Curriculum Vitae Michael Borthwick

Address	11/10 Burwood Road
	Hawthorn
	Victoria, 3122
	Australia
Telephone	+ 61 3 9818 6272
Date of Birth	2 December 1966
Nationality	Australian

Experience

Organization	**Michael Borthwick Consulting Pty Ltd**
Dates	**March 1999 - present**
Position	**Director, Owner**

Key Achievements

Consultant – Australian Centre for the Moving Image, Melbourne
Development of the Concept Design for the ACMI Media Platform – a core infrastructure component that works in conjunction with a Storage Area Network (SAN) and ACMI's Gigabit Ethernet backbone to provide for the management, scheduling and Internet Protocol (IP) streaming of upwards of 30 channels of MPEG2 video and 60 channels of MPEG4 video to a variety of end-point devices within ACMI's Federation Square site in Melbourne.

Sole industry consultant on the three person tender evaluation panel that advised the ACMI Board on the recommended vendor for the multi-million dollar Media Platform contract.

Author of the ACMI Streaming Strategy, a 60 page analysis of the strategic, technical, human resources and workflow issues associated with the implementation of live and on-demand web video streaming.

Workshop Facilitator Museum Computer Network Conference 2003
Facilitator of two half-day workshops, one on digital video and one on media convergence in the cultural domain at the 30th annual Museum Computer Network conference in Las Vegas. The workshops, and a Digital Video panel discussion, provided an overview of analog video systems and videotape formats, digital video concepts, production issues, storage requirements and compression formats including MPEG4. These workshops were specifically targeted to the needs of professionals in the cultural heritage sector and were well received according to follow-up research undertaken by conference organisers.

The Learning Federation – MPEG4 Video Consultancy
The Learning Federation, an 80 million dollar Federal Government e-learning initiative, has commissioned an examination of the opportunities associated with the MPEG4 standard for multimedia delivery. The consultancy examines both the broader strategic opportunities associated with the adoption of the MPEG4, MPEG7 and MPEG21 standard suite and the immediate tactical issues associated with the use MPEG4 video compression codecs for the compression of video content within TLF "learning objects". The assignment includes an examination of authoring issues and client-side playback considerations for the 15,000 schools who will make use of this ambitious e-learning network.

Curriculum Corporation

The Curriculum Corporation – a curriculum development organization jointly owned by the Education Ministers in each Australian State and Territory - commissioned a research project and workshop series on digital video, compression and streaming in the educational context. Outcomes will include a suite of online whitepapers, a workshop series and related professional development resources for State education systems. The Corporation believes that the moving image has a role to play across a variety of key learning areas in schools and its use by both teachers and students should not be limited to dedicated Media Studies classes.

Jewish Museum of Australia

A systematic and extended testing regime was instituted at this site to identify and resolve stubborn intermittent problems with this Mac-based interactive multimedia installation. Problem resolution included the development of custom hardware capable of the automated simulation of weeks of visitor use was created to uncover the cause of the elusive intermittent faults within the system. The successful resolution of these problems has freed up the precious time of volunteer staff and enabled the museum to avoid a massive hardware upgrade and costly software rewrite.

Royal Australian Air Force Museum

The RAAF Museum required a thorough analysis of technologies available to replace an obsolete and unreliable CD-I based video delivery system that was compromising the visitor experience and deeply frustrating staff. The MPEG hard drive based solution that emerged from the analysis process has delighted the Air Force with its reliability and has enabled staff to focus on curatorial rather than technical issues.

Jumpcut – New York

An engagement to New York based webcasting pioneers Jumpcut to consult on the provision of infrastructure including crews, studio facilities and international leased-line networks to enable the transmission of a daily live webcast from the Sydney 2000 Olympic Games to subscribers of one of Europe's largest broadband cable modem networks. As no web broadcast rights for the 2000 Olympics were made available by SOCOG the webcast did not proceed.

Articles - Digital Media World Magazine - Australia

- Digital Television
- Interactive Television
- Content Management Systems
- Streaming Media
- ABC Television's Southbank Digital Studio
- Multimedia Industry Training (Feature)
- Infogrames Melbourne House Game Developer Profile
- Storage Systems for Digital Video Production

Video Compression

Nine years experience; dozens of video compression projects completed; tens of thousands of people have seen Michael's video compression work on educational and corporate CD-ROM, the web and in installations. Clients include The Australian Ballet, BMW Australia and the TV Week Logie Awards.

Real Time Projects
2004 marked the eighth year in succession that the Australian Teachers of Media Association (ATOM) have engaged Michael to act as the technical consultant and direct of the the prestigious ATOM Film, Television and Multimedia Awards. An ATOM Award is a highly regarded acknowledgement of excellence in educational and general media production and the Award presentation itself is renowned for its stylish design and technically flawless presentation.

Organization	**N/A**
Dates	**July 1998 – February 1999**
Position	**Freelance multimedia consultant**

Key Achievements   Completed a broad cross-section of over 40 multimedia projects including web site development, video compression, event technical direction and stage management.

Organization	**Department of State Development**
Dates	**November 1996 – June 1998**
Position	**System Administrator**

Responsibilities   Develop concepts and content for various Business Victoria web sites, write HTML, manage external web site development agencies and hosting firms. Manage the conversion from HTML "flat file" to Lotus Notes/Domino system content management systems. Advise senior management on appropriate web strategies and opportunities. Administer legacy UNIX applications and develop Microsoft Access databases.

Organization	**The Purple Group**
Dates	**October 1995 – October 1996**
Position	**Project Manager**

Responsibilities

- Project management of interactive multimedia projects including client liaison, design brief development, project documentation, quality assurance, and project scheduling and monitoring.
- Project management of site prototypes incorporating Shockwave animation and back-end database integration.
- Web site content development, information architecture, design, copywriting, image processing and HTML programming.
- Storyboarding, technical development and direction of live audio-visual multimedia presentations.
- Technical development of multimedia project proposals and tender submissions for local and international multimedia projects.
- Administration of Novell NetWare 4.0 local area network and technical support of Macintosh computers.
- Development of hardware and software purchasing plan to equip contemporary multimedia production studio.

Key Achievements   **Inaugural Victorian Design Awards**
Project management, technical design and direction of live multi-camera direct-to-screen presentation including innovative use of live Macintosh computer graphics.

Swinburne University CD-ROM
Capture, compression and optimization of digital video for Swinburne University promotional CD-ROM using Radius VideoVision Studio Macintosh non-linear editing system.

Organization	**Magian Multimedia**
Dates	**January 1995 – October 1995**
Position	**Technical Coordinator – National Science Center – Kuala Lumpur, Malaysia**

Responsibilities Design, installation, commissioning and documentation of audio-visual and multimedia systems for Malaysia's National Science Centre, Kuala Lumpur.

Key Achievements

- System design, installation, testing and commissioning of 70 Macintosh touchscreen interactive kiosks and multimedia CD-ROM applications.
- Optical and electronic system design, fabrication and commissioning of 5 video and data projection systems.
- Installation of AV equipment including 45 video monitors ranging in size from 14 to 34 inches and video sources including 30 laserdisc players, plus computers, VCR's, distribution amps and interfaces.
- Show control automation system installation and programming.
- Extensive liaison with suppliers in five countries, with National Science Centre management and senior Malaysian Government representatives.
- Training and supervision of local sub-contractors and NSC technical staff and engineers.
- Project management of the production in the USA of 3 PAL CAV laserdiscs and programming of Dataton Smartpax and Magian proprietary laserdisc control hardware.

Memberships Society of Motion Picture and Television Engineers (SMPTE)
Museum Computer Network
Committee Member, Victorian Branch, Australian Interactive Media Industry Association (AIMIA)
Member AIMIA Convergence SIG, AIMIA e-learning SIG

Professional Qualifications

1994
Certificate in Multimedia Production, Northern Metropolitan College of TAFE
1991-1993
Certificates in Corporate Video Production, Northern Metropolitan College of TAFE
1986-1988
Bachelor of Arts, Monash University, majoring in Psychology and Sociology with minor studies in Computer Science and Geography.
1985
Bachelor of Engineering, Monash University, completed first year with High Distinction in Physics prior to transfer to Arts faculty.

Pro-Bono Projects Technical advice to new media artists, independent video journalists, community groups and cultural organizations.