

OurTV: Creating Media Contents Communities through Real-World Interactions

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ABSTRACT

In this paper, the service OurTV is introduced and explained as a content delivery platform that uses micro-casting to deliver content on a hyper-local geographical scale through the television in one's home. OurTV proposes to create a true convergence of various *new* and *traditional* media to create a media contents community. This media contents community embodies the core concepts of a convergence culture where the roles of producer and consumer are not mutually exclusive [4]. Everyone, regardless of technical proficiency, will have an opportunity to become active members of their community through the use of OurTV. The most important characteristic of OurTV is that the interactive process which begins on the screen is continued and developed in the real world through real human interaction.

Categories and Subject Descriptors

H.5.1 Multimedia Information Systems

General Terms

Design, Standardization

Keywords

Media Contents Community, social television, interactive television, hyper-local, micro-casting

1. INTRODUCTION

With the pervasive nature of the internet in modern society, many believe that traditional, or *older*, media platforms like television are slowly being pushed to the wayside and will eventually be no longer needed. In the mid-2000s, the rise of internet video sharing sites such as YouTube has made it possible for anyone to share and distribute their digital video content with people anywhere at any time. Never has it been easier for people to show their neighbors, next door and around the world, what they see and how they see.

However, the assertion that television will eventually not be necessary does not hold true in all markets and societies. In Japan, where the research for this paper took place, broadcast television still enjoys relatively stable ratings [7]. The television still holds an important place as a gathering spot for friends and family as

well as an important hub of information, education and entertainment.

2. MEDIA CONTENTS COMMUNITY

2.1 Creation

OurTV as a content delivery platform aims to meet the needs of a set of individuals within a specific geographic area by creating a media contents community where each member has the ability to both receive as well as disseminate information which they consider as having value. With OurTV, televisions, and in a bigger sense, the communities using the platform become networked media spaces [2]. Each television using OurTV is a communication tool. In these media contents communities, individuals, families, groups, business people and members of the local government have the ability to easily create and broadcast content to a specific group of people. The role of the person watching TV is transformed from passive to active when they become producers of content. Whereas the idea of media convergence focuses on the delivery platforms and their integration, the OurTV platform puts emphasis on the creation, delivery and reception of the community's contents.

2.2 Catering to niche markets

User generated content (UGC) not only supplements, but in many instances, serves as the primary vessel for the delivery of information. Although the options are increasing, the landscape of broadcast is still relatively conservative. In many cases, a media conglomerate or corporate entity still has the final editing power when it comes to the contents that appear on one's TV, PC or mobile device. While the variety of selection has increased and addresses the needs of not only the mass market, but also sub-cultures and trends, there is still a lack of contents which cater to the specific individuals and/or communities.



Figure 1. Role of OurTV

OurTV aims to create a truly unique community content sharing environment where people can exchange information that is important and relevant to them through the TV screen. Other platforms such as mobile TV attempt to deliver contents which are personalized for the viewer on mobile handsets. Due to the typically short length of contents on mobile TV, the challenge of customizing and personalizing contents becomes important. While the mobile TV platform provides content delivery to individuals, it can prove difficult to have shared experiences since the target audience watching the screen is usually one person [6]. OurTV achieves the goal of helping to create content based shared interest organically due to the fact that the people producing and consuming the content share at least one common trait – they all live/work in the same geographical area (Figure 1). In the leap between mass market broadcast and user specific content, the neighborhood as community that represents its own market with its own needs and interests has been overlooked. Unlike TV broadcasts that tend to cater to a mass market on a national or regional scale and internet content which requires active input by the user in order to retrieve information and is usually geared toward a single individual, OurTV is able to cater to niche markets such as specific neighborhoods in a town. Moreover, the potential of each individual in the community to produce and create contact, make the media contents community of OurTV a truly social network.

3. LOW BARRIERS OF ENTRY

Participation in the OurTV platform is neither financially straining nor time consuming to set-up and maintain. The basic technological requirements are a broadband (wired or wireless) internet connection for sending and receiving contents and a television for viewing contents. As of 2010, 78% of Japanese people access the internet [8]. The cost of getting on the internet through an ISP and broadband service provider is relatively inexpensive and continues to become more affordable through various providers competing for customers' business. Many of the digital televisions available on the market today (in Japan) come equipped with Ethernet ports enabling simple connectivity for the distribution and reception of contents. In order to broadcast oneself, a business or a community center such as a school, a camera with capability to connect to the internet, for example a web camera, is needed. Besides setting up the camera, which is neither overwhelming nor difficult, the only function a person must perform is enabling or disabling the camera. Even with little or no knowledge of computers or the internet, anyone in the community served by OurTV can be connected to their neighborhood and have access to their community, its activities and people, through their television.

4. USER INTERFACE

4.1 TV Layer

OurTV as a platform and content delivery service is not intended to replace the role of television in the household. Nor is the intention to take over the role of the computers and mobile devices to access the internet in order to search for content and information. Through the use of a seamless and unobtrusive user interface that presents OurTV contents on the screen, the viewer can view their preferred contents without disturbing their TV viewing experience. In the OurTV layer, the program being

broadcast via terrestrial, cable or satellite signal can be embedded into a smaller box on the screen along with the person's preferred contents. In the center of the interface, a large screen shows the content the viewer has selected and is interested in now. Six small screens, three on both the right and left side of the screen aligned vertically, show the users preferred contents. On the bottom of the television screen with the OurTV interface, a rectangular box spanning a width slightly bigger than the central box appears where text and images can appear.



Figure 2. Today's catch at the local fish market

In figure 2, the large screen in the center shows a live video stream of the local fish market. The viewer, being interested in the selection, can choose to then physically go to the market to purchase the fish that they want. In the smaller screens on the sides, the users preferred contents, which may include the program being broadcast, are displayed. In order to create an atmosphere where the viewer feels they are receiving a value added experience, it is integral to implement a user interface that is both visually enjoyable and non-intrusive. Enhancement of the viewing experience depends heavily on the user having the ability to select contents, navigate, render and interact with the television in an organized manner [1].

4.2 Interaction

OurTV users can navigate the on screen contents through the use of a remote control. In order to make the interaction among the viewers of OurTV more personal and truly user-generated, a remote control application on smartphones can be implemented. Users can use the smart phones to upload text, images and videos to a MySQL database on the OurTV server. Images can be in any standard image file format, video files are converted to .ogg files and audio files are .mp3 file format. The data sent by the user is placed within a Java Script and HTML template. The information is then transmitted onto a television using the OurTV service.

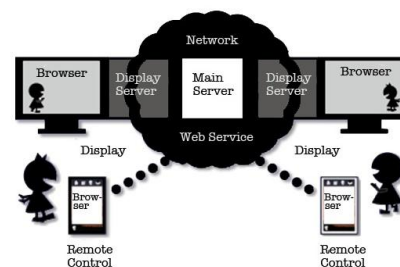


Figure 3. Our TV! Server

5. SOCIAL ENTERPRISE

5.1 Social Impact

At its core, OurTV is a tool for buildings ties at a grassroots community level through the use of technology. In order for true social change to occur, OurTV aims to create a platform where community members' contents can be exchanged and enjoyed. Modernization and globalization have brought about many changes in the way people all around the world live their lives. While there has been an increase in the access to products and services leading to a better material quality of life, the personal connections people make with others living and doing business next door or down the street have suffered. OurTV re-introduces local communities to the people who live in them by implementing a platform that empowers people to not only see and show what is going on around them, but that also encourages them to become active participants in the process of building the community. Social interaction among people is promoted with the goal of enhancing local social ties and strengthening a sense of togetherness [5].

5.2 Community Revitalization

OurTV can also be a vehicle for financial stimulation, particularly for small businesses in local communities. As people's schedules have become busier, innovations and advancements in mass production and large scale manufacturing have made people's lives easier over time. Concurrently, however, many local businesses have felt a negative impact in terms of sales and customers. Once vibrant and lively shopping arcades have become or are on their way to becoming ghost towns. Merchants and stores that were once central meeting places for commerce and interaction are eerily quiet without the sound of people's voices or cash registers [3]. Business owners and proprietors can benefit from the OurTV platform by being able to bring people into their shops while staying at home. If something catches one's eye on the OurTV user interface, they can go visit the store and purchase the item or goods. Customers benefit from local businesses offering exclusive, time-sensitive, deals through OurTV to entice customers to visit their shops. Since the media contents community created by OurTV is micro-cast to a specific local geographic population, the viewers have easy access in terms of time and physical distance to businesses in their community. The personalized content selection is a catalyst for motivating residents to take part in human interaction. The greatest benefit of OurTV is demonstrated when the viewers go to the marketplace and interact with their fellow community members in the real world.

5.3 Access for Everyone

Aside from financially revitalizing a community, OurTV can also be the starting point from where people with shared interests can learn about one another and meet to pursue those interests together. Without travelling far, people are able to re-connect or connect for the first time. Although this feature is advantageous to all age groups, older adults may feel the benefits the most. With very limited or no technical skills, senior members of the

community can learn about activities, events and groups in which they may want to participate through the OurTV platform. Through OurTV, communities can help bridge the digital divide.

6. CONCLUSION / FUTURE RESEARCH

As a content delivery platform, OurTV is simple to integrate into local communities. OurTV can be packaged and standardized in order to be implemented into different areas and regions. The technology behind OurTV opens the door for a myriad of rich and unique local content that reflects the character of the community as well as the people of which it consists.

Further research involves creating and implementing a mobile app for OurTV that can be used on smart phones and mobile handsets. The aim of this implementation is to promote tourism to various small communities creating cultural exchange activities as well as business opportunities. People visiting a new community for the first time will be able to interact with other OurTV viewers in the community via a mobile application

7. ACKNOWLEDGMENTS

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