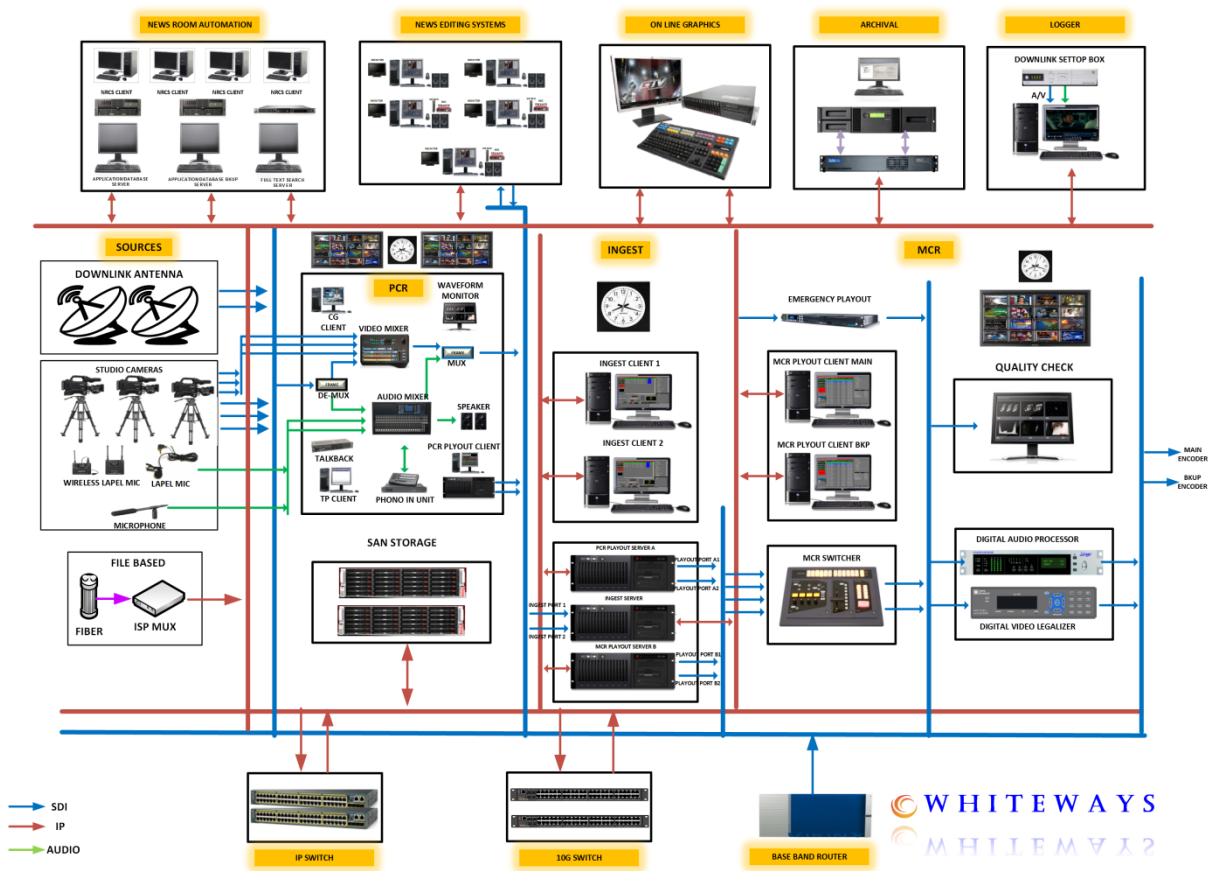


# THE BREAKING NEWS ABOUT BREAKING NEWS

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Breaking news used to be the main forte of television news. Television news crews were always at hand to give you the latest happenings in the country. This is not just true for scripted events – like the elections, but also for unscripted news like a terrorist attack or stormy weather. Alert news journalists caught the happenings on camera, and the world saw it unfold in their living rooms. When we designed the systems for news production, this was the foremost consideration. Some news channels excelled at this. They consistently maintained their ratings due to their ability to break the news.



A typical fully automated, digital news production set up in use nowadays

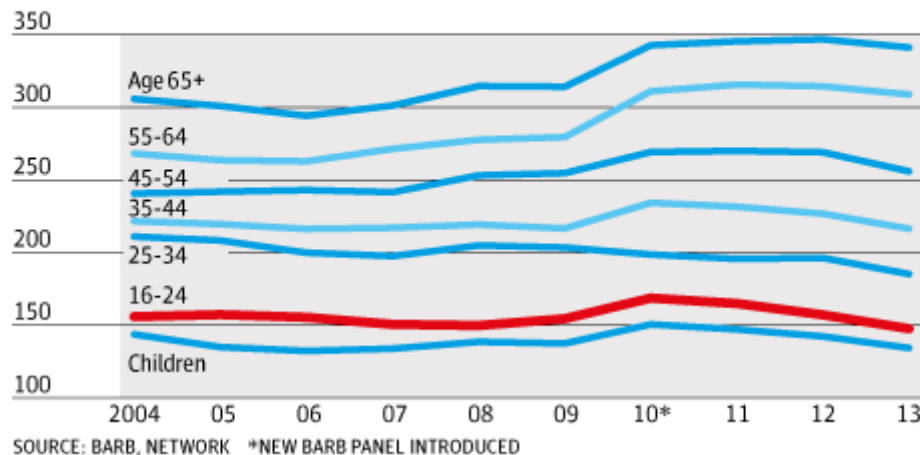
However, change is in the air. Social media, online news sources are beating the news channels in breaking news. A leading television head honcho recently confided that they are losing viewers. His biggest fear – what if the trickle becomes a flood? The favourite topic at seminars – OTT. The favourite “new generation” device – the smart phone.

Television news is also losing the trust of the viewer. It is mostly seen as biased towards (or against) a political party. Scandals about prominent news personalities linked to political figures just cemented this suspicion.

The new generation that is growing up now, is watching less and less television and prefers to consume news from online sources (mainly the PC, smartphone and tablets).

## Watching TV

### Average minutes of television viewing per day



Television news is seen to repeat news bulletins ad nauseam. There are too many advertisement breaks. Sometimes, the news presented is of a low quality – putting off the intelligent, educated viewers.

It is obvious – what worked in the past will not work in the future.

How can we get viewers and retain them in the future ? A huge change needs to be brought in

It seems that a generational shift is taking place. Television news has to change in order to cater to this shift in consumer behavior.

Now, when we design a news production system, the emphasis is on news gathering – away from the traditional news gathering towards social media, online news sources and user generated content (UGC). In addition to this – the news production system is also geared towards disseminating news via social media, online portal and OTT.

#### News gathering

User generated content plays an important role. Citizen journalists armed with smartphones get a specialized news gathering app.

The application can be installed on Android mobiles or Apple iPhone4 phones and uses its camera to send live streams from field/event location. The phones should have 3G service from any service providers

At the TV channel end a Server is installed and at the PCR client end a decoder is required

We have 2 models of decoders one for Composite Video Output and the other for SDI output.

The app has the settings to change the bitrate, size, resolution of the video and has the start, stop functionality.

Apart from this, the television channel will of course have all the current paraphernalia of news gathering (backpack, OB Vans, news gathering crews equipped with all the usual equipment).

Another important new technology – we need to constantly monitor Twitter and facebook. We use apps to monitor hundreds of twitter and facebook accounts. The moment any update happens, we get a message. A few competent people can monitor thousands of accounts.

Yet another important development – both Twitter and Facebook are coming up with news apps. Once ready, these apps will be great for news organisations.

### News production

Here, the main driver is the newsroom system.

This system enables the following tasks :

Handles incoming feeds (text only)

Assign stories

Scripting stories

Communication with everybody on the system

A powerful search engine

Approvals / censorship

Browse low-resolution video from your desktop (this is an optional feature)

On-Air scheduler

All these tasks have to be performed by journalists writing stories for several bulletins a day.

The television channel will have the usual plethora of systems like the SAN, non-linear editing, a template based graphics system (Wasp 3D or VizRT). At the end, the news is played from the Studio or the MCR.

The change we propose are as follows :

A specialized application used to send news bytes in small denominations to Twitter and Facebook. This application has many users who generate the bytes.



All the bytes go to the chief handler. The handler vets the bytes (photos, audio / video, text in FB and only text, photos on Twitter) and posts them if he finds them suitable. Each day new hash tags are introduced (#Delhielections or #delhivotes). Viewers can vote, note or put their comments.



Similarly for FB, there is a main handler for each account. Television channel can have its main account. Under the main account, they can have accounts for anchors, celebrities. Specialized bytes with smaller length videos (of a smaller resolution) needs to be produced and uploaded. For producing, FB videos, we have designed an application similar to a drop box. Smaller video clips can be dropped onto this drop box. They will be converted to videos suitable for FB. Then the video will be uploaded to appropriate FB account. Handlers will manage the traffic, monitor the replies and step in when necessary. Periodically, older accounts will be disabled. Videos that go viral will be reinforced by more putting more news about them.



The videos that need to be uploaded on youtube, need to be :

In the correct format, resolution and file type.

The clips need to have the water mark and logo, so that in the event it is copied, it still belongs to the television channel.

It needs to be always uploaded to the correct page on youtube.

Additional metadata needs to be added to the clip to show that it was uploaded to youtube on this date by which operator.

The clips needed to be uploaded, need to be dropped into the folder, the conversion, watermarking etc will take place and the clip will be automatically uploaded to the correct folder.

This makes the task a lot easier and saves a lot of money. If each task is done manually, it will take up a lot of man hours.

OTT

Here, we encourage the TV channel to get into an agreement with a CDN network. The Television channel has to consider the following :

The OTT system has to deliver performance in user experience. A small delay can cause a huge disruption as viewers just go away.

A good user experience leads to business success (and vice versa)

To deliver content, it is important to understand the network where you content will reside.

You cannot control the entire network, so it is important to user partners who can improve the eco-system.

So, you have to write realistic KPI's that the system should deliver. Finally, you have to keep improving your KPI's.

Consider the following :

Every 100 milliseconds delay in load time decreases sales by 1% (Amazon.com, Inc.)<sup>2</sup>

- 1/2 second delay in search results loading decreases traffic and revenue by 20% (Google, Inc.)<sup>3</sup>
- 1 second delay in page-load times equals 11% fewer page views, a 16% decrease in customer satisfaction and a 7% decrease in conversion (Aberdeen Group, Inc.)<sup>4</sup>
- 85% of mobile users expect desktop-quality experience (IBM Corp.)<sup>5</sup>



A typical path followed by a video uploaded on your OTT website

Organizations achieve interoperability via a CDN through either peering or transit. Peering involves voluntarily interconnecting with separate networks so that traffic can move freely among them. Peering is usually settlement-free; neither party pays the other for the traffic exchanged. The mutual benefit for peering networks is the increased volume of traffic each can handle. The benefit passed on to you is the ease with which your content can move across these various networks.

Peering requires physical interconnection of the networks involved, and an exchange of routing information through the border gateway protocol (BGP), a routing protocol that enables the exchange of network path information between networks.

The information includes network addresses and router table data about how to reach other networks, the number of hops, and packet loss statistics.

Understanding the different browsers is critical. Browsers can both add to and detract from the end user experience. The good news: they are constantly evolving, and improving workarounds to bottlenecks. The bad news: the improvement can introduce even more, new bottleneck.

Mobile browsing is scheduled to reach peak levels. Mobile browsing adds extra layers of complexity. Redirects to mobile websites is perhaps the best way. However, several redirects add to time taken to upload the page. Keeping short scripts and smaller videos help in lowering the time to upload.

OTT is a complex subject which has many nuances. Each organisation has different objectives. There is no "one size fits all" solution. In this article, we have raised some of the issues. There are, of course many other issues. Typically, organisations should talk to integrators and ensure that they get a solution that is right for them.

## Conclusion

It is clear that today's television channels are not up to the challenge. They need to change to keep up with the change in user behavior.

New television channels need to be designed differently in order to cater to future, emerging behavior. This is both a threat and a challenge. It will be interesting to see who will emerge from this stronger and who will wither away and die.