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THE DOCUMENTARY MIND

A DISSERTATION PRESENTED

BY

HAROLD ROBERT (BOB) HARDIE, SN: 10216078

BSc MSc

TO

THE WESTERN AUSTRALIAN ACADEMY OF PERFORMING ARTS
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
DEGREE OF

DOCTOR OF PHILOSOPHY

IN THE SUBJECT OF

A PRACTITIONER'S PERSPECTIVE ON CHANGES
IN
DOCUMENTARY CONCEPT AND PRODUCTION

EDITH COWAN UNIVERSITY

MOUNT LAWLEY, PERTH, WESTERN AUSTRALIA

SUBMITTED: MAY, 2016

Abstract

This autoethnographic study examines the influences of recent digital technology upon the practice and philosophy of documentary filmmaking. To assess the impact of new digital methodology on the film production process, *The Musicians*, a wholly-digital, 55-minute documentary film, was produced as an example. This music-based subject was chosen to specifically demonstrate the potential advantages of lightweight digital equipment and its extended recording capacity in orchestral documentation. The capability of non-linear digital editing to process large amounts of imagery, together with its ability to manage multiple image and audio streams concurrently, was also examined. This exegesis also reviews the impact of recently-emerged digital multimedia and multi-platform formats on perceptions of the more standard linear documentary format, all of which have been incorporated into a single documentary category by some researchers. For a traditional documentary such as *The Musicians* to be categorised with open-ended, multimedia constructions seems somewhat anomalous.

The complete documentary, *The Musicians*, can be seen here:
https://www.youtube.com/watch?v=mzLSbM_T4LM

Statement of Originality

I declare that the research presented here is my own work and has not been submitted to any other institution for the award of a degree.

Signed:

Date: 21st November, 2016

Foreword

In 1971, I left an academic career as a zoologist to follow a long-term interest in wildlife filmmaking, and, at the age of 30, became a full-time, independent film producer. I have pursued this career for the past 45 years. Like many independent, my production methodology has, and continues to evolve primarily as a result of practice and experience, and in response to changes in technology.

What a documentary actually *is* has been defined and re-defined since the early 1920s. For purposes of this dissertation, a **documentary** is a film or television program that provides a factual report on a particular subject. Such a product is based either on original footage collected in the course of an actual event (plane crash, major league baseball game or a stage performance), or a re-creation of an actual event (an historical era, a life story) that is factually accurate and contains no fictional elements. The critical feature that separates a documentary from, for example, a drama production, is the lack of fictional components in the former (see Nichols 1991, 2010 and sections 1.3-5 below).

Theoreticians such as Aitken (2005), Brietrose (2002), Ellis (1989), and Nichols (2010) have considered documentary classifications based on content, presentation style and production philosophy (pp. 30-34). More recently, alternative classifications have been suggested by practitioners including Herzog, *A Guide for the Perplexed: Conversations with Paul Cronin* (2014) and Moore, *Michael Moore's 13 Rules for Making Documentary Films*, (2014), and each of these has its merits and applications. But no current documentary classification has so far been universally accepted.

Since its inception, the process of filmmaking has been in a constant state of technological reinvention. This development has in turn influenced the methodology of post-production. One of the greatest advances of digital filmmaking is the relative ease with which large quantities of sound and image data can now be displayed and edited on simultaneous timelines. This, combined with the efficiency with which digital footage can be compressed

in terms of its running time, has literally transformed the process by which films are shot (data collection), refined (editing) and distributed (today, distribution is largely via the internet rather than television broadcast).

This study examines my approach to documentary filmmaking in light of the current advances enabled by digital technology; specifically image recording to digital solid-state media, and the subsequent digital processing of images by means of computer-based, non-linear editing programs. *Digital image processing* and *non-linear editing* are discussed in context. In brief, they involve the ready adjustment of image characteristics, such as colour balance, sharpness, texture and lighting effects, the extensive manipulation of image functions, including image speed (frames per second), film-clip transitions, picture-in-picture, full control of image form and movement (zoom and pan, and 3-D effects), and complete audio mixing and effects capabilities. Each of these modifications is designed expressly to enhance the experience of the viewer.

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Dedication

To the memory of my wife Gwenda,
Who, like Alice's father, could believe in
Six impossible things before breakfast.

She is the inspiration for this current research,
And for much else besides.
And, especially for *The Musicians* becoming a reality.

Gwenda Hardie née Renfree,
11th May, 1945 - 3rd April, 2002

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Those involved directly with the making of *The Musicians*

The production work was supported by many patient, talented, and helpful subjects. Some, while willing to be filmed at their very best, also accepted that things could sometimes go wrong; and occasionally they did!

To all of you, my sincere thanks.

Bob

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Jessica Gethin and Bourby Webster

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Chris Dragon, young conductor extraordinaire

Roberto Abate, who represents aspiring performers everywhere

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The research question and related matters

This thesis presents a reflexive study of aspects of contemporary documentary making from a practitioner's perspective, with particular reference to (a) the impact of changing technology on methodology, and (b) how such changes may have altered our perceptions of what a documentary is.

The research question to be thus addressed is:

Given the changes in the film industry over the past 45 years from film to videotape, then most recently from videotape to digital technology, to what extent have these changes had an impact on the ways in which films are now made, and how have they influenced the practitioner's view of the nature of documentaries as a program category?

Summaries of relevant events in documentary history inform insights gathered in the process of one filmmaker working within an often-complex and changing creative environment.

As an example of a film made entirely using digital production software (*Adobe Premier Pro CC*), and digital camera and audio equipment, a 55-minute documentary, titled *The Musicians*, was assembled as a creative element for this exegesis. As such, *The Musicians* is simply a practical outcome of the process of trialling the digital production tools mentioned here. The purpose of the film is film is an example to be watched by an audience; it is not for forensic analysis.

The subject of a film to assess the function of software and hardware is largely irrelevant in that many other examples could equally as well have served the purpose. However, because I had already made several performance based programs, I was aware of the demands that such subjects place on collecting and handling large amounts of data.

Part 1

Methodology and background

Part 1 provides an overview of subjects that at first sight may appear unrelated to each other but which have direct relevance to this project. Topics include the rationale for adopting autoethnography as my preferred research approach, and the influence of recent digital technology advances on reinventing documentary production.

1.1 Autoethnography

The first 15 or so years of my 45-year filmmaking career were almost entirely devoted to documenting Australian wildlife. Because this particular style of production requires the filmmaker to have a highly adaptive technique, my resulting methodology is specialized and individualistic. Wildlife filmmaking also tends to be carried out in relatively isolated environments. As a consequence, my early years of production were, by both choice and necessity, spent working alone. As the technology of filmmaking has evolved, slowly at first then at an increasing pace as digital technology continues to transform the entire film industry, have been literally forced to adapt to new technology more extensively than required previously in the change from film-based production to a tape-based production. Digital editing requires the filmmaker to master the completely new methodology associated with the recording of imagery and sound on a solid-state medium. As a consequence, my production techniques are constantly being reinvented and refined according to the specific demands of the current project, and the advantages offered by new technology. Further, these adaptations are free from the constraints of any particular formula or style of production. One advantage of this situation for me as a solo filmmaker is that, in the absence of a production crew or consulting network, the success or failure of my work rests on my own shoulders. Working as a one-stop-shop also simplifies my engagement with the often-complex and long-running subjects that tend to characterise my filmmaking, where a film crew would present a hindrance rather than a help; for example, waiting for several days for the birth of a litter of tiger

cubs, then filming the growth of these cubs over the following year. In such cases, it would be impractical to financially maintain even a basic camera crew of two to three personal for the duration of the project.

There are two main schools of thought about the kind of relationship a documentary maker has with the subjects of his or her films. The first of these, such as those who shoot for the press or magazine stories, simply get what footage they need and leave the scene; there is no long-term commitment to a particular film project. The second school of thought to documentary filmmaking is however perhaps best represented by those making ethnologically-based films. Here, such tend to become more fully immersed in the subject and its associations as a means of understanding their subject more thoroughly. I am of this second school of approach, and spend an average of three to four years working on a given subject in order to represent it as completely as possible. The extent to which this association with a subject can develop is related both to the nature of the filmmaker's approach to his or her craft, and the nature of the subject. Such extended interrelationships between filmmaker and subject can also render maintaining impartiality and objectivity difficult, which is something that the filmmaker needs to be constantly aware of. The true test of a filmmaker's impartiality lies in a film's post-production, when all aspects of the experience of documenting the material must be marshalled and assessed. This is also the time when, to create a film that truly represents its subject, objectivity and subjectivity must be considered and balanced against each other, together with the implications of the filmmaker's own thinking on the subject. The film at the end of the process is as revealing of the filmmaker as it is of the subject and in many ways, despite the filmmaker's awareness of the risks of seeing their subject in an idiosyncratic manner, a documentary film becomes a personal perspective.

A formal research framework is not designed to accommodate investigative processes based on this order of personal experience, so I have spent some time reviewing alternative avenues of presentation. The approach that appears to best represent the work undertaken analysing the course of documentary production is an autoethnographic one. To quote an overview paper by Ellis, Adams and Bochner: "Autoethnography is an approach to research and writing that seeks to describe and

systematically analyse personal experience in order to understand cultural experience. A researcher uses tenets of autobiography and ethnography to do and write autoethnography. Thus, as a method, autoethnography is both process and product.” (Ellis, Adams & Bochner, 2011, p. 1). Stated in this way, the autoethnographic process answers the presentational difficulties originally anticipated in this current work, in that it recognizes a methodology that can describe the relevance of personal experience as *bone fide* research.

I originally studied science to qualify in zoology and animal behaviour. In this field, however, as in other scientific disciplines, academic conventions and the formalized language of science effectively form a barrier to communication with the wider community. This was not what I anticipated when I undertook my original course of study, or when I moved into my subsequent teaching positions. My relocation from academic science to independent wildlife filmmaking allowed me to offer the more precise thinking of a science-based education to a broader audience, which was one of my original purposes for studying the discipline of zoology in the first place. Autoethnography permits a level of communicative freedom, especially when dealing with subjects such as film production which has a less-formalized structure. Autoethnography may be defined as an approach to research and writing that seeks to describe and systematically analyse (*graphy*) personal experience (*auto*) in order to understand cultural experience (*ethno*) (Ellis, 2004; Holman Jones, 2005). An autoethnographic approach explicitly draws more upon subjective, personal interpretations and experiences than abstract theory. My own experience as a filmmaker, which is fairly typical of industry practice, therefore allows me to produce a highly informed yet subjective conclusion regarding the value of various approaches and processes in documentary production. Because of this personal experiential perspective, I have adopted the following autoethnographic approach to discussing the context of my life as a filmmaker, conceptualizing and relating this to the filmmaking industry at large. According to Steven Pace and others, analytic autoethnography has gained increasing acceptance as a research tool in the performing and expressive arts (Pace, 2012). Given that documentary production can be seen as a realization of personal vision (Bochner, 2000; Pace, 2012), the qualitative nature of the autoethnographic process seems ideally suited to reflect upon my own particular, more solitary approach to documentary making as an art form, and assists in

determining how my experience integrates within filmmaking in general. This is given additional credence by researchers such as Reed-Danahay, who argues that autoethnography is a genre of writing and research that connects the personal to the cultural, placing the self within a social context (Reed-Danahay, 1997). In their discussion of the role of creative practice, Hazel Smith and Roger T. Dean argue strongly for the greater recognition of practice-led research in the creative arts, and for this to be given co-equal ranking with research-led practice outcomes (Smith & Dean, 2009, esp. p. 26, and pp. 153-165).

A subjective perspective upon what constitutes documentary filmmaking and the ultimate impact of this view upon the accuracy with which a subject is represented in a final product are, or at least should be, of concern to all documentary makers. It has been suggested that subjectivity is an inescapable element of documentary production, especially those documentaries that are presented in the first person (Lebow, 2012). It is also argued that subjectivity is more likely to be manifest in a smaller production entity than in a larger one with more widely dispersed creative influences. The term ‘creative’ as used in this discussion refers to the manipulation of selected shots without altering their factual content (as opposed to altering aspects of the context within which the shots are presented). On the other hand, the term ‘creativity’ is used among some writers to refer to the process whereby fictional content is added to the storyline to emphasize aspects of the film. While this may be so under some circumstances, I argue that, regardless of whether a documentary or feature film is created by a crew of one or one thousand, the principal creative decisions still rest with the director of the film, or with the combination of director, writer and editor. In addition, even relatively uncomplicated film productions such as my own have specific limitations in terms of what constitutes possible critical input. This can be from the film’s subjects (especially in interview content), from other who may be consulted to vet cut sequences, from network programmers, and from the opinions of network acquisition editors. These, together with other circumstances that impinge on the autonomous subjectivity of the *auteur*, will be discussed in context (for example, see p. 44, and Section 2.4, pp: 45 & 46). Notwithstanding these restrictions subjectivity, and the accuracy of subject representation in documentaries is a key interest of this study and will be examined as an outcome of production processes and protocols.

1.2 Some filmmaking conventions

The use of the term ‘filmmaking’ is now something of an anachronism. Today, analogue (or sprocketed) film is almost exclusively used in the initial shooting of high-end feature films and commercials and, even there, this technology has been largely replaced by solid-state digital cameras recording on solid-state media. The use of the term ‘film’ persists within its own industry, however, partly as a resistance of its practitioners to the use of the term ‘video’ or ‘solid-state’ or even HD and UHD (High Definition and Ultra High Definition), which imply none of the status, history or background of the golden age of the film studio industry that is traditionally based in Hollywood. The terms ‘filmmaker’ and ‘filmmaking’ are therefore used throughout this work to denote the practitioner and the process of making movies without distinguishing between the nature or genre of the cinematic creation authored (non-fictional or documentary films, fictional or feature films), nor the exact media used (filmic emulsion, analogue video or digital solid-state recording). As it stands, many of the characteristics of the filmmaking process have become common to both fictional and non-fictional approaches, as well as to other media.

The creative processes of filmmaking encompass the exploration, analysis and recording, manipulation/editing, and dissemination of both non-fictional and fictional elements, and the subject content can include both real occurrences and creative sequences. While filmmaking differs from other creative aspects of storytelling in that it is based on immediately accessible images that are in motion, it does have a great deal in common with the written word. Like writing, filmed and electronically-stored images are durable and do not of themselves alter in time. The traditional linear documentary or feature film can be experienced repeatedly, and the narrative is open to varying degrees of interpretation. For the filmmaker, the medium offers a highly flexible mode of storytelling that can be manipulated and reconstructed to achieve the desired result and address the audience as intended. In its most basic form, an audience is an assembled group of listeners or spectators. In this specific case, any visual material generated by this project will be not be released for television

broadcast unless requested by a broadcaster. Rather *The Musicians* is to be offered online. As such, the intended audience is interested laypeople.

From my viewpoint as a filmmaker, the most compelling aspect of filmmaking, even given that the physical processes involved are common to most productions, is that each new film project offers a new creative experience by virtue of the specific treatment demanded by each new subject. The film production industry as a whole is highly flexible in terms of its modes of subject treatment; it is also receptive to the almost constant development of new methods used to generate entertainment using sound and imagery. As a result of the relatively recent adoption of non-linear digital editing systems, imagery can be manipulated in a single, contained multi-layered screen environment, and any of the layers can be further modified within that environment according to the preferences of the filmmaker and the demands of the specific film subject. The term “non-linear” refers specifically to the virtual nature of the computer-generated editing platform. When editing actual celluloid-based (linear) film stock, the tangible filmstrip can be physically handled, and must be physically adjusted to add or delete any portion of the imagery. A non-linear, computer-based image has only virtual reality, and no tangible form beyond the screens on which it is displayed, and the electronic components that make the display possible.

Despite the mystique that is often associated with filmmaking, once the basic processes of conceptualization and organization of subject matter (pre-production), acquisition of sound and images (production) and final structuring via editing for delivery and dissemination (post-production) are understood, their applications can engage any subject or creative situation.

The limits that do exist in the filmmaking process are chiefly related to economies of scale. The more extensive and complex the production, the greater the number of specialist operators required to complete it and, consequently, the greater the production budget. Inevitably, this financial responsibility has an impact the production decisions that rest with those in charge, namely the producer and the director. There are instances, however, in which directorial influence is so profound

that the creative outcome can be clearly recognised as the work of a particular director. Such a director may be then classified as an *auteur*.

1.3 The place of the *auteur*

The term ‘auteur’ (literally French for ‘author’) is traditionally associated with feature films. However, given the highly individualistic content of documentaries as a genre, it seems reasonable to also apply the term here where appropriate. A generalized definition of ‘auteur’, as implicated in ‘auteur theory’, is distilled from a 1954 article by French director Francois Truffaut (Truffaut 1954 unpag.). According to Truffaut, an auteur leaves his or her indelible stylistic stamp on a film in the form of specific creative conventions. As a rule, the individual auteur’s production style is so distinctive that it is readily recognizable as part of that filmmaker’s creative repertoire. Notable auteurs include feature directors such Alfred Hitchcock, Jean Renoir and Jacques Tati. From my observation of their work, more contemporary such as Ridley Scott, Martin Scorsese, Quentin Tarantino and Michael Haneke imbue their filmmaking with the same degree of individualism and the auteur title could be justifiably conferred up them. Contemporary documentary makers who also deserve recognition as leading *auteurs* include Errol Morris (*Thin Blue Line*, 1988), Luc Jacquet (*March of the Penguins*, 2005), Alex Gibne (*Taxi to the Dark Side*, 2007), and Michael Apted (*Up*, 2012).

It is interesting that the term auteur is often considered to be a theoretical construct. If the actual application of the term is examined, however, auteur refers to the way in which film material is approached by specific , or, as suggested by J. Dudley Andrew, auteur is not a theory at all, but a form of critical method (Andrew, 1993, pp. 77-85). One reason for such special recognition of with a consistently strong creative style is that they are instrumental in inspiring other to search for individual means of expression, and in generally extending the boundaries of production originality.

As an independent filmmaker, I am very aware of the need to remain competitive in terms of the quality of my work and its application to the current

market. Equally, if not more importantly, as a matter of course I examine the work of others for techniques that may improve my own productions and increase the satisfaction I feel in my work as a filmmaker. In looking up to our respective creative mentors, I and other documentary makers may fail to see creative value in our own work until it is pointed out by others. My first two television series won a number of awards both in Australia and overseas, which was most encouraging. While such awards may represent the recognition of both peers and the viewing public, they do not obviate or substitute the personal desire to achieve excellence that remains the driving force behind the satisfaction of realising creative goals.

The powerful assemblage of production tools available to modern was not available to directors such as Hitchcock in the 1960s and 70s. In comparison with the post-production effects of even fifteen years ago, what can achieve today in terms of creating the maximum impact for their vision appears almost magical. While the higher end of this technology is beyond the reach of most independent documentary makers, there are versions of it that are affordable. These include compact Ultra High Definition cameras and lenses, flying camera platforms such as Lily (Lily Robotics, 2015) and a number of remote drones which can provide a filmmaker with a creative edge and individuality. Given this, it would be a retrograde step to lose sight of the ingenuity and workmanship of the early whose screen creations remain incontestably inventive and captivating. This realization in turn should cause contemporary to be very aware of the importance of developing their creative individuality and integrity as a matter of both artistic expression and economic survival. That said, the continual improvement to recording equipment tends to direct the thinking of many documentary makers as to how the latest technology might improve the outcome of their current or future productions. These technical issues are significant because, in documentary filmmaking, production style is at least partly determined by limitations imposed by the equipment available—especially considering the often-minimal budgets available for documentary films and the fact that their production methodology is often necessarily *ad hoc*. In my own experience, independent documentary makers often work on a solitary basis and, in the absence of a supporting film crew, were formerly required to carry large, heavy camera equipment, which until recently they have had to use in the absence of alternatives. As digitally-based production equipment becomes more compact, lighter

and cheaper, it is more financially accessible than in the past. Cheaper equipment allows documentary to be more flexible, more creative in terms of what they can achieve, and more competitive in terms of the cost of their finished product.

1.4 Image-capture reinvented

The development of lighter and cheaper filmmaking equipment and the associated improvement in image quality have wrought significant changes in every aspect of the filmmaking process over the past 30 years. Until the mid-1980s, most broadcast documentaries were shot using 16 mm film cameras. A complete camera kit was heavy and was difficult to relocate quickly. An Arriflex 16 BL blimped ¹ camera kit consisted of the camera and a lens, four spare film magazines, four batteries, a charger, 10 or so 100-foot (10-minute) rolls of film, extra lenses, sound recording equipment, and miscellaneous ancillary pieces, all housed in padded, aluminium transport cases. The camera alone weighed 7.8 kilos (17.3 pounds), and the entire kit weighed close to 45 kilos (over 100 pounds). For a solo operator, this kit was barely manageable.

Reducing the weight of filmmaking equipment to increase its mobility became a priority as demands for sophisticated tracking imagery and new film effects increased. To improve the mobility of hand-held 35 and 16mm film cameras (as opposed to those that were tripod mounted or on a crane or tracks), an American cinematographer, Garret Brown, developed the Steadicam camera stabilizer, which was launched in 1975. The earliest Steadicam rig with a camera and monitor was still very bulky and heavy, weighing between 35 and 45 kg (80 and 100 pounds) depending on its configuration. Even a strong and experienced operator could support the complete rig for only minutes at a time. The impact of a smooth camera shot up a flight of stairs, or through a city street, however, justified the Steadicam's extra weight to feature. The commercial success of the first Steadicam stabilizer spearheaded a concerted effort to build increasingly lighter filming equipment. The proliferation of stabilizing rigs from other manufacturers, coupled with the dramatic

¹ A blimped camera has an additional external housing to minimize camera noise being recorded on an audio track.

decrease in the weight of cameras and the development of digital media storage, saw the appearance of a smaller but equally efficient version of the Steadicam unit, the Merlin, which was available to independent for around \$350. The current Merlin supports a maximum weight of about 5 kg and allows a camera operator to hand-hold a small, solid-state camera all day if necessary.

An average fully digital production kit used by such as myself consisting of one key UHD-capable (Ultra High Definition) camera, two to four smaller GoPro-type HD or UHD cameras, a professional audio recorder and two carbon-fibre tripods plus extra batteries and camera clamps fits easily in a medium-sized backpack. To document wildlife in the field, or an orchestral rehearsal or a concert hall performance is no longer a major physical or logistical undertaking. A fist-sized, professional solid-state film camera with a super 35mm sensor costs less than \$3,000 AUD and is capable of recording broadcast-quality 4K UHD imagery; this technology also effectively future-proofs digital film footage for the foreseeable future.

The significance of these changes cannot be overstated in terms of their ultimate effects on the film industry as a whole, but especially in determining the fate of many independent filmmaker. The downside of the now-constant development of new equipment means that small-scale such as myself need to be very canny with our budgeting. A potential though less direct influence of the new filmmaking equipment is its impact upon on techniques such as *cinéma vérité* and living camera.

1.4 Production costs and speculative filmmaking

A side issue of the development of more portable camera equipment that deserves brief mention here is its influence on the making of self-funded films.

The economic risks associated with making a speculative or non-contracted film, which means that the filmmaker pays all the bills until the film is sold, have been significantly reduced by the relatively low cost of digital cameras and audio equipment, and solid-state recording media. In addition, the capabilities of modern cameras, coupled with the high data capacity of solid-state cards and disks, has

broadened the range of potential film subjects by allowing to work at a distance from a plug-in power source for long periods. Because of their greatly reduced cost and small size, solid-state media cards also allow to use higher shooting ratios; costs of film stock, processing, videotape or tape transfers have all been negated. While filmmaking is a creative endeavour, the costs of running any business still apply, and cost efficiency is a significant factor in any production.

1.5 The changing significance of shooting ratios

One considerable cost related to producing movies on film stock or videotape revolved around the *shooting ratio* and the associated budgets for film stock, film processing, work print, videotape transfers, and the time taken to actually edit the resulting imagery. A shooting ratio is usually expressed as the timed duration of shots taken of a given subject measured against the duration of the final shot that was used. For example, if 100 feet of film, or 100 seconds of running time, was shot for a 10 second final scene, the shooting ratio would 10:1. Film footage running at the PAL standard of 25 frames per second is 1 foot per second. 10:1 was a fairly standard shooting ratio for most documentary makers, though mine was much lower at 5:1. The exception was footage that I shot for the ABC/BBC series *The Nature of Australia*, which was contractually required to be shot at 25:1, supposedly to provide the film editor with a greater choice of shots.

Using today's solid-state technology incorporating a fully-optioned computer and a non-linear editing system, the cost of recording stock is now minimal, there are no processing costs as such, and the footage can be transferred from a solid-state card to a hard drive in minutes rather than hours, then examined and edited in a small fraction of the time that would be required to do the job on film or tape. When mechanical editing devices (film flatbeds and video editing systems) were the only means of editing available, higher shooting ratios also meant a longer time taken in transferring and editing media, often using rented facilities with support personnel and, consequently, a much higher cost. With the advent of digital media, however, this potential problem has been largely negated by the data handling capacity of

modern computers and the efficiency of non-linear editing systems. Non-linear editing is discussed further in Section 3. The ready availability of HD capable devices such as smartphones, electronic tablets, and lightweight cameras has generated a previously unseen level of competition in the online marketplace. One result is that the distinction between professional filmmaking and the non-professional movie product now flooding social media is becoming increasingly blurred. Program channels such as *YouTube* have taken advantage of this by offering a financially viable outlet for the monetization of amateur productions. So, where does this leave the professional documentary maker?

1.6 The death of the documentary?

I do not intend to argue the case relating to interactive and non-interactive documentaries here in the detail that it deserves, but I do wish to acknowledge the growing interest in multi-platform filmmaking and to recognise the confusion arising from the use of the term ‘documentary’ as it is being applied in the literature to multi-platform, non-linear media constructions.

The flexible digital protocols that makes non-linear work-flows so creatively efficient have also provided the potential for developing conceptually new filmmaking products, culminating in a new branch of filmmaking that is termed ‘interactive production’. Also referred to as ‘multi-platform’ or ‘cross-platform’ documentaries, these new storytelling strategies are user-influenced, allowing participants to engage in their personally preferred choice of narrative direction (Gaundenzi, 2009). In effect, a user who initiates a multi-platform documentary journey can combine story elements from a range of media resources to arrive at any one of a number of conclusions, none of which is theoretically right or wrong. Interactive productions are non-linear in the way that digital editing systems are, with a number of built-in options that can be selected by the user as required. Just as non-linear editing, which is further discussed in Part 3, allows a film to be assembled in any order that can be altered as desired, cross-platform and multi-platform devices have no fixed or determined outcome. As a documentary maker, my immediate response to using the term ‘documentary’ to define interactive filmmaking is to argue

that, because the format and content of an ‘interactive documentary’ can be altered, then it is not a documentary as we have come to understand the term. Rather than becoming embroiled in a semantics exercise, however, it is worth examining the forerunner of the interactive format, and what separates an interactive, non-linear format from the linear format that we understand as the referent of the original term ‘documentary’.

In brief, many of the structural limitations that apply to traditional, linear documentaries do not apply to multi-platform, non-linear constructions. As Arnau Gifreu-Castells explains in his 2011 paper on the distinction between linear and interactive documentaries, the interactivity of a non-linear documentary is basically limited to the controls of the device on which the documentary is stored and is being played, whereas an interactive multi-platform requires a decision to be made on the part of the viewer for the program to advance. This distinction is supported in an i-Docs paper (Aston, 2016) and the work of producer Nuno Bernardo, who details ways in which transmedia functions in his book *A Producer’s Guide to Transmedia* (Bernardo, 2011). These commentators imply that the ultimate future of multi-platform production is still uncertain, which hardly encourages a documentary practitioner such as myself to become involved in this new field, when the future of traditional documentaries is still so positive. At the same time, the experience of the generation of bankrupt who invested in film at the cusp of the digital era, continues to haunt those who hold fast to the established ways of doing things. According to online forums for media professionals, such as iDocs, the terms ‘interactive’ and ‘cross-platform storytelling’, are included under the blanket category of documentary. Several of the iDoc forums communicate the overall message that the traditional documentary format may be ultimately submerged by the evolution of convergence culture. Forum participants, including Margarete Jangard and Frédéric Dubois, have raised issues such as what happens when industry meets interactive documentary (Linington et al, 2015)? This reflects the potential outcomes raised by Henry Jenkins in his discussions of convergence (Jenkins, 2006), and in considering various ways of defining and handling this challenge (Jenkins, Ford & Green, 2013).

A feature of the proliferation of new technology-inspired production techniques is a belief among some proponents that the current form of broadcast

documentaries has a limited life (Zimmerman, 2012). Now branded as ‘traditional linear documentaries’, the films that I and others continue to make are viewed by some contemporaries as too static and old-school. New-wave thinking implies that the current long-form documentary may be replaced by productions that are completely computer-based, presenting a fluid interface rather than the present fixed image of traditional documentaries. This dissertation cannot accommodate a full discussion of the total consequences of digital, online production, but from a practitioner’s viewpoint, there are differences between interactive, web-based programming and traditional documentaries that seem too irreconcilable for the two formats to be grouped together. Many documentary films have common ground; they are basically finite, linear, explanatory or investigative journeys; for example *The Boy Who Can’t Forget* (Barnaby Peel, 2012), and *The Man with the Seven Second Memory* (Jane Treays, 2005). This sets them apart from open ended and largely exploratory, non-linear, interactive programs. A traditional documentary typically has a beginning, middle and end, and is limited by its set running time, usually 30, 60 or 90 minutes for non-commercial airplay; extended series of programs usually comprising 6 or 12 episodes. Whereas the data gathered for the creative product of my research, the documentary *The Musicians*, has the potential to run for many hours, its primary purpose is to present an encapsulated, linear summary of young people engaging with music as a career. In its 55-minute running time, the film therefore provides examples that ultimately build up a picture of the lives of these young musicians during their time learning the skills required for them to become professional players.

The interactive web project titled *Waterlife* (not to be confused with the Kevin McMahon 2009 100-minute documentary of the same name), devised by the National Film Board of Canada and based on the interconnectivity of hypertext, is an example of a multi choice-style production which draws upon a broad data base of information and possible combinations to express. Unlike *multi-platform* devices, *Waterlife* presents the viewer with hundreds of multi-choice selections from the same database that can be film clips, graphics, or animations, all of which are contained within the structural boundary of its program, which in turn can be downloaded in its entirety to another computer. Each selection which the user makes adds information to the story of the Great Lakes System and its vital revoir of fresh water that *Waterlife* is designed to tell. Whereas *Waterlife* is interactive, multi choice, and non-linear in

that its visual continuity can be altered and rearranged, it would appear to belong to the growing category of interactive product. *Waterlife* is, however, restricted in one important detail. Its extent is confined by the limits of the data contained within its original program, whereas interactive multi-platform documentaries can access other, external resources, such as printed books.

Waterlife explores its topic in a form well beyond that possible for a linear documentary, offering its audience the opportunity to make literally hundreds of choices to extract a meaningful story-line. Its potential as a learning/information experience is almost overwhelming. From a filmmaker's viewpoint, *Waterlife* is beyond impressive, differentiated from designated cross-media and multi-platform documentaries in the nature of its choices, which are variations on static and animated graphics, and in that it is effectively self-contained within a single multi-choice unit. On the other hand, transmedia storytelling is a method of telling a single story across multiple digital platforms, and can include formats as diverse as television, cinema, and games. This technique provides the participant with a number of choices, each of which can alter the direction of the flow of a story to the extent of producing multiple, different story outcomes (see Bernardo, 2011). *Star Wars*, *Star Trek*, *The Matrix*, *The Blair Witch Project* and *Avatar* are well-known examples of titles that have developed from a single format, such as a film, then expanded to other formats. This interactive technology is so new that there are no firm rules; can literally do anything and see if it works (Aston, 2011). *Cross-media* and *transmedia* refer to different ways in which the subject is utilized. *Cross-media* uses many different media channels to tell one story, while *transmedia* tells many stories by using one medium.

With regard to documentary classification, as the situation currently stands, it is doubtful that any of existing documentary classification system can successfully delineate the sum total of the seemingly infinite number of documentaries and documentary-like products being generated by an increasing number of , amateur and professional. Even given its flexibility, a system as versatile as Nichols' six-part classification protocol (Nichols, 2010) would be required to broaden its category qualification parameters to incorporate the diversity of emerging vision-based product. See Part 1:15, p. 30 onwards for an explanation of Nichols' documentary classification system.

My personal approach to documentary making is an exploratory, self-directing one, and, as such, its outcomes are sometimes unpredictable. This production methodology and documentary approach requires a degree of flexibility that a more typical, defined investigative strategy cannot currently provide, in that any of my films may be beyond the boundaries of any specified documentary category. The same might apply to any independent documentary maker who does not follow any particular system of categorizing the film he or she makes except within a broad, general definition of the term “documentary” (see foreword of exegesis above for details). It would appear that, especially for the new practitioner who works in the expanding field of interactive technology, a more generalized working definition of a filmmaking format that goes beyond that of a documentary is required. To establish such a definition would necessitate thorough investigation of the potential outcomes of the adoption of convergence by new directions in filmmaking, which, I would contend, are currently best described as a form of cross-media or multimedia storytelling, rather than documentary. The notion is somewhat comparable to the idea of convergence culture, which Henry Jenkins (2006) describes as a mapping of new culture *where old and new media collide*. Convergence involves multiple media platforms, which is contrary to a standard documentary format (for previous definition, see p. iii above). Further, Zimmerman cautions that the technologies involved in digital storytelling are susceptible to change and for the moment, tend to be unstable (Zimmerman, 2012).

In summary, questions that arise in relation to digital technology and its application to filmmaking are comprised of both old and new elements. Given the emerging trend towards multi-strand production, is there a changing purpose for documentaries, or do multimedia and transmedia product constitute a new direction to which the term ‘documentary’ may not apply at all? Given the potential of multi-platform production, how are suitably receptive audiences defined? How closely does immersive production adhere to the events it portrays? This issue raises questions about the use of a term that is yet to be uniformly accepted. The outcomes of so-called interactive documentaries have a closer affinity to video games than representations of the real world; this new format could therefore appeal to younger users.

Considering the changes in production direction indicated for transmedia storytelling, it seems probable that traditional documentaries, alternatively referred to as linear or fixed documentaries will continue to be produced as a means for the discrete presentation of real events. The question remains, should interactive storytelling works be included as a valid category within the definition of documentary as it currently stands? Without a much greater understanding of the ultimate potential and purpose of the interactive platform, are we complicating and confusing issues about which there is a lack of clear and consistent agreement? In terms of reporting real life events, what outcomes (as opposed to differences in process) do interactive documentaries offer that the traditional linear documentary format lacks?

Bearing these questions in mind, as a means of testing the range of potential advantages offered by recent digital production technology, I proposed to make a traditional documentary titled *The Musicians* as the creative element of this current research project.

1.7 The emergence of *The Musicians*, including some additional notes on method

In order to have access to a wide range of filming possibilities, *The Musicians* was to be based largely on the rehearsals and, though to a lesser extent, performances of several non-professional music groups, including the West Australian Youth Orchestra (WAYO) and the Metropolitan Symphony Orchestra (MetSO), both based in Perth, WA. The resulting documentary was edited using Adobe's Premier Pro CC non-linear editing program, which is capable of managing multi-camera data concurrently. The original filming strategy was designed to be as unobtrusive as possible, and required no elaborate set-ups, additional lighting, or production personnel. Because I intended to cover the work of other related groups, including The Western Australian Academy of Performing Arts (WAAPA), the Faith Court Orchestra, several other WAAPA productions, and at least two additional Perth-based orchestras, it was important to be able to assess the relative value of footage as filming progressed. In effect, the progress of filming was determined by footage

gathered in the previous two or three filming session. There was no prior scripting of sequences, and no requests were made of any members of the orchestras being documented in terms of special arrangements or deviations from their standard routine other than the opportunity to interview key personnel.

Taking into consideration the necessity for a solo operator to be as mobile as possible, filming equipment would preferably be lightweight and easily operated, yet capable of delivering broadcast-quality High Definition results. The entire image-capture process took place in real time, and as no retakes were possible, and elements of the filming process had to be so technically fluid as to be literally automatic. There would be little time available during filming to think about ultimate film structure, and this constraint required footage to be collected from up to four angles concurrently. Accordingly, several static cameras were set up around the orchestra and left to record for entire rehearsal periods. Each rehearsal averaged three hours in duration, which resulted in collecting up to eighteen hours of footage per rehearsal, using up to six cameras concurrently. The entire production process was carried out by myself as a solo operator, with two exceptions; the filming of the Tchaikovsky *Symphony No: 5* and the Beethoven *Symphony No: 9*, in which I instructed an additional camera operator to frame general shots being recorded by one of the side cameras. This production was my first attempt to shoot complex action with as many as six cameras in a single set-up. The success of this process relied on setting and locking the main camera functions of aperture, follow-focus and colour balance, relying on the automatic operations of each camera. This was certainly not my preferred option, but it worked well enough to achieve the extra coverage of performances that I was hoping for. The only real disadvantage I faced during filming was in using whatever makes and models of cameras were available at the time from the ECU camera store. As most of these recording units were unfamiliar to me, I experienced a succession of steep, on-the-job learning curves. Unfortunately, several of these cameras also had focus problems which were only evident in the shot footage. These cheaper cameras also had limited contrast handling ability, which sometime created problems in handling the range of lighting conditions that I encountered.

Once recorded on a solid-state card, digital images were transferred to external hard drives for storage and editing. In total, some thirty-six terabytes of high definition data were stored on fifteen external hard drives. While I had previous experience with fully digital production, this was 10 years in the past when digital editing platforms were in their infancy. Therefore, I was not prepared for the many technical advances of the latest digital software with which I was faced for the first time. For example, the speed at which current data transfers could be effected, and the processing power conferred to my desktop 27-inch Apple iMac optioned with 32 GB of RAM. For ease of use, I exchanged a traditional computer mouse for the 16-inch Wacom tablet and pen that I was accustomed to.

The process of compiling a fifty-five minute commercial documentary using digital technology shares common ground with both film and tape. Traditionally, after being transferred to a working medium, images are initially reviewed by the editor and director. In the editing suite, the images and sound tracks undergo refinement in terms of structural composition, colour balancing, sound editing, and so on. Editing via solid-state media on a digital platform is, however, much faster than originating on film or tape, and because of its flexibility, the solid-state medium permits greater creative potential by engaging the extensive digital effects now built into editing systems. These effects include a full range of colour grading and other image manipulation, 3-D transition effects, instant synchronised incorporation of multi-camera images and sound on a single screen to name just a few. An editor working in a solid-state environment and using a suitably-optioned computer is theoretically able to access up to 99 video and audio tracks at any time, though it is more common to work with only four to six tracks in a multi-track edit.

The added creative potential of digital filmmaking is its capacity to dramatically alter almost every aspect of imagery, which challenged my usual commitment to authenticity and accuracy in documentary making. Regardless of its path from the real world to the cinema, or television, or computer screen, and regardless of whether it is viewed as old school or not, a completed documentary generates an experience for audiences that they otherwise would not have had. In general, the audience has no idea whether this experience is an accurate record of an actual event or totally fictitious, and places reliance and trust in the filmmaker to

deliver a *bona fide* experience of some kind; or at least, one that is believable. The significance I attach to film accuracy in making a documentary is discussed later in this work.

One negative aspect of working with and storing digital media is the potential for catastrophic loss of data as a result of electronics failure. In the course of editing *The Musicians*, a hub connecting four external hard drives to my editing computer shorted out effectively destroying the hard drives and the data on them. The obvious, failsafe method to avoid such loss is to back up all data on additional external drives, which would usually be part of my standard editing procedure. In this instance, however, the budget was not available to purchase additional hard drives to back up all the image information and, as I had never before experienced a hard drive failure, I had taken this risk. The lesson from this is not to take risks with original imagery, and beware of under budgeting, which was the case with this basically self-funded research-driven production. As a result of the accidental loss of data, an extensive re-work was necessary to reconstruct a number of previously completed sequences. This required a great deal of extra time. It is interesting to note that the recut sequences were in some ways significantly different from the originals.

1:8 A note on references used in this work

As a matter of course throughout this study, partly because I have moved from place to place for various reasons, and partly because I prefer to have my own copies of seminal literature, I have purchased and downloaded books from sources such as Amazon and Kindle. As others who do this will discover, ‘electronic’ books often have *locations* rather than page numbers. This is presumably because the digital reading devices now available do not all display pages in the same way. Where possible, page numbers will be provided for specific quoted references. Where it is not possible, locations will alternatively be provided.

1.9 Suicidal lemmings

The place: a Sydney cinema in 1958 where, at 17, I watched *White Wilderness*, a Disney documentary about Arctic wildlife. On the screen, a group of

lemmings, described by the narrator as “nasty little rodents”, tumble down a steep slope then off a cliff into the Arctic Sea. The commentary tells us that these animals are on a migratory path and committing mass suicide by marching into the ocean.

The lemming sequence was a hoax, set up and controlled by the film crew to add an element of heightened excitement to the film. For this event to have actually happened as part of normal lemming behaviour is as unlikely as the notion that lemmings fall from the sky during thunderstorms (Zeigler, 1530).² Lemmings do not commit mass suicide (Stenseth, 1998; Woodford, 2003; and others)³, and the Disney sequence was ultimately branded an act of animal cruelty. Thus, one sequence in one documentary created an apocryphal story about the behaviour of lemmings. This issue raises the question of legitimacy. Is there an assumption, or indeed a necessity, for information contained in a documentary to be accurate? In fact, there is not. According to early practice (see references to Grierson and Flaherty: pp. 25-29), a documentary can include any filmic information chosen by the filmmaker without the need to justify it. This casts doubt on the notion that a documentary is dedicated to the accuracy of recorded events. *White Wilderness* and other films in the Disney *True Life Adventure* series contain a multiplicity of setups and many were featured in the much later exposé documentary *Cruel Camera* (James, 1982). This film justifiably criticizes the film industry generally for the cruelty shown to animals in the making of both feature films and documentaries. Such cruel treatment was relatively common in most of the well-known wildlife films and series of the first half-century of filmmaking, though this was not widely realized at the time.⁴ In this case, *Cruel Camera* attempted to expose and address the injustices performed by many other documentary makers.

The Disney *True Life Adventure* films that began appearing in cinemas in 1948 were the first to bring dramatic wildlife imagery to theatre goers such as myself. By reputation, if a movie came from the Walt Disney studios, it had to be true (this

² Lemmings falling out of the sky: In the 1530s, A Bavarian theologian by the name of Jacob Zeigler maintained that lemmings were spontaneously generated and fell out of the sky during storms. Danish medico/biologist, anatomist, embryologist and scientist Ole Worm in the mid-1600s contended that lemmings were in fact rodents (Worm 1655, p. 327). Earlier, he also demonstrated that supposed unicorn horns were actually the tooth of the male Arctic narwhal, thus dashing the myths relating to both lemmings and unicorns (Worm, 1638).

³ Nils Stenseth, University of Oslo, and Riley Woodford of the Alaska Department of Fish and Game are only two of many to comment on this filmic hoax. The fact that the observations of Woodford were made forty-five years after the original event say much about the impact of the Disney sequence.

⁴ <http://www.cbc.ca/fifth/cruelcamera/video.html>

excludes animated film such as *Pinocchio* and *Snow White*). Without the knowledge at the time of the production processes behind the images captured, it was this genre of film that initially inspired me to become a filmmaker. That such films ultimately became associated with a lack of credibility made me determined to avoid audience manipulation. These films did, however, provide the motivation for me to become involved in biological research.

1.10 Building a career path

In 1962 I enrolled in degree courses in zoology and completed both BSc and Masters degrees, and was enrolled in a PhD program at the University of New England. In the course of further research and after several years of teaching, my interest in filmmaking resurfaced. After some consideration, in 1971 I left my university position to become a full-time filmmaker. This was a far greater leap of faith than I had initially appreciated. While well-informed in the disciplines of animal behaviour and ecology, and experienced as a still photographer, I had only the vaguest idea of the practice of filmmaking. I had purchased a 16mm film camera and tripod and soon discovered that the best way to learn the production techniques required was to make a film. Notwithstanding my lack of filmmaking experience, and armed only with a portfolio of large photographs, I approached a Sydney-based television network about the possibility of making one or more films on Australian wildlife. After some discussion I was asked to collect some stock from the news department and shoot a pilot! The news staff quickly explained that this meant to make a short demonstration film, and provided me with film stock. Within 4 weeks, and apparently to the surprise of the TV network, I had completed a 10-minute film on the life of a marine rocky shore. This minor production proved to be my entry qualification for producing a six-part wildlife series as a solo filmmaker. Its title, *Australia, Naturally*, was devised by a class of nursing students that I was teaching part time. The first series was followed by a second, and within four years of commencing this new venture, I had completed two short series of natural history programs which went to air nationally and internationally in various configurations. Two years into these programs, I contracted rheumatoid arthritis and hired three assistants to help me with

the heavy lifting at intervals for the next three years. Both series were popular and received a number of awards, but at some cost to my original artistic vision.

In the course of working on these programs, the expression ‘reality bites’ began to take on real meaning for me. I soon discovered that it is not the filmmaker who makes the creative decisions and controls the outcome of programs. The contracting network has the greater control over the product it pays for, with often-unbending stipulations related to format and timeframe, together with some specific views on content. The timeframe that the network allowed me to complete the second series of programs was unrealistically short, and I was compelled to film some of the more difficult small mammals and marine invertebrates in a series of constructed settings which I built in my studio.

The need to work with animals in controlled environments was precisely what I had wanted to avoid. Even though the sets were large and biologically accurate, there was no certain way to tell whether the behaviour of the subjects had been affected. Today, the filming of animals under ‘controlled conditions’ is still carried out by major networks such as the BBC. Hopefully, this is done with only the gentlest persuasion and the animals are treated with greater respect and care than they were in the days of *White Wilderness*.

To minimise the production pressures of working directly for television networks, and to maintain my own production standards, I became a completely independent, solo filmmaker, raising my own production funding. It soon became evident that one person performing all production roles creates its own pressures, providing clear reasons why this path is rarely followed.

1.11 Finding a workable documentary format

In the late 1970s, documentaries had a general reputation as accurate recordings of real world events, or, possibly containing real historical reconstructions of events. In practice, this is not necessarily so. Debate surrounding the precise definition of documentary remains unresolved, and aspects of the discipline of documentary-

making lack clarity. For example, in documentary terms, are accurate and factual the same thing? My documentaries do not intend to be accurate to the point of being an exact account of events. As part of the process of documentary production, footage is edited and hence re-contextualised—it can no longer be an exact account of the original filmed event. However, while no longer being “exact” in this sense, the edited remain factually “accurate” inasmuch as the actions depicted, the visual make-up of the scene as framed by the camera, and so on, are retained.

As a documentary, *The Musicians* was intended to illustrate a method of documentary making that aimed to be as faithful as possible to the original events depicted. It was also intended to determine factors beyond the filmmaker’s control that may require alternative strategies to be taken, such as substituting one shot to for another that was not synchronously captured, to fit the structure of the film. While there are a number of theoretical ideals around documentary structure and their intent or purpose, in reality this form of filmmaking does not follow any particular structural conventions. A documentary maker may consequently apply his or her own preferences to the structure of a film. This reflects both the theoretical and practical fluidity around what a documentary is, and adds to the pressures upon a documentarian who wishes to maintain accuracy as much as possible.

It is generally accepted that the term ‘documentary’ was first used by Scottish producer John Grierson concerning a film titled *Moana*, by American filmmaker Robert Flaherty (Ellis & McLane, 2005). Writing under his pen-name *The Moviegoer* in the *New York Sun* on 8 February 1926, John Grierson remarked: “... of course, *Moana* being a visual account of events in the daily life of a Polynesian youth and his family, has documentary value.” From this reference alone *Moana*, and an earlier Flaherty film *Nanook of the North*, were hailed as the first documentaries. This notion of documentary value still holds largely true in the literature today. As recently as 2012, in his introduction to a discussion on ‘interactive documentaries’, Arnau Gifreu-Castells (2011, unpag.) states: “The documentary genre is one of the most powerful tools used to explain non-fictional stories about reality.

THE DEADLY, THE HELPLESS AND THE UGLY



• ALL ASPECTS of our wildlife go under the microscope in *Australia — Naturally* which took 18 months to make.

WILDLIFE IN FOCUS

MORE THAN 20 television stations across the country will premiere an outstanding six-part nature series on March 3.

This launch of the NEN9-produced *Australia — Naturally* represents a major development in regional television.

Australia — Naturally was devised and written by zoologist Bob Hardie and produced in conjunction with NEN9 at its studios in Tamworth, New South Wales.

Each 30-minute episode covers a different element of the Australian environment.

Hardie, who introduces each episode and provides the commentary, is based in Armidale, New South Wales.

He has a master's degree in zoology from the University of New England and long-term experience in nature photography.

Something of a one-man band, Bob Hardie was involved in almost every area of the production.

The background music for *Australia — Naturally* was provided by Clive Gregory, also of Armidale, who composed, played and recorded the themes in his own studio.

The result provides a delicate and sensitive blend of sound pictures to support the visual sequences.

Zoologist Steve Phillips helped Hardie throughout the project.

NATURE SERIES A WINNER

Hardie, a dedicated naturalist and conservationist, said: "I want to share with others the excitement that comes from knowing more about our spectacular wildlife in their native environments, some of which are rapidly being destroyed."

"I only record what I see through my camera lens . . . nature itself is the star."

These stations will screen the series in six 30-minute episodes from March 3: TNQ Townsville, MVQ Mackay, RTQ Rockhampton, SEQ Maryborough, ITQ Mount Isa, DDQ Toowoomba, NBN Newcastle, CBN Orange, RVN Wagga, NRN Coffs Harbour, BKN Broken Hill, STV Mildura, GMV Shepparton, BTV Ballarat, BCV Bendigo, TNT Launceston, TVT Hobart, GTS Port Pirie, RTS Loxton, SES Mt Gambier, BTW Bunbury, VEW Kalgoorlie and GTW Geraldton.

WIN Wollongong will screen it weekly from February 26 in three 60 minute episodes and CTC Canberra will use the same format, beginning on March 3.

The series will also be shown in all capital cities.



• BOB HARDIE . . . "nature itself is the star."

Fig: 1.13.1 An example of the promotion given to the second series of *Australia, Naturally* in the press of the day (1981)

Its multiple applications have developed the documentary to become a key device within the cinema industry ever since the first documentary movie, *Nanook of the North*.⁵ Clearly, this is an example of misinformation being perpetrated as a result of lack of clarity in earlier literature, and the following may provide some degree of clarification.

Grierson's comment on *Moana* was taken to coin the term 'documentary' as it is applied to film, though it is clearly not the case that such films provide an unvarnished truth, and this is only one of several misrepresentations that have arisen.⁵ Since Grierson's "documentary value" comment, the term 'documentary' has been defined and redefined to the point of providing a definition to suit almost every imaginable documentary (non-feature) production circumstance; this thesis investigates the arguments involved. Flaherty's films were innovative, especially for their day, and recorded cultures that, at the time, were neither well known nor understood. I believe that it is still reasonable to ask, largely because of their extensive use of actors and enactment, whether the Flaherty productions fairly represent the reality of the cultures they portray sufficiently to be held up as the documentary ideal? There is also doubt about whether they were chronologically the first documentaries. The fictional elements of both *Nanook of the North* and *Moana* are included without apology. Flaherty argued that incorporating fiction into a factual treatment is acceptable provided that the end result was as believable as anything else about it (Ruby, 1983). The contrivances of these films would seem to place them more in the realm of reality-based fiction than documentary. For example, five minutes into *Nanook of the North*, what appears to be a one-person canoe disgorges (in between title screens) a child, three adults, a baby and a dog, which is perhaps less than credible as fact. While amusing, it is not accurate reporting.

According to record, all of the original footage for *Nanook* was accidentally destroyed, and the re-shoot of the film was a full re-enactment. Is this then 'ethnofiction', a blend of ethnography and storytelling; or an example of visual anthropology? As might be expected, such neologisms have come into common use

⁵ In 2011, the Maria Popova review of Roger Blaise' 1973 film on John Grierson, titled simply *Grierson*, states the Grierson is credited with coining the very term *documentary* in his review of Robert Flaherty's film *Moana* ... in 1926".

with the expansion of the film industry, and as experiment with a greater variety of methods for dealing with the informational content of their productions. The key issues in this period of (somewhat factually unclear) documentary film history revolve around:

- (a) The sequential development of the first long-form documentary films. Who did what first?
- (b) What *is* a documentary? The answer to this involves an examination of the original and subsequent definitions of the term and a consideration of how these reflect on early factually-based films given the classification of ‘documentary’.
- (c) The acceptability of using extensive re-creation and dramatization in documentary films as typified by the early productions of Robert Flaherty and others of the period.

Although Grierson is consistently referred to as a documentary director, he actually directed only two documentary films (*Drifters*, 1929, and *Granton Trawler*, 1934). However, he is credited as a producer and creative contributor in over sixty other productions on a range of subjects, and his contributions to the film industry are rightly regarded as substantial (see Aitkin, 1990; Blaise 1973; Henson 2013). Grierson labels himself as a propagandist who is principally interested in how film can be used to sway public opinion. He is a political polemicist who appears to see little of value in documentaries that explore more creative subject areas. It is also fair to say that, largely because of his political background, Grierson appears to have his own point of view or perspective on events that interest him has several fixed perspectives and uses his access to film to explore them. This is very evident in both the Roger Blais film, *Grierson* (1973), and *Documenting John Grierson*, directed by Laurence Henson in 2013.

1.12 The first documentary?

Comparing the first-made of any entity with its present form in current production reveals the path of changes that have taken place since its invention. This is a useful approach for examining the development of documentary making, and ideally should begin by determining the first film made that might be classifiable as a “documentary”. This is neither *Moana*, nor *Nanook of the North*, as much of present literature discussed above suggests.

With regard to documentaries, there are a number of firsts claimed by the film industry over the years. Accepting this, and given the rapid evolution of new concepts and associated terminology, an historical investigation reveals a somewhat confused and confusing chronology and vocabulary. For example, *Les Maîtres Fous (The Mad Masters)*, directed by Jean Rouch in 1955, is regarded by some as the first docufiction/ethnofiction film (Ross, 2010) because it theoretically extends the boundaries of documentary content by using actors and prepared dialogue to portray an actual situation. However, both *Nanook of the North* (1922) and *Moana* (1926) made extensive use of fictional characters to represent real situations, and could be described as docufiction, according to much the same criteria. Similarly, the 1906 Charles Tait film, *The Story of the Kelly Gang*, used actors to portray real people in a recreation of the lives of Australia’s notorious bushrangers. *The Kelly Gang* ultimately became regarded as the world’s first full length narrative film (UNESCO Registry, 2007). *The Kelly Gang* is preceded by at least one other feature-length film which fits the characteristics of a documentary; *The Corbett-Fitzsimmons Fight*, directed by Enoch J. Rector in 1897. At over one hundred minutes in length, this film was listed in the National Film Registry in the USA in 2012 as an historically significant film (King, 2012). The production is also the first known film to be released in a wide-screen format.⁶ Given that *The Corbett-Fitzsimmons Fight* was filmed on the location of the fight and documents the actual event at the time of its occurrence, it surely takes precedence as the first true documentary, even in its simple form as filmed by three fixed cameras, each with almost identical fields of view. Little

⁶ *The Corbett-Fitzsimmons Fight* was released in a wide-screen ratio of 1.65:1 as an alternative to the standard Academy ratio of 1.37:1. The most common screen ratio used in today’s cinemas is 2.39:1.

of this footage survives, and that which does survive shows no evidence of being enhanced in any way

Accepting a broad appreciation of what a documentary can encompass, although clearly intended as a fictional feature film, Eisenstein's 1925 production *Battleship Potemkin* is closely based on historical fact, but is entirely dramatized, and was originally without a sound track. In the light of the totally enacted *Nanook* being classified as a documentary, there exists a temptation to place *Battleship Potemkin* in the same or a related category as an historical documentary. My personal view is that, as a feature film based on fact, even the term 'docudrama' could well apply.

1.13 A practitioner's overview of documentary classification

Theoretically documentaries, from the first to the most recent, incorporate real life events (*The Plow that Broke the Plain*, Lorentz, 1936), real life and re-enactments (*The Devil Came on Horseback*, Stern & Sundberg, 2007), and real-life combined with heavy staging (*Land Without Bread*, Buñel, 1933). Whether relying entirely on chance encounters or partly (or even completely) controlling content, documentary filmmaking tends to be unpredictable, and must often make the best of what they have available. This factor alone stands in the way of devising a truly successful classification system for documentary films.

The documentary classifications first proposed by Ellis (1989), Nichols (2001) and others including Paul Rotha (1958) and Bill Aitkin (2005), provide examples of the diversity of thought relating to the exact nature of documentaries. For example, Nichols argues three basic assumptions about what documentaries are and what they do. He believes that documentaries are about reality, that they are about real people, and that they tell stories about what happens in the real world (Nichols, 2010). But, to reiterate my earlier question, what is the relationship between reality, accuracy, and the factual in the language and style of documentaries?

In his classification, Nichols subdivides documentaries into six categories based principally on the nature and treatment of their subject material. Though he

does not define precisely what he means by the terms ‘nature’ and ‘treatment’ at this stage, Nichols describes documentaries as speaking about the world with clarity and engagement. As a general comment here, I would suggest that clarity is not necessarily a universal feature of documentaries. Certainly, clarity is a variable thing and, like beauty, may well be in the eye of the beholder. The filmmaker may see an issue clearly, but may purposely or inadvertently present it in a way that members of the audience cannot readily grasp. As individuals, documentary makers tend to have their own views on what production methodology works best for them. One of the most outspoken of today’s is American producer/director Michael Moore. In his thirteen rules for making documentary films, Moore argues that documentaries should represent real life problems and that should take an aggressive approach to finding the real truth (Moore, 2014). Further, he discusses the ‘universality’ of this approach. Moore’s films, such as *Bowling for Columbine* (2002), and *Sicko* (2007) reveal a reality that certainly seems to be very much Moore’s view of the subject. Like clarity and beauty, documentary reality may also represent the filmmaker’s viewpoint, rather than what is really true (see discussion pp. 27). To me, Moore’s technique appears to commence with his own perception of what the ‘truth’ of an issue is, then proceed to demonstrate or prove his point. As a matter of course, Moore is thus pre-judging a situation on his own recognizances rather than first considering the information presented by his designated interviewees.

Acknowledging the extent of differences of opinion about what a documentary is, and how documentaries should or should not be classified, I do not intend to deal with existing classification systems in any depth. As a documentary practitioner, no classification system determines how I will work with a particular film’s subjects, just as the end result may not fit into any known category. I work on the principle that each documentary subject informs its own approach, and determine the details and my own approach to the subject through a combination of previous experiences, extensive observation and rigorous investigation.

Bill Nichols offers a detailed discussion of the factors that characterize documentaries (Nichols, 2010). The classificatory options in his system are immediately valuable in that they delineate a spectrum within which a classification system might work. This spectrum underscores the significance of the “cinematic

resources or techniques” upon which Nichols places strong reliance (Nichols 2010, Location 436). This collection of characteristics also enables an extensive range of possibilities. Briefly, Bill Nichols puts forward six creative modes, together with examples:

1. Poetic, including *Night and Fog* (Resnais, 1955), *Koyaanisqatsi* (Reggio, 1982) and *The Bridge* (Steel, 2006).
2. Expository, including *The Plow that Broke the Plains* (Pare, 1936) and *Les Maîtres Fous* (Rouch, 1955).
3. Observational, including *Primary; High School Salesman; Salesman* (Maysles, A; Maysles, D and Mitchell). *The War Room* (Pennebaker and Hegedus, 1993), *Some Kind of Monster* (Berlinger and Sinofsky, 2004).
4. Participatory, including *Shoah* (Lanzmann, 1985), *The Fog of War* (Morris, 2004), *Enron: The Smartest Guys in the Room* (Gibney, 2005).
5. Reflexive, including *The Man with a Movie Camera* (Vertov, 1929), *Land Without Bread. Las Hurdes: Tierra Sin Pan* (Buñel, 1933), and *The War Game* (Watkins, 1965).
6. Performative, including *The Act of Seeing with Ones Own Eyes* (Brakhage, 1971), *Tongues Untied* (Riggs, 1985), *Waltz With Bashir* (Folman, 2008), and *Cops* (Langley and Barbour, from 1989 onwards).

To analyse each of these categories would be an extensive though worthwhile exercise, but that is beyond the scope of this dissertation. Conversely, to offer a brief response to each would be to serve Nichols’ work unfairly and devalue it. That said, it is worth commenting on some of Nichols’ category selections as examples of his classification system as a whole. Nichols describes his Poetic mode as one which “emphasizes visual associations, tonal and rhythmic qualities, descriptive passages and formal organization.” Three of Nichols’ examples listed here are extraordinarily powerful films with highly variable content. As someone who works with imagery,

were I asked to categorise these films, I would not on a first viewing have grouped them together. Even given Nichols' classification parameters. I have difficulty in finding sufficient common ground between the horrors of war (*Night and Fog*), the despair and sadness of suicide (*The Bridge*), and the intriguing diversity and times of ordinary people (*Koyaanisqatsi*) to justify this positioning. Given Godfrey Reggio's established filmmaking skill, and his and remarkable insights in the production of his three *qatsi* films, to classify *Naqoyqatsi* as an experimental film is in itself unsatisfactory, given the Reggio seems to know exactly what he is doing in structuring this film. This is borne out by his subsequent titles, including *Powaqqatsi* (1988), *Evidence* (1995) and *Visitors* (2014).

Included in the Performative category, *The Act of Seeing with Ones Own Eyes* is a silent film of an autopsy shot in a Pittsburgh morgue in 1971, and is variously described as “convulsive”, “one of the most direct confrontations with death ever recorded on film” a “philosophical attitude toward existence”, and equated in other articles with a horror film. As a film practitioner and student of anatomy, I found the film bizarre, with a somewhat insensitive approach to its subject. To include *Cops*, which Nichols describes as a “degraded example of the mode” in the same category as *The Act of Seeing* is for me difficult to understand. *Cops* has a clearly constructed purpose in its intention to chronicle the life of street police. Conversely, *Land Without Bread* would fit the performative category equally as well as anything else include there, especially as some of its content appears to have been manipulated to shock; for example, scenes of a donkey being worried to death by flies.

I respect for Nichols as a theoretician and am not criticising his choices or the logic and structure of the classification system that he has proposed. However, because individuals respond to imagery differently, and documentaries tend to lack consistency in their methodology and interpretation, as a documentary practitioner I see only limited value in classifying the creative output of except in very general terms, such as fiction, non-fiction, drama and so on. By comparison with a biological classification system, which successfully orders several million individual species based on the consistency of their observable differences and similarities, I personally find that current documentary classifications are too general and confusing to serve any real purpose. Further, individual films are generally not made to fit any

predetermined pattern or category. If Nichols' parameters were to be applied to *The Musicians*, the most evident and best fit would be *Performative*, in that the film is basically descriptive of a series of events. However, *The Musicians* could also be described as *Observational*, in that it relates to processes, and to some extent *Expository* in that it deals with the outcomes of specific events or processes. Nichols himself observes that there is a degree of overlap between categories. His observation would appear to be correct, at least certainly in practical terms. In his pre-PhD publication, Gifreu-Castells discusses this issue of documentary classification in some depth, and provides an interesting table comparing several existing documentary classifications. His table in particular exemplifies some of the disparities between these systems.

Even from this briefest overview of Nichols' six-part classification (which must assume some knowledge of the films he uses as examples) it is evident that there are certain flaws when his classification is applied to inconsistent data; that is, the inconsistencies of documentaries themselves. While there are probably many documentaries that will fit into the system devised by Nichols, there are many that do not.

Summary of Part 1

The ready availability of digital technology in the early 2000s has given a new freedom to make films more cheaply, more quickly and more creatively than ever before. Within a few years of the appearance of solid-state media and compact lightweight cameras, many aspects of the methodology of filmmaking developed over the preceding one hundred and twenty years were relegated to history. This had a particular influence on documentary filmmaking because it allowed ready access and immediacy to the process of recording world events.

The use of autoethnographic method to establish a flow of reporting is similar in many respects to the process of making a documentary film. While it incorporates specific processes, such as scripting and editing, the filmmaking methodology does not necessarily follow a precise formula or structure. Rather, this is determined to a

greater extent by the film's subject. The relatively free-form approach of autoethnographic writing is ideal for recording the processes of documentary filmmaking, especially the personalised approach to production that is being dealt with in this exegesis.

Far from being uniform in their approach and execution, my documentaries are strongly individual. Each production deals with a specific subject and is shaped accordingly, and the production technique employed may require extensive restructuring as the storyline evolves. This process well accommodated by digital, non-linear editing which permits extensive storyline (referred to the *timeline*) changes to be made almost effortlessly at any stage of the editing process, an irregular film structure to be achieved almost effortlessly. complications. In effect, the non-linear editing process permits personalised production techniques to be undertaken according to the creative directions of each filmmaker.

With digital media, films could be made more efficiently and more cheaply as the restrictions imposed by the costs of materials and work time were almost magically lifted. The creative element of this project provides a testing ground for the use of digital media in documentary making is *The Musicians*, a fifty-five minute (non-commercial hour) documentary that deals with the pursuit of excellence in musicianship. I anticipated that this film would provide a vehicle with which an experienced filmmaker could experiment extensively with digital production techniques for the first time. As it eventuated, many opportunities for experimentation with both software and hardware were provided . For example, 12 months into this project, *Final Cut Pro 7*, the non-linear editing program that I had been using, was discontinued by Apple. The replacement program, *Final Cut Pro 10*, had a number of functional problems at the time, and I was therefore compelled to consider completely unknown alternatives. I chose *Premiere Pro*, a well-reviewed non-linear editing program that I had never used before and had to learn 'on the run'. This required at least three months of experimentation to discover how unfamiliar techniques of *Premier Pro* could be applied to the editing of *The Musicians*. In addition, because I was using solid-state movie cameras from the ECU equipment store, I was also required to become familiar with at least 8 different cameras over a period of some six months. This also required a great deal of learning experimentation. Although they

share basic functions, most models and makes of solid-state cameras are very individual in their structure and function. Examples of some of the practical difficulties experienced and the necessary experimentation required to deal with them are given on pp. 18 to 21.

The creative documentary element of this thesis is the result, and can be seen here: https://www.youtube.com/watch?v=mzLSbM_T4LM

Part 2

Preparing the ground

Part 2 presents an overview of areas of production that can influence the work of an independent producer. In the real world, successful production succeeds in striking a necessary balance between the creative ideal and what sells.

2.1 One-stop-shop production

My filmmaking career has been sustained by my ability as a solo producer to make commercially viable product from start to finish without assistance. That said, I have long hoped to meet up with other solo to compare methodologies, but without success. At the beginning of this project I once again searched the literature and film production listings under *solo*. In the process, I discovered such as Elisabeth Subrin (Beram, 2010), who has an interest in self-exploration, and Richard Lackey's article *Going Solo* (Lackey, 2011) in which he describes how he moved away from larger-scale independent productions to smaller, more easily controllable film projects. In these and other instances that I reviewed, there were invariably other contributors to the productions, such as writers, camera operators and editors. These artists are more correctly described as independent who, even though they may work with only small crews, do operate with other production personnel.

There appear to be very few who work in a truly solitary production environment. One such is Mireia Sallarès, who made a 5-hour film, *Las Muertes Chiquitas: Little Deaths*, on the sexual lives of Mexican women (Sallarès, 2010). Sallarès shot the film, *Little Deaths*, herself without a crew. Documentary director Michael Rabiger argues that, now that the necessary technology is so cheap, virtually anyone who has the drive can make a film, as long as they can support themselves for the necessary duration required. This is true but, as Rabiger also acknowledges, the filmmaker then has to sell the idea or the finished product (Rabiger, 2014). More importantly, a filmmaker dealing with such a deeply personal issue as human

sexuality and the impact of personal violence can really only succeed by doing it alone. Such a venture would, in my view, also require great personal stamina to survive the production. While there are enormous economic risks involved in making what I refer to as unsolicited films, these can be supported by the passion of the filmmaker for the subject, and the considered conviction that there is a market for the end product. While it may be worthwhile to risk making one or two films of this kind, however, it should also be realised that such a strategy could well spell disaster for a more traditional filmmaking career. That said, I have made several ‘unsolicited’ films, including *Australian Christmas* (1994) and *Awesome Pawsome*, a long-term documentary project on tiger captive breeding (2002), and have been fortunate to have found a market for them. I can do this because I work alone and so face limited financial risk. The emotional cost of my path is more difficult to estimate.

I choose to work on my own not because I lack trust or faith in the expertise of others, but as a matter of financial practicality. As most of my films are long term and I often provide the initial finance for my own films, I can not afford to support additional crew members for months or years at a time. In instances when I have needed additional camera or sound personnel, I certainly do not hesitate to engage freelance operators. Also, considering the fact that I enjoy all aspects of film production, my personal preference for solo production makes sense to me. One of the outcomes of being a solo filmmaker is that, in the course of my career, I have generated specific production methodologies, such as multi-camera shooting, that suit a one-man operation. Although I have worked on successful collective film projects including TV series and feature films, the nature of most of my work with wildlife, and in performing arts subjects requires a low-key approach with minimal operator impact. Equally, becoming involved in making a film or a series that may take years to complete also takes a great deal of commitment and, as mentioned, involves significant financial risk.

For reasons that are unclear, there is a level of resistance both within the film industry and among some potential clients to accept a solo filmmaker as legitimate. This has to do with industry acceptance of solo , which is in effect a form of pre-judgement of professional work and the industry belief that filmmaking is a collective activity, when clearly a collective is not necessary to successfully produce a

documentary. Such reticence is possibly based on the belief that filmmaking as a total process is too complex for one person to manage, coupled with the perception that a one-stop-shop filmmaker may be at higher risk of injecting bias into a given storyline, or even that the filmmaker may walk away from the project, or suffer misadventure, leaving it unfinished. Or perhaps there is no clear reason at all. Whatever the case, after a long history of making a large number of successful broadcast documentaries and other productions, I can say with certainty, and in agreement with Rabiger (2015), that any individual with sufficient determination, creativity and patience to amass the relevant experience, coupled with the appropriate standards of quality control, is equipped to create documentaries.

It is self-evident that there are film projects of a magnitude that no individual could expect to complete alone. It is also possible that essential elements of a topic could be overlooked if the filmmaker is too focused on his or her own agenda. Even given all this, there are equally many subjects, such as with this present project, *The Musicians*, that can be successfully managed by a single operator. Less tangible aspects of documentary making, especially for a solitary filmmaker, relate to the psychology and philosophy behind the process, and the good fortune of having a range of intuitive personal attributes, including a basic creative drive, investigative curiosity, passion for the subject, and commitment to a particular type of story-telling. An awareness, acceptance and respect for the very real uncertainty of work continuity are also necessary attributes for those intending to follow the solitary production path.

2.2 Developing an individual production style

Supposedly inspired by the films of Robert Flaherty from 1922 onwards, and Russian filmmaker Dziga Vertov (Dziga Abelevich Kaufman, 1896-1954), the *cinéma vérité* documentary format, characterised by its free style which often lacked formal construction, was popular between 1919 and 1954. This production style was devised by French anthropologist Jean Rouch (1917-2004), while the term *cinéma vérité* was coined by Rouch's associate, in the production of their well-known film, *Chronicle of a Summer* (1961), sociologist Edgar Morin. Controversy still surrounds *cinéma*

vérité and much of its philosophy, particularly the idea of working without a script, and confronting potential participants directly in the street

Rouche's approach to this genre of filmmaking was to often use hand-held cinematography to record the truth; as a means of capturing the sense of immediacy they were striving for. While Vertov was inspired by the idea of unobtrusive filmmaking, at the time that he was working on his own methodology, cameras were large and noisy, and capable of anything but unobtrusive documentation.

In the commentary track of his documentary film *Cinéma vérité: Defining the Moment* (1999) Canadian filmmaker Peter Wintonick states that the *cinéma vérité* revolution opened a window onto "real life and real issues. It freed the documentary from stilted, staged shots". This is a somewhat blanket condemnation of all other documentary makers who do not subscribe to the *cinéma vérité* mode of filmmaking. As an experienced documentary maker, I sincerely hope that I have never been guilty of producing a "stilted, staged shot". Also listed as a documentary maker, in her review article on Wintonick's *cinéma vérité* film, Katherine Speller heaps praise on *cinéma vérité* as testimony to the evolution of documentary, having "superseded the preaching, polemic and educational mode. This film is transparent and casual...". Although I am unsure Speller's intent, she goes on to say that "today's contemporary image industry is almost wholly devoid of thoughtful content; it is pure image without the sense of social self and social responsibility that *vérité* filmmakers brought to their work". Tim Wintonick's film culminates with the modern use of *vérité* as a style or film language to indicate reality; prompting Speller to comment further that it has "the reality of shaky-cam or handycam without the polish of the Hollywood machine." (Speller, 2000). In combination, these statements present a poorly considered and broad condemnation of the work of many other, and offer opinions that arguably require strong contention. I made an effort to review Speller's films but was unable to locate any.

Given this advocated philosophy, the premise of *cinéma vérité* as a revolutionary new way of filming is basically unsupportable; it is a long way from the 'fly on the wall' view of the world that it supposedly represents. To apply a colloquialism, the Vertov version of *cinéma vérité* is very much 'in your face' film-making. From my perspective this equates with the worst of today's news and current

affairs reporting, or of the burgeoning crop of reality shows, including the artificial structure upon which much reality TV depends (Bordwell & Carroll, 1966, 89). A comment from the monumental filmmaker Werner Herzog in his Minnesota Declaration fairly sums up an opposing view: “By dint of declaration, the so-called *Cinéma Vérité* is devoid of *vérité*. It reaches a merely superficial truth: the truth of accountants” (Herzog, 1999; also in Cronin, 2014; James, 2002). Apparently, Herzog does not have a high opinion of accountants either!

By taking a stance remote from that of *cinéma vérité*, I do not intend to decry the use of hand-held cameras or the exploration of experimental method. However, I do not agree with a Speller’s badly thought-out critique based on inexperience, nor poor production methodology being held up as a ‘new wave’ in filmmaking, as it appears to have been in reference to techniques such as *cinéma vérité*. *Vérité* is simply one experimental filmmaking technique. In my view as a professional filmmaker, *cinéma vérité* is a regressive acquisition technique. Alternately referred to as “shaky cam” by some, including myself, *cinéma vérité* does not advance filmmaking technique or intent in general. Hand-held filming is common to documentary-making in the acquisition of footage that is initially without editorial control; that is, much active documentary acquisition tends to be spontaneous and largely unplanned. Hand-held shooting is capable of delivering smooth, non-jerky imagery. However, smooth hand-held camera work is a technique that requires a great deal of practice and refinement to reach at least the minimal standard of professionalism that other camera operators, including myself, work to achieve.

This view of shooting methodology is shared by other; for example, see Robert Drew’s comments on p.51.

2.3 The seeing eye and camera stabilization

As human animals, we are endowed with an almost perfect inbuilt image stabilization system that does not see the world as a series of jerky images, even under the most taxing of circumstances (Olshausen & Anderson, 2010). So to equate what is referred to as a wobbly-cam with what the human eye perceives as ‘natural’ is to promote a fallacy. In addition, the human eye does not have the capacity to see any image in

sharp detail from edge to edge, and the idea of the perfect wide shot in critical focus is a purely technical artefact based on camera lenses that are designed to produce such images; the intriguing imagery produced by an 8mm fish-eye lens is a good example of such an artefact.

The extraordinary imagery of Godfrey Reggio's 2014 film *Visitors* is one indication of what current filmmaking technology can do in the right hands with regard to edge-to-edge image clarity. It is easy to test edge to edge detail. Simply look at your surroundings, then focus on a particular element within your field of view. The eye re-focuses on that particular part of the scene, leaving all peripheral parts of the field of view unfocussed; this focus/refocus ability also tends to enhance the human inbuilt capacity for image stabilization and visual acuity (Kalloniatis & Luu, 2007).

As a practitioner, I find it difficult to determine exactly what specific advantages the *vérité* style of filmmaking brings to recording observations of our world. So-called *shaky-cam* appears to be common to *vérité* and the direct cinema method is an often-extreme technique to record reality at the expense of technical quality. A question that arises here is to what extent do these methods improve the factuality and veracity of the content of the films that are generated from them?

To summarize, and referring back to section 1.5, with the advent of digital technology and ultra-small and ultra-light solid-state cameras, the art of steady, hand-held shooting has been boosted by several methods of inbuilt camera stabilization. These recording techniques and the peripheral equipment that makes them possible have now been developed to the extent that they match the human eye for image-constancy, thus *shaky-cam* becomes an artificial construct and nothing to do with *vérité*.

2.4 Maintaining creative and editorial control

Independent producers often need to work actively to maintain the objectivity of a production. This means striking an acceptable balance between a producer retaining a program's intellectual and creative intentions, and financial survival. The program must be what the filmmaker is aiming for without requiring too many

changes from the buyer, and yet still make a profit. Creative and editorial control in film production are pivotal matters if a filmmaker is to maintain the essential creative quality and content of his or her own work. This is of particular significance when working to produce an original program for an organization such as the Australian Broadcasting Corporation (ABC), Discovery Channel or National Geographic. In such cases, because the contracting organization is either financially supporting the production of a program or series, or has purchased the program outright, the production house acquiring the product commonly demands full creative and editorial control of the program that it intends to broadcast. This contractual relationship may result in the superimposition of the creative views of the production house's commissioning editor upon those of the filmmaker who originated the project, and who is fully familiar with its narrative detail. From experience, it is difficult for a documentary maker to watch his or her production being systematically reconstructed to reflect someone else's inaccurate vision. This manipulation is akin to a publisher re-writing the main character of *The Old Man and the Sea* to spice it up, completely ignoring the physical presence and emotional depth of the character created by the author. The only real safeguard that a filmmaker has against such creative and editorial vandalism is to self-fund a project entirely, and sell the completed project with the assurance that the creative integrity of the film or series is contractually protected. This has been my preference whenever possible.

Although a personal connection with the subject of a documentary can carry with it the risk of introducing subjectivity on the part of the filmmaker, this is far less of a problem for the finished production than if the film's creative control is in the hands of an individual (for example, the production house commissioning editor) who lacks a passion for and even a basic understanding of the subject. Understandably, the chief concern of the buyer is to attract audiences and to make money, and this tends to override the views of the filmmaker. This situation of ultimate creative control provides a strong incentive for a documentary maker to become financially self-sufficient.

2.5 The video-for-all phenomenon

The availability of inexpensive video cameras and related technology has created an unprecedented surge in event recording by members of the public. The appearance of *YouTube* in 2005 provided an international conduit for literally millions of home-generated video clips to be uploaded for public viewing. As a consequence, *YouTube* and similar sites have elevated some owners of video-capable mobile phones to the status of photographers and . The establishment of personal *YouTube* video channels has further encouraged enterprising video enthusiasts to reap often-substantial financial rewards for their efforts by establishing a monetization process by which amateur are paid per viewing.

The *video-for-all* phenomenon has to some extent blurred the borders between amateur (non-professional, with only incidental income-generation as a spin-off) and professional (full time, full income-generation) film and video production in the eyes of public audiences. While this new dynamic applies competitive pressure to those who have spent many years developing the skills to succeed in a highly competitive, aggressive and volatile market, and although the dash-cam era is committing the world at large to perpetual, amateur solid-state documentation, this has not yet displaced professional product at a commercial level. However, visual material shot on mobile devices is a form of documentation that is proving to be of great social interest in its own right, as evidenced by the number of views registered for *YouTube* clips, and their producers' millions of fans. It is probable that, in the future, films made using imagery acquired by a mobile phone may be included as a *bona fide* documentary category. However, at present, they are not.

Examples of *YouTube* video clips and their viewing audiences provide a snapshot of where public taste lies with regard to popular viewing. *Unwrapping Kinder Surprise Eggs* (literally just unwrapping *Kinder* chocolate eggs to reveal the gift inside) - 500,000,000 + views, *The Ultimate Falls Compilation* (people falling over and probably injuring themselves in the process) - 153,136,555 views). *PewDiePie* 50,000 approximately (miscellaneous content), *Top 10 Craziest Events Caught on Live TV* (Hostage crises, the shooting of Lee Harvey Oswald and other

‘crazy’ events!) - 28,761,396 views, *Top 10 Sexiest Music Videos* (distasteful ?) - 24,768,859, *Best of Mozart* (six hours of classic Mozart recordings against a single, frozen image) - 7,793,063).

These and other available audience figures indicate that many documentary makers now create product for an increasing number of niche markets, exposing viewers to an exponentially widening range and quality of subject material. From a my own professional viewpoint, much of this material lacks any element of creative strategy. The impact of this huge body of amateur , and their general lack of production quality, is reflected in the lower prices now paid for independent documentaries by major networks. This situation necessarily affects what documentaries have now become. Given that these *YouTube* and other clips designed for public consumption are essentially of a documentary format, *YouTube* will continue to play some part in the reclassification of the documentary as a *bona fide* genre.

While changing emphases in the film and video marketplaces are causing to review long-established production and marketing protocols, this is not necessarily a bad thing for either the industry or the individual producer. The distribution of re-worked product through social media provides access to the relatively new internet-based market which has more generalized product requirements than most broadcasters do. Thus, a 90-minute television special can also be released on a personal *YouTube* video channel as a series of short video clips, music clips, freeze-frames, background music and other derivatives targeted to a specific consumer audience, and these can generate income for the filmmaker. Conversely, video material created specifically for the internet can attract the attention of television buyers for further development with a view to exhibiting that material as broadcast television. There is, nonetheless, the ever-present task of maintaining an acceptable production standard in an environment in which production standards are wildly erratic.

While competition for the contracting and sales of broadcast-quality programs is steadily increasing (there are far more than the market needs), the number of production houses capable of producing high-quality and very high-cost ‘blue chip’

programs is diminishing. Companies such as the BBC are under continuous budget attack, while organizations such as *Discovery* and *National Geographic* are paying less for product, quite possibly because they are aware that many producers have their collective backs to the wall. There are now more reality-type programs being produced for relatively low budgets, and these are displacing the in-depth productions dealing with specific aspects of culture, art and science that were once the hallmark of broadcast documentary television.

2.6 Independent filmmaking and real-life documentaries

Paul Rotha is of the opinion that a documentary approach to cinema differs from film (here referring to feature film) not in its disregard for craftsmanship, but in the purpose to which that craftsmanship is put. He believes that documentary is a trade just as carpentry or pot making. The pot-maker makes pots, and the documentarian makes documentaries (Rotha, 1958). Taking this apt analogy a step further, just as not all pot-makers use the same methods and materials to make excellent pots, not all follow a uniform production plan.

Theoretically, professional can be subdivided into two main categories: those who work within the established network of the studio system that offers secure financing for production and distribution (originally with major Hollywood studios and distributors), and those who work outside the studio system and operate independently of it, raising most of their funding from private sources. In today's film industry, this distinction is not quite so clear, as an independent production may be partly or fully funded by an established studio such as 20th Century Fox or Universal, and even distributed by it (Hall, 2009). The term 'Indie' is often applied to independent, and includes such visionaries as Quentin Tarantino, Martin Scorsese, James Cameron, Sofia Coppola and many other top-level directors. These people by virtue of their experience and industry profiles generally work with high level budgets and full production crews on major feature projects.

While independent documentary makers can also attract a level of public recognition, as a generalization the nature and calibre of their productions tend to be

more tightly circumscribed within the orbit of real-life events than is the case with feature filmmaking. This discussion will now focus on that specific sub-set of the documentary genre that deals with real life (as opposed to docu-fiction and docu-drama which tend employ elements more closely allied to feature films than the factually-based traditional documentary format).

Supersize Me (Morgan Spurlock, 2004), *Waste Land* (Walker & Jardim, 2011), *Life Itself* (Steve James, 2014), and *Citizenfour* (Laura Poitras, 2014) are well-known current examples of cinematic documentary releases from the thousands of independently-produced films that are based on real-life events and situations. Apart from the fact that they are classified as documentaries because they are based on real-life events, however, they have very little in common.

Supersize Me traces a 30-day period during which its producer, Morgan Spurlock, as an experiment, exclusively consumed a diet from McDonalds fast-food outlets. Charting Spurlock's physical and mental deterioration during the 30-day period, this film is a protest about the increase in obesity in American society, reportedly reflecting poor nutrition and the over-consumption of processed food which Spurlock attests is supported and encouraged by the relevant corporate entities. The documentary also takes a sideswipe at the tobacco industry and suggests that fast food has a similar negative impact on the health of American citizens. While the film makes a valid point regarding the often-suspect nutritional value of fast-food, the fact that Spurlock reportedly ate the equivalent of 9.26 Big Mac hamburgers every day for 30 days does render his weight gain and other physiological responses to this diet as somewhat contrived. At the equivalent of 5,000 calories per day intake, this eating plan represents over twice the standard food requirement of an average, active adult male. One of Spurlock's main conclusions appears to relate more to a matter of self-control and bad eating habits than the nutritional content of fast food.

At the other end of the scale, *Citizenfour* is an opportunistic real-life thriller arising from an undercover investigation of whistle-blower Edward Snowden and his experiences as he provides evidence of high level US Government surveillance. By multi-award winning (2012 Macarthur Genius Fellowship and 2014 Pulitzer Prize) filmmaker Laura Poitras, and her associate Glenn Greenwald, the film represents an

extension of Poitras' long-term research into government surveillance. Poitras took enormous personal risks in filming the program which was released as a one hundred and fourteen-minute feature length documentary in 2014. This is a level of filmmaking that involves rarely-seen personal and social commitment and it is impossible not to engage with the content. *Citizenfour* is also a fine example of a documentary that was not planned from the outset, but genuinely follows a series of events as they actually unfold.

In the face of films such as *Citizenfour* and *Waste Land*, the ultimate, hugely successful film on waste recycling, any filmmaker with a degree of introspection is forced to examine his or her own work on the grounds of its validity and value, and just how far they are prepared to put themselves to the fore to explore a viewpoint borne of passion and concern. When I review my own work over the past forty-five years, I have made nothing to compare with the confidence and impact associated with these high-ranking films. With the exception of *Awesome Pawsome*, the film on tigers and their future survival, my documentary work has dealt with subjects that, while they have social validity, are not made with a forceful point of view. This does mean that my films, and many others like them, make no real contribution to raising the awareness of the social issues they address: wildlife conservation, and the value of music performance and the importance of the arts in general. I believe that films such as mine do have validity in terms of what they set out to do, and in the ways in which they communicate information. What such comparisons reveal is that the processes, conditions and nature of documentary making are vastly diverse, and are almost entirely dependent on the viewpoint and intentions of the concerned. This then refers us back to the basic purpose of a documentary film, which is to present factually-based information in an account of an event, and does not rely of the significance or import of the subject matter for its justification.

2.7 Capturing Reality: The Art of the Documentary

When aiming to understand documentary making technique, it is a good start to watch a large number of relevant films. Equally, it is important to develop a feel for what other documentary makers think. Every now and then a film comes along that

encapsulates this material in a nutshell. The most recent, extensive treatment of documentary film as a genre is the 2009 production, *Capturing Reality: The Art of the Documentary*, directed by Canadian filmmaker Pepita Ferrari (Ferrari, 2008). The film presents a 97-minute summary of current, largely Canadian, views on what a documentary film is. As such, *Capturing Reality* strives to be something that many would applaud; the modern documentary maker's bible. Because the names Michael Moore and Ken Burns are synonymous with the top-ranking documentary makers in the USA, it is notable that they are absent from the list of key documentary makers who are represented in *Capturing Reality*.

The film provides point-of-view summary interviews with thirty-three documentary . Although brief, these interviews offer a provocative and evocative personal commentary on the state of the genre, but are obviously edited tightly to extract the most relevant information from them given the time constraints of a documentary film. It is surprising, and a little disappointing, to find so many interviews compressed into a 97-minute program; arguably there are too many people in too short a time; and perhaps there could have been supplementary segments to this undertaking that allowed specific to speak more fully. That said, *Capturing Reality* provides some clear examples of the often-strong differences of opinion among many of the current documentary-making community.

Deirdre Boyle, the Associate Professor in Documentary Studies at New York's *The New School* said in her assessment of *Capturing Reality* that it appears to be more appropriate to a course on basic filmmaking technique than a critical assessment of where the documentary industry stands today. She says that, in addition, many of the filmmakers interviewed are not well known outside Canada. The predominance of Canadian contributors could in itself be construed as a basis for opinion bias (Boyle, 2010). That may be, but the commentary provided still offers some relevant and very useful insights from experienced practitioners. *Capturing Reality* has much to say about the intrusive nature of unnecessary camera movement and the reality of so-called *vérité* techniques being an issue for a number of , both for and against this technique. Some of the *Capturing Reality* interviewees support the *cinéma vérité* approach to documentary making, specifically the idea of 'being there' and being obtrusive. Peter Wintonick comments to the effect that it is "a really

difficult journey to figure out what a documentary is, let alone what a good documentary is”. His comment on *cinéma vérité* relates to the supposed ‘freeing of the genre’, which essentially supports the idea of working without tripods, and adopting slate-synced sound systems to allow smaller crews more freedom to engage with their subject (Wintonick, 2008).

Other filmmakers disagree equally strongly. In his *Capturing Reality* interview Robert Drew observes: “I had made *Primary* and a few other films. Then I went to France for a conference. I was surprised to see the *cinéma vérité* filmmakers accosting people on the street with a microphone. My goal was to capture real life without intruding. Between us there was a contradiction. It made no sense. They had a cameraman, a soundman, and about six more - a total of eight men creeping through the scenes. It was a little like the Marx Brothers. My idea was to have one or two people, unobtrusive, capturing the moment.” (Ferrari, 2008).

Drew’s statement clearly refers to the disruptive effect of such camera crews. It is not about who points the camera, and not about objectivity, but about the potential distraction created by a camera crew in an environment such as that of an orchestra, especially a youth orchestra that is relatively inexperienced and is primarily concerned with the basic elements of orchestral playing.

Drew’s observation draws attention to an important issue mentioned in the introduction; that of the visibility and potential impact of a camera crew upon documentary subjects. It is to this aspect of filmmaking that the discussion now turns.

2.8 The reality of *reality television*

The idea of showing life ‘as it is’ has been taken to the extreme by reality television. This genre has an increasing media presence, and incorporates almost every known camera technique to create a feeling of immediacy. Reality shows have greatly proliferated with the advent of digital technology, which make the practice of television crews recording ‘in the moment’ more possible, if not more convenient.

When making a film, I use whatever methods work best to capture and interpret specific subject material most effectively. I have no hard and fast technique for collecting or delivering a given kind of information, and often use a range of methods in the same production to deal with the material that presents itself. Identifying the specific technique that I am using (modal identification) does not therefore have a great deal of application to my filmmaking methodology. Nonetheless, certain established production modes are recognized and practiced within the industry.

To the casual observer, *reality TV*, of all the documentary subgenres, is comparable to *cinema vérité* in that it appears to lack formal structure and *appears* to be shot by either roving or unmanned cameras. The process of reality filmmaking answers the main characteristics of what could be regarded as a documentary format. However, this is a misconception of the production philosophy and intent of many reality TV programs. From my personal experience in observing the production of reality TV shows such as *Big Brother*, there is far more control over ‘reality’ events than might be supposed. Many such shows are engineered to create imagery and situations that the TV networks have determined as being what the audience wants to see; this is not a trade secret, and can be observed in the ‘behind the scenes’ episodes of such programs. Further, the subjects are invariably aware that they are under constant camera surveillance, and will play to their strongest suite for the cameras, or deliberately create controversial situations that might not have otherwise occurred. Much if not most of reality filming is carried out by manned cameras; it is not ‘fly on the wall’ recording by any means. This fact also implicates the argument that the subject never forgets the camera.

It is significant that many of my films were made at a time when straightforward descriptive story-telling about things, times and places was still novel and acceptable as entertainment. With the growing awareness of impending environmental disaster, however, and with the potential damage of climate change becoming less of a fictional possibility and more of a certainty, it seems that the tone of documentaries dealing with such issues must become more direct, if not actually confrontational.

Reflecting upon the findings of this research project, will its content and approach have any impact on the understanding and appreciation of classical music as a significant cultural phenomenon? Unless this is a clear intent in terms of the way in which the film is made, especially in the delivery of commentary, this is a difficult matter to assess. For this reason, in the course of editing of *The Musicians*, I made the decision to increase the coverage of the subject by extending it into a series of perhaps for to six programs in order that the importance of the subject material could be better expressed in terms of the social significance that I believe the topic warrants. Making a decision of this level of importance, which will tie up a number of years in production, also requires the filmmaker to balance his or her assessment of the potential contribution alternative documentaries might make through dealing with other pressing social issues. Is the confrontational and contrived approach of American filmmaker Michael Moore likely to be more successful than the direct, more immediate reporting of Laura Poitras? This is a question that can probably only be answered on a case by case basis, acknowledging the individuality of views and the segmentation of audiences.

There are also other considerations involved when a documentary maker exercises their perceived right to freedom of speech, especially the possibility that others might fundamentally disagree with your opinion, or that your opinion may be completely erroneous. The following incident which was reported widely in the international press is an extreme example of possible risk:

November 2004: Theo Van Gogh, a Dutch filmmaker and provocative television host, was slain on an Amsterdam street by a Moroccan Dutchman to avenge what the killer regarded as Mr Van Gogh's anti-Islamic work. Mr Van Gogh had collaborated with Ayaan Hirsi Ali, a Somali refugee-turned-Dutch politician, on "Submission: Part 1," a short film in which verses of the Quran were written on the bodies of naked women to protest their treatment by men. Ms Hirsi Ali was offered, and accepted police protection after the film was shown on Dutch television, but Mr Van Gogh had refused such protection (New York Times, 2004; news.bbc.co.uk, 2004, and others).

Arguably Van Gogh realised the risk he ran and was prepared to accept it. This implies that he may not have fully thought the matter through.

Unfortunately, such repercussions are not unique. The tragic attack upon the headquarters of the Paris-based satirical paper *Charlie Hebdo* is a more recent example of art inciting hatred. These events demonstrate, however, that art has impact, even if it sometimes seems that an audience simply watches a documentary then moves on to the next thing.

The Van Gough incident raises the important issue of the visibility of in society, and the response of members of the general public to being filmed.

2.9 The camera as an intruder

Jean-Xavier Lestrade, who won the Academy Award in 2002 for best documentary with *Murder on a Sunday Morning* (2001) says that, putting the filmmaker's approach aside, it is unlikely a documentary subject will ever completely forget the presence of the camera and the sound boom. How much this affects the truth of the situation we are filming is a matter of conjecture (Lestrade, 2009).

I would agree that if a film subject who is not accustomed to being on-camera is confronted by a camera operator, his assistant, and a sound assistant with a boom pole, and possibly an additional production assistant, it is more than likely to be a disconcerting experience. As an example, during the filming of *The Musicians*, I engaged another cameraman to assist with filming a rehearsal of Beethoven's *Symphony No. 9*. While I was concentrating on panning from soloist to soloist using a long lens, the other cameraman suddenly appeared in my viewfinder literally within two meters of the baritone's face, getting that 'reality in-your-face close-up' that could have been equally as well achieved from ten meters back with the same zoom lens. That lack of awareness of protocol and respect for the artist evoked strong criticism from the soloists and very nearly had me evicted from the concert hall permanently. The fault was mine for assuming too much of the other cameraman's filming approach, and it reminded me to maintain a 360-degree awareness during all location shooting. One of the principal reasons why I usually work completely alone

under these circumstances is to minimise this kind of ‘impact of the filmmaker’, whether working with an individual artist or a full orchestra.

As a matter of course, my filming equipment is set up as far away from the subjects as possible, and well before any rehearsal or performance activity commences. If the filmmaker and camera equipment are in their place in advance of the activity to be recorded, it is more likely that the filming process will be regarded as part of the background. In the course of any long-term shooting, such as that for *The Musicians*, I will always ask any of musicians being filmed, and who look even slightly nervous of the camera, if being filmed disturbs them in any way. The responses invariably indicate that both the cameras and the camera operator are ultimately forgotten or ignored as other, more important issues, such as following a complex music score, or concentrating on playing, take precedence in the subject’s attention. The notable exception to my rule of keeping my distance when filming is when recording interviews. Seated facing the subject, I usually have one side camera set up some three meters away, and the main camera behind me, shooting over my shoulder with only the lens visible to the subject. In addition, as much as possible I conduct interviews later in a production when I feel that the subjects are familiar with both my presence and the purpose of the film. An interview then becomes merely another conversation.

Attention to details such as subject awareness is, or at least should be, integral to a filmmaker’s approach and technique. This particular aspect of production has been positively influenced in recent years by the development of less conspicuous solid-state technology.

Summary of Part 2

Film production is usually regarded as a collective art form partly because of the craft complexity involved in directing, lighting, sound recording, cinematography and editing. As a consequence, there are very few truly solo in the industry as a whole. However, the advent of digital technology has created far more user-friendly environments in which independence can flourish. As an independent filmmaker, the

lower cost and greater ease of use of filming and editing equipment has encouraged me to undertake equipment and data intense projects such as *The Musicians*. ‘Going digital’ has also enabled me to develop a more individual production style, which is becoming increasingly necessary to stand out in an expanding crowd. Because so many more people are now undertaking production without necessarily having a formal background in filmmaking, film practice is also becoming more individual and less prescribed. There appears to be less of a tendency for current to emulate the methodology of others.

The idea of promoting individuality in creative output is not new. The creative style of artists such as Leonardo da Vinci and Michelangelo Buonarroti was their meal ticket. Even in their time, the quality and saleability of an artist’s work were both crucial to survival. In the same way, artists and of today tend to rise and fall on their capacity to constantly adjust and re-adjust to a changing market. They must also contend with commercial competition that has arisen principally through the user-friendly nature of digital cameras, coupled with the changing demands of buyers. If a particular client wants drone shots in his commercial and you do not happen to have a drone, the job goes to someone who does. Regardless of the huge number of around, and the amount of literature available on how to make films, independent strategies appear to be proliferating and succeeding. However, while maintaining their independence, also need to be aware of their own impact, and the impact of the subjects they choose to cover, in determining their own path. A more liberal way of thinking about films also gives some greater freedom to take risks in production. *The Musicians* provides an example of one filmmaker following his own choice of material and approach. This dissertation now considers the specifics of the production of the documentary element of this research project.

Part 3

A practitioner's approach to *The Musicians*

3.1 Changing trends in the small-screen marketplace.

Because of the availability of a huge diversity of recreational viewing, today's television, cinema, and social media audiences are, in a sense, more selective than previous generations. They exhibit a wide variety of views on what is good or bad entertainment (though not necessarily on what is well or badly produced). While documentaries still have a place in the line-up of available entertainment, they also face increasing competition for viewer attention. With the current proliferation of small-screen devices, programming must compete with, for example, the sights and sounds of a busy city street. The increasing incidence of people walking off a footpath into the paths of cars or off a railway platform onto the tracks indicates that the audience capture of small screen entertainment is highly successful (Davies, 2015).

Documentary makers' options when producing program material hinge to some extent on the filmmaker's adaptability. Should a documentary maker create a program within a genre that is known to capture attention, such as sports, sex and violence or reality shows based on the lives of the contestants? Or should he/she continue with more intellectually-based subjects contemporary art that require a higher degree of cerebral engagement on the part of the viewer? Unless working under contract for a specific story on a specific subject, independent documentary makers have a high degree of choice with regard to selecting their subject matter. According to Professor Brad Bushman, a noted communications authority, sex and violence in television commercials can actually put people off buying a product because potential customers tend to forget what the advertising was actually trying to sell them (Lull & Bushman, 2015). Simply put then, the subject matter has to engage the audience without extraneous distractions.

It is hardly surprising to discover that the strongest interest is generated among audiences not by current affairs or educational programs, but by intrigue, crime and blood and thunder. Among documentaries, some of the most bizarre films have found

significant audiences. In terms of earlier box-office success, the *Mondo Cane* films are prime examples of the extremes that attract audiences. Made by three Italian, Franco Prosperi, Paolo Cavara and Gualtiero Jacoppetti in 1962, *Mondo Cane (A Dog's World, or A Dog's Life)* was the first of several related titles known as the *Mondo* films. These films are, in effect, documentaries (also called 'shockumentaries') that deal with almost every kind of extraordinary human behaviour, and when they were made they were regarded as decidedly risqué. The popularity of these films gives cause for to consider the degree to which audiences are interested in aspects of human behaviour. The *Mondo* films ran in cinemas for a number of years, and have been re-released on *YouTube* as recently as 2014. Despite some of their socially unacceptable content (racism and explicit sex), the films are fast, slick and, to many, entertaining. Successful films on equally odd topics include *Gates of Heaven* made in 1978 about the pet cemetery industry (shades of Evelyn Waugh's 1948 novel, *The Loved One*), *A Hole in the Head* from 1998 about the modern practice of trepanation, and the 2002 documentary *Cinemanía*, which deals with a group of people who are addicted to watching movies (Christleib & Kijak, 2002). Each of these films has been structured to appeal to a sufficiently broad cross-section of the viewing population to allow the filmmaker to recoup the cost of its production, and return a profit.

The array of films and television series that address themes of crime and violence are a further indication of the degree to which media producers are prepared to accommodate the entertainment tastes of their audiences. For example, both the BBC and National Geographic have made documentaries titled *Psychopath*, which consider the minds behind some of the most horrendous crimes of modern times. Made in the early 2000s, these films use a commercial, minimalist, interview technique to recount details of the characteristics and behaviour of psychopaths. The fast-cut and matter-of-fact delivery underscores the litany of aberrant behaviour with a filmic approach similar to that of the popular press and television news.

Building upon the public interest in crime-based entertainment, recent series such as *Sherlock* (2010 onwards), *Ripper Street* (2014) and *Hannibal* (2015) have taken the shock value of entertainment well beyond anything that *Psychopath* (or the 1960 Hitchcock 'slasher' film *Psycho* for that matter) could, or were designed to, deliver. The casts, production values and explicit violence and gore of these and other

similar series demonstrate some of the highest quality production values of today's digital environment, as well as feeding the public appetite for this brand of entertainment. While viewing trends indicate that such programs have a limited life, prestigious production houses such as De Laurentiis Co (*Hannibal*) and BBC/WGBH (BOSTON) are willing to spend millions of dollars to produce them, taking a gamble with returns.

The point is that, against such high cost and high quality production, how does the average documentary maker survive? The answer is, because of the cost-efficiency of modern digital filmmaking equipment and the use of solid-state media, documentaries can now be made more cheaply than ever before. Thus, independent documentary makers can remain competitive. Considering the increasing screen hours consumed by viewers in seeking entertainment via mobile devices, it remains possible for good documentary makers to cement deals that allow them to continue producing the kind of programming that they prefer to make. Further, domestic entertainment bundles are becoming increasingly more accessible. For example, *Melita* offers a comprehensive bundle comprising of up to one hundred and twenty seven digital channels, twenty four HD TV channels, forty eight digital music channels and sixteen radio stations for around \$50 AUD per month. This situation must change, however, especially with the development of interactive, multi-platform programming which will increase the need for to adapt to a constantly changing market, or perish.

3.2 *The Musicians* and marketing

After so many years of filmmaking, while my interests remain similar in terms of subject material, *The Musicians* has provided an opportunity to experiment with editing techniques originated for feature films, particularly the manipulation of filmic time and space and the so-called 'collision' editing initially formalised by Eisenstein (Maclean, 2012). The prime reasons for wanting to experiment with changes in the production of *The Musicians* are to gauge the creative impact of incorporating a number of editing effects (e.g. colour and speed changes) into a relatively static topic area such as music, to assess whether this change in production method might produce a more marketable product by making it more visually appealing, and to test the

extent to which my own views on documentary structure have been extended, challenged and to some extent relaxed by working on this research project.

As mentioned previously, the estimated cost of making *The Musicians* as a research-driven project has been in the area of \$40,000. If the film had been made as a fully independent commercial production, including the use of a greater diversity of digital equipment, the actual cost would have been closer to \$300,000. However, given the current marketplace interests, it is quite probable that if this film was packaged as a TV special, with additional distribution through YouTube and a subject-specific web-site, it would recoup its production costs and make a profit within three years, which by today's standards is an acceptable life for a program of this kind. That said, the viability of a successful documentary in terms of its budget returns is highly variable. As an example, my first film on hand-raising tigers as a conservation measure, *Awesome Pawsome*, had no buyer interest until its completion. The program then ran on *Animal Planet* for over eight years from 2002 onwards, which is one of that network's longest runs for a single program. This demonstrates the potential success of a novelty subject, which in this case was baby tigers, and the interrelationship of a prime predator and people, coupled with a success story in hand raising as a conservation measure.

It is my hope that including footage on a diversity of music played by young musicians, detailing the musical ability of a prodigy pianist, and demonstrating the success of a determined career change by a young conductor will trigger viewer interest. The success of the program will ultimately depend on this combination of content and effective promotion. The arts-based channels in Europe, Canada and the USA and social media are the intended primary distribution channels for *The Musicians*. Even given its entertainment potential, the risks of creating a film such as *The Musicians* without first gaining a presale, or securing the interest of a network, are enormous. However, as an independent, mostly self-financed filmmaker, I have in the past examined the odds for and against finding a market for documentaries with less popular subject matter and have decided that making a certain kind of film is worth the risk. Two on my own films, *Australian Christmas* and *Inside The Australian Ballet* are titles that justified such speculative production. Given that the subject was eminently suitable for this study in terms of its subject diversity, and the

subject material was readily available, I decided to go ahead with *The Musicians* based on my passion for the content, my intuition (a tool of judgement that has driven many to the wall), and on my review of the performance of previous documentaries with equivalent content and/or approach over the past 20 years. Films such as *Music of the Heart* (Wes Craven, 1999), *A Prairie Home Companion* (Robert Altman, 2006), and *Walk the Line* (James Mangold, 2005) are a few of many documentary-style feature films based on music, real characters and real events. Though not box-office smash hits, each of these films did sufficiently well to indicate market interest, and each justified its production budget.

There are over 8,500 music-based documentaries listed in the IMBd data base, which strongly suggests that there is a market for such programs.⁷ The majority of these films feature popular groups of the day (*The Doors*, *Rolling Stones* and *Led Zeppelin*), however, and given that many are presented by well-known personalities, such critical mass does not necessarily auger well for films based on symphonic or classical music. A more specific search for documentaries based on classical music revealed the release of some fifteen hundred titles since the early 1980s. In a series of articles between 2013 and 2106, specialist classical music writer and journalist Gavin Dixon indicates that interest in classical music films is on the rise, and is fostered through the agency of internet sites such as *YouTube* (Dixon, 2014). Dixon's view is that *YouTube* is a repository for a huge diversity of music, and supports an awareness of classical music. When this project is completed, I will set up a purpose-designed web site and a *YouTube* channel to which fifty or more clips from *The Musicians* will be uploaded. Ranging from thirty-second grabs to complete performances, the site will hopefully help to foster awareness of classical music, and the documentary. To remain viable, and to increase personal visibility in this industry, a documentary maker needs to be aware of the performance of similar programs and the effectiveness of specific approaches to publicity.

In terms of production methodology, *The Musicians* provided me with an opportunity to revisit and develop editing techniques that can enliven relatively static subjects, with an emphasis on methods of incorporating filmic time and space into an

⁷ <http://www.imdb.com/> = Internet Movie Database

editing timeline; such effects would include creating zoom and panning effects within static shots, together with increasing and decreasing frame rates to effectively slow or speed up action. Producing *The Musicians* has also reinforced the importance of not taking the foundation ‘nuts and bolts’ of editing for granted as most of us tend to. It is thus essential that film assembly and editing strategies need to be carefully considered, particularly in establishing the clear purpose and direction of the film from the outset. Of specific importance here is striking a balance between what is desirable, and what is practically achievable so that time and energy are not wasted in chasing unlikely scenarios. This relies heavily on experience.

A summary of key production processes involved in making *The Musicians* now follows.

3.3 Pre-production considerations

Before any production work proper commences, all details of a film project need to be examined during the period referred to as ‘pre-production’. During this time, pertinent questions need clear answers. Questions such as is continued access to suitable subject material assured? The presence of several non-commercial, or amateur, orchestras in the Perth area and the provisional agreement of the management of the West Australian Youth Orchestra in particular to allowed me to film behind the scenes. The access was verbally granted on a trial basis. Similarly, access to WAAPA’s Faith Court Orchestra was approved on a session by session basis. Access to other non-professional orchestras and individuals would be negotiated as the need arose. Such accessibility cannot be assumed. In the case of what was ultimately a financed, contracted production, *Inside The Australian Ballet* required written contracts before any production other than provisional research was attempted. This was especially necessary when dealing with a professional state-funded orchestra and advance contracted funding from the ABC. The same would apply to productions that are subject to completion guarantees, indemnity insurance, copyright agreements and other similar factors that could affect their continuation and completion.

What arrangements need to be made for advanced sale and recouping production costs? In this particular case, the objective was to make a film as a partial requirement for a post-graduate degree, so recouping through sales was theoretically not an issue. The level of commitment on the part of myself as the sole production participant did, however, require a considerable personal financial outlay, but for the purposes of the research project any efforts to recoup costs were put aside for the time being. While *The Musicians* was to be produced to a professional standard, it was also recognised as a study project from the outset. As previously mentioned, the risks in engaging in such research without a detailed production strategy already in place could at first sight seem foolhardy and even reckless. From previous music-based productions and a long-term personal interest in classical music, however, I was confident in finding a story within the subject matter. The structure and function of symphony orchestras together with the processes of rehearsal and performance were familiar to me, as was the way to approach the orchestra (my intent here was to not interfere in any way with its normal running). In this regard, the project content was not completely unknown, but I needed to find the characters, the people, to bring the story to life.

Because not all orchestras operate in precisely the same way and considering that I would be dealing with essentially teaching situations, *The Musicians* required me to spend some time simply observing the orchestra. This would also allow me to work out essential filming strategies such as how would I actually manage filming an orchestra comprising at least 80 members, while also highlighting the experiences of a number of individuals.

Facing these uncertainties in the early stages of production and using largely unfamiliar digital filming equipment, the generation of an extensive amount of raw material was guaranteed. In other words, there was no shooting schedule, no shot lists, and no ceiling put on the amount of footage that would be shot. This combination of factors then presented a strong practical challenge to the efficiency of digital non-linear editing. As the specific production software I purchased for the production was also completely unknown to me, more than one steep learning curve lay ahead. The actual approach to filming *The Musicians*, in terms of what might be expected from a documentary film, was also a major consideration.

3.4 Changing a point of view

While there remains some discussion around the definition of what ‘a documentary’ is, particularly in terms of the apparent lack of agreement on the newer visual platforms such as transmedia, a satisfactory working definition does have importance in terms of what others understand by it, including marketplace expectations of the genre. For example, the use of creative processes in documentary structure has been basic to the form since multi-scene films began to appear in the early 1900s. This aspect was certainly incorporated within John Grierson’s early definition of the documentary format as ‘the creative interpretation of reality’ (Eitzen, 1995). However, approaching a subject with a deliberate intention to include creative interpretation, that is, content which is outside boundaries of objective data collection had not previously been part of my filmmaking protocol.

My own approach to documentary filmmaking had been strongly influenced by my early scientific training, which minimized, if not demonized, creative interpretation of any data. As much as possible, I have worked with a more literal interpretation of the term ‘documentary’, as a film that portrays real events as they occur in the real world. In the process of developing *The Musicians* it became increasingly evident that the subject material was open to creative interpretation in the ways that music was performed and received; that performance has a strong element of inbuilt creativity considering the number of people involved in an orchestra, and the over-riding creative approach of a conductor. Consequently, in producing this work, I have experimented with my practice and explored aspects of documentary making that justifiably embrace creative approaches.

One creative process integral to documentary filmmaking in particular is the necessity of compressing the time duration of filmed events. Time compression is so basic to film editing that it tends to be accepted subconsciously as part of the process, and not necessarily associated with other more apparent creative decisions. An overview of editing considerations now follows.

3.5 Editing in documentaries

When I first began making films in the early 1970s, every editor I knew spent countless hours performing an oecumenical ritual. Film editing involved running rolls of work print through the sprocketed guides of a heavily-engineered editing bench in a darkened room to view the film images on the twenty-five cm editing screen; or a pair of screens if you owned a *Prevost* editing bench, as I did. The shots to be assembled were then selected, marked with a white or yellow chinagraph pencil, cut from the work print and hung in the selected order over a canvas editing bin. The editor wore white cotton gloves to avoid marking the print. The images were then added to the assembled master roll in sequence by literally sticking them together by means of a film splicer equipped with a roll of adhesive transparent tape. Editing rooms had a familiar smell associated with celluloid and the particular tactile pleasure of actually handling the assembled images that could now be transferred to a film spool and projected onto a 3 x 3meter screen. Viewing the cut film was the ultimate reward.

The development of film editing technique has been shaped by the contributions of many . Whether working with film in its earliest celluloid form, or with the latest digital imagery in a non-linear environment, all are armed with essentially the same storytelling tool in the form of original camera shots. It is, however, the way in which individual manipulate their raw material that gives rise to specific storytelling methodologies.

Considering the who coexisted around Edwin Porter, albeit some of them in different countries, such as the Lumiere brothers, the visionary effects magician Georges Méliès, and Australian filmmaker Frank Hurley, Porter's work is all the more extraordinary in that he devised editing techniques that were well ahead of those of his contemporaries. As imaginative as they are, the films of Méliès do not vary to any extent from their linear format as one shot leads inevitably to the next in the temporal sequence. It was this inevitability in the film editing of the time that were soon striving to avoid.

Edwin Porter was among the first of the early to think 'outside the box'. Even his earliest work demonstrates a degree of dynamism lacking in the work of his

confreres. The oft-quoted 1903 Porter film, *The Life of an American Fireman*, included close-up cutaways and a range of other unexpected shot combinations. His second film in 1903, a twelve-minute documentary-style production, *The Great Train Robbery*, reveals a more sophisticated style of shot juxtaposition with no attempt to use match cuts as a continuity device. In *The Great Train Robbery*, Porter chose to use two adjacent shots from completely different locations to create quite significant shifts in time and space within its 12-shot structure. In effect, Porter foreshadowed the use of Eisenstein's metric montage, presumably unintentionally. Russian filmmaker, Sergei Eisenstein, developed the montage method as a means of influencing the audience's perception of the passage of time by varying relative shot lengths to speed up or slow down the film's action (Goodwin, 1993). Even considering that most of these early films were of a short duration, the output of hundreds of film by Porter was prodigious by any standards.

D. W. Griffith introduced a style of shot juxtaposition that was completely new in film editing of his time, combining shots from a range of lenses (wide to extreme telephoto), tracking shots, cutaways, fades and other shot formats to draw audiences into the action of a film more effectively and to increase the dramatic impact of his work. Griffith made more extensive use of techniques such as parallel editing, or cross-cutting, and camera tracking to increase dramatic effect than Porter did, though both innovators shared a number of core editing techniques. It has been suggested that Porter effectively paved the way for some of Griffith's editing methods but that Griffith advanced the application of editing methodology (Musser 2004 and others). Griffith also experimented with increasing the time duration of his films, and ultimately succeeded in producing his two-hour screen epic, *The Birth of a Nation*, in 1915. The editing methods used by Griffith in *Birth of a Nation* attracted the interest of Russian film producers of the time, including Sergei Eisenstein and Vsevolod Pudovkin. Presumably much of the interest here was related to Griffith's success in manipulating politically-based material in his 1915 film. The Russians were attempting to develop more effective ways of increasing the impact of adjacent images, and originated the technique of montage as a result.

Montage, which literally means 'to mount', was initially used by Eisenstein to develop a new narrative style for his epic political productions to create a form of

visual conflict; thus the term ‘collision editing’ (Goodwin, 1993; Maclean, 2012). This method exemplified the importance of visual story-telling by the specific way in which as few as two moving image clips were arranged to create sequences. The concept of montage remains the basis of modern film editing and has been adapted by the intervening generations of film directors and editors to suit their own particular filmmaking style.

In editing my own films, I use a montage style to assemble key images in a linear form that effectively becomes the film’s template. From here, non-linear editing technology makes it comparatively simple to insert and juxtapose shots in any combination and length much more easily than any of the early could have imagined possible; the resulting style carries its own characteristics and is therefore difficult to categorize. Because non-linear editing allows an editor to easily transform a given sequence of events in any way he or she chooses, today’s use many variations of editing technique that were originated by innovators such as Porter and Griffith. In effect, editing methodologies have now become a kind of communal property, comprised of a mix of techniques derived from many sources, so much so that their stylistic origins are now very much blurred.

3.6 Time, space and place in making *The Musicians*

The filmic incorporation of the protocols relating to *time*, *space* and *place* as devised by Porter, Griffith and others have become commonplace in modern film editing and are now discussed further.

Three main conditions are instrumental in creating a believable film structure from real life events. Firstly, the difference between the duration of the real time over which footage was shot, as in an orchestral rehearsal or a football game, and the time in which it is represented in a film. The second is the combination of two or more events that are taking place at the same time in different places, and finally, how to treat two or more events that have occurred in different times and places. Accepted techniques now exist for the treatment of each of these scenarios.

Considering the extent to which film images can be manipulated, and although I strove always to match my films with the reality from which they came, in general terms a documentary can never be reality. It can only be a shortened version of reality because the entire duration of filming cannot be encompassed within the time frame of the final edit. For the sake of a name, I refer to the process of managing the time differential through editing as time compression. As an example, a 30-minute film on automotive assembly cannot possibly include the step-by-step process of building a motor car, but only a summary of it. This same principle applies to the editing of any footage or audio track which removes portions of a documented event in order to create a shortened version of it in terms of its running time.

At the commencement of filming *The Musicians*, I envisaged at best a single feature-length program of 60 to 90 minutes that provided examples of the training, discipline and support experienced by Perth's young musicians. What was actually recorded over a three-year period has the potential to make an extended series of up to six one-hour programs. Each performance and most of the rehearsals documented during production were recorded for their full running time on at least three cameras. This resulted in approximately 40 hours of public performance and some 250 hours of rehearsals, with an additional multi-track audio recording of all filmed material. If it is assumed that a completed film will run for 90 minutes, an enormous amount of editing is required to make use of even small parts of the original vision and audio. The temporal reduction or temporal compression of any one of these performances represents a significant alteration of the original material and a consequent variance from reality.

As an example, an excerpt from the second movement of the Tchaikovsky 5th *Symphony* was used in the opening sequence of *The Musicians*. The duration of the original second movement (*Andante cantabile con alcuna licenza*) is around 12:30 minutes. Under most circumstances there is simply not time within the average length of a film for such a piece to run for its full duration. or its use in *The Musicians*, the recorded excerpt runs at less than 3 minutes. Much of the movement has been sacrificed to highlight a small part of its familiar and dramatic theme to secure the attention of the audience in the opening minutes of the documentary.

Another aspect of time in documentary making is the potential impact of a film's immediacy; its placement in a particular period of time. Without exception, my films such as *Reptiles*, *The Rocky Shore* and *Inside The Australian Ballet* were all shot in the present and recorded events that were current at the time. Because I work almost exclusively on long-term productions, by the time the film is completed, the events that it deals with could well have taken place two to five years in the past. Similarly, a viewer watching *Awesome Pawsome* on Animal Planet in 2010 is seeing events from 10 years in the past. As far as the viewer is concerned, however, the events are taking place now in the viewer's present. In practice I have in effect created an historical document. That is another aspect of time shifting.

There are some remarkably simple methods of indicating both space and time in documentaries. Until recently, I rarely used titles in the body of a program because my work was largely based on linear events in which the storylines progressively unfold. They did not usually require information that was additional to the script. *The Musicians*, however, deals with several concurrent ongoing events that do require quick and simple explanation. Consequently, I have used titles throughout the film to mark both the passage of time and the specific stages of each of these events. The titles are simple, such as *Saturday morning: 9:00 am* and *A week later*, but they are sufficient to inform the audience precisely about what is occurring at this particular time and place. By contrast, the editing techniques used for manipulating time and taking the audience on a journey that is in places unpredictable involve more complex means of representing time visually.

A film's fluidity, that is, the way in which a film unfolds and reveals its content, depends on how its relationship to reality is shaped by the editor's logic for including or deleting specific footage. This is largely determined by the time duration of the completed documentary (a film's running time), the extent to which time is compressed during the edit (the potential impact of reducing the actual running time of the original footage), and the key reasons for main editing methods that were used to shape the final film. One factor that will determine a film's success is the clarity with which the audience is able to place events in time and space. If this is confused, then the entire film may be equally confusing. These matters are now discussed further.

3.7 Applying a sense of reality to *The Musicians*

As mentioned previously, the techniques used in film editing are essentially dictated by the subject matter. For example, the same editing techniques such as shot length, camera height and selection of lens would not be used in both a car chase and an art exhibition. Editing decisions, including shot length, transitions and special effects, revolve around the director's creative relationship with the material and the suggestions that an editor might make with regard to its treatment. This collaborative relationship, however, takes on greater meaning when the producer, director, cameraman and editor are all the same person, as is the case in this project. Despite assumptions to the contrary, a personal approach does not automatically guarantee that a production will be overly subjective. Consider the film *A Prairie Home Companion*, directed by Robert Altman (Altman, 2006) in which the originator of the *Home Companion* radio show, Garrison Keilor, was engaged by Altman to write the script and to play himself in a fictional movie based on the final performance and demise of the actual radio show, *A Prairie Home Companion*. Thus the movie is based in reality, incorporating the original location and many of the cast of the weekly radio program. It also employs actors including Meryl Streep and Lilly Tomlin, and is filmed in the original theatre before an audience that would usually attend a typical Saturday night show which effectively combined a recording session and a stage performance. While Altman's constructed story of the last radio show is fictitious, it is clearly based on the reality of the actual radio show. The film also contains a degree of prophecy related to the limited future of a show like *A Prairie Home Companion*. At some point this show, and Garrison Keilor, will have to change.

Much as the styles and techniques of painting landscapes can be taught, some aspects of editing practice can also be taught, but the finer elements of artistic talent, such as an innate sense of timing or the continuity of motion between shots, cannot. While having a knowledge of traditional production methodology is important, there are additional more intuitive artistic elements that are part of a good editor's creative arsenal. A measure of the success of artistic capability and potential is related to the extent that innate abilities are recognized and developed into aspects of practice.

A committed editor will develop his or her own distinctive editing style which, although it may be adapted to the needs of a particular film, remains as recognizable as the work of any *auteur*. Under most circumstances, it is the resonance between a given director, the director of photography and the editor that determines the specific ‘look’ of a film. It is not uncommon that well-tuned relationships of this kind endure for the creative life of the parties concerned. These include the relationships between director Francis Ford Coppola and editor Walter Murch which lasted from 1969 to 1979, and Steven Spielberg and Michael Kahn who have made a very successful team since 1977. Some editors, such as John Ottman, have a specific reputation for working with music and will be actively sought out by directors for that reason alone. While working relationships like these tend to apply more to feature films than documentaries, it is the impact of the creative characteristics of the film’s decision makers that largely determines how the subject matter is ultimately treated, whatever the filmic genre. In dealing with real-life subjects, the combination of creative decisions can either increase or decrease the distance between the original subject and its final outcome. As a solo filmmaker, all editing decisions effectively lie with the personal viewpoint.; this means that, in effect, and in direct contrast with a team-made film, the solo filmmaker’s product becomes far more of a personal document of the events being considered. To provide a clearer idea of how this occurs in documentary making, this work will now address some aspects of production.

3.8 Multi-camera recording as a critical technique for a solo operator

Whether films are fictional or non-fictional, many productions are shot with only one or two camera crews operating concurrently. There are exceptions in which more cameras will be used, such as action in which a set may be destroyed, or a spectacle that is too expensive or time consuming to be repeated. This is especially common in wildlife productions when an event such as a mass migration may occur only once a year. In such cases, several cameras and camera crews may be used to document the action as a safety measure, but this is the exception rather than the rule.

In both feature films and documentary re-enactments, several takes for each setup are standardly shot from different angles sequentially, thus providing the editor

with a choice of several shots of the same scene taken from different angles. Even though there may be minutes or even hours between each of these shots, the edited sequence will flow seamlessly as a continuous event. This is also the case in a television studio⁸ with the filming of the continuous action of supposedly unscripted subjects such as in reality shows, putting aside for the moment the fully contrived and controlled nature of most such productions. In news, events and sports broadcasts, six or more cameras are used simultaneously to move around the action. These live-action cameras are recording what is happening now, which is essentially documentary format, non-fictional action. The final visual output is coordinated by a studio director and an operator skilled in camera selection (a vision switcher). The vision switcher cuts or mixes the output from one camera to another depending on the call of the director. The result is a series of smooth transitions which create a sense of continuity in the program image that is an accurate representation of the action being recorded. This is the ideal in terms of subject integrity and it is as perfect a record as these things can be.

Filming a complete orchestral performance has one major drawback for the filmmaker in that each performance is usually a once-only event, making multiple camera shooting mandatory for a solo operator. The filmmaker must also be fully familiar with the music being played in a specific performance so that camera placements allow the capture of any instrumental passages that are of specific significance to the performance, such as an extended solo. As a rule, I do not single out instruments, or even entire sections of the orchestra, to be able to cut to, for example, a close shot of the oboist as he or she plays a particular theme. However, on occasion, this technique works to highlight the significance of that instrument at the time. Specific subject targeting in, for example, the commencement of a piece such as *Boléro*, which features solo instruments, is often mirrored visually as part of the orchestral build-up. Constantly cutting from one instrument to another as they play, however is, in my view, akin to painting by numbers. This is evident in numerous

⁸ From personal experience the production techniques outlined here have been in place in Australian television studios including Channel Nine, Channel Ten and the ABC, since the late 1970s. Although broadcast equipment has become more streamlined and sophisticated since then, the methodology of live broadcasting remains much the same.

examples of footage of orchestral performances; for example, some performances of the Berlin Philharmoniker conducted by Herbert von Karajan.

One of the principal features of a stage performance is that members of the audience have the freedom to select and observe any part of the stage that attracts their attention. To have the unalterable focus of the audience so tightly directed by a filmed performance generates a level of predetermination. For example, the music aficionado who is familiar with the piece is able to direct his or her own particular interests and areas of focus in a performance. In the filmed version of a performance, by cutting, for example from close images of trumpets to tympani as they are played provides the viewer with no choice. That is, in this instance, in the absence of wider shots of the performing orchestra, the viewer is being instructed as to how to experience the piece

The exercising of a personal preference of this kind illustrates the impact that a filmmaker can have intentionally or otherwise on the creative aspects of filmed entertainment. As stated previously, for many years I believed absolutely in the concept that documentaries should be free of subjectivity. Making *The Musicians* has demonstrated clearly that, although unintentionally, I am as susceptible as any other filmmaker to introducing subjectivity as a direct result of my filmmaking technique. Being made more consciously aware of this has relaxed my former, somewhat rigid view of acceptable documentary technique and content, which can only improve the creative intent of my work.

The lack of opportunity to record full coverage of an orchestral performance, putting aside for the moment potential copyright issues and instrumentalists' union contracts, is another issue faced by a solo filmmaker. Some years ago, filming a final rehearsal with an orchestra in full performance attire provided an opportunity to film a backup of the concert. More recently, however, the idea of the orchestra wearing performance dress for a final rehearsal has almost disappeared from all but the more exclusive ensembles, or unless the rehearsal is a designated photo-shoot, which presents problems of its own for the filmmaker. To have one or more stills photographers stalking though the orchestra as it plays does create a visual distraction. That irritation aside, for a solo operator to record a performance requires multi-camera filming as a matter of course. Coping with the resulting extra footage

subsequently requires the creative involvement of a film editor, and underscores the many advantages that digital technology brings to documentary production.

Using a multi-camera technique, especially in a performance-based program, reinforces the necessity for the filmmaker to create acceptable excerpts which can be built into a program that has a limited running time. This sequence-driven approach increases the dependence on an editor who knows how to select and incorporate relevant performance excerpts into an overall whole without demolishing the integrity of the piece and having the effect become jarring. The value of having an editor who has the skills to work with so many different situations cannot be overstated. Despite the evidence, opinions within the film industry on the role and contributions of the editor remain divided.

This is not the case however with my own solo style of production, which tends to be basically descriptive. As such, it is readily adaptable to the creative need of each new film. If my filmmaking style does have an editorial characteristic, it is related to the intimacy that I am able to bring to a subject by virtue of my ability to use multiple cameras (a minimum of two) to shoot around a subject. As the film's editor, I am then able to combine a series of medium and close shots to draw the viewer into the subject. I make only sparing use of wide and ultra-wide shots to re-establish a sense of place.

3.9 An note of dissent in story editing

When recording an event such as orchestral rehearsal, as previously discussed up to six cameras may be used to document the event from several angles simultaneously. The accumulated data then has to be transferred to master discs, examined and logged. Once this has been completed, the benefits of a digital editing system come into play in the speed with which the material can then be laid out on one or more timelines for an initial rough edit. The timelines are commonly synchronised to each other via the graphically-represented audio track recorded by each camera, then linked to the main audio track recorded by the master multi-track audio recorder. Given that the editor must now reduce up to six separate tracks of vision and sound to a single master track, he or she electronically cuts and splices the

required shots by inserting them in the necessary order on the master track. This process of editing, while universal, still has its detractors.

In Pepita Ferrari's documentary *Capturing Reality*, filmmaker Manfred Becker argues that an editor can compromise the integrity of the original filmed event simply by cutting a continuous documentary clip into two pieces and inserting another piece of footage between them; thus, the editor has "created a lie" (Ferrari, 2008). The implication, according to Becker, is that if, for example, a full-length shot of a cellist practicing has a close-up of the bow on the strings inserted into it, the action becomes unfaithful to the original recording, even though the music audio track, location and all other aspects of the event are unaltered. Conversely, by adding the intercut of the bow, the editor provides new information which aims to enhance the viewer's perception of the cellist and the playing process, rather than detracting from it. This is the purpose of editing.

While Becker's observation that cutting a given shot interrupts the integrity of that shot may have an element of theoretical accuracy, from a practical viewpoint there is no other way that a non-fiction narrative can progress in its story-telling role other than by incorporating new information in the form of a new shot that complements or punctuates those preceding or following it.⁹ To rule out the insertion of a new shot to offer an alternate perspective, and therefore a richer viewer experience, calls the entire editing process into question. Becker's arguments here align with those of the *cinéma vérité* movement, the proponents of which advocate using the film in its original uncut state to maintain absolute image fidelity (Hicks, 2007). Accuracy aside, in terms of filmmaking as an art form, this approach simply is not practical. Much documentary filming relies on capturing an event which is anticipated, but its precise timing is not under the control of the camera operator; for example, waiting for a frog to jump. Thus, a camera may be rolling for ten minutes before the action occurs. Without editing this event into a shortened version, any interest on the part of the audience is almost guaranteed to be lost. The same will

⁹ There are examples of one-shot productions, such as *Russian Ark* (Sokurov, 2002), but these are rare, and are, although carefully done, are heavily edited in terms of adding and subtracting objects from the field of view. Specifically, *Russian Ark* is a tightly scripted historical drama rather than a documentary, or, at best, a docudrama, and must be regarded very much as the exception rather than the rule.

apply to multiple camera shooting in which it would be an exercise in frustration for the audience to watch all three takes without any edits to present the action at its original pace.

3:10 Recording physical expressions of music

Filming musicians in performance provides an ideal means of closely examining factors involved in the individual production and expression of music. Aspects of playing that can be observed include the mode of playing (stance, facial expression, degree of attack and so on), and how this is influenced by the personality of the musician, the structure of the specific instrument, and many other physical considerations related to the production of musical sound. The short sequence in *The Musicians* of Chris Dragon playing an excerpt from the Arnold *Clarinet Concerto* (Arnold, 1974) is a prime example of movement and expression in music production. There are also aesthetic features related to the instrument itself, such as its form and surface texture. Consciously or not, these aspects of a performance are of importance to the musician, the filmmaker, and members of the audience. Each participant, whether as a passive observer (audience member), active observer (camera operator) or performer (the musician), has a specific perspective of the event in progress. To represent the performance as fully as possible, it is important for the filmmaker and editor to be aware of the various levels of involvement and, as much as possible, incorporate them into the final film. Of equal interest to me as a filmmaker are the physical, biological, and structural origins of the music itself. Where does music come from? A large body of work exists relating to the neurological, genetic and behavioural aspects of human musical ability, for example the work of neurologist Oliver Sacks (2008). For example, Sacks describes ways in which human senses function provides the reader with information about the performance of music, and why it does or does not have appeal to us by virtue of its stimulation of our senses.

From a different perspective, detailed arguments related to musicians, and the physical movements related to music making, are presented in Thomas Cohen's book, *Playing for the Camera* (Cohen, 2102). Cohen has much to say about fundamental differences in the ways that musicians play specific instruments. He argues that

musicians have developed instrument-specific, readily recognisable movement patterns to express music differently. While from my experience as a filmmaker I see what Cohen is driving at, and while much of his work is in reference to solo performers, there is a limit to the degree of movement of individual players that can be accommodated within the structure of a symphony orchestra.

As a result of the diversity and quantity of material collected in the course of this study, as previously indicated, it is my intention to make additional programs to create a four to six-part series of programs under *The Musicians* banner. This proposed series would use a number of the sequences already filmed to greatly extend the coverage of the general topic of young musicians, the place that symphonic music holds in current entertainment, and the exploration of other possible links between musicians and their chosen future.

The complete exploration of aspects of a discipline as complex as music in a single film is simply not possible. It may not even be possible in a series: future episodes will determine this one way or another. Section 3.11 provides a more detailed summary of this first episode of *The Musicians*, and offers reasons for the choice of the particular examples that it contains.

3.11 *The Musicians* deconstructed

This section provides an overview of the content of the documentary film, *The Musicians*. The program structure was intended to be that of a traditional documentary, comprising an introductory sequence followed by a series of essentially discrete though connected sequences which develop the progressive of an essentially linear storyline. Even so, the path of *The Musicians* ultimately developed in a different direction. I made the decision to create a documentary that overlapped several separate events as they actually arose and unfolded within the film's timeframe. The alternative was to encapsulate each event as a discrete sequence, which, in my view, would result in a less interesting program.

The principal events that comprise the program are (i) an overview of the WA Youth Orchestra under its leader Peter Moore, (ii) the development of the Babies Proms, (iii) a summary of musical activities that engage Perth's young musicians, (iv) a treatment of some specialist music-related skills, (v) the birth of the Swan Philharmonic, (vi) the evolution of the Grieg *Piano Concerto* performance, involving the unexpected development of an association of the emerging young conductor Chris Dragon, piano prodigy Shuan Hern Lee, and the Metropolitan Symphony Orchestra, and (vii) the development of the Youth Orchestra performance of the Beethoven *Symphony No. 9* under the combined batons of Peter Moore and visiting conductor Dr. Chan Tze Law. Each subject is subdivided to provide an episodic-style presentation within this single program. This method also allows particular topics, such as the Grieg *Piano Concerto* the run for the extended time that it deserves. Although each main sequence is outline here as a continuous event, within the program structure, most sequences will be presented in two or three parts, interwoven with each other.

The title sequence introduces the subject material as unmistakably symphonic and classical, with an excerpt from Prokofiev's *Romeo and Juliet: Suite No. 2* played by the WAAPA-based *Faith Court Orchestra*. The opening imagery comprises defocused vision of the orchestra tuning up. The conductor who enters and commences the performance is not identifiable, but his delivery of a strong rhythmic beat is unmistakable as the heavy bass-driven rhythm of the piece demands viewer's attention.

The opening sequence introduces the West Australian Youth Orchestra (WAYO), the 100 or so members of which have gathered for a Saturday morning rehearsal. While WAYO is introduced as a typical group of music students working in a semi-casual environment, the opening sequence demonstrates that the orchestra is highly accomplished, and capable of professional-quality performance. The sequence also establishes the recurring theme throughout the film of incorporating both rehearsal and performance of works in progress. The vision establishes Peter Moore as the orchestra's prime mentor and conductor as the orchestra works though part of the second movement of the Tchaikovsky *Symphony No. 5*. The vision dissolves from

the rehearsal to the Perth Concert Hall as the Tchaikovsky piece continues as a performance on the concert stage. The excerpt concludes with a fade to black.

A Rehearsal of the Babies Proms further illustrates the abilities and diversity of WAYO students and their role in bringing music to the community at large. Peter Moore explains what is required for the upcoming weekend of one-hour concerts designed for children and their parents. Two orchestra members, percussionist Joel Bass, and clarinetist Chris Dragon have been selected as student conductors for the coming weekend of concerts. With Peter's assistance, Chris and Joel each take the orchestra through the *Babies Proms* repertoire. The scene changes to the ECU Music Auditorium where the interactive Babies Proms concert is performed with an audience of children and parents. The audience members conduct the orchestra, play music-based games and join the orchestra for a noisy finale.

Eight months into filming, complications developed. From the outset, I had intended to follow the journeys of several selected WAYO students, including Joel and Chris. After several months of observation and filming, selection of individuals as points of focus in the documentary were made based largely on the diversity of instruments involved and the apparent determination of the relevant students to follow music as a career. Early in the proceedings, Joel and Chris decided to try their hands at conducting and put together their own orchestra, the *Swan Philharmonic*. The *Swan Philharmonic* appeared almost overnight, and attracted the interest of many WAYO students as being a venue through which to gain further playing experience. Several local professional musicians offered their services as tutors in orchestral performance free of charge. In his capacity as a professional bassoon player, Peter Moore also became actively involved with the *Swan*. Chris in particular became increasingly involved in conducting, and offered his services as a conductor to several local community orchestras, as well the WAAPA-based *Faith Court Orchestra*. Several of the very keen WAYO members also belonged to several of these groups as a means of extending their experience.

On the surface, it seemed that Chris was about to change careers from that of an accomplished clarinetist to that of a conductor. This was confirmed by Chris in a subsequent interview. The outcome from my point of view was that almost every

subject I had in mind to follow up, including the community-based *Metropolitan Symphony Orchestra (MetSO)*, involved Chris to some degree, and the project was potentially resolving itself into the *Chris Dragon Story*. This was not an ideal turn of events for my film project, which aimed to include as great a diversity of players as possible. Within a few months, however, it appeared that many of the orchestral and performance streams that I intended to follow were about to become inextricably interwoven. As a documentary maker, it was clear that I had little option but to film these events as they developed in the hope that the footage could ultimately be used to edit these events into a cohesive story.

As filming progressed, the situation became more entangled since another of the program's intended subjects, piano prodigy Shuan Hern Lee, joined with MetSO and Chris Dragon to mount a performance of Eduard Grieg's *Piano Concert in A minor*. For the time being Chris also continued to play clarinet with WAYO. As a means of increasing the diversity of my filmed material to expand the creative horizon of *The Musicians*, I obtained permission to film other WAAPA-based groups, as well as the Perth Symphony Orchestra. These additional subjects could provide the added diversity that I needed for a more balanced construction for *The Musicians*. Ultimately, with the accumulation of large amounts of footage from a range of sources, the film was able to present a cohesive story seen from several different points of view.

Footage of *The Musicians* began to accumulate at an equally unanticipated rapid rate. Ultimately the data filled 15 external hard drives which ranged between 1 and 3 Terabytes. With this amount of data and effectively no production budget, I was unable to backup up any of the raw footage. Although this was to have some unfortunate consequences, the accumulated footage provided sufficient material to assemble some alternate sequences.

WAAPA management engaged a visiting conductor, Assoc. Prof. Chan Tze Law. As demonstrated in the completed film, Tze Law Chan conducted to final rehearsals and performance of Beethoven's 9th Symphony, which was a major achievement for an orchestra comprised entirely of young musicians.

Piano prodigy Shuan Hern Lee was just 9 years old when I began filming him as a subject for *The Musicians*, and he is introduced in a short sequence. It is a rare opportunity to document even a small part of such an enormous talent as an example of the extent to which music can inspire creative achievement. Already a seasoned international performer, Shun Hern is a prime example of a musician who is powerfully self-motivated and totally devoted to his chosen career, using the challenges with which he is presented to develop his approach, skills and focus. Through several interviews, a picture emerges of an artist mature beyond his years, yet very much a boy at heart, with a rewarding career ahead of him. All of my shooting sessions with Shuan Hern were carried out with the participation of his parents, at my request. With Shuan Hern's credentials as an accomplished performer established, an introduction to the next component of this developing jigsaw was necessary to also provide essential background to later sequences of the development and performance of the Grieg *Piano Concerto in A minor*.

The evolution of the Grieg *Piano Concerto in A minor* combines relevant events in series of juxtaposed sequences designed to represent the passage of time and place as the piece developed. This set of sequences introduces (i) the MetSO and its progress under the baton of Chris Dragon, (ii) the close relationship between Shuan Hern and his pianist father Soon Yen, and (iii) the main elements of the process of combining many individuals into a single public performance. While this developmental process could have occupied an entire program of its own, in *The Musicians*, it shares only limited time with all other aspects of the program, and its components are slotted in between other sequences as Grieg's familiar masterpiece takes shape. The many weeks of preparation paid off as a creditable performance of the music is delivered as the program finale to an appreciative, packed house by MetSO, a now-10-year old pianist, and led by a young, emerging conductor.

The end credits roll, backed by an encore from Shuan Hern Lee; the Nikolai Rimsky-Korsakov composition, *Flight of the Bumblebee*. This piece was chosen to complete the documentary partly because of its lightness in contrast to Grieg's heavier orchestration, and partly to demonstrate that this 10-year old boy is able to play a demanding composition with such apparent ease.

Part 4

Conclusions

The Musicians is a documentary film designed to test the flexibility and creative scope of the digital equipment and software now available to . As the film was essentially a research construct, the time pressure that usually accompanies a commercial-quality production of this kind was minimized, allowing a more in-depth consideration of the film's structure and purpose. This, coupled with the freedom to construct a film in whatever way I considered would work best, enabled me to discover the advantages and disadvantages of introducing creative elements into the film's storyline as a means of enhancing the viewer's experience. Some of these enhancements enabled by digital technology and non-linear approaches include great improved image quality (colour balance, sharpness, texture, lighting effects), manipulation of the images (image speed, transitions, picture-in-picture, and creating electronic zoom and pan effects). Each of these modifications is designed expressly to enhance the experience of the viewer. Research into the history and background of documentary-making revealed a level of disagreement among researchers and practitioners as to the precise definition of what a documentary is, especially in relation to classification systems designed to categorize documentary films (see examples on pp: 30-33). The matter of documentary definition and classification has been thrown further into question by new thinking related to the application of digital technology to filmmaking, and arguments for the inclusion of multimedia and transmedia productions within a general documentary framework.

Another important role of *The Musicians* as a digital construction was to demonstrate that digital effects can be employed to augment a traditional, linear documentary film without the inclusion of those digital elements that might be constructed as compromising the integrity, authority and nature of the documentary. Given that a traditional documentary is linear, it is possible for specific creative changes to be readily incorporated into the complete edit after the main edit has been completed. However, including creative material needs to be carefully considered to

avoid having viewers define the film's story as fiction. If the idea of digital manipulation of actual events is taken to its extreme, it can create an inconsistency in terms of authentic representation that verges on paradox. The inclusion of multi-choice, multi-linear transmedia productions in the same category of media product as traditional linear documentaries requires a total redefinition of what constitutes a documentary. I will discuss this further below on pp: 89-94.

As a zoologist, I am familiar with the system of biological classification of living organisms built on a taxonomic ranking which is based on degrees of similarity, but had not up to this point considered applying this kind of classification to the creative area of filmmaking. In scientific methodology, the specific characteristics used to create various subgroups, or taxa, within an hierarchical organization must possess a consistent uniformity that is readily identifiable. As a means of managing the increasing number of documentaries now available, and presumably to impose a rationale as to the similarities and dissimilarities among them, several researchers in the field have developed a system of grouping documentaries based on observational characteristics of film structure and subject treatment. Largely because documentaries as a genre do not generally conform to any specifically designated structure or content, the development of a suite of stable characteristics for classification presents difficulties in terms of uniformity of application. I used Nichols' classification system in the context of my discussion as an example to be considered. This was not to question its validity specifically, but to illustrate the difficulty that I have as a practitioner in understanding Nichols' reasons for placing some films into the groupings to which he has consigned them. Nichols himself acknowledges that there can be overlap between categories in some instances. If similar defining characteristics were to be applied to *The Musicians*, this film could be justifiably placed into at least three of Nichols' proposed six modes, namely the *Poetic*, the *Observational*, and the *Participatory*, and perhaps even the *Performative*. In my view, the construction of a documentary-specific system of classification deserves further and conclusive research, particularly considering the current emergence of cross-platform formats. My aim here is to develop this discussion without proposing a categorical response to the challenge.

The necessary editing of documentary films so that they conform to broadcast requirements, especially in terms of a specific running time, clearly indicates that their construction involves creative processes. For this reason, in the past, I have consistently attempted to maintain subject authenticity by avoiding a similar level of creative interpretation as I would use, for example, when making a television commercial. The simple act of editing filmed material has the capacity to alter perceptions, including aspects of time and place, though the editing process does not necessarily compromise the film's accuracy. However, my specific experience of making *The Musicians*, through my experimentation with several of the different non-linear editing methods now readily available, including Final Cut Pro ver. 7, Adobe Premier Pro, Avid Media Composer and DaVinci Resolve, made it clear to me that interpretive and creative methodology can be justifiably employed in a factual documentary without necessarily compromising its role as an objective account of events.

The terms 'creative' and 'creatively' have been used in this work in three main contexts. The first is in reference to the way in which the original footage is arranged along an editing timeline to document the original story without any embellishment. The term 'creativity' also used to refer to the process whereby fictional content is added to the storyline to emphasize aspects of the film. The third application of the term 'creative' as used in this discussion is to address the manipulation of selected shots without altering their factual content (as opposed to altering aspects of the context within which the shots are presented). I always maintained the distinction between fact and fiction in my own productions; it is my firm belief that fiction has no place in documentaries.

For over 120 years, documentaries have been a significant component of visually-based education and entertainment, and in this time they have undergone extensive changes to their style and method of production and use. Since the early 2000s and the rapid evolution and ready availability of digital technology, documentary and documentary-like production has expanded into new areas. I have queried the potential value of existing classifications for documentary programs as a means of critiquing the many instances in which films are not clearly classifiable. In questioning such a taxonomic approach, I highlight issues related to recently

developed multi-platform and transmedia productions which some commentators currently include within the documentary genre (See p. 17 for examples, including *Star Wars*, *Star Trek*, and *The Matrix*). My main concern is that this practice of lumping several non-similar production types together may be based upon the perceived shortfalls of the linear documentary format in comparison with the potential possibilities offered by multi-platform transmedia. It may be that these commentators believe that linear documentaries lack viewer engagement when compared with when audiences have some control of the outcome of their audio visual experience. Transmedia and interactive multi-platform programs do provide something new in giving viewers control of content. However, I believe that this comes at a price. Although a revolutionary new method of non-fictional, interactive story-telling, multi-platform productions have hidden pitfalls in lacking stability of outcome and, consequently, objectivity.

A traditional or linear documentary, such as *The Musicians*, is designed to inform, educate and entertain in a precisely repeatable way using a single, contained linear platform. This and other similar linear documentaries are deliberately confined to tell their stories in a specific way. Multi-platform productions, by contrast, inform and entertain audiences in an interactive way that is controlled by the viewer. As discussed below, the two delivery formats are significantly different, and the differences are sufficient to warrant further consideration before consigning them all to the same category with the suffix of ‘documentary’, which is what is implied by referring to ‘multi-platform’ and ‘transmedia’ documentaries. The main reasons I see for denying interactive production formats the moniker of documentary are (i) that the ultimate outcome of the viewer-manipulated experience may not necessarily be consistent with the original production premise and (ii) any material produced in this way is solely accessible to an individual or small group via digital engagement. A traditional linear documentary can be distributed via CD or downloaded and played without any further internet involvement, and can be experienced in the same way by diverse audiences and by many people in a co-located or dispersed context across space and/or time, who can thus discuss an essentially equivalent experience.

Digitally-based production does have its drawbacks, as my research project underlined, and one of its principal disadvantages helped produce some totally

unexpected outcomes. As previously mentioned, at a late stage of editing *The Musicians*, an electrical fault in the computer hub destroyed the four external drives attached to it, together with the data they contained. This event necessitated an extensive re-edit of the film, which effectively demonstrated the extraordinary flexibility and speed conferred by digital editing systems. Had a mishap of this magnitude occurred during the editing of a film- or videotape-based production involving the extensive amount of footage that was the basis of *The Musicians*, the almost complete re-edit required would have needed as much (if not more) time to re-work as the original edit had done. As it was, the hard-drive meltdown also required a re-build of much of *The Musicians*, but the use of a digital non-linear program meant that this took weeks instead of months. Because the sum total of original data for the program had already been logged, accessing alternative scenarios was relatively straightforward. However, it was not solely the rebuild that was noteworthy, but the consequent rethinking of the structure of the film, so that essentially the same story could be told using different visual examples and scenes edited into an alternative but equivalent structure. As a documentary-maker, I used the potential offered by hours of digital content across a range of location recordings and interviews to re-craft my program using different sequences. As the only person in a position to access the interactive story-telling capacity offered by my digital recordings, I was able to reframe the equivalent story trajectory. Importantly, the original story was clearly reflected in its alternative retelling.

While rethinking the construction of new sequences, it occurred to me that, as the program represented a strongly personal expression of my own interest in music and the creative resource that young people represent, there was a potential for this film to have an educational component. Given these factors (i), why not deliver a first-person narration, with myself as the narrator and (ii), why not make the program more experiential than one solely based on progressive narrative? That is, perhaps I could create a narration based on the actual filmmaking journey itself, rather than a purely descriptive narrative of a series of events as they occurred over time. Consequently, I wrote a new script at the eleventh hour, and at the same time as the re-edit was taking place. Such an approach would not in any way alter the documentary nature of the program as reportage, but it reflected a commitment to

greater spontaneity, an acknowledged a deeper appreciation of subjectivity forged in the course of this research.

These collected changes have, in my view, added a new dimension to the finished program by forcing a reconsideration of many of my original creative choices. I believe that the personal voice-over, while obviously not a purely professional decision, communicates a greater degree of authenticity for the production than a professionally-delivered voice-over would achieve. I am not suggesting that destroying footage to gain a new insight is a good idea, but given the large amount of digital data I had to work with as a result of the digital production processes that I used, the choices for storytelling could be rethought without sacrificing quality. In other words, the loss of data was not an unmitigated disaster. Bearing in mind the ease with which trial sequences can be assembled using non-linear editing programs, I was able to trial sequences before completely committing to them.

As anticipated, a full exploration of the complex engagement of the viewing public with today's digital media productions is beyond the scope of this study. Further, because relevant statistics of viewer preferences are in a state of constant flux, it is difficult to present accurate figures to support some of the following observations. Even so, the most successful of the vlog producers have subscribers in numbers which rival the populations of significant nation states. PewDiePie, for example, passed the 40 million subscriber mark in December 2015. (<https://www.youtube.com/user/PewDiePie/videos>,). Extrapolating from these kinds of trends, it is possible to speculate as to the impact of digital technology on the production of documentary films in response to the demands of online audiences.

Accepting the current state of development of digital technology and the recent emergence of formats such as transmedia and multi-platform programs, non-fictional film production is in a state of metamorphosis. Digital technology offers documentary makers a major advantage by innovating the tools to create a comparatively low-cost end-product that can be reshaped for multiple purposes, ranging from cinema presentation quality to films that can display on small-screen, hand-held devices. As an example of this flexibility, *The Musicians* will ultimately be

available for online streaming in its original broadcast HD or SD form as (i) a one-hour linear production, (ii) a series of clips averaging a few minutes in length, and (iii) several complete symphonies and concertos with a running time of up to an hour each. Digital data processing enables the visual quality of each sub-format to be adjusted according to user requirements, from Ultra High Definition (UHD) to a range of low-resolution streaming formats suitable for hand-held devices. These affordances provide with new income-generating outlets for both future and existing products. I would further suggest that present growth in demand for linear, non-interactive documentaries are likely continue for the foreseeable future, at least until the extent of the response to interactive, multi-platform transmedia product has been determined.

Suggested further research.

As previously indicated, there is an opportunity for further work on the nature of documentary and its relationship to multi-platform, transmedia programming that lacks a fixed, stable structure within which to communicate with its audience. An interrogation of the core attributes of documentary-making might also prove a spur to further creativity, as I have discovered in this research project. Following on from this, an investigation into the use of creativity in documentary structure might allow audio-visual constructions that combine original footage and introduced, digitally-enhanced imagery to create more imaginative documentary-style sequences while maintaining their fidelity to the actual events represented. There are certainly philosophical implications regarding documentary truth and accuracy that would add theoretical weight to such an endeavour.

A more extensive and refined analysis of documentary history could create a detailed, historical review of the sequence of documentary evolution. To formulate the actual train of events that has led to the current format of documentary films would help to establish an authoritative lineage for present-day documentaries.

An examination of present systems of documentary classification with a view to evaluating the purpose and methodology of such classification systems would help to determine whether (a) such a classification is workable at all, especially in the light

of new multi-platform transmedia productions, and (b) the relative value of such a system if it can be constructed.

Discussion and critique of linear documentaries versus interactive multi-platform transmedia product is still active, current, and expanding. An investigation of the possible coexistence of traditional linear documentaries and interactive multi-platform/transmedia product within a single documentary category would at this stage be useful for anyone interested in considering the discrete nature of either format. Such an investigation could also generate data that may indicate whether linear documentaries are in any real danger of losing relevance as a result of market take-up of transmedia productions.

The relative success of *The Musicians* as a social media release. Considering that *The Musicians* will be adapted for release on several social media platforms, including a subject-specific website, it would be of value to follow up the numbers and demographics of viewer interest in the film over time, as an indication of the popularity of ‘semi-popular’ and ‘popular’ classical music. There is also the potential to create a completely new series of programs for a younger audience that provides a comprehensive and entertaining coverage of the evolution of symphonic and classical music, and current practices associated with the performance and development of the next generation of performers. This is a topic that I intend to follow up in due course.

From the findings of this study, it is evident that recent innovations in digital production technology have had a profound impact upon the practice and philosophy of documentary filmmaking. This is principally evidenced through the development of lightweight, low cost digital recording equipment (cameras and audio recorders), the relative ease with which large amounts of digital data can be stored and processed using non-linear editing systems, and the capacity of current digital cameras to record for extended periods of time using solid-state data cards. The degree to which linear documentaries such as *The Musicians Project* can be integrated with recently-developed digital multimedia and multi-platform formats is a matter for future users to decide.

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Devil Came on Horseback, The (2007), Directors: Ricki Stren, Annie Sundberg, Editor: Joey Grossfield, Production House: Break Thru Films

Drifters (1929), Director/Editor: John Grierson, Production House: Empire Marketing Board, New Era Films

Exit Through the Gift Shop (2010), Director: Banksey, Editors: Tom Fulford, Chris King, Production House: Paranoid Pictures

Fahrenheit 9/11 (2004), Director: Michael Moore, Editors: Kurt Engfehr, Woody Richman, Chris Seward, Production House: Fellowship Adventure Group

Fame (1980), Director: Alan Parker, Editor: Gerry Hambling, Production House: Metro- Goldwyn-Mayer

Fame (2009), Director: Kevin Tancharoen, Editor: Myron I. Kerstein, Production House: Metro-Goldwyn-Mayer

From Mao to Mozart: Isaac Stern in China (1979), Director: Murray Lerner, Editor: Thomas Haneke, Distributors: Cable Hogue Co., Harmony Film

Gates of Heaven (1978), Director/Editor: Errol Morris, Production House: Gates of Heaven

A Good Year (2006), Director: Ridley Scott, Editor: Dody Dorn, Production House: Fox 2000 Pictures

Gone with the Wind (1939), Director: Victor Fleming, Editor: Hal C. Kern, Production House: Selznick International Pictures, Metro-Goldwyn-Maher

Granton Trawler (1934), Producers/Directors: Edgar Anstey, John Grierson, Editor: Edgar Anstey, Production House: New Era Films

Hill Street Blues (1981+), Directors: Gregory Hoblit and others, Editors: Ray Daniels and others, Production House: MTM Enterprises

Home of the Blizzard: Dr. Mawson in the Antarctic (1913), Director, Editor: Frank Hurley

Hole in the Head, A (1998) Spectacle Films

Hook (1991), Director: Steven Spielberg, Editor: Michael Kahn, Production House: Amblin Entertainment and Tristar Pictures

- How Green was my Valley* (1941), Director: John Ford, Editor: James B. Clark,
Production House: Twentieth Century Fox Film Corporation
- Inside Job* (2010), Director: Charles Ferguson, Editors: Chad Beck and Adam Bolt,
Production House: Sony Pictures
- Inside the Australian Ballet* (2002), Director/Editor: Bob Hardie, Production House:
Filmcorp, Australian Broadcasting Corporation (ABC)
- Jackass 3D* (2010), Director: Jeff Tremaine, Editors: Seth Casriel, Matt Kosinski,
Matthew Probst, Production House: Dickhouse Productions, MTV Films
- Koyaanisqatsi* (1982), Director: Godfrey Reggio, Editing Consultant: Dennis Jakob,
Music Score: Philip Glass, Production House: IRE Productions
- Land Without Bread* (1933), Director/Editor: Luis Buñuel, Production House: Ramón
Acin
- Life Itself - 5 Flights Up* (2014), Director: Richard Loncraine, Editor: Molle
DeBartolo and others, Production House: Lascaux Productions
- Las Muertes Chiquitas - Little Deaths* (2009) Producer/Director/Editor: Mireia
Sallarès <https://youtu.be/rwn6Re96g84>
- Louisiana Story* (1948), Director: Robert J Flaherty, Editor: Robert H Flaherty and
Helen van Dongen, Production House: Robert Flaherty Productions Inc.
- Man of Aran* (1934), Director: Robert J. Flaherty, Editor: John Monck, Production
House: Gainsborough Pictures
- Man With a Movie Camera* (1929), Director/Editor: Dziga Vertov, Production
House: VUFKU
- March of the Penguins* (2005), Director: Luc Jacquet, Editor: Sabine Emiliani,
Production House: National Geographic and others
- Moana* (1926), Directors/Editors: Frances H. Flaherty and Robert H. Flaherty,
Production House: Famous Players-Lasky Corporation
- Mondo Cane* (1962), Directors: Paolo Cavara, Gualtiero Jacopetti and Franco E.
Prosperi, Editor: Gualtiero Jacopetti, Production House: Cineriz
- Mrs. Carey's Concert* (2011) Directors: Bob Connolly and Sophie Raymond, Editors:
Nick Meyers, Sophies Raymond and Ray Thomas, Production House: Music
Films
- Murder on a Sunday Morning* (2001), Director: Jean-Xavier de Lestrade, Editors:
Ragnar Van Leyden and Pascal Vernier, Production House: Centre National
de la Cinématographie, and others.

Music of the Heart (1999), Director: Wes Craven, Editors: Gregg Featherman and Patrick Lussier, Production House: Craven-Maddalena Films

My Kid Could Paint That (2007), Director: Amir Bar-Lev, Editors: Michael Levine and John W. Walter, Production House: A&E IndieFilms and others.

Nanook of the North (1922), Director: Robert J. Flaherty, Editor: Herbert Edwards, Production House: Les Frères Revillon

Never Forget to Lie (2013) Director: Marian Marzynski, Editor: Jason Longo, Production House/Broadcaster: Frontline

Pallywood: According to Palestinian Sources (2006) Producer: Richard Landes
https://youtu.be/c1oq7oGO_N8

The Plow that Broke the Plains (1936), Director: Pare Lorentz, Editor: Leo Zochling, Production House: Resettlement Distribution (A.U.S Documentary Film)

PewDiePie <https://www.youtube.com/user/PewDiePie/videos> (Refer to p.45 Youtube video clips).

Primary (1960), Director/Editor: Robert Drew, Production House: Drew Associates

Prairie Home Companion, A (2006), Director: Robert Altman, Editor: Jacob Craycroft, Production House: Newline Cinema

Primary (1960), Producer/Director: Robert Drew

Excerpts: <https://www.youtube.com/watch?v=wLkT7z0C5Bc>
<https://www.youtube.com/watch?v=MK5e6bTCC54>

Psycho (1960), Director: Alfred Hitchcock, Editor: George Tomasini, Production House: Shamley Productions

Psychopath (2009), Director: Ian Walker, Editor: Justin Ngy Tran, Production House: Liberty Productions

Psychopath (2015), BBC Documentary. Director: Charles Jarrott
<https://youtu.be/PVRg4Xgo7Pc>

Robin Hood (2010), Director: Ridley Scott, Editor: Pietro Scalia, Production House: Scott Free Productions, Universal Pictures

Shoah (1985), Director: Claude Lanzmann, Editors: Ziva Postec, Anna Ruiz, Production House: British Broadcasting Corporation (BBC)

South (1919), Director/Editor: Frank Hurley, Production House: Ralph Minden Film

Tait, C (1910) *The Story of the Kelly Gang* (1910) Director: Charles Tait
UNESCO Registry, 2007

<http://if.com.au/2007/06/01/article/The-Story-of-the-Kelly-Gang-becomes-part-of-UNESCOs-Memory-of-the-World/JOGGQODARO.html>

Supersize Me (2004), Director: Morgan Spurlock, Editors: Stella Gorgieva, Julie Bob Lomabardi, Production House: Kathbur Pictures

Taxi to the Dark Side (2007) Director: Alex Gibney, Editor: Sloane Klevin, Production House: Jigsaw Productions, Discovery Channel

The Corbett/Fitzsimmons Fight (1897), Director/Editor: Enoch J. Rector, Production House: Veriscope Company

Thin Blue Line (1988), Director: Errol Morris, Editor: Paul Barnes, Production House: American Playhouse, Channel 4 Television Productions

Titan: Story of Michelangelo, The (1950), Directors: Robert J. Flaherty, Richard Lyford, Curt Oertel, Editor: Richard Lyford, Production House: Classics Pictures

To Kill a Mockingbird (1962), Director: Robert Mulligan, Editor: Aarol Stell, Production House: Universal international Pictures

Top 10 Craziest Events Caught on Live TV <http://youtu.be/yLVS9Q3toc> (Refer to p.45 Youtube video clips).

Vanishing Prairie, The (1954), Director: James Algar, Editor: Lloyd L. Richardson, Production House: Walt Disney Productions

Ultimate Falls Compilation, The: <http://youtu.be/Ujwod-vqyqA> (Refer to p.45 Youtube video clips).

Up (2009), Directors: Pete Doctor, Bob Peterson, Editor: Kevin Nolting, Production House: Pixar Animation Studios, Walt Disney Pictures

Unwrapping Kinder Surprise Eggs: <https://youtu.be/R91WnllMcNA> (Refer to p.45 Youtube video clips).

Visitors (2013), Director: Godfrey Reggio, Editors: Chris Besecker, Jon Kane, Production House: Cinedigm

Walk the Line (2005), Director: James Mangold, Editor: Michael McCusker, Production House: Fox 2000 Pictures

War, The (2007), Directors: Ken Burns, Lynn Novick, Editors: Erik Ewers, Tricia Reidy, Production House: Florentine Films, WETA

Top 10 Sexiest Music Videos <http://youtu.be/lytzFvAfRRk> (Refer to p.45 Youtube video clips).

Waste Land (2011), Directors: Lucy Walker, João Jardim, Karen Hurley, Editor: Pedro Kos, Production House: An Almega Projects & Oz Films Production
Official trailer: <https://www.youtube.com/watch?v=sNlwh8vT2NU>

Waterlife - The Film (2009), Director: Kevin McMahon, Editor: Christopher Donaldson, Production House: National Film Board Canada

Waterlife - An Interactive Online Documentary (2019), Production House: National Film Board Canada <http://waterlife.nfb.ca>

White Wilderness (1958), Director: James Algar, Editor: Norman R. Palmer, Production House: Walt Disney Productions