Australians are going to get a new kind of radio next year—digital radio. Depending on whom you talk to, it’s either the biggest thing since FM or a looming fizzer.

The biggest-thing-since-FM people say all media are going digital and radio has to be part of it. Australia’s broadcasters have chosen an upgraded version of the digital radio technology already in place in many overseas countries, especially in Europe. This will put them at the forefront of digital radio developments, allowing more services and richer multimedia possibilities.

The looming-fizzer people cite the overseas experience. In the UK, where services started in 1995, one of the biggest commercial radio operators has just announced it is selling its stake in the founding national digital operator and closing its digital-only stations. Only 10% of radio listening is now digital, and less than half that is to stations that are only available on digital.

In the United States, two satellite subscription operators have got more than 8 million subscribers each, but they are losing a fortune and will merge if regulators let them. Local digital services started in Canada in 1998, but some have closed and others are not being extended.

In between these positions, some of the people who will be providing services in Australia are optimistic about the possibilities but cautious about the early stages. They know it is going to be tough to convince audiences already spoiled by digital audio choices to find cash for new radio receivers when there are so many other gadgets they could spend it on.

Consumers have not sat still waiting for digital radio since the Australian Government first announced a policy a decade ago. Online streaming of internet radio stations, file-sharing and podcasting and are now well-established in the habits of many listeners. The iPod is everywhere.

Radio programmers relinquished the job of generating music playlists to computers long ago. Websites and online tools are now available to do the same for individual listeners. You want Cool Jazz? Hip Hop? Download a selection of stuff you’ve never heard and listen as you like.
Joan Warner, head of the commercial industry peak body Commercial Radio Australia, distinguishes the overseas experience. ‘We think digital radio in the UK has been a slow burn because they only offered more choice, not new kinds of experience’.

‘We think it has to be a richer experience—better quality, a more robust signal, more graphics, some additional information, as well as more stations.’

The ABC, according to its head of radio development, Russell Stendall, has lots of content that ‘wrestles for airtime’, like jazz on Classic FM, specialist music shows on Triple J, sport on local radio, Parliament on NewsRadio. ‘We are keen on the potential of digital radio to allow us to unbundle that content and deliver discrete services.’

Kath Letch, 3RRR’s station manager, says ‘the community sector is short of money but not of people who are interested in developing new content’. Her station is talking with ‘like-minded stations’ in other cities—2SER in Sydney, 4ZZZ in Brisbane and others—about a collaborative national service that would draw on and supplement the things they already do, like specialist music and social and cultural talk programs.

To listen to the digital stations that will launch in the state capitals next January, you’ll need a new digital radio receiver. It might be a stand-alone radio, or another device like an MP3 player, an iPod docking device or a car stereo with a digital receiver built in.

Britain’s biggest digital radio manufacturer, Pure, says it will have up to a dozen products on sale in Australia by the time services are launched.

Managing director of its Australasian subsidiary, Graeme Redman, expects the entry level Siesta clock radio, which retails in the UK for about £50 [$A106], to sell for about $139. The more sophisticated Evoke 1S, with station pre-sets, an input for an iPod/MP3, an FM tuner and other features, sells for £100 in the UK.

The important difference between the current UK products and those to be offered in Australia is the choice of DAB+ transmission technology rather than the original DAB. Current UK DAB receivers won’t receive DAB+.

Pure is currently bringing ‘DAB+ Upgradeable’ receivers into Australia and loading software onto them to enable them to receive DAB+. When commercial quantities are demanded, they’ll be importing made-for-Australia DAB+ products. This will make them more expensive than equivalent DAB receivers.

Entry level receivers won’t do all the things that feature in the sales messages for DAB+ digital radio. You’ll have to pay more for pause-and-rewind, electronic program guide and especially image display (‘slide-show’).
Australia is one of the first countries to adopt DAB+. The industry hopes China and India also choose this standard, boosting world production volumes and pushing down receiver prices.

Ten months out from the launch, the services you will get if you buy a DAB+ receiver are not certain.

What is clear is how much digital capacity will be available and who will be using it. Essentially, it will be existing radio broadcasters.

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**Who’s doing digital radio in Melbourne**

- Services transmitted on VHF channel 9A, the sliver of spectrum between TV channels 9 and 10.
- Most existing city-wide radio stations get access to digital capacity on one of three ‘multiplex’ transmitters
- Commercial stations: AM [3AW, Magic, Sport 927, 3MP, SEN] and FM [FOX, Triple M, Gold, Mix, Nova, Vega] each get 128 kbits/sec capacity + the ability to bid for three unallocated slots
- City-wide community stations: AM [3CR, KND, RPH] and FM [Light, MBS, PBS, RRR, SYN, ZZZ] share 4 x 128 kbits/sec
- ABC and SBS share 9 x 128 kbits/sec

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What stations do with their capacity will largely be up to them but the government is not requiring them to simulcast as it did for digital TV. Commercial Radio Australia won’t comment on individual station plans, but says 128kbits/sec will allow two FM quality services plus extra data. This data might be used to transmit song titles and artists, an electronic program guide, slide shows of still images, or traffic and travel information.

Extra information might be a completely separate service, like weather information, or related to the audio programs, like race scratchings.

There’ll be a trade-off between quality and the number of services. Music stations might use more of their capacity to deliver a super quality version of their existing service. Some say it will be possible to transmit AM-quality talk at just 28 kbits/sec—a significant threshold in a city where two of the consistently top-rating stations are the AM stations 3AW and 774.

Consumers will want to know whether all existing AM and FM services will be available on digital, so they don’t lose choices by going digital. Joan Warner says ‘I expect so’. Russell Stendall says ‘It’s my view that if the platform is going to work, it has to be a one-stop shop’.
But it won’t be a one-stop shop for community radio, which is unhappy that there is not sufficient capacity even for all its city-wide stations to transmit in digital using the same data rate as commercial stations. And at this stage, there is no capacity at all for the smaller micro-stations that transmit on lower power to some suburbs.

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*What you might get [say the Brits]*

- No Hiss and Crackle: better quality sound
- Spoilt for Choice: new digital-only stations
- Tuning Without Numbers: identify stations by name instead of frequency
- Stay Tuned: single frequency networks that allow you listen to the same station on a long drive without having to locate different frequencies
- Read All About It: extra information displayed on a screen
- Pause and Rewind

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*Why you might not get it*

- No Hiss and Crackle: broadcasters are still grappling with the technical challenges of getting good quality signals right across their coverage areas
- Spoilt for Choice: someone’s got to pay for the new content
- Tuning Without Numbers: some FM stations are already doing it if you have a receiver that can read the information
- Stay Tuned: the first phase of digital radio services in Australia will only get to the state capital cities, not even big regional centres like Geelong, Ballarat, Bendigo, the Gold and Sunshine Coasts, Canberra, Newcastle or the highways that link them
- Read All About It, Pause and Rewind: you’ll pay more for receivers that can do it well

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There are plenty of challenges to deliver on digital radio’s potential.

Manufacturers have got to build receivers for the small Australian market at prices that make digital radio attractive. Because ‘radios’ are now so often bought as part of other devices—MP3 players, mobile phones, home entertainment systems, clock radios—this means getting the right mix of functions and feel into all these potential combinations, not just building nice radios.

The history of digital radio services overseas and digital radio policy in Australia, suggest economics is still going to play a big part in constraining how much broadcasters do.
DMG has had great success with its Nova stations, but has struggled to find a satisfactory format for Vega. Now, it has to find two more new formats, or something else to do with its new digital capacity, and make a profit from audiences that are initially likely to be microscopic.

Kath Letch at Triple R is enthusiastic about the possibilities, but conservative about how to judge the early take-up. ‘It’s inherently a slow process. If you’re the kind of person who likes Triple M, or who listens to a few shows on Triple R and a bit of 774 and gets a bit of online news, you might buy a digital radio in the first two years. But unless you find something that’s not already available, what’s the motivation?’

‘After the first two years, where does it go? It has to be about additional content. If you have found something you like, maybe you buy another digital radio for the office, or the study, or the back verandah. It’s still going to be driven by how you live day-to-day.’

**Jock Given**  
28 Feb 2008

_Jock Given was a member of the government's Digital Radio Advisory Council in 1995-97 and published a book about digital radio and TV in 2003, "Turning off the Television: Broadcasting's Uncertain Future". He is professor of media and communications at Swinburne University's Institute for Social Research._