TELEVISION AND MARKET RESEARCH DATA COLLECTION SYSTEM AND METHOD

CROSS REFERENCES TO RELATED APPLICATIONS

The present application is a continuation of application Ser. No. 658,378 filed Oct. 5, 1984, now U.S. Pat. No. 4,658,290, which was a continuation-in-part of application Ser. No. 559,459 filed Dec. 8, 1983, now U.S. Pat. No. 4,546,382, which was a continuation-in-part of application Ser. No. 502,654 filed June 9, 1983, now U.S. Pat. No. 4,566,030.

BACKGROUND OF THE INVENTION

The present invention relates to data storage and transmission systems and more particularly relates to monitoring systems for accumulating data at remote locations and transmitting the data to a central location. More particularly, the present invention relates to a data collection system and method for collecting at remote panelist locations data relative to television viewing habits and preferences as well as product purchases and preferences of a plurality of panelists, and transmitting the collected data to a central location. In accordance with one embodiment of the present invention, a data collection system is provided in which individual television receivers may be controlled from a central location to display substitute programming.

The prior art is replete with various systems and arrangements for monitoring viewing habits of television viewers. The earliest such systems merely collected data on site for eventual manual collection as to the television channels viewed and the times of viewing for various panels of viewers in order to determine market share and ratings of various television programs. Later, systems came into being for use with cable television systems with two way communications over the cable system between the head end thereof and various cable subscribers. In such a system the television sets are typically interrogated periodically from this central location over the cable, with the channel selection and time information being sent back to the central location and logged for statistical compilation. Such systems have also been used in the past in so-called pay television systems in which billing information is sent over the cable system to a central location from the various subscribers to the pay television system. The prior art also includes such systems in which a memory means is provided at the remote location, i.e. at the television receiver, for accumulating data as to the channel being viewed and time. The accumulated data is then periodically transmitted over conventional telephone lines from the remote locations to the central location, by telephone calls initiated by either the remote stations or the central location.

Systems for remotely accumulating data regarding the habits of television viewers and their qualitative reaction to material have today become important from the standpoint of market research. For example, the effectiveness of television commercials can be monitored by correlating viewing of those commercials with subsequent purchase decisions made by panelists whose viewing habits are being monitored. One manner of achieving this which has been utilized in the past is to have the cooperating panelists keep a diary as to purchase of products. The purchase information recorded in these diaries is then correlated with the commercials

viewed by those cooperating panelists. In an alternative arrangement disclosed in the prior art, in areas where universal product code automated check-outs are available, such as grocery stores and the like, a panelist makes his or her purchases and at the check-out counter presents a card coded with a unique scanner panelist identification similar to the universal product code symbol on the products purchased. The store's computer can automatically retain such purchase data for subsequent transfer to a market research company computer data base for correlation with the data regarding the various panelists viewing of commercials. Such arrangements of course require cooperation of stores within the area of the panelist locations, and are therefore more suited for limited geographic groupings of panelists in a single locale or city, and are not readily applicable to a national assemblage of panelists extending across an entire country.

In market research relating to commercials and their effectiveness, it also is sometimes important to evaluate the effectiveness of alternative forms of a commercial. One way of achieving this in the context of a cable television system is to split the subscribers or panelists into two or more groups, and then show the alternative forms of commercials to the respective groups of panelists. Correlation of product purchase information regarding those panelists with the forms of the commercials they viewed can then be used to assess the effectiveness of the various alternative forms of the commercial. The prior art also includes examples of systems wherein certain portions of a viewing audience can be selected on a dynamic basis and furnished with substitute programming. Such a system is disclosed, for example, in U.S. Pat. No. 3,639,686 to Walker et al. In accordance with that system, an auxiliary television signal is broadcast which contains not only substitute programming, i.e. video signal information, but also control information such as pulse code information for remotely selecting panelists which are to receive the substitute programming. Digital address information is provided for each of the panelists, and the portion of the panelists which are to receive the substitute programming are selected by the pulse code information. The Walker et al patent notes that in selecting the panelists which are to receive the substitute programming, the number of categories available is dependent on the number of digital information bits that are incorporated in the system. A later U.S. Pat. No. 4,331,974 to Cogswell et al also discloses an arrangement for selecting portions of a viewing audience on a dynamic basis and furnishing those portions with substitute programming.

The present invention relates to an improved system and method which is of particular utility in market research type applications, but which is not limited thereto.

OBJECT AND SUMMARY OF THE INVENTION

It is an object of the present invention to provide a system and method for collecting at remote panelists locations data relative to these panelists, and transmitting the collected data to a central location.

It is another object of the present invention to provide such a data collection system for collecting data relative to panelists television viewing habits and preferences as well as market research data regarding panelists product purchases and preferences.