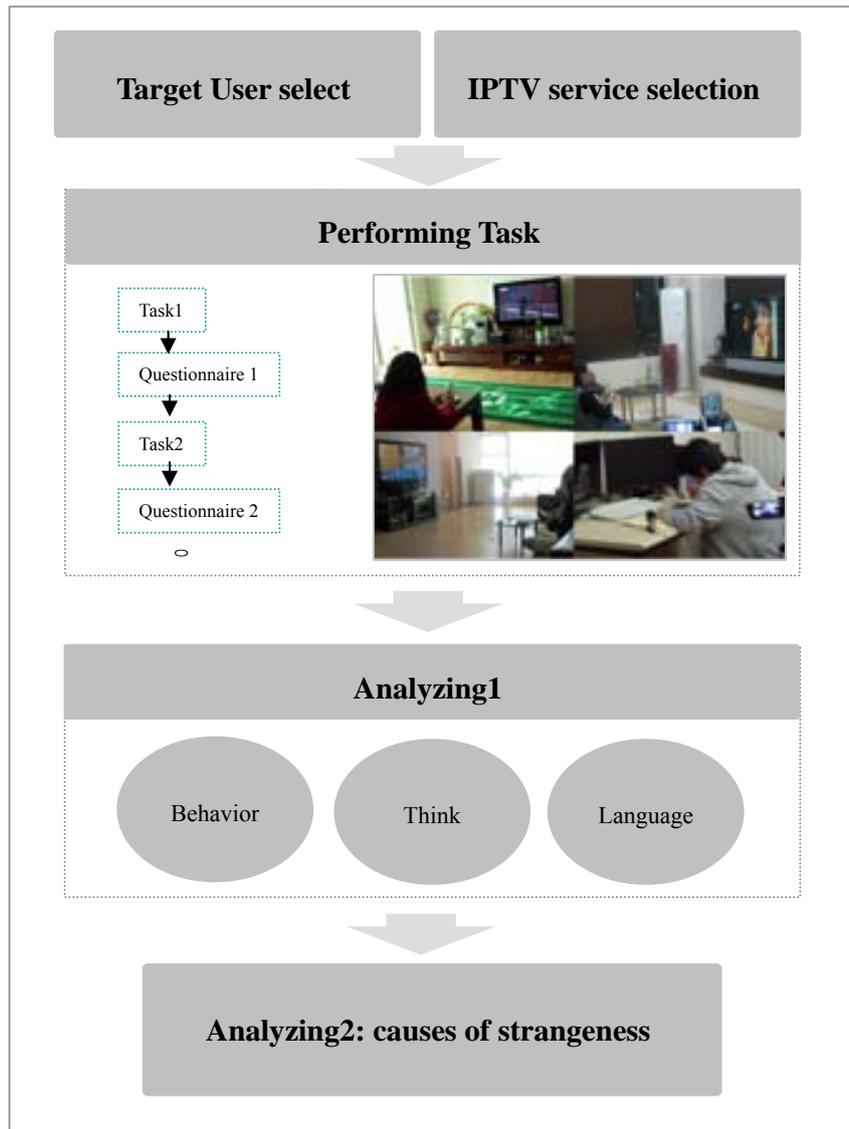
As mentioned, the strangeness of IPTV is subject to reaction of viewers to a certain scene and situation. For quantitative analysis of a cause of an error and time for performing an assignment through a poll or usability test, an object was observed in a room where cameras were installed in a sophisticated way. And for an accurate understanding of a user's reaction, in-depth interview was conducted. In-depth interview is a good way to understand each user's behavior and reason for use accurately even though number of the target users to interview is limited. In this research, the focus was on collection and analysis of users' opinion because the main purpose of this thesis was to figure out what part of IPTV caused a strangeness, and whether that strangeness led to pleasure and curiosity or fear and feeling of rejection.

For the research, 12 people between the ages of late 20s and late 50s who used IPTV service for more than a month were selected and their houses were visited and patterns of their TV use were observed without interruption. After the observation, the users were interviewed about their intention of behavior.

The method of the research was as follows. Common tasks were given to those 12 people which are shown in the [table 1] and general process of survey is shown in Table1

In-depth interviewees	<p>Total: 12 people</p> <ul style="list-style-type: none"> ▪ female : age 35, housewife ▪ female :36, housewife ▪ female :32, housewife ▪ female :42, housewife ▪ female :40, housewife ▪ female :41, single, employed ▪ female :29, housewife, employed ▪ male : age 29, single, employed ▪ male: 35, single, employed ▪ male: 29, single, employed ▪ male: 53, married, employed ▪ male: 31, married, employed
Period of service used	Pre-IPTV for over 6 months, IPTV for over 2months
date	28-Nov-2008 ~ 6-Dec-2008
place	Each interviewees' house in Seoul
Test items	<p>Tasks are selected among common functions users of IPTV service use as follows.</p> <ul style="list-style-type: none"> ▪[Task1] using free contents Recognition of free contents such as rebroadcasted TV programs and movies ▪[Task2] using paid contents Recognition of paid contents which are not available in TV and usability of billing process ▪[Task3] using channel service Recognition of provision of real-time broadcasting from different channels ▪[Task4] using two-way service Recognition of services that require frequent interactive operation of monitor and remote control ▪[Task5] reservation of services Making a reservation for contents that will be provided in future ▪[Task6] searching for contents Searching contents using a remote control ▪[Task6] customization and additional functions Additional functions that require active involvement of users such as my page, font change, skin setting etc.

Table. 1: summary of in-depth interview



Picture.3

4. Result of the test

The interviewees are divided into two groups. One group includes those who think IPTV is pretty much the same as TV and feel strange when they encounter difference of IPTV from normal TV. The other group includes those who are curious of functions, contents and usability of IPTV which are not available in TV.

The second group think IPTV is more like PC and more expandable media than TV. The first group who think IPTV is more like TV, feel strangeness from the difference between boring repetitive automatic aspects of TV and new aspects of IPTV, while the second group who think IPTV is more like PC recognize new aspects of IPTV such as functions of mobile phone, PC, PMP.

Sometimes the two groups shared the common opinion, but in terms of their recognition of IPTV, 7 people belong to the first group (referred to as TV-type group) and 5 belong to the second group (referred to as PC-type group).

4.1 Strangeness of TV-type group

People in TV group feel strangeness in 5 different aspects. As mentioned, strangeness has both negative said and positive side and the same holds true with the strangeness of TV-type group

First, people feel the structure of IPTV is difficult to understand for them, so they tend to go for familiar contents. Second, they don't know what to do with interactive contents and feel strangeness. Third, they are aware of the convenience of using contents of past and present from other media and reserving contents for future, but they are not used to it and feel strangeness. Forth, some graphics on the screen draw attention but some are unrecognizable. Fifth, when they do not know how to adjust and control screen and other devices, they seek help from others or from instructions on the screen. Table.2

Automatic images like TV	Factors of strangeness	Reaction and recognition of users
•Task1: using free contents		
They take it for granted that TV is free.	It is important to check on the screen if its free contents or not.	A user immerses and analyzes screen.
	It is good to see a program when a user wants to.	Active behavior is encouraged.
•Task2: using paid contents		
There was no separate charge for each program (line installation charge may be applicable)	It is not economical to pay for each content	A user is careful in decision because there is a charge to pay
	Checking the sign of paid contents several times (sign of paid contents, price)	A user concentrates to make decision after scanning the sign of paid contents
•Task3: using channel service		
Real-time broadcasting is made at a set time	It is good to have real-time broadcasting but some more channels are desired.	A user has expectation, curiosity, familiarity at once.
	It feel strange to watch IPTV at regular hours	It is hard to get over the habit.
	It is not easy to search for program via program guidance but once a user gets used to it, he'll expect some more information.	A user gets over the difficulty in operating devices and expects more information.

•Task4: using two –way service		
There is no interactive contents	Game, shopping, karaoke services have strangeness which provides amusement which is not available with TV	It provides curiosity and new experience.
	There are some difficult contents which users give up after a few aborted tries.	Repeated failure may cause annoyance
•Task5: reservation of service		
There is simple function of reservation such as ‘turn-on, turn-off’ but it’s not for reservation of contents	Users don’t recognize necessity of reservation. Strangeness is created by un-necessity.	It is considered as a usual thing
•Task6: searching for contents		
Not available with TV.	Contents searching function is not available with TV which create strangeness but after several times’ use it becomes irksome.	Newness, curiosity and negative strangeness caused by difficult operation are felt at the same time.
•Task7: customization and additional function		
There was no need for customization because it was for communal use of family	Skin change, font change, my page are contents worth trying once at least.	It was tried with a little curiosity.
•Common: common things in Task1~7		
There is no menu on TV	When information memorized a user is different from saved information, confusion and strangeness are caused.	A user feels confusion and strangeness but tries to find a solution
There is no menu for covering moving images.	If menus and contents and notice overlap with video or with other contents, annoyance and strangeness are caused	It gives anxiety and annoyance.
There is no guidance for video.	When instruction is not sufficient, users think that they need help to use this media.	Users tend to seek help to solve problems instead of solving on their own.

Table. 2: factors for strangeness of TV-type group

4.2 Strangeness of PC like group

People in the PC like or more than automatic images like TV group can be described as follows. First, they want expansion of personal expression through mobile phone, the web and PC and convenient operation of devices.

Second, they are curious of unfamiliar contents and actively try to learn them. Third, they demand brilliant graphics and higher quality of pictures and outspokenly express their dissatisfaction with visual imperfection. Table.3

More than automatic images like TV	Factors of strangeness	Reaction and recognition of users
•Task1: using free contents		
They take it for granted that TV is free.	It is good to see a program when a user wants to.	Much volition is involved
•Task2: using paid contents		
There was no separate charge for each program (line installation charge may be applicable) there are quite a few free contents on the web	Latest contents need to be charged but they can not be owned by saving as information is saved in PC which creates strangeness.	More contents are demanded
	Users concentrates on buying process on the screen	Concentration increases
•Task3: using channel service		
Users can select programs on a timetable of airwave broadcasting.	There are many channels on the web and cable TV but there are not many channels for a user's special interest(ex: golf, go, cooking) which creates strangeness.	Demand and dissatisfaction exist at once.
•Task4: using two –way service		
There is no interactive contents on TV, but with PC, interactive contents can be easily used by a mouse	Users' immersion in and frequent use of games, shopping, karaoke services creates strangeness.	Flow and expectation are created by interactive operation.
	Screen reaction is not as fast as PC which causes fear and unwillingness to approach.	There are passive trial, challenge and fear.
•Task5: reservation of service(similar to TV-type group)		
There is simple function of reservation such as 'turn-on, turn-off' but it's not for reservation of contents	Users don't recognize necessity of reservation. Strangeness is created by un-necessity.	It is considered as a usual thing
•Task6: searching for contents		
Familiar with keyboard of mobile phone.	Difficulty in using keyboard creates annoyance and strangeness.	Searching by IPTV creates annoyance and anxiety

Content searching is not available with TV.	It is convenient to search for contents but it is desired that the contents should be more varied.	More curiosity and expectation are desired.
•Task7: customization and additional function		
Personal expression such as wallpaper and ring tone is possible.	Users want to try skin change, font change, collection of favorite contents more than once. More variety of fonts are desired	Interest in decoration and expectation are provided. Personal expression needs to be reflected in IPTV.
With PC, users can make folders	Customization like PC is desired	Many expectations are made regardless of technical and material limitation
•Common: common things in Task1~7		
Interest in popular contents	Users want to see popular programs which are not available on TV. Sings of hit or ranking create strangeness	There is a desire to share the contents with others.
Airwave broadcasting stations apologize even for slight shaking on monitor.	There are disconnection of contents and problems of video, but no apologies from service providers.	They don't care much about technical problems.

Table.3: factors for strangeness of more than automatic images like TV or PC like group

5. Conclusion

The two types defined by the result of the research can be criteria for positioning of IPTV. If IPTV is positioned for TV users or users who demand slightly higher strangeness, easy operation of menus and simple manipulation of devices will be important factors, and research and discussion will be needed to render a suitable design. If it is positioned for users who want functions of PC or mobile phone which can be used in conjunction with other media for compound service, development of various devices for controlling search contents and interactive contents is required.

As IPTV service is still at an earlier stage in Korea, precise positioning is not carried out according to types of users. It is presumed that a better service will be provided if negative aspects of strangeness of IPTV are got rid of and positive aspects of strangeness which create amusement and curiosity are further developed.

One thing left to be desired with this thesis is that when a research for this thesis was in progress, IPTV service was at the very initial stage in Korea and KT was the only commercialized service provider and there was no competitor until late 2008. To get more objective and reliable information about factors of strangeness, more IPTV service providers and users should have been surveyed, but the situation at that time being so, it was impossible.

6. Citations

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