

How users access local e-Content in India?

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Ways of accessing local e-content determine the reach and spread of local content by the users. It also reflects the opportunities to improve people's awareness of their own culture, strengthening their identity and valuation of themselves; improve livelihood and capacity building of communities in a non-discriminating way.

Ways of accessing local e-content in India are more than one. Browsing has emerged as one strong way to access content. This can be linked to the growth rate of Internet penetration in India which is staggering. The country's Internet population has grown by 700% since 2000, yet there is a lot of room for expansion.

Downloading of content is being done by users who are mostly offline or located in areas which do not have the Internet options. This downloaded content is being accessed through either CDs/DVDs or using pen drives.

Streaming as a way to access local e-content exists

Streaming access is due to the fact that most content delivery systems are inherently

streaming (e.g. radio, television) in India. As it is an established fact - the access of content is mostly happening in India through either radio or television and such other streaming ways. Equally non-streaming (e.g. books, video cassettes, audio CDs) ways to access local e-content also exist in the country for those areas where browsing or downloading of content is not feasible.

However, there are two major trends emerging in India:

>> *Convergence of media and digital technologies vis-à-vis broadband:* This implies feeding local language content in audio-visual medium for the mass

accessibility; and this is happening in two manners - through internet technology enabled browser-based services where the user has choice of time and content to access and get delivered as and when desired; and secondly through the satellite-cable-TV based content services where interactivity and user-control based broadcasting is taking place. Obviously the interactive and content back-up based TV service through hundreds of channels is the choice of millions - perhaps more than 130 million. The popularity of TV-based content broadcast and content access is spreading like wildfire because it serves the desire and need of the masses of being audio-visual (oral medium) and in local language.

>> *Mobile as Media & Message:* The other huge trend is mobile penetration with more than 400 million subscriber base, bound to

overwhelm every other media and technology phenomenon as far as mass penetration and adoption is concerned. As mobile phone is an oral medium there is no requirement for capacity building. It is multi-lingual, cheap (handset/gadgets), audio visual, relevant to people beyond literacy and education, interactive, informational and content rich. It is user-content enabled, user-controlled based, entertaining and multi-user enabled. It builds peer pressure, enables connectivity and is a fashion statement as well. It has a universal access and an instant reach.

The following table shall give an overview of local e-content delivery in India as per medium and platform and technology used as well as tariffs applicable:

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Platform	Medium	Technology	Tariff (If any)	Summary
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RADIO

AM	Oral	AM broadcasting is radio broadcasting using Amplitude Modulation; AM radio technology is simpler than either FM radio or DAB.	Free to Tune	Radio has a tremendous impact on Indian society in terms of content and information delivery to millions of masses. AM, FM, Satellite radio, ham radio ¹ are all in use in India. Radio services are offering information and entertainment content.
FM	Oral	FM broadcasting is a broadcast technology that uses frequency modulation (FM) to provide high-fidelity sound over broadcast radio.	Free to Tune	With the 1999 decision of Government of India to allow private players to enter the FM radio-broadcasting sector, the content delivery, especially entertainment in selected cities and towns have increased. However, these private broadcasters are permitted to offer only music, education and entertainment-based programs, not news or current affairs programs.
Satellite Radio	Oral	A satellite radio is a digital radio signal that is broadcasted by a communications satellite, which covers a much wider geographical range than terrestrial radio signals. Worldspace is an example in India which offer 40 Channel Satellite Radio	There is a fixed cost like Rs. 1,500 to Rs. 2,500 for the Receiver and Rs. 150 per month subscription fees for tuning in any of the 40 Channels.	Overall Radio broadcasting stations provided scheduled programs of lectures, news bulletins and other recreational and informative material. These programs generally consisted of commentaries on current affairs; review of Indian press coverage; news bulletins; talk shows on socio-economic, cultural, historical and political subjects; and classical, folk and popular music from all corners of the country. The low advertisement costs and extensive reach of radio help advertisers quickly reach and appeal to their target customers. Reportedly, there are more than 150 million radio sets in India - three times more than the number of TV sets in the country. Thus, radio broadcasters' claim that radio had vast potential just waiting to be exploited. The latest development is Community radio allowed to provide radio content service that caters to the interests a local audience. The use of Amateur radio, often called ham radio, is used for public service, recreation and self-training though this medium and its reach is limited. Narrow casting is also restricted in its outreach.
Community Radio	Oral	The technology used is either Radio-in-a-Box as a low cost broadcasting option, wherein all components of broadcasting, from the mixing console and workstation to the transmitter are encapsulated in a box design, reducing costs to a huge margin and enabling wider implementation of the Community Radio concept. The alternate is out of box framework with components dispersed.	Community Runs the Radio and anybody can listen to them without any subscription cost.	
Ham Radio	Oral	The technology used is personal wireless communications with friends, family members, and even complete strangers.	This amateur indicates that the associated radio broadcast spectrum cannot be used for commercial or money-making purposes. Not Applicable	
Narrow Casting: <i>Narrowcasting is traditionally understood as the dissemination of information (usually by radio or television) to a narrow audience, not to the general public.</i>	Oral	Some forms of narrowcasting involve directional signals or use of encryption. this term often refers to the display of content on a digital signage network. Narrowcasting is based on the idea that mass audiences do not exist. Narrowcasting is a form of broadcasting, if the latter term is understood as the "wide dissemination of content through mechanical or electronic media.		

¹ Amateur radio, often called ham radio, is both a hobby and a service in which participants, called "hams," use various types of radio communications equipment to communicate

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TELEVISION

Satellite TV	Oral	Satellite Technology	Monthly tariff being charged from subscribers to the tune of 10-20 US dollars	After radio, TV is the most outreach medium in terms of content delivery. The popularity of TV delivered content can be gauged from the fact that the country's lesser-known television business is more than twice as big, with an estimated \$3.4 billion in revenue in 2005. This implies, one of the most important content business opportunities for India is still TV Networks and Programming.
Cable TV	Oral	Cable wire	Monthly tariff being charged from subscribers to the tune of US\$ 10-15 apart from charge to purchase set top boxes	
Pay Channels	Oral			
Platform	Medium	Technology	Tariff (If any)	Summary

INTERNET / WEB

Internet Services at cyber centres	Non oral	Web based wireless technology	Access to sites @ Rupees 10-15 per hour	The growth rate of the Web site hosting market in India reflects the content delivery at an increasing rate through Internet /web. Another instance is there are 2.4 million people accessing the internet for e-commerce.
Websites Sources	Non oral	Wireless, broadband	Free for all sites as well as paid websites through online payment	Reportedly, India is one of the top six Internet using nations in the world and the high double digit annual growth ensure an increasing number of new users coming on board every year. People are now willing to trust the internet site and do not hesitate to use their credit cards to place an order.
Widgets	Non oral		Free accessible mostly	
e-Newspaper	Non oral			
Platform	Medium	Technology	Tariff (If any)	Summary

E - INFO / MESSAGE

Email	Non oral	Broadband & wireless	Tariff payable at service centres depending on hours spent. Also tariffs monthly paid for Internet connections to the tune of Rupees 1000 at the minimum	To break down the Internet phenomena in terms of content delivery, email, e-newsletter, PDF, chats and messages are common routes of content delivery. while this delivery is not as wide-spread to reach remote corners, yet the spread is visible with broad band and wireless connectivity being extended in far flung areas under various state wide area networks. Content delivery could be both free and chargeable. The charges are to the tune of less than half a dollar per hour.
e-Newsletter	Non oral		Mostly for free	
PDF	Non oral		Free as well as chargeable	

e-Discussion	Non oral		Mostly for free	
Blog	Non oral		Mostly for free	
Widget	Non oral			
Postings	Non oral		Mostly for free	
Chat	Non oral		Free as well as chargeable	
Message	Non oral		Free as well as chargeable	
Skype	Non oral			
MSN	Non oral			
Platform	Medium	Technology	Tariff (If any)	Summary

E - OFFLINE

PCs	Non oral		Free as well as chargeable on rent	Along with this Internet framework, content is being delivered through ICT tools like PC enabled CD, DVD, archives, digital library, and floppy disc. These sources are mostly paid and chargeable content.
CDs / DVDs	Non oral		Free as well as chargeable with tariffs	
iPods	Non oral			
PDAs	Non oral			
Archives	Non oral		Free as well tariffs applied	
Digital Libraries			Free as well tariffs applied	
Digital Camera			Tariff available in buying camera	
Laptops			Tariff available in buying Laptop	
Pendrive	Non oral		Tariff available in buying Pen drives	
Platform	Medium	Technology	Tariff (If any)	

TELECENTRES

ICT Kiosks	Oral / non oral		Tariffs charged in select cases	The Telecentre ⁵ movement in India is picking up. Such centres are being set up at the behests of government, NGOs and others. These centres together with telephone booths and cyber cafes are good content delivery options for the public though tariffs are applicable here. Mention can be made here of the Government of India's decision to set up 100,000 ICT enabled common service centres to deliver content and services across the country.
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F I L M

Video Documentary	Oral	Video instruments with audio-visual mechanism	Tariffs in selected cases in terms of buying the DVD	Film is another medium of content delivery. The video and 32 mm are good options to deliver content in India though charges are applicable for users in select cases.
32 mm	Oral	Screen based deployment of content, especially entertainment	Tariffs applied in selected cases	
PC and flash based films	Oral	Flash based tools and technology are embedded in PCcs to make short films.	Tariffs applied in selected cases	
Platform	Medium	Technology	Tariff (If any)	Summary

P H O N E

Mobile Telephony	Oral		Variable tariffs charged depending on connection used and frequency of usage	<p>Telephone has emerged as one of the emerging platform for content delivery especially mobile telephony. The following facts and figures can highlight this. The total numbers of telephone subscribers have reached 225.21 million at the end of June 2007 as compared to 218.05 million in May 2007. The overall tele-density has increased to 19.86 in June 2007 end as compared to 19.26 in May end.</p> <p>In the wireless segment, 7.34 million subscribers have been added in June 2007 while 6.57 million subscribers were added in May 2007 registering an increase of 11.72 %. The total wireless</p> <p>Subscribers (GSM², CDMA³ & WLL⁴ (F)) base is 185.13 million at the end of June 2007. The wire line subscriber base stood at 40.09 million at the end of June 2007 as compared to 40.26 at the end of May 2007. Mobile as a content delivery platform is increasing tremendously. At the end of September 2006, the total mobile base increased to 127. 83 million subscribers. The content delivered ranges from every day-to-day dealing. In case of mobile handsets, this has emerged as one of the vibrant content delivery medium across the country. With its features of a camera, audio, visual and internet connectivity mobile handsets are emerging as the most multitasking content delivery options in India.</p>
Land Phone	Oral		Variable tariffs charged depending on connection used and frequency of usage	
e-Posts	Oral		Tariffs applicable	
Photo-phone	Oral		Tariffs applicable	
Video-phone	Oral		Tariffs applicable	

² Global System for Mobile Communications

³ Code Division Multiple Access

⁴ Tariff Card of BSNL

⁵ A Telecentre is a public place where people can access computers, the Internet, and other digital technologies that enable them to gather information.