

programme content to be re-assembled by the receiver. Each of these tables – along with many other tables and data, including service descriptors that define the coding structure for Dolby, MPEG-1, MPEG-2 and similar – is critical to ensure quality of service.

Special Checks for Special Services

Beyond the fundamental transport stream checks outlined above for DVB-T, lie a host of additional checks for 'specialised' services, such as multimedia home platform (MHP) interactive data carousels (or infocasting) and mobile TV.

MHP is a DVB specification for interactive data broadcasting, where the content is transmitted periodically over the transport stream. Users then interrogate their MHP-enabled set top box (STB), which retrieves the selected data from the transport stream as it cycles around. The same system can also be used for downloading of objects such as software files. In addition to monitoring the MHP carousel's PIDs and MPEG tables as required for DVB-T, it is important to monitor the appropriate data rate and cycle time, which determine how long the information takes to download to the STB.

Mobile TV technology also introduces unique monitoring and analysis issues, such as ensuring the content protection and encryption systems operate correctly. Another major requirement of DVB-H is to conserve the power usage in the battery powered handset receivers, which makes signal timing critical. DVB-H solves the issue by employing a 'time-slicing' structure, in which bursts of information are transmitted instead of a continual feed. This allows the receiver to conserve power between the bursts.

It is important to measure the length of the transmission burst, and it is also necessary to measure any drift in time between transmission bursts. The measured quantity, known as 'delta-t jitter', indicates whether or not the next burst of information will be transmitted at the right time.

There is also an extra layer of error-correction, known as 'multi-protocol encapsulation – forward error correction' (MPE-FEC), applied to the DVB-H signal. It is therefore necessary to establish whether any faults that occur do so before the MPE-FEC is applied, or whether they're due to its application. In addition, monitoring of the electronic service guide (ESG) transmitted to the handheld device is particularly important for mobile TV. Files within the ESG define the source IP address and encoding information, which allows the receiver to decode the received signal.

Back to the Source

The holistic approach to signal analysis extends to monitoring the source code of individual broadcasts, before the signals are

encoded and multiplexed into the MPEG transport stream. This includes monitoring content continuity to ensure that any loss of signal or signal timing is immediately alarmed.

For measuring source code quality, two parameters are commonly used: mean opinion score (MOS) and picture signal-to-noise ratio (PSNR). MOS has evolved from being a subjective measure of audio quality, carried out by trained groups of people, to a real-time, machine-based test that is also used for video measurements. Incorporating standardised numerical quality indicators, the test provides a good measure of video quality, while being reasonably independent of the actual video content.

PSNR is a power measurement, and easier to define, but does not necessarily provide a good correlation with viewer satisfaction. Footage may be 'noisy', and result in a poor PSNR figure, but according to human perception, the level of 'annoyance' could be quite low. Also, although PSNR is easier to measure than MOS, it is less repeatable due to the constantly changing nature of video images. Consequently, MOS is often regarded as a more reliable measure of picture quality.

The ability to measure video quality becomes critical when statistical multiplexing is deployed. Here, content-providers are not allocated a fixed bandwidth, since bandwidth is variable in a statistical MUX. Service providers guarantee a given level of quality for the service, likely to be measured by MOS.

One empirical measure finding favour is 'confidence monitoring', where real-time

feeds allow network operations centre (NOC) operators and content-providers alike to confirm the broadcast is acceptable. A step further is 'compliance monitoring', where content streams are recorded and saved in order to demonstrate exactly what was aired in the case of contention, or to ensure that advertising or regulatory commitments were met.

Maintaining integrity

Clearly ensuring integrity of digital broadcast services is vastly more complex than for analogue TV. Not only is there an enormous number of parameters to measure, but the growing need to provide analysis at the service level has resulted in the development of advanced technologies that can deliver this data. This highlights the importance of a sophisticated network operations centre, with an advanced NMS that can integrate all these different monitoring technologies and services into a common platform. It is one thing to collect and monitor vast streams of data, and quite another to act upon the information to remedy any faults that occur.

Digital Network Monitoring

Nevertheless, network operators still face the challenge of establishing which are the critical measurements, and which are merely ideal, in order to stay commercially viable. Independent broadcast service providers in particular will focus on demonstrating compliance to agreed specifications. This places a greater demand than ever before on end-to-end verification of the digital signal; because, in the era of digital broadcasting, maintaining signal integrity – and the ability to take a holistic view of the network – is the new essential.



Commonwealth Education Ministers and senior officials met in Kuala Lumpur, Malaysia from 15-19 June 2009 for their triennial conference – the largest and most important meeting in the Commonwealth education calendar.

The theme for the 17th Conference of Commonwealth Education Ministers (17CCEM) was 'Education in the Commonwealth: Towards and Beyond Global Goals and Targets'.

The broad theme for 2009 examined education in the Commonwealth, and its work towards achieving the Education For All and the Millennium Development Goals. But it also looked beyond these goals in preparation for education in the Commonwealth after 2015.

The meeting, which included parallel forums for teachers, 'stakeholders' (civil society, business, and others), university vice-chancellors and young people, was expected to attract some 800 delegates from all over the Commonwealth.

AIBD ran a parallel two-day workshop prior to the conference to support the event and gain media awareness on the topic and to discuss civil paths to peace – the media's role. Participants were media journalists and producers from several parts of the Commonwealth and local media who were attending to cover the conference. Besides creating awareness about the different meetings held in parallel to the 17CCEM, the workshop aimed to sensitise the journalists to one of the main obstacles to education and development – conflicts.

The report of the Commonwealth Commission on Respect and Understanding, "Civil Paths to Peace" was a background document for the workshop.

A total of 12 participants from several Commonwealth countries including four local participants from Malaysia attended. K P Madhu, AIBD programme manager, conducted the workshop.

Caroline Pontefract, Director of Transformation Programmes of the Commonwealth Secretariat, set the tone for the workshop

Media and Education in the Commonwealth:

Civil Paths to Peace

By **Lutfah Ahmed**
Programme Manager, AIBD



by outlining the importance of respect and understanding in education and the role of media.

This was developed further by the Second session speaker *Duncan Hindel*, Director General Education, South Africa, who said that teachers are at the core of education and ensuring better trained and better qualified teachers will be an important backbone for development of better education systems. He talked about the youth forum and the awards being given out at the event, which he said would outline the thinking of the Commonwealth. He said that the vice chancellors forum would be looking at the impact and need for tertiary education for good education. He discussed the two elements to training teachers – Necessary skills, subject knowledge, do they have the pedagogical skills etc but just skills are not enough. He said that right attitude and values are very important as without that they would not be equipped to provide holistic education. Valuing large-scale public education is one of things that should bind the commonwealth together and journalists could help to look into why and how this was being taken ahead.

Virgilio Juavane, Advisor Education, Commonwealth Secretariat, also spoke



at the workshop and he talked about the diversity of the language and culture of the Commonwealth. He said the Commonwealth have common needs to address regarding the content and quality of education. He also said that the dimension of values and attitudes is very important to provide new generations with new concepts of culture and values through education so that they learn to live in peace together. Respect and understanding is important and education is the only way to ensure this is implemented.

He discussed the cross cutting issues-the impact of the recession and how can we ensure that education will remain a priority in governments budget allocations during these times.

Role of partnerships in education, especially civil society, media and others at international, regional and national levels as well as the need to work together to achieve the goals was discussed.

Participants provided feedback, saying that the workshop had set them thinking and that was an excellent outcome for the event.



China and Vietnam

Bag AIBD AWARDS 2009

By **Juliette Vivier**
Programme Manager, AIBD

AIBD members from China and Vietnam bagged the 2009 AIBD Awards, which have been instituted to promote quality programming for various target audience groups. An international jury chose the winners, which were presented during the recent AIBD General Conference in Fiji.



"The Way Water Cries" from CCTV, China, won the best TV documentary on water issue, which was supported by Hum TV from Pakistan.

From northern to southern China, seven big basins are on the edge of collapsing faced with the water pollution crisis. Drinking clean water is an ancient survival desire, which has created many miracles such as the invention of running water and the birth of a city. However, it's not an easy project for a nation with the shortage of potable water and an imbalanced economic development to drink clean water. After solving all sorts of complex difficulties, another intractable problem emerged – is running water clean enough to drink?

Beautifully produced and directed, this documentary raises the core of the upcoming clean drinking water supply problem.

The winner for the Reinhard Keune's Memorial Award 2009 on the best radio programme

integrating minorities was **"Human Feelings at Mountain Market Session"** from VOV, Vietnam. Radio Australia Television supported the award.

This documentary tells simple stories of fair deals without deceit among indigenous people as well as the warmness, uprightness, plainness and hospitability of the Mong and Tay ethnic people in a busy market atmosphere. Ethnic minority people are integrated but not fully immersed with the outside world, preserving successfully their code of behaviours, customs and original cultural traditions.



This programme put the listener in the fields of those communities where many ethnic minorities stories are told. It's an amazing 20-minute journey among people that mixes interviews, traditional songs, and market sounds, and celebrates cultural diversity.

"Rural Women's Health Education Service" from China National Radio (CNR) took the



AIBD Radio Award for the best educational radio programme supporting health care.

This programme is dedicated to rural women from Shaanxi Province in China, a well-known key poverty-stricken town, where women face many gynaecological diseases. In 2002, course programmes on health education were launched, generating drastic changes in the health conditions of the women there.

In addition to those courses, CNR set up radio live programmes providing useful health knowledge as well as a platform of exchanges between the host, the medical experts, the interviewer, local medical practitioners, rural women and the audience. Experts presided over the Q&A session on the hotline, answering questions raised by the audience and providing information about common gynaecological diseases. This documentary is very interactive that promotes helpful women health care programme.

The categories for the AIBD Awards 2010 will be announced by October 2009.



Judges review AIBD Awards' entries

ABC
Radio Australia



Training by Objectives

Eleven persons took part in the AIBD workshop on Training of Trainers in Male, Maldives in July 2009. The course was hosted by the Maldives National Broadcasting Corporation at its newly established training center at the Voice of Maldives. The purpose of the workshop was to provide broadcast professionals working in various specialties an opportunity to develop skills needed in formal and on-the-job training situations. The workshop's resource person was Professor Drew McDaniel of Ohio University, Athens, Ohio, and USA.

The workshop's activities were framed by the restructuring of Maldives broadcasting which is currently underway. The creation of Maldives National Broadcasting Corporation a few months prior to the workshop had merged the previously independent TV Maldives and Voice of Maldives into a single enterprise. In addition, the integration of the two organisations was expected to change the status of MNBC from a state broadcasting to a public service broadcaster. To help develop a formal training agenda for the newly established organisation, Professor Drew carried out a rapid training needs assessment prior to launch of the Training of Trainers Workshop.

This workshop was based on the principles of the Training by Objectives model in which training is designed to achieve observable and measurable goals. These goals are designed to enable organisations to overcome shortcomings in their performance. The course began with an analysis of the work that trainers do, followed by an examination of the fundamentals of training design and planning. Subsequent topics included job analysis, analysis of performance discrepancies, training objective preparation, and a range of training modes such as demonstration, case studies, and so on.

This course focused on training for an environment in which professionals are increasing called upon to multitask in their daily jobs. The aim of the workshop was to give participants the ability to design, plan, and conduct training activities related to their individual professional specialisations. Practical projects were the dominant activities of the workshop, and members were kept busy preparing their own training modules. In addition, formal presentations on specific topics such as training theories, cognition and memory, and training evaluation were scheduled as well.

The workshop presented training as an aspect of the larger mission of media organisations, in which the training of human resources must yield tangible benefits not only for the organisation but also for the individuals involved. Also, the role of organisational culture in shaping training programme requirements was emphasized.



Media Development Plan for Bhutan



(From left): Mr Dasho Kinley Dorji, Secretary Ministry of Information, Mrs Pema, Head of Bhutan Broadcasting service

Bhutan eyes the creation of a task force to draft a long-term developmental plan that will look into the needs of the media industry from 2010 to 2020. Mr Dasho Kinley Dorji, Secretary Ministry of Information and Communication, has requested AIBD to help organise an in-country consultancy service to craft a Media Act and a Broadcasting Act.

Dr Javad Mottaghi, AIBD director, discussed these initiatives with Mr Dasho Kinley Dorji, in his mission to Bhutan on 6-8 July 2009. He said such a task force could consist of the professionals in the ministry, public and private channels, press, members of the parliaments, and BBS board members.

In his Bhutan trip, Dr Mottaghi also took up other activities related to the 1st Conference of the Heads of States on Information and Broadcasting in 2011, strengthening the cooperation with public and private sector in Bhutan, and activities for future cooperation between AIBD and Bhutanese partners.

Mr Dorji raised the question of whether the Head of State of Bhutan or the Prime Minister as the Head of Government should attend the 1st Conference of the Heads of States on Information and Broadcasting. Mr Mottaghi suggested that Bhutan's policy makers should decide on this matter.

The Bhutan Broadcasting Service (BBS) supports the long-term media development plan for the country. Mrs Pema, BBS Head, said she would pursue this activity and discussed the plan with her colleagues.

Mrs Pema met Dr Mottaghi three times and had the opportunity to discuss AIBD's programmes in the region and how AIBD and BBS could work together for future cooperation.



FBC Celebrates the Launching of New Station Logos

By **Riyaz Sayed-Khaiyum**
Chief Executive Officer, Fiji Broadcasting Corporation



Chairman – FBCL



CEO-FBCL



On the 31st of July 2009, FBC launched its new company and six station Logos. The launching of our new logos represents far more than just new emblems for the Fiji Broadcasting Corporation. They represent the beginning of a new era as we modernize our operations to state-of-the-art.

In the past year or so, we have worked hard to lift our programming to bring the FBC to a higher level. The new logos represent not only what has been achieved in that effort – but what is yet to come over the next few months as well.

In the past, we were troubled by technical problems and radio signals emitting from old, and almost worn out – equipment, a cultural neglect which affected FBC's long standing reputation. Through hard work we believe we have regained respect in the market. We have increased our value and most importantly quality of our content. Change is in the air.

Our problems will now be behind us, as we move ahead technically over the next few months, our equipment and broadcast technology – from software to transmitters – will be upgraded to state-of-the-art to provide the strongest wattage and clearest radio signals in the nation, allowing us to step up to yet an even higher level in our new corporate future.

No longer will listeners have to struggle to find us on their radio dial. We'll be there, loud and clear, with the news, entertainment and information they want.

The FBC has always been known for its public

service which has been part of our mandate since the first AM station hit the airwaves 55 year ago. Our AM stations, Radio Fiji 1 and Radio Fiji 2, which has the widest reach of any broadcaster, provides essential service to places untouched by other local radio signals. This won't change, but will continue to improve as the entire FBC moves ahead.



Public Service Broadcast Station Logos

Some of the station names have been altered, but only slightly. The popular Radio Mirchi becomes Mirchi FM, while Radio Fiji Gold will now be known as Gold FM. This is to ensure a clear demarcation between our Commercial FM and Public Service Broadcast stations, RF1 and RF2.

Our four commercial FM stations will see a number of changes. They'll be stronger, clearer, and in full stereo everywhere they are received. No longer will the automatic tuner on your radio just slide by some of them without stopping. The new stronger, clearer radio signals will stand

out – as do our new logos representing change and improvement.



Commercial Stations

Along with Bula FM and 2Day FM – the technical upgrades for Gold and Mirchi will make all four radio signals to the nation the best in Fiji. Join this with our constant improvements in programming, and we're looking ahead to a new era in Pacific broadcasting.

Planning of the technical details is complete and we expect to begin the actual work very soon, with the upgrading finished in a few months time.

New equipment, stronger broadcasting signals, better programming – it all represents a huge investment by the FBC – but the eventual benefits will be enormous for all of us – including you our loyal clients.

Of course, as all of this work takes place there is going to be some disruption for our staff, but they are eager to see the changes made. They will have new studios, new equipment, and new capabilities to present some of the programming they were unable to put on-air in the past due to equipment limitations.

Feature Programming at Bhutan Broadcasting Service

Dr Paul Pasch
Friedrich Ebert Stiftung

The Kingdom of Bhutan today proudly proclaims itself as the youngest democracy in the world, entering the club of democratic nations in March 2008 following the successful conduct of its first-ever parliamentary elections. A year later Bhutan Broadcasting Service plays a very important role in the transition to democracy where governing institutions and civil society organizations have to redefine their roles in multiparty constitutional democracy.

This transition process is also causing challenges for Bhutan Broadcasting Service. Meeting BBS's demand for training in high quality journalism AIBD and FES conducted training in feature programming for public broadcasting reporters and producers of both radio and television in mid August of this year. The participants had at least two years of experience and were familiar with the technical equipment and the basics of reporting.

The week long training aimed at the objectives to determine which issues are worth in-depth-reporting; finding appropriate ways to report the issues in a comprehensive way instead of one-source-reporting; telling the "story" in a way, that makes the audience listening or watching;

making public-service-broadcasting relevant and meaningful as well as using journalistic tools and methods to do the above mentioned.

The focus of the training was learning by doing. Radio and TV reporters and producers formed mixed teams for extensive exercises. Martin Wagner (Radio) and Wan Ibrahim Bin Wanomar (TV) guided the participants in the process of generating themes for their features, script writing, field work, production and editing. Among the most interesting subjects selected were "Smoking Ban in Bhutan", "Improving Public Health Service" and "The Shortage of Public Housing in Thimpu".

On outstanding radio feature was produced on the controversial issue "The Problem of Public Toilets" which was aired on the last day of the training.

The BBS reporters and producers found the training "mind-freshing" and "enriching" as they got new ideas and good interaction due to participatory methodology. The guidance by the trainers in the practical work was well received and participants said they had learned a lot and hope to make use of the knowledge acquired during their daily work for BBS.



Group 3 finalising scripts for 'Housing Problem in Bhutan'



Group 3 in video editing suite



Group 4 in video editing suite



Discussion of participants and resource persons

'Jumping'

into the TV Entertainment and Game Shows

By **Juliette Vivier**
Programme Manager, AIBD

The third workshop organised in the framework of a four-step workshop plan dedicated to TV content took place from 15 to 19 June 2009 in Jakarta. A project of the French Government and AIBD, the workshop focused on TV entertainment programme and game show. It was hosted by Metro TV and co-organised by the French embassy in Jakarta.

TV Entertainment and game shows represent now the most popular and widespread TV formats. They cover many specific "show type" such as music shows, comic shows, reality TV shows, special events, charity shows, talk shows, sport/adventure games, games of skill, quiz games, treasure hunt games...etc. But whatever the "show type", entertainment and game shows are one of the most successful formats reaching up to 35% of the audience rate and gathering all the TV viewers' types. The incomes generated are colossal and many concepts designed are sold and spread all over the globe.

The workshop explored ways to develop local concepts or adapt some existing ones in this ultra competitive and fast market. Not only should these ideas highlight the cultural specificities, they must also be able to generate new incomes and fit with the local audience's expectations. The main objective was to offer adapted skills and know-how in order to be able to "jump" into that fruitful and lucrative market.



Working group session on TV programme conception



French production house TV programmes presentation



Mrs Moe, GM Programme & Development, Metro TV, and Mr Suryopratomo, News Director, Metro TV, Mr Alliod, French Audiovisual Attache in Jakarta and Mr Mendjisky, French Regional Audiovisual Attache welcome the participants and the experts

During the five-day workshop, two French TV entertainment and game programmes producers, participants from VTV, Vietnam, Metro TV, Indonesia, Media Prima, Malaysia and MCOT, Thailand explored the evolution of this market, the new trends, the strategies of development, the programming rules, the policies of international acquisitions, the appropriate rights and the specificities of the production/direction (mechanism, design, lighting, set design, camera angles...etc) of those formats. Those elements are crucial to make an entertainment or game TV show a success, and become competitive in a global market environment where TV content designers are working so fast.



Participant during the pitching session

In addition, all participants were put in situation to develop an original TV concept based on a short brief. Those practical exercises were an ideal tool to encourage participants to put into practice what they had learned during the theoretical part of the session, to be creative and to work as a team.

These practical exercises grouped members of each participating country into teams, enabling them to work with new people, integrate new approaches and cultural specificities. Most groups conceived a show that could be adapted to all the countries, by integrating the idea of adapting the basic concept to correspond to each country's cultural identity.



(From left): Ms Mc Morrow, French entertainment producer, Mr Mendjisky, French Regional Audiovisual Attache and Mr Bernard, French game show producer, serve as jury for the pitching sessions

Two famous French production houses, Coyote Production which specialises in "big" live entertaining programmes and Upside Production, well known company on the international market with the TV game show calls "Intercities," came to introduce their programmes. They explained the steps of production, the business model and the market. This was an excellent way to open potential development opportunities over different countries. Participants could see what other channels were doing elsewhere, identify potential formats that could correspond to their markets, while having a direct access to the people to contact regarding any adaptations, or development of co production opportunities.



Showcasing session with the Metro TV's board



Mr Foin, French Cultural Counselor in Jakarta, presents the certificates of participation