

A SYSTEM AND METHOD FOR RECORDING TELEVISION AND/OR RADIO PROGRAMMES VIA THE INTERNET

Technical Field

- 5 The invention concerns a system and method for recording television and/or radio programmes via the Internet.

Background of the Invention

- Recording devices such as cassette / tape recorders, video cassette
10 recorders (VCRs), personal video recorders (PVRs) and digital video recorders (DVRs) provide users with the ability to record television and/or radio programmes. However, the recording device resides at the users' end that is typically in the user's home. This can be very inconvenient since users need to programme the recording device
15 and be physically present at their recording device in order to record the television and/or radio programmes. Furthermore, users must actually buy, install and setup the recording device at their end.

Summary of the Invention

- 20 In a first preferred aspect, there is provided a system for recording radio and/or television programmes via the Internet, the system comprising:
- a user authentication module to authenticate a user and ensure that the user is permitted to record the programmes;
 - 25 a programme selection module to allow the user to select at least one programme to record; and
 - a playback module to allow the user to playback previously recorded programmes;
 - wherein the user authentication module authenticates the user
 - 30 according to the residence of the user or whether they have a paid subscription to a subscription based radio and/or television service.

The user authentication module may authenticate the user only once either at user registration or during playback previously recorded programmes.

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The programme selection module and the playback module may have a graphical user interface via first and second web page, respectively.

- 10 The residence of the user may be determined according to checking any one from the group consisting of: IP address, telephone, SMS, and credit card.

15 The system may further comprise an advertisement module to dynamically display advertisements during the playback of recorded programmes.

20 The advertisement module may also insert advertisements before and/or after the recorded programme. Alternatively, the advertisement module may insert advertisements in the recorded programme itself.

25 The advertisements may be determined according to tags associated with the recorded programme.

The system may further comprise a user forum for user to add comments about a particular programme.

Users may pay a subscription fee to avoid the advertisements.

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The system may further comprise an access control module to filter particular groups of people and prevent them from playing back predetermined recorded programmes.

- 5 The system may further comprise a recommendation module to allow users to recommend specific recorded programmes.

The system may further comprise a preview module to automatically generate a trailer of a specific recorded programme.

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The system may further comprise a programme schedule extraction module to automatically extract radio and/or television programme schedules from the Internet.

- 15 The system may be able to record multiple programmes at the same time.

In a second aspect, there is provided a method for recording radio and/or television programmes via the Internet, the method comprising:

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 authenticating a user and ensure that the user is permitted to record programmes;

 selecting at least one programme to record via a first web page; and

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 playing back previously recorded programmes via a second web page;

 wherein the user is authenticated according to the residence of the user or whether they have a paid subscription to a subscription based radio and/or television service.

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The method may further comprise dynamically displaying advertisements during the playback of recorded programmes.

5 The method may further comprise inserting advertisements before and/or after the recorded programme.

The method may further comprise tagging the recorded programme with tags to determine which advertisements to be displayed or inserted.

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Brief Description of the Drawings

An example of the invention will now be described with reference to the accompanying drawings, in which:

Figure 1 is a schematic diagram of the system according to an embodiment of the present invention;

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Figure 2 is a flow chart outlining the sequence of events for registering a user of the system according to an embodiment of the present invention;

Figure 3 is a flow chart outlining the sequence of events for recording a television programme according to an embodiment of the present invention;

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Figure 4 is a flow chart outlining the sequence of events when the digital television recorder records a television programme according to an embodiment of the present invention;

Figure 5 is a flow chart outlining the sequence of events when a user of the system according to an embodiment of the present invention sends a request to record a television programme;

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Figure 6 is a screenshot of the web page showing user registration;

Figure 7 is a screenshot of the web page after user log-in;

Figure 8 is a screenshot of the web page showing user programme selection;

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Figure 9 is a screenshot of the web page showing playback of the recorded programme; and

Figure 10 is a screenshot of the web page whereby a user can invite other users to use the system.

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Detailed Description of the Drawings

Referring to the accompanying drawings, a system for allowing users of the system to record free-to-air television and/or radio programmes and view and/or listen to the recorded programmes at
10 their own convenience is provided.

Referring to Figure 1, the system generally comprises: a user authentication module (5), a programme selection module (10), a playback module (15) and an advertisement module (20). A user
15 uses and accesses the system by logging onto a web page (22), for example at URL: www.RecordTV.com. Figure 7 shows a screenshot of the web page (22) where a user logs onto the system. The programme selection module (10) and the playback module (15) have a graphical user interface via a first and second web page
20 respectively. The programme selection module (10) and the playback module (15) may have a graphical user interface via a first and second web page respectively. Figures 8 and 9 show screenshots of the web page (22) showing the programme selection module (10) and playback module (15) respectively.

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The user authentication module (5) authenticates the user of the system and ensures that the user is permitted to record the programmes (40). In other words, the user authentication module (5) checks whether the user is legally entitled to access, record and view
30 the television and/or radio programmes (40).

Many countries have free-to-air television and radio channels and cable television / subscription (Pay TV) channels. People living in these countries have the right to access these television and radio broadcast content from these channels and/or record it for their personal use (non-commercial use), either by virtue of their location (in the case of free-to-air television and radio channels), or by virtue of their location and their subscription plan (in the case of cable television channels). The situation is similar for broadcast over the air radio and Pay Radio (pay-for digital radio).

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The user authentication module (5) checks whether:

- (a) the user accessing the present system is from a location at which he would be entitled to receive such television and/or radio programmes; or
- 15 (b) the user is a resident of a particular location (home country) from which he would otherwise be entitled to receive television and/or radio programmes.

By "entitled", it is meant to refer to a user being legally entitled to view and/or listen to the television and/or radio programme because he is a resident in the country where such free-to-air broadcast are made or he is a subscriber of a Pay TV / Pay Radio service.

In addition to free-to-air television and/or radio programmes, the system can also allow a user to record Pay TV programmes provided the user authentication module (5) authenticates and ensures that the user is permitted to record such Pay TV programmes, i.e. the user must already be a subscriber of such Pay TV programmes.

30 Such a check may take several different forms, namely, IP-based (IP address) checker (25), mobile or telephone-based checker (30),

SMS-based checker (35), or credit card-based checker (38), as described below.

IP-based (IP address) checker

- 5 This checker may be done by providing selective, IP-based (IP address) access to the recording web page (22). So, if a user is located in a particular country, for example Singapore, the system identifies the user's location by virtue of his IP address and he is only then allowed to use the web page (22) to record free-to-air television and radio channels broadcast in Singapore through this system. In
10 countries that have different "free channels" for different locations within the same country, fine-grained location information like city and state may also be used.

15 Telephone-based checker

The basis of this checker is to determine the user's location/residence by virtue of his telephone number and/or GPS enabled telephone.

- 20 When a user accesses the web page (22) to register for an account so that he is able to record/playback a particular programme on a particular channel, or when the user accesses the web page (22) to record a particular broadcast, he is prompted for his telephone number and is shown a randomly generated numeric "key" that is not
25 machine-readable. This "key" is valid for a pre-specified amount of time, so checking must be done promptly.

- The system then automatically dials the phone number the user has indicated and a voice recording requests for the "key" that was
30 delivered to him online. The user then punches in the "key" that has appeared on his computer screen on the keypad of his telephone

and the system determines his location (or residence) from his validated phone number by comparing it with an existing list of codes belonging to countries, cities, towns and/or other locations. Since most countries allow only legal residents to own landline phones, one is able to check or verify the right of a user to record a particular broadcast.

Alternatively, another variant of the telephone-based checker involves the user calling a telephone number provided on the web page (22), instead of providing his telephone number to the system. After being connected and prompted, he enters his “key” on the phone’s numeric/alphanumeric keypad. Caller-ID of the caller is used to check or verify his phone number and the key is compared to the one presented to the user on the Internet, and in the process checking or verifying the right of a user to record a particular broadcast.

Other variations include the system automatically calling the user and delivering a “password” through a voice interface, which the user can then use to access the recording facility. GPS-enabled or phones that provide location information may also be used to check a user’s location.

Short Message Service (SMS)-based checker

When a user accesses the web page (22) to register for an account so that he is able to record/playback a particular programme on a particular channel, or when the user accesses the web page (22) to record a particular broadcast, he is prompted for his phone number and is shown a randomly generated numeric “key” that is not machine-readable. This “key” is valid for a pre-specified amount of time, so checking must be done promptly.

The system then provides the user with a number to which the on-screen password must be sent via SMS, so as to check users rights by using the "Caller-ID" or "Sender phone number" to determine user rights. Again, since most countries allow only legal residents to access free-to-air television and/or radio programmes and almost all registered phone owners are legal residents, one is able to check the right of a user to record a particular broadcast.

Finally, it is important to note that in many countries, phone numbers for landlines and cellular phones are in different formats. The present invention's phone-based and SMS-based checkers also allow the system knowledge of whether a number is a cellular phone number or a land-line number for further checking, in scenarios where such is required

Credit Card-based checker

This checker allows users that have access and rights to view specific free-to-air television and radio broadcasts but are travelling out of the country to record the television and/or radio programmes in his home country. In this scenario, IP, SMS and Phone based checkers may not work since the user's current location is not the same as his residence (home country) where he would have the right to view free-to-air television and radio broadcasts. For this purpose, a user can enter his credit card information and his address as associated with his credit card can be used to determine which shows he will have the right to record. The credit card information will be checked, but not charged (or charged a nominal fee) for checking purposes. With knowledge of the user's residence, as defined by the user's legal obligation to maintain up-to-date credit card information,

users can be given the ability to record the free-to-air programmes centrally using the present system.

Pay TV checker

- 5 Further to the above, Pay TV / Pay Radio users are subscribers to Pay TV / Pay Radio providers and usually have signed contracts with these service providers. By integrating the system with the Pay TV / Pay Radio system, the present system can provide selective recording for broadcasts that Pay TV subscribers have subscribed
10 for, thereby providing a value-added service to these subscribers. Pay TV / Pay Radio operators may also use the other forms of verification (checking) to restrict users from “place-shifting” their programmes to locations where the channels are not available.
- 15 The user authentication module (5) may authenticate the user only once either at user registration or during playback of the previously recorded programmes. Alternatively, the user authentication module (5) may authenticate the user each time the user logs onto the system and/or each time the user sends a request to record a
20 programme and/or each time the user plays back the previously recorded programme.

- In addition to the user authentication module (5), the present system also includes an access control module (38) to filter particular groups
25 of people or users and prevent them from recording and/or playing back predetermined recorded programmes. For example, the system may specify that a particular channel may only be accessed by users in a particular country, e.g. Singapore. Another example, the system allows certain channels to be viewed from outside Singapore or a
30 select group of countries or even all countries with the exception of a select group of countries.

The programme selection module (10) provides a listing of all the television and/or radio programmes (40) that are available for recording and generally includes a centralised video/audio recorder
5 for recording the television and/or radio programmes (40).

The system further comprises a programme schedule extraction module (36) that can automatically extract television and/or radio programme schedules from the Internet and the schedule may form
10 the programme selection module (10) at which users may select programmes to record.

The centralised video/audio recorder may include a digital video/audio recorder for recording the television and/or radio
15 programmes (40). The digital video/audio recorder may include a television and/or radio tuner card which decodes television and radio signals and converts the signals to a video or sound file. Specialised TV tuner cards known to the person skilled in the art may be used to pick up and receive (high-definition television) HDTV content or other
20 forms of high definition or high quality video. The digital video/audio recorder records the programmes from the TV/Radio tuner card (or other digital video recording tools) based a user's recording request. The digital video/audio recorder may be any digital video/audio recording device that allows for the recording of television and/or
25 radio programmes (40) directly onto a receiver's internal hard drive. These recorded programmes are stored onto the receiver's server and are streamed and/or made available to the user that requested the recording of the programme.

30 Any digital video recorder of the present invention may include a tuner that is operable to receive digital content from a tunable digital

content source or video signal sources such as free-to-air television signals from an antenna, satellite receiver(s), DVD players, VCRs, a cable connection, live feed(s) from video cameras or other video image capture device(s), computer(s), game consoles, Web TV and
5 other internet interfaces, digital video delay and playback apparatus, and the like.

Recording requests are stored in a database and a recording software periodically checks the database to determine whether a
10 recording request has reached the system. In the event that such a recording request has reached the system, a recording of the programme is carried out. In order to prevent repeated polling and access to the database which slows database performance, the system may record all TV/radio programmes. In the event that all
15 programmes are recorded by the system, access to the recorded programmes is only provided to those users who had requested that that particular programme(s) be recorded.

The system allows a user the ability to record multiple programmes
20 at the same time.

The playback module (15) allows the user to playback the recorded television and/or radio programme (45), allowing the user to view the recorded television and/or radio programme (45) at his own
25 convenience. In providing playback of the recorded programmes (45), the present system includes a streaming module (28) to stream the recorded programmes (45) to the user.

An advertisement module (20) dynamically displays advertisements
30 (24) during the playback of recorded television programmes (45). The module (20) may achieve this by inserting advertisements (24)

- before and/or after the recorded television programme (45). The advertisements (24) may be determined according to tags associated with the recorded television programme (45). A user may pay a subscription fee to avoid viewing such advertisements. An advertisement may be embedded in the recorded programme or be placed next to the recorded programme playback video/audio display on the web page (22), as shown in Figure 9. Text advertisements may also be associated with the videos/music content.
- 10 The advertisement module (20) allows tags (26) to be used to tag the television and/or radio programmes on the web page (22). The following tags (26) may be used:

Meta-Tags

- 15 Meta-tags may be used to tag frequently recorded television broadcasts and this meta-data can be used to identify appropriate text or banner advertisements on the same web page (22) as that on which video/audio content is being displayed.

User-based tagging

- 20 Users will be able to discuss their favourite television and/or radio programmes as well as specific episodes (and songs in the case of radio shows). This user generated content will also be used to provide targeted advertising. For instance, if a specific sitcom revolves around a missing sweater and discussions ensue as related to the sweater, advertisements related to sweaters may be displayed. User-based tagging can also be associated with a specific time in the show, i.e. the 16th minute.

Operator and Administrator-based tagging

The operator and administrator of the system will be able to manually enter tags to enable more accurate tagging of the recorded programmes.

5 Automated tagging

The system interfaces with voice recognition technologies to facilitate indexing of television or radio programmes. Machine vision technologies may also be interfaced with for automated tagging for television programmes.

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Machine vision technologies can identify actions done within a video. For example, machine vision technologies may be able to recognise an actor in a movie. The system can then automatically suggest other movies starring that same actor or advertisements advertising products that related to that actor. In another example, if a programme features a BMW car, that car may be recognised by the machine vision technology and the system may then include an advertisement relating to BMWs.

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20 The advertisement module (20) may provide advertisements (24) according to a user's demographic information (for example, users watching a particular genre of programmes will have advertisements directed towards such users' interests), users' interests or based on the content of the programme (for example, if the words "New York" are detected in the programme, then advertisements on New York will be shown) the user has recorded.

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Also, each video/audio display page may allow the insertion of comments (55) and discussion forums (60). Users will be able to comment on a programme in general or associate their comment with a certain time in the show. Consequently, communities may be

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built around the programmes as well as specific episode-related content. Users may rate and review the television programmes. This information is then used to recommend to a new user which programmes he wishes to record. To this end, the present system
5 includes a recommendation module (32) to allow users to recommend specific recorded programmes (45). In addition, a user is allowed to invite his friends to sign up for the system. These friends are automatically added to his "friend list" and information on the users' "friends" is used to analyse the behaviour of such groups and
10 the advertisements that might best be targeted to groups of individuals. It is also used by the recommendation engine.

Users are recommended what shows to watch based on:

- 15 1. The shows they are "likely to enjoy". For example, if one user records CSI and generally people that record CSI also record "Law and Order", he is recommended "Law and Order"; and/or
2. The shows that their friends have recorded. This is based on
20 the premise that friends like similar shows.

Users are also given insight of which shows to record as follows:

- 25 1. Shows or a series that is recorded the most; and/or
2. Shows or a series that is viewed the most.

The system may recommend the users programmes to record based on the recording history of the user. Further, the system may include
30 a software medium that can recognise a face in a recorded

programme (for example, an actor's face) and then recommend other movies to the user starring that actor.

5 The system may further comprise a preview module (34) that automatically generates a trailer of a specific recorded programme (45).

10 Referring to Figure 2, in operation, users of the system must first create an account and register themselves as a user (65) before access is permitted. Figure 6 shows a screenshot of the user registration web page. The user registration process requires a user to submit his particulars to the user authentication module (5) to authenticate the user and ensure that the user is permitted and legally entitled to access, record and view the television and/or radio
15 programmes.

In other words, the user authentication module (5) will ask whether the user has the right to access, record and view the free-to-air television and/or radio programmes (70). This authentication or
20 check may be made only once when the user registers and creates an account, or each time the user logs onto the system to request a programme be recorded, or each time the user plays back the recorded programme.

25 If a user is at a location at which he is not entitled to receive such television and/or radio programmes or not a resident of a particular location from which he would otherwise be entitled to receive the television and/or radio programmes, then the system will not allow the user to record the programmes (75).

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Assuming the system has successfully authenticated and checked that the user has the right to access, record and view the television and/or radio programmes, the system will allow the user to record the programmes (80).

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As shown in Figure 3, the user logs (85) onto the web page (22) that includes the programme selection module (10) which, in turn, allows the user to select (90) from a list of television and/or radio programmes the programme he wishes to record. He then 'clicks' on a hyperlink on the web page (22) to indicate the programme that he wishes to record and this serves as a command to the centralised video/audio recorder to record that particular free-to-air programme at the scheduled time.

15 Once the programme has been aired and recording is completed, the user can playback the television programme and view it on the web page (22) at his convenience (95).

The user is able to record a plurality of television programmes broadcast in a plurality of television channels. The user may indicate to the system to record a series of a programme, all programmes of a particular genre and/or all programmes aired at a particular specified time and channel(s). In addition to accessing the web page (22), a user may also request that a television programme be recorded via a short messaging service (SMS). After the user has requested to record a television programme and the television programme has aired, and hence the television programme recorded, the user subsequently returns to the web page (22), clicks on the same hyperlink to playback and watch the recorded programme.

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As shown in Figure 4, the television broadcast signals reach the digital video/audio recorder (100). When a user successfully requests for the free-to-air programme to be recorded, a copy of the programme will automatically be recorded or created on the digital recorder at the scheduled time (105). Only one copy of that programme will be recorded or created in digital format, even if more than one user has requested for that same programme to be recorded. However, the digital video/audio recorder may record or create multiple copies of the programme if more than one user has requested the recording of a particular programme.

The user can only make a recording of the programme prior to the programme's broadcast. If no user has made a recording of a particular programme, then no copy of that programme will be made (110). However, in another embodiment of the present invention, the system may make a copy of all the programmes but only stream a recorded programme to a user if that user requested a recording of that programme. These recorded television programmes need not be edited or amended in any way by the system after it has been recorded or created. However, the system may add advertisements before and/or after the programme. The system may also add advertisements in the programme itself. These advertisements may not be added to the programme itself, but the system may require the user to view them before viewing or listening to the recorded programme. However, the advertisements embedded in the recorded programme (and are aired by the content provider together with the aired programme) may be temporarily removed so that a preview trailer of the recorded programme may be automatically generated by the preview module (34). The system then summarises the rest of the programme as a trailer. This is carried out by identifying automatically in the recorded programme loud voices, action

sequences, gun shots, laughter etc. This allows the trailer to be generated without including any advertisements in the recorded programme. A software medium may be written to enable the preview module (34) to identify portions of the recorded programme
5 having loud sounds (for example, greater sound frequency/amplitude than the average level), quick scene changes (for example, greater image data than the average level) and the like. This software medium can then automatically piece together these portions of the recorded programme to generate the preview trailer.

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The programme schedule extraction module (36) of the present system may extract the television and radio programme listing schedule from the Internet. The programme listing schedule is extracted periodically and includes the start and stop times of all the
15 programmes. The programme titles may also be translated to a language of the user. The translation must be completed before a programme is aired and/or recorded.

The system stores the programme information, channel information
20 and start and stop times of all the programmes. Recordings may not necessarily start at the start and stop times. For example, recording may start a few minutes (exact number of minutes is variable and configurable) before a programme is aired and ends after the show is aired. This may result in a 34 minutes of recording for a 30 minute
25 show if a pre- and post- recording buffer of 4 minutes is used. Hence, when a user "clicks" on a programme to be recorded, the specific TV/radio Tuner (for the specific channel) is notified to start recording at the specific time. In one embodiment of the present system, one TV/radio Tuner card allows for the recording of any TV/radio
30 programme on one channel. In such a scenario, if consecutive back-to-back programmes are to be recorded, the pre- and post- recording

buffer may be achieved by having two TV/radio Tuner cards or two recorders for recording programmes on a single channel so that each programme is recorded using alternate TV/radio tuners or recorders. Alternatively, a single recorder may be used for one channel and the recorder may “stitch” together the overlap recordings (for example, 2 minutes before and after one programme) as the pre- and post-recording buffer.

These programmes are recorded and stored on a database and streamed to the user. The user may only view or listen to the recorded programme after the programme has been aired. In the case where the programme is aired in multiple time zones, the user may only view or listen to the recorded programme after the programme has been aired in all time zones.

Figure 5 shows the sequence of events in the case where a user sends a request to record a programme and the programme may or may not have started. When a user ‘clicks’ on the hyperlink and sends a request to record a programme (115), the system will check on whether the programme has started (120). If not, then the system will accept the request to record (125) the full television and/or radio programme. If the programme has already started, then the system will inform the user that the show cannot be recorded (130). However, if the show has started to air but not ended, one embodiment allows the system to accept the user’s request to record the part of the programme that had not elapsed prior to his recording request.

Subsequently, to play back the selected recording, the user who requested the recording will ‘click’ on a relevant hyperlink on the web page (22). This serves as a command to the centralised video/audio

recorder that the recorded programme may be transmitted and streamed (as streaming video (TV) or streaming audio (radio)) to the user's location for playback. Such a transmission takes place as a point-to-point transmission, from the centralised video/audio recorder to the user. The user can playback the recorded programme, i.e. have the recorded programme streamed to the user, after the programme has been completely recorded. Alternatively, the recorded programme may be streamed to the user before the programme is fully or completely recorded so long as the recorded portion of the programmed streamed to the user has been aired.

The streaming module (28) streams the content to the user. There is also the ability to directly download the video. There are two ways to enable this download, corresponding to two embodiments – one with and one without Digital Rights Management (DRM). i.e. the files you download may or may not be shareable from a “technical perspective”. The system also has the ability for the users to download the television programmes. However, Digital Rights Management (DRM) will be enabled for downloads so it will not be possible to share downloads on other file-sharing networks. The option to download provides the user with the ability to prevent the user from seeing “choppy video” or listening to “breaking audio” that might happen while streaming it live over the network (mobile/internet). Downloading would allow the user to watch the entire video or listen to the entire radio show as a local copy of his computer. Content owners' rights are protected since the files cannot be shared. Additionally, the technology may be coupled with other DRM technologies that allow the use of the files for a limited period of time after which they cannot be played back.

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Users of the system can view or listen to the recorded programmes whenever they wish to, and may view the recorded programme in any way, such as pause, reverse, fast forward, skip ahead, instant replay or in slow motion.

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However, each individual user is provided with his own personal account and must record the programmes individually. This means that if a user forgets to record a programme, (i.e. does not use the web interface to record the programme prior to it being aired) he is
10 unable to record it after it has been aired. Thus, while there may be a copy of a programme on the centralised video/audio recorder because another user recorded the programme, the user who did not record the programme will be denied access to the recording of the programme by the system since he did not record the show himself.
15 Alternatively, multiple copies or separate copies of a programme may be made for each user's request. The present system does not allow the sharing of recorded programmes between users.

The system also allows a user to choose whether to record the
20 programme as a low quality video/audio or a high quality video/audio. The streaming module checks the speed of the user's internet connection (or data connection) and stream the recorded programme in high or low quality based on the bandwidth requirements of the user.

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Users of the system may be charged according to any one of the following:

1. The amount of time a recorded programme is saved on the
30 server of the system.
2. The location where a user can access the system.

3. The number of programmes a user records.
4. The number of popular programmes (most requested programmes) a user records.
5. The quality of the playback.
- 5 6. The size of the video/audio playback files.
7. Whether the user chooses to download the recorded programme.

10 It will be appreciated by persons skilled in the art that numerous variations and/or modifications may be made to the invention as shown in the specific embodiments without departing from the scope or spirit of the invention as broadly described. The present embodiments are, therefore, to be considered in all respects illustrative and not restrictive.

WE CLAIM:

1. A system for recording radio and/or television programmes via the Internet, the system comprising:
 - 5 a user authentication module to authenticate a user and ensure that the user is permitted to record the programmes;
 - a programme selection module to allow the user to select at least one programme to record; and
 - a playback module to allow the user to playback previously
10 recorded programmes;
 - wherein the user authentication module authenticates and ensures the user is legally entitled to access, record and view the programmes based on the user's location or whether the user has a paid subscription to the radio and/or television service.
- 15 2. The system according to claim 1, wherein the user authentication module authenticates the user only once either at user registration or during playback previously recorded programmes.
- 20 3. The system according to claim 1, wherein the programme selection module and the playback module have a graphical user interface via first and second web page, respectively.
4. The system according to claim 1, wherein the residence of the
25 user is determined according to checking any one from the group consisting of: IP address, telephone, SMS, and credit card.
5. The system according to claim 1, further comprising an advertisement module to dynamically display advertisements during
30 the playback of recorded programmes.

6. The system according to claim 5, wherein the advertisement module also inserts advertisements before and/or after the recorded programme.
- 5 7. The system according to claim 5 or 6, wherein the advertisements are determined according to tags associated with the recorded programme.
8. The system according to claim 1, further comprising a user
10 forum for user to add comments about a particular programme.
9. The system according to claim 1, wherein users pay a subscription fee to avoid the advertisements.
- 15 10. The system according to claim 1, further comprising an access control module to filter particular groups of people and prevent them from playing back predetermined recorded programmes.
11. The system according to claim 1, further comprising a
20 recommendation module to allow users to recommend specific recorded programmes.
12. The system according to claim 1, further comprising a preview module to automatically generate a trailer of a specific recorded
25 programme.
13. The system according to claim 1, further comprising a programme schedule extraction module to automatically extract radio and/or television programme schedules from the Internet.

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14. The system according to claim 1, wherein the system is able to record multiple programmes at the same time.

15. A method for recording radio and/or television programmes via the Internet, the method comprising:

5 authenticating a user and ensure that the user is permitted to record programmes;

selecting at least one programme to record via a first web page; and

10 playing back previously recorded programmes via a second web page;

wherein the user is authenticated according to whether the user is legally entitled to access, record and view the programmes based on the user's location or whether they have a paid subscription to a subscription based radio and/or television service.

16. The method according to claim 15, further comprising dynamically displaying advertisements during the playback of recorded programmes.

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17. The method according to claim 15, further comprising inserting advertisements before and/or after the recorded programme.

18. The method according to claim 16 or 17, further comprising tagging the recorded programme with tags to determine which advertisements to be displayed or inserted.

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