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— as to the identity of the inventor (Rule 4.17(i))

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(54) Title: A SYSTEM TO SELECT A SINGLE CHANNEL OUT OF A MULTITUDE, ALONG WITH A DYNAMICALLY UPDATED DOWNLOAD SCHEDULE CREATOR FOR DOWNLOAD OF "ON-DEMAND" AS WELL AS "PUSHED" CONTENT FROM A CENTRAL SITE TO SUBSC SELECTION OF SUCH CONTENT AND THE AVAILABILITY OF THE CONTENT FOR PLAYBACK

FIG 1
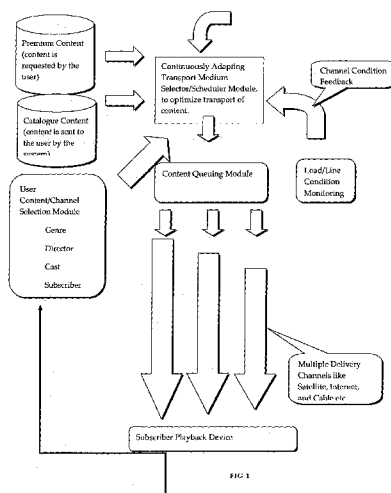
(57) Abstract: A system to select a single channel out of a multitude, for easy assess and playback by a subscriber his choice of media content.

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Introduction

Distribution of content from a central site to individual customer over any media such as the Internet is a challenge given the limited amount of bandwidth and a multitude of subscribers.

If more than one transport mechanism exists for achievement of such a download, the challenges of maintaining high efficiencies across the multiple transport channels increases proportionally.

The application herein describes a novel system for ensuring optimal utilization of bandwidth for the transfer of content from a central site to a set of users all connected to the central site via multiple media such as the Internet, DVB-S etc.; is capable of aggregating user selections of content, using such aggregation of data to intelligently decide the most optimum transport medium for the download of part or all such content, and ensure the best user experience in terms of time to content availability.

Further the system creates a dynamically updated "download schedule" for each transport channel that takes into account inputs such as network congestion, changed user preferences, time of day, time of year, proximity of annual holidays, profile of subscribers, genre of content, director, actor cast etc.

Detailed Description

One of the challenges of managing distribution of content to a large multitude of subscribers is the efficient use of bandwidth to ensure not only that subscribers receive the content they have requested, but also receive it in the shortest amount of time from the time of request.

If there are multiple transport channels connecting the subscriber to the central site, like the internet, satellite transmission and also cable, the challenge is to integrate download policies across the various channels to optimize bandwidth and also minimize download time. The innovation of the system described in this application is this specific area.

The central site permits subscribers to either request a "pull" of content on-demand over the internet based upon their selection, or the central system will itself determine to "push" content to the playback system at the subscriber end over a satellite or cable channel.

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The system described herein incorporates a specially designed module that achieves deep integration at the central site between the internet, cable and satellite as well as any other transport systems to achieve previously impossible efficiencies in bandwidth utilization as well as dramatically improved user satisfaction.

User requests are aggregated, and after incorporating other parameters described herein, a selection is made of the optimal transport channel for scheduling of transmission of the selected content to the subscriber.

Further a dynamically updated download schedule ensures that content being scheduled for download is making optimum use of available bandwidth. The system will utilize for the first time ever things like selection pattern, user profiles, time of day, time of year, proximity of annual holidays apart from the more conventional parameters like genre, director, cast etc. to make such a determination. Fig 1 is a schematic view of the system.

We claim

(1).   module described herein is designed for deployment in any content playback system, which stores a large library of playable content of which a user may select a piece of for playback.

The module is a sophisticated system that uses a multitude of parameters as input, and constantly refines its model of user preferences, to intelligently narrow down on options to offer for playback out of the library, resulting in a significantly enhanced user experience, eliminating for the user the task of conducting an exhaustive search for a selection across all the content using various search parameters.

This module also significantly simplifies the user interface for such a playback device.

(2).   module uses inputs such as the mood of the user, time of day, number of persons present, gender of those present, friends or family amongst those present, in addition to genre, director, actor cast, and music composer etc. to make such a determination.

(3).   output of the module is a concise list of content that is deduced to be in line with the user's preferences, eliminating the need for an exhaustive search of all content across parameters like genres, cast, director etc.

(4).   The module results directly in a significantly enhanced user experience resulting in better engagement with and an optimum utilization of the playback device.
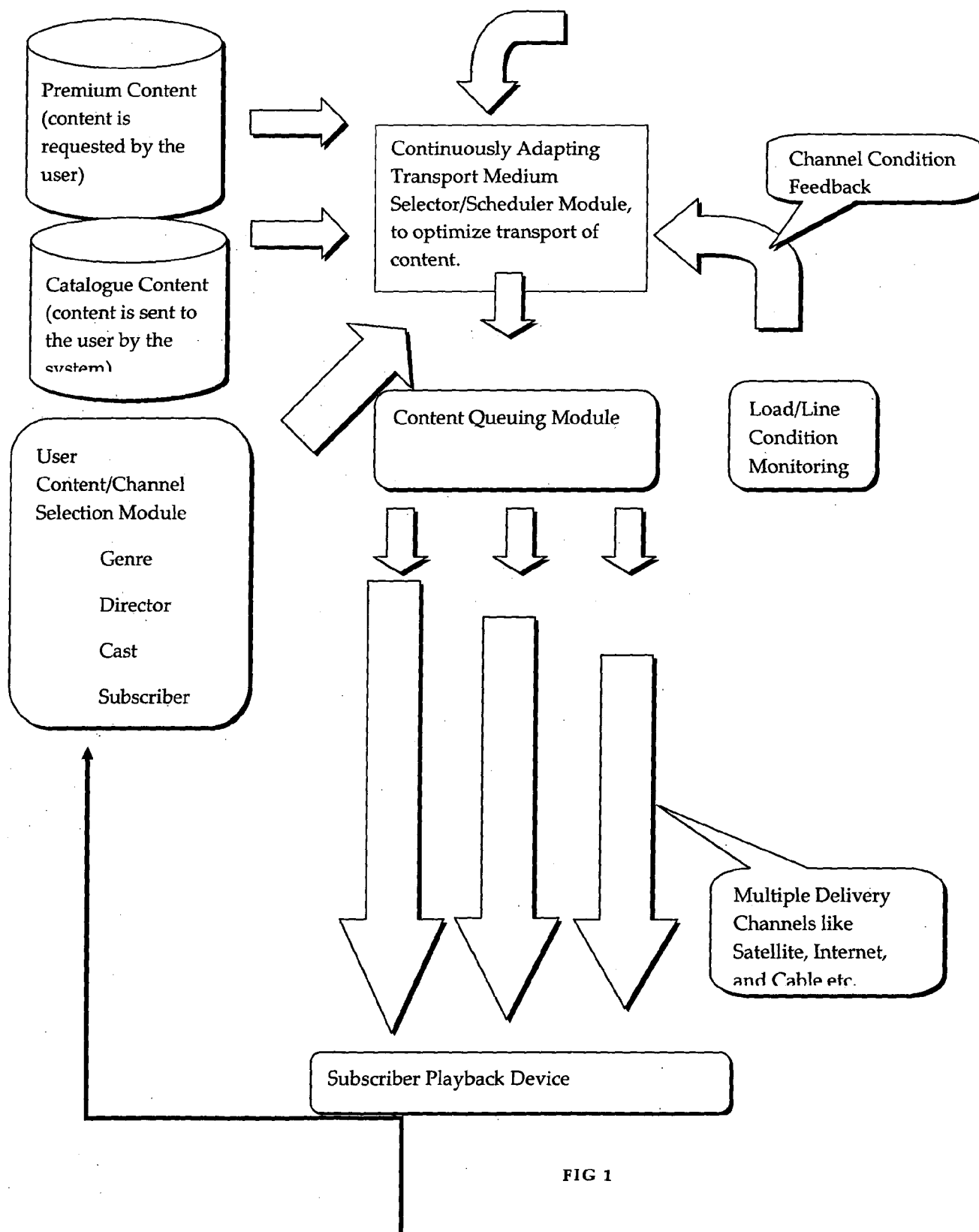
FIG 1