FROM AN ANALOGUE PAST TO A DIGITAL PRESENT

A research enquiry into a small rural community’s adoption of digital technologies via the implementation of a self-help television scheme and an assessment of the appropriateness of the on-line documentary form to present these findings.

Submitted in fulfilment of the requirements of the degree of Doctor of Visual Arts
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Griffith Film School, Queensland College of Art, Griffith University
SYNOPSIS

*From an analogue past to a digital present* describes and analyses how a rural community in South East Queensland has adapted to having improved television reception and other digital enhancements introduced into their lives. This exegesis presents and reflects on the progress of a Doctor of Visual Arts which drew on an action research methodology where the researcher was an active participant in the community’s endeavours to gain broadcast and digital reception. It also provides a detailed case study which contextualises and supports the studio project, the produced online documentary *A Satellite Solution*. *A Satellite Solution* is an experiment with the nonlinear documentary form and is designed to assist communities connected to the internet by providing an exemplar that demonstrates how they may similarly upgrade and practically install their own communications systems.
STATEMENT OF AUTHORSHIP

This work has never been submitted for a degree or diploma in any university and to the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself. Similarly, to the best of my knowledge and belief, my role in collaborative or jointly authored publications submitted here has been fully and accurately described.

JOHN FRANCIS HETHERINGTON, 22 February, 2008.
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1 DVA TOPIC

From an analogue past to a digital present.

This is a case study investigation into how digital communication technologies (primarily satellite TV) have impacted the quality of life of a rural community comprising 270 households in south-east Queensland (Australia) between 1999 and 2006. The research describes a community-mediated process by which residents adopted and then responded to receiving free-to-air TV services for the first time. From this case study of forty households, the research then questions:

- why Australian broadcast policy is reliant on a terrestrial broadcast infrastructure as its primary means of communications dissemination;
- what impact the available satellite services might have on this regional population and,
- how local and federal government policy makers and implementers have defined their roles and effectiveness in a contested micro-market providing remedial telecommunication support to the community via interventions such as the TV Black Spots Program.

The project also considers:

- conclusions and implementation plans reached by the community in response to these proposed new technologies and options, and
- the methods by which this rural community has articulated its needs.

These content issues are married within a cyber documentary form to provide a repository of text research information, video segments, graphics and web links in a creative online mix. This is in effect a one stop, non-linear research site. It is available to anyone connected to the internet and interested in how contemporary digital issues ranging from government policy to consumer impact have been dealt with and have affected, in telecommunications terms, an historically unique and geographically contained rural Australian community.
1.1 Summary of research observations and outcomes

Community Impacts

The case study group of 40 households who participated in the self-help satellite program, as evidenced by on-camera interviews, contributed substantially to the research and, in turn, benefited in the following ways:

- From having no reception, by ITU standards, the residents through their own participation in a self-help scheme of purchase and installation, gained high quality satellite services for both television and radio.

- This improvement in their amenity led to the ability to understand and extend their use of digital technologies into purchasing further equipment such as wide screen television sets, DVD record and replay units and surround sound audio systems. This heightened understanding also enabled at least 25% of the households to establish satellite broadband and telephony services.

- The project provided a positive activity for the community by creating a participatory scheme for residents to contribute to, while simultaneously improving their individual amenity.

Government Responses

The federal government initiative, The Television Black Spots Program (TVBSP), which operated from 1999 to 2005, as a political response to assisting people in rural and remote areas of Australia, was deficient in several ways to meet this particular community’s needs:

- It was limited by regulation and funding to being able to provide only analogue solutions to identified black spot communities.
• Changes to the regulations that introduced the Alternative Technical Solutions program, late in the TVBSP period, were first applied and then disallowed by the Department of Communications Information Technology and the Arts (DCITA).

• The role of a co-ordinating body adopted by the Warwick Shire Council, on behalf of the residents to the Federal government, demonstrated its unsuitability for this role and, subsequently, the lack of any alternative representation for the community provided within the TVBSP guidelines.

**Online Documentary**

The online documentary component of this project, *A Satellite Solution*, provided a means of presenting this research information in a contemporary format and at the same time experimented with and questioned this unique form, by:

• Creating a repository of extensive knowledge relating to satellite television by providing a user with video, text links to other services, research, maps and guided navigation through the documentary story of the rural community’s experience.

• Demonstrating the appropriateness of the online documentary to represent this issue.

• Offering exemplars of innovation in documentary filmmaking by demonstrating how linear form can be adapted to nonlinear presentation.

• Enabling democratic access to and use of the material by the user.
1.2 Limitations and conditions of the research

As well as being the author and researcher of this project I am also a resident of the community in which the research took place. In addition, I was the primary instigator and facilitator of the community project and continued this activist role throughout the period covered by the research from 1999 to 2005.

As a consequence, qualitative research methods were applied to the implementation of this collaborative activity and to its representation in both this exegesis and in the online documentary project.

I adopted participatory approaches when setting up meetings and seeking feedback or support from the community during all stages of this activity. This philosophy was also an important factor in the selection of Action Research (Dick, 1999) and later, Pragmatic Action Research (Levin & Greenwood, 2001) as the chosen research methodology. Levin and Greenwood’s methodology is explained in section 2.3, p. 24.

The project involved gathering community information and then turning that into action either through forming committees, talking to local government or instigating applications to federal government. This process was then reviewed as decisions were made enabling the community, in public meeting or via representative committee, to implement new actions and agenda. The cycle of action and critical reflection continued, until the final decision, to purchase and install satellite gear for themselves was arrived at and acted upon by the community.

The overall project is a positive outcome of Pragmatic Action Research procedures in so far as it represents knowledge generation through action and experimentation conducted using the principles of participatory democracy. These aspects are reflected in the way the on-camera interviewees responded to questions and participated and commented in an obviously open and honest manner. During the editing process, I was mindful of the need to reflect this generosity of spirit and to not make decisions based
entirely on my own agenda, but to attempt to reflect the values and ideas of the chosen participants as honestly and objectively as I could.

1.3 Form of submission

The submission consists of two parts:

1. A project in the form of an online documentary titled, *A Satellite Solution*.

2. This written exegesis of 22,000 words, which supports the project.

The cyber documentary is a web site containing research materials (policy documents, significant correspondence and reports) video interviews and location sequences, maps and technical information (how to install a satellite system, where to find free to air satellite services, what broadband incentives are available etc.). Importantly it also represents innovation in film and television and particularly, the researcher's selected art form, the documentary.

As a scholarly site, it represents a hybrid written and audio visual domain, that addresses many academic concerns over the rigour of arts projects, by being able to provide research validation, in a similar manner to traditional text-based forms. Authentication of research findings and sources can be assessed, as if it were published text, either on screen or via printed hard copy.

This written supporting statement / exegesis, consists of chapters describing the practice-led research carried out, the methodology used and the outcomes of the research topic.
2.0 DESCRIPTION OF DVA RESEARCH PROJECT

The research project commenced with the identification of deficient television reception (Television Black Spots) in the North Branch and Maryvale district. This area is topographically defined by mountain spurs running east to west from the Great Divide, that create fertile valleys, on the edge of the Darling Downs, some 30-40 km north east of Warwick in south east Queensland. It is the mountainous terrain, together with the 70 plus km distance (as the crow flies) from terrestrial transmitters at Passchendaele, that contribute not only to the lack of television reception but also to radio and other emergency services communications reception difficulties.

The “black spot” community grew from a dozen affected houses in North Branch to include the village of Maryvale and adjoining South Branch and then eventually to include the adjacent valley and community of Goomburra. In total this numbered 270 households. At the time of writing 40 houses have participated in a self-help scheme of purchase and installation of satellite free to air equipment and are enjoying high quality digital television and radio services from the Direct to Home (DTH) services broadcasting from the Optus C1 satellite. An estimated 30-40 households from the district subscribe to the pay TV service from Austar, emanating from the same satellite.

As the researcher I also played an activist role (participant observer) within the community (where I reside) and was the primary instigator of the technical and organisational initiatives introduced to, and then adopted by the community. From an investigation into how to improve local television reception, the project broadened to involve active participation in federal government initiatives (TV Black Spots Program) and the consideration of how the residents of the rural community respond to this type of support program.

The other component to this research project is the investigation into the non-linear documentary form, the online documentary and a production utilising this medium that incorporates the satellite TV issues and the responses of the rural community to the
take-up of the digital technologies. The non-linear documentary is intended to provide an online user with a resource that could allow them to learn how to set up and install their own satellite services and learn from the experiences of ordinary people. It could have considerable relevance in developing areas of the South Pacific and Asia or any other part of the world, where satellite provision of communication resources is the most effective way of distribution. The experience of this research suggests that the users of this site would have similar characteristics to the residents involved here; a majority of whom were over forty years old with limited technological background, including basic computer skills.

2.1 Literature Review

As a newly recognised form, the cyber documentary generates a small quantity of literature and that which is available, is mostly from online sources. As well, many sources come from allied fields such as the Games, New Media and Interactive television industries, require a broad study in order to gain intellectual and operational knowledge.

The investigation into Cyberdocs as a possible production form commenced with readings and reports into recent work being conducted in Australia. Marion Jacka (2001) identified the major developments in broadband technology as well as the issues surrounding convergence, in particular, how through technological development emerges new production methods, changes to resourcing (facilities and staff) and new content forms.

Armstrong, O’Neil and Mitchell (2000) together with the report by Thomas, Goldsmith, O’Regan and Cunningham (2001) both supported and reinforced my understanding of the importance and relevance of the emerging new media forms to the future of the Film and TV Industry. Kim Dalton, CEO of the Australian Film Commission at the launch of the Broadband Production Initiative stated,

Whether it is through regulation, direct or indirect subsidy, Government always plays a crucial role in determining the conditions for business models to evolve
and to deliver content … Where Australia is different at the moment, is the absence of the creation and availability of local digital content within that policy framework. (2005: 1-11)

This adds weight to arguments for rural equality and the provision of digital services. As well, it confirms that experimentation and innovation with the online documentary form, is relevant and necessary.

Manovich (1999: 180) defined digital film (cinema / moving images) in this manner: digital film = live-action material + painting + image processing + 2D computer animation + 3D computer animation. He further states that, “digital cinema is a particular case of animation that uses live-action footage as one of its many elements”, suggesting that art and the cyber documentary form are validly linked in new media technologies. Considering changes to or enhancements of narrative discourse in this form, Ryan provides a perspective regarding the influence of games interactivity and “what constitutes the most distinctive resource of digital media: namely the ability to respond to changing conditions. When the changes in conditions are determined by the user’s input, we call this resource interactivity”. (2001: 6)

Speculating on the democratic possibilities on the online documentary form and how users might now access content at convenient times to suit their own lifestyle choices, I began looking for relevant references in the New Media area. Johnson’s (1999) *Interface Culture*, provides a global view whereas an Australian slant on technology and democracy was available from Terry Flew who also confirmed that, “policy-makers in Australia chose to extend the laws and principles governing broadcasting regulation to the Internet and online services”. (Flew, 2002: 194). This suggested that this type of legislation was implemented as a ‘symbolic’ policy, based on old technology thinking and that without a constitutional guarantee of freedom of speech, Australia was set to repeat the over-regulated approach in this new industry. According to Flew,

- the properties of the Internet, and computer-mediated communication (CMC) more generally, that enable this expanded understanding of democracy include:
  1. greater scope for *horizontal* communication, or communication among equal parties, as distinct from *vertical* or top-down communications
2. the scope to share and verify information, and to use information on a more collective basis
3. the lack of government controls over the Internet as a global communications medium, as compared with more territorially based media
4. the scope for free speech and free association in new forms of political community
5. the capacity to challenge professional and official positions and to disseminate alternative viewpoints widely
6. the capacity for political disintermediation, or the ability for more direct communication not filtered by political organizations, ‘spin doctors’, or the news media (Bryan et al. 1998; Hague and Loader 1999). (2002: 185).

The loss of access to any local content, brought about by the proposed analogue television service, helped focus the community attention on this matter and how important it was to them. As well, the satellite option only provided local content from the emanating source, that is either Sydney for SBSTV, Brisbane for ABCTV, Alice Springs for Imparja TV or Townsville for Central Seven. Local content therefore became a non-issue for the rural community but to the extent that media ownership influenced content, Dwyer, Wilding, Wilson and Curtis argued that, “existing regulation is flawed as it does not take adequate account of the substance and quality of such content, nor the differences between regional media markets” (2006: 165). Neither, of course, does it consider how content from large footprint satellite services can accommodate the distinct regional areas it covers.

Helpfully, newsletters from itvt.com have provided monthly updates on interactive media developments throughout the world. Similarly, informitv.com provides a regular update across the new media and digital arenas. The latter has a particular European slant whereas Tracy Swedlow’s itvt newsletter carries an American bias.

In regard to the provision of free to air television, the Department of Communications, Information Technology and the Arts (DCITA) and the Australian Broadcasting Authority (ABA), now Australian Communications and Media Authority (ACMA) generated and applied all the guidelines for the implementation of the TV Black Spots Program. These policies have shaped and informed community action and decisions
over the past few years; and how they have been understood and applied in the Maryvale / Goomburra area, form an important part of this project.

The uses of wireless, including open spectrum issues are widely discussed and available on line through government agencies and many websites, such as Electronic Frontier Foundation, Australian Open Spectrum (Richard Giles), Wireless Commons and Greater Democracy . This matter lies at the heart of democratic access to and use of communications, allowing innovation in new technology that will further empower people to adopt and use digital technologies. In rural areas, wireless technologies in the form of Wi-Fi that incorporates a wireless bridge could be used as a self-help system to enable broadband internet services for the community in a similar manner to that applied to the provision of satellite television and radio. It can provide the in-fill for services where the last mile effect (copper pair phone line) causes a broadband service to constrict and not deliver to rural premises the same generous bandwidth it did at the start of its journey via fibre optic cable, ADSL or satellite.

Considering the average age of the rural community is 40 or older, and considering how they have readily adapted to digital communication technologies through their participation in this project, I was surprised by the dearth of research about this group. There is a broad range of references pertaining to the younger net generation, such as, Educating the Net Generation (Educause, 2005) offers a number of topical papers revealing how generation Y view the world - in stark contrast to the 40 plus aged residents of Maryvale and Goomburra.

The Australian online documentary – cyber documentary or web documentary—significantly, resides at the home of digital experimentation and development, the ABC. Through a program of support, the ABC and AFC have assisted filmmakers to adapt their skills to an online, non-linear form. There is very little literature that analyses or even comments on this form, so I have concentrated on my own analysis of the ABC/AFC funded projects. Study of these has informed the process of designing an online documentary site and planning the necessary technological components.
Dinmore, in exploring new contexts for online documentaries suggests that, “… the ability for the reader to become an active participant in the construction of a text signals a major change in the way documentary will be produced and consumed in the future”. (2005: 6).

In their book, *The Media & Communications in Australia*, Cunningham and Turner state, “There are three dimensions to the idea of convergence: convergence of technologies; of industries and policies.” (2006: 3). In the same volume Trevor Barr’s chapter on Telecommunications highlights the links between telecommunications and the media. Barr points out that, “Telecommunications have become the world’s fastest growth industry during the past decade”, and further, when discussing the need for Australia to modify its ‘old economy’ label in favour of a modernised version states, “The push is to build a ‘new economy’ based on vibrant financial and service sectors, where telecommunication networks and services become the centrepiece of new forms of economic opportunity and growth”. (Barr in Cunningham & Turner, 2006: 116-117).

In regard to developing my methodology, after trialling Everett Rogers Diffusion model (1995), I had settled on Action Research (Dick, 1999). As I progressed through my early research period (2003 – 2004) I became aware of my role as an activist, innovator and collaborator within the community and that I would need a methodology that recognised and allowed for this. I had recognised the direct link between the three stage, action/reflection/refining of methods, cycle of Action Research and the pre-production/production/post-production cycle of Film and Television production processes. Further investigation of Action Research protocols led me to Pragmatic Action Research (Levin & Greenwood, 2001) which I have adopted as my main methodological framework. Within a creative and practice-led research approach this has the merit of allowing subjective experience to:

open up innovative ways of codifying and authenticating knowledge gained from the performance of everyday life that might otherwise remain inexplicable (or seem irrelevant or disconnected within the existing structures and grammars of scientific discourse) (Grech, 2006: 34).
2.2 Justification

After an initial two years of part-time research (2003 – 2004) in the MVA program, it became apparent that the project was more complex than initially anticipated. A successful application to the TV Black Spots Program (TVBSP) led to promised funding of $250,000 from the Commonwealth government for a terrestrial analogue retransmission tower for both Maryvale and Goomburra ($125,000 each). A rejection of these federal funds by the Warwick Shire Council then resulted in the adoption of a community self-help scheme for the purchase and installation of satellite DTH (Direct To Home) equipment. By this stage the project had clearly become a very content and activity rich assignment.

Many residents were now acting on information provided by the researcher and investigating the Government’s latest forays to address rural telecommunications deficiencies with HiBIS and BroadbandNow initiatives. These programs promised to provide significant subsidy to a broadband satellite provider to allow individuals to have a broadband connection to their home, small business or community facility. The business, social and community activities created by the project outgrew the scope of the MVA, both in time and importance, and it was decided to upgrade to the DVA program. The DVA allowed scope for analysis as to how the community adapted to the provision of new services, by interpreting the progression in the community’s use / adoption of convergent technologies.

2.2.1 Innovative Content – design elements and rationale from cyber documentary to video on demand (vod)

From many years experience designing and editing programs of various genres, I have long held the view that all media productions are constructs of the filmmaker. That is, as the filmmaker, I create my version of events and present them to an audience in a way that I believe will best make the viewer understand and relate to my story. My productions are always my interpretation or treatment of experience and actuality. This realisation has contributed to my choice to concentrate on the
documentary form as my preferred method of self-expression as a filmmaker. I opt to make programs that reflect contemporary life in an honest manner by showing how everyday activities of ordinary people can be extraordinary.

When the cyber documentary was recognised by the Australian Film Commission (AFC) and the Australian Broadcasting Corporation (ABC) through a program (2001) of financial and creative support to professional filmmakers, I became interested in studying and understanding this medium. In 2004 this program, the Documentary Online Initiative, was replaced by the Broadband Production Initiative, a collaboration between the AFC and the newly formed ABC New Media & Digital Services. At the same time, the original “cyber documentary” label was dropped and the naïve “cyberdoc” gave way first to the “web documentary” and then to the current “video on demand” and / or the “online documentary”.

It was the democratic possibilities that a non-linear product offered to the viewer that most caught my attention and that I then decided to explore professionally. Instead of watching a documentary from start to finish in a linear progression, at a time chosen by the schedules of a television station, viewers could now have online access to product at a time to suit themselves – video on demand (VOD). In addition, a viewer could peruse components of the production in whatever order they chose and therefore create their own meaning from such interaction. Such non-linear searching by a user encourages repeated visits to the site and allows a knowledge relationship to evolve, where the user is likely to increase their motivation to learn, as well as improve their retention of knowledge. The information is always available to them, and likely to foster a more intense interest or involvement in the material than a once only showing on television usually can.

Linear documentaries on the other hand rely on the arrangement of sequences, in a prescribed order, to convey the filmmaker’s chosen storyline. It is this straight-line progression of the story as it is presented in an uninterrupted flow over the duration of the program that justifies its accepted current form. The online, non-linear documentary, however, requires content that can be presented in separate segments of information (story), while still allowing the user to gather what information they need
from the web site, but without necessarily having to understand the entire story or even the context. Nor do they need to be viewed in one timeframe, as with linear productions, but can be accessed when chosen and the site re-visited as often as required.

A significant advantage in a wired world is that this non-linear form encourages program makers to market their work to niche audiences; so, rather than broadcasting to many, productions now can be narrowcast to suit a minimal size audience. And although actual production costs may not differ very much at this point in time from traditional linear production costs, the publication and distribution online can be done very cheaply by comparison.

However, the filmmaker needs to be able to adjust to this new aesthetic, which in effect means giving up absolute control as to how a production is viewed and used. Initially, genres tackled by this new form have been mostly factual or documentary but some drama is now being produced for online distribution. The most notable such Australian production to date, albeit still linear in design and production values is, *Forget the Rules* - a weekly video release that covers the relationships and love life of four young people sharing a flat together. Each week, subscribers (free) are notified by email of any new video that is available for viewing and are invited to respond to the on-screen drama and suggest new plot directions for new episodes (around 5 minutes each). To date there have been 40 episodes produced. These segments were also shown late at night due to their MA+ classification, on free to air television (Ten network). In November 2007, series two was launched and made available on several platforms – online, mobile phone and on Pay TV. ([http://www.forgettherules.com.au](http://www.forgettherules.com.au))

### 2.2.2 Innovative Form - analysis of other web-based online documentary works

Since the late 1990s, projects involving new media technologies have been irregular in number but have been representative of a hybrid form in its formative and experimental stage. As bandwidth and compression technologies have developed,
allowing richer content with less platform and distribution restrictions, so the variety of productions available online have grown in both number and sophistication. As was the case in the early days of television in Australia, it is the public broadcaster, the Australian Broadcasting Corporation that still takes the most risks by experimenting and producing new program forms. ABCTV, from 1956 onwards, developed sports coverage, current affairs programming and live event outside broadcasting models that have been taken up in the last 15 years or so by commercial television stations, who have created business models from them (Olympics, AFL & NRL football, Today Tonight and A Current Affair etc.). Ironically this now restricts the ABC’s ability to afford to purchase the broadcast rights attached to many of these high profile formats. However, the public broadcaster is once again taking a leading role as exemplar with the introduction of its New Media Services department and together with the AFC, encouraging and supporting independent filmmakers to produce documentaries for a new platform (broadband) and to narrowcast to a niche audience.

**A review of some online productions**

The following review / analysis of some selected online documentaries is presented here for consideration from a design perspective; how effective or user friendly the sites are and therefore what creative influence they may have in the design of my own project.

*Homeless* – [http://www.abc.net.au/vod/documentary](http://www.abc.net.au/vod/documentary) was conceived by Australian documentary director Trevor Graham, "The idea came to me as I walked to a meeting at the Australian Film Commission headquarters in Sydney. Homelessness is often viewed as a third-world problem, but here I was in the middle of my home city stepping over people between meetings". As an example of the earliest cyber documentary productions (2001) it remains easy to navigate and simple to understand and encourages investigation of the layered content about the world of homeless people. The banner strip on the home page presents thumbnail images of the six homeless people chosen from six major cities of the world. Clicking on any of them takes the viewer into a 24 hour exploration of their lives, presented in short video interviews that track their day in fifteen minute periods. This is supplemented with text
information on their respective cities, detailed accounts of homeless shelters and conditions, including extra still photo images of them and their situation. The design allows the viewer to quickly get an understanding of the individual’s circumstances and to appreciate their reasons for their homeless situation. It is then easy to find the extra and considerable amount of information and links pertaining to homelessness around the world.

In making this website we wanted to bring the ethics and approaches of observational, fly-on-the-wall documentary to the Internet. The Internet, and new media in whatever format, is the perfect medium for non-fiction. You can use your film making skills to draw people into the issue and then support it with text, images and links. This allows you to tell intensely personal stories and back them up with documents, other web sites, supporting evidence which is just a click away. (Trevor Graham, sourced 12/11/04).

Writers: Trevor Graham and Rose Hesp. Site design and construction: Rob Wellington. A Yarra Bank Films production in association with AFC, ABC New Media, ACMI.

**Sounds Like Techno** - [http://www.abc.net.au/vod/documentary](http://www.abc.net.au/vod/documentary) is an Australian production (April 2003) that chronicles the development of techno music. It looks at how techno started in North America (Detroit), its roots and early influences, and its place in Australian music today. It is a comprehensive historical archive providing many examples of music. It is presented in four chapters - Detroit Roots, Australian Scene, Man and Machine, and Future Music. Using flash software, the site contains no live video clips, relying on animated photos, maps, timelines, voice-over commentary from a variety of music industry people and audio files of music styles. Of all current Australian online documentaries this is the most tightly designed and appropriate to its form and target audience.


**Us Mob** - [http://www.abc.net.au/usmob/](http://www.abc.net.au/usmob/) produced in early 2005 presents information on indigenous Australians through the eyes of four teenagers from central Australia. It combines interactive components aimed at schools and in particular non-indigenous
students, helping them to learn about aboriginal culture. The site provides a structure that is school curriculum friendly, allowing individual students to track the experience and record their online journey as they work their way through the layers of video and text information. It also, through free registration as a subscriber, provides regular email alerts to new material available online, news items and feedback by users relating to the site and deals with questions or issues raised by the content.

Produced by Tangentyere Council in association with Internode, ABC New Media and Digital services, the AFC, SAFC, Adelaide Film Festival, Telstra and Katalyst web design.

*William Bligh* - [http://www.abc.net.au/vod/documentary](http://www.abc.net.au/vod/documentary) is a major biographical project that presents William Bligh’s life (1754 – 1817) in ten chapters. In April 2005 the site was launched with two chapters and then, two at a time, the rest of the chapters were added until it was completed in September 2005. Presented in graphic novel form with hundreds of coloured illustrations, along with maps, interviews, supporting information and teachers’ notes, this project connects with the definitive collection of Bligh materials housed at the State Library of New South Wales. From the opening page a user can launch into an automatic progression of chapters in order, or choose to play a sequence that best suits their individual information needs. The design allows the user to select, at any stage, a point in the timeline for that chapter and go to it. It is extremely rich in information and users would require many visits in order to read / view / listen and become familiar with even a small quantity of the material. As a reference, rather than an entertainment, it will become a primary research tool for young and not so young students in search of early Australian history.

Writer / Director: Daryll Dellora; Producer: Sue Maslin; Multimedia Producer /Director/ Programmer: Rob Wellington. A Film Art Doco, Tantamount and Guernica production with the State Library of New South Wales, and in association with AFC and ABC New Media and Digital Services.

*Dust On My Shoes* - [http://www.abc.net.au/vod/documentary](http://www.abc.net.au/vod/documentary) retraces the steps of 1940s Australian adventurer, Peter Pinney and two modern-day travellers as they
voyage overland from Greece to Burma, mirroring Pinney’s original ‘rough’ travel style. The Parallel Journey by Anna Young and Matthew Newton, conducted in 2005, features videos from selected cities along the way and includes still images and written accounts. The Pinney Narrative section of the documentary includes narration from the original book (Dust on My Shoes) together with animations and historical photographs, while the Musical Journey features compositions based on Pinney’s adventures in the book. In the Pinney Vault, the section on Rough Travel provides a collection of stories from travellers, old and young. The motivations for Pinney’s early travels have allowed for a current generation to respond with their own stories and have them published online, while at the same time, providing a constant regeneration and updating of interest in the site.

Produced by Roar Film Pty Ltd in association with ABC, AFC and the Tasmanian Electronic Commerce Centre.

Long Journey, Young Lives - http://www.abc.net.au/vod/documentary tracks the lives of young refugees (aged 10 to 18 years) from various Asian and European countries as they and their families journey to Australia. It provides short video segments detailing the conditions from which the children are fleeing through to their arrival and experiences in Australian refugee camps and institutions. In four chapters, Homeland Conflict, The Journey, Detention, and On Reflection, it allows the user to select and navigate their own path through these children’s experiences and provides an alternative view to the refugee experience of several young Australian children. It is a very powerful and timely documentary that also has considerable information on worldwide refugee issues as well as Australian government policy and support agencies. It also provides the user with an opportunity, when viewing clips of the young refugees describing their journey, to compile them in their own ‘saved’ linear documentary.

Produced by David Goldie and Sohail Dahdal in association with ABC New Media and AFC.
Arctic Mission – [http://www.onf.ca/missionarctique/landing_en.php](http://www.onf.ca/missionarctique/landing_en.php) invites the viewer to relive (2001) the scientific journey of Sedna4 in the Arctic and to join the crew on its search for signs of climate change. This site presents its content in chronological sequences, determined by a location map of the area travelled by Sedna4. As you click on a location various options to investigate further are presented on screen – maps, still photos, video segments detailing crew members accounts of the journey and scientific data relating to climate change, in general, as well as to specific locations they visited.

Fred Robinson - [http://www.fredrobinson.net.au/](http://www.fredrobinson.net.au/) produced by Stuart Dinmore as part of his PhD (University of South Australia) in 2005, looks at the life of a new age, intentional community guru, Fred Robinson. Described as a web documentary it presents video snapshots from peers and associates of Robinson, together with still photos and archival information pertinent to the period of his life covered by the production (1960s and 70s). It is obvious that Dinmore has not had the resources of the ABC or AFC to assist in this production, but it does not detract from the information or use of the site. The organic nature of the content together with Robinson’s life story and testimonials from his peers make this a niche product for a specific audience.

The Scope of Cyber production

The non-linear productions cited above contain mostly similar production elements to those of linear productions, but it is in the arrangement of these components, in their out of sequence viewing and the variety and type of distribution platforms, that the major differences occur. It is these differences that provide opportunities for experimentation and the creation of new production styles and formats. We are now able to design, produce and narrowcast to a niche audience, a specialised group of users who will benefit from the access to this product, as opposed to the notion of broadcast and the resultant pressure to “make one size fit all”.

When designing for this new form, navigation of a site is an essential aspect of leading a potential user to respond and interact positively with the material presented.
Navigation should be a visually intuitive experience, providing on-screen options together with the flow of content, as the mouse scrolls over the page. The choices that viewers make as they browse the site are assisted by the design elements that make these choices accessible and logical to the user. Design elements comprise two main components, content and visual layout, and together, they determine usability functions for the viewer. Content that is visually explicit and requires minimum text accompaniment seems to be the most readily acceptable, and arguably, images now have a currency that is overpowering the word as the dominant form of literacy in the online world. Primary screens, those that the user first encounters on entry to a site, need to be clean and uncluttered, while providing easily understood structural choices, allowing the user to comprehend the layout and then select sub-categories efficiently.

Once a user has chosen to explore a non-linear site the access to further layers will need to unfold seamlessly in order for them to maintain their interest. Providing video materials that are slow to download or can only be read in postage stamp sized windows will not compel users, of any age, to linger at the site. Their attention still needs to be maintained but in a more specialised manner than broadcasting to large numbers at one time has trained us to expect. In the linear environment, a documentary with such specific appeal as the effects of satellite television on a rural community, would require mainstream treatment in order to attract a television pre-sale and placement on a free-to-air channel. This would mean conforming to the formula as determined by a few TV executives and/or commissioning editors for the handful of production opportunities, available in Australia each year. Most likely, it would never be funded or made. Alternatively, the cyber documentary offers the freedom to produce and publish online, to whoever is interested, and to innovate in a completely new form. Les Manovich suggests that, “…new media follows, or actually runs ahead of, a quite different logic of post-industrial society – that of individual customisation, rather than mass standardization”. (Manovich in Dinmore 2005:2). It therefore has the potential to be innovative and experimental as it is creating new product not previously able to be achieved.

The concept of interaction involving the relationship between producer and viewer can be a different experience from the previously, mostly one-way interaction of linear
production styles. Most television and film productions exist on the premise that the viewer is passive, whereas new media forms can allow as much interaction between program and the viewer as the producer wishes and the technology allows. The crossover, from standard video and television (linear) production techniques to converged applications (non-linear) now possible on the web and a myriad of mobile devices, presents producers and filmmakers with considerable challenges regarding almost every aspect of previously established production processes. Early cyber documentaries such as *Homeless* dealt with bandwidth restrictions for video by providing many small segments in small windows, surrounded by text and other visual information. This limiting of the filmmaker’s usual production methodology of using full screen images, provided the director of *Homeless* with technological parameters that he overcame and adapted to, thereby innovating a product well suited to the online format.

At present, bandwidth influences design to the extent that download speeds of rich segments (video, graphics, games etc.) are kept to a minimum so that viewer attention is maintained. That is, if a download takes too long, say around 10 seconds or more, then there is the risk of losing the viewer’s interest. As compression and bandwidth problems are overcome by technological advances then, so too, will the design possibilities be influenced. Currently, the internet is being used as a major platform for television distribution and other video on demand services that until very recently, was not technologically possible or commercially feasible to achieve.

**A note on Production design**

I decided that as far as possible I would like the online experience of my site to be as close to a conventional video screen as was technologically possible. This meant waiting as long as I reasonably could to produce the website, knowing that everyday produced new advances in compression technology. It also influenced my decision to design the layout to look like a 16:9 wide screen and to have it appear more like a video screen than a text box. Now when the video segments are selected, even though they were shot in the 4:3 aspect ratio, they exist within this more cinematic layout.
At the same time I approached the design of the documentary as if it were a standard linear form; that is, I started by creating segments that form the various chapters of the complete story. The distinguishing factor, though, is that in the non-linear documentary these segments have to stand alone, rather than be reliant upon how they are hierarchically ordered or linked together via visual and / or audio transitions. In this case, the transitional material was replaced by introductory text comments, photos, maps and navigation aids to enable the user to locate the segmented information they required.

Even though the material contained in the online documentary is presented as a collection of separate parts, such as you might find in pages from a website or chapters from a book on a library shelf, it is the act of making this information accessible in one place that is unique. It provides the user with choice and engagement in the creative and intellectual process facilitated by the materials.

The ability to provide users with interactive capability throws new responsibility back on the producer of non-linear material. The speed of response by the user, either as they browse or over time, requires monitoring and prompt follow-up by the producer and could even mean that extra staff and/or resources may be required on a continuing basis after production has been completed and the site launched. An on-going relationship between user and producer could lead to site modification or adjustment based on the user comments or identified habits. This raises the dilemma - when is a nonlinear production finished: when users stop responding, or does it have an after-life of unknown longevity and obvious cost implications? With linear productions, when the producer hands over the master copy of the program to the client, the contract is finalised. An afterlife for online documentaries raises questions that go beyond this research project’s brief, however, in relation to the time that a research site such as *A Satellite Solution* should be maintained, it is a tantalising question.
2.3 Research Methodology

As noted, during the early stages of research I investigated various methodologies that could suit both the non-linear form and my own bias, and settled on Action Research (1999). It uses “a cyclic or spiral process which alternates between action and critical reflection and in the later cycles by continuously refining methods, data and interpretation in the light of the understanding developed in the earlier cycles” (Dick, 1999: 2). The similarity of this to the three stage production process of the film and television production cycle, gave me confidence to adopt it and apply it as a familiar and long used model. The stages of pre-production and production align with the action and critical reflection aspects while post production is mostly identified with refining of methods. However, the similarity of the alternating cyclic or spiral processes of Action Research correspond seamlessly with the organic and continuous tasks of researching and script writing that take place prior to shooting and then, further refining of methods at the editing stage (post production). For example, research (action) into the cyber documentary form reveals various production possibilities that result in design ideas (reflection) for use in draft scripts (further action / reflection / refinement)) and eventually to shooting and the production of materials (action), that during the editing stage brings together final refinement of the earlier stages. Filmmaking / Video production is a process defined by progressive steps / actions that are constantly being refined, added to and modified, until the last frame of the production is completed.

Having guided and co-ordinated the Television Black Spot issue in the local community since 1999, I considered it necessary to find a methodology that could accommodate and discriminate between my roles of activist, researcher and filmmaker. Pragmatic Action Research (Levin & Greenwood in Bradbury and Reason, 2001: 105) provides core elements that I believe provide my research with clear direction and rigour, while accounting for my role as activist (participant observer) within this project. This approach:

- is context-bound and addresses real-life problems.

The communities of Maryvale and Goomburra, through this research period, had been identified as having deficient television reception due to the
topography in the area and the same deficiencies applied to radio and other communications services. This research project addresses these matters and presents the findings in a form that is accessible to a much broader (online) audience.

- is inquiry where participants and researchers co-generate knowledge through collaborative communicative processes in which all participants’ contributions are taken seriously.

Throughout the project I was able to organise and mobilise residents to participate in the process. Although I instigated initial public meetings and chaired them, I used these occasions to set up committees to deal with the decisions reached and authorised by the general meetings. As time went on I was able to reduce my role to that of equitable participant and technical adviser. The highly technical nature of the issues needing decisions meant that, on occasions, workshops were necessary in order to equip people with sufficient knowledge prior to resolutions for action, being made.

- treats the diversity of experience and capacities within the local group as an opportunity for the enrichment of the research/action process.

As residents contributed to federal government submissions and local government meetings they also learned to install satellite equipment and shared their practical knowledge with each other by assisting with the installation of equipment. Residents’ feedback at public meetings was the essential guide to the progression of the project and wherever possible outside help and advice was incorporated into these occasions, such as, Shire Council staff and Councillors attending all public meetings, as did invited broadcast engineers and local antennae installers. On camera interviews conducted with residents, conveying their opinions and values, is an essential and significant component to the online documentary, providing qualitative evidence of both the process and outcomes that the residents chose during the project.

- the meanings constructed in the inquiry process lead to social action or these reflections on action lead to the construction of new meanings.
Via the process of providing information to the community through meetings, leaflets and word of mouth, key stages occurred when community opinions changed or shifted as a consequence of the injection of knowledge. Informing the community of the TVBSP increased their knowledge base, demonstrating new possibilities (the provision of free-to-air TV) that then resulted in the agreed action of compiling and submitting the Expression Of Interest (EOI) to the Australian Broadcasting Authority. When the local government rejected what they saw as costly additions to the federal government’s subsidy, the community then adapted by agreeing to fund a self-help scheme from their own pockets.

- the credibility / validity of action research knowledge is measured according to whether actions that arise from it solve problems (workability) and increase participants control over their own situation.

Neighbours assisted each other with the purchase, installation and signal tuning of satellite equipment, thus moving from a deficient television service to having excellent and reliable reception of not only TV but also radio services. Many residents have extended their home amenity through the purchase of new digital TV sets including wide screen and audio gear, such as surround sound systems. This allows them to also include upgraded DVD replay and CD/Mp3 facilities. Broadly, the project is giving people confidence to investigate other technological possibilities, such as broadband via the HiBIS and BroadbandNow schemes and utilising VOIP telephony services.

It should be noted that further rounds of purchasing and installing equipment did not take place as intended participative community activity, following the curtailment of my activist / facilitative role in late 2004. Many individual households went on to install satellite gear, either through their own initiative or by employing a professional, licensed antenna company.
2.4 Chronological Development of the Research Project

Prior to the commencement of the research higher degree, I had facilitated the forming of the North Branch TV group so that we might deal with reception difficulties in the valley where I live. This period from 1999 onwards identified the issues involved and launched the search for solutions. It also identified neighbours with similar reception deficiencies and began the establishment of wider community involvement and meetings resulting in committees elected to deal with local and federal government. During this time, professional advice was received from satellite and antennae companies and, as well, site testing across the district was carried out by consultant engineers to ascertain the degree of reception difficulty.

By the time I began formal study on a part-time basis, the project was gathering momentum and in March and April of 2003 some urgent and intense community meetings occurred in Goomburra and Maryvale to consider a federal government offer of $250,000 for the provision of two towers, providing analogue re-transmission of a digital satellite service. So began the community’s bumpy journey (detailed in section 3) and my need to begin to seriously consider the move from activist to participant observer.

I attended a week long international documentary master-class, run by Israeli based filmmaker, Alan Rosenthal in June/July that year. This course was managed by the Australian Film Television and Radio School in conjunction with the Queensland College of Art. This provided me with an intensive practical experience that resulted in an overview of variant documentary styles.

When, in October 2003, the Warwick Shire Council rejected the federal government’s funding offer, it meant that if the community wanted to improve their television reception, they now only had one course of action – to pursue satellite delivery of services.

At the conclusion of 2003 I underwent a successful review of my MVA program which confirmed the validity of my research inquiry.
In early 2004, knowing that some change was soon likely to improve the television reception in the district, I began to shoot on-camera interviews with residents so that I could capture the current conditions and then hopefully, be able to return to these same people once they had upgraded their services. My local knowledge and established relationships made the contact with them and their agreement to participate on-camera a relatively easy task. Many of the locals were reticent to put themselves forward for interview and were convinced to do so by personal contact with me and the trust that I would not misrepresent them. In June that year, a community committee decided to reject any further outside assistance and to then develop its own self-help satellite system. At the same time, I was granted research funding by my faculty at the University of Southern Queensland to travel to Canberra in order to do interviews with staff at the Australian Broadcasting Authority’s TV Fund Unit, and to Melbourne for interviews with digital technology specialist, Edward Jozis.

It was agreed to set up a pilot program involving six homes, in order to investigate equipment needs, facilitate buying in bulk and to learn installation procedures. And, of course, to demonstrate to other residents that the quality of the service was sufficient and that our ability to do it ourselves was feasible. So by August we had the six homes successfully installed and had ordered a further 30 sets of equipment. During the spring, workshops were held for the residents on how to set up and install their gear and by February 2005, 45 homes had satellite services. Others were to follow.

Following the presentation of my Confirmation seminar (MVA) in December 2004, I applied to upgrade to the DVA program and was accepted and granted admission in February 2005, again part-time. I had begun a literature review in 2004 so I was able to begin refining and updating this together with my further research, throughout this period. I then began concerted research into the online documentary, seeking out and studying works by other filmmakers, and soon after this settled on Pragmatic Action Research (refer section 2.3 Research Methodology) and gained approval for the topic “From an Analogue Past to a Digital Present”. After a period of critical reflection period, I pondered the way the local people were responding to and using this new technology with relative ease, and then considered how other groups within my
experience (students and the professional film and video industry) responded to the
digital world, I wrote and ultimately had published the paper, “Developing a Mind-set
for a Digital Future: The importance of recognising and encouraging innovation,
experimentation and support”, in the *International Journal of Technology, Knowledge

Early in 2006, I was informed by my principal supervisor of his resignation from
Griffith University and his planned move interstate to take up a new job. At the same
time my theory supervisor also moved to a new position. I then discovered that due to
university regulations for supervisors, I needed primary supervisors from Griffith Film
School and, as well, a PhD accredited supervisor. Thus, I eventually ended up with
three new supervisors in mid 2006.

In semester 2, 2006 I was granted Academic Development Leave and was able to
complete a first draft exegesis, during this time. I also shot the balance of interviews
with the local community to complete the pre and post satellite periods and began
shooting locale images and as well, planning script ideas for editing and arranging
online documentary segments and themes.

At the end of 2006, I completed a DVA review, presenting a comprehensive overview
of what I had done and planned to do, to a panel, including my three supervisors and
an Industry representative. I was advised to stop any further data gathering, to not
investigate any new areas, and to work with what I had collected, to that point in time.

From May to October, 2007 I focused on editing video segments and designing and
implementing materials for the website. I then handed over a 10 gigabyte file to the
website builders. This handing over of a project was new to my filmmaking
experience, although when we eventually established an online ability for me to view,
and to approve pages as they became available, it turned out to be a very amenable
process. I could view development from wherever I was situated and communicate
with the site builder by phone and email. While the site was being constructed, I
finished several more drafts of my exegesis, consulted with supervisors and planned
printing arrangements for submission in February, 2008.
3.0 Case History

It was ironic that while a great proportion of the industrialised and developing world was moving toward the adoption of digital communication technologies, the geographically isolated communities of Maryvale and Goomburra, comprising just over 200 households in South East Queensland, grappled with the introduction of analogue free to air TV.

3.1 Black Spots in a digital future: Background

From mid 1999, I worked with the rural communities of Maryvale and Goomburra in order to establish access to free to air TV for the first time. Throughout Australia there still exist pockets of deficient or nil reception for terrestrial TV. These areas are referred to as Black Spots. People living in designated Black Spot areas for TV reception in rural areas, also tend to suffer deficient radio reception. As well, they are usually on the end of 30 year old copper phone lines (the ‘last mile’ effect) that provide slow and inefficient internet connection. Telstra often has fibre optic cable running up the main highway corridors and in some instances upgraded cable on feeder roads, but the house/property connection is still the original copper pair wiring. Therefore, the majority of residents do not bother with internet services and have never had access to SBSTV or reliable commercial services. To date their only TV has been the ABC or subscribing to Pay TV. Further, radio communication for emergency services (Fire, Police, Ambulance, SES, Local Council and National Parks) are non-existent.

It is the hilly and mountainous topography that contributes to the poor reception problems. Rural communities along the mountainous Great Divide are scattered and tend to not represent aggregates of population large enough to attract the provision of services. For example, for automatic provision of free to air TV, a population of 10,000 plus is usually necessary.
### 3.1.1 Defined Area

The relevant South East Queensland districts are found at the following coordinates:
- Maryvale (28° 04’02.91” S / 152° 14’39.60”),
- South Branch (28° 04’18.40” S / 152° 19’40.07”),
- North Branch (28° 01’28.38” S / 152° 17’05.63”)
- Goomburra (28° 00’33.39” S / 152° 13’44.34”).

Sunmap Topographic (1:25000) for Mount Develin and Maryvale. They represent 270 households within the Shire of Warwick.

### 3.1.2 Definition

A Black Spot is an area of poor or non-existent television reception of one or more of the potentially locally available television services with a signal strength of less than 50dBu V/m and an International Telecommunications Union (ITU) Picture Quality rating of three (3) or less.

### 3.1.3 The Television Black Spots Program (TVBSP)

In 1999, the Australian Federal Government through the part sale of Telstra established the $120 million Television Fund, with the Television Black Spots Program being a $35 million component. Of this amount, $31 million was for the establishment of new services ($4 million to assist remote communities) and $4 million for the replacement of obsolete analogue transmitter equipment at existing self-help facilities. (Television Black Spots Program, Round 1, DCITA, 2000).

Funding of up to $25,000 per television service (that is, up to $125,000 for a new retransmission facility transmitting ABC, SBS, and three commercial services) was available towards the cost of purchasing and installing analogue terrestrial transmission equipment that would enable the retransmission of each new analogue
service. Funding of up to $25,000 was also available for costs associated with site establishment (clearing, mains power, road, facility to house equipment).

The *Broadcasting Services Act 1992* was amended in December 1999 by the *Broadcasting Services Amendment Act 1999*. This allowed people who could not access the local free to air service in a black spot area to apply to the Australian Broadcasting Authority (ABA) for permission to receive the delivery of free to air signals with a satellite dish and decoder. These Direct to Home (DTH) households access the remote area services via satellite - providing access to ABC TV and Radio, SBS TV and Radio and two commercial services, Imparja (ex Alice Springs provides a mixture of channels 9 & 10 programs) and Central 7 (ex Townsville provides channel 7 Queensland programs).

DTH provides radio services from the ABC (5), SBS, BBC world service, National Indigenous Radio Services (NIRS), plus a variety of community stations from Perth and the Northern Territory. This ‘Homestead’ service, is transmitted from the Optus C1 Aurora satellite that delivers Pay TV services across Australia, and is provided as a standard definition digital service.

Significantly, there is no funding available under the TVBSP to individual households for DTH services. However, on 1 November 2000, Senator Ian Campbell, Parliamentary Secretary to the then Minister for Communications, Information Technology and the Arts, Senator Richard Alston, issued a media release announcing revised guidelines for Round 2 of the Television Black Spots Program. This reduced the number of households necessary for funding in a designated black spot area from 100 to 50 and provided a degree of flexibility in the use of funds where establishment costs exceeded $25,000 and equipment costs were less than $25,000 per service.

The TV Black Spots Program was due to cease its activities in June 2004, but was extended to June 2005. The opposition Labor Party had indicated its desire to keep some funding for Black Spots active and the Coalition were considering changes that could eventuate in similar policy. A corollary initiative, the Higher Broadband Incentive Scheme (HiBIS, 2004) was established in an attempt to tackle broadband
deficiency in rural Australia by providing generous subsidy (around $3,000 per customer) to industry so that services to individuals, small business and community groups, could be provided.

3.1.4 Community consultation begins

On the 18th January, 2001 an initial public meeting was organised in order to inform people that they were eligible for a subsidy to improve their TV reception and at the same time seek accurate information as to the perceived reception problems in the area. Notices of the meeting were distributed by the local school bus drivers and displayed in the pub and service station. I convened and chaired the meeting which took place in the Maryvale Hall.

A committee of four, including myself, was elected by the meeting to represent them in discussions with the Shire of Warwick and to lodge an Expression of Interest to the ABA for possible funding, for a terrestrial retransmission facility. This meeting, attended by 52 residents and the two local government Councillors, was given information as to the guidelines for Round 2 TVBSP application to the ABA, the services that could be funded and the steps necessary to achieve it.

In summary, 30 survey forms were completed and verbal information recorded from a further 10 respondents. The survey concluded that reception was fair to poor for nearly all the TV channels that could be received. The ABC was the strongest signal and received by 93% of those surveyed, with 81% of these respondents having a picture quality of 3 or less, across all services.

Reception quality is based on the ITU (International Telecommunications Union) grading scale, contained in the Television Black Spots Program, Round 1 guidelines.
3.1.5 Scale of Picture Quality

<table>
<thead>
<tr>
<th>ITU GRADE</th>
<th>PICTURE QUALITY</th>
<th>IMPAIRMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Excellent</td>
<td>Imperceptible</td>
</tr>
<tr>
<td>4</td>
<td>Good</td>
<td>Perceptible</td>
</tr>
<tr>
<td>3</td>
<td>Fair</td>
<td>Slightly annoying</td>
</tr>
<tr>
<td>2</td>
<td>Poor</td>
<td>Annoying</td>
</tr>
<tr>
<td>1</td>
<td>Bad</td>
<td>Very annoying</td>
</tr>
</tbody>
</table>

From these results and the technical report provided by a consultant from Terracom Australia and New Zealand, the community was able to ascertain that the reception problems were widespread and that any application for funding would be treated with the highest priority by the ABA. The fact that the district received only one (ABCTV) of a possible 5 services at an ITU grading of 3 or less for 81% of respondents, put it into Reception Band 1. For the provision of funding, communities receiving no services or only one service were ranked above a community that received two or more services.

3.1.6 The Satellite Option develops

Prior to this meeting the North Branch TV group had been attempting to solve the reception problem for a community of approximately 25 households, which was not a large enough demographic to interest commercial or indeed government support. The expansion of the affected community to one hundred households (now including Maryvale and South Branch) was important when considering options at the public meeting and in subsequent committee meetings.

In September 1999, investigations into digital satellite solutions began when the Warwick Shire Council assisted the North Branch TV Group with a technical
consultant from Brisbane-based Broadcast Services Australia. This provided the technical information that prompted approaches to local member Bruce Scott MP, Minister for Veteran Affairs and subsequent responses from Senator Ian Campbell. These replies reiterated the guidelines set down by the ABA and did not attempt to address the problems outlined in regard to possible alternative approaches. The North Branch TV Group, prompted by Council officers, put a proposal to the Shire of Warwick, urging them to buy satellite receiving equipment (encoder, dish, LNB, cables and fittings) and then on-sell to rate payers, in designated black spot areas, at cost. This stimulated discussion and enquiry by Council, who until this time, although helpful were performing a mostly placatory role toward the group.

With the Homestead (DTH) service, satellite provides stable digital quality free to air TV services (15 channels) and 20 digital stereo Radio stations. The group was urging the Federal government to consider amending the services provided by satellite in order to encompass internet delivery to affected areas. The provision of this service is covered under the *Broadcasting Services Amendment Act 1999*, and as such requires political understanding and will to modify.

The issue was also expanding to consider the whole matter of communication options for the community. Internet connections were often complained about, with comments suggesting painfully slow downloads for anything other than text files. Radio reception in the district, although not as bad as TV, was nonetheless subject to the same difficulties of fringe reception. i.e. influenced by distance from transmitter, weather conditions and time of day, for non local stations.

When Senator Campbell made his announcement of revised criteria in November 2000, communities of 50 plus households were now able to make plans to improve their television reception. The Shire of Warwick became concerned about the potential number of such groups applying and seeking their assistance as co-ordinating body for the applications to the ABA, as this brought with it the continuing responsibility for maintenance of the retransmission site.
The Council estimated the on-going costs (based on their Mt. Tabor repeater at Warwick) to be somewhere between $5,000 to $8,000 per annum, per site. Taking note of the geographical conditions of mountainous terrain with interspersed small aggregations of population, the Council attempted to assess the possible numbers of communities in black spot areas. Local newspapers carried notices seeking information from residents with TV reception difficulties. The response from this survey was so small that Council chose to ignore it and proposed no further action. However, once the Maryvale and district community had organised themselves, expanded their concerns to encompass emergency radio communication facilities and continued to press for a digital solution, the Council actively supported the group in its application (EOI) to the ABA. Through the process of technical testing for signal strength by consultant Chayne Ellis (Terracom Australia & New Zealand) with on the ground help by local residents, the site for a possible retransmission facility was identified. This site (Mt. Edward, 860m.) had the added benefit of being able to service the Goomburra district, a community of an extra 125 households. This brought the total representation to 185 (later amended to 270) households designated as TV Black Spots and classified as one community for the purposes of this Program.

3.1.7 Future Digital Upgrade

The community, although preferring a satellite option, needed to maintain its negotiation with the Federal government in the hope that political action might change the policy and guidelines which still provided for the funding and provision of terrestrial retransmission of analogue services only. For while rural Australia prepared to convert to terrestrial digital TV broadcast, analogue sites needed to upgrade at a cost equivalent to that for new services.
3.1.8 The Council decides

Following a long period of inaction from the community and the Council, as co-ordinating body, from July 2001 to April 2002, the issue was revived by a letter from Bruce Scott. It informed the Council and community that the funding application had been shifted from the TVBSP to the newly created, Alternate Technical Solutions Program (ATS) which would provide full subsidy for a satellite solution.

A further nine month period slipped by without incident until in May 2003 an email from DCITA (TV Fund Unit) advised that they required an urgent response to a detailed request for information, and gave one week to reply or lose the promised funding. Though DCITA had been seeking information from the Council prior to this and had also advised that an analogue solution to the reception problem had been found utilising two re-transmission towers – one in each of Maryvale and Goomburra - this was the first time the community had been aware that these matters had been considered. As well, the services now advised as being available would be an analogue re-transmission of the digital DTH service, providing no electronic program guide (EPG) or radio services, and of course, no local content. Then at current prices of approximately $600 per household for satellite DTH equipment for all 270 households, the total cost would be $162,000 rather than the $250,000 available through the TVBSP for an inferior solution to the residents’ reception difficulties.

For the rest of 2003 a strained relationship developed between community members and the Council. There then ensued four changes of staff at the Council to the position of Corporate Development Officer responsible to the TV Fund Unit as representative of the co-ordinating body. In advising of the two tower scheme, the ABA was effectively doubling its financial contribution, agreeing now to making available $250,000, but also advising that local content would now not be available.

This meant that the re-transmission towers would transmit an analogue version of a digital satellite service. The Council was caught between the increased costs of two yearly maintenance bills, attempting to placate the residents, and the increasing demands for an agreement from the TV Fund Unit. It is not surprising, in retrospect,
that they wrote to DCITA in October 2003 refusing the two tower option, without either informing the community or fully understanding the ramifications. Accordingly, the TV Fund Unit closed the file on the application, cutting off the funding from TVBSP to the Maryvale / Goomburra communities. Many subsequent pleas from residents, Council officers, state and federal politicians, and even intervention from the ombudsman, were unable to overturn the decision.

3.1.9 Community self-help scheme

From the time the community understood that the two towers would provide a diminished digital service via analogue and as well not access radio or EPG services, attitudes began to change. People shifted from a determination to get something free from the government, no matter what it cost the rate payers, to an equal commitment to having the best quality service they could personally afford.

In August 2004, a public meeting demonstrated strong support for a community self-help activity of purchasing and installation of DTH satellite equipment. A small pilot scheme prior to this by six individuals had demonstrated it could be done successfully and relatively cheaply, at $500 per household. This knowledge was then passed on to a Round 1 group of 30 homes and as this was completed (October 2004) a Round 2 group of a similar size was waiting to start.

Through the process the community learnt about many advantages attached to digital technology and felt that they deserved to have them. And of course, being able to say “stick it” to the local and federal government, and then participate in establishing their own scheme, provided a sense of justice and resolution to what could have ended up being a wasted four years of effort.
3.1.10 Participants comments and opinions

The process of interaction between the residents and myself during the various stages of the project stimulated ideas and knowledge about digital technologies of which the community had not previously been aware. This was further enhanced when I commenced the one-on-one interviews, which enabled me to put a range of questions to them associated with the research and gain their responses, on-camera. Many residents had pet issues that they brought to the fore whenever they could, but over the duration of the interview process, my selected subjects usually demonstrated increased awareness and knowledge.

Shane Staunton, a resident of Goomburra, is a farmer running a specialist horse breeding stud, while his wife Laurel is a free-lance human relations consultant. They both attempt to conduct as much of their business on-line as they can, and to therefore increase the hours on farm with their young family rather than travelling away to work. Shane is passionate about the benefits of satellite in remote areas and stated, “For the perfect satellite reception you just have to be somewhere on the surface of the earth, with a dish – you don’t need to dig ditches or put up unsightly towers all over the place.” When discussing other telecommunications difficulties at his home and the benefits of satellite delivery for broadband as well as television he said, “It’s probably against the Trade Practice act – pay TV providers insist that they install their own hardware when installing new services into subscribers’ homes. We don’t do it for modems, either dial up or cable, or ADSL – they are all owner purchase and installation.” (Interview: 2004). He was clearly demonstrating his ability to understand the broader issues and to flag his readiness to install his own equipment and not have to pay providers to do it for him.

Similarly, North Branch resident, Bill Smale was clear about his understanding of the satellite technology and how it transmitted its signals to the earth and as well, the types of services (both TV and radio) available from it, but he still mused, “why can’t we get other things on there?” (Interview: 2005), referring primarily to the lack of local content. He was also questioning why it is that broadband and internet services were not available from such sophisticated technology.
Margaret Taylor of Maryvale, a strong advocate of the community’s rights to the provision of services, did nonetheless, “feel disappointed that we have to pay for something that 98% of Australians have automatically provided for (them).” She was commenting after her four years of participation in the project had resulted in her and husband Dave successfully installing and paying for their own satellite system as part of the project’s pilot stage. She then added, “Since satellite we watch SBS World News – we get a sense of being part of something bigger than we were used to before, even from the ABC.” (Interview: 2004).

Several residents commented on the varied content now available to them via satellite. North Branch resident, Jacqueline Pommer said, “Advertising and station breaks from Alice (Alice Springs) and Townsville aren’t very relevant, but it’s interesting to see another part of Australia I haven’t seen before.” (Interview: 2004). She was referring mainly to indigenous material and local advertising from Imparja, a mix of Channels 9 and 10 content, emanating from Alice Springs and as well, Central Seven from Townsville (Channel 7 Qld.).

I had always considered the interviews and reactions from the residents to be the primary material for the online documentary, although it was not until I had reviewed the interviews that ideas about their placement within the various pages on the web site developed. As worthy comments came to light, so then did the shape of the on-line documentary begin to emerge.

Digital specialist Edward Jozis of Micronica Pty Ltd in South Melbourne has advised on satellite and low scale broadcast equipment and resources since the late 1970s. He is a recognised authority on digital up-take in Australia, and as Doctor Digital, Edward presented a regular program on a Melbourne FM station for many years. When discussing the planning and distribution of broadcast services in the late 1980s he stated, “Cable just happened. It followed the USA example, people didn’t know what they were doing.” In this instance he was commenting about politicians and their public service advisers. Edward helped many ethnic groups (in Victoria) establish satellite free-to-air services that are provided from their country of origin, and in
Western Australia he advised and supplied equipment to communities, particularly during the early years for Pay TV. He advised that “There are many more satellites in the sky, providing free TV services from all around the world than most people realise or know about”, and further demonstrated his knowledge of the complexity of contemporary technologies when he commented, “Copyright is a big issue, so are social and cultural concerns when satellites can beam programs across borders.” (Interview: 2004). It was this broad digital expertise and willingness to discuss these matters that led me to him and his company and his subsequent appearance in the online documentary as an expert.

3.1.11 Key Contributors

The Department of Communications, Information Technology and the Arts (DCITA) established the guidelines for and then implemented the TVBSP, based on federal government policy and legislation. During the life of this project three coalition Ministers presided over the Department – firstly, Senator Richard Alston, who resigned in September 2003 and was replaced by the former Attorney General, Darryl Williams. Then, not quite twelve months later, in a mid-2004 cabinet reshuffle, his position was handed to Senator Helen Coonan. Each of these Ministers was tested by the complexity of the broadcasting and telecommunications issues of the time and constrained by party political agenda.

Within DCITA, Rohan Buettel as General Manager, was in charge of the Public Broadcasting section, which held responsibility for the TV Fund Unit. This was the section that maintained direct relationships with all clients of the TVBSP. Its Manager, Jennifer Levy orchestrated the administration of the program and liaised with the Australian Broadcasting Authority (ABA). Jennifer maintained her role throughout the program, and was supported by an assistant Manager, Martin Hiscutt, who transferred to other duties in July 2003. (Refer to 3.1.12, for details relating to TV Fund Unit operation).

The ABA were responsible for implementing government policy relegated from DCITA. Importantly, it also managed the allocation of spectrum and employed the
consultant broadcast engineers for the TVBSP. If the Australian government had not been in the process of developing and planning digital roll-out throughout the land, then the task of implementing the TVBSP would have been more normally assigned to them.

At local government level, the Warwick Shire Council, led by Mayor Ron Bellingham, accepted the role of Co-ordinating Body (CB) on behalf of the residents, therefore becoming responsible for the application to the TVBSP. The role of a CB is to represent the community as a legal entity, to accept and audit funding, and to provide specialist resource support to the applicant community. Mayor Bellingham, aligned with the National party in the local area, was very supportive of the residents’ claims and application to the Federal Government; but in the end he became more concerned about cost than amenity and enforced the Council’s vote on the matter. Within the Council, administrative staff were initially very helpful in providing support and funding for specialist technical study in order to determine the reception quality throughout the affected areas. They also provided advice with Expressions of Interest (EOI) and dealing with government, as well as the provision of local maps and district statistics. Even though the community elected committee did most of the preparation of significant documentation, particularly the EOI, Council staff were readily available to advise on drafts and to expedite the completed application. During this preliminary stage of the project Council officers, significantly Noel Kropp (CEO) and then Jim Lindsay (Director Corporate and Finance), were accommodating. But when Jim Lindsay resigned in July 2003, it happened to coincide with the most delicate and crucial stage of negotiation with the TV Fund Unit. The Council, between July and October that year, amidst an organisational shuffle, appointed three new staff who had the sometimes unclear joint responsibility to oversee this project. As the issues became public this became untenable for the resident committee and resulted in the Mayor becoming more and more personally involved. There was positive support and interest at local Councillor level from district representatives, Ross Palmer and Len Willet on behalf of residents as long as the project could be moved along by senior staff with little effort and cost. But when the TV Fund Unit threatened the loss of funds or when the facility costs exceeded the funding cap, then support dropped off in favour of a “cutting of losses” attitude. Continual political agitation by residents was able to bring
Council focus back on track or invigorate another burst of activity. The change of responsible staff often led to misunderstanding which allowed incidents to occur. Council staff often joked about their lack of knowledge in regard to this issue. This became concerning, particularly as important Council votes were held, when uninformed decisions were taken by Councillors even though key residents were present in chamber and available to provide competent opinion on the matter. It is fair to say that the relationship between the Council and the residents disintegrated in late 2003, as residents felt betrayed and unsupported by what they saw as bad Council decisions. However, during on-camera interviews conducted twelve months later, the Mayor was glowing in his praise of the community’s effort in “getting the best possible result for themselves” through the provision of satellite television. (Interview : 2006). Possibly, he could afford to be conciliatory then because the resolution by the residents had not resulted in any Council expenditure.

The long standing federal member for the seat of Maranoa, Mr Bruce Scott, MHR was until November 2001 the Minister for Veterans Affairs in the Howard coalition government. Bruce Scott is a high profile, publicly liked member of the National party who lost his ministerial position after that year’s federal election yielded decreased representation to the Nationals. It was noticeable that his ability to influence politicians in Canberra and his lack of resources to do so following his portfolio loss, had an effect on the residents’ cause. Until this time any committee letters sent to Canberra achieved timely response and deference to his ministerial position. Scott wrote glowingly to the residents in April 2002 and advised that our application under the TVBSP, “will be considered under the Alternative Technical Solutions (ATS) program”. Understandably, residents were delighted that the government had seen sense and that they would now be provided with satellite systems for half the price of terrestrial towers. This letter led the residents into a false state of expectation for a further twelve months.

The state government in Queensland had very little impact or indeed role to play in this project. However, Mr Lawrence Springborg, MLA for Warwick and Opposition Leader in the state parliament, was instrumental in listening to local concerns and
passing on to state ministers his requests for help for his constituents. The resultant replies nearly always offered sympathy for the cause and details as to how to contact the federal authorities. Both local politicians were noticeably ignorant of the detailed technical issues and relevant guidelines or policies that they could question or pursue on behalf of the community.

The first resident committee was elected at a general meeting held at the Maryvale Town Hall in January 2001. I organised and facilitated this meeting and was subsequently one of three residents chosen to represent the local community. The other two were, Rob Hockings of South Branch, a local farmer who also worked for the Queensland Police Department’s Communications Division and Daryl Sherrif of North Branch, an accountant. As the project evolved, others showed interest in supporting the committee and people often worked at specific tasks for short periods; for example, photocopying, delivering leaflets and brochures, and phone-tree monitors that notified residents of community events and passed on the latest information. Two people who started in a tentative manner but soon became stalwarts of the project were retired couple, Dave and Margaret Taylor, of Maryvale. Dave is a vocal proponent of the fact that “politicians and bureaucrats work for the tax payer”, while Margaret efficiently maintained a strong, largely female, network in the surrounding districts. Similarly, Goomburra resident, Shane Staunton became an active committee member at a later stage of the project, after earlier periods attending meetings and being a strong public supporter of the project to the residents in his local district. Generally, meetings were organised at Maryvale Hall for local residents as well as those from South Branch and North Branch and at Goomburra Hall for Goomburra Valley residents. These meetings attracted between 50 and 100 people who, in the early days, could engage in spirited discussions of the low opinions they held of their federal and local government representatives, as readily as their viewing habits. It took some time to bring understanding to these large groups about the technological issues and how we might tackle them. Part of the strategy of having a small elected committee was to alleviate this issue and to make it a more efficient use of our time and energy. The fact that we had good district representation and that over time the community began to trust our work, meant that meetings became more organised and decisive and, at the
same time, people became more knowledgeable about the complex technological agenda.

Many of the residents were distrustful of the engineers that sometimes came to meetings or whose decisions influenced the deliberations in a prejudicial way. As they saw it, they believed that “decisions were made from desks in Brisbane” and therefore had no on-the-ground credibility. This was most applicable to ABA Consultant Engineer, John Edwards (Ed Field Engineering), when his critical decision made in May 2003 on his professional calculations from his desk in Brisbane, resulted in the ABA revising its decision on an Alternative Technical Solution for the Maryvale and Goomburra areas. The community was advised that only a re-transmitted analogue version of the digital satellite service with no local content was now available. This was due to the fact that John Edwards had established that 80% of the residents (a guideline of the TVBSP) should be able to receive a terrestrial signal of sufficient strength from the planned transmission towers in Maryvale and Goomburra. Other engineers that gave advice to the community included Peter Montague of N-COM Australia Pty Ltd, Andrew Palmer of Broadcast Services Australia and Cheyne Ellis of Terracom Australia and New Zealand. From contact with these professionals, the committee learned that reception in fringe areas, or those mountainous terrains that imitate fringe conditions, make predictions based on a formula very difficult and reduces broadcast engineering to an inexact science. Had John Edwards been able to combine field tests with his desk calculations, a very different outcome could have occurred, but he was curtailed by ABA cost restraints and TV Fund Unit deadlines. This decision was to become the critical moment for public opinion to start swinging from getting something from the government (at no cost) to seriously considering going it alone and developing a self-help scheme.

The committee obtained specialist technical advice on the suitability of satellite receiving equipment from Dave Dargie of Nationwide Antennae Services, based at Newstead in Brisbane. His advice on installation of the gear gave us the confidence to install it ourselves, and as we were able to purchase all the necessary equipment through his company, he also offered us reduced prices for purchasing in bulk. His
astute perspectives on satellite delivery for Australian broadcast and domestic purposes is captured in the interview that appears on the web site page titled “experts”.

3.1.12 Response from the Department of Communications Information Technology and the Arts (DCITA)

Within DCITA, the TV Fund Unit was the hands-on implementer and adviser to government for the TVBSP. As well, this unit dealt with the local communities who made application for funding and assistance; they were the face of the program and it was via their procedures that communities, needing to solve their reception difficulties, received any support. In the early days of the project, the community tended to go directly to politicians for answers, but the limited responses that were received from them, soon made it clear that the program was tightly designed and operating for a limited period. This meant that the personnel in the TV Fund Unit were always referred back to by politicians and other bureaucrats for advice, and in this way it became evident that they were the acknowledged “experts” for the TVBSP. The technological complexity of the issues involved were beyond the understanding of most of the politicians, even though they were attempting to assist the community in a real way, and this led to the TV Fund Unit becoming an overly significant broker during the life of this program. It was not only the politicians and bureaucrats who were bedazzled by the technological aspects but many people in local government and communities. Even though there was extensive information published by DCITA to aid understanding, it was often presented in a dogmatic and complex set of rigid rules that needed technical expertise in order to interpret many key items. It became obvious that the TV Fund Unit had advised on most policy decisions adopted by the TVBSP and so appeared to become the final arbiters of any decisions or advice requested by government on behalf of the community.

By the time I was ready to research their role I had already had dealings with the Unit through the application process for the EOI (Expression of Interest) and as a community member of the committee working with the CB (Co-ordinating Body), the Warwick Shire Council.
After making several email requests to the Manager of the TV Fund Unit, Jennifer Levy, for an on-camera interview, I received a reply from her stating, “It would be inappropriate for us (staff of DCITA) to be filmed for your cyberdoc, however, we would be prepared to review, and where appropriate reply in writing to questions put to us by you in writing on the topics outlined in your email”. (Correspondence file: 2004).

I had approached her as a prospective interview subject for the documentary, as I believed it to be important for a public servant spokesperson to be able to be seen in conjunction with the people that their strategies and program so intimately affected. So this form of reply, a text document, posed a problem for me in regard to balance within the documentary. Then I realised that although it was not usually able to be included in a conventional linear documentary, it could be handled in the online documentary, and that to exhibit their text document as presented, painted an effective image of the Unit and their arms length relationship with the community.

I sent the questions to Jennifer Levy and made arrangements to meet with her in Canberra on June 27, 2004, where she presented me with her written response, some relevant background material and reports. Jennifer also participated in an informal off the record discussion with me over lunch, that illuminated many of the set questions, that I cannot ethically use here. Also, while in Canberra I met with TV Fund Unit assistant manager, Martin Hiscutt, in the presence of a female witness who did not participate in the conversation. When I questioned the need for this arrangement I was informed that it was a necessary departmental requirement and that the interview could not take place without the witness in attendance. In reviewing my experiences in Canberra and the way in which I was dealt with, I realised that the sensitivity of this project (both my research and the TVBSP) within the political arena was acute. Politicians were at this time extremely keen to be seen to deliver results for rural communities but were curtailed by the expediencies of time and funding that the program had established. The resultant pressure on the public servants was palpable.
The questions formulated by me were based on the many issues raised by participants at the local level during the project. They demonstrate the concerns and frustrations the community had in dealing with the TVBSP, rephrased as questions for the TV Fund Unit to address. Idealistically, I was hoping that they could answer these questions in a way that might assist in framing any similar future programs that any government may introduce. I saw this program as a model that could increase the input and participation by individuals in government projects. I was particularly interested in gathering their response to questions regarding the need for improved on-the-ground support for the community and the local government by the program. The community members were frustrated by control from Canberra that they believed was not helpful. They often chose to ignore the bureaucrats in favour of making their own decisions; but equally felt that the program did not take their needs into consideration, nor was capable of listening to or responding to them. This was very evident during the period when the Brisbane-based Engineer, John Edwards, was making critical judgements that led to the decision to transmit analogue. The community wanted to talk to him and let him know how their knowledge of the local environment suggested that his calculations were not accurate. In the follow-up on-camera interview I did with him in 2005, John Edwards was quite philosophical about the restrictions placed on him by the TVBSP and that he might have delivered different results under more flexible and better funded guidelines for the consultant engineers.

The Television Black Spots Program (TVBSP) was planned to operate from late 1999 until July 2004, or until allocated funding expired, but at the last minute was extended until June 2005. In its Scoping Study the department concluded, “Television ‘black spots’ are found throughout Australia and it is clear that demand for ‘fixes’ are likely to exceed the funds available to provide solutions”. (DCITA, 1998). It was apparent even at this early stage that this was an expedient program, with limitations in both funding and technical solutions, meant to demonstrate government action to a mostly rural community, disadvantaged by distance, topography and population density.

The following is the response from the Department, presented to me as a hard copy at the Canberra meeting, interspersed with my interpretations and comments regarding the significance and relevance of them, to the project.
1. **How was the TV Fund established?**

The $120 million Television fund is an Australian government initiative funded from the successful second partial sale of Telstra. The Television Fund Reserve was established in 1999 under Division 5 of Part 9 of the Telstra Corporation Act 1991 (the Act). The Television Fund has a limited life and was due to close on 30 June 2004. Section 65(2)(b) of the Act gives the Minister the power to extend the life of the Television Fund to 30 June 2005 by Gazette notice. The life of the Television Fund has been extended to 30 June 2005.

The statutory purpose of the Television Fund is stipulated by the Telstra (Further Dilution of Public Ownership) Act 1999 (The Telstra Act) (Schedule 2, Division 5, Section 65(1)) as:

a) extending areas in which television broadcasting services transmitted by the Special Broadcasting Service Corporation (Otherwise than by means of direct satellite broadcast) are capable of being received;

b) enabling people to obtain reception, or improved reception, of television broadcasting services transmitted by:

i. the Special Broadcasting Service; or

ii. the Australian Broadcasting Corporation; or

iii. holders of commercial television broadcasting licences;

c) supporting a New Media Unit to be established within the Special Broadcasting Service Corporation;

d) a purpose incidental or ancillary to any of the above purposes;

e) the making of grants of financial assistance for any of the above purposes.

The following program objectives and funding levels are subsequently identified in Press Releases dated 18 March 1999 (Improved television
services for remote areas – Joint Media Release) and 8 July 1999 (Comments invited on $120 million television fund issues paper);

- fixing 200 to 250 major television reception “black spots” (108 million to be shared with the Special Broadcasting Services (SBS) extensions component and administration);
- subsidising the purchase of a transmitter and decoder necessary to provide a second terrestrial commercial television signal to ‘self-help’ communities in remote areas ($10 million);
- extending SBS television to transmission areas with more than 10,000 people ($108 million to be shared with the ‘black spots’ component and administration); and
- assisting SBS to establish a New Media Unit ($2 million).

From these broad outcomes the Department developed a strategic policy framework, and television black spot program policy and operating guidelines which were approved by the Minister and later turned into a set of program guidelines that were published (copies provided).

The part sale (T2) of Telstra was a highly contentious decision in Australia in 1999, with most people split in their attitude to it along political affiliation lines. The TV Fund Unit received $120 million from the $16 billion sale and so from the outset a politically charged project was launched. This response was not clear as to the percentage allocation for the TVBSP from the $120 million – just a statement indicating that $108 million was to be shared with SBS. In later press releases the government advised that the amount allocated from this fund for TVBSP would be $35 million.

2. Why was DCITA given the task to implement the TVBSP?

The Government’s Administrative Arrangements Orders provide that DCITA deals with broadcasting services so all broadcasting related programs are administered by DCITA.
3. How did the functions/role of the ABA and DCITA differ, in regard to the TVBSP?

DCITA is responsible for the administration of the TVBSP. The ABA is responsible for spectrum planning for the eligible black spot locations that lodged expressions of interest to participate in the TVBSP. The ABA approves all spectrum usage and issues on behalf of the ACA apparatus licences for the operation of all self-help retransmission services.

The Department and the ABA formed a Steering Group to work on the spectrum related issues of the program. Together we chose a panel of expert broadcast engineers (private consultants) to do the desk planning for individual black spots. DCITA employed these consultants and distributed workload, liaised, etc. There was direct contact between the ABA and the consultants in order to get the planning done in such a quick timeframe.

Once a consultant came up with a set of channels and operating details for the new service the ABA checked the work to ensure that the proposed new service would not interfere with existing or planned digital services.

See separate paper on Television Black Spots Program – What the Phase 1 and Phase 2 Processes Engineering Planning Processes involves.

Also, together we chose the consultant to undertake the Scoping Study that was conducted prior to any development of the TVBSP (Copy attached).

In my research I had ascertained that under normal conditions, DCITA would administer but not deliver such a technically complex program such as the TVBSP. However, given time and budgetary constraints, the body most suitably equipped for the task, the ABA, was fully occupied with the roll-out of digital broadcasting. This appears to be another way in which political influence was exerted on this program. Another, of course, was the awareness that the electorate would be forceful in support
of good reception for their television services and that politicians may suffer electoral consequences if they were not seen to actively pursue a remedy. The consequences became potentially more serious for politicians when the disparity between city and regional areas inflamed the debate.

4. **How would you describe the relationship between the CB and both the ABA and DCITA during the life of the TVBSP?**

*The TV Fund Unit in DCITA was the first point of contact for all CB’s. Over time some CB’s would have had contact with the ABA directly as some of the more complex issues relating to individual sites were worked through.*

*For several years the ABA and the TV Fund Unit met weekly or fortnightly to monitor progress with planning of the black spot locations. Engineers are naturally cautious and there was sometimes tension as the TV Fund Unit had the responsibility of delivering outcomes and the engineers’ main concern was to ensure that spectrum allocation decisions were correct.*

*The feedback through the Department’s annual client survey (with random sample of Department clients) has always been very positive about the relationship between CB’s and the TV Fund Unit.*

5. **Were there particular issues that influenced this relationship and what were they?**

*The major driver was the Government seeking spectrum planning outcomes so that the program could be rolled out in a timely fashion. As with all programs there is more pressure in some stages of the Parliamentary cycle than in others.*

*Consultants can take time as some black spots had complex characteristics, and at times there was a great deal of pressure on them to come up with planning outcomes quickly.*
Some CB’s were obviously easier to work with than others. Many groups needed hand holding all the way as the process was very complex and unless they had a technical officer guiding the process from their end it was very difficult for them to understand what was expected of them.

Underlying the responses to questions 4 & 5 is the truth that the consultant engineers were not only operating cautiously (a manner commonly attributed to this profession) but also because as contracted consultants, there were discrete and careful limits imposed on them by the ABA / DCITA combination. It could also be interpreted from these responses that DCITA views engineers as ABA types. That is, just operational implementers rather than the instigators of any original plans. The references to there being “more pressure in some stages of the Parliamentary cycle than in others” and “at times there was a great deal of pressure on them to come up with planning outcomes quickly” allude to the limits and constraints of the program and how this pressure effected all who participated; another indication that the program was not people friendly.

6. In your opinion did the legislation that was responsible for the TVBSP cover the real needs of the identified black spot communities throughout the nation?

There was no way to calculate the demand for the program in advance so the Department had to choose a technical model that would fit the majority of black spot locations that came forward. As there was only $35m to spend and the policy objective was to fix between 200-250 black spot areas, we chose the self-help retransmission model as the most cost effective method to address television reception problems for the largest number of people. Obviously, there were some communities that would have been better served by DTH. See attached policy principles and program guidelines that were agreed by the Minister.
In the 1998 Scoping Study consultants (TVNZ Australia) had advised that there were 400 locations identified as ‘black spots’, indicating that the government and its advisers knew in advance of this program the true size and scale of the problem. As well, while the development of digital options progressed during this period the program was unwavering in its adherence to only providing for an analogue solution. This was initially based on cost as digital (satellite direct to home) was deemed to be too expensive based on the 1999 figures of $1200 per household, but by 2001 this figure was reduced to $600-700 per household and for small communities of 250 or so was a much cheaper option than analogue terrestrial re-transmission towers. However, the politicians, on advice from the TV Fund Unit, were not willing to entertain digital solutions. Even when the government flirted with the Alternative Technical Solutions (ATS) program, the guidelines were again so rigid that if John Edwards could predict an 80% coverage by terrestrial means from his desk in Brisbane, despite a fully funded satellite solution costing 50% less, then the analogue solution was what the Unit enforced.

7. What influence, if any, did commercial and or public broadcasters have in the framing of the TVBSP guidelines?

*The Department held two stakeholder meetings in 1999 and 2000 to discuss the establishment of the TVBSP. National and commercial broadcasters, transmission facilities owners, state government and ALGA representatives were invited to attend. The first meeting raised the issues and sought the involvement of the commercial broadcasters.*

*The second meeting reviewed the TVBSP guidelines and some recommendations were made to revise them. These were subsequently accepted by Government.*

*At no stage did the commercial broadcasters express an interest in working with communities to fix the black spots, even though this was allowed by the guidelines.*
The public broadcasters had a duty, under their own charters, to support the TVBSP whereas, the commercial broadcasters were controlled by a voluntary code. This response re-enforces the notion that to be noticed, or to gain the equivalent resources as those automatically provided for city based residents, rural and regional people had to aggregate in populations of 10,000 or more.

8. What have you identified as the most common difficulties expressed by communities and their CB’s during the TVBSP?

- Did not understand how tv worked.
- Did not understand the complexities of setting up a retransmission service.
- Lack of community cohesion.
- Community groups with few resources trying to implement a complex project.
- Communities not wanting remote area services.
- Councils not wanting to pay over the cap or for operation and maintenance.
- Communities not understanding about licence areas.

The difficulties apparent between CB’s and their communities, such as the Warwick Shire Council and the residents of Maryvale and Goomburra, that are stated here support many of the findings made by this research and underlie the motivation by the residents to choose the satellite option over that offered by the TVBSP. Mayor Bellingham, reflecting on the program and his Council’s role in it, stated, “I think it demonstrated the inefficiencies that are built into our funding systems when they are too narrow and too focused on .. (pause/rethink).. and frankly too many rules that don’t leave the latitude to allow people on the ground to come up with a solution”. (Interview: 2006).

9. Was the role of the consultant engineer effective in assisting communities attain the services required?
In 99% of the cases the system worked very well. Some communities did not want remote services and this was what they were entitled to, some communities wanted DTH and this was not an option under the TVBSP guidelines.

This statement is in addition to, and can be read together with questions 4 & 5 and my comments to them.

10. How would you describe the role of the local government in the TVBSP?
In your experience were they able to understand and comply with the guidelines? Was extra work required by your officers in explaining or making provision for circumstances particular to either the needs of local government or the local community?

The program was very resource intense as working with over 450 communities over the life of the program was extremely time consuming. Each community was different and brought different challenges. In some communities the local green groups opposed the towers and some went to Court to try to stop construction, in other communities the local landowner would not give permission for the tower on their property. In some communities the local council was very proactive and did lots of the work, in other areas the councils wanted the TV Fund to do it all. Some communities had little cohesion and community meetings had to be held to get consensus on particular issues.

Here, the department reveals that they had 450 applications and that in light of the limits of the TVBSP, they could only respond to 200 – 250, even though their own Scoping study had advised the Minister what was truly needed to address the television black spot deficiencies prior to legislation being enacted. This statement further indicates that the Unit was aware of the broad range of matters that communities reacted to, but were equally unable to respond to.
11. How did the implemented guidelines vary from the original Scoping study done prior to the establishment of the TVBSP?

See principles documents.

12. If you were starting a similar program now, what things would you do differently? With particular regard to these matters: legislation; relationships with communities; consultant engineers; local government and CB’s?

Legislation – nil
Relationships with communities – think we were very proactive, do not know what else we could do.
Consultant engineers – always difficult working with consultants but the ABA did not have enough staff to undertake the task in the timeframe required by the Government so there was no alternative.
Local government and CB’s – mostly very good to work with, wanted to help their communities if they could.

The Unit even though very aware that there were a range of issues that arose during the TVBSP were, nonetheless, not about to suggest that legislation could have been amended to improve the situation. The relatively modest amount of overall funding provided affected the amount allocated to fix each black spot area. Thus a notional maximum amount of $25,000 per service per community was set. The same amount was provided for the re-transmission equipment necessary and was essentially allocated for the purchase of the transmitter. With the cost of transmitters, depending on power (strength of the transmitted signal) ranging in price from $15,000 to $40,000 approximately, this meant that the TVBSP was almost always only able to fund a lower to mid-range powered transmitter. In the case of Maryvale / Goomburra where the signal had to contend with granite and mountainous terrain, the power of a transmitter became important as the effectiveness of the signal to reach all the affected residents was highly suspect and disputed. And the final decision by engineer, John Edwards, in light of this statement, was further seen by local residents as an
impractical decision made by the engineer in isolation from the local conditions and without reference to local knowledge.

As public servants advising government, the TV Fund Unit can be seen as an easy target for criticism and blame. I believe that the preferred community solution (satellite), was not able to be resolved through the TVBSP due to the inability of the guidelines to be amended or modified during the active life of the program. I observed that at the heart of this inflexibility was the overriding nature of the relationship between politicians and their public servants when devising and implementing policy in these politically sensitive situations. The “yes minister” ethos was alive and working overtime during this program. The majority of responses from the Unit quoted here reflect this guarded and cautious political “treading on eggs” approach; cautiously saying little when a contentious issue is being addressed.

These political and bureaucratic imperatives were the most difficult aspects of the project for the majority of the residents to understand and deal with. It caused great frustration at times with the complexity of requirements and the seemingly rigid bureaucratic regulations leading to some residents losing interest in the process. To others, of course, it became a cause to be won.

3.1.13 Emerging issues for possible further research

As this project unravelled I became aware of a range of topics that deserved a research project of their own, or at the very least, a journal article or paper. Most importantly, they were beyond the scope of this project and this realisation made it apparent to me that it was essential to keep my focus within my defined topic parameters. I believe it is valuable to articulate these broader issues that were brought to the surface by this research project so that other researchers may benefit from them.

Firstly, when the Australian Broadcasting Authority made changes to the guidelines (TVBSP Round 2) that allowed 50 households or more to become eligible for government support, from the previous figure of 100 households, an unforseen
consequence ensued. Although this smaller number delivered greater equity and access for regional areas, it nonetheless had the reverse effect by providing a disincentive to Local Government to encourage or support groups to apply for funding, due to the encumbrance upon them in the role of Co-ordinating Body for on-going maintenance costs. In the case of Maryvale and Goomburra this turned out to be the reason that the Warwick Shire rejected the funding from the federal government (on behalf of the community) as they felt they could not justify the expense associated with yearly maintenance for so few people. This amount was estimated to be approximately $6 to 8,000 per transmitter, per year. This meant a cost to the rate payers of potentially $80,000 over five years, this being the minimum period required by the legislation for the local authority to maintain the two transmitters. When considering the disparate communities that exist in varying numbers along the whole of the Great Dividing Range, there could be many thousands of people with similar reception difficulties that do not register as significant statistical entities. Add to this the limited capital allowed to fix the reception problems, the fact that the primary requirement for the funding was based on providing only analogue solutions, that restrictive conditions existed on funding for digital solutions, and that a short period was designated for the program to operate, what is revealed is a politically contrived set of circumstances with very narrow conditions. It would be very useful to identify other residents and their communications needs who are scattered about in small numbers amongst the mountainous backbone of this country, and to attempt to determine how they choose to deal with their television reception and associated communications difficulties.

It became clear that there was something amiss with the mode of delivery of our broadcasting and communications services. Why was it that our sprawling population distributed over vast distances was dependent on a terrestrial delivery? Why do we continue to support and build this land-based infrastructure for our telecommunications rather than satellite? Cost, the primary reason for earlier decision making, has not been as relevant in recent times when China, Russia and India are now capable of building and supplying rockets and their payloads for orbit effectively and cheaply. In Australia, when framing policy there has been an over-emphasis on creating conditions that favour commercial operators, that in turn has influenced the infrastructure components that are put into place. Once a technology has been
established (for example, terrestrial delivery) it is difficult to turn it around, but Rupert Murdoch has managed to build a worldwide pay TV service based on satellite delivery and he is able to make it work commercially.

Within the political context of city versus country as regards sharing the nation’s resources pie, it is well documented that rural Australia suffers disadvantage by comparison to their city cousins. The provision of communication services is another matter that requires rural people to fight for services that in the coastal and city areas are an automatic infrastructure provision. At the same time, drought has played a role in re-shaping how rural communities will cope in the future. One way to help redress this degeneration is to look at how communication technologies can assist in rejuvenating and keeping rural communities alive.

Another concept worth some scrutiny, is the matter of the over production of single use technology devices. When you consider that a computer is a multi-use device that can publish, produce, record and receive, why are we being deluged by a plethora of communications devices that can only do one thing? Encouraging solutions that utilise bundled or shared technology to address communication needs in a holistic manner should be investigated and promoted. The Personal Video Recorder (PVR) is a good example of a device that can achieve many tasks, as are games machines such as Xbox and Playstation. Similarly, the iPod and now the iPhone also represent multi-use devices. Television and radio sets, DVD units, and satellite receivers are single use devices. More and more though, we are combining added functionality into our technologies, such as TiVo PVR boxes and variant products. The expectation of dumb single use devices has been ingrained in us since the days of the radio. Intertwined with this issue is that of the use of allocated and controlled spectrum. The use of our community owned and government administered radio frequencies is a contentious issue in all developed countries of the world. In the past ten years, a worldwide movement has emerged that promotes the use of smart devices using open spectrum in a manner that allows a device to send and receive via radio waves, thereby sharing the spectrum space rather than dedicating space to one device. This would work like a computer by sending packets of information and sharing bandwidth with a range of devices that allow encoded access. This type of technology would benefit remote areas
where local area wireless networks could be established and link in with larger fibre optic or satellite delivered communications. Worldwide internet sites such as Greater Democracy and Wireless Commons provide a strong focus for these spectrum issues. In Australia, Richard Giles has done some good work to disseminate information and provide links to these and other groups working on these matters. (www.richardgiles.net/openspectrum/).

The residents of Maryvale and Goomburra responded very well to learning about and dealing with technology even though few residents had much prior experience with computers or mobile phones. They did not have a sense of digital logic, yet they were able to respond positively as the project revealed new devices for them to come to terms with. Initially, they were fearful that they could break something when making a wrong selection on their remote control or new wide screen TV or DVD player. And what sort of radio comes from a TV? These concerns were allayed by participation in this project and then became the subject matter of a published paper I wrote for the International Journal of Technology, Knowledge and Society in 2006, part of which is incorporated into the next section.

4.0 Original Contribution to Knowledge

This exegesis and more particularly the selected materials contained within the project, A Satellite Solution (online documentary), make a valuable addition to the knowledge of and the literature associated with the acceptance and evolution of digital technologies in a range of areas pertinent to Australian daily life.

In keeping with the methodology adopted during the course of this research activity and through my activist role as instigator of this project, the participating members of the communities of Maryvale and Goomburra gained new knowledge regarding the establishment and installation of satellite equipment, and at the same time, increased their quality of life through the provision and use of these associated technologies and equipment. The participative scheme, by fostering hands-on involvement in activities
over the five year life of the project, helped develop community cohesion and provided many with the knowledge to use digital gear with an increased and often a new confidence.

The study of this micro-market led to the investigation of the broader question of why such a geographically diverse continent would adopt cable and terrestrial solutions in providing its free to air television services. Distance, terrain and the built environment complicate reception problems and the only universal fix, satellite, has not been properly utilised. Prior to the early 1990s cost was deemed an inhibiting factor, but it is apparent that technical precedent (micro-wave terrestrial transmission), reluctance to change, and ignorance by decision makers of the complex technical requirements, have contributed as well. However, it would seem that the overriding reason for this situation centres around the over zealous approach taken to regulation in order to protect the established industry, particularly commercial interests. (The Broadcasting Services (Digital Television Standards) Regulations 2000). As a consequence, other forms of distribution (including satellite) have been discouraged and marginalised.

The TVBSP, as reported here, was tightly controlled by legislation, to provide only established analogue fixes to reception difficulties faced by the community of Maryvale and Goomburra. My facilitation of the technical issues helped the community to understand the underlying matters and get the best possible solution available to them, even though they ended up paying for it out of their own pocket.

The project component of this research, the online documentary, exhibits artistic innovation with the established documentary form. It creates a hybrid format that is highly visual, accessible and open to scrutiny. As an example of an emerging discipline, it also contains highly useful knowledge for users, while creating a landmark project within both the film and television industry and the community at large. An added advantage is that it can also be viewed as representative of a scholarly site, due to its ability to contain in one place, all the aesthetic and written materials pertinent to this research higher degree.
As the research activity developed I began to consider the difficulties associated with the up-take of digital solutions and its implications to a broad range of sectors with whom I had direct contact. These thoughts and enquiry were subsequently stimulated by working with and observing first hand, the residents in Maryvale and Goomburra. Was age a barrier and if so, were older aged people in danger of becoming a marginalised group?

From mid 2004 until mid 2006 I worked on putting ideas together and wrote and had published the paper, Developing a Mind-set for a Digital Future, *The International Journal of Technology, Knowledge & Society*, vol2, 2006. (Refer Appendix C for the complete paper).

In all aspects of daily life digital technologies are creating new tools. These new tools, whether software, hardware or middleware, will allow users to create new processes and ways of doing things: things not yet imagined. To cope with this change and at the same time assist in its creation, it will be necessary to develop clear social and cultural aims, coupled with an aesthetic suitable for a digital future. The current rate of change in information processing is growing exponentially; “between 2000 and 2014 we’ll make 20 years of progress at 2000 rates, equivalent to the entire 20th century. And then we’ll do the same again in only seven years” (Kurzweil 2005), thus, increasing over time, the pressure and difficulty of dealing with the associated issues.

The analogue past is linear in form and can be resistant to change, because it builds and relies on repetition and formula for its existence. Similarly, television and film rely on formula as the basis for turning creative endeavour into a product that will sell. In classrooms we deliver lectures with minor adjustment, year in year out. This formulaic approach, the Ford production line model, requires immediate challenge.

The Australian experience is highlighted here because it represents my known experiences and provides a timely warning to both government and community agencies of the need to consider widespread programs of support that could improve understanding of digital technologies throughout the community. This position is
supported by my research experience working within various sectors of Australian society and in particular, the 50 households that participated in this project.

I have observed and recorded that the rural community, comprising people mostly over 40 years of age are generally slower to take up the technology, reticent to operate and fearful of damaging technical gear. As well, they tend to have a limited future vision and use for it. These attributes are a direct result of an analogue past, lack of exposure to new technologies and a reluctance to change.

Amongst the participants in my research project the older the resident the greater the chance that they have not sought direct contact with new technologies, and as a consequence have lost touch with digital developments. This makes any later catch up phase for them very difficult, and has resulted in a resigned attitude of “making do with what they have got, until it needs replacing”. Many describe their reticence as: “fear of new equipment” or “fear of learning new things”, often citing the conversion to decimal currency as an example of their disinterest. I believe that the adoption rate for digital amongst the general population can not afford to be as drawn out as were the Australian decimal currency and metric measurement conversions of 1966 and 1977 respectively. Australia needs programs to guide the process of change, particularly targeted at the ‘slow to adopt’ groups in the society. Generational differences are essential in considering how to help address the differing adoption rates and hence the assistance each age group, may need. Margaret is 62, Davie is 64 and they have been together for 30 years. But prior to being involved in this project they had moderate experience with digital technologies. They did not own a mobile phone or computer and had problems connecting and operating their TV and video recorder. They eventually became the prime movers in the community’s move to satellite gear. Dave learnt to install the equipment – mounting brackets, running cables and aligning the dish to a geo-stationery satellite, parked in space above the equator, 36,000 km away. Margaret became the expert at programming and teaching people how to use their remote controls for both set-up and alignment of the dish for signal strength and then for access to services and viewing. They physically helped many people with the installation of their systems and also guided many others with over the phone advice. They also learnt to appreciate ways in which they could improve their
own amenity, by purchasing DVD and surround sound equipment, as they now had
digital quality image and sound to enjoy. Dave freely admits he is, “a steam and
leather man” and although he has learnt many new skills during this project he now is
content to confine himself to using the technology for a single purpose – watching TV.
He and Margaret appear to have reached their new-knowledge saturation point and
have not, as yet, been inspired to investigate broadband access for Internet or
telephony, even though there are Government schemes and support to assist them (The
Higher Bandwidth Incentive Scheme - HiBIS).

In Australia, government regulation (The Television Broadcast Services (Digital
Conversion) Act, 2000) has effectively blocked and delayed the establishment of a
digital industry, by legislating in favour of High Definition TV (HDTV) as a standard
for free to air TV. This decision precludes the allocated spectrum from being used for
any other purpose, as HDTV requires the full seven-megahertz (7 Mhz) of spectrum
bandwidth, in order to broadcast in the highest resolution (1080p). In the same 7 Mhz
bandwidth it is possible to fit four Standard Definition and one data channel. This
means that an evolving culture, necessary for the widespread implementation of new
digital technologies, has not flourished throughout the population as it has, say, in
England during the same period. Australians, usually very early adopters of new
technology, have been limited in innovating and creating their digital world by the
contrived restriction on the free to air TV industry. Television holds a pre-eminent
position in Australian society as a signifier, commentator and leader in a range of
significant issues. In these areas it has not been fulfilling its role by promoting or
encouraging conversion to digital, amongst its audience. “Currently, more than 70% of
Australian digital terrestrial households are unable to receive HDTV signals”
(ABCTV, Submission to Review of HDTV Quota Arrangements, 2005).

At an industry level development is taking place below the surface and with less
restrictive legislation possible in the near future, networks and television producers
should enter the digital race with few obvious handicaps. However, the take-up in the
community has been so slow that it will take many years to re-build the lost
experience and culture that is required for any new industry. The effect on the
community of this benchmark industry being controlled and legislatively restricted in
this manner has been to create a shortfall in the population’s general awareness as to what is possible, and to restrict their involvement in and experimentation with these new mediums. It is an example of analogue thinking influencing and blocking digital consciousness from evolving. Analogue mindset is represented here by decision-makers at government or industry level who want to maintain the status quo by not providing the incentives necessary to create a new industry.

In the television industry worldwide, everything, is in doubt: the means and type of production, the jobs required, the delivery mode and even the viewing audience. But a very significant threat is that posed by new technologies to the heart of commercial television – advertising. Television station proprietors and advertising agencies have become used to extracting high profit margins from a linear approach and now are involved in the serious business of inventing new ways to maintain the same benefits. In Australia they have had unprecedented influence on policy (Four Corners, The Idiot Box, ABCTV, 2000) that has allowed them at least a further five or so more years of squeezing the life from the wellspring of an emerging industry.

The world leader in enhanced and interactive programs using digital platforms is the BBC. They have reached this pre-eminent position through positive government legislation that encourages and supports innovation. In Australia, the effective block on digital rollout has had a deleterious effect on the development of new and creative production forms.

The role of creating and experimenting with ideas for the convergent industries in this country has been taken up by State Film and Arts organizations together with the public broadcaster, ABCTV. The limited support given by government to these bodies can be seen as another form of restriction applied to this emerging industry. The Australian Film Television and Radio School’s (AFTRS) recent (2005) initiative, the Laboratory for Advanced Media Project (LAMP), demonstrates the importance of ideas and the necessity for training the industry for enhanced digital forms. Highly experienced staff with interactive media experience are conducting laboratories throughout Australia, “similar to the American Film Institute and BBC lab initiatives, which created new services that went to millions of people in the UK and USA.
LAMP is spearheading a proven development model adapted to suit the Australian emerging media landscape.” (AFTRS media release, 9/09/05)

The New Media department of ABCTV in collaboration with the Australian Film Commission (AFC) has for the past four years been supporting Australian filmmakers with a program designed to build experience and innovation in nonlinear documentary forms. Referred to as cyber documentaries they have evolved via the broadband platform into very sophisticated productions. A substantial benefit of this approach is that when launched online they are immediately available (distributed) worldwide. Further, the weighty expectation of broadcasting is also challenged, as now it is possible to narrowcast to a niche audience – all from a computer desktop.

In the commercial sector, programs such as Big Brother and Australian Idol represent the continuation of analogue linear approaches, formulaic and franchised big business. However, it is my prediction that new possibilities will arise in both content and distribution as a result of convergence spawning personal video recorders, interactive TV, pod casting, video blogs and cyber documentary forms, challenging and providing new opportunities for the Film and Television Industries, if we can only recognise them. Young people and those digitally responsive will adjust and respond to these opportunities, but the older age group will need assistance in order to play an equitable part in this industry.

Digital assisted technologies allow nonlinear access to any type of information with the flow / rate of intake or interaction for now, increasingly in the hands of the user. This power imbalance interferes with the status quo and causes enormous conflict for industries that rely on the commodification of products. While new business plans and models to suit the digital revolution are necessary, Australians are not putting the effort into experimentation, innovation and the design of socially useful services. Australia has been disserviced by over restrictive government legislation and will require rigorous programs at all levels of society to catch-up the lost years of cultural and artistic development.
Digital is potentially a democratic medium that allows free exchange of materials, between producers and a market. The prolific growth in podcasting is a great example of this ability to enable equitable access between the means of production and the consumer. Similar trends with video blogs and music sites are happening rapidly. Information and data overload are spawning search engines that can trawl the metadata and do the finding for us - and if we choose to – do it automatically and in the background while we sleep. It is encouraging to realise that the very technology that caused this oversupply can also help solve it.

Digital is an ongoing, organic and incomplete organism, that does not deserve to be stymied like a production line commodity, as we have done in the past and are continuing to do with the rapid fire development and release of new gadgets, hardware and software. This invasion of single-use electronics is occurring rapidly but eventually it will be how we use them and fashion their purpose in our lives that will slowly rein in and help determine the future. And this focus and guidance will come from a surprising source – our children. We urgently need to turn our attention in their direction and listen and learn. Anybody over 25 is likely to require remedial help in order to adjust to this unstoppable digital whirlwind of change. Being left behind is one of the most serious consequences of the digital onslaught and people who choose not to participate will become marginalised. In order to limit the on-set of digital ghettos and disenfranchisement, significant resources will need to be devoted to guiding the transition to digital – in all its manifestations. However, it will be through the daily practice of working with digital that the learning and the clear-cut development necessary for the evolvement of the medium will occur.

The participant observation examples identified here confirm that digital matters are much more than mere technologies. Digital is an aesthetic in desperate need of recognition and human engagement. Egalitarian solutions in the critical areas of education, industry and age will only be generated by the encouragement of innovation and experimentation.
4.1 Authorship

With regard to all original materials, I was the sole author. I instigated and facilitated the activities that became the focus of this research project, conducted all interviews and recorded them on camera, and as well shooting all ancillary video and still images. I edited the video images and sound using Final Cut Pro, together with associated graphics and audio software, Livetype and Soundtrack Pro.

Using Soundtrack, I composed and recorded the music used in the online documentary as well as creating and editing the sound effects required. I designed and arranged all the materials used in the website, A Satellite Solution.

I am pleased to recognise the help with Photoshop in the layout and design stage given by Associate Professor, Andi Spark and the contribution to web site programming, formatting and building, made by Mark Fallu at Griffith University’s, Research Computing Services.
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APPENDIX A

Site Map: A Satellite Solution
A Satellite Solution

HOME
Intro, welcome page
Timeline

LOCALITY
Map Maryvale / Goomburra
fly over relationship to/from Brisbane
Google Earth (Open in new window)
Video The local area 2’16”

RECEPTION
Graphic ITU scale of acceptable reception
Video Reception Difficulties 4’02”

COMMUNITY
Graphic / diagram satellite dish component parts
Video The new gear arrives 2’03”
Video Assembling and installing the dish 2’
Video Tuning in 4’48”

BENEFITS
Video Happy with satellite 6’30”
Video Able to do more 3’05”

EXPERTS
Video Expert No 1 Dave Dargie 3’20”
Video Expert No 2 Edward Jozis 6’13”
Video Expert No 3 John Edwards 4’12”

GOVERNMENT
Map Australia, fly to Canberra Google Earth (Open in new window); Document TV FUND UNIT;
Video At a local level, the people can do it 5’26”

INFO
Links Lynsat & Satcodx worldwide free to air satellite services; Government regulations DCITA and ACMA;
Glossary; align dish; equipment needed
Research JH Exegesis & paper

CONTACT
JH Email address