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Master Project Proposal

Does personality influence your media (e.g. audio, video, pictures, and games) preferences?

Submitted To:

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Area of Study: Information Science

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1. Problem Statement:

Traditional TV distributors, content providers, are failing to satisfy consumer demand for TV/video services. If they do not respond and adapt to what consumers want, they will either lose their place in the value chain or have a diminished role in it and ultimately be relegated to the role of a niche provider of passive TV/video content.[1]

This project will investigate some aspects of consumer's content-customization needs, interaction requirements and entertainment wishes. Watching TV is getting more and more related to PC experience these days. TV companies are attempting to create electronic program guides and software that can recommend broadcasted programs based on user's preferences.

TV viewers have unique habits. Some watch same programs on a regular basis and some don't. Each viewer also has their own personality. There are 5 kinds of personality models from a psychological perspective and it is called the "big five":[2]

1. Openness to Experience
2. Conscientiousness
3. Extraversion
4. Agreeableness
5. Neuroticism

The main question here is, how we can develop a mechanism to extract a personality profile of TV viewers and can we couple that to viewer's media preference in order to improve the media recommendation.

2. Research Questions:

In this project, it is a necessity to be able to explicitly address the techniques and processes required for the identification and realization of personality stereotype related to TV, as well as the relationship between personality stereotype, interest and social information such as postcode, age and education. This research will lead to answers for the following questions:

1. How and from where to collect personality data (unobtrusively):
 - a. While watching TV?
 - b. From other places?
2. How to model the personality traits in terms of the user profile?
 - a. What is the relationship between user interest and personality stereotype?
 - b. What is the relationship between user interest and social (demographic) stereotype, such as stereotypes based on postcode, age, education?
 - c. What is the relationship between social stereotype and personal stereotype?
3. Is there a difference in the user's appreciation of the recommendations when using the personality profiles?

3. Research Approach:

- Literature study on the personality traits, personality identification and how much it is important in the human decision making process, and understand why and how we would like extract personality from people and using in TV recommendation system and choice of media for realization of personality stereotype related to TV [3]
- Literature study on the social stereotype such as age, gender, postal code and education and choice of media
- Literature study on the concept of television genres (Television genre is a systematic categorization of various television programs)
- Literature study on the relationship between social stereotype and personal stereotype
- Assess the personality types, using either secondary data or primary data such as personality questionnaire to find out the personality of the viewers
- Assessing how to collect personality data in a TV set(unobtrusively) while watching TV or from questionnaire or survey and comparing the result
- Comparing the TV recommendation based on personality profiles and without personality profiles and assess the differences and show which collection will deliver better results, collection without personality stereotype or with personality stereotype

4. Tentative Timetable:

Starting-end time of the project

Section	Duration
1. Literature study on personality traits, stereotypes and TV preferences Deliverable: report (thesis chapter I)	1 month
2. Explore and analyze different approaches for collecting personality data while watching TV and from other sources Deliverable: report (thesis chapter II)	1.5 month
3. Design of a personality-based user model Deliverable: report (thesis chapter III) Deliverable: model (implementation)	1.5 months
4. Validation and evaluation: Experimental analysis of the recommendations based on personality-user profile and the ones without personality description. Deliverable: set up of an experiment Deliverable: experimental report (thesis chapter IV)	1.5 months
5. Final Paper	0.5 month

7. References:

1. What consumers want from TV/video solutions,
http://www.ericsson.com/res/thecompany/docs/whitepapers/090626_what_consumers_want_from_TV_video_solutions.pdf
2. Costa, P. T., & McCrae, R. R. (1992). Four ways five factors are basic. *Personality and Individual Differences*, 13, 653-665.
3. Maria Augusta Silveira Netto Nunes (2008). Recommender Systems based on Personality Traits.