Creating the On-line Documentary: A Satellite Solution

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*Abstract: The online documentary, A Satellite Solution, is a case study investigation into how digital communication technologies (primarily satellite TV) have impacted the quality of life of a rural community comprising 50 households in southeast Queensland (Australia) between 1999 and 2006. The production depicts a community-mediated process by which these residents adopted and then responded to receiving free-to-air TV services for the first time. The author, instigated and facilitated the project in the community and as well, recorded and produced all the material contained in the documentary. The paper will highlight the production components of the research set against the context of this participatory activity. This online documentary is a web site containing research materials (policy documents, significant correspondence and reports) video interviews and location sequences, maps and technical information such as, how to install a satellite system, where to find free to air satellite services, what satellite broadband incentives are available etc. Importantly it also represents innovation in film and television and particularly, the researcher's selected art form, the documentary. This paper, takes a practice focus and will document the production of the web site and how this new form impacts on the production style of traditional linear productions and as well, what filmmakers working in this emerging non-linear form may need to plan for. This project formed the practical component for a recently completed research degree, Doctor of Visual Arts (Griffith), by the author.*

Keywords: On-line Documentary, Narrowcast, Non-linear, Government Regulation, Free-to-air Television

## The Research Parameters

THE ONLINE DOCUMENTARY, *A Satellite Solution*, is a web site that represents innovation in film and television and particularly, the researcher's selected art form, the documentary.

Qualitative research methods were applied to the implementation of this collaborative activity within the rural community and to its representation in both the written exegesis and in this 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.

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, either in public meeting or via representative committee, to implement new actions and agenda. This cycle of action and critical reflection continued until the final refinement to purchase and install satellite gear was decided and acted upon by the community.

So the overall project is a positive reflection of Pragmatic Action Research in so far as it represents knowledge generation through action and experimentation and was conducted using the principles of participatory democracy, as defined by this model.

These characteristics are reflected in the way the on-camera interviewees respond 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.

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 km distance from terrestrial transmitters, which 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 in 1999, to include the village of Maryvale and adjoining South Branch.

It eventually took in the adjacent valley and community of Goomburra during 2001. In total this numbered 270 households. Of these, fifty households participated in a self-help scheme of purchase and installation of satellite free-to-air equipment and are now 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.

*A Satellite Solution* 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.

## Innovative Form

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. No matter what my intentions or my values I can never claim fact or truth in my productions, only my interpretation of them.

This realisation has contributed to my choice of the documentary form as my preferred method of self-expression as a filmmaker. I choose to make programs that reflect contemporary life in an honest manner by showing the extraordinary that can result from the everyday activities of ordinary people. A simple definition of a documentary that I have found to be accurate and increasingly more applicable as the form adapts and modifies is, "it is about real people in real situations".

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. This program, the Documentary On-Line Initiative, was replaced by the Broadband Production Initiative in 2004, 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 as these new products spawned by technology defied definition and terminology. The naïve "cyberdoc" gave way to the "web documentary" and then to the current "video on demand" and / or the "online documentary". This changing nomenclature is as insistent as the converging technology it describes.

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 through this research project. 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). Now also, a viewer can peruse components of the production in whatever order they choose and therefore create their own meaning from such interaction. The non-linear investigation by a user encourages repeated visits to the site and allows a knowledge relationship to evolve, where the users are 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 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. On the other hand, the online, non-linear documentary requires a content that can be presented in separate segments of information, while still allowing the user to gather what information they need from the web site, but not necessarily have to understand the entire narrative story or even the context. Nor will they need to view them in one time frame, as with linear productions, but can access them when they choose to and re-visit the site as often as they require.

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. Although actual production costs may now not differ very much from traditional linear production costs, the publication and distribution on-line can be done very

cheaply by comparison. In future the ready access to broadcast quality cameras and editing resources at affordable costs should allow significantly more independent practitioners to become producers of product for the online world, in all its variant forms.

The filmmaker needs to be able to adjust to this new aesthetic, which in effect means, in the case of online documentary, giving up absolute control as to how a production is viewed and used. To date, it is factual or documentary genres that appear to be the most adaptable to the online mode.

Since the late 1990s in Australia, 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. 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 Australian Film Commission (AFC), encouraging and supporting independent filmmakers to produce documentaries for the broadband platform and to narrowcast to a specialist audience.

## The Scope of Non-linear Production

Non-linear productions 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.

Designing the user interface for this new form makes navigation an essential aspect, as it provides the clues that a potential user needs in order 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 the viewer makes 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, as images now have a currency that is overpowering words for literacy dominance in the online world. The interface, those screens 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 understand the layout and then select sub-categories efficiently.

Once a user has made the conscious leap to think about and explore a non-linear site the access to further layers will need to unfold seamlessly in order for them to maintain their curiosity. 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 stick around. Their attention still needs to be sought 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. It, most likely, would never be funded or made. Alternatively, the cyber documentary offers me the freedom to produce and publish online, to whoever is interested, and to innovate in a completely new form. Lev Manovich (2001) 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". It provides the opportunity for innovation and experimentation.

The concept of interaction involving the relationship between producer and viewer can be a different experience from the mostly one-way interaction of linear production styles. The majority of 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. An early Australian example of the cyber documentary style is *Homeless*. It 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,* Trevor Graham, with technological parameters that he overcame and adapted to, thereby innovating a product well suited to the on-line format and technology available to him in 2001.

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 10 seconds or more, then there is a 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 using IPTV (Internet Protocol Television), and as well, enhanced video on demand services that until very recently were not technologically possible or commercially feasible to achieve.

## Methodology

By adopting Pragmatic Action Research (Levin & Greenwood in Bradbury and Reason, 2001) I have allowed core elements of my research to obtain clear direction and rigour, while also 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 as well, 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.

At all stages of 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 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. For example, Shire Council staff and Councillors attended 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.

Through 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 gave people confidence to investigate other technological possib-

ilities 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. The resultant online documentary, *A Satellite Solution*, provides users in similar situations, anywhere in the world, with the knowledge required to create their own self-help solutions.

## Marrying Linear Production Style with Non-linear Form

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 influenced waiting as long as I reasonably could to produce the website, knowing that every day produced new advances in compression technology. Also, it 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. So when the video segments are selected, even though they were shot in the 4:3 aspect ratio, they exist within this more cinematic layout. I was conscious of designing a single use site for a user who was likely to not have above average proficiency with computers and would need to be able to access information efficiently.

At the same time I have 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. These segments, when selected and played had to fit the theme of the page they are situated on, yet also be self-contained with their own inherent meaning. In this case, the usual transitional material of the linear form was replaced by text introductory 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 could be found in pages from a website or chapters from a book, 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. This navigational interactivity allows the user access to the pre-set or linked items as determined by my design as creator of the online documentary. The eleven video clips, totalling 45 minutes, are presented in high quality mpeg4 and can be viewed in full screen mode with little apparent loss when using the flash9 plug-in with a recently updated browser.

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 extended 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 non-linear production finished: when users stop responding, or does it have an after-life of unknown longevity? On the other hand, in a linear production, when the producer hands over the master copy of the program to the client, the contract is finalised. An afterlife for online documentaries raises tantalising questions, such as – over what time frame should a research site such as *A Satellite Solution*, be maintained? And if so, what are the resource and cost implications?

## In Conclusion

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 used. Prior to the early 1990s cost was deemed an inhibiting factor, but it is apparent that technical precedent (microwave 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 on 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, including the Television Black Spot Program which legislated 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, *A Satellite Solution,* 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 creates 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 a research higher degree.

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