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**Australian Communications
and Media Authority**

Australia's regulator for broadcasting, the internet, radiocommunications and telecommunications

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Digital Television in Australian Homes 2007



**Digital Television
in Australian Homes
2007**

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CONTENTS

1. SUMMARY	1
Qualitative research.....	1
Regional variation.....	1
Case studies.....	2
Quantitative research	2
2. KEY FINDINGS.....	3
Adoption of digital free-to-air television.....	3
Television types and digital television hardware.....	3
Drivers of adoption of digital free-to-air television.....	3
Nature of purchase.....	4
Non-adopter awareness and interest.....	4
Characteristics of adopter versus non-adopter households.....	5
Non-adopter purchase plans.....	5
Reasons for non-interest in digital free-to-air television	5
Information sources and requirements.....	5
Subscription television	6
Analog switch-off	6
Household segmentation	7
Conclusions	8
3. RESEARCH OBJECTIVES AND DESIGN.....	9
Research objectives	9

Sample design.....	9
Information collection.....	11
Survey content	11
Fieldwork.....	11
Analysis and reporting.....	11
4. SAMPLE CHARACTERISTICS.....	12
Introduction.....	12
Key household characteristics.....	12
5. RESEARCH FINDINGS.....	15
Digital free-to-air television—December 2007 overview.....	15
Digital free-to-air television uptake—purchase decisions and motivations.....	20
Detailed adopter/non-adopter household comparison.....	25
Non-adopter households—interest in digital free-to-air television.....	28
Non-adopter households—reasons for non interest in digital free-to-air television.....	34
Awareness and usage of HDTV	36
Additional media usage and behaviours.....	38
Awareness and understanding of digital free-to-air television.....	44
Adoption-intention segments for digital free-to-air television in 2007.....	47
APPENDIX A: DIGITAL TELEVISION IN AUSTRALIAN HOMES QUESTIONNAIRE.....	49
APPENDIX B: QUALITATIVE RESEARCH INTO DIGITAL TELEVISION ADOPTION.....	57
ATTACHMENT 1: DISCUSSION GUIDE— NON-AOPTERS.....	78
ATTACHMENT 2: DISCUSSION GUIDE—ADOPTERS.....	81
ATTACHMENT 3: SELF-COMPLETION QUESTIONNAIRE.....	84

1

SUMMARY

This report presents the third and last of the surveys of Australian household adoption of digital television, conducted for the Australian Communications and Media Authority (ACMA) by Ipsos Media CT and Ipsos-Eureka in November-December 2007. The first survey was conducted in July 2005, followed by a second, similar survey in October 2006. Both previous survey reports are available on the ACMA website at http://www.acma.gov.au/WEB/STANDARD/pc=PC_91723.

Qualitative research

Following the second survey in 2006, ACMA commissioned qualitative research examining community attitudes towards digital terrestrial television broadcasting (DTTB) in Australia. This research, undertaken by Woolcott Strategic Research in May 2007, comprised 12 small discussion groups in various parts of Australia and led to a number of new insights that were subsequently used in the development of the 2007 survey.

The insights included:

- the switch to digital is, at least for some, a passive choice; for example, the by-product of purchasing a new television set;
- only a small number of ‘adopters’ were actually recording digital free-to-air television using high-end devices, such as a DVD recorder, personal video recorder (PVR) or computer’s hard disk drive, although most had a VCR connected to at least one television in their household;
- while most participants were aware of high-definition television (HDTV), and its benefits, few had or were interested in viewing or recording (HDTV)¹; and
- participants who had adopted or were interested in adopting digital television were more likely than other groups to also have an MP3 player, a computer and broadband Internet connection, and were more likely to have subscription television.

The full qualitative survey is appended to this report.

Regional variation

While ACMA had a good understanding of regional digital television transmission and, to a lesser degree, reception issues, it did not have data on any regional variation in consumer uptake of digital television.

Therefore, the 2007 survey was designed to test the hypothesis that there were likely to be statistically significant differences in the adoption of digital free-to-air television between states and territories, and between metropolitan and regional areas. The survey found some statistically significant differences between states and regions. However, differences are not primarily an urban/rural phenomenon.

¹ It should be noted that fieldwork for the survey was completed prior to separate content multi-channel HD broadcasts commencing to any extent.

While the research was not designed to determine the reasons for differences in digital take-up between regions, a number of drivers for the higher adoption areas were clearly related to access to free-to-air channels that were unavailable on analog or because of reception issues.

These findings are likely to have some importance in assessing options for subsequent switch-off, where a region-by-region approach such as that being used in the United Kingdom has been discussed.

Case studies

Two case study regions—Mildura and Broken Hill—were also included in the 2007 survey. Both have previously been discussed as potential trial switch-off areas. However, while the transmission characteristics appeared to make both Mildura and Broken Hill ideal candidates for early switch-off, the research has indicated major differences in their uptake of digital television—so much so that they could be considered to represent both ends of the adoption spectrum. Clearly, good transmission characteristics are not necessarily related to uptake, which varies significantly, with likely implications for the ending of analog transmission in each region.

The research indicates that differences in available service offerings between Broken Hill and Mildura account for the differences in uptake. In Mildura, Channel Ten is only available on digital. This is also consistent with the findings for Tasmania, where Channel Ten is available on digital only.

Quantitative research

The report presented here primarily discusses the findings from the 2007 survey.

The 2007 survey not only replicated questions from the earlier surveys to provide a time series, but was also informed by the qualitative research undertaken earlier in 2007. This has led to a greater understanding of regional variation in adoption, as well as awareness and information needs about digital television.

2

KEY FINDINGS

Adoption of digital free-to-air television

Nationally, 41.8 per cent of households indicated they received digital free-to-air television, a 12.2 percentage point increase over the figure recorded in the 2006 study (29.6 per cent).

Considerable regional variation was apparent. Tasmania (64.0 per cent) recorded the highest adoption across all states and territories. Queensland (37.2 per cent) and South Australia (37.1 per cent) were the only states/territories where uptake was below 40 per cent.

Of the two case study areas, Mildura (70.3 per cent) was found to have substantially higher digital free-to-air television take-up than Broken Hill (38.6 per cent).

Television types and digital television hardware

Of the 4,338 display devices used to watch television programs in the national sample, 1,113 (or 25.7 per cent of all television display devices) were capable of receiving digital free-to-air television. This compares with 17.1 per cent in 2006.

The hardware used to access digital free-to-air television was made up of the following:

- television sets with DTTB set-top box—66.6 per cent;
- integrated sets with inbuilt DTTB decoders—28.8 per cent; and
- computers with DTTB tuners—4.6 per cent.

The use of set-top boxes to access digital free-to-air television was particularly apparent in the high-adoption areas of Tasmania (74.7 per cent) and Mildura (80.6 per cent).

Drivers of adoption of digital free-to-air television

Nationally, picture quality and ‘better or clearer picture’ remained the leading reason cited by survey participants for adoption—for almost one-quarter (23.7 per cent) of adopter households (36.5 per cent in 2006). Reasons relating to ‘improved reception or signal’ were cited by 20.1 per cent (19.6 per cent in 2006) of adopter households. (Such drivers are differentiated from picture quality-type responses due to their ‘problem resolution’ dimension.)

These predominant drivers were followed by ‘television upgrade or replacement’ at 19.6 per cent (28.4 per cent in 2006) and ‘extra channels, variety and choice’ for 19.3 per cent (15.6 per cent in 2006). The composition of the top four drivers has not changed over the three surveys.

These drivers tended to be similarly prominent across regions, with two notable exceptions. Quite distinct drivers emerged in the high-adoption regions of Tasmania and Mildura.

- In Tasmania, 51.0 per cent of adopters mentioned reasons related to ‘extra channels/variety’ (with access to ABC2 quite prominent), while 45.8 per cent mentioned reasons related to ‘improved reception/signal’.
- In Mildura, 56.4 per cent of adopters mentioned reasons related to ‘improved reception/signal’—though within these responses it was clear that the overwhelming reason concerned access to Channel Ten, which is only available in digital in that region.

Nature of purchase

The 2007 survey examined for the first time whether ‘digital’ was an important consideration when purchasing a new television; that is, whether purchase decisions were ‘active’ or ‘passive’.

A large proportion of adopter households can be thought of as ‘passive’ adopters—37.8 per cent indicated that digital free-to-air TV was not an important factor in the purchase of their new television. However, ‘active’ adopters—the 35.5 per cent of adopters who had a digital free-to-air television requirement at the outset—were not too far behind this leading group. In the middle were the ‘converts’—roughly one-fifth (18.9 per cent) of adopters became sold on the idea of digital free-to-air television while shopping.

- Regionally, the highest proportion of active adopters was in the high-adoption regions of Mildura (55.9 per cent) and Tasmania (44.8 per cent). The ACT, at 48.6 per cent, and Western Australia, at 41.0 per cent, also recorded ‘active’ adoption in excess of 40 per cent.
- The regions with the highest levels of ‘passive’ adoption (above 40 per cent) were South Australia (46.8 per cent), Queensland (42.7 per cent) and Broken Hill (40.2 per cent).

Non-adopter awareness and interest

Nationally, almost half of non-adopters (45.5 per cent) believed that digital free-to-air television was available in their area, while 8.7 per cent said it was not available (the comparison figures for 2006 were 37.5 per cent and 5.5 per cent, respectively). The remaining 45.9 per cent did not know whether DTTB was available to them (a significant decrease from the 56.9 per cent recorded in 2006).

Within this latter group, 15.0 per cent of non-adopters had not heard of digital free-to-air television (down from the 20.3 per cent recorded in 2006).

The two high-adoption areas of Tasmania (59.3 per cent) and Mildura (73.3 per cent) were the only analysis regions where a majority of non-adopter households indicated that digital free-to-air television was available in their areas. They were also the only regions where fewer than 10 per cent of non-adopter households did not know, or had never heard of, digital television (5.6 per cent and 1.2 per cent, respectively).

When asked about obtaining digital free-to-air television in the future, 39.9 per cent of non-adopters indicated interest. When asked further about the reasons underlying their interest, 33.0 per cent of interested non-adopter households cited reasons related to a ‘better picture’ as the reason, followed by 26.4 per cent citing the attraction of additional programming content. Following these most prominent drivers, 14.5 per cent indicated reasons related to ‘improved reception/signal’ and 13.5 per cent indicated that digital television will be needed in the future (within this, there was also some mention of the switchover to DTTB).

The composition of leading drivers for interest in digital free-to-air television has remained constant throughout the three surveys, suggesting a high degree of stability in perceptions relating to the attractiveness of digital free-to-air television over the last three years.

Characteristics of adopter versus non-adopter households

There were differences in the characteristics of adopter and non-adopter households (largely mirroring the insights from the earlier studies). Adopter households were characterised by higher subscription television uptake (39.9 per cent), broadband internet connectivity (70.7 per cent) and watching downloaded audio-visual content (29.8 per cent). Non-adopter households, on the other hand, were considerably lower on each of these measures.

There were also demographic differences to emerge, with non-adopter households featuring a relatively high incidence of low incomes and a higher proportion living in flats or apartments.

Non-adopter purchase plans

Purchase intentions among non-adopter households who indicated an interest in digital free-to-air television were examined:

- Plans to purchase—24.7 per cent of all non-adopters indicated they had actual plans to purchase a set-top box or integrated set.
- Purchase time-frame—less than half (42.5 per cent) of this ‘interested *with* purchase plans’ sub-group indicated purchase would take place in the next twelve months, with 25.6 per cent indicating ‘one to two years’, 21.3 per cent indicating ‘more than two years’ and the balance (10.7 per cent) not knowing. This group with short-term purchase plans equates to 10.5 per cent of the national non-adopter population.
- Regional comment—while general DTTB interest among non-adopters varied widely (from 48 per cent in Western Australia to 31 per cent in Broken Hill), the high-adoption areas of Tasmania and Mildura stand out positively from the national average (with 15 per cent and 13 per cent of non-adopters, respectively, indicating an intention to purchase in the next twelve months).

Reasons for non-interest in digital free-to-air television

The leading four reasons for not having *any* interest in taking up DTTB have been consistent throughout the three studies. Many non-adopter households are simply not that interested in television, are deterred by cost issues and/or are unaware of any compelling need to change (with analog switch-off not understood by many). The leading response categories were:

- ‘don’t watch much television/don’t want to watch more’ (29.1 per cent of non-adopters were not interested in digital free-to-air television)²;
- ‘don’t know much about it/haven’t thought about it’ (18.8 per cent);
- ‘have to buy equipment/too expensive/not good value’ (18.0 per cent);
- ‘currently satisfied/no need’ (15.3 per cent); and
- ‘just not interested/not important’ (7.4 per cent).

The verbatim response examples provided in this report illustrate the lack of a compelling reason to switch to digital free-to-air television for this group of households.

Information sources and requirements

Households were asked where they had found out about digital free-to-air television. Television (cited by 35.6 per cent of households), and friends, family and colleagues (19.4 per cent) provided the most prominent sources

² Lack of interest in watching television emerged as the leading reason in each of the ten regions included in this study.

of information in 2007. The third most prominent grouping was of households who indicated they had not sought or received any information on digital free-to-air television (15.3 per cent).

With the exception of Tasmania (where friends, family and colleagues were the most cited information sources) television was the leading information source in each region in the study.

Interested non-adopter households were also asked what specific additional knowledge or information they would require before converting to DTTB. Following the leading response category (where 29.0 per cent of interested households indicated having no need for further information), 19.4 per cent indicated they did not know or could not provide an answer, suggesting that information about digital free-to-air television is an issue for almost one-fifth of interested households. Following this category, many interested non-adopters had quite specific but basic information needs; for example, queries about cost, features, benefits and equipment options.

Regions included in this study tended to have similar information needs to those indicated nationally.

Interestingly, the high-adoption areas of Tasmania and Mildura both had high proportions of interested households that indicated they had no need for further information, suggesting a relatively high degree of self-assuredness in these regions (36.8 per cent and 72.4 per cent indicating no information need, respectively).

Subscription television

Subscription television take-up has also grown between 2005 and 2007, albeit at a much lower rate than digital free-to-air television. In December 2007, 29.0 per cent of Australian households indicated they had a subscription television service, an increase of 2.6 percentage points from 2006.

It is estimated that 54.2 per cent of households nationally had either digital free-to-air or digital subscription television in December 2007.

A high degree of variation in subscription television uptake was evident across the analysis regions. South Australia was the only region indicating sub-20 per cent take-up, while New South Wales, Queensland, Western Australia, the Northern Territory, the ACT and Broken Hill all indicated levels above 30 per cent.

Analog switch-off

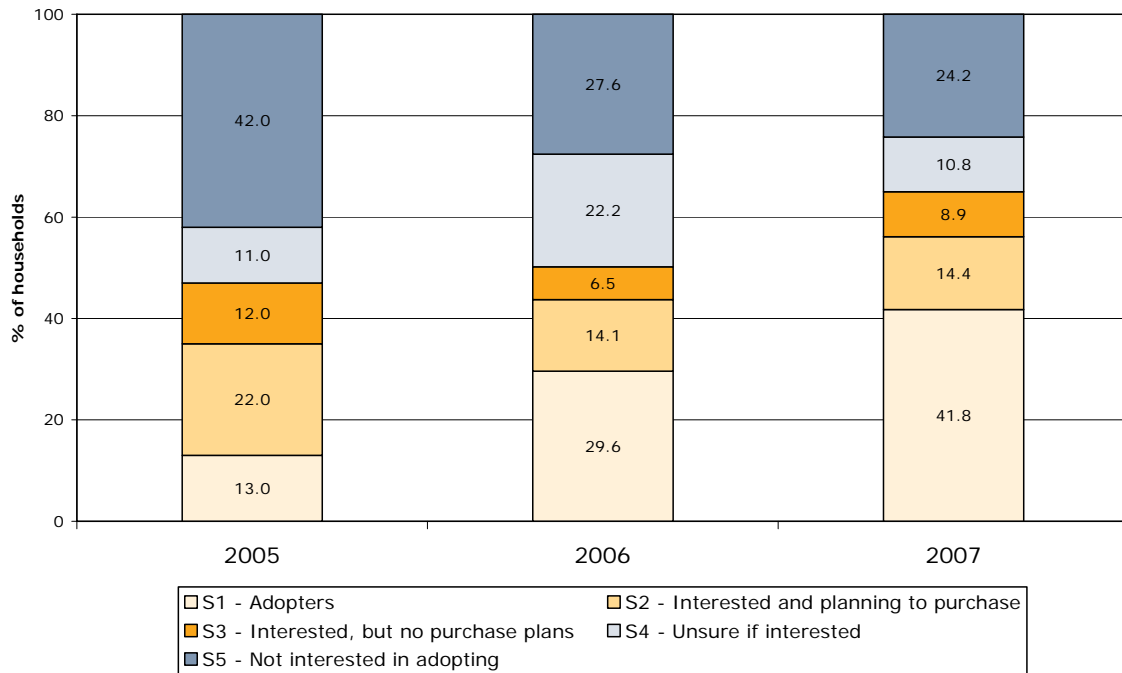
Sixty-seven per cent of households were aware of analog switch-off, a result similar to the 2006 study and only a small increase on the 62 per cent recorded in 2005. That nearly one-third of all households remain unaware indicates that analog switch-off/DTTB switchover has not made any inroads into general community awareness since the last survey.

There was some regional variation in awareness evident, with fewer than 60 per cent of households in both the Northern Territory and Broken Hill indicating awareness; this rose to above 70 per cent in both South Australia and the ACT. The high-adoption regions of Tasmania and Mildura did not have a correspondingly high awareness of analog switch-off, although they had higher awareness of digital television. In Mildura, awareness (62.4 per cent) was lower than the digital free-to-air adoption figure, suggesting that digital adoption is currently relatively independent of analog switch-off.

Household segmentation

This study revealed the distinct digital free-to-air adoption-intention segments that exist across Australian households. The segmentation for 2007 is contrasted against earlier studies in Figure 1.

Figure 1: Adoption-intention segmentation, 2005–2007



Base: All households, N=1,945 (2007), 1,537 (2006), 1,148 (2005)

In December 2007 the following adoption-intention segments were observed nationally:

- *adopter* households—41.8 per cent;
- non-adopters who are *interested and planning to purchase*—14.4 per cent;
- non-adopters who are interested but have no plans to purchase—8.9 per cent;
- non-adopters who are *unsure* whether they are interested—10.8 per cent; and
- non-adopters who are *not* interested in adopting—24.2 per cent.

While there was strong growth apparent among adopters, the ‘not interested in adopting’ segment has not reduced significantly from 2006, after a significant reduction between 2005 and 2006 (24.2 per cent in 2007, down from 27.6 per cent in 2006 and 42.0 per cent in 2005).

Conclusions

This latest survey indicates that digital free-to-air television take-up has progressed strongly over the last 14 months—42 per cent of households nationally had at least one digital television at the end of 2007. However, the research has also revealed that a substantial number of purchases can be considered ‘passive’ adoption decisions—many do not include a conscious choice to purchase digital. In addition:

- interested non-adopters are still relatively tentative about their purchase intentions;
- non-interested households still do not understand what digital free-to-air may offer, with their overall representation similar to that of 2006;
- there has been no change in awareness of future analog switch-off; and
- regions with higher digital adoption have primarily resulted from a desire to access one or two previously unavailable channels—independent of switchover considerations or any broader digital ‘promise’ (for example, HDTV, interactivity and more extensive multi-channelling).

The 2007 survey suggests that the information gaps about digital free-to-air television remain considerable in 2008. The challenge is to improve community awareness of the digital switchover that is occurring before the end of 2013.

3

RESEARCH OBJECTIVES AND DESIGN

Research objectives

The 2007 survey was designed to meet the following objectives:

1. Identify the type and number of devices used to receive and watch free-to-air television in households, and the mode of television reception (that is, digital or analog).
2. Identify the proportion of households with digital subscription television and the extent to which free-to-air digital TV is received through a subscription television service.
3. Understand free-to-air television program-recording behaviours and hardware used.
4. Measure awareness and take-up of HDTV.
5. Identify digital television adoption ‘drivers’ among adopters, and the nature of ‘barriers’ among non-adopters.
6. Examine non-adopter intentions for digital free-to-air television.
7. Determine the extent of non-adopters’ knowledge about the availability of digital television in their area and sources of information about digital television, as well as general awareness (including among adopters) about analog switch-off.
8. Identify if there are any statistically significant differences between metropolitan capital cities and regional areas in each mainland state in the adoption of digital free-to-air television, as well as statistically usable samples for Tasmania, the Northern Territory and the ACT.
9. Understand the characteristics of two regional centres—Mildura and Broken Hill—in terms of the above objectives;
10. Segment households according to adopter and non-adopter (planning to adopt, undecided and uninterested in adopting) status;
11. Understand the relevant demographic characteristics of the sample and sub-groups.
12. Identify the proportion of households with broadband and dial-up internet connections, and the use of broadband for downloading audio-visual content.
13. Compare key findings from 2007 to those from the 2005 and 2006 studies.

The research design was developed to meet these objectives, as detailed in the following section.

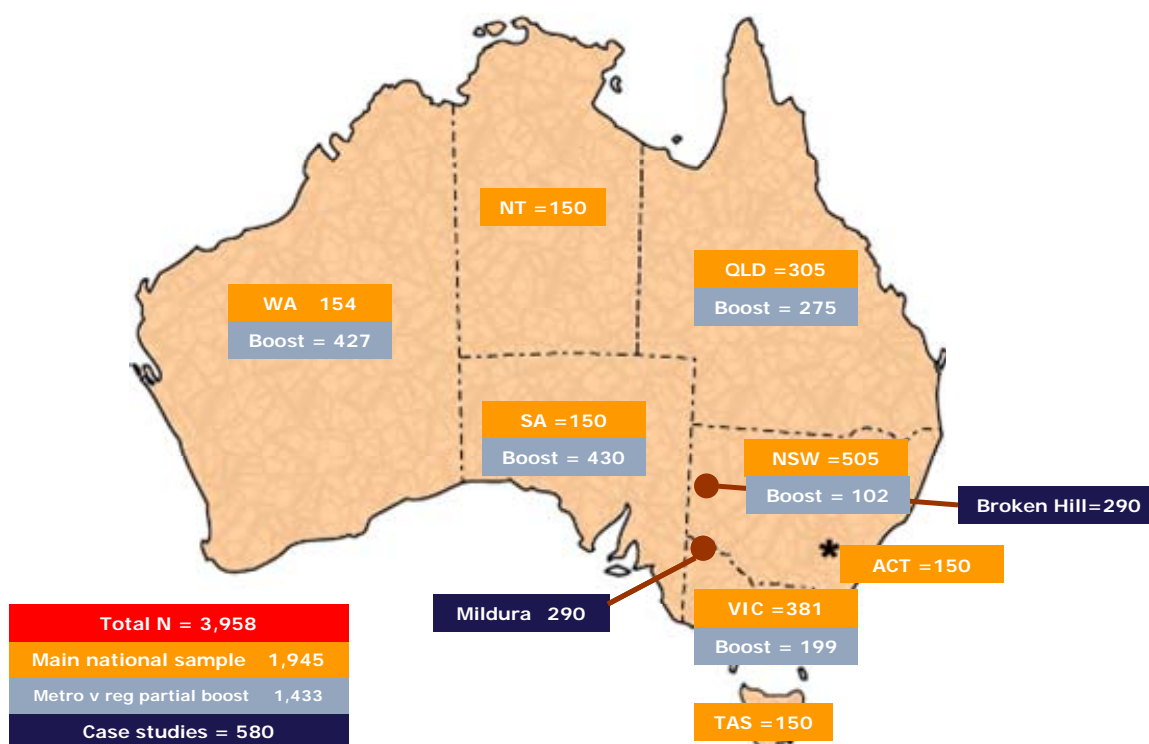
Sample design

As in the previous studies, accessing a representative national sample of Australian households to establish a picture of the 2007 digital television environment was again required, though the complexity was increased through the additional regional requirements outlined above. A ‘full’ survey supplemented by a ‘partial’ survey was utilised to maximise sample robustness and efficiency, within the project resources available. The key sample components were as follows:

- An ‘initial’ national target of N=1,537 (representative on state/territory and intra-state metropolitan versus regional populations³) ‘boosted’ by n=408 additional respondents to ensure each state/territory had a minimum of 150⁴ households. The N=1,945 generated represents the main national sample, with all aggregate/comparative analyses utilising weighting (based on ABS statistics) to ensure unbiased representation of all boosted groups.
- An additional 1,433 partial interviews (a three-minute abbreviated version of the survey instrument) geographically distributed across mainland states, to ensure a minimum of n=290 was achieved for each state’s mainland and regional analysis ‘cell’. This target was determined by answering the question ‘*what overall sample will enable a robust sub-sample of adopters to emerge within each cell?*’ Adopting a conservative estimate of 30 per cent DTTB penetration within each cell of n=290, there is a 95 per cent confidence interval of ±7.5 per cent on the difference between two proportions.
- A sample of N=290 was used for each of the regional centres (Mildura and Broken Hill).

With these definitions in mind, the structure of the overall sample design is illustrated in Figure 2.

Figure 2: Sample design summary



³ As per ABS 3101.0 and 3218.0

⁴ n=150 affords a 95 per cent confidence interval of +/-8 per cent.

Information collection

Random Digit Dialling (RDD) was used to generate the national (and case study) sampling frame of Australian households. The case study postcodes were as follows:

- Mildura region postcodes—2717, 2738 (NSW); 3496, 3498, 3500, 3501 3505 (Victoria)
- Broken Hill region postcodes—2836, 2878, 2879, 2880.

As in the earlier studies, the primary screening question was:

‘Does your household have a television?’

followed by:

‘I need to speak with someone in your household who makes decisions or contributes to making decisions about the purchase of items such as televisions. Are you 16 years or over and a decision-maker in regard to this type of item?’

Survey content

The final questionnaire used for the 2007 study is included at Appendix A. It is similar to the 2006 questionnaire, with additional questions including—the nature of digital television purchases (‘active’ versus ‘passive’), the watching of digital free-to-air television through a subscription television service and additional detail on program-recording hardware. Sections of the questionnaire that were administered to partial survey recipients are highlighted. The additional questions were included based on the insights provided in the qualitative study conducted earlier in 2007.

Fieldwork

Fieldwork was conducted by AMRInteractive between 14 November and 6 December 2007. Over this period, 11,602 telephone calls were made to households across Australia to reach the sample target. Interviews averaged eight minutes (full version) and three minutes (partial version) in duration.

Analysis and reporting

All analysis was conducted using SPSS statistical and Microsoft Excel spreadsheet applications.

4

SAMPLE CHARACTERISTICS

Introduction

Key demographic and other characteristics of the main national sample (N=1,945) and two regional samples (N=290 x 2) are presented below.

NATIONAL PROJECTION CONSIDERATIONS

One of the key findings in the survey was that 41.8 per cent of households reported having at least one device that received digital free-to-air television. In other words, the adoption of digital free-to-air television among households (with a fixed-line telephone and a working television) was 41.8 per cent.

The 95 per cent confidence interval on 41.8 per cent from a sample of 1,945 is ± 2.19 per cent. So, the estimated penetration of DTTB ranges from 39.6 per cent to 44.0 per cent.

Households without a fixed-line telephone were excluded from this research for practical and financial reasons. It is estimated that approximately eight per cent of Australian households do not have a fixed-line telephone. The take-up of digital television in these households may be lower than in households with a fixed-line phone.

A small number of households (0.51 per cent) that did have a fixed-line telephone were also excluded from this research because they did not have a working television. Taking these two groups that were excluded from the research into account, the adoption of DTTB in all Australian households is likely to be slightly below 41.8 per cent.

Key household characteristics

Key household characteristics that emerged from the main national and regional case study samples of television-using households are presented in Table 1.

Anticipated incidences in important sub-groups—for example, language other than English (LOTE) households, dwelling type and households where a person with a disability lived—were achieved for the main national sample, helping to confirm the representativeness of the final sample.

Statistically significant differences are highlighted in bold in the tables.

Table 1: Household sample characteristics, December 2007

Household characteristics	National (weighted) per cent	Mildura per cent	Broken Hill per cent
Location			
Mainland state capital	60.4	n/a	n/a
Regional/other	39.6	n/a	n/a
NSW	32.9	n/a	n/a
Vic	24.8	n/a	n/a
Qld	19.8	n/a	n/a
WA	7.6	n/a	n/a
SA	10.0	n/a	n/a
Tas	2.4	n/a	n/a
ACT	1.6	n/a	n/a
NT	1.0	n/a	n/a
Children			
Children under 16 in household	31.0	37.9	25.5
Adults-only household	69.0	62.1	74.5
Annual household income before tax			
Under \$15,000	6.6	8.6	14.5
\$15,001-\$30,000	9.6	13.1	17.6
\$30,001-\$50,000	13.4	16.2	14.5
\$50,001-\$70,000	15.7	20.0	10.7
\$70,001-\$100,000	14.5	13.8	14.8
Over \$100,000	18.2	9.0	9.3
Refused	21.8	19.3	18.6
Language			
LOTE (Language Other Than English) spoken in household	17.3	9.3	5.5
Type of house			
House or townhouse	84.2	86.9	93.8
Flat, unit or apartment	12.7	10.0	3.8
Other	3.1	3.1	2.4
Disability			
Disability (respondent/other in household)	12.4	17.6	26.6

Base: All households in main national sample N=1,945, Mildura households N=290, Broken Hill households N=290

DATA WEIGHTING

As noted earlier, all national data presented in this report are underpinned by state and territory data that have been weighted⁵ to reflect regional characteristics, based on Australian Bureau of Statistics data⁶. For the ‘intra-state analysis’, when partial and full survey data were integrated to determine metropolitan versus regional DTTB adoption differences in mainland states, data were also weighted *within* each state, to reflect true incidence.

⁵ Weighting is the process of adjusting results from a sample survey to infer results for the total population. To do this, a ‘weight’ is allocated to each sample unit. The weight is a value that indicates how many population units are represented by the sample unit.

⁶ State/territory weightings referenced ABS 3101.0—Australian Demographic Statistics 2006 Census Edition: Preliminary, Metropolitan versus regional weightings referenced ABS 3218.0—Regional Population Growth, Australia, 1996 to 2006.

5

RESEARCH FINDINGS

In this section, the findings of the *Digital Television in Australian Homes—2007* study are presented in detail, specifically covering:

- a general overview of the December 2007 results, and comparison with those from the previous surveys, for digital television take-up and television ‘hardware’ types;
- an examination of digital free-to-air television purchase motivations;
- a comparison of media usage and demographic characteristics between adopter and non-adopter households;
- non-adopter intentions and attitudes towards digital free-to-air television;
- reasons for non-interest in digital free-to-air television among non-adopters;
- awareness and usage of HDTV;
- a description of broader media usage and behaviours in segments of interest within the sample;
- general awareness of digital free-to-air television (including awareness of analog switch-off) and information sources; and
- a segmentation of households according to their digital free-to-air television adoption-intention status (compared with the breakdowns identified in past studies).

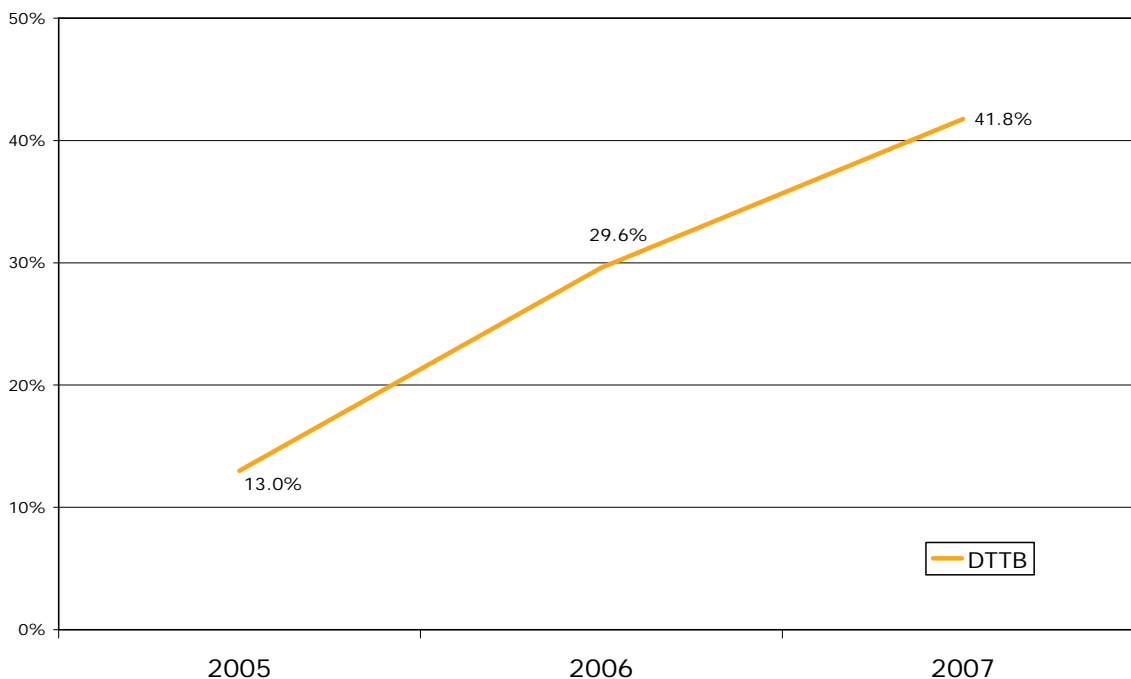
Digital free-to-air television—December 2007 overview

NATIONAL GROWTH IN DIGITAL FREE-TO-AIR TELEVISION ADOPTION

As in previous years, households were asked about their televisions and other devices capable of receiving digital free-to-air television. In addition to integrated receivers and separate set-top boxes capable of receiving DTTB, households were also presented with the option of ‘a computer with a digital tuner card’ to reflect the recent emergence of USB tuner cards and other options for watching digital free-to-air television on computers.

The overall household penetration of digital free-to-air television in December 2007 (that is, the proportion of households with one or more device capable of receiving DTTB) is presented in Figure 3 with results obtained in the earlier studies.

Figure 3: Growth in digital free-to-air television, 2005–2007



Base: All households N=1,945 (December 2007), 1,537 (October 2006), 1,148 (July 2005)

The continuing upward trend in adoption is apparent. In December 2007, 41.8 per cent of households nationally indicated that they were equipped with one (or more) digital free-to-air television-capable devices—a rise of 12.2 percentage points over the October 2006 result (and an increase of 28.8 percentage points from the figure in the initial study in July 2005).⁷

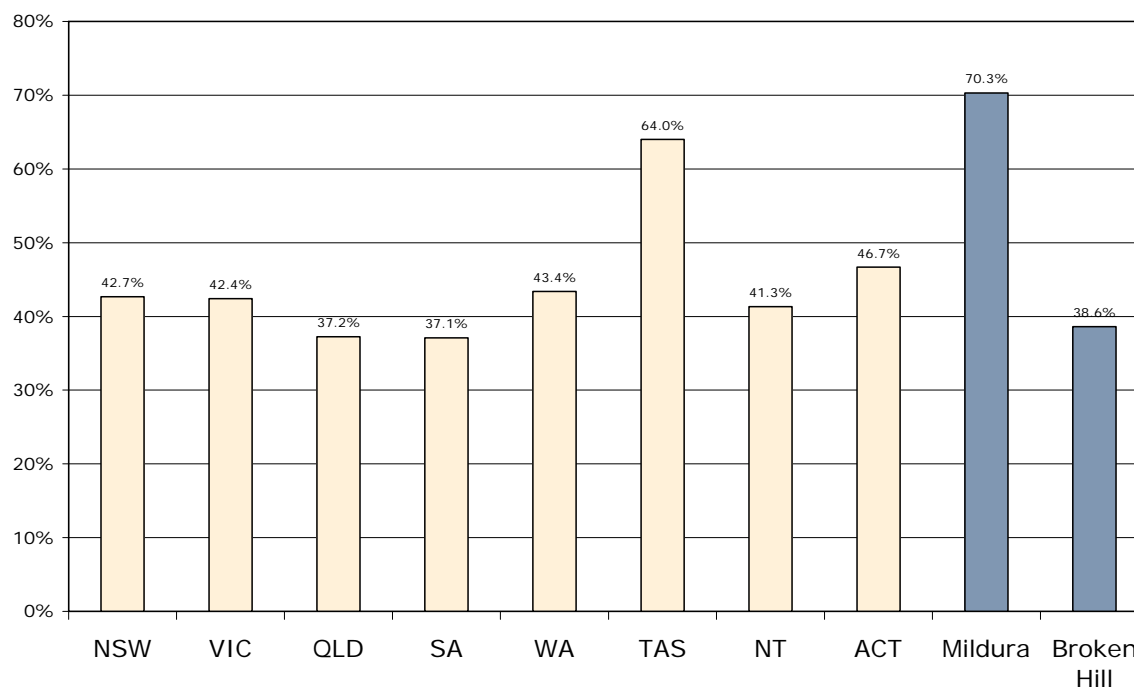
REGIONAL COMPARISON OF DIGITAL FREE-TO-AIR TELEVISION UPTAKE

Given the increased focus on switchover, and the need to establish whether there is significant regional variation in digital television uptake, the 2007 study collected regional data on digital free-to-air television adoption for the first time.

Digital free-to-air television uptake across each state, territory and case study region is shown in Figure 4.

⁷ Also see the considerations for national figures given on p.15 (above).

Figure 4: Regional adoption of digital free-to-air television, December 2007



Base: All households in each state. DTTB for mainland includes boost sample, n=... NSW (607), Vic (581), Qld (581), SA (580), WA (581), Tas (150), NT (150), ACT (150), Mildura (290), Broken Hill (290)

The chart reveals a relatively low degree of variation from the national figure in eight out of ten cases, ranging from 37.1 per cent in South Australia to 46.7 per cent in the ACT. The notable exceptions are Tasmania (64.0 per cent) and Mildura (70.3 per cent). However, there are distinct local factors that account for these high figures, as discussed later in this report.

A key objective of the 2007 research was to ascertain whether there were substantial differences in adoption between metropolitan and regional areas, within mainland states. Only two statistically significant outcomes emerged⁸, in the cases of Western Australia and Queensland:

- Western Australia—metropolitan adoption 47.9 per cent versus regional 30.6 per cent; and
- Queensland—metropolitan adoption 41.7 per cent versus regional 33.8 per cent.

The remaining mainland states exhibited a high degree of similarity between metropolitan and regional areas:

- New South Wales—metropolitan 42.0 per cent versus regional 43.8 per cent;
- Victoria—metropolitan 43.4 per cent versus regional 39.7 per cent; and
- South Australia—metropolitan 36.9 per cent versus regional 37.2 per cent.

The disparity within Western Australia—a gap of 17.3 percentage points—is particularly conspicuous when contrasted with other mainland states. With new regional initiatives (for example, new commercial television services) planned for Western Australia⁹, it is likely that this difference will be less prominent as a faster pace of adoption is encouraged in the future.

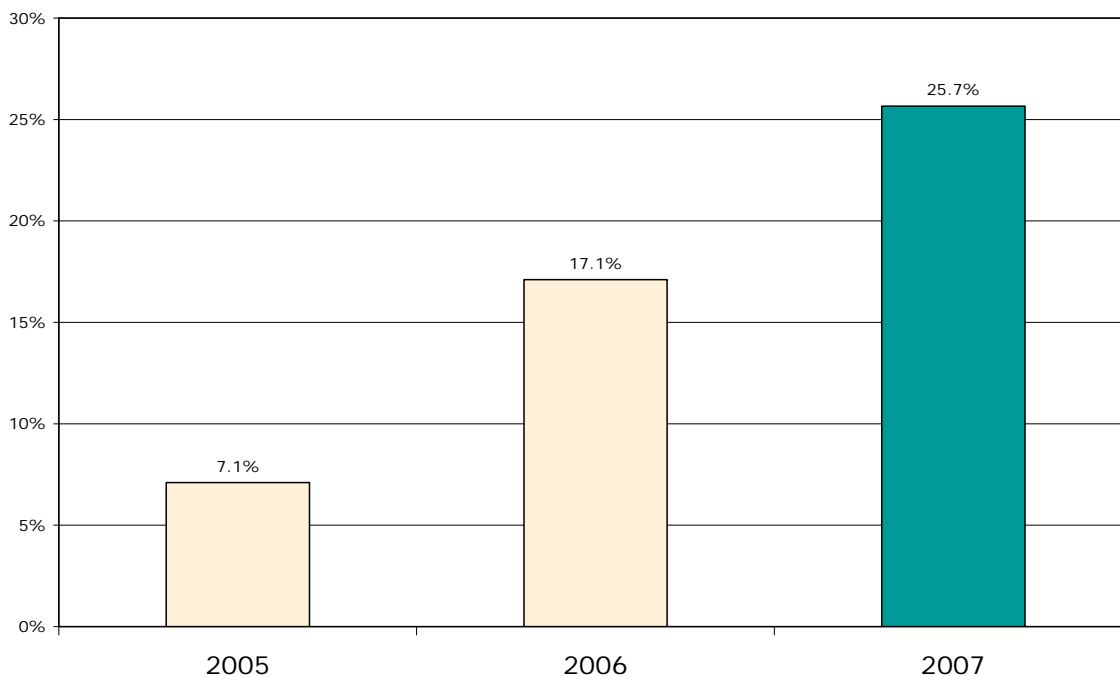
⁸ One-way ANOVA revealed F values of 14.0 (significance value .000) and 3.9 (significance value .050), respectively.

⁹ http://www.acma.gov.au/WEB/STANDARD/pc=PC_310592

DIGITAL FREE-TO-AIR TELEVISION DEVICES WITHIN OVERALL TELEVISION STOCK—NATIONAL

The sample of 1,945 households yielded a total of 4,338 television display devices. This represents an average of 2.2 television display devices per household. Of these, 1,113 (or 25.7 per cent of all television display devices) were capable of receiving digital free-to-air television. This 2007 result is contrasted with the results obtained in earlier studies in Figure 5.

Figure 5: Digital free-to-air television devices within overall stock of televisions, 2005–2007



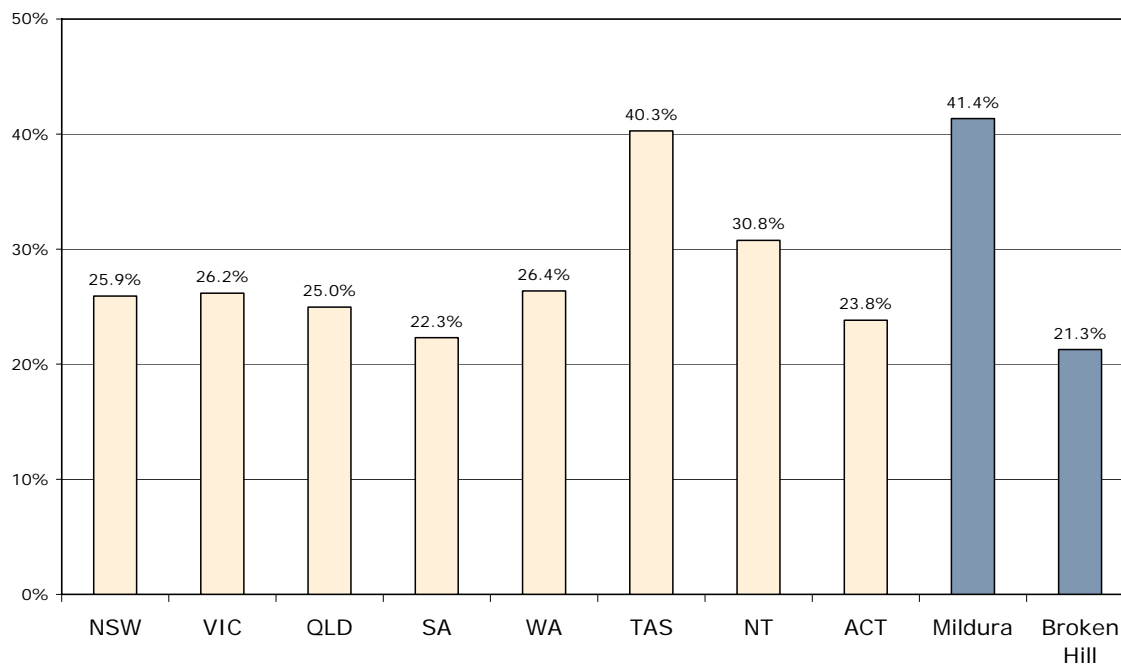
Base: All TVs in national sample N=4,338 (2007), 3,564 (2006), 2,608 (2005)

After a ten percentage point gain between the 2005 and 2006 studies, the gain in 2007 was only marginally lower at 8.6 percentage points.

DIGITAL FREE-TO-AIR TELEVISION DEVICES WITHIN OVERALL TELEVISION STOCK—REGIONAL

The representation of digital free-to-air television devices regionally was also examined, with results summarised in Figure 6.

Figure 6: Digital free-to-air television devices within overall stock of televisions, by region, December 2007



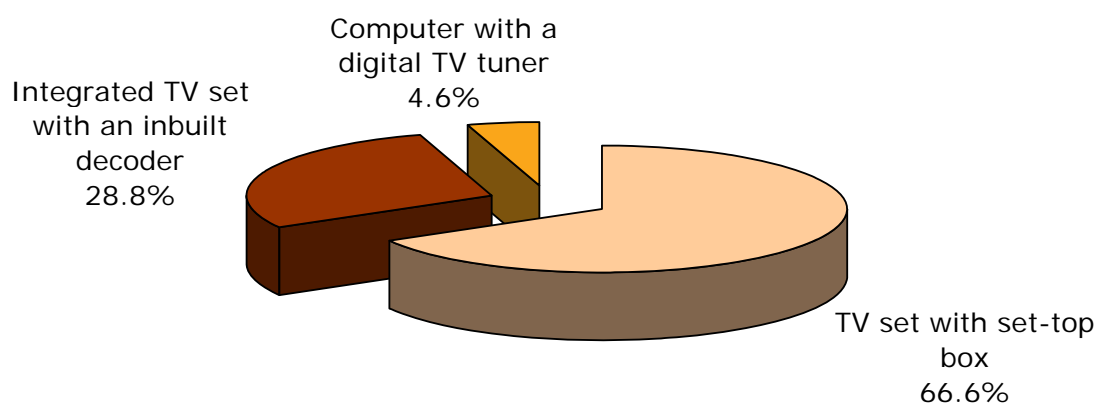
Base: All TVs in each state, unweighted sample NSW (n=1,327), Vic (n=1,311), Qld (n=1,286), SA (n=1,322), WA (n=1,365), Tas (n=360), NT (n=273), ACT (n=386), Mildura (n=694), Broken Hill (n=780)

With the exception of the two high-adoption regions of Tasmania and Mildura (where digital free-to-air television devices accounted for just over 40 per cent of the overall stock of televisions) the remainder of the regions in the study indicated figures of between 21.3 per cent (Broken Hill) and 30.8 per cent (the Northern Territory) for the representation of digital free-to-air television devices within the overall stock of televisions.

DTTB HARDWARE BREAKDOWN

In the 2007 research, adopter households were also asked about the type(s) of digital free-to-air television 'hardware' they used. The results are depicted in Figure 7.

Figure 7: Breakdown of digital free-to-air television devices, national, December 2007



Base: All DTTB sets, n=1,113

The breakdown of digital free-to-air television devices (from most to least common) is as follows:

- television set equipped with DTTB set-top box (66.6 per cent);
- integrated set with inbuilt DTTB decoder (28.8 per cent); and
- computer with DTTB tuner (4.6 per cent).

Regional figures also showed set-top boxes to be dominant, as expected. Representation was below 60 per cent in only two cases—Queensland, 55.3 per cent and Western Australia, 58.0 per cent. The prevalence of set-top boxes was particularly high in the high-adoption areas of Tasmania (74.7 per cent) and Mildura (80.6 per cent). The adoption drivers identified in the following section suggest that set-top boxes are an efficient and easy way to access extra content that is available only via digital.

Digital free-to-air television uptake—purchase decisions and motivations

As in previous studies, the drivers for adoption were also examined in 2007. However, the 2007 questionnaire included an additional question that examined whether purchases of digital television equipment were ‘active’ or ‘passive’. The question was suggested following qualitative research undertaken earlier in 2007 (see Appendix B) indicating that a portion of adopter households were ‘passive’ in their decision to take-up digital; that is, their decision to purchase digital television equipment was independent of considerations associated with digital free-to-air broadcasts.¹⁰

NATURE OF PURCHASE—‘ACTIVE’ OR ‘PASSIVE’?

Households were presented with three options to capture information about the nature of their decision to purchase new television equipment. In asking them to reflect on their decision to adopt digital free-to-air television, they were asked whether:

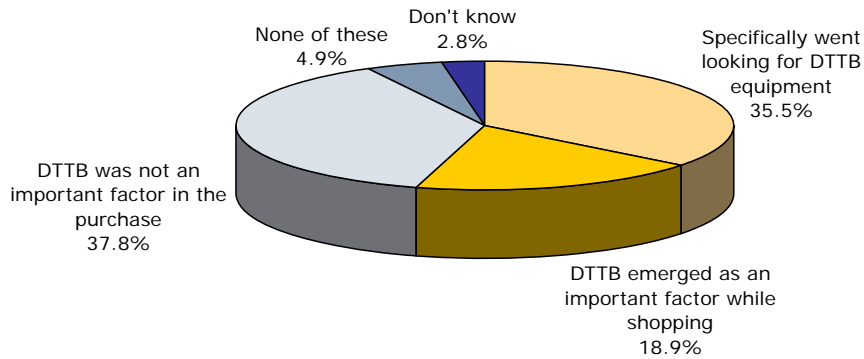
- they specifically went looking for equipment that could receive digital free-to-air television;
- digital free-to-air television emerged as an important factor while shopping; or

¹⁰ The qualitative research undertaken earlier in 2007 suggested that, for a proportion of households, adoption of digital television was a by-product of buying a new television and was not something consciously sought out. The survey has quantified this insight and indicates that this is a valid way to look at digital television adoption.

- digital free-to-air television was not an important factor in the purchase.

The national results are presented in Figure 8.

Figure 8: Nature of television equipment purchase, national, December 2007



Base: All adopter households, n=812

For the largest proportion of households (37.8 per cent) digital free-to-air television was not an important factor in their purchase decision. Close behind were the ‘active’ purchasers—the 35.5 per cent of adopters who indicated they had a digital free-to-air television need at the outset of the broader purchase decision-making. In the middle were the ‘converts’—roughly one-fifth (18.9 per cent) of adopters who became sold on the idea of digital free-to-air television while shopping.

Regionally, the highest proportions of ‘active’ adopters were in the high-adoption regions of Mildura (55.9 per cent) and Tasmania (44.8 per cent). The ACT, at 48.6 per cent, and Western Australia, at 41.0 per cent, also recorded ‘active’ adoption in excess of 40 per cent.

South Australia (46.8 per cent), Queensland (42.7 per cent) and Broken Hill (40.2 per cent) were regions with high ‘passive’ adoption (more than 40 per cent).

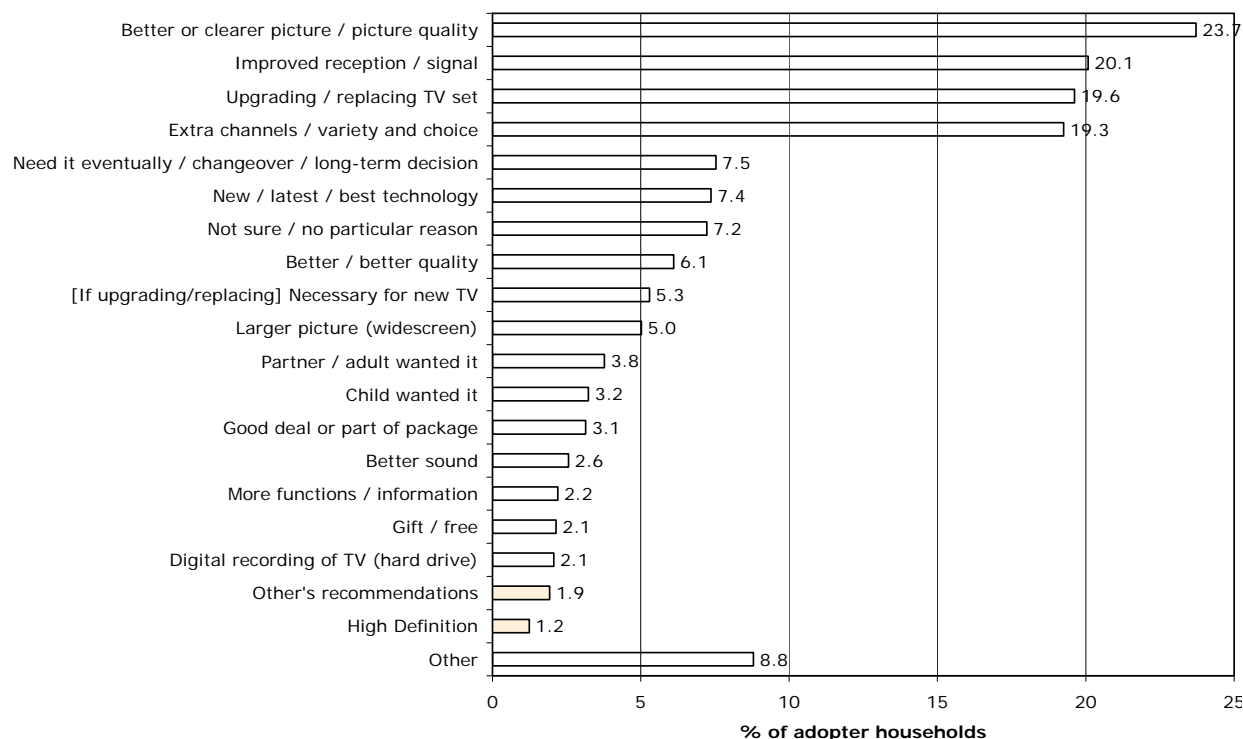
PURCHASE DRIVERS

To identify the drivers for digital free-to-air television adoption, adopter households were presented with the following open-ended question (and prompts):

‘I would now like to talk about digital free-to-air TV. Please think about the reasons why you decided to get digital TV in your household. What do you think was the main reason? (Prompt) Any others?’

The range of reasons provided were analysed and grouped into the answer categories presented in Figure 9.

Figure 9: Reasons for conversion (all mentions), national, December 2007



Base: All adopter households, n=812

The top four groups of reasons were the same as those for both of the earlier surveys, suggesting a high degree of stability in underlying motivations for digital television take-up over the three years.

More than 23 per cent of adopter households in 2007 cited reasons relating to ‘enhanced picture or better picture’ for digital conversion. This has remained the most prominent driver of adoption over the three surveys (37 and 26 per cent of adopters cited such reasons in 2006 and 2005, respectively). This reason was followed by more ‘functional’ reasons relating to ‘improved reception or signal’—these were mentioned by 20.1 per cent of adopters (20 per cent also in 2006 and 25 per cent in 2005).

Within this latter category, for historical comparability, reasons related to accessing ‘normal’ free-to-air signals and programming have been included, which has local significance in the high-adoption regions (see below).

Reasons associated with ‘television upgrades’ had slightly less prominence in 2007, at 19.6 per cent (versus 28 per cent in 2006 and only 11 per cent in 2005). This was followed by reasons relating to ‘extra channels, variety and choice’ at 19.3 per cent (versus 16 per cent in 2006 and 19 per cent in 2005).

Within this latter category, new digital services such as ABC2 have a noticeably higher degree of prominence than in previous years.

It is also interesting to note that, despite high awareness, high definition has retreated in its prominence and remains a relatively small driver for adoption, at 1.2 per cent (after rising to almost five per cent in 2006).

Examples of verbatim responses that explain the nature of the main response categories are presented below.

1. Better or clearer picture/picture quality (23.7 per cent)

‘Such a clear picture and the size of it is lovely. Good for watching sport and nature shows.’

‘For picture quality, it’s so much improved from the analog free-to-air. It’s a much better quality picture than analog. The image is sharper and clearer.’

‘My husband really wanted it for picture quality.’

‘Better picture quality, the other one sucks.’

2. Improved reception/signal (20.1 per cent)

‘Our old TV was old and the new one is much clearer—much better signal.’

‘The reception is better—we live in a rural area.’

‘No interference.’

‘Wanted to get good reception.’

3. Upgrading/replacing TV/need for new TV (19.6 per cent)

‘Because we’d heard a year or two down the track that we’d need to buy a digital TV to view TV, so that’s the reason why we got in early so we wouldn’t miss out, and we just bought a brand new TV and it cost us a fortune. We didn’t want the money to go down the drain.’

‘I needed to get another TV and I wanted to get an ‘up to the minute’ one, and it’s an LCD TV, not a plasma.’

‘The old TV needed replacing.’

‘We needed a new TV so thought might as well get digital.’

4. Extra channels/variety and choice (19.3 per cent)

‘... the additional programs available.’

‘To get ABC2 for the young fellow.’

‘I suppose that because there are a couple of extra channels, including ABC2 for the kids.’

This cluster of leading drivers was also apparent in the various states and territories, and case study regions, with two notable exceptions—the high-adoption regions of Mildura and Tasmania, where access to content not available on analog was a particularly strong reason. This is described in more detail below.

REGIONAL DIFFERENCES IN PURCHASE DRIVERS—MILDURA

In the case of Mildura, access to Channel Ten (which is only available in digital in that region) provided the strongest reason for conversion to digital among adopter households. In all, 56.4 per cent of Mildura adopters cited reasons that have been categorised as ‘improved reception/signal’ (more than double that of the national average). Almost all of such responses from Mildura residents made specific mention of Channel Ten’s ‘normal’ programming. As noted above, where access to normal free-to-air programming has been cited as a driver (as opposed to ‘multi-channelling’ of the form offered by ABC2), this has been categorised as ‘improved reception/signal’ for historical consistency reasons. There was a significant gap between this and other reasons given for adoption within Mildura (the next highest category was the related category of ‘extra channels/variety and choice’, at 18.1 per cent, but without specific mention of Channel Ten).

Some examples of comments that illustrate the appeal of accessing Channel Ten programming in Mildura were.

‘In Mildura the only way we could get Channel 10 was by buying a digital set-top box.’

‘This area does not get Channel 10, got digital so I could get it.’

‘Because we could not get Channel 10 – it is a remote area.’

‘For an extra channel – we’re out here in the country and you don’t get many channels.’

‘Well the main one was to get access to a fifth channel, Channel 10.’

‘Kids wanted to watch the OC.’

REGIONAL DIFFERENCES IN PURCHASE DRIVERS—BROKEN HILL

By comparison, in Broken Hill, where the rate of adoption is significantly lower than in Mildura, the main drivers were better or clearer picture/picture quality (23.2 per cent), improved reception/signal (22.3 per cent) and extra channels/variety and choice (20.5 per cent). Unlike Mildura, Broken Hill exhibited adopter motivations very similar to national norms.

REGIONAL DIFFERENCES IN PURCHASE DRIVERS—TASMANIA

In the case of Tasmania, a similar pattern to Mildura was evident, although it was not centred on access to Channel Ten. At the forefront were reasons related to ‘extra channels/variety and choice’ (51 per cent of adopters), closely followed by ‘improved reception/signal’ (46 per cent of adopters). While some mention of access to Channel Ten was evident in the latter category, there was also a significant ‘problem resolution’ flavour evident within this category. Some examples of comments provided within both of these categories are provided below.

1. Extra channels/variety and choice (51 per cent of Tasmania adopters)

‘It was cheap to do it and we get two more channels.’

‘Just having extra channels as an extra option.’

‘Because it gets more channels.’

‘ABC2.’

‘Another couple of channels.’

‘Get more stations (like) ABC2.’

‘Just more choice.’

2. Improved reception/signal (46 per cent of Tasmania adopters)

‘Just to get a better signal.’

‘Clarity, better signal. I’m in Tasmania and it’s 85ks line of sight for the signal, and I set up some digital TV’s for better reception.’

‘We couldn’t get Channel Ten.’

‘A better reception because the reception we had at the time was impossible - we are in an area that doesn’t get good reception.’

LEADING ADOPTION DRIVERS—OTHER REGIONS

The leading drivers cited by adopters in other regions are summarised below and illustrate a strong degree of consistency.

- NSW—improved reception/signal (23.9 per cent), extra channels/variety and choice (22.9 per cent) and better or clearer picture/picture quality (22.0 per cent).
- Victoria—better or clearer picture/picture quality (27.4 per cent), upgrading/replacing TV/need for new TV (20.7 per cent) and extra channels/variety and choice (15.2 per cent).

- Queensland—upgrading/replacing TV/need for new TV (25.5 per cent), better or clearer picture/picture quality (21.8 per cent) and improved reception/signal (also 21.8 per cent).
- South Australia—upgrading/replacing TV/need for new (27.4 per cent), better or clearer picture/picture quality (21.0 per cent) and extra channels/variety and choice (17.7 per cent).
- Western Australia—better or clearer picture/picture quality (29.5 per cent), upgrading/replacing TV/need for new TV (26.2 per cent) and new/latest/best technology (16.4 per cent).
- NT—improved reception/signal (33.9 per cent), better or clearer picture/picture quality (17.7 per cent) and extra channels/variety and choice (14.5 per cent).
- ACT—improved reception/signal (27.1 per cent), upgrading/replacing TV/need for new TV (21.4 per cent) and better or clearer picture/picture quality (20.0 per cent).

Detailed adopter/non-adopter household comparison

In this section, access to and use of various media as well as the demographic characteristics of adopter and non-adopter households are compared.

Looking first at media ownership and usage, some marked differences are apparent, as Table 2 below indicates.

Table 2: Digital media ownership/usage—DTTB adopters and non-adopters, December 2007

Media	Per cent penetration		
	DTTB adopters	Non-adopters	National random sample
Subscription TV	39.9	21.3	29.0
Broadband internet	70.7	55.2	61.7
Watching AV content from internet or on mobile in last month	29.8	18.5	23.2

Base: All non-adopter households in random sample n=1,133; all DTTB adopter households n=812, N_{TOTAL}=1,945. Data in **bold** represent statistically significant differences.

Significant differences are evident between digital free-to-air adopter and non-adopter sub-groups for each of these three media categories.¹¹ Adopter households were characterised by higher subscription television usage (39.9 per cent), higher broadband internet connectivity (70.7 per cent), and a higher proportion downloading and watching audiovisual content from the internet or on a mobile in the last month (29.8 per cent). Non-adopter households, on the other hand, were considerably lower on each measure.

¹¹ Adjusted standardised residuals for each cell in the contingency tables were examined. A value of ± 1.96 or more indicates a significant deviation from the expected value for that cell using an alpha value of 0.05.

Demographic differences between adopter and non-adopter households are summarised in Table 3.

Table 3: Demographic characteristics—DTTB adopters and non-adopters, December 2007

Household characteristic	Per cent		
	DTTB adopters	Non-adopters	National random sample
Children			
Children under 16 in household	32.8	29.7	31.0
Adults-only household	67.2	70.0	69.0
Annual household income before tax			
Under \$15,000	3.2	9.1	6.6
\$15,001–\$30,000	6.6	11.7	9.6
\$30,001–\$50,000	13.7	13.3	13.4
\$50,001–\$70,000	15.9	15.6	15.7
\$70,001–\$100,000	17.3	12.5	14.6
Over \$100,000	23.9	14.1	18.2
Language			
LOTE spoken in household	16.5	17.9	17.3
Type of house			
House or townhouse	86.8	82.3	84.2
Flat, unit or apartment	11.0	14.0	12.7
Disability			
Disability (respondent/other in household)	10.9	13.4	12.4

Base: All non-adopter households in random sample n=1,133, all DTTB adopter households n=812, N_{TOTAL}=1,945.
Data in **bold** represent statistically significant differences.

The following statistically significant differences emerged in the profiles of these two groups:

- higher income households featured *more* prominently among DTTB adopters (41.2 per cent with household income over \$70,000 per annum versus 26.6 per cent for non-adopter households);
- lower income households featured *less* prominently among DTTB adopters (9.8 per cent with household income under \$30,001 per annum versus 20.87 per cent for non-adopters); and
- DTTB adopter households were *more* likely to live in a house or townhouse (86.8 per cent versus 82.3 per cent for non-adopters).

Table 4: Adoption of DTTB, Australian households, by selected demographic characteristics, December 2007

Household characteristic	DTTB incidence (per cent)	N
National	41.8	1,945
Children		
Children under 16 in household	44.2	602
Adults-only household	40.7	1,343
Annual household income before tax		
Under \$30,000	25.3	316
\$30,001-\$70,000	42.2	568
Over \$70,000	52.6	637
Refused	37.2	425
Language		
LOTE spoken in household	39.6	337
Non-LOTE household	42.2	1,608
Type of house		
House or townhouse	43.1	1,638
Flat, unit or apartment	36.2	247
Other	29.5	60
Disability		
No disability	42.5	1,704
Disability (respondent/other in household)	36.8	241

AGE OF RESPONDENT

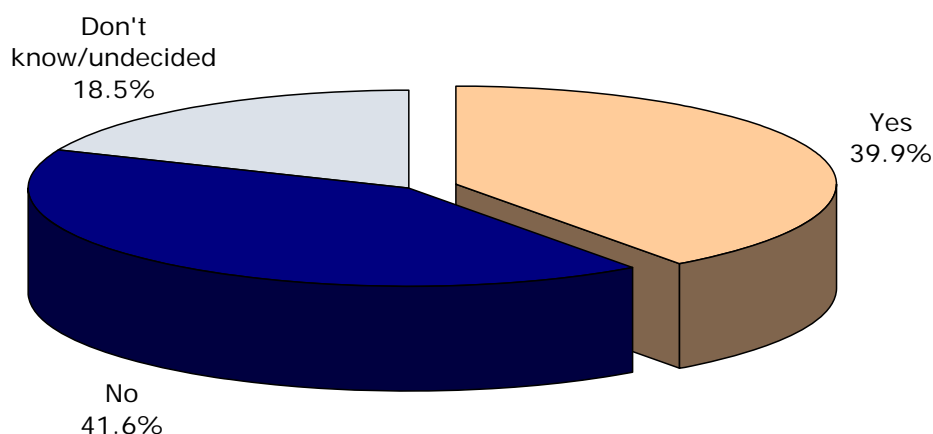
The age of each respondent was also collected in the survey, but has been excluded from these tables because the focus of this study is on the household (rather than *individual*). The strongest statistically significant difference to emerge was that respondents from adopter households were significantly *less* likely to be people aged 65 or more (14.7 per cent versus 20.1 per cent).

Non-adopter households—interest in digital free-to-air television

INTEREST AND PURCHASE INTENTIONS

Once a household was identified as a non-adopter household, its general intentions for digital free-to-air television were examined. Firstly, respondents were asked whether they were interested in obtaining digital free-to-air television in the future. Results are summarised in Figure 10.

Figure 10: Interest in taking up digital free-to-air television, national, December 2007



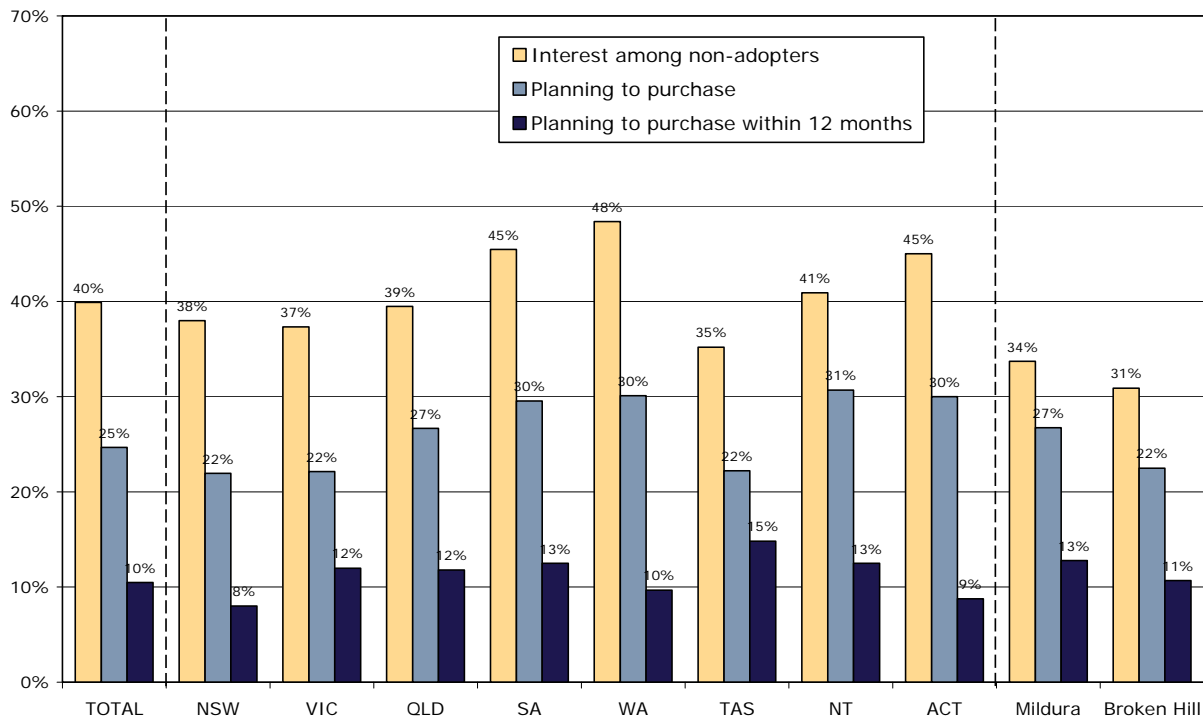
Base: Non-adopter households n=1,132

Nearly 40 per cent of non-adopters indicated an interest in obtaining digital free-to-air television. The specific purchase intentions among such interested households were then examined:

- Plans to purchase—the majority of this ‘interested’ non-adopter group (61.8 per cent, equating to 24.7 per cent of all non-adopters) indicated they had actual plans to purchase a set-top box or television with an integrated digital tuner.
- Purchase time frame—less than half (42.5 per cent) of the ‘interested *with* purchase plans’ group indicated purchase would take place in the next 12 months, with 25.6 per cent indicating ‘one to two years’, 21.3 per cent indicating ‘more than two years’ and the balance (10.7 per cent) not knowing when this would occur. The group with short-term purchase plans (within the next 12 months) equates to 10.5 per cent of the national non-adopter population.
- The proportion of non-adopters with short-term purchase intentions (10.5 per cent) is *higher* than in previous studies (approximately five per cent in 2006 and one per cent in 2005), although previously actual adoption was higher than stated short-term intentions and therefore a poor predictor.

The breakdown of ‘interest → purchase plans → short-term purchase intentions’ for adopter households is provided for all regions in Figure 11.

Figure 11: Interest versus purchase plans, by region, December 2007



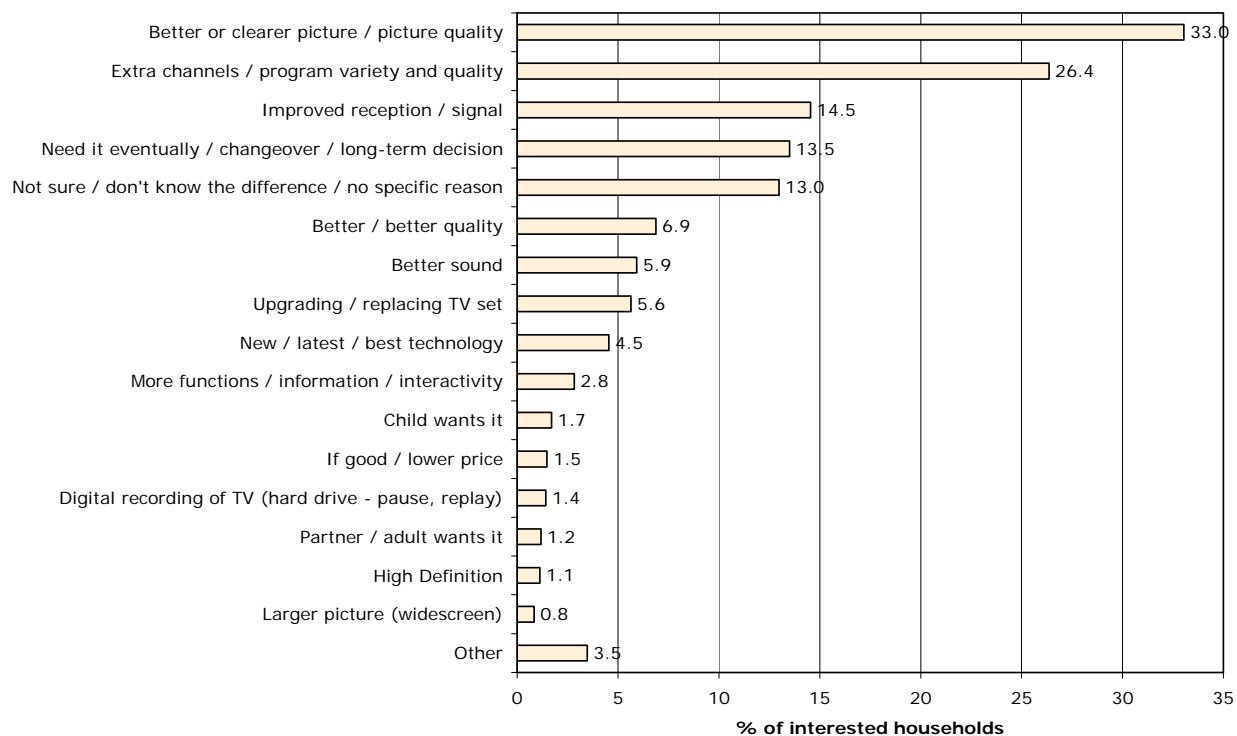
Base: Non-adopter households n=1,132 (national), 287 (NSW), 217 (Vic), 195 (Qld), 88 (SA), 93 (WA), 54 (Tas), 88 (NT), 80 (ACT), 86 (Mildura), 178 (Broken Hill)

Regionally, interest among non-adopters varied widely (from 48 per cent in Western Australia to 31 per cent in Broken Hill). The high-adoption areas of Tasmania (in particular) and Mildura are more positive (with 15 per cent and 13 per cent of non-adopters, respectively, indicating an intention to purchase within the next twelve months).

REASONS FOR INTEREST IN DIGITAL FREE-TO-AIR TELEVISION—NATIONAL

All interested non-adopter households were asked to elaborate on the reasons for their interest in taking up digital free-to-air television in the future. An analysis of responses to the underlying open-ended question and prompts is shown in Figure 12.

Figure 12: Drivers of digital television interest, national, December 2007



Base: Interested non-adopter households n=452

Respondents put forward a variety of reasons for their interest in digital free-to-air television. Looking at the top four driver categories, it can be seen that 33.0 per cent of interested non-adopter households gave reasons for future digital conversion related to ‘better picture’, followed by 26.4 per cent citing the attraction of additional programming content or variety. Following these more prominent reasons, there was a gap to the next most common driver—14.5 per cent indicated reasons related to ‘improved reception/signal’ and 13.5 per cent indicated that it was something that will be needed in the future (within this, there was some explicit mention of digital switchover).

Two things stand out about the leading reasons given by non-adopter households. Firstly, the leading reasons have many parallels to the reasons for digital adoption that were reported by adopter households. **Enhanced picture is a dominant association with digital television.** Secondly, the top four drivers have remained constant throughout the three studies, suggesting a high degree of stability in perceptions of the attractiveness of digital free-to-air television.

The results in previous studies were:

- ‘better picture/picture quality’ (36.4 per cent in both 2006 and 2005);
- ‘need it eventually/changeover/long-term decision’ (27.2 per cent in 2006, 14.6 per cent in 2005);
- ‘improved reception/signal’ (16.8 per cent in 2006, 17.9 per cent in 2005); and ‘extra channels/program variety and quality’ (16.8 per cent in 2006, 23.8 per cent in 2005).

Some of the verbatim reasons that were put forward in these leading response categories in 2007 are given below:

1. Better or clearer picture/picture quality (33.0 per cent)

- ‘Because it’s a clearer picture.’
- ‘Better quality picture, less interference.’
- ‘Hopefully the picture will be a lot better.’

2. Extra channels/program variety and quality (26.4 per cent)

- ‘Mainly because you can get more channels like Channel 10 HD and ABC2.’
- ‘... few extra channels on the ABC.’
- ‘To get more channels on the TV. I live in the country and I only get so many shows and I wish to get all channels.’
- ‘... and ABC2.’

3. Improved reception/signal (14.5 per cent)

- ‘Reception will be much better.’
- ‘No ‘snow’ or ‘lines’.’
- ‘The ABC are shocking, absolutely shocking, on my current reception.’
- ‘Hoping [for] better reception.’

4. Need it eventually/changeover/long-term decision (13.5 per cent)

- ‘...they’re scrapping the old analog system.’
- ‘Analog TVs won’t work anymore.’
- ‘Basically we think the other signal is going to be switched off (and) we have to go to digital.’

REASONS FOR INTEREST IN DIGITAL FREE-TO-AIR TELEVISION—REGIONAL

The leading reasons given in each of the regions were:

- New South Wales—better or clearer picture/picture quality (33.9 per cent), extra channels/program variety and quality (27.5 per cent) and not sure/don’t know the difference/no specific reason (20.2 per cent).
- Victoria—better or clearer picture/picture quality (37.0 per cent), extra channels/ program variety and quality (24.7 per cent) and need it eventually/changeover/long-term decision (12.3 per cent).
- Queensland—better or clearer picture/picture quality (28.6 per cent), improved reception/signal (26.0 per cent) and extra channels/program variety and quality (20.8 per cent).
- South Australia—extra channels/program variety and quality (30.0 per cent), better or clearer picture/picture quality (27.5 per cent) and need it eventually/changeover/long-term decision (17.5 per cent).
- Western Australia—extra channels/program variety and quality (35.6 per cent), better or clearer picture/picture quality (35.6 per cent) and need it eventually/changeover/long-term decision (20.0 per cent).
- Tasmania—improved reception/signal (36.8 per cent), need it eventually/changeover/long-term decision (21.1 per cent) and extra channels/program variety and quality (21.1 per cent).
- Northern Territory—better or clearer picture/picture quality (41.7 per cent), improved reception/signal (16.7 per cent) and extra channels/program variety and quality (16.7 per cent).

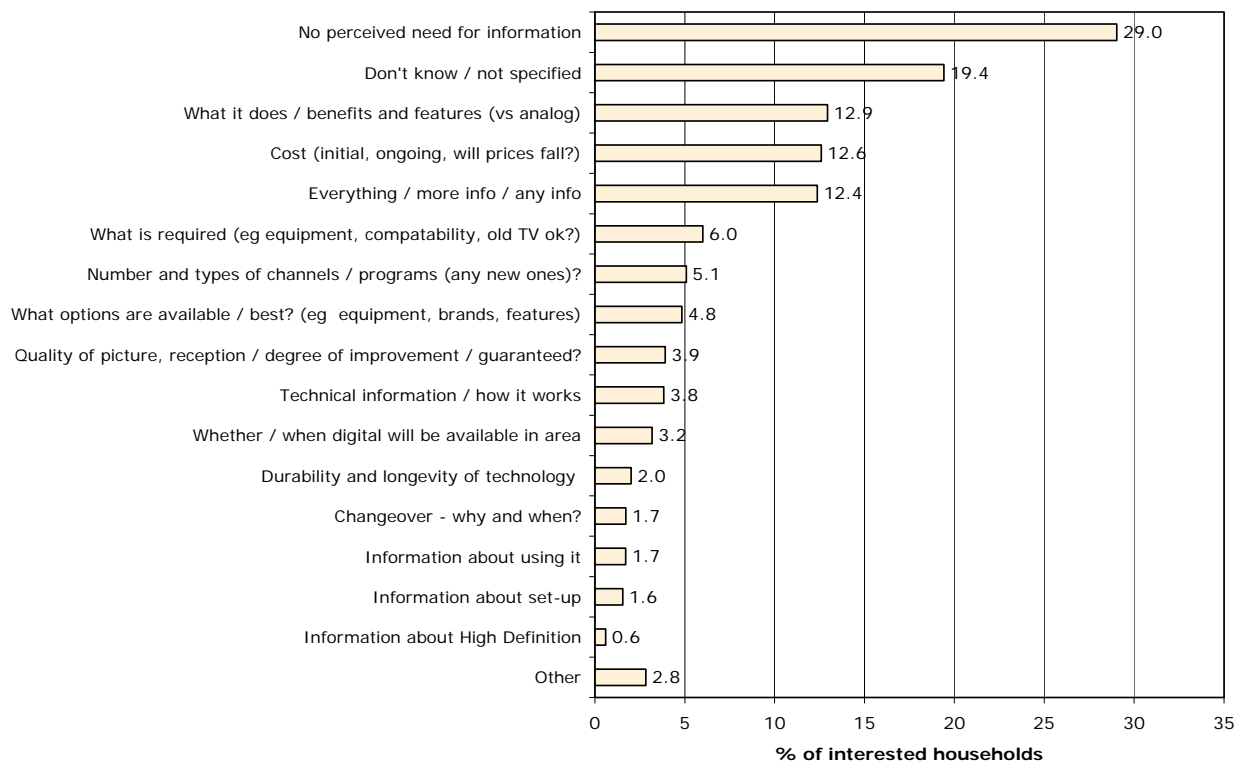
- ACT—better or clearer picture/picture quality (36.1 per cent), extra channels/program variety and quality (22.2 per cent) and need it eventually/changeover/long-term decision (22.2 per cent).
- Mildura—extra channels/program variety and quality (37.9 per cent), improved reception/signal (34.5 per cent) and better or clearer picture/picture quality (17.2 per cent).
- Broken Hill—extra channels/program variety and quality (29.1 per cent), improved reception/signal (27.3 per cent) and better or clearer picture/picture quality (18.2 per cent).

The make-up of drivers for interest in digital free-to-air television is quite consistent across the regions included in this study. It can also be noted that the drivers for adoption in Tasmania and Mildura that is, the importance of access to free-to-air channels not otherwise available) were reconfirmed by non-adopters in these areas.

KNOWLEDGE REQUIREMENTS

Interested households were asked about any specific additional knowledge or information they would require before converting to digital. An analysis of the open-ended responses indicated the following needs:

Figure 13: Knowledge requirements, national, December 2007



Base: Interested non-adopter households n=452

Below the leading response category (where 29.0 per cent of interested households indicated they had no need for further information), 19.4 per cent indicated they did not know or could not provide an answer, suggesting that the lack of information about digital free-to-air television is an issue for almost one-fifth of interested households. Following this category, the many interested non-adopters had quite specific, but largely basic information needs; for example, queries about cost, features, benefits and equipment options.

Some examples of responses within more prominent knowledge requirement categories—highlighting the difference between more confident non-adopters (that is, those indicating no need for further information) and those indicating quite fundamental knowledge requirements—are provided below:

1. No perceived need for information (29.0 per cent)

‘As long as you can read your instruction book, everything will be in order.’

‘For me personally, none.’

‘How to plug it in and that’s about it.’

‘I don’t, because I have sort of been doing a bit of investigation already.’

2. What it does/benefits and features (12.9 per cent)

‘An understanding of the options and the benefits and features. They haven’t really published that much.’

‘Don’t understand what it is. Heard of it but don’t know what it is.’

‘First of all I have to understand what it is, what it means and what kind of hardware or software you need, that’s all.’

‘General information about what it actually means.’

3. Cost issues (12.6 per cent)

‘... and how much I need to spend.’

‘I would do some research on brands. I would need to know which would stand the test of time and last, and also know the pricing between brands because when things first come out it’s always more expensive.’

‘Will it be free all the time or will there be a charge later on?’

‘Is digital TV going to cost us a fortune?’

4. Everything/more information/any information (12.4 per cent)

‘A lot more. I know nothing about it.’

‘A lot. We haven’t heard anything really.’

‘Any information at all would be helpful.’

‘Everything really. I don’t know much about it, just what I saw on TV.’

REGIONAL COMMENT

The various regions included in this study tended to have similar information and knowledge requirements as those indicated nationally. Interestingly, the high-adoption areas of Tasmania and Mildura both had very high proportions of interested households who indicated they had no need for further information, suggesting a relatively high degree of self-assuredness in these regions (36.8 per cent and 72.4 per cent, respectively).

Non-adopter households—reasons for non interest in digital free-to-air television

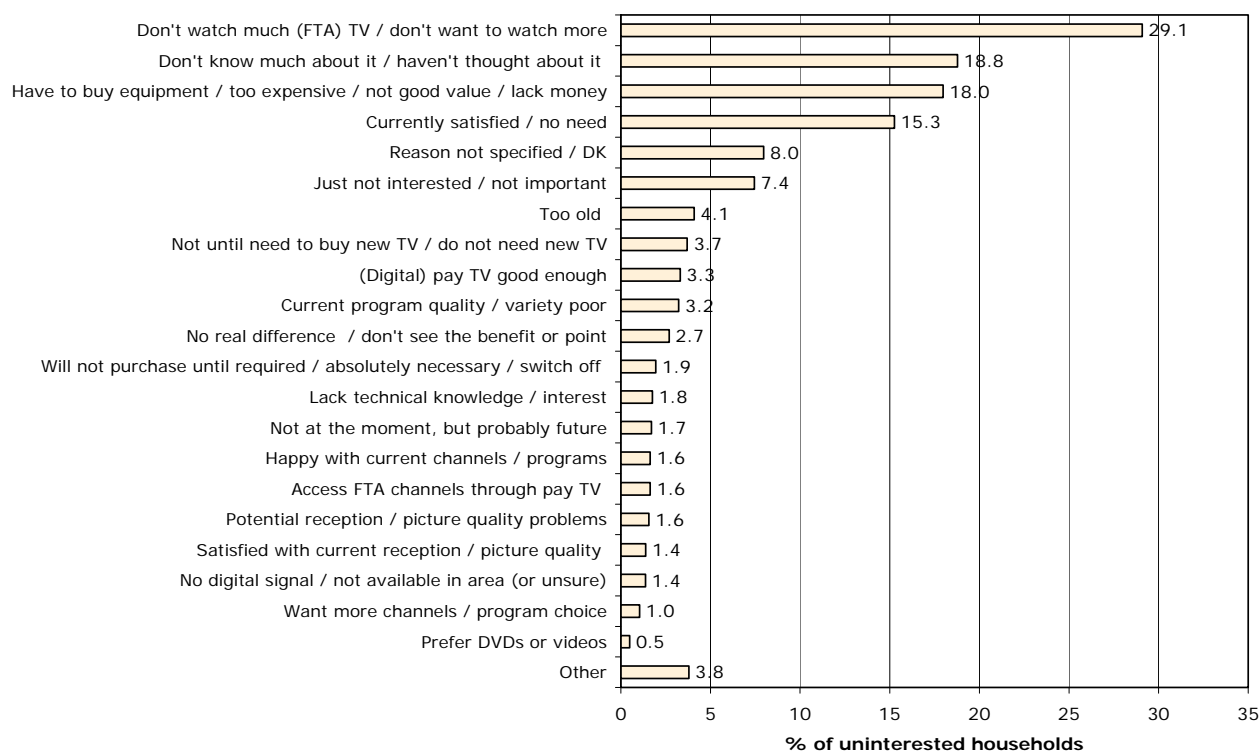
REASONS FOR NON INTEREST IN DTTB—NATIONAL

Over 60 per cent of non-adopter households either were not interested or did not know whether they were interested in obtaining digital free-to-air television. An open-ended question was presented to these respondents:

‘There are a number of reasons why people are not interested, or not planning to take-up digital free-to-air TV. Can you tell me why this is the case for your household? (Prompt) Is there anything else?’

The response categories that emerged are presented in Figure 14.

Figure 14: Reasons for non-interest in digital free-to-air television, national, December 2007



Base: Non-adopter households with no interest or plans to adopt, n=853

The leading four answer categories have been consistent through the three digital television studies. As can be seen, **many households are simply not particularly interested in television and the ‘technical issues’ surrounding it**, are put off by cost issues and/or are unaware of any compelling need to change (with analog termination well beyond the understanding of many). Some examples that highlight the apathy evident are provided below.

1. Don't watch much (FTA) TV/don't want to watch more (29.1 per cent)

‘Because I don't watch much telly so I couldn't be bothered.’

‘As long as normal analog TV is available, we wouldn't be interested; we're not very big TV-watchers any way.’

‘At this late stage of my life I'm happy with what I've got ... I don't look at a lot of TV.’

‘Basically I don’t really need another TV set. I don’t need to waste my money on set-top boxes and all that. I watch bugger-all TV anyway.’

‘Because I do not like TV for starters.’

2. Don’t know much about it/haven’t thought about it (18.8 per cent)

‘I didn’t even know that you could even get free digital TV.’

‘Because I don’t know anything about it.’

‘Because I have no idea. I don’t know what it is.’

3. Have to buy equipment/too expensive/not good value (18.0 per cent)

‘Because I really can’t afford it.’

‘Because of the financial costs.’

‘Because I’d have to buy something new— I have other priorities.’

4. Currently satisfied/no need (15.3 per cent)

‘At the moment, the analog system still is running ... but I guess that the main reason is that the TV we’ve got works fine at present.’

‘Because I’m happy with the ordinary one we’ve got.’

‘Because people are still be able to watch the TV with the one that they have.’

5. Just not interested/not important (7.4 per cent)

‘Haven’t thought about it—[it’s] not a big issue.’

‘Cannot really be bothered. I am used to what I have got.’

‘I don’t know. I’m not into all that.’

Only small proportions indicated that digital free-to-air television *might* be on their horizon; for example, the 3.7 per cent indicating ‘not until I need to buy a new television’ and the 1.9 per cent indicating they will not purchase until required (demonstrating some awareness of analog switch-off). However, both of these relatively positive categories have decreased slightly from the 2006 results (6.2 and 5.1 per cent, respectively). In summary, **the majority of non-adopters have not indicated that digital free-to-air television is an important consideration or potentially highly valued improvement over their current television situation.**

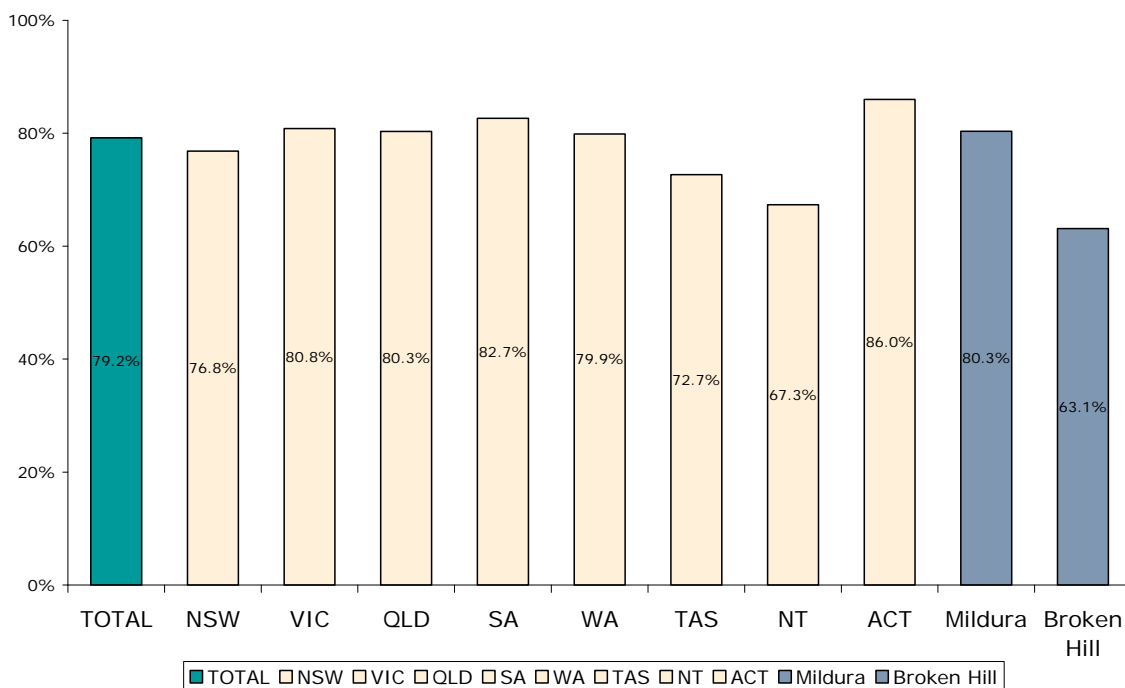
- Regional comment: The majority of responses related to ‘not watching much (FTA) TV/don’t want to watch more’ within **all** of the ten regions included in this study.

Awareness and usage of HDTV

AWARENESS

Following the insights provided by the qualitative research, all households were asked whether they had heard of HDTV. The national and regional results are presented in Figure 15.

Figure 15: Awareness of HDTV, by region, December 2007



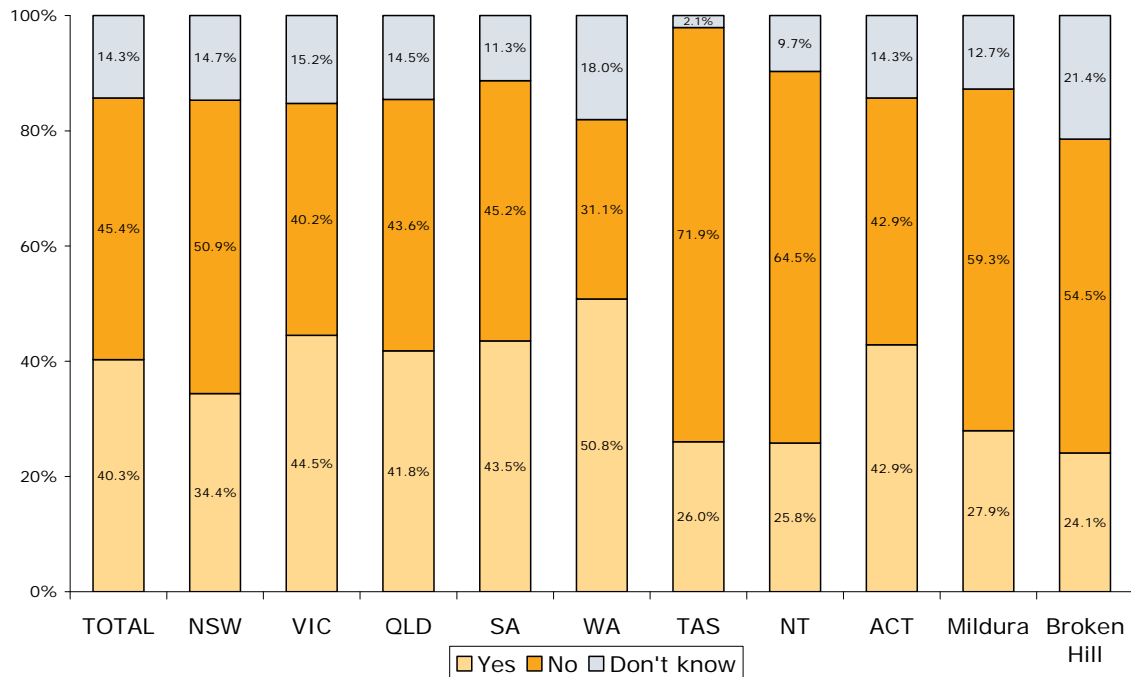
Base: All households n= 1,945 (national), 505 (NSW), 381 (Vic), 305 (Qld), 150 (SA), 154 (WA), 150 (Tas), 150 (NT), 150 (ACT), 290 (Mildura), 290 (Broken Hill)

Awareness of HDTV was 79.2 per cent nationally and generally above 75 per cent across all analysis regions. The only exceptions to this were the Northern Territory and Broken Hill (at 67.3 and 63.1 per cent, respectively).

USAGE OF HDTV AMONG ADOPTERS

Adopter households were asked whether they were able to receive HDTV through their current digital free-to-air televisions. The national and regional results are presented in Figure 16..

Figure 16: Usage of HDTV, by region, December 2007



Base: All adopter households, n=812 (national), 218 (NSW), 164 (Vic), 110 (Qld), 62 (SA), 61 (WA), 96 (Tas), 62 (NT), 70 (ACT), 204 (Mildura), 112 (Broken Hill)

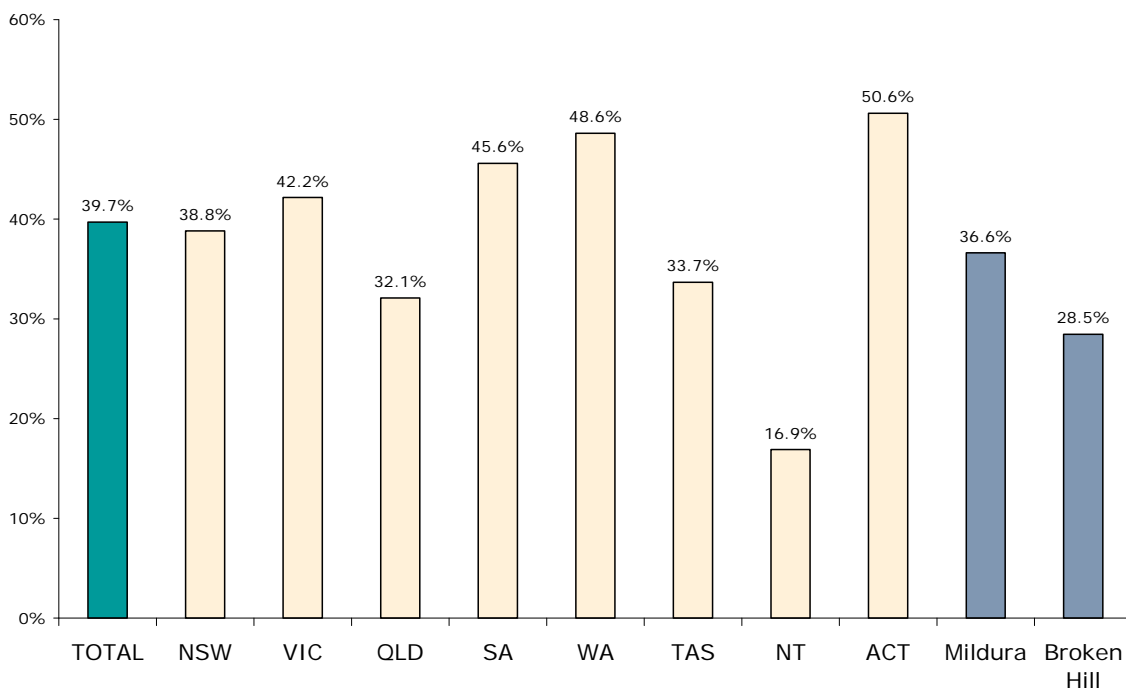
Nationally, 40.3 per cent of adopters indicated their households were HD-capable. (While no comparable figures were collected in 2006, in 2005 under four per cent of adopters indicated HD-capability.) There was a certain degree of variation regionally, with Western Australian adopters indicating the highest HD capability, at 50.8 per cent. The proportion with HD capability was relatively low in the high-adoption areas of Tasmania and Mildura.

Additional media usage and behaviours

RECORDING

All adopter households *and* subscription television households that indicated they received digital free-to-air television through their subscription service (this latter group is discussed later in this section) were asked whether they recorded digital free-to-air television programs. The results are presented in Figure 17.

Figure 17: Recording of digital free-to-air television programs, by region, December 2007



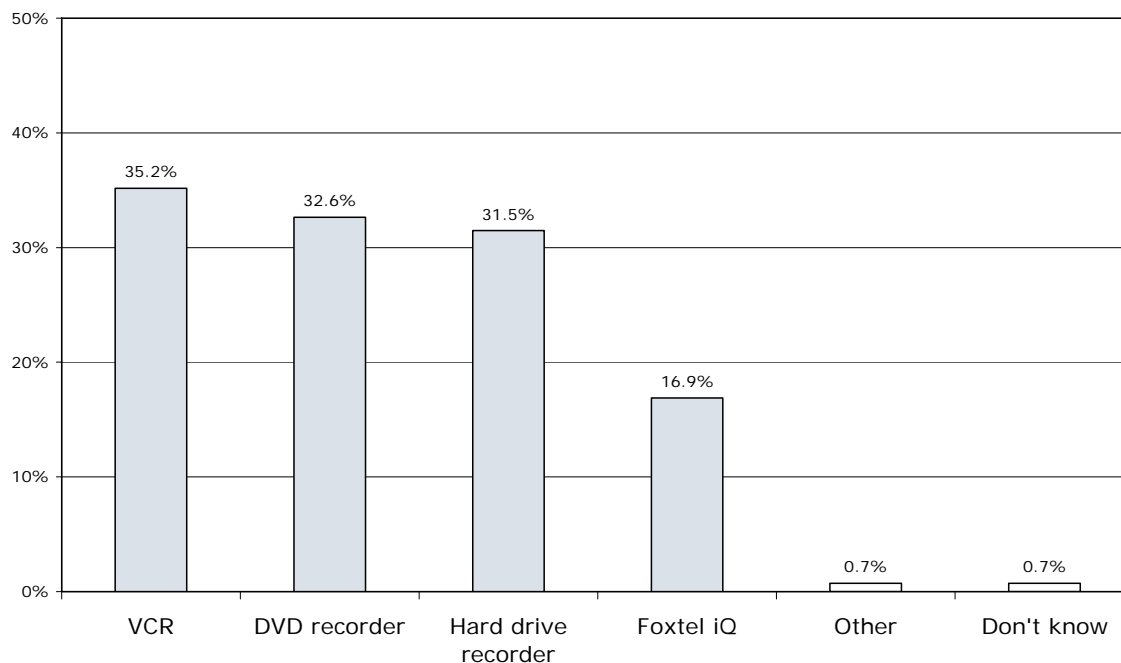
Base: All adopter households plus subscription TV households that receive digital FTA through subscription TV, n=941 (national), 255 (NSW), 185 (Vic), 134 (Qld), 68 (SA), 72 (WA), 101 (Tas), 71 (NT), 83 (ACT), 213 (Mildura), 137 (Broken Hill)

The chart shows that 39.7 per cent of all digital free-to-air program-watching households also recorded such programs. Regionally, this proportion exhibited a considerable degree of variation, ranging from 16.9 per cent in the Northern Territory to 50.6 per cent in the ACT.

RECORDING MEDIA

Those respondents who indicated they were 'recording households' were also asked about the types of equipment they used to record such television programs. Figure 18 illustrates the national breakdown:

Figure 18: Equipment used to record digital free-to-air television, national, December 2007



Base: All digital FTA recording households, n=374 (national)

As can be seen, VCRs, DVD recorders and hard-drive recorders were the most prominent recording devices used for recording digital free-to-air television (each above 30 per cent), with Foxtel iQ at 16.9 per cent.

In states where sufficiently sized regional sub-samples of recording households emerged (n>70 in both New South Wales and Victoria), figures similar to this national 'profile' emerged, with VCRs at the forefront, though with hard-drive recorders placed second, slightly ahead of DVD recorders.

In the case of Mildura (n=78 recording households), the profile was markedly different, with VCRs (55.1 per cent) very much ahead of other significant media (hard-drive recorders at 32.1 per cent and DVD recorders at 21.8 per cent).

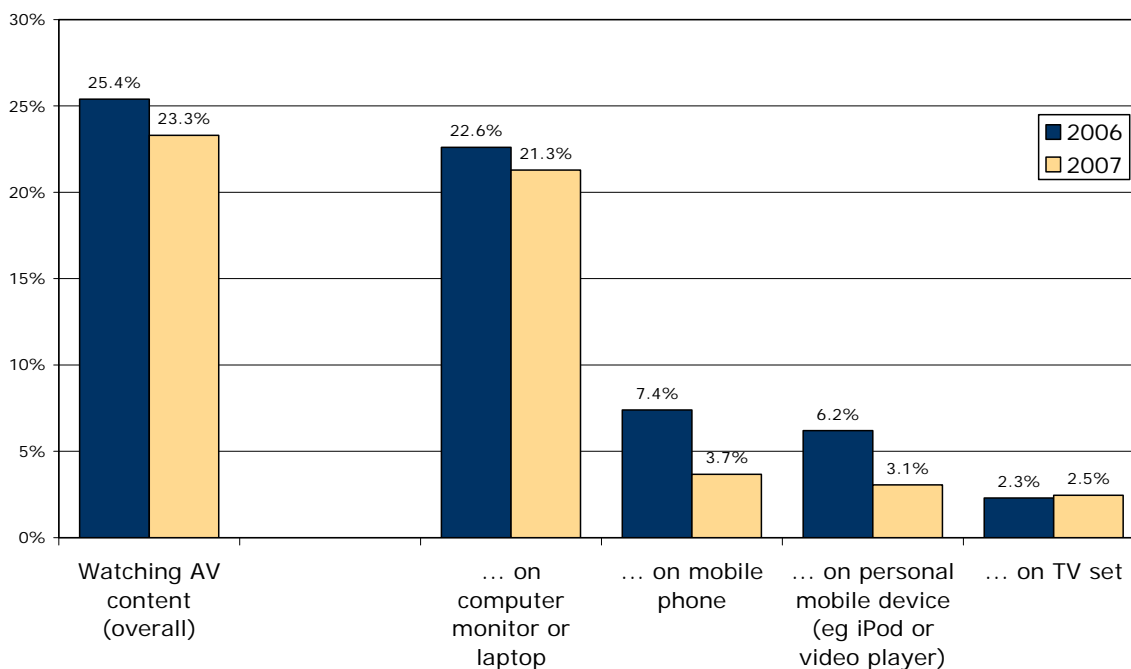
DOWNLOADING/WATCHING AUDIOVISUAL CONTENT

All respondents were presented with the following question examining audiovisual downloading activities.

'The next question is about audiovisual content streamed or downloaded from the internet or on a mobile device. By audiovisual content I mean things like TV programs, sports events, news and music clips, movies and movie previews, but not games. In the last month, have you watched any audiovisual content from the internet or on your mobile?'

Respondents were then asked to indicate the types of devices used for downloading or streaming content from the internet or to a mobile device. Figure 19 presents the overall incidence, and also the incidence by specific media, contrasting the 2007 findings with those from 2006.

Figure 19: Downloading of audiovisual content in last month, national, December 2007



Base: All households N=1,945 (2007), 1,537 (2006)

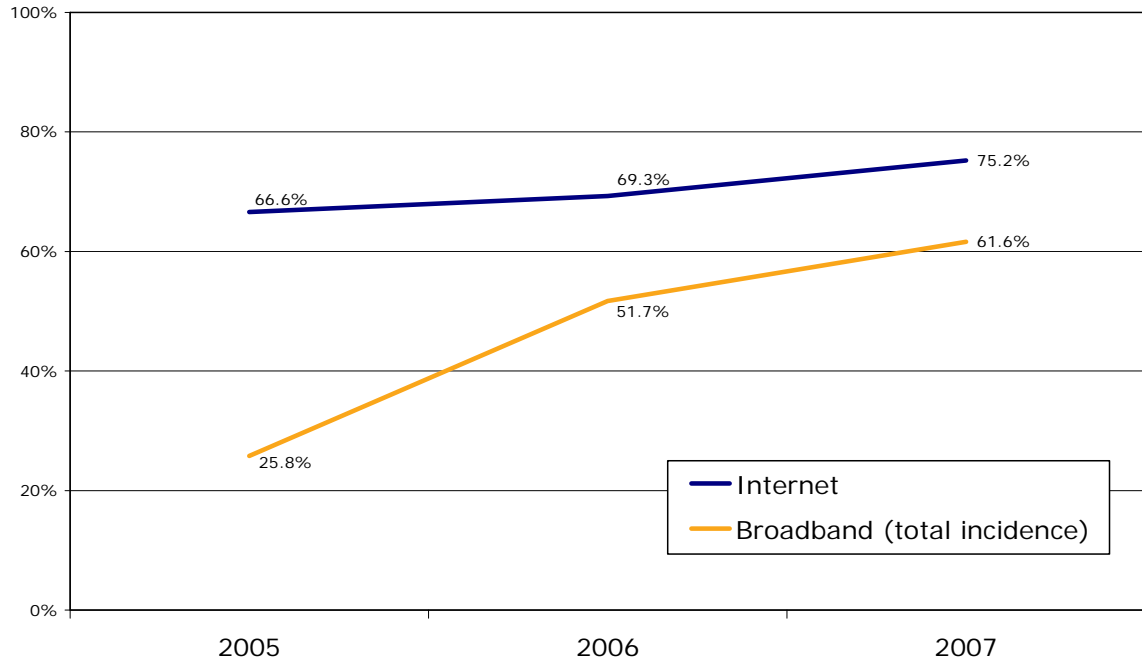
In one of the few cases where digital behaviours have decreased between 2006 and 2007, 23.3 per cent of respondents within the sample indicated that they had streamed or downloaded audiovisual content from the internet, or on a mobile device, in the last month (slightly down from the 25.4 per cent recorded in 2006). A computer monitor or laptop remains the most popular option for downloading or streaming content.

INTERNET

Use of other digital technologies, such as the internet, is associated with higher adoption of digital television, as indicated in Table 2 on page 25.

Overall internet and broadband connectivity has been examined across the three studies. The time-series is presented in Figure 20.

Figure 20: Internet connectivity, national, 2005–2007



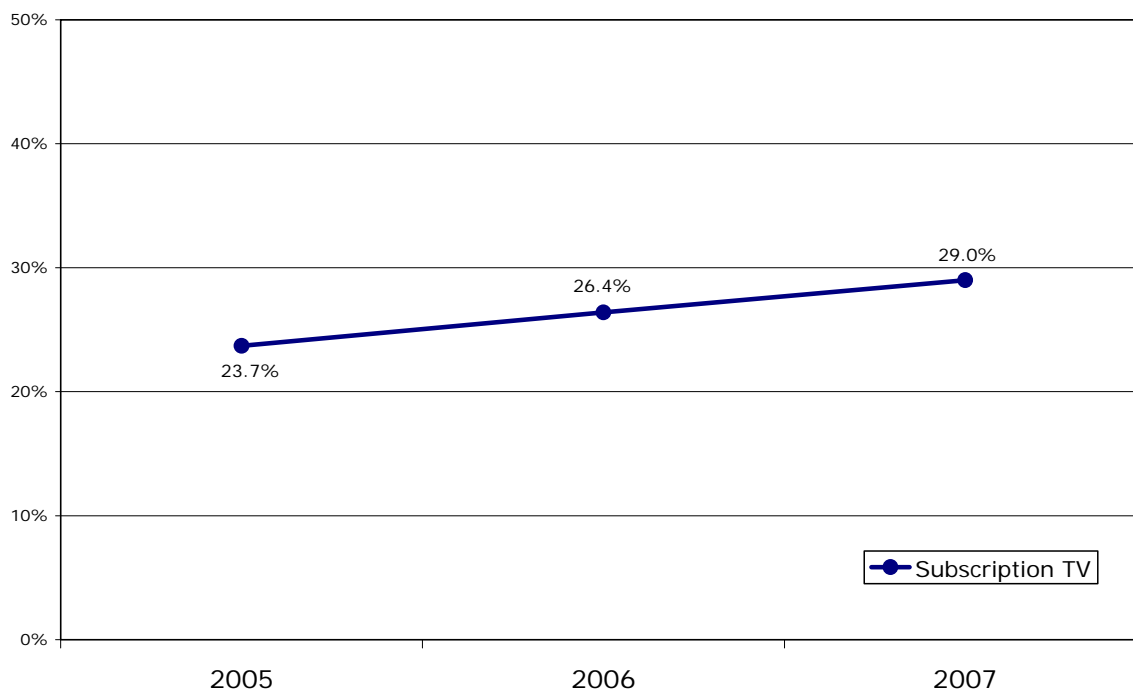
Base: All households, N=1,945 (2007), 1,537 (2006), 1,148 (2005)

From under half of all internet connections in 2005, the 2007 findings reveal the increasing prevalence of broadband. In all, 61.6 per cent of households indicated broadband connectivity in 2007. As can be seen, however, the ‘convergence’ evident in the two lines above between 2006 and 2007 has not been as dramatic as that evident between 2005 and 2006.

SUBSCRIPTION TELEVISION

Households were asked about subscription television in each of the three studies. The results are presented in Figure 21.

Figure 21: Subscription television penetration, national, 2005-2007



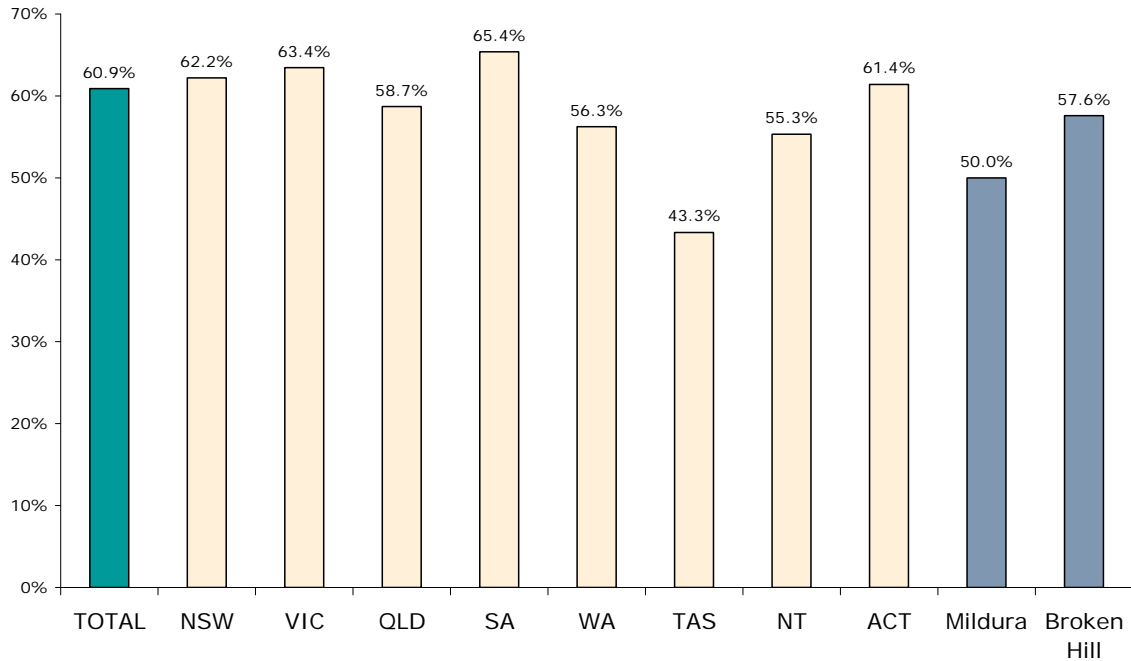
Base: All households N=1,945 (2007), 1,537 (2006), 1,148 (2005)

As was the case for digital free-to-air television, subscription television has also grown between 2005 and 2007, although at a much lower rate. In December 2007, 29.0 per cent of Australian households indicated they had a subscription television service, an increase of 2.6 percentage points over the result attained in the 2006 study.

WATCHING DIGITAL FREE-TO-AIR TELEVISION THROUGH A SUBSCRIPTION TELEVISION SERVICE

Subscription television households were asked whether they watched digital free-to-air television through their subscription television service. The national and regional results are presented in Figure 22.

Figure 22: Watching digital free-to-air television through a subscription television service, by region, December 2007



Base: All subscription TV households, n=565 (national), 172 (NSW), 93 (Vic), 92 (Qld), 26 (SA), 48 (WA), 30 (Tas), 47 (NT), 57 (ACT), 70 (Mildura), 92 (Broken Hill)

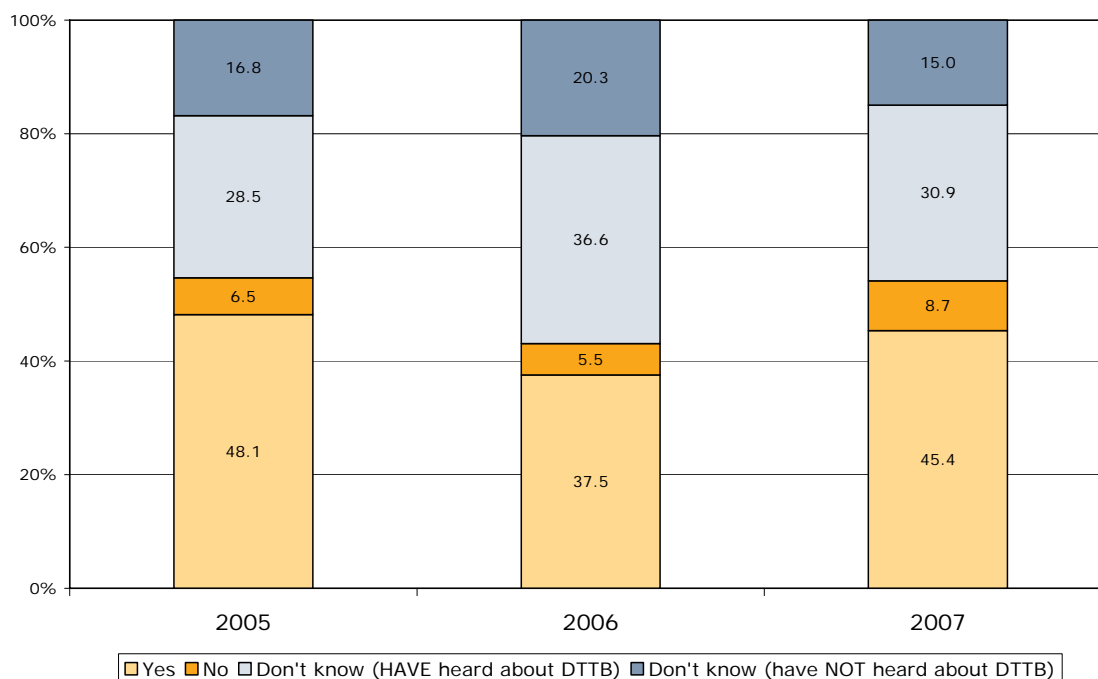
Figure 22 illustrates that subscription television households have a strong tendency to access digital free-to-air programming via their subscription TV service, particularly in New South Wales, Victoria, South Australia and the ACT, where the percentage is greater than 60 per cent.

Awareness and understanding of digital free-to-air television

AWARENESS OF AVAILABILITY AMONG NON-ADOPTER HOUSEHOLDS

All non-adopter households were asked whether digital free-to-air television was available in their area. Those who did not know were then asked whether they had actually heard of digital free-to-air television. The results compiled over the three studies are compared in Figure 23.

Figure 23: Awareness of digital free-to-air television, 2005–2007



Base: Non-adopter households n=1,132 (2007), 1,082 (2006), 999 (2005)

Nationally, almost half of non-adopters (45.5 per cent) believed that digital free-to-air television was available in their area, while 8.7 per cent said it was not available (the comparison figures for 2006 were 37.5 per cent and 5.5 per cent, respectively). The remaining 45.9 per cent did not know whether DTTB was available to them (down from the 56.9 per cent recorded in 2006).

Within this latter group, 15.0 per cent of all non-adopters had not heard of digital free-to-air television (a decrease from the 20.3 per cent recorded in 2006).

The general 2007 non-adopter 'profile' is very similar to the one found in 2005, as can be seen in Figure 23. However, relatively rapid adoption makes the non-adopter population a changing and diminishing one. Of concern in future will be to ensure that the non-adopter population does not increasingly comprise the 'digitally disconnected'.

Regionally, the two high-adoption areas of Tasmania (59.3 per cent) and Mildura (73.3 per cent) were the only analysis regions where a majority of non-adopter households indicated that digital free-to-air television was available in their areas, confirming a strong all-round DTTB presence. All other regions had proportions ranging from 41.0 per cent (Broken Hill) to 50 per cent (the ACT).

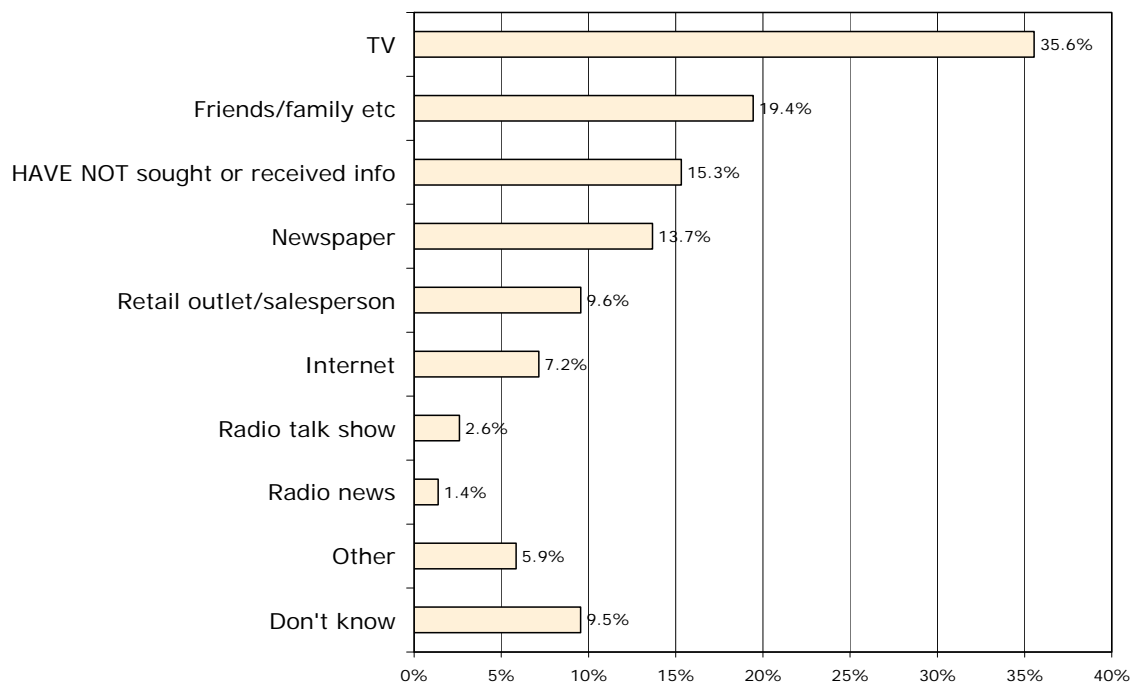
For those who did not know, or who had never heard of digital free-to-air television, the highest proportions within non-adopter populations were recorded in New South Wales (19.2 per cent), the Northern Territory (18.2 per cent) and the ACT (17.5 per cent).

Tasmania (5.6 per cent) and Mildura (1.2 per cent) were the only two regions to have ‘single digit’ scores on this measure, further confirming that digital free-to-air television has a high presence within these regions.

INFORMATION ON DIGITAL FREE-TO-AIR TELEVISION

All households with some awareness of digital free-to-air television were asked where they had mainly found out about digital free-to-air television. The range of information sources that emerged are presented in Figure 24

Figure 24: Information sources, national, December 2007`



Base: All households, excluding those who have not heard about DTTB n=1,775

Television (35.6 per cent of responses), and friends, family and colleagues (19.4 per cent) were again the most prominent sources of information about digital free-to-air television (28.6 per cent and 27.9 per cent, respectively, in 2006). The third most prominent grouping was households that indicated they had not sought or received information on digital free-to-air television (at 15.3 per cent, down from 26.3 per cent in 2006).

With the exception of Tasmania (where friends, family and colleagues were placed first), television was the leading information sources in each analysis region in the study.

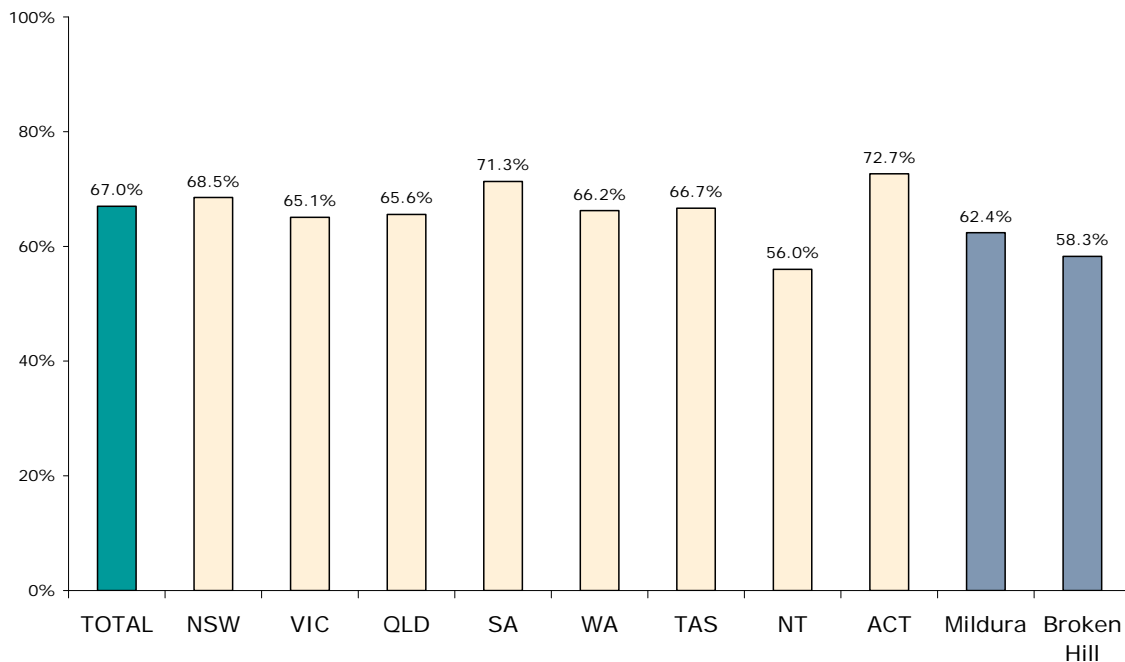
AWARENESS OF ANALOG SWITCH-OFF

As in previous years, all households were presented with the following analog switch-off scenario:

‘Do you know that the current analog free-to-air television services (that is, channels 7, 9 and 10, the ABC and SBS) will be completely replaced by digital free-to-air television in the future? This will mean that you will not be able to receive any free-to-air TV services without special digital TV equipment.’

The results for each region are presented in Figure 25.

Figure 25: Awareness of analog free-to-air termination, December 2007



Base: All households in each state, n= 1,945 (national), 505 (NSW), 381 (Vic), 305 (Qld), 150 (SA), 154 (WA), 150 (Tas), 150 (NT), 150 (ACT), 290 (Mildura), 290 (Broken Hill)

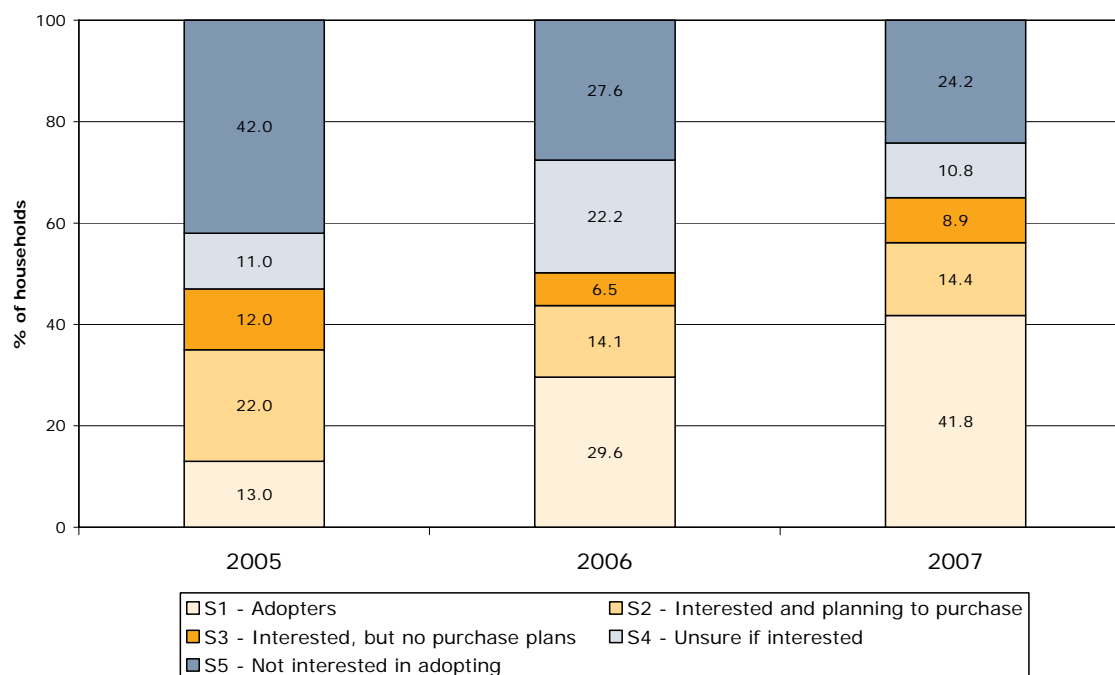
Sixty-seven per cent of all households indicated that they knew about analog switch-off, a result almost identical to the 2006 study (66.8 per cent) and a small increase on the 62 per cent recorded in 2005. However, nearly one-third of all households continue to be unaware of analog free-to-air switch-off.

There was some regional variation in awareness, with just below 60 per cent of households in both the Northern Territory and Broken Hill indicating awareness, rising to above 70 per cent in both South Australia and the ACT. The high-adoption regions of Tasmania and Mildura did not have a correspondingly high awareness of analog switch-off. In Mildura, awareness (62.4 per cent) was lower than the digital free-to-air adoption figure, suggesting that digital adoption is currently relatively independent of analog switch-off.

Adoption-intention segments for digital free-to-air television in 2007

Consolidating the information presented in the preceding sections enables the distinct DTTB adoption-intention segments that are evident across Australian television-using households to be derived. The 2007 segments are compared with those obtained in previous studies in Figure 26.

Figure 26: Adoption-intention segmentation, national, 2005–2007



Base: All households, N=1,945 (2007), 1,537 (2006), 1,148 (2005)

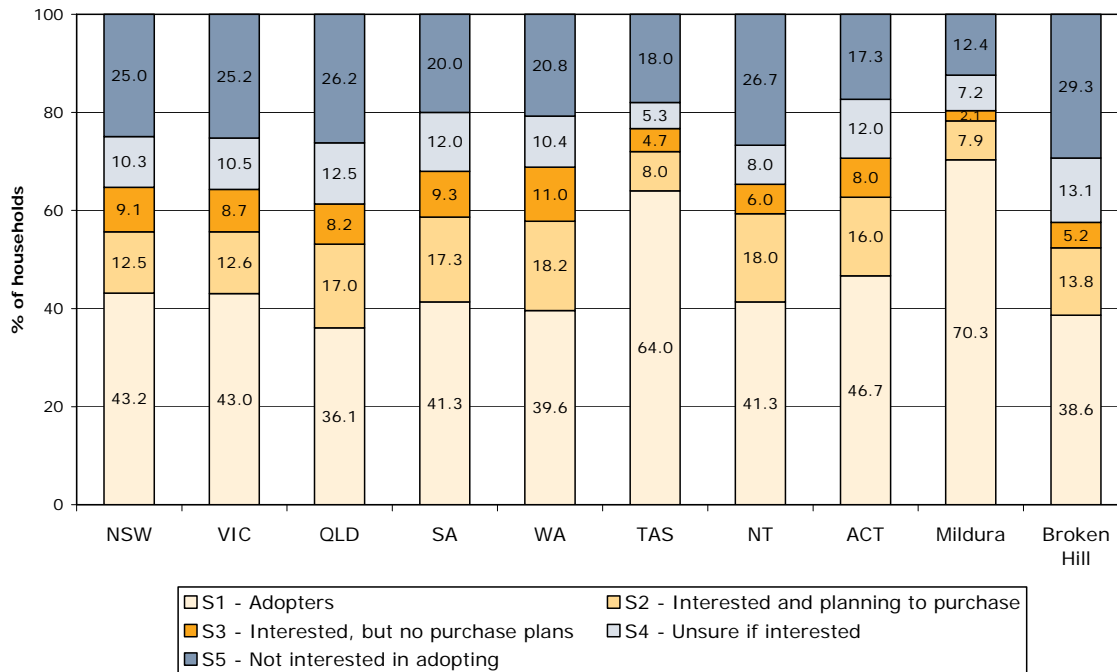
In December 2007, the following adoption-intention segments were found:

- *adopter* households—41.8 per cent of all households;
- non-adopters who are *interested and planning* to purchase—14.4 per cent;
- non-adopters who are *interested* but have *no plans* to purchase—8.9 per cent;
- non-adopters who are *unsure* whether they are interested—10.8 per cent; and
- non-adopters who are *not* interested in adopting—24.2 per cent.

While there is strong growth apparent among adopters, the ‘not interested in adopting’ segment is standing relatively firm at 24.2 per cent (versus 27.6 per cent in 2006), after a significant reduction between 2005 and 2006.

Regional differences in adoption-intention segments are presented in Figure 27.

Figure 27: Adoption-intention segments, by region, December 2007



Base: all households that received full survey in each area, n=505 (NSW), 381 (Vic), 305 (Qld), 150 (SA), 154 (WA), 150 (Tas), 150 (NT), 150 (ACT), 290 (Mildura and Broken Hill).

Note: state adopter percentages differ slightly to earlier figures due to the partial boost sample available for earlier analysis.

The degree of DTTB ‘acceptance’ versus ‘resistance’ differs across regions. The most resistant of these segments (households that are definitely not interested in adopting) is generally above 20 per cent in most regions—exceptions are the high-adoption regions of Tasmania and Mildura, and the ACT. On the positive side, the most ‘adoption-poised’ segment (interested *and* planning to purchase) is present in the larger states, suggesting that further national adoption gains can be anticipated in the near future.

APPENDIX A: DIGITAL TELEVISION IN AUSTRALIAN HOMES QUESTIONNAIRE

Australian Communications and Media Authority— Digital Media in Australian Homes Questionnaire

To be administered using computer-assisted telephone interviewing via RDD. (Headings did not appear in field version.)

SAMPLE STRUCTURE (INCLUDE METRO, REGIONAL LABEL IN FINAL DATASET)

		Full 8 minute survey (n=2,525)	Partial 3 minute survey (n=1,433)
NSW	metro	317	0
	regional	188	102
Vic	metro	278	12
	regional	103	187
Qld	metro	136	154
	regional	169	121
SA	metro	110	180
	regional	40	250
WA	metro	113	177
	regional	41	250
Tas	total	150	
NT	total	150	
ACT	total	150	
Total		1945	1433
Regional case studies			
	Mildura	290	
	Broken Hill	290	
	Total case studies	580	

Total interviews N= 3,958

Mildura region postcodes: 2717, 2738 (NSW); 3496, 3498, 3500, 3501 3505 (VIC)

Broken Hill region postcodes: 2836, 2878, 2879, 2880

Fieldwork note: Mildura Region households are eligible for inclusion in the sample pool of the regional component of Victoria/NSW (as applicable) and Broken Hill Region households are eligible for inclusion in the sample pool for the regional component of NSW. With this in mind, please ensure that households **are not called for a second time** when addressing regional case study components in Mildura and Broken Hill.

NOTE: PARTIAL SURVEY RESPONDENTS ADMINISTERED HIGHLIGHTED SECTIONS ONLY

Introduction

Hello, my name is [INTERVIEWER] from Eureka Strategic Research and I'm calling on behalf of the Australian Communications and Media Authority, the Commonwealth Government agency responsible for regulating television and radio broadcasting in Australia.

We are conducting an important research project examining views about television across Australian households. Does your household have a television? TERMINATE WITH THANKS IF NO.

AMR INTERACTIVE: PLEASE RECORD NUMBER OF PEOPLE WHO TERMINATED BECAUSE OF NO TELEVISION IN HOUSEHOLD

I actually need to speak with someone in your household who makes decisions or contributes to making decisions about the purchase of items such as TVs. Are you 16 years or over and a decision-maker in regard to this type of item? IF NOT, ASK FOR APPROPRIATE PERSON, REPEAT INTRODUCTION. IF RESPONDENT UNCERTAIN, CONFIRM JOINT DECISION-MAKER IS ACCEPTABLE.

If you choose to participate in this survey, the information and opinions you provide will be used only for research purposes and will remain confidential, and assist the Commonwealth Government to better understand the views of Australians about television. Would you like to participate?

IF YES, CONTINUE

IF DURATION QUERIED: about 8 minutes/about 3 minutes

IF TIME INCONVENIENT, ARRANGE CALL BACK

IF NOT INTERESTED: Thank & close.

IF QUERIED ABOUT BONA FIDES OF RESEARCH: I can provide the names of people who will verify the legitimate nature of this research project. The first is the Australian Market and Social Research Society enquiry line on 1300 36 4830. You may also wish to contact the Project Manager at ACMA, Dean Martin, on (02) 9334 7922.

IF QUERIED ABOUT HOW NAME WAS SOURCED [E.G. UNLISTED NUMBER]: We are contacting people across Australia via Random Digit Dialling, in order to ensure a representative selection of households has a chance to contribute to this important Commonwealth Government research study.

Television sets, display devices & computer monitors used to watch TV programs

1. [ALL] First, how many working television sets are currently used in your household, including display devices or computer monitors that are used to watch broadcast TV programs?
RECORD NUMBER
[IF RESPONDENT IS CONFUSED, STRESS THIS MEANS 'BROADCASTS', NOT 'PLAYBACK-ONLY' OR 'DOWNLOADS']
2. [ALL – INTERVIEWER MUST READ OUT ENTIRE DESCRIPTION] And how many of those/does it receive broadcasts of **DIGITAL** free-to-air television? To receive digital free-to-air TV you would need an integrated TV set that has an inbuilt digital decoder **or** a digital free-to-air set-top box attached to your TV screen **or** a computer with a digital tuner card. In regard to set-top boxes, please note that I am referring to a digital free-to-air set-top box **and not a digital pay TV set-top box**.
RECORD NUMBER OF DTVs
DON'T KNOW=98
3. a. [IF =1 @ Q2] What type of display device is that? Is it a TV that uses a set-top box, an integrated TV with an inbuilt decoder, or a computer with a digital TV tuner on a card or USB stick?

TV set with set-top box	RECORD NUMBER
Integrated TV set with an inbuilt decoder	RECORD NUMBER

Computer with a digital TV tuner	RECORD NUMBER
DON'T KNOW/UNSURE	98

b. [IF > 1, ≠ 98 @ Q2] What type of display devices are they? Please indicate the number of... [READ OUT – ENSURE THAT TOTAL EQUALS NUMBER PROVIDED @ Q2]

TV sets with set-top box	RECORD NUMBER
Integrated TV sets with an inbuilt decoder	RECORD NUMBER
Computers with a digital TV tuner	RECORD NUMBER
DON'T KNOW/UNSURE	98

4. [IF 0 OR 98 @ Q2] As far as you are aware, is digital free-to-air TV available to households in your area? [IF DON'T KNOW, PROMPT WITH 'have you heard about digital free-to-air television?' AND CODE APPROPRIATELY]

YES	1
NO	2
DON'T KNOW – HAVE HEARD ABOUT DIGITAL FTA TV	96
DON'T KNOW – HAVE <u>NOT</u> HEARD ABOUT DIGITAL FTA TV	97

Pay TV

5. [ALL] Does your household subscribe to Pay TV? IF 'YES', 'Which Pay TV service do you use? [IF NECESSARY: For example, Foxtel, Austar, Optus, Trans TV/TransACT, Neighbourhood Cable.]

YES – Foxtel	1
YES – Austar	2
YES – Optus	3
YES – Trans TV/TransACT	4
YES – Neighbourhood Cable	5
YES – Other [RECORD VERBATIM]	6
NO	90
DON'T KNOW	98

6. [YES I.E. CODES 1-6 @ Q5] Do you receive your digital free-to-air TV services through your pay TV service? [IF NECESSARY, SAY 'Such as ABC or ABC2, for example.']

YES	1
NO	2
DON'T KNOW	98

Recording programs from digital free-to-air TV

7. [ALL DTV HHOLDS IE >0, ≠ 98 @ Q2 OR THOSE PAY TV HOUSEHOLDS WHO INDICATE CODE 1 @ Q6] Does your household record programs from digital free-to-air television for later viewing?

YES	1
NO	2
DON'T KNOW	98

8. [CODE 1 @ Q7] What equipment does your household use to do this? Is it a... [READ OUT ALL OPTIONS, MULTI]

Hard drive recorder	1
DVD recorder	2

Foxtel iQ	3
VCR	4
OTHER [DO NOT READ OUT - RECORD VERBATIM]	5
DON'T KNOW [DO NOT READ OUT]	98

'Drivers' of digital change (adopters of digital free-to-air only)

9. [>0 AND $\neq 98$ @ Q2] I would now like to talk about digital free-to-air TV. Please think about the reasons why you decided to get digital TV in your household. What do you think was the main reason?

(a) **RECORD VERBATIM** FIRST MENTION, AS SEPARATE VARIABLE

(b) Any others? **RECORD VERBATIM**. ALL OTHER MENTIONS AS SEPARATE VARIABLE

10. [>0 AND $\neq 98$ @ Q2] And, thinking about the **nature of your purchase**, which **one** of the following statements best describes your household? [READ OUT, SINGLE]

Specifically went looking for equipment that could receive digital free-to-air TV	1
Digital free-to-air TV emerged as an important factor while shopping	2
Digital free-to-air TV was not an important factor in the purchase	3
NONE OF THESE [DO NOT READ OUT]	97
DON'T KNOW [DO NOT READ OUT]	98

Non-adopter intentions

11. [NON DTV ADOPTERS I.E. 0 OR 98 @ Q2] You told me that your household has not taken up digital free-to-air television. Are you interested in getting digital free-to-air TV some time in the future?

YES	1
NO	2 – GO TO Q16
DON'T KNOW/UNDECIDED	98 – GO TO Q16

12. [CODE 1 @ Q11] And are you planning to purchase a digital set-top box or integrated digital television in order to receive free-to-air digital TV? [IF NECESSARY: the minimum price for a digital set-top box is \$30 to \$100, and the minimum price for an integrated digital TV set with an in-built decoder is about \$800. IF NECESSARY I.E. ONLY IF QUERIED BY RESPONDENT: the minimum cost for the necessary computer equipment is \$50 to \$100.]

YES	1
NO	2 – GO TO Q14
DON'T KNOW/UNDECIDED	98 – GO TO Q14

13. [CODE 1 @ Q12] And is that...? [READ OUT]

Within 12 months	1
In 1 to 2 years	2
Or, after 2 years	3
[DO NOT READ OUT] DON'T KNOW/UNDECIDED	98

14. [ALL THOSE INTERESTED I.E. 1 @ Q11] There are many possible reasons why people might get digital free-to-air television. I would now like you to think about the reasons why you are interested in getting digital free-to-air TV. What do you think is the main reason?

- (a) RECORD FIRST MENTION.
- (b) Any others? RECORD OTHER MENTIONS

15. [ALL THOSE INTERESTED I.E. 1 @ Q11] What specific or additional knowledge do you feel you need before getting digital free-to-air TV? PROMPT WITH 'Anything else?'
RECORD VERBATIM
16. [ALL NOT-INTERESTED-TO-ADOPT OR NO PLANS I.E. 2/98 @ Q11 **OR 2/98 @ Q12**] There are a number of reasons why people are not interested, or not planning to take-up digital free-to-air TV. Can you tell me why this is the case for your household? PROMPT WITH 'Is there anything else?'
RECORD VERBATIM

Awareness and knowledge of DTV

[ALL] I would now like to ask you a few general questions about digital free-to-air TV broadcasting in Australia.

17. [ALL, EXCEPT CODE 97 AT Q4]
Where have you **mainly** found or received information about digital free-to-air TV, for example, information about its introduction to Australia, the equipment required and the features offered? [DO NOT READ OUT, MULTI]

DON'T KNOW/UNSURE	98
HAVE NOT sought or received information about digital TV	1
Internet	2
Retail outlet / salesperson	3
TV	4
Radio talk show	5
Newspaper	6
Radio news	7
Friends/family/colleagues	8
Other RECORD VERBATIM	9

18. [ALL] Have you heard of High Definition digital TV or HDTV?

YES	1
NO	2
DON'T KNOW/UNSURE	98

19. [ADOPTERS ONLY I.E. >0, ≠ 98 @ Q2] Do you currently receive HDTV?

YES	1
NO	2
DON'T KNOW	98

20. [ALL] Do you know that the current analog free-to-air television services (that is, channel 7, 9 and 10, the ABC and SBS) will be completely replaced by **digital** free-to-air television in the future? This will mean that you will not be able to receive any free-to-air TV services without special digital TV equipment.

[IF NECESSARY, E.G. IF RESPONDENT SHOWS ALARM/PANIC: 'Please note that this will not happen for a number of years. Current Government plans indicate that this will happen between 2010 and 2012.']

YES	1
NO	2
DON'T KNOW	98

Internet

21. [ALL] Thank you. That is all I need to ask you about television. I now have some short questions about the internet.

Does your household have internet access?

YES	1
NO	2 – GO TO Q23
DON'T KNOW	98 – GO TO Q23

22. And is that a dial-up or broadband connection?

Dial-up	1
Broadband [IF NECESSARY: For example, ADSL, cable or wireless broadband]	2
DON'T KNOW	98

Audio-visual content

23. [ALL] The next question is about audio-visual content streamed or downloaded from the internet, or on a mobile device. By audio-visual content I mean things like TV programs, sports events, news and music clips, movies and movie previews, but not games.

In the last month, have you watched any audio-visual content from the internet or on your mobile?

YES	1
NO	2
DON'T KNOW/UNDECIDED	98

24. [IF 1 @ Q23] What types of display devices have you watched this audio-visual content on in the last month? Has it been on...? [READ OUT, MULTI]

A TV set	1
A personal mobile device, for example, an iPod or video player	2
A mobile phone	3
A computer monitor or laptop	4
Anything else? RECORD VERBATIM	9

Demographic information

Thank you, that's great! We are almost finished. I would like to conclude by asking you some questions that will help us to understand the range of people in our survey.

25. RECORD GENDER

26. Firstly, into which of the following age groups do you fall? [READ OUT – SINGLE RESPONSE]

Under 18 years	1
18–24 years	2
25–34 years	3
35–44 years	4
45–54 years	5
55–64 years	6
65+ years	7
Refused [DO NOT READ OUT]	99

27. How many people aged 16 years or over, including yourself, live in your household? [RECORD NUMBER]

28. Are there children under 16 living in your household?

YES	1 – CONTINUE
NO	2 – GO TO Q30 (FULL SURVEY RECIPIENT)/Q32 (PARTIAL SURVEY RECIPIENT)

29. And how many are aged... [READ OUT]?

Under 6	RECORD NUMBER
6 to 11	RECORD NUMBER
12 to 15	RECORD NUMBER
Refused [DO NOT READ OUT]	99

30. Is your current employment status [READ OUT – SINGLE RESPONSE. IF AMBIGUOUS TO RESPONDENT, SEEK ‘MAIN’ OR ‘BEST DESCRIPTOR’]

Full-time	1
Part-time	2
Casual	3
Retired	4
Unemployed	5
Home duties	6
Student	7
Refused [DO NOT READ OUT]	99

31. What is the highest level of education that you have completed to date? [READ OUT]

No formal education	1
Primary school	2
Secondary school	3
Technical College (TAFE)	4
University	5
Refused [DO NOT READ OUT]	9

32. Roughly speaking, is your annual household income before tax more or less than \$50,000? And into which of the following ranges would your annual household income fall? Is it...? [READ OUT RELEVANT RANGES 1-3 OR 4-6 ONLY – SINGLE RESPONSE]

Under \$15,000	1
\$15,001–\$30,000	2
\$30,001–\$50,000	3
\$50,001–\$70,000	4
\$70,001–\$100,000	5
Over \$100,000	6
Refused [DO NOT READ OUT]	99

33. Is any language other than English spoken in your household?

YES	1
NO	2

34. In what type of property do you live? Is it a...? [READ OUT – SINGLE RESPONSE]
 [INTERVIEWER’S NOTE: ‘HOUSE’ INCLUDES SEMI-DETACHED, ‘DUPLEX’ AND TERRACE HOUSE]

House or townhouse	1
A flat, unit or apartment	2
Or another type of property	3

35. Do you consider yourself a person with a disability, or does anyone else in your household experience a disability? [IF QUERIED, ADD ‘By this we mean any condition that has lasted or is likely to last 6 months or more **and** restricts your life in some way.’]

YES (SELF)	1
YES (OTHER)	2
NO	3

36. [ASK IF CODE 1 OR 2 AT Q35] And does this disabling condition relate to sight, hearing or mobility?
 [MULTI]

SIGHT	1
HEARING	2
MOBILITY	3
OTHER	4
Refused	9

Sign off

That is the end of our survey. Thank you for participating. This research is being carried out on behalf of the Australian Communications and Media Authority. The information you have provided will help ACMA better understand how digital media are affecting Australian households.

APPENDIX B: QUALITATIVE RESEARCH INTO DIGITAL TELEVISION ADOPTION

**An Exploratory Study of Community Attitudes towards Digital
Terrestrial Television Broadcasting**

SUMMARY

Background

This report sets out the results of qualitative research into community attitudes towards digital terrestrial television broadcasting that was conducted by Woolcott Research for ACMA in May 2007.

The research was conducted using 12 group discussions with a total of 92 participants. The groups were held in Sydney, Melbourne, Hobart and the Gold Coast (three in each location). Group participants were recruited from four digital adopter-intention segments of Australian television-using households identified in studies into digital media conducted by ACMA in 2005 and 2006.

The four segments were:

- ‘adopters’—those who had already converted to digital television;
- ‘interested’—those who were interested in converting to digital television within the next two years;
- ‘unsure’—those who were not sure whether they were interested in converting to digital television; and
- ‘not interested’—those who were not interested in converting to digital television within the next two years.

Key issues explored in the study included:

- self-classification of participants in terms of being up-to-date with household media technology;
- the extent to which the household of each participant had adopted various ‘leading edge’ household technologies;
- the language used by participants to describe television equipment and related technology;
- awareness and knowledge of digital free-to-air television;
- sources of information about digital free-to-air television;
- current and intended recording practices for free-to-air television;
- known and perceived benefits of digital free-to-air television;
- barriers to adoption;
- awareness of plans for analog switch-off; and
- reactions to the pending changes.

Key research findings

Findings from the research can be grouped under four broad headings:

1. The extent to which households of group participants are classified as ‘digital’.
2. Awareness and knowledge of digital television.
3. Drivers and benefits of, and barriers to, take-up of digital television.
4. Attitudes to television and television-viewing behaviour.

1. THE EXTENT TO WHICH HOUSEHOLDS OF GROUP PARTICIPANTS ARE CLASSIFIED AS 'DIGITAL'

At the start of each group discussion, participants were asked to classify themselves in terms of where they thought they stood in relation to household media technology. Three distinct groupings that cut across the digital adopter-intention segments emerged from this exercise.

At one end of the spectrum were the 'uninvolved' participants who were only interested in basic household technology appliances. These participants were typically in the 'unsure' or 'not interested' adopter-intention segments.

At the other end of the spectrum were the 'leading edge' participants. These were few in number, with generally only one or two in the 'adopter' and 'interested' adopter-intention segments. They were more likely to be male and in the younger to mid-range age groups.

Most participants tended to be passive followers of household media technology trends and were classified as 'middle of the road'. They were present in all the digital adopter-intention segments.

2. AWARENESS AND KNOWLEDGE OF DIGITAL TELEVISION

All research participants had a general awareness of digital free-to-air television. Many non-adopters had seen digital television, either when visiting family or friends, or in shops. Some said that they were not sure whether they had seen digital television or not, as they were not sure that they could tell the difference between digital and analog.

This general awareness did not, however, translate into knowledge about digital television. With a few exceptions (among the 'leading edge' participants), most participants (including some of the adopters) were confused about technology and equipment issues such as how a digital signal is delivered and what sort of aerial is needed to receive digital television.

The language used by participants to describe services and equipment

Participants across all groups used a range of different expressions to describe television equipment and technology.

Expressions commonly used to describe (a picture of) a wide-screen television were 'wide-screen TV', 'flat-screen TV', 'big-screen TV' and 'plasma or LCD TV'. Common descriptions of (a picture of) a cathode ray tube TV were 'older style', 'one with a back on it', 'standard TV', 'just a normal TV'. Only one or two participants (in total) used the terms 'CRT TV' or 'cathode ray TV'.

Most participants were also able to identify a set-top-box (STB) from a picture. Other less frequently used descriptions of a set-top-box included 'reception box', 'digital box', 'digi box' and, from a few participants, a 'Foxtel box'.

Participants had no difficulty describing digital televisions that did not need a STB as having an in-built tuner. However, while the term digital was widely accepted and used (if not understood, in any technical sense, by most participants) to describe the signal received by such a television, many participants were initially not able to give a name to an analog signal. Common expressions for an analog signal that were used included 'simple', 'standard', 'basic', 'normal', 'free-to-air' and 'not digital'.

Some participants were able to differentiate between two different types of digital signal—'standard definition' and 'high definition'.

Sources of information about digital television

Most participants had not actively sought information about digital television. Instead, they picked up information from friends and family or from retailers. Some participants mentioned having seen a campaign on television about the benefits of digital television, but overall awareness of this was low.

Many participants who had sought information from retailers thought that most retail staff were not particularly well informed, and information from retailers was described as ‘sketchy’ and ‘haphazard’.

The ‘leading edge’ participants were the only ones who had actively sought out information about digital. Popular sources of information for these participants were IT-related magazines or newspaper lift-outs and online forums such as Whirlpool and Apple. Google was also mentioned as a useful information source.

Participants’ knowledge about analog switch-off

Most participants were aware that a change from analog to digital was going to occur, but few had much knowledge beyond this. Overall there was acceptance that the change would take place in the not-too-distant future, although a small number of ‘uninvolved’ participants from the ‘unsure’ and ‘not interested’ groups expressed surprised when told that the analog signal would be switched off.

Some participants were aware that the original date for analog switch-off was 2008; others were aware that the original date had been changed and that the date currently proposed for switch-off was 2010–2012¹².

When told the current timetable for analog switch-off, participants expressed some scepticism that this would be adhered to, in light of it already having been changed once.

Information sought about switchover

There was a general feeling that no information had been provided about digital switchover for some time. Some participants remembered that some information had been provided a number of years ago.

There was a general feeling among participants that more information should be provided to the public; in particular, information about what changes were going to happen, when they would occur, what the options were for receiving digital television (STB or in-built tuner) and what effect switching to digital would have on equipment currently being used (for example, aerials and recording equipment).

Most participants thought that the government should be responsible for providing information about the switchover (because it was the government’s decision to switch off the analog signal). Some participants also thought that the free-to-air television broadcasters should provide information to viewers about the changes.

3. DRIVERS AND BENEFITS OF, AND BARRIERS TO, THE TAKE-UP OF DIGITAL TELEVISION

Drivers and benefits of digital take-up

Participants identified three main drivers for taking up digital television—to specifically gain the benefits of digital (many ‘leading edge’ participants fell into this group), to improve television reception and as a result of a television upgrade. In the case of a television upgrade, retail sales staff were likely to be an influence in the additional purchase of a STB (few new sets purchased by participants included an in-built digital tuner).

The benefits of digital most commonly mentioned by adopters were better picture quality and reception, and additional television channels (ABC2, and, in the case of Hobart, a new commercial channel). Non-adopters perceived the main benefits of digital to be better picture quality, no weather disruptions to reception, picture-in-picture viewing (indicating some confusion with the functionality of newer television sets) and the status symbol aspect.

Overall, awareness and knowledge of the benefits of digital free-to-air was quite limited among non-adopters, and any move to digital was most likely to be associated with a television upgrade rather than being driven by a specific desire to gain the benefits of digital television.

¹² Date for proposed switch-off at the time of the study. The date, at the time of this report, has been set for the end of 2013.

Disadvantages of digital and barriers to take-up

Although they did mention some disadvantages, adopters generally expressed a high level of satisfaction with their move to digital.

Non-adopters reported a number of disadvantages that they perceived to exist for digital television. These included the high cost of equipment (which they thought would be likely to reduce in the future), potential difficulties associated with setting up digital television in their homes and the issue of digital television's connectivity with their existing equipment.

Both adopters and non-adopters expressed a strong desire to avoid, as far as possible, the clutter associated with STBs and additional cables.

Overall, in the absence of motivating benefits, these factors tended to act as barriers to take-up for the non-adopters (particularly those in the 'unsure' and 'not interested' categories), and consequently they did not see digital free-to-air television as a value-for-money proposition at present.

As a result, many indicated that they would be likely to hold off converting until they needed to take action, either through a television upgrade or when the analog signal is about to be turned off.

4. ATTITUDES TO TELEVISION AND TELEVISION-VIEWING BEHAVIOUR

Participants' recording practices

Most participants had a VCR connected to at least one television, which they used to record free-to-air television.

Few adopters were recording their digital free-to-air signal. Those that were used a DVD recorder with a hard-disk drive, a PVR or a computer's hard-disk drive.

Non-adopters generally assumed that there would not be any difficulty recording digital programs in the same way they did with analog. That is, they assumed that they would be able to connect their existing VCR to the television or set-top-box.

Television-viewing habits

Adopters generally indicated that since moving to digital their viewing habits were unchanged. The main exception to this was those who were watching ABC2.

Picture quality—Standard definition, high definition and analog

Most participants were aware that a high-definition picture was better than a standard-definition picture, but few really had any idea of the extent of the difference.

Some participants wondered why there was a need for high definition if standard definition provided such a better quality picture than analog. Some non-adopters expressed scepticism that there was any significant difference between analog and standard definition.

Attitudes to changing television technology

Participants generally did not think that televisions had the same range of functionality or capabilities as either PCs or mobile phones, and therefore they saw them as having a longer functional life span than either of these types of technologies.

Participants generally did not see any real functional difference between the new plasma and LCD televisions and CRT sets. Televisions were thought to vary mostly in their external appearance and screen size.

BACKGROUND

Research tasks

The overall aim of the research was to gain insight into the way that different groups of consumers understand DTTB in terms of their attitudes, knowledge, awareness, motivations and experiences.

Key issues explored in the study included:

- self-classification of participants in terms of being up to date with household media technology;
- the extent to which the household of each participant had adopted various ‘leading edge’ household technologies;
- the language used by participants to describe television equipment and related technology;
- awareness and knowledge of digital free-to-air television;
- sources of awareness and general information sources for digital free-to-air television;
- current and intended recording practices for free-to-air television;
- known and perceived benefits of digital free-to-air television;
- barriers to adoption;
- awareness of plans for analog switch-off; and
- reactions to the pending changes.

Copies of the two discussion guides (one for the adopters and one for the non-adopters) can be found in Attachments 1 and 2.

RESEARCH DESIGN

The study was qualitative in nature and comprised a series of 12 group discussions at four different locations.

Potential participants were pre-screened to ensure that they were the main or joint decision-makers in their household for the purchase of household media technology. They were then split into the following four categories:

1. ‘Adopters’—those who had already converted to digital terrestrial television (either by way of a digital set-top-box or a television with an in-built digital tuner).
2. ‘Interested’—those who were interested in converting to digital within the next two years.
3. ‘Unsure’—those who were not sure whether or not they were interested in converting to digital.
4. ‘Not interested’—those were not interested in converting to digital within the next two years.

These four categories were drawn from the digital adopter-intention segments that emerged from two previous studies conducted for ACMA (in 2005 and 2006) among Australian television households. Findings from these studies were published as *Digital Media in Australian Homes* and *Digital Media in Australian Homes – 2006*. Both reports are available on the ACMA website.¹³

The final group distribution was as follows:

Groups	Adopter	Interested	Unsure	Not interested	TOTAL
Sydney	1	1	1	-	3
Melbourne	-	1	1	1	3
Hobart	1	-	1	1	3
Gold Coast	1	1	-	1	3
TOTAL	3	3	3	3	12

¹³ http://www.acma.gov.au/acmainterwr/_assets/main/lib100068/digitalmedia.pdf and http://www.acma.gov.au/webwr/_assets/main/lib100845/digital_media_in_aust_homes-2006.pdf

RESEARCH FINDINGS

Technological positioning

SELF-CLASSIFICATION

As a warm-up to the main discussion, group participants were asked to classify where they felt they stood in relation to leading edge household media technology. Through this exercise it became apparent that there were three distinct groupings.

1. 'Uninvolved' participants

At one end of the spectrum were the 'uninvolved'—those only interested in the basic 'no-frills' end of household technology appliances. Participants in this category typically emerged in the 'unsure' or 'not interested' DTTB groups, and they were likely to be older than most other participants or to be part of a family with younger children. Those with older children tended to indicate that their kids were often drivers of take-up of household technology, and were therefore less likely to fall into this 'uninvolved' category.

When asked what types of things they considered to be at the cutting edge of household media technology, this segment was likely to indicate the following:

- MP3 players;
- digital cameras; and
- laptops or computers in general.

2. 'Leading edge' participants

At the other end of the spectrum were the 'leading edge' participants. These were few in number, with generally only one or two in the 'adopter' and 'interested' DTTB groups. They were more likely to be male and in the younger to mid-range age groups.

When asked to identify what they personally considered 'cutting edge' household technology, this segment was able to name a range of different items:

- Blu-ray drives;
- bluetooth devices;
- integrated televisions with computer and/or internet connections;
- remote programming of household devices (such as air conditioning systems or even the household fridge);
- touch-panel systems for lighting/heating; and
- household media centres (with multimedia capabilities).

3. 'Middle of the road' participants

The third grouping to emerge sat between these two ends of the spectrum, and comprised the largest number of group participants. This group was classified as the 'middle of the road' category—those who tended to be passive followers of household media technology trends. Participants in this category were present in all DTTB group types ('adopters', 'interested', 'unsure' 'not interested').

‘Middle of the road’ participants identified the following items as at the cutting edge of household media technology:

- plasma and/or LCD televisions;
- home theatre systems;
- DVD recorders;
- 3G mobile phones; and
- GPS systems.

SELF-COMPLETION RESULTS

At the end of each group discussion, participants were asked to complete a brief self-completion questionnaire, which asked them to indicate which of the listed consumer technology items they had in their household.

Because the questionnaire was anonymous, it was not possible (nor was it the intention of the exercise) to look at the results either on an individual basis or against the three broad self-classification categories that emerged (‘uninvolved’, ‘middle of the road and ‘leading edge’). Rather, the questionnaire was intended to provide a basic overview of the degree to which households represented by the various participant groups had adopted other types of media technology.

A copy of the questionnaire used can be found in Attachment 3, while a count of results appears in the table below.

Table A1: Participant characteristics, qualitative study

	Adopter (23 Participants)	Interested (24 participants)	Unsure (22 Participants)	Not Interested (23 Participants)
LCD	8	3	7	2
Plasma	3	1	1	0
Other TV Type	45	52	41	44
DVD Player	22	23	16	20
VCR	21	18	18	20
Pay TV STB	5	5	2	2
Hard Disk Recorder	5	3	3	1
DVD Recorder	3	7	4	5



n 24 TV with set top box.
n=3 with inbuilt digital tuner.

In overall terms, differences between the ‘adopter’ and ‘interested’ group participants were reasonably small (with the exception of televisions and to some extent the associated recording equipment). The two groups had a similar number of televisions in their households (just over two on average), but the ‘adopters’ were more likely to own plasma or LCD televisions. The ‘adopters’ were also more likely to own hard-disk recorders, while the ‘interested’ groups had more DVD recorders than any other group.

The self-completion questionnaire results indicated that a few ‘adopters’ were receiving digital free-to-air television on more than one television in their household, while only three of the nine plasma or LCD televisions owned by participants in this segment had an in-built digital tuner.

The ‘unsure’ and ‘not interested’ participants tended to have slightly fewer televisions in their households (on average) and they were also less likely to have a DVD player (than either the ‘adopter’ or ‘interested’ participants).

With some exceptions, there were few differences between the ‘adopter’ and ‘interested’ participants in terms of other household technologies (which also formed part of the self-completion questionnaire).

Table A2: Other household technologies, by participant type

	Adopter (23 Participants)	Interested (24 participants)	Unsure (22 Participants)	Not Interested (23 Participants)
Digital Camera	19	23	17	17
Digital Video Camera	10	5	5	4
MP3 Player (music)	17	16	14	9
MP3 Player (music + video)	6	6	5	1
Broadband Internet	17	18	13	12
Personal computer/laptop	22	22	17	18
VoIP Service	5	6	3	3
Mobile Phone	23	24	22	22
3G Phone	7	7	4	9

The ‘unsure’ and ‘not interested’ participants were somewhat less likely (than ‘adopters’ and ‘interested’ participants) to have:

- digital cameras;
- MP3 players;
- broadband internet connections; or
- laptops or PCs.

Digital terminology used

One of the objectives of this qualitative exploration was to take note of the terminology participants used when they described the technology, the equipment and other elements of the digital environment.

TELEVISION SETS

Group participants were asked to describe the number and type of televisions they had in their household in order to identify the terminology used for the television set itself.

All of the groups were conducted in purpose-built group rooms, most of which contained a television set visible to participants. This set often became a point of reference for participants as they attempted to describe their own television, and they used it to describe the similarities or differences to their own sets.

Nonetheless, some group members found it difficult to describe the type of televisions they owned. This was particularly so if they were referring to cathode ray tube sets, for which a range of different expressions were used. The most common descriptions included:

- ‘older style’;
- ‘one with a back on it’;
- ‘standard TV’; and
- ‘just a normal TV’.



One or two participants (in total) also described these sets with the following terminology:

- ‘CRT’;
- ‘cathode ray’; and
- ‘low range’.

The range of descriptions used to describe a ‘flat-screen’ television was somewhat more limited. These were referred to most commonly as:

- ‘flat-screen TVs’;
- ‘wide-screen TVs’;
- ‘big-screen TVs’ and
- ‘plasma’ or ‘LCD’ TVs.



One participant also suggested that these were ‘digital’ televisions (though they did not appear to be too sure about this description), while a few simply referred to them as ‘modern’ televisions, again pointing out how this type of television differed from their own.

SET-TOP BOX

Participants were also shown a picture of a digital terrestrial set-top box. They were asked what they thought it was and how they would normally refer to such an item.

While there was some variation in the terminology applied to this device, most know it to be (and described it as) a ‘set-top box’. Other less frequently used descriptions included:

- a ‘reception box’;
- ‘digital box’; and
- ‘digi box’.



A few participants described the device as a ‘Foxtel box’, while there were also others (though relatively few in number) who said that they did not know what was depicted in the picture. Those who were confused by the picture were likely to suggest that it was some sort of DVD player, though as it lacked an area to insert a DVD, they were not sure that this was the case.

‘Is it the same box you get when you get Foxtel or Austar? Is it the same thing as that or not?’

‘I don’t know... it could be a DVD player, but I don’t know.’

IN-BUILT DIGITAL TUNERS

In some of the groups this led to further discussion about digital televisions that did not require a separate set-top box. The terminology ‘in-built tuner’ (or simply ‘in-built’) appeared to be fairly well known and accepted. A few participants specifically referred to a recent television campaign by a television manufacturer that depicted a tuna (fish) being placed in a ‘flat-screen TV’ to highlight that their digital television sets came with an in-built tuner.

‘I’ve heard of that because of the ad where they throw the fish in, the tuna, that’s the only way I’ve heard of [an in-built tuner].’

‘Did you see the commercial for, I think it was LG? ... they say the tuner was in the TV, and they’ve got a fish type tuna inside the TV screen.’

ANALOG/DIGITAL TELEVISION SIGNAL

At this initial stage in the discussion process we were also interested in teasing out the terminology used to describe the different television signal types—analogue or digital—that people were aware of or received. This often caused confusion, as many of the participants indicated that they had never really thought about their television in that way, and it was not a simple process to prompt them to talk about receiving an analogue signal (which most received). However, in each group one participant generally mentioned ‘analogue’ and from then other group participants found it easier to talk about the type of signal that they received.

Alternative descriptions to ‘analogue’ were:

- ‘simple’;
- ‘standard’;
- ‘basic’;
- ‘normal’; and
- ‘free-to-air’.

As some participants were at a loss for words to describe this type of signal, they resorted to comparing it to something that they did have terminology for, and so referred to their analog signal as being ‘not digital’.

‘Do you mean analog and digital? I know I’m not watching digital, so I must have analog.’

‘I figured when they mentioned digital set-top boxes a couple of years ago, we must be on analog otherwise we wouldn’t need [to get] a digital box.’

The term ‘digital’ was well known among group participants and there were no real alternatives used when describing it. Some participants also mentioned the different types of digital signals—‘standard definition’ and ‘high definition’.

Awareness/knowledge of digital free-to-air TV and sources of information

AWARENESS/KNOWLEDGE

All research participants had a general awareness of digital television. Obviously the ‘adopters’ had first-hand experience of it, while quite a few of the participants from other segments also indicated that they had experienced digital television themselves, either while visiting a friend or family member (who themselves were adopters) or by looking at televisions in retail stores.

Some participants were not sure if they had seen digital television or not. They said that they really could not tell if what they were seeing on a ‘big-screen’ television had a digital signal or an analog one.

‘I’ve seen plenty of big-screen TVs in shops and that, and I guess they would show [a] digital [picture], but I wouldn’t know for sure.’

‘If you see a nice picture, you just assume it’s digital.’

While not all participants were sure if they had experienced digital free-to-air television themselves, there was general recall of having seen or read about it in the media at some point in time. A few participants specifically referred to a television campaign that they had seen that talked about the benefits of digital television. They said that the ad featured one representative from each of the major commercial networks and was screened on each of them.

Awareness of digital free-to-air was high among the group participants, but it became apparent that real knowledge was lacking. This became evident during a discussion about how a digital signal was received. Apart from some of the ‘leading edge’ participants, there was a clear level of confusion about this process among all other participant types (including some of the ‘adopters’).

In essence, these participants were not sure how the digital signal made its way to houses. There was a reasonable level of awareness of the function of a set-top box, but many had never considered how the signal was delivered to the box. Some speculated that it may be sent via satellite and that a satellite dish might be required to receive the signal, while a few also thought it might be received via cable (as is the case with some/most subscription television services).

‘I’m not sure ... do you need a satellite dish or does it just come in [via] your aerial?’

This speculation generally also included participants suggesting that digital reception involved the use of an aerial, but this in itself raised additional questions for some, as they were not sure (even if they believed that the signal was received by an aerial) if a ‘standard’ aerial would suffice.

‘I think you just plug in to your usual aerial socket, but I’m not sure about the aerial itself ... mine’s pretty old.’

The 'leading edge' individuals knew how digital worked and were generally quick to enlighten others in the groups they were in. Their level of knowledge was far greater than that of participants in the 'middle of the road' and 'uninvolved' categories.

SOURCES OF INFORMATION

The 'leading edge' participants were the only ones who were actively seeking information about digital television. Others had picked up bits and pieces of information via word of mouth from friends/family and also from retailers, but the 'leading edge' participants utilised additional sources.

These included IT-related magazines or newspaper lift-outs and online forums (such as Whirlpool and Apple) that allowed them to read the comments of other 'informed' individuals and, importantly, to ask their own questions.

A general 'Google' search was also mentioned by these participants as a means of finding additional information.

The 'leading edge' participants who actively sought their own information were generally satisfied with what they were able to find. Their interest in the subject matter allowed them to broaden their knowledge through the research and discussions they were involved in. They knew what questions to ask and were therefore able to find the answer that they needed.

As has been indicated, the 'middle of the road' participants had a higher reliance on 'leading edge' friends/family and retailers. When questioned about the experiences they had in obtaining information, there were some negative perceptions about information provided by retailers.

In general, these participants did not feel that the retailers they sought information from were particularly well informed. Several participants suggested that a typical scenario was that a retail outlet would have at least one very knowledgeable staff member, but in most cases the general staff (though confident) were less well informed. Consequently, it was not surprising to find that they described the information they obtained as 'sketchy' and 'haphazard'.

Interestingly, several participants revealed that they had developed a solution to overcome this difficulty. They would essentially 'shop around' for information by going to several retailers and asking the same questions, and then compare the answers for commonality. This, they felt, was the best way for them to validate the information that they were given.

Recording practices, standard/high definition and television-viewing habits

RECORDING TELEVISION PROGRAMS

Most participants had a VCR connected to at least one television in their household, which they used to record free-to-air television.

In considering potential recording practices with digital television, the non-adopters assumed that there would not be any difficulty recording digital programs the same way that they did with analog. That is, they assumed that they could just connect their existing VCR to the television or set-top-box.

Among the 'adopters', few were actually recording the digital free-to-air signal that they were receiving. The ones that were recording used:

- a DVD recorder with a hard-disk drive;
- a PVR; or
- a computer's hard-disk drive.

STANDARD DEFINITION (SD) AND HIGH DEFINITION (HD) DIGITAL TELEVISION

Those participants who were recording digital free-to-air programs indicated that they were recording a SD signal and there was no strong aspiration to viewing or recording HD, even among 'adopters'.

This was despite the fact that there was a reasonable level of awareness of HD, even if actual knowledge was limited to seeing HD program labelling ('this program is available in High Definition') and assuming that some people were able to view the same program with a better quality picture.

'Yeah, like I'm pretty certain I've seen some TV shows where they say its being broadcast in high definition, but if your TV doesn't actually pick up that signal or decode it or whatever it does, you just get a normal picture. So I think your TV has to be able to decode whatever it does to that signal.'

The quality of HDTV was something that most participants were aware of and it was generally understood that a HD picture was better quality than a SD one. However, few really had an idea of the extent of difference between them. This discussion actually raised questions for some participants who wondered why there was a need for HD if SD provided a better quality picture than analog:

'High [Definition] means there's lots more dots, which means a better picture, and if there's less dots, it means a fuzzier picture.'

'Do you really need anything better than that [standard definition]?'

The 'adopters' seemed to have a better grasp of the differences between SD and HD than non-adopters, but, even so, they were generally very satisfied with viewing programs in SD.

Among the non-adopters, there were some in the 'not interested' groups who expressed scepticism that there was any significant difference between SD and analog transmissions.

'The picture I get on my standard TV is crystal clear, so I don't see how it could get any better.'

Another interesting point that emerged with the 'not interested' groups was that some participants, but not all, expressed a lack of interest in free-to-air television in general. Because of this, these participants infrequently recorded free-to-air programming and not all had a VCR.

Although a few of these participants may have been 'leading edge' in terms of their knowledge of household media technology, their lack of interest in free-to-air television positioned them in the 'not interested' group, and they had no real desire to obtain digital free-to-air television through either a set-top box or an integrated television.

DIGITAL ADOPTERS AND TELEVISION-VIEWING HABITS

'Adopters' generally indicated that their viewing patterns were unchanged since acquiring digital free-to-air television. The exception to this were a few 'adopters' who were watching ABC2 (including some younger mothers who indicated that they were doing this for the additional children's programming).

'I'm a single mum ... and there are shows on early in the mornings on ABC for kids, then at 10.00 there's nothing on, but if you switch to ABC2 they've got [kids] shows on until 3.00 in the afternoon. They've got little kids' shows, and then if you switch back to ABC at 3.00 ... there are more [kids] shows, and she's always like "can I watch the shows?''

The participants who had switched to digital specifically to obtain a better signal indicated that they were now able to watch programs that they may otherwise have given up on due to poor reception.

'My reception on one of the channels, 7 or 9, had gotten that bad you couldn't watch it. So it did [change our viewing habits], it took us back to watching any of the free [-to-] air [channels].'

Drivers and benefits of take-up of digital free-to-air television

DRIVERS OF DIGITAL TAKE-UP

There were three main reasons given by the ‘adopters’ and ‘interested’ participants for taking up or being interested in taking up digital free-to-air television. These were:

1. To specifically take advantage of the benefits offered by digital television (active take-up).
2. To improve television reception.
3. As a result of purchasing a new television (passive take-up).

Active take-up

Participants in this category had already adopted digital television or said they would adopt the technology in the future, purely because of the benefits they felt it offered. They tended to have a desire for the latest and best technology, and many of the ‘leading edge’ participants fell into this group. However, in overall terms they were relatively few in number.

Signal improvement

Participants in this category had a problem with their existing television reception and were seeking a way of solving it. For some, the switch to digital was an active move. They knew that the benefits of digital free-to-air included improved reception and a better quality picture, and so they actively sought to change to digital. For others it was more of a passive conversion, as they were not aware of the potential for improved reception that digital free-to-air television offered until advised by others (generally retail sales staff).

In either case, these participants were unlikely to have made (or considered) the change without the particular prompt of requiring signal improvement, and were not actively seeking any other benefit offered by digital television. Acquiring a set-top box appeared to be the best solution to their signal reception problem.

This was particularly evident among the groups conducted in Hobart and the Gold Coast. Those participants who had switched to digital for improved signal were unlikely to have considered purchasing a new television with an in-built digital tuner, instead opting for the ‘add-on’ component of the set-top-box.

Passive upgrade

The other main reason given (by both the ‘adopter’ segment and those ‘interested’ in moving to digital) is best described as a form of passive upgrade. For this group, the switch to digital was the outcome of some other behaviour, typically the purchase of a new television set. Acquiring digital television was not itself a driver.

This passive upgrade could be associated with the purchase of any form of new television. Retail sales staff were likely to have influenced the additional purchase of a set-top box or of a television with an in-built digital tuner (although few of the sets purchased by the ‘adopters’ in the groups included an integrated or ‘in-built’ tuner).

PERCEIVED BENEFITS OF DIGITAL TAKE-UP

In discussing the perceived benefits of digital free-to-air television, there were clear differences between benefits actually experienced by adopters and those envisaged by non-adopters.

The adopters talked about the following benefits:

- picture quality (most felt that the picture quality that they had with SD was superior to any they could get from an analog signal);
- better reception (an obvious benefit for the ‘adopters’ who had switched specifically for this reason);
- additional channels (for most this discussion was limited to ABC2 but in Hobart there was a new commercial channel);

- radio stations (although few indicated that they actually used these);
- the electronic program guide (although again this did not emerge as a strong feature);
- better sound (only mentioned by one or two participants); and
- the small sense of satisfaction 'adopters' felt with being 'at the forefront' of household media technology.

On the other hand, the perceived benefits mentioned by the non-adopters were:

- picture quality (although the perception was that there was not necessarily a great deal of difference between an analog and digital signal. As already noted, some were even sceptical that a digital signal could be much better than what they were already receiving);
- no weather disruptions (while this aspect did not emerge as a benefit among the adopters, a few of the non-adopters believed that a digital signal would be less susceptible to interference due to weather conditions);
- 'picture-in-picture' viewing (obviously indicating some confusion with the functionality of newer television sets); and
- the status symbol aspect (although this was more likely to relate to the aspiration to own a new television set with an in-built digital tuner, rather than a set-top box, and not to having a digital signal or any of the associated benefits).

Overall, the main benefits associated with digital free-to-air television were secondary drivers for the switch to digital (if they were considered at all), with the primary driver being the desire (or, in some cases, necessity) to upgrade an existing CRT television set. This was fairly common among each of the non-adopter segments.

- Participants in the 'interested' segment exhibited a reasonable level of awareness of the benefits of digital free-to-air. Even so, the interest they displayed in adopting digital still seemed to be linked with a potential television upgrade.
- Those in the 'unsure' segment had some limited awareness of the benefits of digital television, but did not necessarily see it as something of interest. As they did not see themselves as in the market for a new television, they therefore had no real motivation to switch to digital. They did, however, express a desire to upgrade at some point in the future, and when this occurred would be likely to consider moving to digital;
- For the 'not interested' participants, there was quite low awareness of, and knowledge about, the benefits of digital free-to-air television. In fact, some within this segment expressed a low level of interest in watching television, and consequently were not particularly interested in the benefits offered by digital (even after these were revealed within the discussion process). As was the case with the 'unsure' participants, they were also unlikely to see themselves as in the market for a new television set. They indicated a likelihood of upgrading only when it became necessary (for example, when they needed a new television set, or when the analog signal was switched off).

Disadvantages of, and barriers to, adopting digital free-to-air television

Participants were asked about the disadvantages of, and barriers to, their adoption of digital free-to-air television. Overall, while the non-adopters expressed some negative perceptions, these were not particularly strong. Perceptions among the adopters were also extremely positive, even though some negative aspects did emerge.

The negative aspects of digital mentioned by the adopters were:

- picture disruptions (referred to as 'break-ups', 'freezes', and 'flickers');

- sound issues (generally referred to as ‘clicking’ noises);
- weather interference (only mentioned by a few, but one participant in particular indicated that her signal could disappear for an hour or so);
- interference from other household appliances (that is, there were some minor picture and sound issues for some when they used certain appliances while viewing television); and
- the minor annoyance for some of having an additional device and remote control to deal with.

Despite mentioning these factors, none of the ‘adopters’ said that they preferred analog and many expressed a high level of satisfaction with digital television.

While not necessarily an indicator of dissatisfaction, there was also a strongly expressed desire (among both adopters and non-adopters) to avoid the ‘clutter’ of a set-top box and the associated cabling. As a consequence, many participants expressed a preference for television sets with an in-built digital tuner.

‘I think it’s just less stuff you need. I think that’s why I want one when we buy one with an inbuilt tuner because I don’t want more stuff.’

‘Yeah, one remote control instead of three, which is what we’re using now.’

Non-adopters mentioned a number of negative factors that they had either heard about from others or that they imagined would be an issue with digital free-to-air television. The main factors mentioned were:

- the perceived high cost (because of the general preference for televisions with an in-built digital tuner, there was a perception that this could involve thousands of dollars. When asked specifically to consider the cost of a set-top box, estimates varied from \$30 to \$400, although typically they were at the \$200 to \$300 level);
- potential set-up and installation difficulties (especially for a set-top box. Some participants were quite open about how difficult they found it to install new technology);
- connectivity with other components (some participants thought that there may be difficulty in connecting their existing equipment); and
- the fact that the market is changing (that is, although knowledge among non-adopters was limited, they thought that prices were falling and therefore there was no need to ‘rush in’ and buy something now).

Overall, in the absence of motivating benefits, these factors tended to act as barriers to take-up for the non-adopters (particularly those in the ‘unsure’ and ‘not interested’ categories). Consequently, they did not see digital free-to-air television as a value-for-money proposition at present.

Looking to the future

VIEWS ABOUT CHANGING TV TECHNOLOGY

Participants were encouraged to discuss how they viewed advances in television sets and the degree to which they felt that they were, or might become, a disposable commodity with a short life span, rather than a piece of household technology that they might expect to use for many years. The use of an ‘insights test’ (see the Discussion Guides at attachments A and B) provided a comparison of televisions with PCs or mobile phones.

Television sets were seen as less disposable than either PCs or mobile phones, primarily because they were seen as less complex than either of those device categories and as having a smaller range of functionality or capabilities.

‘No-one would think you’d have to upgrade your TV like a computer would. They don’t come out—the models that are coming out aren’t really that different from the last one, just probably bigger.’

‘If I was buying a TV I wouldn’t expect I was going to be replacing it as often as a PC or a special mobile phone.’

‘I’m certainly not trying to use the TV for as many functions as say a mobile phone, which I can use as an organiser or a phone for different reasons.’

Televisions were seen to vary mostly in terms of their external appearance and screen size, and were not thought to be subject to the same sort of rapid advances as mobile phones or PCs. While the research participants were aware of the emergence of new technologies and looks for television sets (and there was particular discussion of plasma and LCD televisions here), participants generally did not see any real difference in the function that they were performing.

For some, televisions were simply seen as monitors, although a few participants could foresee the future merging of televisions and computers. For the ‘leading edge’ participants, this was not a huge leap forward, but for most others this type of development was still seen to be quite a way off.

‘You can say you can use your laptop into the TV say as a monitor, but I didn’t really use it for any other functions.’

AWARENESS OF ANALOG SWITCH-OFF

Most participants were aware that a change of some description was going to happen to television transmission. A few discussed this in terms of a pending change; that is, not necessarily one that was already happening.

‘They’re going to have to run a digital and analog signal together while everyone gets prepared.’

In terms of awareness of analog switch-off, many participants recalled that an announcement had been made some time ago about the introduction of digital and the resultant end of the existing analog signal. Some even pinpointed the discussion that occurred around the 2001 period.

Some participants were also aware that the digital switchover was originally intended to be completed in 2008. The participants in Hobart appeared to have a heightened awareness of this time frame.

While there was recollection of the discussion that occurred several years ago, there was a general feeling that little had really been said (or done) since then. Some participants were aware that the time frame that had initially been proposed had since been ‘pushed back’, and a few were aware (or simply guessed) that the new proposed timeframe for switchover was between 2010 and 2012.

‘The first time I heard [the change was going to be] in about 2008 and I think that’s been changed to 2011 or something.’

Even so, the perception that there had been no real discussion about the time frame change, and the fact that it had already been changed once, led to a general sense of scepticism about any new time frame.

‘They will probably change it anyway.’

REACTIONS TO THE ANALOG SWITCH-OFF TIME FRAME

After the initial unprompted enquiry to determine the level of awareness of analog switch-off, participants were presented with the following statement:

‘The current analog signal will eventually be switched off. While this was originally scheduled for 2008, it is now likely to occur between 2010 and 2012.’

For most participants this was not new information, but rather confirmation of something they already knew about (even if only vaguely). There was therefore little real reaction to the statement. Some even compared the switchover to changes that occurred with mobile telephony and that, too, was considered to be something that was handled without any real fuss.

‘It’ll be like the mobile phones when they did it. All of a sudden, it just happened.’

However, there were some participants who were surprised when provided with this information. While they had already expressed at least some awareness of the changes, they were somewhat concerned that analog would have a definite end date, and that it was not all that far away.

These participants tended to be the ‘uninvolved’ participants from the ‘unsure’ and ‘not interested’ groups.

‘It is a surprise. We were kind of expecting it, but maybe definitely never thought it was going to be 2008.’

‘I didn’t know they had scheduled it that soon.’

There was general acceptance of the pending changes. However, there was also a call for more information to be provided about what was going to happen.

INFORMATION SOUGHT

There was a general call from group participants (and not only those who expressed surprise to learn about the time frame) to be further and better informed about the pending changes to Australian television.

Participants thought that information should be provided to them either by the government or by the free-to-air television broadcasters. In terms of government involvement, there was an assumption that as analog switch-off was a government initiative and so there was a burden of responsibility on the government to let people know what was happening:

‘... if they can legislate [to] make everyone go onto digital, then [information] probably should come from them because it concerns everybody’.

Some participants thought that the broadcasters should be playing their part in letting their viewers know what was going on:

‘You’d think the TV channels would be telling people.’

There was general agreement that the following type of information was needed:

- when the change is going to happen;
- what is going to happen;
- what the options are for receiving digital free-to-air television (an explanation of televisions with an in-built tuner and set-top-boxes); and
- the implications for equipment currently being used (for example, aerials and VCRs).

Finally, the fact that many non-adopters saw little or no value-for-money in moving to digital, suggests that there is also a general need for information to be provided about the benefits of digital television.

IMPLICATIONS OF THE CHANGES

Once participants had been presented with the statement that confirmed the analog signal will be switched off, discussion moved onto the implications of this change. Some differences between the groups became apparent at this stage.

‘Not interested’

Participants in this segment were the least likely to see value-for-money in acquiring either a set-top box or a television with an in-built digital tuner. As a consequence, they were unlikely to do anything until they felt that they had no other choice, and even then they were likely to do the minimum necessary. They were unlikely to worry about receiving digital free-to-air on all of their televisions and would potentially just buy an inexpensive set-top box for the television(s) on which they wished to continue to receive a free-to-air signal.

'Unsure'

Participants in this segment had no plans to do anything immediate in response to the information that the analog signal would be switched off at some point in the future. They were likely to view the pending change as still being 'a little way off', and hence were unlikely to be motivated to act with any urgency.

There was an assumption in this group that, based on the overall downward trend in prices of electronic equipment, the price of digital television equipment would potentially decrease substantially prior to the final analog switch-off date. These participants were happy to wait until prices were more acceptable to them before switching to digital. However, if the need arose for them to upgrade their television before then, they indicated they were likely to incorporate the switch to digital in their upgrade.

'Interested'

The interested participants were unlikely to have had specific plans to switch to digital, but they were likely to have been considering an upgrade of their television set. As they were interested in the technology (at least to some degree) they were likely to acquire digital in the near future.

When asked about the type of device that they would obtain, most tended to suggest that they were considering the purchase of a new television with an in-built digital tuner.

'Adopters'

Among the adopters, a few had already converted all of the sets they owned to digital, and some intended to do so before analog switch-off. Again, however, there was no real urgency expressed.

Some adopters also indicated that they would not obtain a set-top box for their old televisions. Instead, they suggested that they were likely to maintain a television set specifically for other uses (such as watching DVDs and playing with games consoles).

ATTACHMENT 1: DISCUSSION GUIDE— NON-ADOPTERS

'Interested', 'unsure' and 'not interested'

Introduction/warm up: Explain process, no right or wrong answers, need to record for future reference, completely confidential.

SELF-CLASSIFICATION

- Perception of how technologically advanced they/their household is:
 - Do they see themselves as someone who likes to keep up with leading edge household media technology?
- Determine what the most leading edge technology is.

TV USAGE & ENVIRONMENT

- Number of TVs in household.
- Type of TV (main, then others).
- Connections to TV (TAKE NOTE OF TERMINOLOGY):
 - What is connected to the TV?
- Unprompted measures (TAKE NOTE OF TERMINOLOGY):
 - Type of TV service received;
 - IF NECESSARY – type of 'signal' received.
- SHOW CARDS to determine terminology used (flat-screen TV, Digital Free-To-Air Set-Top Box).

Awareness and information

- Awareness of Digital Free-To-Air TV:
 - Have they seen it?
 - Where have they heard of it?
 - What do they know?
 - What does it involve (equipment needed)?
 - What services are available in their area?
- Prompted awareness of:
 - Set-Top Box;
 - In-built tuner;
 - Standard Definition/High Definition.

- Information-seeking:
 - Where have they seen information?
 - Where should information about Digital TV come from (media, government, WOM etc.)?
- Perceived usefulness of information currently available:
 - Identify the most useful source(s).
- Level/depth of information sought;
 - What more is required?
- Identify the main decision-maker in terms of adoption/rejection:
 - Influence of family/peer pressure etc.,
 - Influence of retailers,
 - Other influencers.

DIGITAL FREE-TO-AIR TV

Insight test

‘Alex wanted to get a new TV. He ended up purchasing one with an in-built Digital Tuner.’

Why did he do that? Did he know what he was purchasing? Did he want the features that it contained? How would he know? Was he aware of how it worked and what it was capable of?

- Perceived benefits (advantages of Free-To-Air Digital TV over analog TV):
- Association/differences to ‘Flat-Screen TVs’.

Insight test

‘Sam wanted to get a better picture on her existing TV.’

What are her options to achieve that? (PROBE FOR: New Antenna, DTTV, Pay TV.) How might she find out? How easy would it be for her to set up? What problems might she encounter? (PROBE FOR: Channel numbers; Channel changing; How she would find out what programs are on; Electronic Program Guide, additional services etc.)

- Understanding of:
 - Picture quality;
 - Signal strength;
 - Extra channels;
 - Installation;
 - Standard Definition/High Definition,
- Perceived cost and ‘value for money’.
- Expectations in terms of problems/difficulties:
 - Note references to (and terminology used).
- Installation;
- Operation;

- Sound problems;
- Picture problems (pixilation);
- Equipment problems (freezes).

Insight test

'Darren needed to get a new TV, but in the end decided not to get a Digital one.'

Why did he make that decision? What would have influenced him?

- Identification of any other barriers to take-up.

RECORDING

- Current behaviour:
 - Do they record TV programs?
 - How?
- Awareness of options for Digital TV recording.
- Awareness of problems associated with recording Digital TV:
 - Timers;
 - Channels;
 - Coordination between two devices (one analog).
- Future intentions.

FUTURE PLANS

- Intention to take up:
 - Why/why not?
 - Fully or partly?
 - Recording equipment.
 - Other equipment (what?).
 - Timeframe involved.

Insight test

'Joe was told by a friend that in the future TVs might need to be upgraded as frequently as PCs or mobile phones.'

How would he have reacted to that? Why would that be the case?

- Personal readiness for future developments (is it expected to be developed further/be superseded):
 - Personal impact.

AWARENESS OF CHANGES

Unprompted awareness surrounding changes in delivery (not content/channel/ownership) of television broadcasting in Australia (TAKE NOTE OF TERMINOLOGY):

- What is planned?
- When?

SHOW DESCRIPTION CARD. (The current analog signal will eventually be switched off. While this was originally scheduled for 2008, it is now likely to occur between 2010 and 2012):

- Verify whether or not aware of this.
- Reactions to it.

Implications of changeover to digital-only TV.

DISTRIBUTE QUESTIONNAIRE

ATTACHMENT 2: DISCUSSION GUIDE—ADOPTERS

Introduction/warm up: Explain process, no right or wrong answers, need to record for future reference, completely confidential.

SELF-CLASSIFICATION

- Perception of how technologically advanced they/their household is:
 - Do they see themselves as someone who likes to keep up with leading edge household media technology?
- Determine what the most leading edge technology is.

TV USAGE & ENVIRONMENT

- Number of TVs in household.
- Type of TV (main, then others).
- Connections to TV (TAKE NOTE OF TERMINOLOGY):
 - What is connected to the TV?
- Unprompted measures (TAKE NOTE OF TERMINOLOGY):
 - Type of TV service received.
 - IF NECESSARY - Type of 'signal' received.
- SHOW CARDS to determine terminology used (flat-screen TV, Digital Free-To-Air Set-Top Box).
- Clarify IF NEEDED (prompted measure) of Digital TVs within household (TAKE NOTE OF TERMINOLOGY):
 - No. of Digital vs. Analog within household;
 - Set-Top Box vs. In-built (or Integrated) tuner;
 - Standard Definition / High Definition.

INFORMATION AND THE DECISION MAKING PROCESS

- How long have they received Digital Free-To-Air TV?
- Sources of information prior to up-take of Digital TV:
 - Where have they obtained information?
 - Where should it come from (media, Government, WOM etc)?
- How easy was it to find?
- Perceived usefulness of information currently available:
 - Identify the most useful source(s).
- Level / depth of information sought:
 - What was required?
- Identify the main decision-maker and process:
 - Influence of family/peer pressure etc.;
 - Influence of retailers;
 - Other influencers.

DIGITAL FREE-TO-AIR TV

Insight test

'Alex wanted to get new TV. He ended up purchasing one with an in-built Digital Tuner'.

Why did he do that? Did he know what he was purchasing? Did he want the features that it contained? How would he know? Was he aware of how it worked and what it was capable of?

- Reasons for their own uptake of Digital Free-To-Air TV:
 - Passive versus active (that is, did they look for Digital or just end up with it)?
 - Perceived benefits (advantages over analog TV)?

Insight test

'Sam wanted to get a better picture on her existing TV.'

What are her options to achieve that? How would she find out? How easy would it be for her to set up? What problems did she encounter? (PROBE FOR: Channel numbers; Channel changing; How she might find out what programs are on; Use of the Electronic Program Guide, additional services etc.)

- Usage differences to analog service:
 - How do viewing patterns differ?
- Expectation versus experience in terms of:
 - Picture quality;
 - Reception/Interference'
 - Extra channels'
 - Installation.
- Connecting to existing set-up.
- Antenna issues.
- Channel scanning/selection.
- Standard Definition/High Definition.
- Satisfaction with service.
- Perceived 'value for money'.

Insight test

'Darren needed to get a new TV, but in the end decided not to get a Digital one.'

Why did he make that decision? What would have influenced him?

- Problems/difficulties with Digital Free-To-Air TV:
- PROBE for (NOTE TERMINOLOGY USED);
 - Sound problems;
 - Picture problems (pixilation);
 - Equipment problems (freezes).

RECORDING

- Current behaviour:
 - Do they record TV programs?
 - How?

Insight test

'Lisa wanted to record programs from her new digital TV '

What are her options to achieve that? How did she find out?

- Awareness of options for digital TV recording;
- PROBE for:
 - PVR;
 - DVD;
 - Hard drives.
- Problems encountered with recording with Digital:
 - What are they?
 - How have they been overcome?
- Future intentions.

FUTURE PLANS

- Intention to fully change over:
 - All TVs;
 - Recording equipment;
 - Other equipment (what?);
 - Why / Why not?
 - Timeframe involved.

Insight test

'Joe was told by a friend that in the future TVs might need to be upgraded as frequently as PCs or mobile phones.'

How would he have reacted to that? Why would that be the case?

- Personal readiness for future developments (is it expected to be developed further/be superseded)?
- Personal impact.

AWARENESS OF CHANGES

Unprompted awareness surrounding changes in delivery (not content/channel/ownership) of television broadcasting in Australia (TAKE NOTE OF TERMINOLOGY);

- What is planned?
- When?

SHOW DESCRIPTION CARD. (The current analog signal will eventually be switched off. While this was originally scheduled for 2008, it is now likely to occur between 2010 and 2012):

- Verify whether or not aware of this;
- Reactions to it.

Implications of changeover to digital-only TV.

DISTRIBUTE QUESTIONNAIRE

ATTACHMENT 3: SELF-COMPLETION QUESTIONNAIRE

HOUSEHOLD TECHNOLOGY SUMMARY

<i>Which of the following do you have within your household?</i>	Please	<i>How many of the following do you have within your household?</i>	Please write in number
Broadband Internet	<input type="checkbox"/> ₁	TV Type	
Personal computer/laptop	<input type="checkbox"/> ₂	• LCD TV	_____
A VOIP service such as SKYPE	<input type="checkbox"/> ₃	• Plasma TV	_____
Mobile phone	<input type="checkbox"/> ₄	• Other TV	_____
3G capable mobile phone handset	<input type="checkbox"/> ₅		
Digital camera	<input type="checkbox"/> ₆		
Digital video camera (camcorder)	<input type="checkbox"/> ₇	<i>Type of Digital Reception (if any). Do not include Pay TV set-top-boxes</i>	
MP3 player (music capable)	<input type="checkbox"/> ₈	TV with digital set-top-box	_____
MP3 player (music and video capable)	<input type="checkbox"/> ₉	TV with inbuilt digital tuner	_____
DVD (player only)	<input type="checkbox"/> ₁₀		
DVD recorder	<input type="checkbox"/> ₁₁		
VCR	<input type="checkbox"/> ₁₂		
Hard disk recorder	<input type="checkbox"/> ₁₃		
Pay TV set-top-box	<input type="checkbox"/> ₁₄		