

# Cambridge meeting looks to the future of music and technology

**How will we be listening to music in the future? Andrew Everard was in attendance at a crystal ball-gazing conference**

There was more than one kind of convergence in evidence at the 20th conference of the British section of the Audio Engineering Society. Not only were the fast-closing worlds of computers and audio the subject of the event, but extra time was added for the world of technology to come together with consumers, in the form of a public 'Education Day'. What's more, a few members of the audio press were invited along to witness and participate in the conference too, giving me the opportunity to pass on to readers the way the audio industry sees the future.

Held in the striking surroundings of New Hall, Cambridge, the conference saw a range of experts presenting papers on a number of subjects linked by a common theme, some of which sparked lively debate among attendees. As well as many familiar faces from British Audio companies – Arcam, KEF, Meridian and Naim were among those represented – the conference also attracted broadcasters and broadcast engineering staff from the UK and beyond, representatives of computer

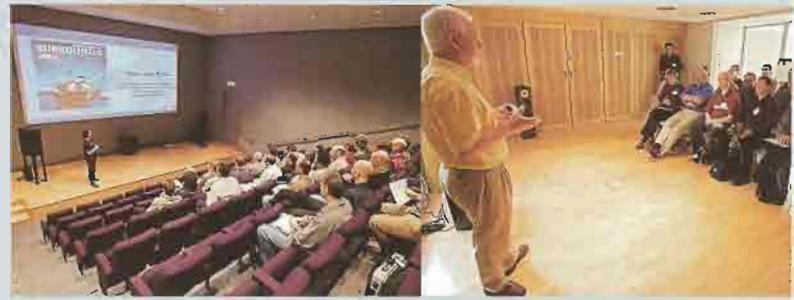
manufacturers, researchers in the audio field and industry analysts.

Meanwhile, the public day had a similarly diverse range of attractions, from the new Harman Audio Logic 7 system in a brand-new Range Rover to cinema-quality digital projection, and from a presentation on how DTS sees the digital sound and vision future to sessions on acoustics and speaker positioning. There was even a chance to hear some of the common problems in compressed music formats, and some very uncompressed music in a fascinating 'live v. recorded' music session.

#### Digital gateways

Opening the proceedings, David Sturge of **Pace Micro Technology** unsurprisingly laid out a vision of the set-top box, currently used for digital television from cable, satellite or terrestrial services, as the future portal into the home. His view is that audio distribution via such devices will come on the back of video services, as is already the case with digital radio, and he pointed out that 60 per cent of UK homes have now embraced digital TV – even more than in the USA.

But such digital gateways will need to be networked with existing and future audio systems. Such networks, Sturge said, need to be easy to install, configure and



Now pay attention: DTS unveils a vision of the digital future (above left), while John Dibb of B&W gives a lesson in speaker positioning (above right)

use – certainly not the case at the moment – but he wasn't sure that the much-vaunted IEEE802.11 'wi-fi' system was the answer. The 2.4GHz band on which this system operates is getting crowded, he pointed out, so alternative solutions, using the HPNA (Home Phoneline Networking Alliance) protocols over standard coaxial cable, or even connections piggybacking data on the mains wiring, would have to be considered. The latter is capable of data rates as high as 8Mbps, which is enough for streaming video, but Adrian Lloyd-Owen of home automation company **Crestron** agreed that it would be video distribution, not audio, that

would prove the driving force for such systems in the future: 'Once we crack video distribution,' he said, 'it'll be relatively trivial to crack the audio, be it high-definition or MP3.'

#### Back to Analogue?

Lloyd-Owen had a slightly different take on networking: it was his view that an all-digital system wasn't the answer, but rather an analogue system using simple CAT5e cabling and balanced audio working. Compared to standards such as DVI or HDMI, he said, CAT5 had the advantage of thinner cabling, making it easier to install and offering the possibility of much longer cable runs.



AES president Theresa Leonard and conference delegates (above) enjoy a quick break for tea and biscuits between sessions

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It's showtime (l-r): John Watkinson of Celtic Audio enabled audiences to compare his speakers with the 'real-world' performance of harpist Una Monaghan; Rodney Orpheus weighs up a dual future for DTS; and Bob Walker, formerly of the BBC, reveals the secrets of room design for multichannel listening

Of course, the computer companies see themselves grabbing an ever-increasing slice of the home entertainment market, with strategies such as **Microsoft's** Media Center package and **Apple's** iTunes/iPod/AirPort Express system. Tom Blank, of Microsoft's research department, said that while consumers want home networking of entertainment, 'In our world, we don't believe there's an installer involved. If consumers have problems installing and setting up such a system, then shame on us – we haven't done our job properly.' The Microsoft vision is of the eHome, an open-platform strategy allowing third-party developers to produce interfaces

for lighting and security systems as well as entertainment uses.

Blank suggested that while the ideal is the Digital Living Network Alliance system to ensure products all work together it is yet to set up its testing and certification facilities, which is why Microsoft already has its own PlaysForSure logo to guarantee compatibility. 'Our target is consumers,' he concluded, 'our target is no installers.'

So how do the traditional audio companies see themselves in this future world? John Dawson, chairman of **Arcam** and a strong supporter of both the AES and the British Federation of Audio, said that while computer companies are targeting much of the audio industry, they seem uninterested in amplification and speakers – which is good news for the industry. But he saw complexity as the major stumbling block for home networks, pointing out that research has shown that 46 per cent of all digital TV set-top box buyers needed some degree of aftersales support, and that of the 25 per cent of the total sales returned for refund or replacement, half were subsequently found to have no fault – the consumer was simply unable to get them working. And when it comes to wireless networking, 'If

you want reliability, forget it – it's a case of "plug and pray".'

Dawson acknowledged the gap between technology and the ability of retailers to explain it, and that with an ageing population it's likely to become an increasing problem. What's more, the drive towards large flat-screen TVs has moved more sales out of the specialist retail sector and into the major chains, which means generally poor 'all-in-one' audio/video systems are sold with the displays.

However, Dawson notes, the manufacturing sector isn't doing itself any favours: the latest Arcam AV receivers have 100 sockets on the rear and Denon's latest 200; and consumers are getting confused – his company's biggest growth area, he said rather chillingly, is its customer support desk.

#### High resolution

How is the high-resolution future shaping up? **Sony's** John Ive quoted some research which revealed that viewers notice an improved picture much more than surround sound, but that better sound improves the perception of the picture. However, he bemoaned the fact that the UK lags behind when it comes to High Definition TV: Japan has had it since 2000, the USA has over 99 per cent HDTV cover-

age, and both China and Korea are due to start transmissions this year. Nevertheless, while Sky will lead Britain into HD next year, the BBC is already making huge amounts of programming in high definition, simply because production partners such as Japan's NHK won't accept non-HD programmes any more.

Microsoft's Tom Blank returned to address some of the problems John Dawson had addressed, noting that system changes such as the move from a 5.1-channel set-up to the 7.1 channels now needed for 'extended surround' are currently 'what's lovingly called a forklift upgrade' – in other words, a wholesale change of equipment. His ideal was of a digital future with the system-clocking of all components synchronised, allowing products to be slotted in and self-configured: add some speakers to such a system and they'll 'know' what and where they are and set themselves up. Apparently the company already has such a 5.1-channel system up and running, aimed at the mass market rather than high-end audio.

#### Talk radio

A heated debate ensued between Southampton University's Adrian Pickering, who argued that digital



Scopein Research's Markus Erne outlines compression problems

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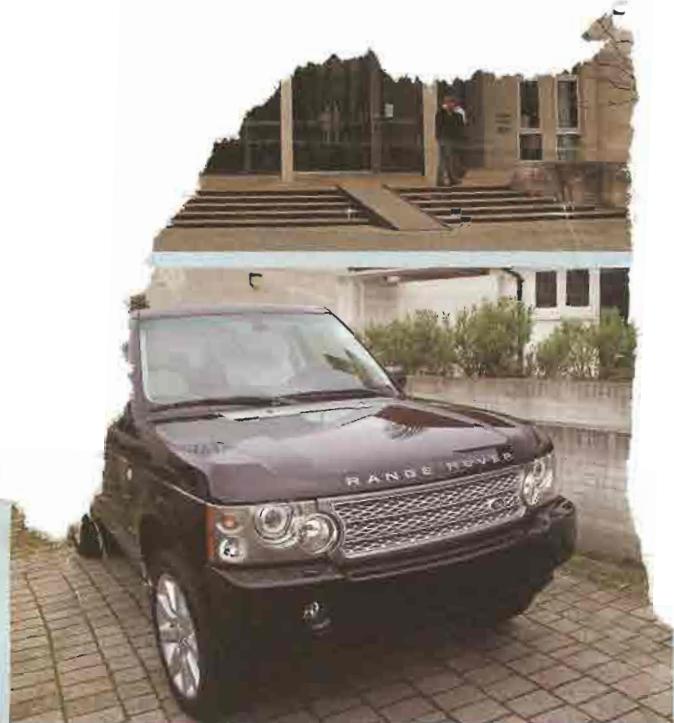
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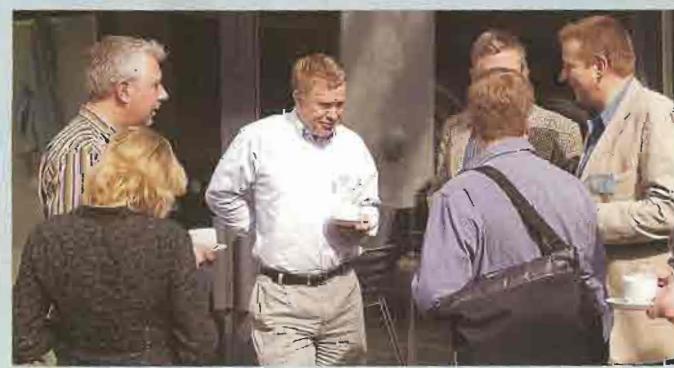
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on to suggest  
be abandoned as a high  
medium for home use in favo  
digital satellite and terres  
broadcasting, an idea rejected  
Andy Baker.

Baker's contention was that there's a lot more to the quality of sound on digital radio than just bit-rates: a lot of the problem stems from the 'cascade' of different digital devices involved in the broadcast chain, from the mini-disc machines used by reporters to the previous use of minidisc to store music for programmes – now being replaced on Radio 1, for example, with a hard-disk playout system that gives better quality. And, while he noted that the BBC has now replaced its old MPEG encoders with new units using enhanced algorithms for coding, he added that the Corporation is still lobbying for more digital capacity, in order to deliver better quality on all its digital radio sources.

A presentation on the state of music on the internet was given by John Buchanan, founder of **Magnatune**, described as the only online record label. Much of his presentation was about how the music industry must adapt to the '30-second sampling' mentality the internet has created – if your disc doesn't sound good when coded at 32kbps MP3 quality and within the first 30 seconds of listening, it's not going to sell – but he also pointed out some interesting market statistics to show how the music industry is changing. For example, 64 per cent of Amazon's business is from items selling 20,000 units or less, and 25 per cent of iTunes' sales are of classical music, as are 50 per cent of Magnatune's. If you want to see what this innovative label is doing right, take a look at [www.magnatune.com](http://www.magnatune.com), where the slogan is 'We're a record label. But we're not evil'!



New Hall, one of Cambridge University's newer colleges and a Grade II\* listed building, provided the striking venue for the conference (top); the new Range Rover parked outside (above) is fitted with the Harman Audio Logic 7 system. The BBC's digital radio portfolio (below), came under attack at the conference, while Andy Baker (bottom, centre), head of technology for BBC Radio & Music, came to its defence



## John C... Audio

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ack, while DTS gave a  
tion on surround sound  
for music and film use. The  
most interesting aspect of the  
latter session, given by the  
company's Rodney Orpheus, was  
his view of the future of the  
system on both Blu-ray and  
HD-DVD next-generation video  
discs: unlike the situation with  
DVD-V, DTS is mandatory on  
both of the new formats and will  
offer full 192kHz audio resolution  
for up to eight channels, or  
anything up to 32 channels if  
required. The new DTS-HD  
version is fully lossless in its  
encoding, and back-compatible  
with existing DTS decoders. But  
which of the new high-resolution  
video systems will win the  
impending 'format war'? Says  
Orpheus: 'As far as DTS are  
concerned, we don't care – we're  
on both of them!'

Around 40 extra attendees  
joined for the Education Day, and  
there was plenty of informal con-  
versation about all matters audio  
between sessions. The Audio  
Engineering Society is already  
saying it's pleased with the  
response to the new format, and is  
considering more events of this  
kind in the future. 

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