Reaching the 'Pinnacle of Convergence': Defining the Model of Teaching in the Centre for New Media Arts, Australian National University

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A curriculum ideology that is often held in the humanities, is that the arts are not necessarily driven by commercial demands or direction and, therefore, our curriculum need not address partnerships and linkage to industry in respect of real work experiences. The assumption that art and business can be seen as separate is revealed in an article in *The Australian* newspaper which reports that leading business groups claim that, 'universities and colleges of technical and further education (TAFE) are turning out graduates who are not 'job-ready' and have skills better suited to academic pursuits' (Maiden & Kerr 2006). This poses an interesting issue for those of us who teach New Media Arts within higher education, as we endeavor to help undergraduate students fulfill their career aspirations by graduating both as '*researcher ready and employable*'. In this paper, I will discuss the impact of a new media arts curriculum based upon an interdisciplinary matrix of knowledge and creative production on traditional beliefs and values inherent in a research led education. My discussion will focus primarily on the Centre for New Media Arts (CNMA) at the Australian National University (ANU), as an example of the way that such a curriculum can be constructed.

There is a great deal of debate about definitions of *new* media. In fact, it is a hot topic on many fronts, and is at the forefront of our Australian national priorities (2006) as we translate technology and technological advancement, supported by initiatives in the Australian Research Council as well as the Australian Arts Council and other Government funded agencies and organisations. New Media could be described as an umbrella title for a range of cross-media, interdisciplinary, collaborative research and projects. Although it could be argued that as disciplines, time-based media, design and communication have been around for almost as long as many art subjects, I would argue that it is only in the area of New Media that they have been brought together, and in a new way. However, I recognise that the question still under debate is whether new media has emerged in response to a genuinely popular and critical demand or it is simply the result of media hype.

In my view, the epistemology of new media practice belies any such cynicism as recent history provides a foundation of time-based arts both educationally and as a professional practice. Modern theorists and researchers, such as Manovich, Cubitt, Haraway, Lovink, Gibson, and Lister, have established fundamental philosophical beliefs and values for the discourse and theory of new media that in turn provide valuable core text for the curriculum. What emerges is a clear picture of 'research as a cultural practice that is generated by, and through, the intersection with other cultural practices', as Wolmark and Gates-Stuart put in their paper

Research as Cultural Practice (2002: 2). In another paper by Wolmark and Gates-Stuart (2004: 10), the erosion of disciplines and the emergence of cultural hybrids are discussed as an intertextual approach to research and they make a call for a new knowledge framework. Although, this discussion is not one that I am continuing here, I believe that it is a way to contextualise New Media in its emerging form, using the example of the new media arts curriculum in the Centre for New Media Arts.

It is interesting that Scholz (2005: 1) states in the opening to his paper, *New-Media Art Education and Its Discontents,* that;

> A crisis has emerged in new media-arts education. Despite the widespread emergence of new-media arts programs and strong student interest throughout North American universities as well as in Finland, Singapore, Thailand, China, Germany, and Austria, surprisingly little debate about the goals, structure, and topical orientation of these programs is taking place. The issues include the demands of undergraduate students for vocational training, the isolation of new media art in the university lab, the lack of advanced debate about new media artwork, the introduction of Open source software in classroom, the meaningful use of theory, and the media-specific structure of most departments.

Scholz provides an immensely articulate account of new media education stressing the importance of concepts over technology driven ideas and theory connected to practice, with his *Distributed Learning Project* offered as a tool for the sharing of knowledge. It is the quality of many on-line journals and discussion groups, such as the *Empyre* and *Fibreculture* that disseminate such debate and feed international dialogue.

Whilst Wolmark and Gates-Stuart (2004: 3) argue the blurring and redefinition of discipline boundaries claiming that 'practitioners in new media are often ahead of the thinking of the disciplines themselves' they also remark that 'While this can produce a fluid and intellectually exciting environment for research, it doesn't necessarily generate a shared and commonly accepted language'. Although their discussion relates to the tension between the objectification of knowledge and innovation and creativity, it is a crucial observation in a research-led environment, particularly for New Media Arts as we now find ourselves at the pinnacle of convergence, experiencing this blurring of specialist interest boundaries and practice.

I'd like to explore some of these ideas by looking briefly at the way that the Australian Centre for Arts and Technology (ACAT) developed into the Centre for New Media Arts (CNMA). When the Australian Centre for Arts and Technology (ACAT) was established in 1989 at The Australian National University, it was the first of its type in Australia for teaching, research, recording and publishing of music and dynamic visual arts made with new technology. In 2003, ACAT reported that, 'Its strength still lies in its reputation for originality, innovation and artistic experimentation', strengths and beliefs that seeded future direction of today. In 2004, the Centre for New Media Arts (CNMA) was established, encompassing ACAT and more importantly firmly placing it within the Faculty of Arts, now known as the ANU College of Arts and Social Sciences (CASS). This development was significant to the educational focus of the Centre as humanities, social

sciences and digital arts fused to bring about new relationships and an excitement of blurring traditional boundaries.

The spectacular growth in the Centre provides an opportunity to the common beliefs, values and ideologies of New Media Arts. The Centre has two undergraduate programs; the Bachelor of Arts (Digital Arts) in which students select two streams from a total of four streams offered, including 3D Computer Animation, Interactive Digital Media, Computer Music and Digital Video, and the Bachelor of Arts (New Media Arts) where students major in one of the four following areas; Digital Humanities, Cinemedia, New Media Performance and IT in New Media Arts. Both programs emphasise creativity and professional application designed to prepare graduates for careers in the field of New Media arts. The challenge exists to deliver an undergraduate curriculum that enables the student to experience an integrated core of theory and practice relevant to the context of New Media Arts, as well as cultivating research awareness that underpins production competences required to produce original and unique artistic works. Each student has the opportunity to select a customised set of courses within their program alongside specialized studies but the real challenge in the teaching and learning process is to establish and identify intellectual connectivity through process and final product.

At undergraduate teaching we face students of diverse focus, variable knowledge, learning capabilities and commitments, and who each have individual direction and career aspirations. The students are in themselves coping with the balance of specialist practice core streams and array of exciting subject electives to study. Many new academic subjects and majors are emerging with titles such as Cinemedia, Imagining the Future: The Social Origins of Utopias and Science Fiction, Anthropology and New Media, Digital Humanities, New Media Percussion, Shakespeare and New Media, and Documentary: Real Life in Virtual Space, etc. Students can intertwine new media arts with the traditional options available from the ANU Schools of Art and Music. In fact, the elective options give access to most subjects across the university so the ANU's objective in offering an appreciation of arts, humanities, sciences, engineering, and social sciences, and the opportunity to experience them at any intensity and depth is complete. A New Media pathway certainly requires consideration to create a perfect individual program for each artist.

The Centre raises, explores, and exercises fundamental notions and essential practices through the delivery of its courses. The theory courses, together with studio, supports and develops the student's conceptual and critical faculties, and maintains an overview and intellectual debate of new media issues. Regular attendance is essential as courses are carefully planned to interrelate and develop issues, techniques and debates over the duration of the semester. What has become clear to me as Head of the Centre, for the last five years, is that teaching and learning methods vary within the Centre's studio practice streams of; Animation, Interactive Digital Media, Computer Music and Digital Video. This reflects our nature of practice in CNMA that combines creative innovation, technical and cognitive skills, research training, presentation, performance, critical investigation and independent learning. Student-centred responsive 'teaching and learning' forms a significant part of student development, and responds to individual student requirements. Initiative in learning by students is encouraged and developed by the expectation of a high level of self-management as study progresses, so that during the

final year of their program, the student is practising in a semi-professional manner.

Intellectual independence is one of the most important qualities required of a New Media artist, so by the time students graduate they will be expected to think of themselves as independent learners. Studio and theory courses encourage and support them to achieve this by a flexible and varied means of teaching, learning and assessment. Students learn to work in groups and individually, to show work, write essays, blogs and reviews and give presentations. They learn to identify, and use a wide variety of source materials including personal testimony, show reels, photographs, exhibitions, journals, DVD, on-line resources, and also how to evaluate practical work, films, and other media. They have the opportunity to work exclusively with new technology including the use and creation of programming and software in relation to the subject. We operate in an environment where communication is encompassed in curriculum; interestingly new media students consume immeasurable amounts of audio and visual information at one time. The need to be 'switched on' with open accessibility is 'normal' practice for the student. To be listening to other media and to be on-line during class may be frustrating for the lecturers but there is no real evidence to suggest that class work or creativity is necessarily effected.

Any principles and values attached to the curriculum ideology of a pure arts focus in CNMA is now challenged as our education environment evolves and students are socially and economic alert to future directions and fashionable trends. As Toohey (1999: 45) comments:

> The concept of tertiary education as preparation for employment has become so dominant that the idea that graduates might question the ways in which work is organised and distributed in society seems unpatriotic. We see the effect of these beliefs in the higher education curriculum, as degree programs in humanities and fine arts are redesigned in order to offer students preparation for a career in government service or arts administration.

The preparation of '*researcher ready and employable*' undergraduate student can pose a similar debate, as often in CNMA we question a possible dichotomy of curriculum that provides both employment opportunity and higher research progression. For instance, a majority of new media students begin their new media arts with vocational objectives in mind, with a preference to a career in the creative industries when graduating. Popular film and animation trends influence students towards hopes of an early career path and deferring higher research opportunities until later in their career. Their attention to developing technical competences dominates their focus and therefore the balance of creative practice and vocational aims in the curriculum are research focused and designed to enhance their intellectual skills. It is with these issues in mind that the Centre for New Media Arts is challenged in providing an educational model and curriculum fit for purpose and future focused.

Toohey's comment provides an interesting connection to Rimmer's (1999: 5) statement:

> As we become a knowledge economy, we will all recognise that people are our competitive edge - artists can be the key to innovation and creativity in industry and

science because of their ability to 'see' things differently. It is this ability to think beyond the square that has provided the competitive edge so evident in many of our successful knowledge companies today, and is the source of continuing advantage of the future.

Here we see the Australia Council's acknowledgement of artist's economic value in society, and hopefully a result of education nurturing artists in their research and professional practice. The important factor is that artists create trends rather than follow them and in developing new media professionals, these lateral and conceptual strengths require an educational experience that goes beyond the university environment in providing a valuable cultural alternative and understanding of arts, community and industry.

CNMA offers it students a first hand experience of the real world through the partnerships and linkage with major cultural institutions and collaborative ventures with other organizations. An excellent support network for New Media Arts is available in Australia with active organizations such as, Australian Network for Arts and Technology (ANAT), dLux Media arts and Experimenta that create exciting initiatives, projects and professional development opportunities, particularly for emerging artists as well as established artists. Other major cultural institutions add a significant presence and world leading edge, notably the Australian Centre for Moving Image (ACMI) in Melbourne, which is a premier state-of-the-art Centre for screen and digital culture industries, and also the Australian National Museum, reflecting Australia's history and culture with and through technology. This year, CNMA has focused primarily on leading industry practitioners providing our lecture series with first class cinematographers, composers, freelance motion graphic designers and key personnel from television to share their expertise and knowledge of professional practice. I would argue that linking students to industry is a key element of developing that ability to 'think beyond the square' and these events, enhance the students' experience with the media industry beyond education and provides an insight into the world of professional practice. Here students make the connections with their studio assignments in a context of media research aligned to advancing technological developments and commercial innovation. New Media events are not only available to our students but also to the wider public as we value the relationship we have with the Australian National Gallery for their Fullscreen New Media lectures and the Australian National Museum who host the CNMA New Media Lecture Series and DUST - our annual New Media performance event. A rich culture of diverse new media is brought to Canberra connecting community to practice and inspiring audiences with abundant sources of creative knowledge.

Future directions for ANU Education (2005: 23) encompass structures to ensure graduates and postgraduates are ready for both professional and research careers by offering a unique ANU experience beyond just the acquisition of credits towards a degree. The ANU is committed to the aims of the 1998 Boyer Commission that research and inquiry are central to students experience at a research university.

> The ecology of the university depends on a deep and abiding understanding that inquiry, investigation, and discovery are the heart of the enterprise, whether in funded research projects or in undergraduate classrooms or graduate apprenticeships. Everyone at a university should be a discoverer, a learner. (The Boyer Commission Report 1998)

Clearly, research is a national priority for Australia and it's also at the heart of The Australian National University, with its founding philosophy in the creation and development of knowledge. But unless the suggestion that everyone should be a 'discoverer, a learner' is applied to a specific social, cultural and intellectual context, it remains nothing more that a worthy abstraction. New Media Arts can provide an environment in which these abstract ideas can be made concrete and 'real' for countless numbers of our young people.

The ANU clearly outlines its educational objectives in *A Plan for the Management of Education at ANU to 2006* (2005: 1), stating:

> As a research-led university of a type noted by the Boyer Commission (1998), The Australian National University offers the following educational opportunities:
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> - Opportunities to learn through inquiry rather than simple transmission of knowledge.
> - Training in the skills necessary for oral and written communication at a level that will serve the student both within the university and in professional and personal life.
> - Appreciation of arts, humanities, sciences, engineering, and social sciences, and the opportunity to experience them at any intensity and depth the student can accommodate.
> - Careful and comprehensive preparation for whatever may lie beyond graduation, whether it be graduate study, professional development, or first employment professional experience.
> - The expectation of - and opportunity for - work with talented senior researchers.
> - Opportunities to interact with people at every level of accomplishment, from first year students to senior research staff.
> - The development of research led thinking through all courses.

It is this focus on the student's experience that is useful in reflecting on CNMA's New Media Arts curriculum explaining the Centre's nurturing profile and constructive steering of students through an interdisciplinary matrix of knowledge and creative production. The matrix is the degree structure that provides a framework for their learning pathway. The Centre has two undergraduate programs that share courses such as Media Cultures, which provides the core theory for students in New Media Arts. Postgraduate coursework and higher research students have the opportunity to audit any ANU courses, providing permission is given from the relevant convenor. The ANU policy of offering choice of study is deliberate as it allows students to take control of their studies and follow areas of interest. This reflects the belief that a reciprocal relationship between teaching, practice and research not only benefits the student, but gives more insight into what the process of independent expression are like, and encourages a deeper level of learning. Independent study, problem based learning and portfolio creation offer excellent methods aligned to our teaching and learning aims at CNMA.

It has been fruitful to take the opportunity, in a series of on-line discussions with CNMA academics, to consider how the pinnacle of convergence is impacting on our curriculum and influencing future directions. We know from designing our course outlines and syllabi; the focus

of our programs, the statistics that show us successful progression and the popularity of our courses. By exploring some of the creative work at the Centre through some on-going case studies we are provided with successful examples of researcher ready and employable graduates. In profiling three new media artists from CNMA, Bicevskis, Morrison, and Hood, we find that they are interesting in the respect to their educational study, research aspirations and career development. Firstly, Bicevskis and Morrison have graduated from the Bachelor of Digital Arts and are now working as professional media artists whilst Hood, who incidentally came to the Centre without an undergraduate degree in arts or media, is currently a Master of Philosophy student in CNMA.

Bicevskis graduated in 2003, and transferred his studies to CNMA (then known as ACAT) following a year at the School of Art. His specialist streams consisted of animation and computer music, art theory in *Art and the Asian Pacific,* and elective studies in drawing, communication design and photomedia. Luke's aspirations were to work in the new media industries and following graduation he secured a position at the prestigious award winning production company Bearcage Productions as postproduction designer primarily working on motion graphics for a range a range of projects, including commercial, corporate and film work. His achievements include the 'Pirion' television commercial selected as finalist for Best Animation in the Asia Image Apollo Awards ASIA in Singapore 2005 and 'Seasons' television commercial selected as a finalist in the Australian Film and Television Industry Awards (AFTI). Bicevskis continues to work in industry freelancing, and has become one of academic New Media lecturers at CNMA. In discussion with him he enthusiastically says (2006):

> My personal experience of CNMA (then ACAT) was one of an open and evolving community. Due to the developing nature of the course at the time I felt that I had a real hand in shaping what happened and where it was heading. I think it is important for a student to feel this way as it not only keeps us in touch with what the students want but also lends to them a feeling of belonging which is essential to any community. The skills I was taught were more helpful in their fundamentals training rather than specialisation. Understanding how sound and the moving image work have been far more helpful to me in my industry work than program specific teaching. Throughout my studies I was also able to study in un-related areas through my minor subjects. This offered scope that was unable to be experienced just through the Centre. Through all of these experiences I met a lot of people who provided perhaps the most valuable experiences, through both my communication of ideas with them and growing through our combined experiences. Many of these people have become good friends with whom I still am motivated and continue to motivate. Others have become invaluable contacts in and outside of Australia.

Morrison graduated in 2004, having attained a first class honours at CNMA. His specialist streams consisted of computer music and digital video, art theory courses in *Cyberculture* and *Design History* with elective studies in philosophy, communication design and photomedia. During his degree he gained work experience with the Australian Broadcast Corporation (ABC) to work on Fly TV program and assisted with the weekly production, namely filming, editing, pre-production and postproduction. Since graduating, Morrison has achieved many successes, in 2005, he had a RawSpace residency program in Brisbane, ABC2 contracted his work 'nairt

inrat' for its *boohooray* video website program and screened on the digital ABC television channel. *Triple J* radio featured Morrison for its J Arts program in early 2006 and in May he is performed with Bec Paton at the Studio at the Opera House of Australia, as part of the *ReelDance* festival. In August 2006 he delivered a lecture at the National Gallery of Australia as part of Fullscreen, about his work and practice. Last year, he worked as a lecturer at CNMA and now currently employed at the National Screen and Sound Archive of Australia. His live performance career keeps him very busy at a local and national level, with regular performances and residencies in Canberra, and various performances at the annual Electrofringe festival. Morrison describes his teaching experience (2006):

> My time as an academic was rewarding, challenging and educational. It allowed me to present my experience and approach to video to 1st year students. The staff at CNMA were supportive and allowed me the freedom and trust to develop my own curriculum and class structure.

Hood joined CNMA having already worked in the computer games industry. With an excellent application portfolio and his TAFE qualification, he was offered a place in CNMA's postgraduate coursework program. Hood successfully graduated from the Master of New Media Arts in 2005 and is now studying his Master of Philosophy in the area of animation. From CNMA, Hood is working under the supervision of the ANU's Professor of Archaeology and Natural History, Peter Bellwood) to recreate a prehistoric Taiwanese village in a realistic, interactive reconstruction. This working model will include: a virtual reconstruction (based on archaeological evidence) of a prehistoric Taiwanese village, virtual interaction with the inhabitants of the village to learn about customs, rituals and beliefs, and best methods for presenting complex information and motivating the participants. Hood's research direction exemplifies one of the possibilities in CNMA's research direction for animation and the linkage with other areas of ANU.

I hope that this paper has shown the importance of a flexible new media educational framework and the constructive education model applied at CNMA for producing highly intellectual, independent practitioners who contribute to commercial and academic practices. In discussing the diversity of students and their aspirations, I have made the connection clear that it is a unique opportunity for New Media students to influence their own career direction determined by choice and selection from an exciting array of specialist and elective subjects. Supervision and the nurturing of students is central to the teaching and learning methods in the studio streams and facilitates CNMA's goals for being responsive to students and developing their independence. The courses in the Centre's programs allow for conceptual development whilst building skills, reflecting on practice and embedding knowledge. The student experience is imperative to the learning model, that is a value inherent in a research led education and that of a new media arts curriculum. The profiles of Bicevskis, Morrison, and Hood show the intrinsic benefits of a matrix of knowledge structure that balances research, creative production and artistic beliefs. What results is a clear message that New Media pedagogy is a profound and valid practice and the outcomes at this time may be unpredictable and increasingly challenging. I believe that this is the nexus of such future direction for CNMA New Media Arts and delivers the Centre beyond the pinnacle of convergence.

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