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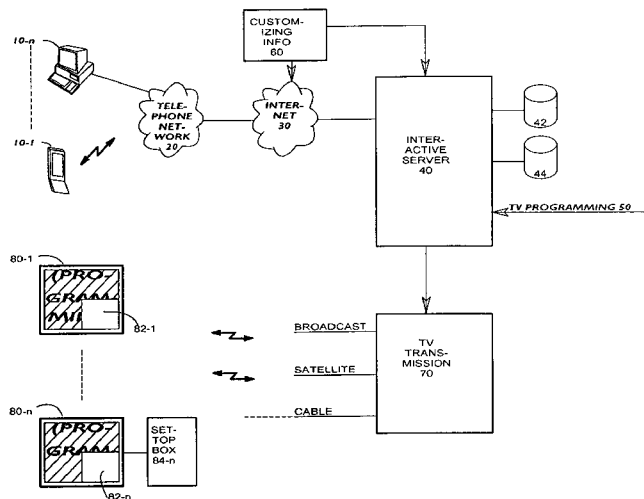
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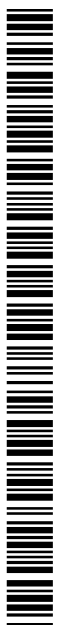
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(54) Title: SYSTEMS AND METHODS FOR CHARACTERIZING TELEVISION PREFERENCES OVER A WIRELESS NETWORK



(57) Abstract: A system for interacting with viewers of television programming includes a television set and a network terminal for each such user. The terminals are connected by the network to an interactive server which maintains a first database of persistent information for each user and a second database of current preference information for each user. The current preference information includes registrations of users as viewing particular programs or as participating in certain activities chronicled in television programs, such as lotteries, polls, and product promotions. According to information in the first and second databases and according to current user requests, the interactive server forwards information to users' terminals, modifies content of all television programming, or modifies content of television programming, targeted to certain users or groups of users for selection by those users cable or satellite set-top boxes.



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Systems And Methods For Characterizing Television
Preferences Over A Wireless Network

BACKGROUND OF THE INVENTION

5 1. Field of the Invention

This invention relates generally to systems and methods for characterizing television preferences over a computer network. More specifically, the invention relates to characterizing television preferences over the Internet using a wireless device.

2. Description of the Related Art

Wireless communication devices are fast becoming the communications media of choice for transporting data, and communicating data between users of the devices. Many types of wireless devices are currently being used such as cellular phones, wireless telephones, personal digital assistants (PDAs), laptop computers and other devices with small displays which display text and icons to users of the devices. The strong push in current wireless technology development is to use wireless devices for varied applications and which allow users of such devices to seamlessly integrate events and needs in their lives while maintaining adequate communication power to receive and transmit all of the data and information which has an impact on them.

The Internet has also fast become the communications medium of choice for transporting many forms of data, including wireless data, throughout the world. Due to its far-reaching connectivity, the Internet is particularly well-suited to transport an individual's data concerning personal preferences for parameters associated with different systems. In

particular, most people have particular preferences for television programming, advertising and other content. There does not exist today a system or method for setting such preferences with a wireless device through
5 the Internet. Such systems and methods would greatly simplify and enhance a user's television viewing habits and make it extremely easy for such habits to be influenced, categorized and exploited by advertisers or other purveyors of television information.

10 There thus exists a need for methods and systems for characterizing television information related to a user's preferences for programming, advertising and other content. Such systems and methods should be seamlessly integrable with the Internet and
15 usable with existing wireless devices. Moreover, information generated by setting television preferences should be formatted so it can be made available to advertisers, programmers and other providers of television content.

20

SUMMARY OF THE INVENTION

The present invention characterizes television preferences of an individual using a wireless device which is in communication with a computer network.
25 Preferably, the computer network is the Internet, but the invention may be implemented on any form of computer network such as a local area network (LAN) or wide area network (WAN).

In a preferred embodiment, users equipped with
30 television sets and communication terminals communicate via the Internet with an interactive server that is provided with a television signal. The interactive server maintains a first database containing persistent information regarding each user. The user communicates,

through a terminal, current preferences to a second data base in the interactive server such as television program favorites, advertising favorites, hobbies, interests and other specific television preferences
5 which can be characterized by the interactive server. The interactive server is operable to modify television programming being transmitted to the users. In accordance with the first and second databases and with current user requests, the interactive server sends
10 information to users' terminals and modifies television programming. Modification of television programming may consist of modifying the contents of a channel for all users, or appending content to a channel for selective presentation by users' set-top boxes to certain users.

15 These and other features of the present invention will become apparent from the following detailed description considered in conjunction with the accompanying drawings. It is to be understood, however, that the drawings are designed solely for purposes of
20 illustration and not as a definition of the limits of the invention, for which reference should be made to the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

25 In the drawings, wherein like reference numerals identify similar elements throughout the several views:

 Figure 1 is a block diagram of a system for characterizing a user's television preferences with a
30 wireless device over the Internet;

 Figure 2 is a high-level flow diagram depicting a typical scenario in which the system of Figure 1 is deployed to effect interaction of a television viewer with television content.

DETAILED DESCRIPTION OF THE PRESENTLY PREFERRED EMBODIMENTS

Referring now to Figure 1, a block diagram of a system for setting a user's television programming preferences is depicted. It will be appreciated that the present invention is applicable to customizing other media content such as radio, jukeboxes, movies and other media. For convenience throughout, the media will be referred to as television content, programming, or signals.

There is a plurality of users, each equipped with a terminal 10 and a television set 80. (The dotted lines from XX-1 to XX-n connote plurality of an unspecified (open-ended) number.) The terminals 10 may be any devices capable of communicating via the Internet. Thus they may be personal computers (PCs) or they may be devices such as wireless telephones, personal data assistants (PDAs), palmtop computers, etc. It is likely that new types of terminal devices will be devised in the future that will be usable as terminals in conjunction with the present invention. Each of terminals 10 can communicate with the Internet 30, typically though not necessarily through telephone network 20 which may include the PSTN, the wireless telephone network, ISDN lines, DSL lines, etc. The terminals 10 may communicate with the Internet 30 bidirectionally. (In Fig. 1, interconnecting lines without arrowheads are bidirectional.)

Each user also has a television set 80. Television sets may receive television signals in a variety of ways, such as broadcast, cable, or satellite. A television set equipped to receive cable or satellite signals typically has associated with it a set-top box 84, which, as is known in the art, can interact with the

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