# Theme 4: The nature of faculty work in film and digital media

Theme 4 is sub-divided into four thematic sub-sections (4a through 4d).

- a) How a film is made
- b) Four aspects, four phases, four domains
- c) Research and the field of film and digital media
- d) Boyer (1990) and faculty work in film and digital media

A broad range of artistic, scholarly and professional work is being developed and produced by faculty in the field of film and digital media. This work is being broadcast and exhibited worldwide, justifying the curtailment of marginalization for faculty members in the field, and compelling institutions of higher learning to find new and better ways to recognize, evaluate and reward this work. The question for faculty in the field of film and digital media is what should be recognized and rewarded as scholarship during a performance evaluation in an academic setting? To address this question, the following sections examine the processes of how films and digital media works are made.

# a) How a film is made

Talent without skills, inspiration without knowledge, and creativity without technique count for little but lost potential. The first step in the education of a filmmaker is to recognize the view, attributed to Aristotle, that the universe exists independent of anyone's awareness of it, that the function of consciousness is to grasp reality, not to create it or to dictate its nature, and that the absolutism of existence is what ought to shape one's thoughts and actions (Durant, 1960). The possibility of creating or dictating reality might be perceived by some filmmakers as appealing, but it must be remembered that the entire process is an illusion that is ever-changing; therefore we can never dictate anything beyond an illusion of invention and control. Filmmakers

create the illusion of control, by engaging and interacting with the observable world by using a variety of intelligences (Gardner, 1983; 1989; 1991). From that point, one begins doing things to get it done in a holistic effort to communicate one's thoughts and ideas, in response to prior knowledge, a set of acquired and expert skills, and with the use of creative thinking.

Filmmaking is a representation of an orderly system of interrelated systems within the context of creative thinking, a challenge that magnifies the importance of self-knowledge and self-leadership.

All films share some very basic and essential component parts and rules, all of which converge and are integrated in a whole. A *frame* is the term that describes the smallest unit of a motion picture *shot*, which is the smallest aesthetic unit of the sequence of *scenes* within the *film*. A *frame* is essentially a still photograph, and in the United States there are 24 individual still photographs per second (24 fps) being projected on the cinematic screen (in Europe the projection rate is 25 fps, and in video the USA standard is 30 fps while in EU it is 25 fps). The most basic definition of a *shot* is--from the total amount of frames, first the frame when the camera starts rolling until the last frame when the camera stops rolling---simple as that. The combined total of frames that result from the camera starting, rolling, then stopping, constitutes a shot<sup>1</sup>. Shots can be assembled or edited together to make a scene or sequence, or a shot can inclusively be a scene or shot.

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<sup>&</sup>lt;sup>1</sup> In motion picture filmmaking, in the USA, there are 24 frames per second that are shot in the camera. In Europe, there is a different frame rate of 25 frames per second. In video, the European standard is 25 frames per second (PAL), and in the USA the standard is 30 (or 29.97) frames per second (NTSC). Thus, each "frame" is essentially a still picture, whether it is shot on film or video, and the amount of frames per second that are projected gives the viewer the impression of movement and motion.

Alfred Hitchcock's "ROPE", a feature dramatic film, gives the impression that the film is only one long, continuous shot---although the film is actually made up of a few shots with editing being cleverly concealed<sup>2</sup>. The basic unit of a motion picture is a *shot*, and a movie is constructed through the linear assemblage of shots, one after the other, ad infinitum, or at least until the story is told and the images and audio exhausted.

Each *shot* can be divided into two basic categories or types:

- process and/or
- interaction and/or
- a combination of both, process and interaction.

Each shot in a film, without exception, can be sub-divided into one of two categories, or both---a *process* and/or an *interaction*. Any *shot*, in any *film*, without exception, can be described as either a *process*, namely a depiction of someone or something doing something, or an *interaction*, namely, where someone or something is engaging in communication with someone or something.

A filmic *process* is fairly obvious to imagine---someone is crossing a street or picking up a book or tuning a violin, etc. Simply, a process is a step-by-step sequence or series of shots that depict someone and something doing something, from a beginning point to an end point.

Interaction is a little more abstract, but basically can be defined as a situation that involves the exchange of information, ideas, and opinions, specifically including the response experience of actor(s) -reactor(s) during communication or interpersonal contacts. Interactions are diverse and limitless, perhaps two persons in a verbal exchange, or perhaps a baby with a bottle, or perhaps a cat with a string, ad infinitum. Interactions involve actor(s)-reactor(s), and those can be persons,

<sup>&</sup>lt;sup>2</sup> "Rope" is a motion picture that was directed by Alfred Hitchcock.

things, or other independent variables. Basically, an interaction in filmmaking would demonstrate an observable relationship among objects, persons or other variables that do something to, or somehow affect, one another. Successfully filmed interactions usually demonstrate the active engagement of actor(s)-reactor(s) in the process of reciprocal action or exchange, resulting in new knowledge about the outcome of how one thing/person affects or acts upon encountering another.

It is useful for a filmmaker to know that each individual shot is demonstrating a *process* or an *interaction*, or a combination of both. This is a fundamental fact of reality in filmmaking, most applicable when one is pointing a camera at someone or something with the intention of making a movie. If one is clear about what is being seen or observed on this most basic level, the shot will be much more successful toward exemplifying its intended purpose. The filmmaker must continually ask is, what I am seeing through the camera's viewfinder an interaction, or a process, or both? Is it a process that I am intending to shoot, one shot at a time? What step in the multi-step process am I observing? How many steps of the entire process should be included in a particular shot?<sup>3</sup> These thoughts and questions are continually racing through the mind's eye of the filmmaker, particularly the one who is observing the world through the camera's viewfinder.

It is also true that processes and interactions share some commonality; it is possible that a shot could involve a process and interaction at the same time, simultaneously and independently observable, depending on content of the filmed action, and the frame of reference by the

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<sup>&</sup>lt;sup>3</sup> For example, if the process is making dinner, then how much detail should each shot contain? Should the farm where the meat and vegetables originate be included? Should the onions being chopped be included in the same shot as the salad being mixed? Important "frames" are selected and de-selected by the filmmaker who is attempting to demonstrate a process of work on film.

interpreter. For example, a shot of a person opening a bottle of wine can be interpreted though the camera's viewfinder, ultimately on film, as a process *and* an interaction, or merely a process, or merely an interaction—the wine bottle is handled and opened by the waiter, a close up shows the wine pouring out of the bottle into the glistening crystal glass, the wine taster savors the bouquet of the wine, the shimmering wine in the glass reflects the nearby candlelight, etc. Each of these shots could be framed or described as a process, from beginning to end, or as an interaction where relationships are explored within the action, or both at the same time. The bottom line is that process and interaction are basic facts in filmmaking, fundamental units in the effort to achieve and realize a completed work in this time-based form.

# b) Four aspects, four phases, and four domains

Filmmaking is creative and interdisciplinary praxis that integrates many kinds of content or approaches---artistic, experimental and artistically expressive. Works can be commercially crafted for maximizing profits or entertainment value; educational, propagandistic or misinformational, journalistic or anthropological in intent; a form of amusement for voyeuristic or emotional escape; a new commodity for business enterprise; socially relevant or commercially persuasive or politically expedient; dogmatic and didactic, elitist or mainstream, and so on. Although not taught as a holistic system in programs of study and practice at schools, filmmaking can be taught as a holistic system that relies upon a broad range of knowledge, skills

and opportunities. More specifically, filmmaking is an interconnected system of relationships and processes, an integrated set of actions that comprise four aspects<sup>4</sup>:

- Creative (art, lateral thinking)
- Technical (craft)
- Business (currency, dissemination/outreach)
- Legal (agreements)

The *four aspects* are independent systems, yet are largely inseparable and interconnected with each other in the context of filmmaking. Each aspect has its own particular scope and nature, but is entirely reliant upon every other aspect. Each of the four particular aspects is inseparably reliant and mutually dependent upon each of the other aspects. Not one aspect is more important, or less important, than any other aspect. But, a question looms, what is filmmaking, is it possible to teach filmmaking, and is it necessary to teach filmmaking in a holistic way that integrates all its aspects?

A filmmaker may have no overt awareness or conscious understanding of the four aspects (to his/her peril), or may choose to take personal responsibility and control over the Four Aspects on a solo basis, or may choose to collaborate with one or more other persons to accomplish and successfully realize each of the four aspects during the process of making a film<sup>5</sup>. Each aspect is

<sup>&</sup>lt;sup>4</sup> When a filmmaker assumes responsibility for all aspects of the process this might be referred to as "auteur" filmmaking, work done by solo filmmakers in documentary, experimental, commercial and other forms.

<sup>&</sup>lt;sup>5</sup> This might be referred to as "corporate" filmmaking, when individual specialists collaborate within one of the four aspects, perhaps in very different ways, on work toward a common goal, usually under the direction of a supervisor or set of supervisors.

essential to the entire process of work on any particular filmmaking project, and is requisite on all filmmaking projects of any kind. Without exception, the four aspects are facts in filmmaking.

A plethora of scholarly and popular books and writings emphasize one or more of the four aspects as of primary importance in the process of filmmaking. But the theory of the four aspects that I am setting forth in this paper is grounded in my own experience, and in the experiences of many students and colleagues with whom I have collaborated over the years who have worked without the benefit of a previously written guide or reference. It is my intention in this paper and through my continuing research to formally address this gap. The fact of reality is, without exception, that each aspect (business, creative, technical, legal) is inextricably interconnected to each of the aspects, and that successful filmmaking, including learning and teaching in filmmaking does not overlook any of the four aspects, as mentioned above. A person might be a cinematographer (technical and/or creative), or an editor (technical and/or creative), or any other technical or creative team member (director, audio recordist, set designer, etc) on a filmmaking project, but, for example, each of these team members would be stymied and mired in non-productivity, if the business or legal aspects remain unrecognized, or if some other aspect were to be neglected. As described-above, the four aspects of the filmmaking process are creative, technical, business and legal. Using Boyer's (1990) model, scholarly filmmaking and scholarly teaching in filmmaking would include discovery, application, and integration that emerge throughout the process of making a film (Boyer, 1990).

The process of producing a film can be sub-divided into at least four sub-processes of work, and I will refer to these steps as the Four Phases. The *four phases*---the process of developing,

- Pre-Production. This is the time when ideas for story or program content are developed,
   researched, written into a script, treatment or other plan of work, money is raised, crews
   are assembled, and the project is initiated.
- Production. This is the time when the actual work with the camera, lights, audio recording equipment and other "capture tools" takes place. Production can occur in a studio, on location, with actors or any other on-camera talent, or any other place. It is the time when the raw elements, visual and/or audio<sup>6</sup>, are made.
- Post-Production. This is the time when the raw elements are organized, assessed,
   selected and de-selected, assembled into sequences, mixed, polished, and constructed into
   a rough cut, fine cut, and eventually, a final cut, namely, a finely-constructed assemblage
   of shots that (at least) resembles what was planned and scripted during pre-production.
- Distribution/Broadcast. This is the time when the final cut is presented to audiences in
  any number of ways---television sets, theaters, internet access, classrooms, libraries,
  video shops, and much more. This is also the time when a range of agreements
  pertaining to the sales and marketing of the completed program are realized and
  consummated.

The four phases are an overview of the process of work that relates to making a film. The four aspects are also critical to the development and completion of work in a holistic way, but when considered as a whole then both lists (four aspects, four phases) can be considered as a holistic theory of filmmaking.

A third model, the four domains, facilitates an overview of filmmaking that emerges from Fraser and Restropo-Estrada (1998). In the context of describing opportunities for media

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<sup>&</sup>lt;sup>6</sup> Audio elements are recorded sounds. Sounds are not "audio" until recorded. Recorded sounds are audio.

production that extend beyond conventional notions for media program dissemination, a four part model is established that I refer to as the four domains. The four domains include media production for commerce, entertainment, education and social development. In most schools and in most paradigms that apply to learning of skills in new media, the emphasis is upon student's receiving appropriate and relevant training for employment in the context of entertainment and commerce, namely, feature filmmaking, TV commercial production, broadcast TV media programming, and other programming that intends to facilitate commercial and entertainment expectations. The remaining two domains---social development and education---oftentimes remain untapped for students in schools and left underrated in terms of the identification of vast, creative and professional opportunities that exist outside of media production for mainstream commercial and entertainment purposes. For example, the opportunities for media producers at the Ford Foundation, United Nations (UN Development Program, UNESCO, etc), National Endowment for the Humanities, and many other private and public foundations and associations are at least equivalent in scope to the better-known opportunities in mainstream commerce and entertainment media. The empowerment of students with a consciousness that their filmmaking and media production talents and skills have absolute relevance in the contexts of social development and education is an important shift that ought to occur in institutions of higher learning. The big difference between working in a commercial or entertainment media context with a social development or educational media context is that the practitioner might have to be more holistically oriented and trained—meaning that the filmmaker should have a range of expert skills in camera, lighting, audio recording, editing and writing because it is most likely that a crew of specialized experts would not be affordable or desirable for such smaller scale work. At this point most institutions of higher learning in filmmaking are primarily focused

upon providing job-training skills according to a specialist-reductionist model and this does not serve the creative or professional needs that are relevant to a practitioner engaged in the production of educational or social development media programming.

At best, the scope and nature of learning in filmmaking within the University is centered upon the technical and creative challenges, with near-nil attention to the business and legal aspects, unless of course those non-production areas were your specialization. For example, at UCLA's Film School, where I attended as an undergraduate and graduate film student, just as in most film schools like NYU or USC and so many others, one learns technical stuff in a technical class (camera, audio recording, lighting, directing, scriptwriting, etc), and business stuff in a business class (production management, fundraising, etc), and so on. There is very little, perhaps nil, integration of the four aspects, the basic facts of reality in the formalized study of filmmaking, in school programs of study. In fact, when looking, for example, at the New York University's curriculum and program of study in filmmaking at the Master's level, a student is obligated to select a major from Cinematography, Editing, Directing or Producing. The fact of integration that is characteristic of the filmmaking process is reduced to four specialized fields. This paradigm is well suited to an intended career in commercial and entertainment media production in a corporate context, but is entirely counter-productive for holistic, independent auteur-based filmmaking where the filmmaker is both artist and producer combined.

During the process of making a film, the filmmaker faces a mountain of unfavorable odds against getting any film made in the first place and those unfavorable odds are hovering everywhere until the end of the filmmaking process, only to start up again when a new process is commenced. A strategic and intentional lowering of risk factors that are required to develop, produce, fund, or finally complete the film, increases the likelihood that getting it done could

occur, however, it might reduce the filmmaker/artist's autonomy over the work, might compromise the ethical and moral values of the filmmaker/artist, and possibly reduces the chance that the creative work will be considered artistic work at all. It is a commonly held notion by many, including filmmaker/artists, to convolute the trappings of economic success with artistic success, and this is a matter that is confronted by any filmmaker who is on the road to success--do I work on THIS film project for the (great) money, or do I pursue that project which is closer to what my heart and soul are imploring me to do? The answer to the question is entirely personal and the process or basis for answering that question cannot be directly taught. The process of filmmaking is rife with risk no matter what kind of work is being done. Oftentimes, the audience's response to the work is to be surprised about the element of risk that was involved for the artist to get the work produced. The required high tolerance for pain and suffering that are inherently part of the filmmaker's efforts and inherent part of the process of filmmaking (monetary risk, psychological risk, physical risk, logistical risk, the risk of personality or ego clash, and many more) and the level of pain and suffering that are an everyday part of the filmmaker's life and work, are certainly higher in filmmaking when compared with many other professions and areas of scholarly work.

#### c) Research and the field of film and digital media

New approaches, methods and tools for conducting research have emerged that integrate existing and emerging fields of knowledge. New media, including the field of film and digital media, has enabled faculty scholarship, including scholarly research, to evolve by making connections with a constellation of new methods and resources. Research is a practice of formulating and presenting questions, theories, methods, data, analyses, and interpretations

during which inclusions and exclusions occur as the narrative of inquiry is constructed and communicated, and this range of work is being transformed by the emergence of new media. Marcus (1995) suggests the cinematic technique of montage as an alternative to academic writing for representing the various locations of culture and individuals within culture by creating conceptual relationships between visual ideas that would seem unrelated if depicted in isolation. Eisner (1997) has suggested that "we tend to seek what we know how to find" (p. 7), so as researchers are taught to use new media there will be a change in the structure of the questions asked through research inquiry and in the methods by which the questions are answered.

Media is the plural form of the word, medium, and the terms signifies a tool or means of communicating and getting something done. Bolter and Grusin (1999) define a medium as "that which appropriates the techniques, forms, and social significance of other media and attempts to rival or refashion them in the name of real" (p. 66). The term, new media, provokes one to question the myths and conventions of existing media while defining the semiotic systems, interpretive communities, and normative epistemologies of a new medium (Voithofer, 2005; Gitelman and Pingree, 2003). However, in using the phrase, new media, it is important to avoid a reductive claim that a new medium subsumes its predecessors as completely obsolete (for example, books or radio); and heralds the new technology as having greater capacity to mediate reality than existing media do (e.g., a virtual field trip to an art museum is heralded as a more accurate representation of the museum experience than a book about a current exhibit) (Voithofer, 2005 p. 5). New media, in contrast with more established media, can be described as follows:

the convergence of text, video, film, animation, audio, photographs, and 2D and 3D

graphics that are combined (i.e., authored, linked), stored (i.e., organized, manually and automatically indexed), and presented (i.e., searched, retrieved, and displayed through a graphical interface or metaphor) on some form of video monitor (e.g., personal computer, laptop, personal digital assistant, cellular phone) and that are transferred over distributed wired and wireless electronic networks (Voithofer, 2005, p. 6).

Digital video software, at the heart of what constitutes new media (for example, software such as Apple's Quick- Time, Microsoft's Media Player, and Real's RealPlayer) not only includes the capacity to reproduce sound and video but also are containers for multiple media that include several video, audio, text, and animation tracks, all of which can be displayed in various combinations based on input from the individual playing the movie or on the conditions set by the producer, or both. Further, according to (Voithofer, 2005), new media software might include the following experiences on a computer: analyzing the video of a classroom interaction; listening to an Internet radio report; seeing the arrival of an e-mail from a faculty advisor; hearing an instant message alert from a family member; and glancing at an open Web page depicting a useful range of information, etc. Each of these windowed worlds invokes places that the new media researcher's body has been in, is in, and may be in and situates time in the past, present, and future (Voithofer, 2005).

From the first efforts to use film to collect anthropological data (Mead and Bateson, 1952) to recent uses of collaborative digital video to construct contextual understandings of learning (Goldman-Segall, 1991; Pea, 2003) and beyond, film and video have an established history in research. Film, and video in particular, are time-based media that mirror, distort, reproduce, challenge, and transgress the various institutions, subjectivities, social discourses,

inequities, and psychic states that influence learning (Voithofer, 2005). Video (and by inference film, photography, and other forms of digital media) represents a convergence of technologies in which various media are combined and can be analyzed by design. Video (and perhaps any other form of electronic media) is arguably becoming its own language, a system of signs that not only represents a cross-section of reality but also acts as an epistemological tool to transform society (Voithofer, 2005). However, while some theorists have shown how structural elements such as shot selection, editing, lighting, camera angle, and audio design and mixing contribute to the meanings that are made (Bordwell and Thompson, 2003) with film or video, others have argued that these structures cannot be considered a linguistic system because a convention/technique like a close-up or cross-dissolve does not mean the same thing in every video or film (Metz, 1981).

Media-specific research and analysis that relies upon video (or film, digital media, photography, etc) should address its changing role from a recordkeeping medium to a knowledge-building tool (Voithofer, 2005). A significant aspect of research and analysis that is video/new media-specific is to understand how media production and its outcomes affect the way that knowledge is framed, through the physical and visual interface that is offered to both the author and the viewer (Voithofer, 2005). Manovich (2001) contends that digital devices are being used to transmit increasingly diverse forms of culture, and that computer interfaces are also cultural interfaces that shape and delimit the creation and experience of one's social worlds. Manovich (2001) notes that interfaces operate as representations of existing cultural forms and media, emphasizing some, such as the desktop and film, at the expense of others. Manovich (2001) observes:

Cinematic means of perception---connecting space and time, representing human

memory, thinking and emotion---have become a way of work and a way of life for millions in the computer age. Cinematic aesthetic strategies have become basic organization principles of computer software. The window into a fictional world of cinematic narrative has become a window into a datascape (p. 86).

The design of a printed book or research report benefits greatly by not being simply a pile of words or data on a page, but material elements designed to shape the reading experience---and this is a major area where digital media can impact the way that research is conducted by scholars. For example, a significant component in the interface of research is the type that is selected, and yet this is often narrowly considered in the design of research (Voithofer, 2005). Design, a praxis that is grounded in the discourses of research, media production, and new literacies, suggests a cycle of planning, creation, reflection, and adjustment for the construction of research, media, and knowledge. The language of design in research, media and knowledge involves making new uses of existing resources, including research methods, theoretic frameworks about learning and knowing, aesthetic conventions, narrative structures, media genres, theories of curriculum, and semiotic grammars (e.g., video, interface, hypertext). Voithofer, 2005 writes:

Typefaces have meanings that emerge from particular historical periods, regions, schools of thought, aesthetic conventions, and theories of meaning and readability. While the connection has been largely lost, type possesses an embodied origin beginning as the representation of bodily gestures.

The selection of type in the design of a research text can communicate something about both the author and the content of a text.

Various visual media including photographs, video, and electronic texts, are increasingly being employed by qualitative researchers as cultural productions to represent sites of social interaction and as examples of ethnographic knowledge. According to Voithofer (2005) visuals can be used "as more than illustrative, archival, or documentary data to study issues of status, place (i.e., schools), and surveillance" (p. 5). Cautioning against using visuals to re-inscribe empirical certainty, and rejecting the grafting of existing research methods onto visuals, Pink (2001) argues that new methodologies are necessary for visual analysis. Marcus (1995) suggests the cinematic technique of montage as an alternative to academic writing for representing the various locations of culture and individuals within culture by creating conceptual relationships between visual ideas that would seem unrelated if depicted in isolation.

Artistic, scholarly and professional work in film and digital media, commonly lumped by conventional terminologies into the category of new media, is probably more comprehensive in scope than conventional research output, as it reaches beyond the domain of discovery to the domains of application, integration and/or public outreach/teaching (Williams-Rautola, 2001). Williams-Rautola (2001) argues that creative work is intellectually demanding in similar ways to that of traditional research, including the collection of data, analysis, and synthesis of data and content, and with its inherently intellectual foundations in discovery, application and integration. There is also distinction and a comparison that can be made between traditional research and the creative endeavors that are common in media production.

A wide range of traditional research methodologies underpins the development and production of a film, video or other new media project. The development of a creative work requires the discovery of new knowledge, through the gathering of new information, review of literature, synthesis and analysis. Computer-based media production tools, no longer the

exclusive domain of production professionals, are becoming accessible, in price and ease of use, to a growing number of discourse communities. Taking a camera system and an audio recording system to a location requires a myriad of intellectual, practical, critically based, and aesthetic choices to be made, just as in traditional research methodology. But filmmaking and media production are more than simply recording what occurs before the camera or within range of the microphone, creative faculty through their choices of form reveal a pattern of context to the material that goes beyond mere recording. Thus, the intellectual foundation of discovery is the foundation of creative work.

It is now possible, for instance, for an educational psychologist, an ethnographic filmmaker, and a visual anthropologist to capture and create multiple media representations of classroom learning by using the same media capture and authoring tools. How these discourse community members might document learning (research) through the use of digital video or other medium would depend in part on their unique and overlapping design resources (Voithofer, 2005). Voithofer (2005) observes:

A visual anthropologist, less concerned with dramatic structure, flow, and progression, may bring multiple design resources to demonstrate how the visible world affects culture and communication in learning. An ethnographic filmmaker working in the digital realm may possesses knowledge of aesthetics and graphic design, producing network-delivered video and animating text and graphics to support the filmmaker's deep understanding of the use of video to construct a dramatic representation of the learning context. The educational psychologist might draw upon design discourses about teaching and learning that would suggest where to point the camera and what to include during the editing

process. The video documentation produced from the design resources of people in each of these fields could, of course, look quite different as a result of different producer training and concerns. However, because each of these individuals is increasingly more likely to use a computer for documentation and presentation, a common set of design resources, constrained by the interface metaphors and technical discourses of the production software, infuses the process of documentation and representation in each of the disciplines. The computer presents epistemological constraints as it offers opportunities for representation (p.7).

Searching for and exposing such constraints while engaging in collaborations across multiple design communities reveals the importance of designing new media technotexts (Voithofer, 2005).

Williams-Rautola (2001) describes new understandings, levels of awareness and knowledge-building that are possible in the process of work in new media, arising for students who may benefit from artist-researchers who teach, through the complex application of learned principles, new insights, and shared experiences that frequently emerge during the challenges of production and completion of film and media work. The problem in this regard is how can these new understandings be measured and evaluated by outside review? An implementation of Boyer's (1990) view on the part of the institution, one that appreciates and values the convergence of discovery, integration, application and teaching, is one starting point. Another challenge is to measure the activities that might include new understandings for evaluation.

Diverse research methods, including conventional and traditional methods, underpin the development and production of a film or other media project, just as there can be diverse methods used to develop and produce a doctoral dissertation research project (Jacobs, 2008) or

any other qualitative research project (Denzin and Lincoln, 2000). The landscape of qualitative research methods is diverse and faculty work in film and digital media is widely varied. Films and digital media productions vary in duration, style, treatment and approach, story structure, purpose, budget limits, equipment limits, diverse cultural contexts, aesthetic sensibilities, dissemination plans and opportunities, and other ways. While published scholarly paper usually examine esoteric areas of specialist interest and are intended for a narrowly defined readership audience, there are clearly-delineated standards and expectations in regard to length, format, structure, terminologies, presentation, and purpose. Homogeneity does not describe the outcome of creative works in film or digital media. Each work can vary in significant and detailed ways, depending on the purpose, budget and other factors that surround the filmmaker and his/her story. Conventions, aesthetics, and limitations are always changing, are hugely diverse, and certainly are not homogenous—yet a wide variety of works, including important aspects of whole works, remain un-recognized or rewarded. Two professors, writing about the marginalization of narrative films by faculty, comment:

As is, most universities do not know how to characterize narrative film production as scholarship. As a result, academics are not being encouraged to produce narrative films. This is especially tragic for film programs that specialize in narrative film production (Respondent #13).

In fact, this often disconnects the student (who in a film history course deconstructs bigbudget studio films) from the work of media production teachers (who cannot contribute to the making of that sort of film and at the same time earn tenure) (Respondent #4).

Describing the mismatched relationship of traditional scholarship and filmmaking, writing, Respondent #4 wrote:

The schedule of work for a filmmaker and a 'traditional' scholar is mismatched. While scholars might arrange a trip to a foreign archive to coincide with spring or summer breaks, there is really only one time of year a filmmaker can shoot script-specified exteriors in the snow (Respondent #4).

The scope and nature, the approach and method, and the ultimate outcomes of work in film and digital media are unique and distinct from traditional and conventional expectations that prioritize scientism and publication. The end result is that faculty members in film and digital media are discouraged from doing what they would like to do as researchers, are not encouraged to apply what they know and do to what they are tasked to teach in the classroom, and are marginalized by a performance evaluation system that is not suited for its intended purpose. One professor wrote:

Together, these issues steer teaching filmmakers to make smaller, grant-funded documentary or art films, limiting their involvement and influence to 'worthy' genres seldom selected by the filmmakers themselves (Respondent #4).

Another professor argues that certain forms of scholarly filmmaking is monetarily rewarded outside of academic settings, just like the work and consultancies done by peers in other disciplines, but that marginalization and unfair treatment for those in the field of film and digital media persist:

Further complicating the judging of a scholarly filmmaker is the fact that he often makes money in the exercise of his discipline. This, like oft-disparaged 'entertainment' value, makes his work suspect. Films perceived as 'purely entertaining' are suspect, for they may appear to be motivated by profit rather than inquiry. In fact, the filmmaker's inquiry may be into a new technique in the employ of an entertaining theme, but such inquiry

may have to be explained to colleagues, often in a paper presentation. Fortunately, there is some precedent outside the humanities for the professor-as-paid-consultant (the disciplines of business and engineering come to mind), but association with those traditions can create problems of its own (Respondent #4).

Some films or digital media works are the result of one person working in isolation from others during all aspects of the production (Collins, 2003). In other cases, a filmmaker will be collaborating with others, perhaps highly specialized professionals, or students or persons from a wide spectrum of social strata, on the development, production and postproduction of the film or media production. The various key roles on a film require the productive collaboration of a team of others. The roles of Executive Producer, Producer, Director, Cinematographer, or Editor on an independent medium-scale or relatively large-scale film or media production would be analogous to a researcher in traditional scholarly research who leads of team of assistants on a project. Leadership, motivation, communication and many practical issues converge in the effort to manage a team that is working together on a creative work in film or media production. It is important that evaluators have a clear understanding of the precise role(s) that the faculty member contributed in the creative work being evaluated, and assess the work on the basis of the role(s) performed as demonstrated in the completed work.

# d) Boyer (1990) and faculty work in film and digital media

Discovery, integration of prior knowledge from a wide variety of disciplines, and the application of a sophisticated set of technical and interpersonal skills are required for scholarship activity in the field of film and digital media, during the development and production phase of

the work throughout the post production/editing phase, and including the inevitable presentation and critical reflection of work to audiences. Although scholarship and professional work in film and digital media might not be perceived or recognized for satisfying the traditional template's expectation for text-based output, the fact is that artistic, creative, scholarly, and professional work by faculty in the field of film and digital media can demonstrably and commonly be rooted in conventional and alternative scholarship approaches (Boyer, 2000; Williams-Rautiola, 2001).

Work in the field of film and digital media emerges from observation to creative and technical choices in form, technique, and style; from the conventional domain of discovery to application to integration to the sharing of knowledge (Boyer, 1990). New understandings, new levels of awareness and knowledge-building that are not possible in the process of scholarly activity in other disciplines, can arise in the field of film and digital media. New insight, interpretation, knowledge and richly-shared experiences can emerge through collaboration, teaching, and the complex application of learned principles during the challenges of production, completion and presentation of artistic, scholarly and professional work in film and digital media (Williams-Rautiola, 2001).

Based upon my own experience as a filmmaker, and as an observer in research for this dissertation, I observe that discovery, integration of prior knowledge from a wide variety of disciplines, and the application of a sophisticated set of technical and interpersonal skills is required of the scholar-filmmaker at all times, during the development and production phase of the work, throughout the post production/editing phase and including the ultimate presentation and critical reflection of work to audiences. The broadness of this scope and nature of work is what must be considered for evaluation, not just the tiniest of facts about the finality of the work. Filmmakers must integrate pre-conceptualized aural and visual strategies, with the content (script

or other treatment or production plan) to creatively illuminate the conclusions of research (Williams-Rautola, 2001), in artistic-aesthetic, communicative, and coherent ways.