



The Fusion Paper

Supporting interdisciplinary fusion & and a digital literate future

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1. Abstract

The fusion of radio, internet and mobile technologies is creating new platforms for the production and distribution of cultural content. It is also seeing the emergence of new applications as artists and independent media practitioners fuse conventional broadcasting technologies with Global Positioning Satellite's, aggregated content feeds, open source software development and online, collaborative production environments.

"The Fusion Paper" provides a historical context for information technology convergence , describes the efforts of cultural development media makers in the Asia region, discusses the opportunities for public media makers and their audiences both on-air and on-line, and points to the necessity for a clear understanding of the role of policy in sustaining these, largely grassroots efforts.

2. About c2o/Toy Satellite

I have been involved in the establishment of community based internet access throughout Australia and the Asia Pacific region since late 1989, commencing in Byron Bay with Pegasus Networks. I have assisted in the up-take of email, mailing lists, online coordination and training for countless organisations. Pegasus provided a single, if not expensive at the time, conduit for community groups, arts and cultural development practitioners to gain access to the international online community well before the advent of the WWW.

In 1994 I drew up plans to establish a non-profit web development and new media production team. Toy Satellite, was founded in 1995 and has since produced a significant portfolio of websites, streaming media events, audio-visual productions and content management tools and guides. In 1997 a small team of former Pegasus staff founded the non-profit company, APC.au which now trades as Community Communications Online, Toy Satellite and Secession Records.

3. Context

The word "fusion" is synonymous with those of us who cringe at the mention of jazz rock. However, the merging of different elements does represent a point at which new ideas emerge, some quite successful such as the combination of different techniques and ingredients from very different countries and cultures that has stimulated our palates and fuelled an entirely new industry for our mouths.

In 1976, one year shy of leaving school, a flyer on the notice board of a library in Sydney's western suburbs , had me down in the outer western suburb of Liverpool in no time at all. I become actively involved in Western Access - 4 public video resource centres where you could learn video production and borrow equipment for free. These were precursors to Melbourne's Open Channel and the foundation, bricks and mortar, solder and cable that became Sydney's Metro TV (Paddington Town Hall, Sydney).

One of the unique features of the centre in Liverpool was the community radio station. It was being built on the same premises, run by the same people and populated by the same kids dragging bulky port-a-packs around making short films, documenting sporting events and interviewing councillors.

It seemed natural to be running a radio station out of a community video access centre. It seemed natural to be preparing material for broadcast at the same time as one was covering a community event. It was natural to use the resources of the video production studio to make training videos for panel operators and DJs. It was not unusual to have a camera in the studio covering an interview with the local Mayor of the owner of the milk bar downstairs.

When kids turned up at Western Access Liverpool, not only did they learn how to edit half-inch black and white video, some stayed back and helped build a back-up radio broadcast console and others even got to go on air during test broadcasts. It was a fusion of mediums without a doubt... And that's the key... there was no doubt, it was natural.

4. Interdisciplinary: Europe

We've come a long way since then. The notion of a fusion of mediums has certainly matured with the advent of the internet and will go a long way with access to broadband in more and more parts of the country. There is less excuse now for the envisioning and creation of a lively, active, media rich culture that not only consumes, but produces as well.

However, there is much more work to be done.

In 1997 I returned from Europe completing a research tour for my Masters¹. During that trip I stumbled into the opening of Public Netbase t0². Public Netbase was one of several European based community media organisations providing a bridge between traditional forms of media production and the internet. They provided Viennese film-makers associations with access to multimedia training, net connected computers and a space in which to meet as well as exhibit their works.

The night I had been invited to perform there I screened numerous screen works from RMIT's Centre for Animation and Interactive Media, my performance was streamed out to the Internet whilst a shoe-box size, home made robot navigated the floor space of the gallery, the makers excited as parents would be when it discovered the door!

What organisations like Public Netbase t0, Stadtwerkstatt³, ESC⁴, KunstRadio⁵ and Ars Electronica⁶ were doing was creating not only an awareness, but preparedness for a media literate society that traditional media producers could actively engage with. Public Netbase t0 has since ceased to exist. Its funding significantly cut since it became a political vehicle for sustaining open channels for the critique of the Austrian government's more draconian ICT policies.

In more recent years, it has not been Europe, but Asia where the more dynamic fusion of network craft, media production and distribution can be seen, participated in and, dare I say, draw inspiration from.

5. Interdisciplinary: Asia

South India, Latin America and more recently the Philippines are being inundated with a network of community access centres commonly known as telecentres, or telecottages. Many have successfully merged new media tools with internet access and training. Network gaming houses are rapidly being overtaken by them as they offer opportunities for all sectors of the community, crossing gender and age barriers. They are common in economically depressed environments, providing the community with the resources to define new forms of income, or to support traditional means of income generation with the tools to provide longevity and sustainability.

In Australia the telecentre, or telecottage as it was originally known, goes back to the 70s, rose up again in the early 90s, declined through lack of funding and has arisen again in recent years, the more successful being established in NSW and Western Australia.

All these initiatives require trainers, require vision and a deep understanding of the skills that can be further advanced, or enhanced through these kinds of centres. And they can become not only new forums for production, for the generation of ideas, they can become conduits for content created within them, circulated through their own networks, utilising content syndication, P2P and a raft of emergent tools that make use of broadband as it becomes more and more accessible.

For example, Jinbonet⁷, not just an ISP, not just a provider of internet services to the NGO sector, but actively

¹ Auslander Micro, an online opera, <http://toysatellite.org/agarton/MA/>

² Public Netbase t0, Institute for New Culture Technologies, Vienna, <http://www.t0.or.at/>

³ Stadtwerkstatt, Linz, <http://www.servus.at/stwst/>

⁴ Extreme Subversive Culture, Graz, Austria, <http://esc.at/>

⁵ KunstRadio, Radio Art, Vienna, <http://www.kunstradio.at/>

⁶ Ars Electronica, Linz, <http://www.aec.at/>

⁷ Jinbonet, <http://www.jinbo.net/>

involved in educating the Korean public to their use and engaged in ICT policy matters. Jinbonet provides a deep context for internet services, one that is steeped in personal empowerment, social justice and freedom of expression.

6. Case study 1: MediACT, Korea

MediACT is a media centre in Seoul committed to public access, independent film, and media literacy. It was co-founded by Kim Myoung Joon, founder of Labor News Production, one of the most important labor video training centres in the world that has produced numerous films on the democratic Labor movement in South Korea.

Challenges

- Access to information
- Poor media literacy
- Informing the community
- Restrictions to free speech and publishing
- Giving voices to voiceless (or Empowering the people)

Solutions

- Increase media literacy
- Increase opportunities for access to ICTs and training
- Reforms to ICT Policies
- Redistribution of financial resources to other community based organisations, and
- Encouraging and supporting those groups without interference, that is, allowing them to grow and shape them selves according to the qualities that make them unique, just as each CTC in NSW is different from the next.

7. Case study 2: Dr Onno Purbo, Indonesia

When I first met Onno Purbo he was setting up packet radio networks for community use across the Indonesian archipelago. In more recent years he has turned his attention to WiFi. The Acacia Web Times says of Onno:

“Purbo has gone over the heads of the government direct to the Indonesian people, whom he is empowering with low-cost, build-it-yourself neighbourhood networks that bypass the telcos and deliver Internet and telephone services at a fraction of the cost of doing so conventionally.”

Onno has authored over 40 books which can be downloaded from his website free of charge. He was the first person to write about computers and the internet in Indonesian. Those that have followed have been his students. “He travels around schools and universities, showing students how, with a little study and effort, they can get 24-hour Internet access at a cost of 50 US cents a month! He shows anyone who cares to inquire how they can “borrow” the telco’s telephone number to make free calls over the internet with VoIP).”⁸

Onno encourages his students to write practical, hands-on guides about ICTs that not only provides additional income for them, it adds to the quality and diversity of information available to the community in their own language.

Challenges

- No technical information in local language
- Poor telecommunications infrastructure
- Increasingly large number of un-educated, disenfranchised youth

⁸ Matthew White, Acacia Web Times, “Tech Rebel is Supurbo”,
<http://www.acacia.org.za/WEBTIMES/wednesday.htm>

Solutions

- Education! Education! Education
 - Encourage and train local knowledge/content producers.
 - Facilitate Knowledge Sharing
 - Replication & Scaling up process through word-of-mouth / tacit knowledge exchange.
 - Demonstrate through practical examples how these networks may be community owned, self-financed and coordinated in collaboration with the government.
- Engage with civil society processes in ICTs
 - Integrate community radios & TV with internet media
 - Encourage WiFi bands & VoIP for community infrastructure.

As of 5 January the Indonesian government has lifted licence restrictions wifi, 2.4GHz. Local campaigners are now working towards liberating 5.2GHz & 5.8GHz spectrum.

To maximize spectrum usage, the community and government have agreed to limit maximum transmission power to 100mW & EIRP 36dBm antenna radiation pattern, network topology will be coordinated among community member.

8. Constraints

In my experience I have identified three, and there are more, constraints to the development of rich and diverse content for public engagement and consumption.

ICT Costs

One of the problems stifling innovation in the non-mainstream online audio and video fields are the fees Australian ISPs hosting streamed and/or on-demand content have to pay to royalty collection agencies. These costs limit artists and producers from defining their own distribution channels. These are creators who may never engage with the mainstream, that the mainstream may not even recognise. In addition, it is these costs that drive much of our content abroad where, for instance, it is cheaper to host websites. I am not saying the producers are not due royalties, but when the internet provides scope for cultural works that exceed the limitations of radio and television, say for instance a composition or video production that has a duration of several days if not weeks or months, there is no current framework to realise an income to support the fees must pay for the privilege of hosting such works. Hence such works are required to be copyright and royalty free.

Off-shore hosting

The internet presents us with non-geographic models for the dissemination of information. In general terms, it may not be that important where one stores their content. However, the prime motivator for Australians to host off-shore isn't security, as it might be for organisations and individuals publishing within a politically hostile environment, it is cost.

Homogeneity

Cultural diversity, and the environment to support the fusion of cultural actors and ICTs needs to be sustained, not just by rhetoric, but by good policy and financing. The push towards main-streaming content and cultural development, the gradual transformation of our Universities as a place for research, learning and enquiry towards vocational training centres, the corporatisation of research and the fragile funding schemes supporting community cultural development and new media art, both areas that traditionally encourage and sustain innovation across an interdisciplinary framework, may place us on a dangerous path to sameness, not difference... If audiences seek meaning, they will not find it in homogeneous cultural products, it will be found in diversity.

Recently, the Australian Media Entertainment and Arts Alliance has critiqued both the AFC and the film-makers it has chosen to support for a proposed re-mixable film, in that one can cut it up and make an entirely new film from it. Rather than focusing on the moral rights issues it has raised, it has also attacked the content

of the film. It is the idea, not necessarily the content in this case that ought to be understood more broadly.

http://rights.apc.org.au/culture/2005/03/meaa_halts_worldfirst_film_project_in_australia.php

It is these kinds of activities that prevent people from developing new means of cultural expression and experimenting with different modes of distribution outside of conventional channels that is drawing us towards a culture of homogeneity, a cheapening of the local in favour of the general (Adams, Goldberg 2002).

9. Opportunities

Artists are agents of transformation. By acknowledging difference, not what is distended through mass replication, what opportunities are there for public media makers and their audiences?

Cultural diversity

Culture takes diverse forms across time and space. This diversity is embodied in the uniqueness and plurality of the identities of the groups and societies making up humankind. As a source of exchange, innovation and creativity, cultural diversity is as necessary for humankind as biodiversity is for nature. In this sense, it is the common heritage of humanity and should be recognized and affirmed for the benefit of present and future generations. (UNESCO's Universal Declaration on Cultural Diversity, 2001)

Capacity building

Cultural diversity widens the range of options open to everyone; it is one of the roots of development, understood not simply in terms of economic growth, but also as a means to achieve a more satisfactory intellectual, emotional, moral and spiritual existence.(UNESCO's Universal Declaration on Cultural Diversity, 2001)

Niche distribution

New technologies offer new forms and models of distribution for cultural content. A Fijian women's collective, the Navua Women's Rural Group, specialising in tamarind chutney increased their income significantly when they moved their market and street vending operations over to the internet. In a pilot program, supported in part by AusAID and the International Women's Development Agency, they targeted public servants in Suva only received around 70 orders at the start and 400 orders towards the end of the pilot.

At the recent Connecting Island Communities conference in Brisbane, I proposed that a network of telecentres mooted by UNESCO could provide a distribution mechanism for music in the region as a way of building the resources to broader markets should they want them. It may not always be necessary to extend ones cultural product to global markets when the costs for doing so are prohibitive.

Content and applications development

What the Koreans are doing is creating a media literate culture. In many ways we already have a media literate culture regardless of the quality of that media. However, with new technologies and more creative forms of distribution, there are now many ways content can be delivered and received.

Products such as the iPOD are not only a means by which music can be purchased and downloaded, utilising content aggregation tools one can deliver many more forms of audio content from many more locations on the internet. Plays, audio documentaries, personal commentary and independent net music labels distribute freely through, for example, the rapidly developing world of Podcasting.

- iPODMedia Players
- Multimedia capable phones
- Weblogs
- Content sharing tools such as Peer2Peer

These tools support diverse forms of content as well as the creation of new content, and they make the

reception of content almost seamless to receive. At any given moment there are no more than 40 songs being heard on most radio stations in the developed world. Were it not for the availability of these tools and the risks creators take in making the content freely available, consumers would have little knowledge of the diversity available to their eyes and ears.

Freely available content is as much about educating consumers as it is about challenging conventional means of production and distribution, that which relies on repetition and not the difference one finds in cultural fusions.

Connecting ICTs with development of Small business, Co-operatives and Entrepreneurship

That said, I do not wish to be driving taxi's or working espresso machines, but I am humble enough to realise what needs to be done has to be done. However, the models expressed in yesterday's panel on Financing Creativity recognise that far too many people such as myself find themselves stranded between projects and often financially challenged hence the need to further models that strengthen the means to ensure continuity of cultural development and the realisation of new ideas.

10. Supporting interdisciplinary cultural practice

When I was at primary school we learnt about Captain Cook, the American Indians, the Snowy Mountains Scheme and the CSIRO. That we knew more about tipi's than humpy's, about bows and arrows than we did about boomerangs is a disgrace in itself. To their credit, our teachers taught us that research was essential to the betterment of society, to the betterment of all peoples.

We grew up thinking CSIRO was THE place to work and many of us wanted to be scientists. Now a days we are taught to revere and look up to footballers, runners and swimmers whilst our artists and thinkers, our philosophers and investigative journalists are lumped into the Chardonnay set, or chattering classes as some of our elected representatives would have it known... and our children are being encouraged out of school earlier and our scientists are no longer heroes, they're retired to the bush or move off-shore just like much of our content.

Policy

If there is such a thing as the Information Society it is grounded in the Right to Communicate, as a means to enhance human rights and to strengthen the social, economic and cultural lives of people and communities. And that my friends, if we are to further the fusion of media production and its distribution, is where the battle lines are to be drawn... we can do all this now. If one does not understand the value of good policy, in particular ICT policy as the foundation for ensuring the sustenance of a creative life I would encourage you to read the APC ICT Policy Handbook.

Financing

Funding models that develop and sustain interdisciplinary cultural practice, as was identified in the Financing Creativity panel does, as Paul Voigt suggested, require creative financing and the diligence of funders to ensure their longevity. David Court is correct to point out the unpredictable nature of arts practice. It may be a problem for financiers, but it is the nature of art to provide meaning through the chaos, pain and wonder that is the creator's life and this I believe is being understood. Malcom Long is correct in describing ours as an intangible industry and in many ways, I hope it stays that way. Knowing what it is is far better than shaping it into what it is not. Supporting unpredictability, sustaining difference is far better than shaping it into every other recognisable facet of a globalised world.

11. Finale

We need to look around at what we have available to us, our skills, our dreams, aspirations, our long nights at the wheel of endeavour and enquiry, roll up our sleeves and work together. That is the key to the success of our Asian brothers and sisters, to collaborate, not compete towards the kind of world, whether it be in Fitzroy or Byron Bay, Horsham or Canberra, where creativity, diversity, culture, technology and its many fusions are defined within participatory spaces, such as in this conference today, and this perhaps needs to be formally recognised.

12.References

MediACT

<http://www.mediact.org/>

Dr Onno Purbo, Indonesian wireless advocate, open source resources

<http://www.bogor.net/idkf/>

itrainOnline

<http://itrainonline.org/>

APC.au ICT Rights Monitor

<http://rights.apc.org.au/>

13.About c2o/Toy Satellite

Toy Satellite, founded in 1995, is a non-profit community cultural development organisation specialising in new media production and research. From 2003 it took over the management of Community Communications Online (c2o), a community hosting and content management provider since 1997.

The three main strands of c2o/Toy Satellite's work are:

1. **Information Commons:** Public authoring as "collective sense-making" and the practical application of such information for communities.
2. **Creative Community:** Collaborative "fusion" media production, commissioned works and training for community media makers.
3. **ICT "cultural" Policy:** Monitoring, participating in and encouraging ICT Policy and Communication Rights awareness for community media makers and Civil Society.

c2o/Toy Satellite are trading names of APC.au LTD, a member of the global Association for Progressive Communications (APC).

14.About APC

The Association for Progressive Communications (APC) is an international network of civil society organisations dedicated to empowering and supporting groups and individuals working for peace, human rights, development and protection of the environment, through the strategic use of information and communication technologies (ICTs), including the Internet.

Technology: Practice and Policy

APC's members were often the first providers of Internet in their countries. Today, we continue to pioneer practical and relevant uses of ICTs for civil society, especially in developing countries. APC is an international facilitator of civil society's engagement with ICTs and related concerns, in both policy and practice.

World-wide Membership

APC's value and uniqueness comes from the local perspectives and contact with grassroots organisations that we gain through contact with, and between, our members. Our network of members includes organisations from Argentina, Australia, Brazil, Bulgaria, Canada, Colombia, Curacao, the Czech Republic, Ecuador, Germany, Hungary, Japan, Kenya, Mexico, Nicaragua, Nigeria, Romania, Senegal, Slovakia, South Africa, South Korea, Spain, Ukraine, the UK, Uruguay, and the USA.

Finding out more about APC

All APC Websites are in at least English and Spanish and provide detailed, regularly updated information about the work of APC and our members and the use of Internet for social justice.

To receive the news direct, write to: webeditor@apc.org or visit:

<http://www.apc.org/english/news>

APC's Press section: includes releases and frequently updated primers:

<http://www.apc.org/english/press>

The Association for Progressive Communications (APC):

<http://www.apc.org>

15.About the author

Andrew Garton is a new media producer/composer and an IT consultant to the community cultural development community.

Since the mid 1970s Andrew had been involved with numerous independent and community media initiatives in Australia and South East Asia: from radio and public access video in his teens to computer networking in the late 1980s. He was motivated at an early age towards collaborative media art works, combining interests in music, performance and public media. In the past twenty years he has written and performed plays, joined and formed bands, written scores for television documentaries, penned countless songs, piano and electroacoustic compositions, experimented with recording and performance techniques.

In 1989 Andrew began working with Pegasus Networks, a small operation originally based in Byron Bay (Northern New South Wales) that brought computer networking to urban and rural communities throughout Australia. By 1992 it supported a significant number of projects (in which Andrew was extensively involved) in the Pacific Islands and South East Asia. In 1993 he conceived of perhaps the earliest netcast in Australia, Fierce/Interave, with 40 participants representing the online world at that time.

By 1994 Pegasus had developed from being an infrastructure to a content services provider, largely influenced by the introduction of the world wide web and its far more creative possibilities. It was at this time, and living in Melbourne with his partner and collaborator, Justina Curtis, that they established Toy Satellite and its subsequent forays into online and generative sound works, operatic web sites and experimental performances.

Combining real time video collage and improvised soundscapes, Toy Satellite draws its inspiration from avant-garde cinema, theatre and composition. They are motivated to create original works that explore cultural perception and identity, works that have been performed in theatres and dance clubs, galleries and warehouses in Europe, Asia and Australia. A not-for-profit entity that develops cross-cultural collaborations, Toy Satellite extends opportunities for new media arts practice throughout the Asia and Pacific region, and self initiates research in cross-discipline technologies that focuses on people-driven outcomes. Areas of inquiry have ranged from computer mediated improvisation to content delivery methodologies for experimental sound works via wireless ICT services.

Andrew has given papers on networking and new media initiatives at the United Nations World Conference on Environment and Development, Fifth International Conference in Central Europe on Computer Graphics and Visualization, University of West Bohemia, the First Asia Internet Rights and 4th Labour Media Conferences, Seoul. In recent years he has presented at the Asia Communication Rights Forum (Manila), IPR and Communication in the Asia Pacific (Brisbane) and Pactok 1, Telecentres for the Pacific Islands (Brisbane).

His published works include articles in Journal of New Musique Australia, Fibreculture Reader, RealTime, 21C and Pan Asia Networking - a comprehensive report on early Internet usage in the Asia region commissioned and published by the International Development and Research Centre, Singapore. His most recent works are soon to be published by MIT Publications, commissioned by University Technology Sydney.

Andrew is presently Editor of the APC.au ICT Rights Monitor and contributes to Civil Society forums within the UN World Summit on the Information Society. He is a Director of c2o (Community Communications Online) and a Council Member of the Association for Progressive Communications. He graduated in 2001 with a Master of Arts in Animation and Interactive Media at RMIT University, Melbourne, Australia.

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