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## UNIT 11 WEBCASTING

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### 11.1 INTRODUCTION

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*Webcasting is the real-time transmission to the public in a digital format of audio and audiovisual works. Webcasting over the Internet is similar to broadcasting but uses special technology to reduce the size of the digital files being sent. Webcasts are widely available to anyone with a computer connected to the Internet. Webcasting opens new opportunities for authors and performers to expose and market their works to new audiences, and for the public to enrich their understanding and appreciation of cultures from around the world.*

The world of broadcasting, as we have known it, is about to change with the leading broadcasting organizations ready to jump on the Internet bandwagon. Webcasting has a promise of presenting content which fits the slogan of 'anything, anytime, anywhere'. In view of the growing importance and widening reach of webcasting and increasing incidents of piracy involving webcasting, it has become extremely important for national laws and international conventions to address this phenomenon which till now has been ignored. In this light this unit examines the issues of:

- How the world of broadcasting is undergoing changes with the emergence of the digital and information technologies?
- Should Internet broadcasting/webcasting be accorded legal protection and if yes, how?

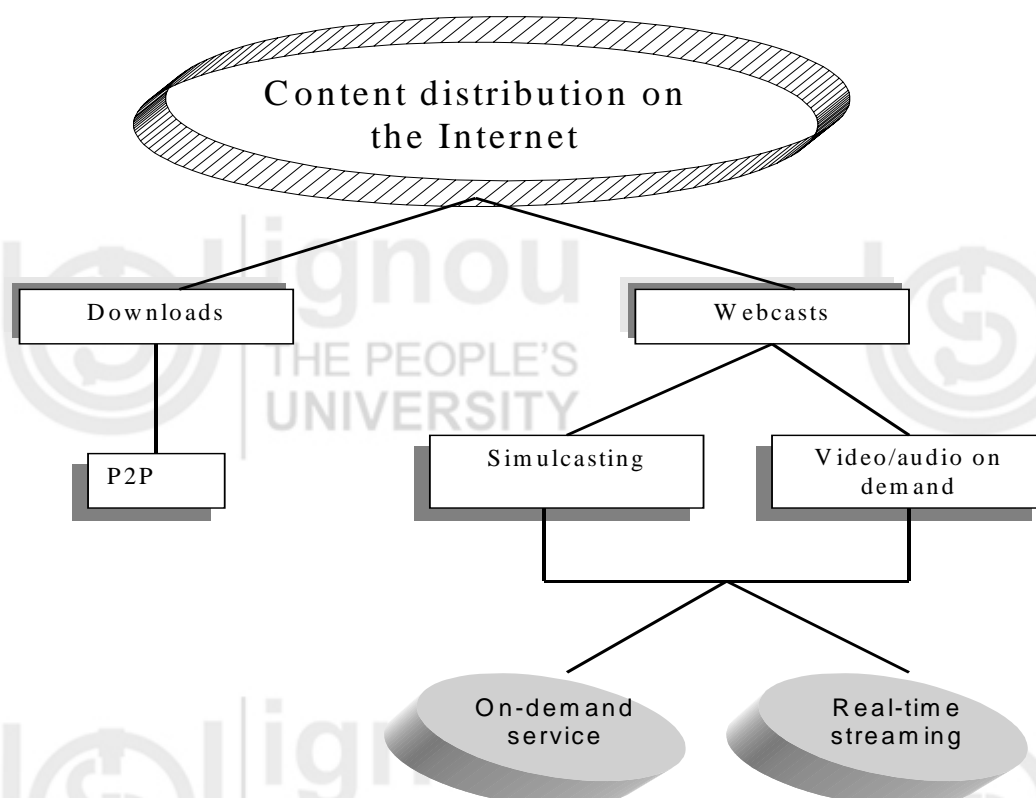
## 11.2 OBJECTIVES

After reading this unit, you should be able to:

- explain the concept of web casting;
- explain the context of distribution on the internet, the emergence of web casting;
- distinguish between broadcasting and web casting;
- describe the legal protection of web casts under the International framework, and Indian framework both; and
- analyse and suggest the merits and demerits of the Indian protection.

## 11.3 UNDERSTANDING WEBCASTING

### 11.3.1 Content Distribution on the Internet



From a technical perspective, there are two principal methods for users to access sound and images (or a combination of both) over the Internet. The first are downloads, whereby a file on a server is accessed by a remote user, transmitted over the Internet in the form of “packets” to the user’s machine and saved there locally (in most cases on the hard drive).<sup>1</sup>

The second is streaming, which has been defined as an “Internet data transfer technique that allows users to see and hear audio and video files without lengthy download times. The host or source ‘streams’ small packets of information over the Internet to the user, who can access the content as it is received. The stream may be a real time (live) transmission or it may be an archived file”. The common underlying feature of

all different types of streaming, which distinguishes this method of transmission from downloads, is that, in the case of streaming, files are not saved locally on the user's machine.

### 11.3.2 Emergence of Webcasting

Webcasting is the real-time transmission to the public in a digital format of audio and audiovisual works. The practice of webcasting is also described as netcasting or Internet broadcasting or streaming. Webcasting is seen as a new model of content delivery on the Internet providing automated and, possibly, personalised delivery of services. In case of webcasting of audio, video and animation the user receives the content when it is transmitted, but without retaining a copy of it. Webcasting services function on the basis of "pull technology", which means that the content is delivered to the user upon request.

Webcasting could further be divided into (i) on-demand service (ii) real-time streaming. On-demand service refers to that webcasting which can be activated by an individual used at his place and at a time individually chosen by him. Whereas in case of real-time streaming content is streamed at a time chosen by the webcaster; any one who is interested in listening/viewing may log on to the server of the webcaster at that time. The difference between the two lies in that in case of on-demand service users have the choice to log on any time which in real-time streaming users have to log on at a time chosen by the webcaster and content can be perceived only at the time when it is transmitted. The content originates from one or more servers that make it accessible via the Internet. Each recipient requests the program from the initial server and is issued a separate stream from the source to his or her address.

Webcasting is a "point-to-point" technical process. Even though the same program is transmitted to multiple recipients, it is transmitted via a point-to-point bi-directional communication, instigated by the user. In other words, there is an individual virtual connection per user, over which parallel point to point streaming to each of the individual subscribers take place. In other words, there is an individual connection between each user and the source of the streamed content (a host) and such point to point streaming to multiple individual users takes place in parallel.

Works broadcast over the Internet may appear in conjunction with on-screen text and graphics. The audio or audiovisual broadcast data comprise streams that generally are separable from the data that appear as text and graphics on-screen; when viewed together, the user is provided with a rich multimedia experience heretofore unavailable through traditional broadcast media. These text and graphics may provide additional information concerning the broadcast material, and may incorporate hypertext links from which the listener or viewer can access additional information concerning the events or works being broadcast, or can be linked to e-commerce Web sites where the listener or viewer can learn about and purchase of goods and services related to the broadcast.

A number of Internet broadcasters retransmit the signals of radio stations. Radio stations also retransmit their own signals via webcasting. This retransmission is referred to as simulcasting which means the process of disseminating the same broadcast over two different transmission systems, for example, when the sound of a TV program is also played over a radio station. The term is also used for the simultaneous broadcasting and streaming over the Internet of a broadcast. Broadcasting

organizations often simulcast their broadcast program services via both analog and digital systems.

Webcasting opens new opportunities for authors and performers to expose and market their works to new audiences, and for the public to enrich their understanding and appreciation of cultures from around the world. Rather than creating a homogenisation of experience, webcasting emphasizes the importance of local culture. An Internet channel from India, Nigeria, USA or Australia, for example, will attract listeners/viewers from around the world primarily because it provides a window to local information, news, customs and arts. Thus, webcasting is a source for information, culture and commerce of all nations and cultures in a way that transcends the normal physical limitations of terrestrial communications, or the channel bandwidth restrictions of satellite broadcasting. Importantly, webcasting unleashes new opportunities for artists and performers to market their works on a global basis.

The world of broadcasting, as we have known it, is about to change with the leading broadcasting organizations ready to jump on the Internet bandwagon. Webcasting has a promise of presenting content which fits the slogan of '*anything, anytime, anywhere*'. In view of the growing importance and widening reach of webcasting it has become extremely important for national laws and international conventions to address this phenomenon which till now has been ignored.

Please answer the following Self Assessment Question.

<b>Self Assessment Question 1</b>	<i>Spend 3 Min.</i>
What is webcasting?	
<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	

### 11.3.3 Difference between Broadcasting and Webcasting

In the case of broadcasting, users can simply access the broadcast by switching on the receiver as the signal transmitted by the broadcasting station is direct and present, whereas, in webcasting, users must access a server and incite its facilities to transmit back the information.

Unless specific technological restrictions are applied, webcasts can be accessed from any point that has Internet access. Since Internet is available globally, webcasts can be accessed from almost any point on the planet earth. This is the major difference in term of geographical coverage from broadcasts, be it via satellite, cable or over the air which have an inherent limitation in their reach.

On the Internet, there are no restrictions on the number of programs offered. Capacity can be obtained at relatively short notice and allows for a flexible adaptation to the level of demand. Consequently, the initiators of streams face no significant initial barrier to entering the market. Webcasting activities can be initiated with modest

investments, albeit with a limited capacity of simultaneous listeners or viewers. Streaming services can be adapted to the consumers' preferences, for example, distributing niche programs for groups of consumers or basing the contents, arrangement and presentation of the service on intelligence gathered during earlier visits by the consumers.

One of the main characteristics of webcasting is that the transmission is always interactive at the machine level. The transmitting server is in active contact with the receiving machine, verifying the success of the transmission, exchanging status reports. This is not the case with broadcasting, where the main transmission is only one way.

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## 11.4 BROADCASTING PIRACY ON THE INTERNET

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As a result of the huge investments and costs involved in broadcasting and the enormous marketing revenues generated because of the massive appeal of television programs, not to mention the rise of new recording and transmission technology, broadcasting piracy has become a main problem.

The pirate could steal the signal and bundle it with its own advertising and transmit the same to the public via the Internet; thus competing with the original broadcaster. In the digital environment, piracy is a severe threat since a digital signal, once received, can be perfectly cloned and reproduced. Pirates are increasingly able to obtain perfect digital copies of broadcast programs from which multiple copies and Internet downloadable/streamable copies can be made and redistributed. Transmission of original broadcast over the Internet i.e. webcasting is also vulnerable to piracy because of the ease with which contents can be accessed and copied. Large segments of the public have access to broadcasting services, and at the same time copying devices have become cheap and commonplace.

Broadcasting and webcasting organizations make use of encryption systems so that only the viewers they authorize could access the programming content. But piracy could affect the market for encrypted transmissions too.

The notion of "program-carrying signal" relates to the issue of "signal theft". The pre-broadcast program-carrying signal can be described as the electronic signal carrying program material which is sent via a telecommunications link to a broadcasting organization for use in its broadcasts. Such signals are intended not for reception by the public, but for use by broadcasting organizations in their broadcasts. Therefore, they are not broadcasting, but a point to point transmission by telecommunications links from the site of an event (sports, news or cultural) to one or more national and/or foreign broadcasting organizations for the purpose of enabling the latter's broadcasting of the event. A broadcasting network (or program syndicator) also sends such signals, for example, to its affiliated broadcast stations. Pirates can intercept the signals, with their content, either at the stage of the pre broadcast transmission, for example, off a satellite, or at the stage of the actual broadcast. Since pre-broadcast signals are often digital, pirates are able to obtain perfect digital clones of the program-carrying signals and content from which multiple streams, copies, downloads or rebroadcasting can be made.

The practice of retransmission of terrestrial radio stations' over-the-air broadcasts via the Internet has also raised copyright concerns. In *National Football League et al v. iCraveTV.com* [53 U.S.P.Q.2D (BNA) 1831], a case brought by United

States and Canadian motion picture and broadcasting companies, the Court issued a permanent injunction to prevent iCraveTV.com, a Canadian website, from converting copyrighted television material from 17 North American television stations into digital Web broadcasts and streaming them over the Internet. The unauthorized re-transmission was found to be an infringement of the plaintiffs' exclusive right to perform and display their works in the United States.

Webcasting will be widespread and one can be sure that piracy will be equally pervasive. In the light of huge promises that webcasting offers, it is essential that clear rules as to the practice of webcasting are adopted in both national and international environment.

Please answer the following Self Assessment Question.

### Self Assessment Question 2

*Spend 2 Min.*

Broadcasting and webcasting organization make use of ..... system so that only the viewers they authorize could access the programming content?

## 11.5 LEGAL PROTECTION OF WEBCASTS

Broadcasting organizations have in the past been granted protection for the result of their investment, their entrepreneurial efforts and their contribution to the diffusion of culture and their public information service. The same interests that initially impelled protection of copyright and neighbouring rights for broadcasting now compel adoption of equivalent protections for webcasting. Even for works consisting of retransmissions of terrestrial radio or television broadcasts, it would be illogical and irrational not to offer protection, as piracy over the Internet is more widespread and commonplace.

But what should be the mechanism of protection? Should webcasts and webcasters be protected independent of broadcasting? Or should webcasting be assimilated to broadcasting in terms of protection? Different views have been expressed as to whether such new services should be assimilated to traditional broadcasting. Protection to webcasts is being considered around the world at national and international level. In view of convergence of various technologies and services, and considering the threat of piracy both by webcasts and of webcasts it is only appropriate to assimilate new activities of webcasting to traditional broadcasting.

### 11.5.1 International Framework for Protection of Webcasting/Broadcasting

Until 1961, broadcasting rights were essentially granted at the national level, and not all countries provided for such protection. At the international level, the main rights granted to broadcasting organizations were laid down in the International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations (the Rome Convention), which was adopted on October 26, 1961. The Rome Convention of 1961 reflects the technological development of the time when it was negotiated. It defines broadcasting as:

“broadcasting” means the transmission by *wireless* means for *public reception* of sounds, or of images and sounds.

This definition confines broadcasting to cover the air transmissions, excluding coverage for cable transmissions. Protection for cable transmissions has, however, in a number of countries been granted at the national level. Articles 13 of the Rome Convention lay down the minimum rights for broadcasting organizations and ensures the exclusive right to authorize or prohibit a number of activities in the realm of broadcasting as follows:

Broadcasting organizations shall enjoy the right to authorize or prohibit:

- (a) the rebroadcasting of their broadcasts;
- (b) the fixation of their broadcasts;
- (c) the reproduction:
  - (i) of fixations, made without their consent, of their broadcasts;
  - (ii) of fixations, made in accordance with the provisions of Article 15, of their broadcasts, if the reproduction is made for purposes different from those referred to in those provisions;
- (d) the communication to the public of their television broadcasts if such communication is made in places accessible to the public against payment of an entrance fee; it shall be a matter for the domestic law of the State where protection of this right is claimed to determine the conditions under which it may be exercised.

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) does not contain any definitions relating to broadcasting, but it vests in broadcasting organizations rights to prohibit certain acts relating to their broadcasts. These acts are: the fixation; the reproduction of fixations; and the rebroadcasting by wireless means of broadcasts; as well as the communication to the public of television broadcasts of the same. Where Members do not grant such rights to broadcasting organizations, they shall provide owners of copyright in the subject matter of broadcasts with the possibility of preventing the above acts, subject to the provisions of the Berne Convention.

Under international copyright and related rights treaties the word “broadcasting” generally has been understood as transmission *via* Hertzian waves. A certain number of national copyright laws give providers of cable-originated programs, who do not merely distribute broadcasts simultaneously and unchanged, rights similar to those granted to broadcasting organizations, insofar as they are considered organizations which are analogous to broadcasting organizations, that is, offering program services for reception by the public at large.

### **11.5.2 Indian Legal Framework for Protection of Broadcasting/Webcasting**

India is a member of the TRIPS Agreement, but not of the Rome Convention; though the Copyright Act, 1957 fully covers the minimum standards of the Rome Convention and even goes further to it in providing protection to cable originated broadcasting. The definition of broadcasting is provided in section 2(dd) of the Copyright Act, 1957 which reads:

‘Broadcast’ means *communication to the public*—

- i. by any means of *wireless diffusion*, whether in any one or more of the forms of *signs, sounds or visual images*; or
- ii. by *wire*; and includes a re-broadcast.

Further, communication to the public is defined as:

‘Communication to the public’ means making any work available for being seen or heard or otherwise enjoyed by the *public* directly or by any means of display or diffusion other than by issuing copies of such work regardless of whether any member of the public actually sees, hears or otherwise enjoys the work so made available.

Section 37 of the Copyright Act, 1957 which protects broadcasts reads:

Broadcast reproduction right.—

1. Every *broadcasting organization* shall have a special right known as “*broadcast reproduction right*” in respect of its broadcasts.
2. The broadcast reproduction right shall subsist until *twenty-five years* from the beginning of the calendar year next following the year in which the broadcast is made.
3. During the continuance of a broadcast reproduction right in relation to any broadcast, any person who, without the licence of the owner of the right does any of the following acts of the broadcast or any substantial part thereof,—
  - a. *re-broadcasts* the broadcast; or
  - b. causes the broadcast to be heard or seen *by the public* on payment of any charges; or
  - c. makes any sound recording or visual recording of the broadcast; or
  - d. makes any reproduction of such sound recording or visual recording where such initial recording was done without licence or, where it was licensed, for any purpose not envisaged by such licence; or
  - e. sells or hires to the public, or offers for such sale or hire, any such sound recording or visual recording referred to in clause (c) or clause (d), shall, subject to the provisions of section 39, be deemed to have infringed the broadcast reproduction right.

The minimum rights granted to broadcasting organizations under the Copyright Act and the Rome Convention are the rights to authorize or prohibit: (a) the re-broadcasting of their broadcasts; (b) the fixation of their broadcasts; (c) the reproduction of fixations of their broadcasts; and (d) the communication to the public of television broadcasts if such communication is made in places accessible to the public against payment of an entrance fee.

The object of the protection under article 13 of Rome Convention, 1961 and section 37 of the Copyright Act, 1957 is not defined but from the definition of “broadcasting” in section 2(dd), it appears that it is the signals constituting the wireless transmission of images and/or sounds. Accordingly, the object of the protection is the signals themselves and not the content of what they transmit. The content part is



independently protected as such. So, protection is granted to broadcasting organizations for their signals independently of the copyright and related rights protection of the content.

To protect webcasting, the definition of “broadcasting” in the Copyright Act should be updated in two ways. First, the definition should encompass ancillary data that may be included in the transmission. As noted above, Internet transmitting organizations may send related and ancillary text, graphics and images along with the audio or audiovisual works. Such data may include, for example, information concerning the works being performed; information concerning the performers; links to the Web sites of online retail establishments from which the listener or viewer can purchase the particular phonogram or audiovisual work being broadcast, or tickets to concert performances, etc. As a whole, this capacity results in rich and creative forms of broadcasting content which merit full protection.

Article 14 of the Rome Convention states that the term of protection shall last at least until the end of a period of twenty years computed from the end of the year in which the broadcast took place. Section 37 of the Copyright Act, 1957, on the other hand, states the term to be twenty five years. So, the term of protection for webcasts should be coextensive with the term of protection for other broadcasts.

The legal framework applicable to broadcasting was normally specific and well defined. In most countries the broadcasting sector was, and it remains today, extensively regulated. The rules to which broadcasting organizations are subject range from the licence required for the activity as such, procedures for the allocation of frequencies, rules relating to the public mandate, regulation of the content itself like language quotas, local cultural content, or rules for the protection of young people. Because of technology the same activities can now be undertaken and transmitted over the Internet without any rules or regulations. It is just a matter of time when national governments would realise the importance of regulating webcasting otherwise the entire regulations for the broadcasting sector will be rendered redundant.

Please answer the following Self Assessment Question.

<b>Self Assessment Question 3</b>	<i>Spend 3 Min.</i>
What are the rights granted to broadcasting organization?	
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Let us now summarize the points covered in this unit.

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## 11.6 SUMMARY

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- Webcasting, also known as ‘streaming’, is the process of digitally transmitting musical recordings, and radio and television broadcasts over the Internet.

- Broadcasting organizations have in the past been granted protection for the result of their investment, their entrepreneurial efforts and their contribution to the diffusion of culture and their public information service.
- The same interests that initially impelled protection of copyright and neighbouring rights for broadcasting now compel adoption of equivalent protections for webcasting.
- Webcasters create and transmit valuable content reflecting creativity and authorship, as do traditional broadcast media.
- Webcasts and webcasters do need legal protection for their activities.
- In view of convergence of various technologies and services it is only appropriate to assimilate new activities of webcasting to traditional broadcasting.

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## 11.7 TERMINAL QUESTIONS

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1. How piracy of digital broadcasts could take place?
2. Describe the legal regime for the copyright protection of traditional broadcasting?
3. Compare the Indian legal framework with the International legal framework.

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## 11.8 ANSWERS AND HINTS

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### Self Assessment Questions

1. Web casting is the real-time transmission to the public in digital format of audio and audio visual works.
2. Encryption.
3. a) The re-broadcasting of their broadcasts.  
b) The fixation of their broadcasts.  
c) The reproduction of fixation of their broadcasts, and  
d) The communication to the public of television broadcasts if such communication is made in places accessible to the public against payment of an endurance fee.

### Terminal Questions

1. Refer to section 11.4 of the unit.
2. Refer to section 11.5 of the unit.
3. Refer to sub section 11.5.1 & 11.5.2 of the unit.