ANNUAL REPORT TO DEST
2006–07

AUSTRALASIAN CRC FOR INTERACTION DESIGN PTY LTD
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Table of Contents

Executive Summary

INDUSTRY CONTEXT

ACID was established on 1 July 2003. In retrospect, the CRC could not have commenced in a worse industry environment, being in the immediate aftermath of the 'dot com' crash and subsequent share market downturn which saw the NASDAQ composite index fall from a peak of over 5100 in March 2000 to below 1120 by October 2002. The timing was less than perfect for securing broadly based industry participation, and ACID continues to operate in a domain where the industry base is very fragmented.

ACID was established with a core belief that its trans-disciplinary research combination of social sciences, design and computer science had much to offer to Australia and the world. ACID now operates within and between the creative industries, the humanities and ICT, all of which are extremely fluid sectors.

The pace of change in these sectors means that ACID is now conducting significant academic and commercial research in fields that simply did not exist when it was established a mere four years ago.

As just one example, ACID is currently carrying out worldwide research in consultation with major corporate partners in the use of online social networking tools for serious business functionality and knowledge management.

Social networking began to be seriously considered as a part of business strategy in 2005 when Yahoo launched Yahoo! 360, and News Corporation purchased MySpace[1]. Even so, ACID finds that social networking tools tend to be used for business collaboration in a social context, rather than carrying over to the corporate sector in new forms in the way that, for example, gaming technology has been expanded and modified by the defence sector and heavy industry.

ACID considers this to be an opportunity to use its trans-disciplinary approach to develop new models of corporate innovation and R&D, particularly to assist big business shifting to open innovation and inter-firm relationships, collaborations and alliances. ACID sees purposeful industry collaboration as a major challenge and an opportunity for Australia to lead the world, and it is in the vanguard of research in this area.

ACID monitors the fluidity of its areas of practice, and manages the effect on the organisation, by conducting annual reviews of its business strategy, models and operations, adapting them as necessary to meet the evolving and emerging needs of research partners and current and potential clients.

MAJOR DEVELOPMENTS

CHANGES TO CEO ROLE

During 2006–07, the Board restructured the Chief Executive Officer's role into two positions: an Executive Director responsible for overall strategy and the research direction, and a General Manager responsible for operations and commercialisation. Effective 15 January 2007, the Chief Executive Officer, Prof Jeff Jones, moved into the role of Executive Director. Ms Suzannah Conway joined ACID to take on the General Manager role.

RESIGNATION OF EXECUTIVE DIRECTOR AND FOUNDING CEO, PROF JEFF JONES

Prof Jeff Jones, Executive Director and founding Chief Executive Officer of ACID, resigned in June, leaving the organisation on 8 June 2007 to take up other opportunities including a Commonwealth Government Endeavour Executive Award.

WITHDRAWAL OF QANTM PTY LTD

Supporting participant Qantm Pty Ltd withdrew from ACID, effective 30 June 2007.

AWARDS & COMMENDATIONS

ACID and the Royal Children's Hospital Brisbane jointly received an honourable mention in the 2006 Business/Higher Education Round Table awards for outstanding achievement in collaboration, in the category of best research and development collaboration involving a CRC. The award was presented for the collaborative research and development underpinning the diversionary therapy devices project.

ACID sponsored the 2006 ACID Prize for Tangible Media, for graduating students in the QUT Bachelor of Communication Design. The prize was awarded on the criteria of highest academic grade and most thorough resolution. The 2006 ACID Prize for Tangible Media went to *GraffitiLuv2* by Michael Szewczyk, Luke Muscat, Henrik Rypkema and Sam Sargent, all double-degree students in communication design and IT.

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[1] http://en.wikipedia.org/wiki/Social_networking (accessed 8 October 2007, 3:20pm)

Executive Summary

MAJOR REVIEWS

During the 2006–07 year, ACID underwent reviews of its research program through the Scientific Advisory Group, and of its operations and research through the Third Year Review. See pages 11 and 28 respectively.

COMMERCIALISATION HIGHLIGHTS

SPIN-OUT OF DIVERSIONARY THERAPY TECHNOLOGIES PTY LIMITED

On 7 November 2006, ACID completed the spinout of a new company, Diversionary Therapy Technologies Pty Limited, through its wholly owned subsidiary ACID Services Pty Ltd.

The new company aims to commercialise the diversionary therapy IP developed by ACID in conjunction with the Royal Children's Hospital Brisbane.

CONTRACT DESIGN SERVICES

ACID built up its contract design services capacity during 2006–07 and delivered a number of successful commercial projects for external clients. See 'R&D Services' on page 16.

National Research Priorities

ACID conducts trans-disciplinary research and development across a number of the National Research Priority (NRP) areas.

For example, ACID's research program 1, Smart Living, explores smart metering, e-working and community development within physical neighbourhoods. Aspects of this research touch on water and electricity consumption, infrastructure development and town planning, which fall under the NRP areas of environmental sustainability and promoting and maintaining good health.

ACID is contributing to the nation's preventive healthcare research capacity through its confidential work for clients in the medical devices industries. The outcomes of research conducted on these contract projects is fed back into ACID's knowledge base for future projects.

ACID's primary contribution to the NRP areas is in frontier technologies for building and transforming Australian industries. All ACID research programs are directly related to the development of transformative new technologies, systems and knowledge. ACID continuously reviews international developments in its fields of expertise, and seeks specific feedback on its place in the global footprint through the Scientific Advisory Group (see page 11).

Where possible, given the confidentiality of work conducted on behalf of commercial clients and industry partners, ACID publishes in academic journals and professional magazines, and presents to academic and industry conferences, to share its research output with wider audiences.

Table 1: National Research Priorities and ACID Research

NATIONAL RESEARCH PRIORITIES	CRC RESEARCH (%)
AN ENVIRONMENTALLY SUSTAINABLE AUSTRALIA – *Transforming the way we use our land, water, mineral and energy resources through a better understanding of environmental systems and using new technologies*	
Water – a critical resource	5
Transforming existing industries	10
PROMOTING AND MAINTAINING GOOD HEALTH – *Promoting good health and preventing disease, particularly among young and older Australians*	
Preventive healthcare	5
Strengthening Australia's social and economic fabric	10
FRONTIER TECHNOLOGIES FOR BUILDING AND TRANSFORMING AUSTRALIAN INDUSTRIES – *Stimulating the growth of world-class Australian industries using innovative technologies developed from cutting-edge research*	
Breakthrough science	5
Frontier technologies	10
Smart information use	30
Promoting an innovation culture and economy	20

Governance & Management

GOVERNANCE STRUCTURE

ACID's corporate governance structure comprises the Board of Directors, Audit Committee, and management team.

BOARD OF DIRECTORS

ACID has a skills-based Board comprising independent members and participant representatives plus an independent Chairman. The Board sets the strategic direction and establishes the policies that shape ACID's operations, and monitors ACID's financial position, business affairs and research directions.

The Board delegates responsibility for day-to-day activities to the Chief Executive Officer and the management team. Under the ACID constitution, the Chief Executive Officer is a Director.

The Members of the Board of Directors during the 2006–07 year, including indication of private sector representation, are listed in Table 2.1A below.

The ACID Board held Directors meetings on five occasions during the 2006–07 year. Directors attended as listed in Table 2.1B on page 5.

Table 2.1A: Governing Board Members and Chief Executive Officer

NAME	ORGANISATION	POSITION/ROLE
Dr Terrence Cutler	Cutler & Co	Independent Director Chairman of ACID Board of Directors
Emeritus Prof Mary O'Kane	O'Kane & Associates	Independent Director Chair of ACID Audit Committee
Mr Michael Begun	CM Capital Investments	Independent Director
Prof Arun Sharma	Qld University of Technology	Director[2]
Prof David Gardiner	Qld University of Technology	Alternate Director for Prof Sharma[3]
Prof Neil Furlong	RMIT University	Director
Mr Graham Edelsten	Auran Technologies	Director
Mr Greg Lane	Auran Technologies	Alternate Director for Mr Edelsten (to 22 November 2006)
Mr Bill Trestrail	SGI (Silicon Graphics)	Director
Mr Brett McDonald	Heritage Properties	Director (from 14 November 2006)
Dr Katherine Woodthorpe	People & Innovation Corporate Advisors	CRC Visitor
Ms Suzannah Conway	ACID	General Manager (from 15 January 2007) Company Secretary (from 24 May 2007)
Prof Jeff Jones	ACID	Chief Executive Officer AND Director (to 15 January 2007) Executive Director (15 January 2007 to 8 June 2007) Company Secretary (to 24 May 2007)

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[2] Prof Sharma resigned as a Director and became Alternate Director for Prof Gardiner on 22 August 2007.
[3] Prof Gardiner resigned as Alternate Director for Prof Sharma and became a Director on 3 August 2007.

Governance & Management

Table 2.1B: ACID Board Meetings 2006–07

BOARD MEMBER	10 AUG 06	5 OCT 06	22 NOV 06	11 APR 07	6 JUN 07
Dr Terry Cutler	✓	✓	✓	✓	✓
Prof Mary O'Kane	✓	✓	apology	✓	✓
Mr Michael Begun	✓	apology	apology	apology	apology
Prof Jeff Jones (to 8 Jun 07)	✓	✓	✓	✓	apology
Prof Arun Sharma	apology	David Gardiner[4]	David Gardiner	David Gardiner	David Gardiner
Prof Neil Furlong	✓	apology	✓	✓	✓
Mr Graham Edelsten	✓	✓	✓	✓	✓
Mr Bill Trestrail	✓	apology	apology	✓	✓
Mr Brett McDonald (from 14 Nov 06)	n/a[5]	n/a	✓	✓	apology
Dr Katherine Woodthorpe	✓	✓	✓	apology	apology

In addition, the Board held an informal planning retreat in February 2007.

QUALIFICATIONS AND EXPERIENCE OF
DIRECTORS AT 30 JUNE 2007

Dr Terry Cutler
Cutler & Co

Dr Terry Cutler is an industry consultant and strategy advisor in the ICT sector. He has authored numerous influential reports and papers on digital content and the information economy.

He holds a number of appointments to significant institutions including the boards of CSIRO and Innovation Xchange Australia Limited; the Queensland University of Technology Council, the Multimedia Super Corridor International Advisory Panel, MSC Technology Centre and Multimedia University in Malaysia, and the Victorian Innovation Economy Advisory Board.

Terry is a Fellow of the Australian Institute of Management and the Australian Institute of Public Administration, and a Member of the Institute of Company Directors, the Market Research Society of Australia and the Australian Society of Authors. In 2002 he was awarded an honorary doctorate by Queensland University of Technology and in 2003 was awarded Australia's Centenary Medal.

Emeritus Professor Mary O'Kane
Mary O'Kane & Associates

Professor Mary O'Kane is the Executive Chairman of Mary O'Kane & Associates Pty Ltd, an Australian company that advises governments, universities and the private sector on innovation, research, education and development.

Mary was Vice-Chancellor and President of the University of Adelaide from 1996 to 2001 and, prior to that, Dean of the Faculty of Information Sciences and Engineering at the University of Canberra. Specialising in high technology, national research strategies and higher education policy, Mary serves on several boards and committees in the public and private sectors, including PSMA Australia Limited and Diversionary Therapy Technologies Pty Ltd.

Michael Begun
CM Capital Investments

Michael Begun has over 25 years' experience in the telecommunications arena in both the US and Australian commercial markets, including developing strategic technologies to facilitate the convergence of the telecommunications and computer industries.

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[4] Prof Gardiner attended Board meetings on 5 Oct 2006, 22 Nov 2006, 11 April 2007 and 6 June 2007 as Alternate Director for Prof Sharma.
[5] Mr McDonald was not a Director at the time of the 10 Aug 2006 or 5 Oct 2006 meetings.

Governance & Management

He is one of the leading IT&T private equity investors in Australia, and is Co-Founder and Managing Partner of CM Capital Investments, which specialises in life sciences and telecommunications ventures.

Michael co-founded Technology Concepts Inc., which was later acquired by Bell Atlantic Inc. His subsequent work on business development transactions in the Asia Pacific region for Bell Atlantic led to his appointment as founding CEO of Pacific Star, a joint venture between Bell Atlantic and Telecom NZ. Under his stewardship the company grew to annual revenues of $250m in 3 years. Michael has a BSc in Electrical Engineering from Cornell University, and he is currently a Director of Dilithium Networks Inc., Mantara Inc. and bCODE Pty Ltd.

Professor Arun Sharma
Queensland University of Technology

Professor Arun Sharma is the Deputy Vice-Chancellor (Research and Commercialisation) at the Queensland Institute of Technology.

Arun has played a leadership role in the development of Australia's national research capacity in ICT. He was co-founder of NICTA and inaugural director of its Sydney Research Laboratory. Prior to NICTA, he was the Head of the School of Computer Science and Engineering at the University of New South Wales, and played an important role in the establishment of the CRC for Smart Internet Technology. Arun's current advisory roles include the Queensland Premier's Smart State Council and the CSIRO ICT Sector Advisory Committee. His board memberships include Sugar Research Limited, Farmacule Bioindustries Pty Ltd, QUT Innovation and QMI Solutions Pty Ltd.

Professor David Gardiner
Queensland University of Technology

Professor David Gardiner is the Deputy Vice-Chancellor (Academic) at the Queensland Institute of Technology where he is responsible for overseeing QUT's eight faculties and QUT Carseldine. David chairs QUT's Teaching and Learning Committee, sponsors the Teaching and Learning Priority Projects, and oversees academic policies and programs and the Oodgeroo Unit.

David has over 30 years' experience as a Barrister-at-Law for the Supreme and High Courts of Australia. He previously held positions in private law practice and as a senior law officer for the Federal Attorney-General's Department of the Office of the Solicitor-General in Australia. David holds positions on several Boards, including Tissue Therapies Ltd and Farmacule Pty Ltd.

Professor Neil Furlong
RMIT University

Professor Neil Furlong is Pro Vice-Chancellor (Research and Innovation) at RMIT University and convenor of the Australian Technology Network Research group. He is a physical chemist with nearly 30 years' experience as a researcher, research manager and leader.

Neil spent 18 years at CSIRO during which time he achieved the position of Chief Research Scientist/Program Manager leading over 50 researchers across a number of CSIRO Divisions. Neil is a Fellow of the Australian Academy of Technological Sciences and Engineering, a Senior Research Fellow of the University of Melbourne, and Founding Coordinator of the Australia/Japan Collaboration in Colloid Science.

Graham Edelsten
Auran Technologies

Graham Edelsten co-founded Auran Games Pty Ltd in 1995 and has since helped it grow into one of Australia's leading game developers with a string of internationally successful products. Auran has brought international attention to the Queensland games industry and helped solidify the State's reputation as a serious competitor in the sector, as well as winning numerous State and national IT awards.

Graham has participated in a broad range of voluntary activities to develop the Queensland IT industry over many years, including providing significant support to QANTM College, the country's first teaching institution focussed on gaming. Graham is Secretary of the Board of the Game Developers Association of Australia and a member of the Queensland Minister for Information Technology's advisory committee.

Bill Trestrail
SGI

Bill Trestrail is Vice President of Silicon Graphics (SGI) Asia Pacific, responsible for all operations of SGI in this region. Bill joined SGI in 1995 as ACT State Manager and has held various positions including National Defence Business Unit Manager; National Sales Manager – Corporate & Government; General Manager – Australia and New Zealand; and Area General Manager – Australia, New Zealand and Southern ASEAN.

Before joining SGI, Bill held a number of sales and management roles with Seer Technologies, Informix Software and Australian Consolidated Technologies in Canberra, Sydney and Brisbane. Bill is a Chartered Accountant and holds Board positions with SGI subsidiaries. He is also a member of the Board of the Antarctic Climate and Ecosystems Research Centre.

Governance & Management

Brett McDonald
Heritage Properties

Brett McDonald is the Projects Development Manager for Heritage Pacific's Land Development Group. Brett has qualifications in both civil engineering and surveying. Brett has been in his current role at Heritage Pacific for the past three years, and has approximately 3,500 lots currently under development within nine projects.

Brett has over 17 years' experience in major projects and infrastructure delivery. He has worked in three states in Australia, and in several overseas countries including the United Kingdom, Indonesia, the United Arab Emirates, Qatar, Saudi Arabia and Oman. Brett is a Director of Sensiful Pty Ltd and of Diversionary Therapy Technologies Pty Ltd.

Dr Katherine Woodthorpe
CRC Visitor

Dr Katherine Woodthorpe is a management adviser and professional company director. She is the ACID CRC Visitor and attends Board meetings in that role.

Katherine's background is in the business of science and technology, HR and government interaction. She is a consultant to Government instrumentalities on innovation and commercialisation, with significant expertise in developing strategies for rapid growth and commercialisation of technology products and services and in accessing government funding. Katherine is a Fellow of the Australian Institute of Company Directors, and holds a number of Board positions including Chairman of the Antarctic Climate and Ecosystems CRC and Smartprint CRC; Director of Ventracor Limited, Insearch Limited, Environmental Biotechnology CRC, Sustainable Tourism Holdings Pty Ltd, and the Warren Centre (Sydney University). Katherine is a Council Member at the University of Technology, Sydney, and a Member of the CSIRO Flagship Advisory Council.

AUDIT COMMITTEE

The Audit Committee, a subcommittee of the ACID Board of Directors, reviews and oversees management processes and assists the Board and company officers in financial reporting, compliance, internal control systems, audit activities, risk management and any other matters referred to it by the Board.

The ACID Audit Committee comprises:

- Professor Mary O'Kane, Audit Committee Chair
- Dr Terry Cutler, ACID Chairman.

Members of the ACID management team are invited to attend Audit Committee meetings as required.

MANAGEMENT

The ACID Board delegates responsibility for day-to-day operations to the management team, which comprises line management plus Program Leaders (see Tables 2.2 and 2.3 on page 8.

During the 2006–07 year, two significant changes were made to ACID management: the CEO role was restructured, and the Founding CEO and Executive Director Prof Jeff Jones resigned.

CHANGES TO CHIEF EXECUTIVE OFFICER ROLE

During 2006–07, the Board restructured the Chief Executive Officer's role into two positions: an Executive Director responsible for overall strategy and the research direction, and a General Manager responsible for operations and commercialisation.

This change reflected the view of the Third-Year Review Panel that ACID's next stage of success would require an increased discipline and focus on commercial outcomes. The Panel felt that a single individual tasked with developing the organisation's 'exploration' and research capabilities as well as 'exploitation' or commercialisation would face significant challenges both in terms of time and skills.

The Panel concurred that a dual reporting structure comprising an Executive Director and a General Manager would build a high level of focus and skills in both discovery and commercialisation and provide advantages to ACID, provided the expectations of the two roles were clear. The Board implemented the new structure with clear delineation between the two roles.

The Chief Executive Officer, Prof Jeff Jones, moved into the role of Executive Director. Ms Suzannah Conway joined ACID to take on the General Manager role. These changes took effect on 15 January 2007.

RESIGNATION OF EXECUTIVE DIRECTOR AND FOUNDING CEO, PROF JEFF JONES

Prof Jeff Jones, Executive Director and founding Chief Executive Officer of ACID, resigned in June, leaving the organisation on 8 June 2007 to take up other opportunities including a Commonwealth Government Endeavour Executive Award.

Since the departure of Prof Jones, General Manager Suzannah Conway has been acting in the Executive Director position as well as fulfilling her responsibilities as General Manager.

Governance & Management

Table 2.2: Program Leaders as at 30 June 2007

NAME	ORGANISATION	POSITION / ROLE
Assoc Prof Andrew Brown	Queensland University of Technology	Research Manager *and* Program Leader, Digital Media
Assoc Prof Michael Docherty	Queensland University of Technology	Education Manager
James Hills	SGI (Silicon Graphics)	Program Leader, Virtual Heritage
Ian MacColl	University of Queensland	Program Leader, Smart Living
Anika Schweda	Murdoch University	Program Leader, New Models of TV Advertising
Jeremy Yuille	RMIT University	Program Leader, Multi-User Environments

Table 2.3: Organisational Chart
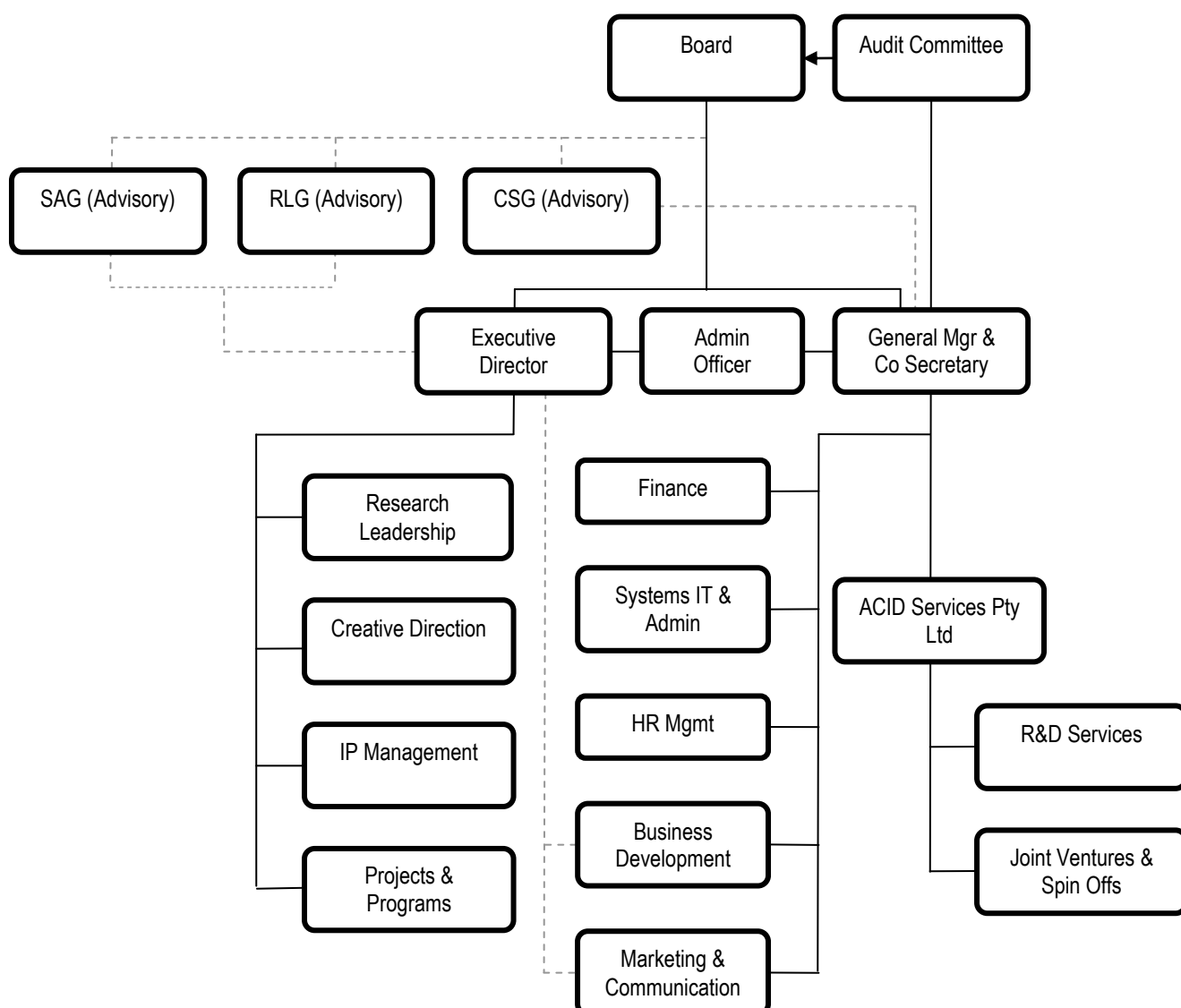
Governance & Management

PARTICIPANTS

CORE PARTICIPANTS

- Queensland University of Technology
- University of Queensland
- RMIT University
- Murdoch University
- University of Technology Sydney
- Silicon Graphics Pty ltd
- Auran Technologies Pty Ltd
- Heritage Pacific Pty Ltd
- iMAP Systems Pty Ltd.

SUPPORTING PARTICIPANTS

- Cyberdreaming Pty Ltd
- Australian Centre for the Moving Image
- HITLabNZ/University of Canterbury
- Corporation Builders
- Queensland Department of State Development, Innovation and Trade
- QANTM Pty Ltd*.

* Qantm withdrew as a participant in ACID effective 30 June 2007. A deed of variation is being prepared in relation to the withdrawal.

Research Programs

RESEARCH ACTIVITIES AND ACHIEVEMENTS

RESEARCH PROGRAMS AND THEMES

ACID conducts research across five major programs:

1. Smart Living   (Suburban Communities)
2. Digital Media   (Creative Communities)
3. Multi-User Environments   (Virtual Communities)
4. Virtual Heritage   (Indigenous Communities)
5. New Models of Television Advertising   (Beyond :30)

As at 30 June 2007, ACID had undertaken over 100 research projects within the five programs. Current active projects number approximately 25.

ACID also conducts a number of research activities that use and combine elements of all these programs, in particular the contract work in R&D Services (see 16).

ACID takes an integrated approach to its research across all programs. Several commonalities reveal ACID's research strengths:

- social participation and technology – exploring ways to facilitate collaboration, interaction and the development of social capital through technological interventions in communities;

- digital perspectives of the world – helping people better or differently understand their world through digital representations that highlight selected relationships, features or meanings;

- dynamic media creation and application – enhancing creative potential through digital media content creation, manipulation and presentation by developing methods and tools with particular emphasis on automation, generation and adaptation.

RESEARCH SKILLS AND CAPACITIES

ACID has a strong focus on design processes, research processes and evaluation strategies which are applied across all research programs and themes.

The organisation has also developed and identified skills and capacities in:

- understanding social contexts
- identifying problems in interactive experiences
- designing technology-based solutions to human problems
- understanding the potential of digital technologies
- rapid development of software and hardware prototypes
- collaborating in multi-disciplinary teams
- incorporating a refined aesthetic sensibility in work.

ACID's research is characterised by an emphasis on situating research within real-world contexts including electronic entertainment, artistic practice, technology standards formats, community arts, education, business practices, local government, tourism, health services, telecommunications, internet services, community organisations, master-planned communities, digital hardware development, cultural centres, and indigenous communities.

KEY RESEARCH HIGHLIGHTS

Virtual Heritage Program

During 2006–07, ACID's Virtual Heritage program researchers developed an installation for the Woodford Folk Festival, which attracted upwards of 20,000 visitors during the seven days of the festival. They also worked closely with the Cadi(gal) people of Sydney to develop *Virtual Warrane*, an immersive 3D exploration of country around Sydney Cove immediately before the arrival of the First Fleet. This work led to a major 3-month installation from March to June 2007 at Sydney Customs House, visited by over 100,000 people.

ACID's work within the Virtual Heritage (Indigenous Communities) program during 2006–07 achieved important research outcomes. As a result, projects within the Virtual Heritage program will not continue as research activity in 2007–08, but will be commercialised. As at 30 June 2007, the underlying platform – the Digital Songlines Engine – was being stabilised and made ready for licencing to third parties during 2007–08.

Not only is this program moving into commercialisation, but its research outcomes are highly regarded internationally. ACID researchers were accepted for a number of academic and UNESCO-backed virtual heritage conferences around the world during the year, and the work itself was selected for inclusion in a forthcoming publication on new technologies in the archaeognostic sciences, to be first published in Greek during 2007, followed by an English-language version in 2008.

Intimate Transactions

ACID published *Intimate Transactions: art, exhibition and interaction within Distributed Network Environments* (ed. Jillian Hamilton), a full-length book outlining the collaboration of theories, philosophies and practices that made up the *Intimate Transactions* exhibition within an early ACID research project, 'Australian Cultural Industries Network'.

The exhibition itself, by Dr Keith Armstrong and the Transmute Collective, was installed at the Brisbane Festival in July 2006, and travelled to California in June 2007. It has also secured Visions of Australia funding for an eight-date regional tour of Australia throughout 2008–09.

Research Programs

Springer Acceptance of VSMM07

During 2006–07, ACID received confirmation that VSMM07, the 13th international conference on virtual systems and multimedia, which it will hosted in Brisbane in September 2007, had been accepted by Springer Lecture Notes in Computer Science. Springer has an acceptance rate of 30%.

Living Labs

In other ACID research programs, a number of research prototypes have been tested in living labs and by industry partners or clients during the year. Most of these will be released to the specific industry partner or client during 2007–08, while others will be combined in a range of product and service offerings to be commercialised in future.

Publications

See pages 34 to 38 for a list of refereed publications issued by ACID researchers during 2006–07.

GRANTS

No new grants were received in 2006–07.

MAJOR CONSULTANCIES

Scientific Advisory Group

ACID's Scientific Advisory Group provides an external review mechanism to ensure two-way communication between ACID and the international community. The Group provides ACID with the means to develop links with organisations that have a substantial interest in its work, while enabling those organisations to provide feedback on ACID's research directions, application of research and technology transfer.

The following pre-eminent leaders comprise the ACID Scientific Advisory Group:

- Professor Arun Sharma, Queensland University of Technology, Chairman
- Professor Pelle Ehn, School of Arts and Communication (K3), Malmö University, Sweden
- Professor Sandy Pentland, MIT Media Lab
- Professor Tom Rodden, Mixed Reality Laboratory, University of Nottingham
- Dr Harry Shum, Microsoft Research Asia.

The Scientific Advisory Group met in Brisbane and Melbourne in August 2006, to review projects and meet with the Research Leaders Group and Board.

The Group reported clear evidence that ACID had focussed its research activities and developed a common culture across a number of distinctive sites. The Group also found that ACID's research projects show considerable promise of making a world-leading impact.

The Group drew attention to significant challenges in relation to organisational structure, researcher engagement, and the need to embed an entrepreneurial culture across research activities. It should be noted that there are similarities between these challenge areas identified by the Scientific Advisory Group in August 2006 and those identified by the Third Year Review Panel in December 2006 (see page 28).

Other Consultancies

ACID delivered a number of contract consultancies during 2006–07. See 'R&D Services' on page 16 for more information.

CHANGES PROPOSED TO FUTURE RESEARCH DIRECTIONS

ACID plans to investigate and audit its existing and past research project activities during July and August 2007, with the view of ensuring a balance between the research value in particular courses of investigation and the commercial benefits that may ensue.

Project teams, program managers, research leaders and industry shareholders will be engaged to reflect and build upon:

- the maturity of current projects
- the opportunities presented by research work to date
- the potential to consolidate and logically link elements of research and related intellectual property
- the expressed interests and needs of stakeholders
- the most efficient and effective deployment of resources
- the potential commercial opportunities.

The results will be presented to the Board at its October 2007 meeting, with new project orders being established for the October quarter through to June 2008.

Research Programs

Table 3.1: Research Program 1: Smart Living

Milestone	Description	Contracted achievement date	Achieved (Yes or No)	Reasons why not achieved (if applicable)	Strategies to achieve unmet milestones
1.2.3	Expand the number of sites for evaluating community capacity development using devices and software.	2006-07	YES	n/a	n/a
1.2.4	Develop the methods that allow (all CRC) activities to be deployed and evaluated in communities (refine iteratively).	2007	YES	n/a	n/a
2.2.1	Determine the multi-format delivery methods required of multi-platform hardware delivery systems.	2006	YES	n/a	n/a
2.2.2	Determine production methods and processes that allow developers to provide communities with interactive applications across a range of commercial, personal, social and educational activities.	2006-09	ON TARGET	n/a	On target for delivery by 30 June 2009
2.3.1	Develop industrial design standards for embedding networked devices into homes, offices, vehicles and other standalone locations of community activity.	2007	ON TARGET	n/a	On target for delivery in 2007 calendar year

Table 3.2: Research Program 2: Digital Media

Milestone	Description	Contracted achievement date	Achieved (Yes or No)	Reasons why not achieved (if applicable)	Strategies to achieve unmet milestones
6.1.3	Determine techniques for using existing media content across diverse digital media platforms	2007	ON TRACK	n/a	On track for achievement in calendar year 2007.
7.1.2	Develop the requirements for repurposing existing linear and non-linear media content over digital networks.	2007	ON TRACK	n/a	On track for achievement in calendar year 2007.
9.1.1	Provide users with improved personal embodiment forms (such as 3D avatars) within secure, persistent, efficient, online social environments	2005-08	NO	This work was superseded by first-person representations in other commercial applications.	Discontinued, but may re-emerge in Virtual Genesis in 2008.

Research Programs

Table 3.3: Research Program 3: Multi-User Environments

Milestone	Description	Contracted achievement date	Achieved (Yes or No)	Reasons why not achieved (if applicable)	Strategies to achieve unmet milestones
12.1.3	Define the security and user identification requirements for connected digital communities.	2004-06	YES	n/a	n/a
12.2.1	Define best practice standards for live eLearning and group-based education.	2003-10	ON TRACK	n/a	n/a
12.2.2	Define best practice standards for research and production process management in multi-user application contexts.	2003-10	ON TRACK	n/a	n/a
12.3.1	Define best practice standards for intellectual property management in multi-user application contexts.	2003-10	ON TRACK	n/a	n/a
12.3.2	Define best practice standards for content storage and management in multi-user application contexts.	2003-10	YES	n/a	n/a
13.1.4	Develop innovative interaction metaphors for supporting face-to-face and remote collaboration using new media technologies.	2007	YES	n/a	n/a
14.1.1	Develop community capacity-building techniques that can be used to explain the efficacy of multi-user applications.	2007	YES	n/a	n/a
14.1.2	Develop sustainable methods for packaging process, capacity-building techniques, content, software functionality and connectivity.	2007	YES	n/a	n/a

Table 3.4: Research Program 4: Virtual Heritage

Milestone	Description	Contracted achievement date	Achieved (Yes or No)	Reasons why not achieved (if applicable)	Strategies to achieve unmet milestones
16.1.2	Determine the hardware and software tools required to remotely capture Australian heritage.	2005	YES	n/a	n/a
16.1.3	Determine the hardware and software requirements for tools that integrate data captured from diverse digital media sources and acquisition technologies.	2006	YES	n/a	n/a
17.2.1	Determine the multi-format delivery methods required of multi-platform digital hardware delivery systems	2006	YES	n/a	n/a

Research Programs

Milestone	Description	Contracted achievement date	Achieved (Yes or No)	Reasons why not achieved (if applicable)	Strategies to achieve unmet milestones
17.2.2	Determine production methods and processes which allow communities to capture and disseminate heritage data.	2006-07	NO	Part completed in test environment. Slower progress due to time needed for consultation with remote Indigenous community & unresolved technical software issues.	Project to be licensed. Licence-holder will take up the work with communities.

Table 3.5: Research Program 5: New Models of Television Advertising (Supplementary Agreement)

Milestone	Description	Contracted achievement date	Achieved (Yes or No)	Reasons why not achieved (if applicable)	Strategies to achieve unmet milestones
1.1.2	Conduct a series of 24 interactive advertising research studies for industry partners over three years (eight per year).	Ongoing	YES & ONGOING	n/a	14 reports complete at 30 June 2007 (end Q7). Delivery of two reports per quarter will continue until end of program.
1.1.3	Document methods of collecting data on audience/consumer behaviour that allows a comparison of different interactive content delivery formats.	Ongoing	YES & ONGOING	n/a	
1.2.3	Integrate analysis suite prototype	Dec 2006	NO	Absorbed into industry project with new deadlines	Will be integrated by June 2008.
2.4.1	Develop technical specifications for developing a graphical 3D environment that people can experience by seeing and feeling the impact in their environment.	Aug 2006	YES & ONGOING	n/a	Current R&D work will be completed by March 2008.
2.5.4	Integrate improved ideas-development tools and methods into the rapid prototyping platform.	2007	YES	n/a	n/a
2.5.5	Integrate virtual prototyping tools and methods into the rapid prototyping platform.	Jan 2007	YES & ONGOING	n/a	Initial research is completed. Development work by April 2008
2.5.6	Integrate audience/ consumer research tools and methods into the rapid prototyping platform.	Feb 2007	ONGOING	Being completed with other activity above.	n/a

Research Programs

RESEARCH COLLABORATIONS

In addition to the collaborations involved in ACID's research programs R&D Services contracts, ACID participated in a number of external research collaborations during the year.

EXTERNAL COLLABORATIONS

ACID researchers in the Virtual Heritage program collaborated closely with the Cadi(gal) people of Sydney in the development of *Virtual Warrane*, an immersive 3D exploration of country around Sydney Cove immediately before the arrival of the First Fleet. This work led to a major 3-month installation from March to June 2007 at Sydney Customs House, visited by over 100,000 people.

ACID continued its participation with NICTA, CSIRO and DSTO in the HXI Roundtable – and undertook a research contract exploring specific platforms for more effective use of information.

ACID continued its significant international research collaborations with multi-national and international corporate clients through its Program 5 'New Models of Television Advertising' work and its contract R&D Services work. The research conducted in these contract collaborations is not simply design consultancy – it includes breakthrough innovation using practice-based research, applies ACID's foundation research to the needs of external partners and, in turn, feeds new knowledge and industry testing back into the foundation research.

INTERNAL COLLABORATIONS

During 2006–07, ACID focussed on providing opportunities for researchers within different programs and projects to share expertise and collaborate on specific deliverables.

ACID communicates these projects across the programs, and identify additional opportunities for cross-organisational collaboration, at Quarterly Review meetings, Innovation Forum and internal showcase events. ACID held an Innovation Forum in August 2006 to coincide with the visit of the Scientific Advisory Group (see page 11) and an internal showcase event on 1 June 2007.

B-HERT AWARD 2006

ACID was awarded an honourable mention at the 2006 Business/Higher Education Round Table awards for outstanding achievement in collaboration, in the category of best research and development collaboration involving a CRC.

The award was presented by Minister Julie Bishop and Mr Rob Stewart, President of the Business/Higher Education Round Table, in November 2006.

ACID won the award in conjunction with the Royal Children's Hospital Brisbane for the research and development underpinning the diversionary therapy devices. Further development and commercialisation of these devices is being undertaken by Diversionary Therapy Technologies Pty Limited, a company spun out by ACID in November 2006.

Commercialisation & Utilisation

COMMERCIALISATION & UTILISATION STRATEGIES &ACTIVITIES

PATENTS AND DESIGN REGISTRATIONS

During 2006–07, ACID maintained its provisional patent in Australia titled 'a mount for a marker for use in augmented reality applications' originally filed on 17 October 2005.

ACID also lodged three new applications on 17 October 2006:
- a New Australian Design application for a 'dome-based distraction therapy device'
- a New Australian Design application for a 'flat-based distraction therapy device'
- a new International Patent Application for 'diversionary therapy apparatus and methods and interactive devices'.

ACID has contributed all intellectual property associated with these design registrations and patents to its new spin-out company, Diversionary Therapy Technologies Pty Ltd (see page 16).

ACID SERVICES PTY LTD

ACID's wholly owned subsidiary, ACID Services Pty Ltd, hosts all commercialisation activities and contract projects, other than activities specifically related to the five major research programs.

ACID Services Pty Ltd is supported in its business development by Innovation Xchange Limited, which provides an intermediary service to bring ACID's capabilities to the attention of potential partners and clients both within Australia and internationally.

R&D Services

Contract projects for commercial clients are handled through ACID Services Pty Ltd and marketed under the title 'ACID R&D Services'.

ACID R&D Services does not compete with consultancies offering, for example, website development or product development or widget manufacturing. Rather, ACID R&D Services projects tend to be in the nature of domain-independent breakthrough innovation using practice-based

research, and they must include an element of risk for the client before ACID will accept the contract. The projects apply ACID's foundation research to the needs of external partners and, in turn, feed new knowledge and industry testing back into the foundation research.

The clients of ACID R&D Services have all taken up the outcomes of the contracted research projects, with all signing up for follow-on projects.

Future Pathways for Commercialisation

Planned pathways for future commercial release of ACID's research include the establishment of 'proto-companies' based on significant IP assets and soft-launched within ACID Services Pty Ltd, and the direct on-line release of social software applications to build community and attract commercial interest. Both of these forms of activity are planned for the 2007–08 financial year.

SPIN-OFF COMPANIES

Diversionary Therapy Technologies Pty Limited

On 7 November 2006, ACID completed the spinout of a new company, Diversionary Therapy Technologies Pty Ltd, through its wholly owned subsidiary ACID Services Pty Ltd.

ACID has contributed all right and title to, and interest in, its diversionary therapy intellectual property to the new company. ACID has also agreed to a partial secondment of Research & Development Director Associate Professor Sam Bucolo for a period of 18 months.

ACID Services Pty Ltd holds a 25 per cent shareholding in the new company, and has appointed a representative director to its board.

The new company aims to commercialise the diversionary therapy IP developed by ACID in conjunction with the Royal Children's Hospital Brisbane.

Codocs Pty Ltd

ACID Services Pty Ltd owns 50% of Codocs Trading Pty Ltd and Codocs Holdings Pty Ltd. Both companies specialise in document collaboration.

Commercialisation & Utilisation

Table 4.1: Commercialisation and Utilisation Outputs and Milestones (Commonwealth Agreement)

Milestone	Description	Contracted achievement date	Achieved (Yes or No)	Reasons why not achieved (if applicable)	Strategies to achieve unmet milestones
25.1.5	Define courses for researchers that provide the training required to understand and assist the commercialisation process.	2004 and ongoing	YES	n/a	n/a
26.1.1	Establish a publications program for research results in appropriate industry journals.	2003 and ongoing	YES	n/a	n/a
26.1.2	Establish a publications program for research results to be distributed in technology transfer courses.	2004 and ongoing	YES	n/a	n/a
30.1.1	Develop in excess of 20 processes and methods for commercial benefit to the CRC, participants and industry	2004 and ongoing	YES	n/a	n/a
30.1.2	Develop in excess of 20 prototypes for commercial products in content, hardware and software	2004 and ongoing	YES	n/a	n/a
31.1.3	Income achieved through licences, spin-offs, consulting and other income generation mechanisms	2006 and ongoing	YES	n/a	n/a
32.1.2	Establish protocols for the valuation, registration and utilisation of existing participant IP in research.	2003 and ongoing	YES	n/a	n/a
32.1.4	Establish protocols for joint venture development of IP	2004 and ongoing	YES	n/a	n/a
32.1.5	Establish protocols for setting up spin-offs	2005 and ongoing	YES	n/a	n/a
33.1.2	Develop project contract templates for contract R&D	2003 and ongoing	YES	n/a	n/a
33.1.3	Establish 'brokering' partnerships with lead agencies in the US, UK, Europe, and Japan	2003 and ongoing	YES	n/a	n/a
33.1.4	Establish processes for capturing and archiving research capacity-building for use in attracting and completing contract research	2003 and ongoing	YES	n/a	n/a

Commercialisation & Utilisation

Table 4.2: Commercialisation & Utilisation Outputs and Milestones (Supplementary Agreement)

Milestone	Description	Contracted achievement date	Achieved (Yes or No)	Reasons why not achieved (if applicable)	Strategies to achieve unmet milestones
1.1.2	12 new research consultancy projects secured from existing or new global industry partners	July 2006	YES AND ONGOING	n/a	Recruitment ongoing; additional industry partners have been engaged since program commenced.
1.3.2	At least one industry partner presents at the second Annual Conference	Jan 2007	YES	n/a	n/a
2.1.2	Research projects have been reviewed by an IP specialist to identify potential IP opportunities	Ongoing: delivered end of every quarter	YES	n/a	n/a
2.2.1	A research report template and style guide is agreed (standardisation with reports will develop greater brand recognition and value for ACID)	Ongoing	YES	n/a	n/a
2.2.2	1 report to be prepared on completion of each project or when relevant findings are observed	Ongoing: delivered end of every quarter	YES AND ONGOING	n/a	n/a
2.3.2	Two new training programs are launched	August 2006	NO	Earlier development work needed.	Will be completed by April 2008.
2.4.2	Website pages are updated	Ongoing: delivered end of every quarter	YES	n/a	n/a

INTELLECTUAL PROPERTY MANAGEMENT

IP MANAGEMENT ARRANGEMENTS

ACID has developed a web-based application, the ACID IP Registry at https://ipregistry.acid.net.au, which ensures effective management of all intellectual property assets.

The ACID IP Registry is based on ACID's Yodel platform and comprises a secure website catalogue and associated framework for central registration of IP and other proprietary information including major administrative documents such as contracts, correspondence, project orders and variations; demonstrators and prototypes; video, audio and graphic resources; code; scripts; patents and trademark information.

The registry is accessible to all ACID researchers over the internet and offers a number of levels of access associated with security and allocated project roles.

Research program managers and project leaders are responsible for uploading IP directly to the system, with compliance reviewed at each quarterly program review.

ACID constantly reviews and revises the processes for use of the ACID IP Registry. The IP Registry is a standing item on the board's compliance register.

National Principles of IP Management

Through the establishment and maintenance of the ACID IP Registry, ACID and its research programs and subsidiary company comply with the National Principles of IP Management.

Commercialisation & Utilisation

All intellectual property generated within ACID research programs remains the property of ACID; researchers and students are entitled to the copyright in specific expressions of that IP. Intellectual property generated as part of ACID's commercial contract with clients is dealt with on a case-by-case basis.

IP TRANSFERS AND LICENCES

During 2006–07, ACID transferred to its spin-off company Diversionary Therapy Technologies Pty Ltd all right and title to, and interest in, the intellectual property associated with the diversionary therapy project.

ACID has entered into negotiations to license the Digital Songlines Environment on a non-exclusive basis for various commercial projects. It is expected that the first of these licences will be finalised in the 2007–08 year.

COMMUNICATION STRATEGY

ACID's communication strategy is prepared on a rolling three-year basis with annual review by the Board. It is underpinned by the ACID Business Plan and the Third-Year Review report.

Each activity within the strategy is designed to directly support the Business Plan. This ensures that all activities are aligned with the organisation's strategic direction, and it allows ACID to allocate scarce resources to priority areas, ensuring those with the greatest potential are resourced appropriately.

The strategy focuses on four key result areas:

*   stakeholder relations
*   brand building
*   internal communication
*   communication governance.

Communication activities within the strategy include:

*   shareholder reports and visits;
*   regular events to highlight ACID research and development for stakeholders and internal audiences – including ACID Showcase, Innovation Forum and annual general meeting presentations;
*   case studies and success stories for stakeholders and wider audiences;
*   the ACID website, annual report, and newsletter;
*   media releases and features as opportunities arise;
*   participation in industry trade shows and professional/industry conferences – in addition to academic conferences and journals.

Website

In February 2007 ACID launched a completely redeveloped corporate website at www.acid.net.au, with a new presentation of the brand and improved information architecture. The structure of the site is completely new, and focusses on meeting the needs of external users as an introduction to ACID.

Further development of the site continues on a rolling basis.

Industry, Professional and Public Events

ACID focussed strongly on industry, professional and public events during 2006–07, with the specific aim of building awareness of ACID among Australian SMEs in relevant industry sectors.

ACID's leading event for the year was Virtual Warrane, a virtual reconstruction of country around Sydney Cove in the late 1700s, presented by the Indigenous Communities team using ACID's Digital Songlines Engine. Virtual Warrane ran at the Sydney Customs House from March to June 2006, and over 100,000 visitors experienced the exhibition.

ACID also presented at the following industry trade shows and conferences to build its brand recognition among industry sectors:

*   Interactive Marketing Insights, 23–24 August 2006, Sydney NSW
*   Japan Museum of the Future pitch, October 2006, Tokyo JAPAN
*   Australian Information Industry Association i-Awards seminar, 15 February 2007, Brisbane QLD
*   Redcliffe City Council Cultural Advisory Group meeting, 27 March 2007, Redcliffe QLD
*   Mobile Content Australia, 27–28 March 2007, Sydney NSW
*   CalPoly State University Intimate Transactions exhibition, 21–22 April 2007, San Luis Obispo USA
*   Queensland Innovation Series luncheon, 24 May 2007, Brisbane QLD
*   Australian Institute of Project Management seminar, 13 June 2007, Brisbane QLD

In addition, ACID started planning for VSMM07, the 13th international conference for Virtual Systems in Multimedia, which it is hosting in Brisbane in September 2007. The conference has been accepted for academic publication by Springer Lecture Notes in Computer Science. Conference planning activities during 2006–07 included building links with industry representatives including SMEs to secure their participation both in the conference as a whole and in the VSMM Industry Session to be held on Monday 24 September.

Commercialisation & Utilisation

END-USER INVOLVEMENT AND IMPACT

ACID works closely with its industry partners and university researchers to understand the broad environment in which it operates. The involvement of industry participants means ACID is strongly placed to provide a fully integrated approach to the assessment of industry needs and research opportunities.

Several participants provided opportunities and venues for ACID to demonstrate and/or test its research outputs with real users as early phases of commercialisation or public release.

Table 5: End-User Involvement in ACID Activities

End-user name	Relationship with CRC	Type of activity and end-user location	Nature/Scale of benefits to end-user	Actual or expected benefit to end-user
Silicon Graphics Pty Ltd	• Core Participant • Industry • Shareholder	Research (Australia: Sydney, Adelaide, Brisbane, Melbourne, Perth)	Access to research demonstrators, outputs and reports in 3D content, interactive programs, dynamic media, software plug-ins.	Long-term shareholder/ participant benefit derived from incorporating ACID research in ongoing business.
Auran Technologies Pty Ltd	• Core Participant • Industry • Shareholder	Research; Commercialisation (Brisbane)	Access to research demonstrators, outputs and reports in 3D content, interactive programs, dynamic media, software plug-ins, multi-user e-learning applications.	Long-term shareholder/ participant benefit derived from incorporating ACID research in ongoing business.
Heritage Pacific Pty Ltd	• Core Participant • Industry • Shareholder	Research; Living Laboratory (Brisbane)	Access to research demonstrators, outputs and reports in integration of content, mobile devices and online ICT for virtual and location-specific components.	• ACID research program 1 (Smart Living) providing specific tools and platforms for use by this participant. • Long-term shareholder/ participant benefit derived from incorporating ACID research in ongoing business.
Imap Systems Pty Ltd	• Core Participant • Industry • Shareholder	Research; Commercialisation (Melbourne)	Access to research demonstrators, outputs and reports in multi-platform publishing, web-based innovation management, multimedia peer review for researchers engaged in creative practices.	Long-term shareholder/ participant benefit derived from incorporating ACID research in ongoing business.

Commercialisation & Utilisation

End-user name	Relationship with CRC	Type of activity and end-user location	Nature/Scale of benefits to end-user	Actual or expected benefit to end-user
Cyberdreaming Pty Ltd	• Supporting Participant • Industry • Shareholder	Research; Demonstrators; Commercialisation (Brisbane)	Access to research demonstrators, outputs and reports in Indigenous 3D content and interactive programs. Virtual Warrane installation at Customs House Sydney, March to June 07.	• Non-exclusive licences being negotiated for use of underlying platforms in cultural heritage management. • Long-term shareholder/ participant benefit derived from incorporating ACID research in ongoing business.
Australian Centre for the Moving Image	• Supporting Participant • Industry • Shareholder	Research; Demonstration Site; Living Laboratory (Melbourne)	Access to research demonstrators, outputs and reports in low latency over high-speed networks, mobilising local place-based activity by mobile & online technologies, commissioning creative work in co-located facilities.	ACID Cipher Engine comprised part of the platform used for SCOOT installation Sept 06.
HITLabNZ	• Supporting Participant • Industry • Shareholder	Research (New Zealand)	Access to research demonstrators, outputs and reports in augmented reality software and hardware.	Long-term shareholder/ participant benefit derived from incorporating ACID research in ongoing business.
Qantm Pty Ltd	• Supporting Participant • Industry • Shareholder	Research; Commercialisation (Brisbane)	Access to research demonstrators, outputs and reports in dynamic media creation, software plug-ins, tool for implementing multi-user e-learning applications.	This participant withdrew from ACID effective 30 June 2007.
Powerhouse Sydney	• Client • Venue	Research; Demonstration Site; Living Laboratory (Sydney)	Access to research demonstrators, outputs and reports in low latency over high-speed networks, mobilising local place-based activity by mobile & online technologies, commissioning creative work in co-located facilities.	Several exhibitions at the Beta_Space experimental environment in collaboration with UTS Creativity & Cognition Studios involving ACID students and researchers

Commercialisation & Utilisation

End-user name	Relationship with CRC	Type of activity and end-user location	Nature/Scale of benefits to end-user	Actual or expected benefit to end-user
D&F Holdings	• Industry • Co-investor in Codocs Pty Ltd	Research; Commercialisation (Melbourne)	Access to expertise in useability and user interfaces for software services.	$100,000 invested by ACID in co-development of Codocs tool.
Royal Children's Hospital Brisbane	Client	Research; Commercialisation; Living Laboratory; Clinical Trials (Brisbane)	Development of diversionary therapy technology devices incorporating augmented reality technology in a portable, robust device. IP has been assigned to Diversionary Therapy Technologies Pty Ltd.	Observational studies with clinical staff, evidence-based medicine, clinical trials.
Customs House Sydney	• Client • Venue	Demonstration Site; Living Laboratory (Sydney)	Virtual Warrane exhibition Mar–Jun 07.	Over 120,000 visitors to the venue experienced the exhibition.
• National Gallery of Victoria (Australia) • ArtPlay • State Library of Victoria • Arts Centre • Melbourne Museum • Federation Square	Venues	Demonstration Sites; Living Laboratories (Melbourne)	SCOOT multi-media exhibition.	ACID Cipher Engine comprised part of the platform used for SCOOT installation Sept 06.
California Polytechnic State University San Luis Obispo	Venue	Research; Demonstration Site; Living Laboratory (USA)	Host ACID researcher as visiting professor and *Intimate Transactions* exhibition (multi-venue).	• ACID researcher undertook 2-month visiting professor assignment with CalPoly. • Installation of *Intimate Transactions* exhibition, June 2007.
California Nanosystems Institute, University of California Santa Barbara	Venue	Demonstration Site; Living Laboratory (USA)	Host *Intimate Transactions* exhibition (multi-venue).	Installation of *Intimate Transactions* exhibition, June 2007.
B:30 clients (multi-national corporates)	• Clients • Research Collaborators	'Beyond :30 Seconds' Research Partners (Worldwide)	Research reports generated by ACID research program 5: New Models of Television Advertising	18-month exclusive right to access and use research.
(international telecommunications company)	Client of R&D Services	Research; Commercialisation; Contract Design Services (Europe)	Interaction Design Services: Application of human-centred design technologies to testing of computer science assumptions and findings.	Ongoing collaboration and contracts

Commercialisation & Utilisation

End-user name	Relationship with CRC	Type of activity and end-user location	Nature/Scale of benefits to end-user	Actual or expected benefit to end-user
(international medical device company)	Client of R&D Services	Research; Commercialisation; Contract Design Services (Australia, USA)	Interaction Design Services: Application of human-centred design technologies to testing of computer science assumptions and findings.	Ongoing collaboration and contracts
(global medical implant company)	Client of R&D Services	Research; Commercialisation; Contract Design Services (International)	Interaction Design Services: Application of human-centred design technologies to testing of computer science assumptions and findings.	Ongoing collaboration and contracts
(national government research body)	Client of R&D Services	Research; Commercialisation; Contract Design Services (Australia)	Human Centred Design Research and Development	Ongoing collaboration and contracts
(national environmental resource company)	Client of R&D Services	Research; Commercialisation; Contract Design Services (Gold Coast)	Human Centred Design Research and Development	Ongoing collaboration and contracts
(private hospital)	Client of R&D Services	Research; Commercialisation; Contract Design Services (Brisbane)	Human Centred Design Research and Development	Ongoing collaboration and contracts
(student accommodation property developer)	Client of R&D Services	Research; Commercialisation; Contract Design Services (Australia and NZ)	Human Centred Design Research and Development	Ongoing collaboration and contracts

Education & Training

STUDENT INVOLVEMENT

STUDENT SCHOLARSHIPS

ACID maintained existing student scholarship arrangements in 2006–07. A total of three Honours students, three Masters students and 15 Doctoral students were supported during the period. Of those, eight completed their studies.

No new student scholarships were offered during 2006–07.

Graduate Destinations

To date, 28 students have completed their studies with support from ACID.

ACID graduates have gone on to a range of destinations, including development and research roles within ACID and in the local games development industry; taking up academic and post-doctoral positions in Australia, Singapore, Germany and Denmark; and furthering their studies at higher levels.

ACID STUDENT EVENTS

ACID builds and strengthens communities of practice and communities of interest for ongoing research among ACID students.

ACID Student Conference, November 2006

All ACID students were given an opportunity to come together at the ACID Student Conference in November 2006. This event focussed on demonstrating works to date, with review for feedback. Fifteen students attended, each presenting their works for 15 minutes including discussion and feedback.

The students also participated in three panel discussions:

- *Creativity, Creative Work and Interaction Design* – explored the key emerging roles of interaction design and its relationship to creativity;
- *Interaction Design and Communities* – considered the nature of community interactions and relationships as a focus of interaction design research, and how emerging applications are addressing them; and
- *Mobility and Human-Centred Design – reviewed the ways in which research is addressing designs for mobility in line with end-user needs and experiences.*

The ACID student conference was scheduled to coincide with both OzCHI 2006 and Engage 2006, academic conferences in fields related to the work of ACID students.

In April 2007, ACID students based at UTS participated in an ACID symposium known as 'Speakeasy' where students present and discuss their work in an informal setting.

Finally, in June 2007 ACID students based at RMIT participated in the RMIT Graduate Research Conference. ACID Research Leader Dr Margot Brereton of UQ represented ACID at that event.

ACID PRIZE

ACID sponsored the 2006 ACID Prize for Tangible Media, for graduating students in the QUT Bachelor of Communication Design. The prize was awarded on the criteria of (a) highest academic grade and (b) most thorough resolution.

The 2006 ACID Prize for Tangible Media went to *GraffitiLuv2* by Michael Szewczyk, Luke Muscat, Henrik Rypkema and Sam Sargent, all double-degree students in communication design and IT.

GraffitiLuv2 was a fully tangible and immersive installation that allowed participants to tag a virtual wall using a physical digital spray-can.

FUTURE PLANS

ACID intends to offer nine new PhD scholarships to commence during the 2007–08 year, as well as one new PhD scholarship and three new Masters scholarships to commence during 2008–09. By the end of 2009–10, ACID expects to have provided scholarship support to 54 students in total.

ACID's student scholarships will be restructured to align with the organisation's research nodes. All new scholarships will require the candidate to secure the direct endorsement of the Research Leader based at the node university, and all candidates will be ranked on academic merit and project relevance. As with previous scholarship rounds, all applications will be vetted by the Program Manager and Education Director after referee reports have been received.

INDUSTRY INVOLVEMENT

ACID researchers conducted a number of workshops for industry partners and professional organisations including the Australian Institute of Project Management and education peak organisations in several States.

In addition, ACID researcher Dr Keith Armstrong undertook a guest professorial role during June 2007 at California Polytechnic State University San Luis Obispo. He used material from ACID's ACIN project in his teaching, and presented an installation of the *Intimate Transactions* exhibition to industry and public audiences in San Luis Obispo and Santa Barbara, California.

Education & Training

Table 6: Education and Training Outputs and Milestones

Milestone	Description	Contracted achievement date	Achieved (Yes or No)	Reasons why not achieved (if applicable)	Strategies to achieve unmet milestones
19.1.1	Outline a detailed scholarship program that combines a range of scholarship opportunities including APA, APAI and CRC top-ups	2003 and ongoing	YES	n/a	n/a
19.1.2	Identify opportunities for students within projects, taking into account project node locations, project personnel supervision capacity and available facilities	2003 and ongoing	YES	n/a	n/a
19.1.3	Define processes for allocating and managing students working within the CRC, including appropriate advertising, scholarship awarding processes, and ongoing monitoring of students attached to CRC projects.	2004 and ongoing	YES	n/a	n/a
20.1.1	Establish processes that allow post-graduate students to work collaboratively in cross-disciplinary, cross-institutional and international projects	2004 and ongoing	YES	n/a	n/a
20.1.2	Provide opportunities for students to work closely with industry to enhance their opportunities for learning and the industries' opportunities to absorb new ideas and techniques.	2005 and ongoing	YES	n/a	n/a
20.2.2	Develop best-practice options for delivery of cross-institutional education in areas of CRC research to maximise the educational potential of researcher expertise.	2005 and ongoing	ONGOING	Partner discussions ongoing	Regular meetings of Research Leaders Group and Education Committee to identify opportunities for effective cross-institutional research, training and student engagement.
21.2.3	Put in place a procedure for monitoring student placements with a view to ongoing refinement of the program.	2005 and ongoing	YES	n/a	n/a

Performance Measures

Table 7: Progress on Performance Measures

PERFORMANCE MEASURE	2005–06 ACHIEVEMENT	2006–07 PROGRESS/ ACHIEVEMENT
CRC Program Objective 1: Enhance the contribution of long-term scientific and technological research and innovation to Australia's sustainable economic and social development		
Centre Objective 1.1: Multidisciplinary research that leverages existing R&D programs through a strong network of participants.		
Research outputs will be in excess of 20 processes, methods, patents and publications from multi-disciplinary teams working across multiple nodes.	34	67
Centre Objective 1.2: Demonstrate new interactive content, and hardware and software prototypes in user-driven context for the creative industries sector.		
Develop in excess of 20 prototypes for products in content, hardware and software as defined by user feedback and input.	43	37
Centre Objective 1.3: Deploy R&D to enterprise development through the creation of flexible, transferable and reproducible processes for commercialisation.		
Up to $3M in income achieved through licences, spin-offs, consulting and other income generation mechanisms.	Cumulative total to 30 June 2006: $363,000	$258,000
CRC Program Objective 2: Enhance the transfer of research outputs into commercial or other outcomes of economic, environmental or social benefit to Australia		
Centre Objective 2.1: New partnerships and beneficial linkages, strengthening R&D efforts of industry partners.		
Industry participants will receive in excess of 20 prototypes providing commercialisation opportunities for products in content, hardware and software.	46	27
Centre Objective 2.2: Development of new communities of interest for groups such as Aborigines, the aged and children through research programs and themes, such as Virtual Heritage and Community Network.		
Development of multiple, practical strategies for relating technical innovation to community development.	11	Continued work in existing community affiliations
Centre Objective 2.3: Develop research for national and international companies through an SME Consortium configured to provide R&D services.		
SME consortium of over 12 industry partners which will attract 1–2 research/production contracts per year.	Consortium in place; research in train	Consortium in place; research in train
CRC Program Objective 3: To enhance the value to Australia of graduate researchers		
Centre Objective 3.1: Delivery of a critical mass of new research talent into an emerging industry.		
40–50 post-graduate students, working collaboratively in cross-disciplinary, cross-institutional, international projects, with options to participate in CRC-sponsored online education and training courses. Integrate undergraduate students.	Cumulative total to 30 June 2006: 41 students supported via ACID scholarships	No new scholarships offered in 2006–07; 21 ongoing from previous years
Centre Objective 3.2: Industry–university exchange opportunities for post-graduate students.		
Establishment of a post-graduate supervision program providing 40–50 exchange opportunities with CRC industry participants and affiliates.	Completed	Completed

Performance Measures

PERFORMANCE MEASURE	2005–06 ACHIEVEMENT	2006–07 PROGRESS/ ACHIEVEMENT
Centre Objective 3.3: Enhancement of existing education programs in interaction design across vocational, undergraduate and post-graduate programs.		
Up to 30 short courses developed from research output and taught to both internal and external clients.	Cumulative total to 30 June 2006: 7	5
CRC Program Objective 4: Enhance collaboration among researchers, between researchers and industry or other users, and to improve efficiency in the use of intellectual and other research resources		
Centre Objective 4.1: Research programs are designed to benefit from the multiple competencies that reside in the Centre partners.		
Project proposals must demonstrate at least two university partners working in a multi-disciplinary, multi-nodal capacity.	Completed	Completed
Centre Objective 4.2: Research is designed to respond to user needs.		
Project proposals must demonstrate user input and at least one industry participant.	Completed	Completed
Centre Objective 4.3: Whenever practical, international collaborators are involved in projects to enhance the global perspective.		
In excess of three projects will have international research involvement. The education program involves three international partners working collaboratively on one project per year.	Cumulative total to 30 June 2006: 10	3

Third-Year Review

ACID undertook its formal third-year review in 2006, with the independent panel making its final report in December 2006. The panel comprised:

- Mr Gavin Nicholson, Senior Lecturer, School of Accountancy, Queensland University of Technology

- Mr Tom Kennedy, Chief Executive Officer, MediaZoo

- Dr Ian Fuss, Chief Scientist, Information Science Laboratory, Defence Science & Technology Organisation

- Mr John O'Sullivan, Commonwealth Department of Education, Science & Training.

The panel concluded that ACID is achieving a number of very positive outcomes, and has achieved much in developing a highly innovative capacity to blend technology with human behaviours in innovative ways. The panel commended ACID on:

- its research outcomes and the overall quality of research;

- the integration of industry into ACID's work;

- its balance of commercial development with ongoing research; and

- its robust and effective education function.

The panel identified several major and minor challenges facing ACID, in particular the need to:

- strengthen the management infrastructure;

- crystallise the research outcomes;

- continue to develop commercialisation infrastructure;

- continue to strengthen the in-kind contribution;

- strengthen stakeholder management;

- broaden and strengthen industry ties; and

- strengthen researcher engagement.

The panel made 18 specific recommendations to address these challenges.

The ACID Board welcomed the panel's report as a 'no holds barred' stocktake and, in conjunction with the input provided by the Scientific Advisory Group, a valuable audit for the organisation. The Board concurred with the panel in relation to the challenge areas, and agreed to implement all recommendations.

As at 30 June, all recommendations were well on the way to implementation.

Table 8: Progress on Third-Year Review Recommendations

RECOMMENDATION (SUMMARISED)	PROGRESS AT 30 JUNE 2007
Strategy for the CRC	
R1. Continue to analyse the benefits and costs (both direct and indirect) of the structure adopted to ensure continued effectiveness.	Analysis complete – monitored regularly.
Strengthen the management infrastructure	
R2. Implement new senior management structure.	Implemented – GM was appointed February 2007 as per the new structure. However, ED resigned June 2007 so as at 30 June, GM is acting in both roles.
R3. Further develop internal reporting systems and routines, particularly quarterly reporting system and development opportunities for middle level managers.	Systems developed – monitored regularly.
R4. Review measures to ensure key positions are appropriately scoped and supported.	Review complete – monitored regularly through formal performance review process (see R8 below).
R5. Review/increase the role of the Research Leaders Group in ACID's research direction.	Review complete – RLG taking direct role in research direction through input to Board and active inclusion in management structure.
R6. Periodic review of Board role and performance.	Review achieved – undertaken at annual retreat in February each year.
R7. Develop practical measures to support ACID's continued maintenance of highest standards around conflicts of interest.	Measures developed – register of interests reviewed annually and updated by individual Directors as required.
R8. Review performance management system for key personnel.	Review completed – organisational KRAs and senior executive KPIs established in April 2007; regular performance review system implemented for all staff.
Continue to develop commercialisation infrastructure	
R9. Review the research/commecialisation resource balance to ensure allocation matches strategy.	Review complete – commercialisation function strengthened and resourced adequately – monitored regularly.

RECOMMENDATION (SUMMARISED)	PROGRESS AT 30 JUNE 2007
R10. Ensure internal systems and routines maintain flexibility required to respond quickly to market opportunities.	Systems reviewed – flexibility instigated with Commercialisation Manager appointed.
R11. Develop a standard approach to project development: industry leadership, business plan, extra funding, development opportunities for team members.	In train – commercialisation pipeline being built, including standardisation of project development.
Continue to strengthen the in-kind contribution	
R12. Continue to refine in-kind capture and reporting regime, particularly collection of data.	Achieved – online reporting of in-kind implemented for all contributors in April 2007 – monitored regularly.
R13. Investigate alternative in-kind resources from core participants.	In train – better in-kind capture mechanisms are being implemented with demonstrable positive results.
Strengthen stakeholder management	
R14. Develop an integrated and systemic approach to engage key stakeholders and gauge their needs and opinions on ACID performance.	Achieved – strategy developed and implemented in June 2007 for ongoing stakeholder engagement.
Broaden and strengthen industry ties	
R15. Continue to build industry links, particularly with high-potential commercialisation prospects.	Achieved – sales and marketing initiatives improved including launch of new website in February 2007. Sponsorship engagement with industry enhanced – monitored regularly.
Strengthen researcher engagement	
R16. Review procedures and systems for engaging partially funded students to ensure commitment to the organisation.	Achieved – review of student engagement undertaken and new procedure in place.
Other – IP arrangements	
R17. Review intellectual property requirements to ensure the right blend of capturing value and encouraging collaboration.	In train – review of IP registry under way; approach to sharing arrangements still to be reviewed.
R18. Assess IP capture routines and embed them in quarterly review process to ensure current IP asset.	Assessment completed – ACID's proprietary IP management system is a standard agenda item for quarterly project reviews – now being monitored regularly.

Financial Information

AUDITOR'S STATEMENT

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AUDITORS' REPORT TO THE COOPERATIVE RESEARCH CENTRES PROGRAM, DEPARTMENT OF EDUCATION, SCIENCE & TRAINING REPRESENTING THE COMMONWEALTH IN RESPECT OF AUSTRALASIAN COOPERATIVE RESEARCH CENTRE FOR INTERACTION DESIGN

Financial Information for the Year Ended 30 June 2007

Scope

We have audited the financial information of the Australasian Cooperative Research Centre for Interaction Design (CRC) as set out in Tables 1, 2 and 3 of the Annual Report (being the tables showing in-kind and cash contributions for each party to the CRC, and cash expenditure) for the year ended 30 June 2007. The parties to the CRC are responsible for the preparation and presentation of the financial information. We have conducted an independent audit of the financial information in order to express an opinion on it to the parties to the CRC.

The financial information has been prepared for the parties to the CRC for the purposes of fulfilling their annual reporting obligations under clause 14 (1) (f) of the Commonwealth Agreement and for distribution to the Cooperative Research Centres Program, Department of Education, Science & Training, representing the Commonwealth of Australia. We disclaim any assumption of responsibility for any reliance on this report or on the financial information to which it relates to any person other than those mentioned above, or for any purpose other than that for which it was prepared.

Our audit has been conducted in accordance with Australian Auditing Standards to provide reasonable assurance as to whether the financial information is free of material misstatement. Our procedures included examination, on a test basis, of evidence supporting the amounts and other disclosures in the financial information, and the evaluation of accounting policies and significant accounting estimates. These procedures have been undertaken to form an opinion as to whether in all material respects, the financial information is presented fairly in accordance with Australian accounting concepts and standards and requirements of the Commonwealth Agreement in terms of Clauses 4 (Contributions), 5 (1), 5 (2), 5 (3) (Application of the Grant and Contributions), 9 (1), 9 (5) (Intellectual Property) and 12 (2) (Financial Provisions), so as to present a view of the sources of funding and the application of funding of the CRC and the application of which is consistent with our understanding of its financial activities during the year and its financial position.

While we have not performed any audit procedures upon the estimates for the next period and do not express any opinion thereon, we ascertained that they have been formally approved by the Board of the CRC as required under the Commonwealth Agreement. Additionally we note that the Board has approved and management has submitted to the Commonwealth a 'Request for Approval of Substantial Changes' seeking a reduction in the in-kind contributions budget for the next period. The estimates shown on the tables exclude the effect of these requested changes.

The audit opinion expressed in this report has been formed on the above basis.

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Audit Opinion

In our opinion:

1.   The financial statement presents fairly the sources of funding, the application of that funding and the financial position of the Centre for the year ended 30 June 2007, in accordance with Australian accounting concepts and applicable Australian accounting standards and the provisions of the Commonwealth Agreement.

2.   The total value of all Contributions for the year under report equalled or exceeded the amount of grant paid during the year (not including advances). Contributions, both cash and in-kind are made and recorded in accordance with the budget specified in the Commonwealth Agreement except as detailed below:

Partner	Committed in Budget $'000	Actual $'000
In-Kind Contributions		
Core Partners		
QUT	3,086	2,791
UQ	716	576
RMIT	1,453	759
Heritage Properties	1,006	423
IMAP	525	135
SGI	315	121
Auran	575	190
In-Kind Contributions		
Supporting Partners		
ACMI	198	4
QANTM	168	-
Corp Builders	76	-
HITlabNZ	88	78
University of Melbourne	270	-
Cyberdreaming	30	-
SME Consortium	94	-
Cash Contributions		
Core Partners		
Heritage Properties	40	30
UTS	100	-
Auran	25	13
Supporting Partners		
Brisbane City Council	20	-
Canterbury Development	20	-
University of Melbourne	50	-

Based on a comparison with prior year multipliers, the multipliers adopted by the CRC to value in-kind contributions have a sound and reasonable basis.

3.   The application of Commonwealth Funding and Contributions was for the activities of the CRC as specified in Schedule 1 of the Commonwealth Agreement.

2

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4.   The CRC has met its obligations in relation to the treatment of Heads of Expenditure except as follows where allocations of the budgetary resources between Heads of Expenditure has been higher or lower than the allocation in the budget by $100,000 or 20% (which ever is the greater amount) without prior approval by the Commonwealth.

Heads of Expenditure	Committed in Budget $'000	Actual $'000	Variance $'000	Variance %
Capital	1,164	1,418	254	22%
Other	10,293	6,073	(4,220)	(41%)

We have noted that there is a variance in 'other' cash heads of expenditure shown on the on-line cash flow report when compared with the tables. The variance is due to the reporting of the GST payable and receivables balance on a net basis in the tables.

5.   Capital Items acquired from the Grant and Researcher's Contributions are vested as provided in the Commonwealth Agreement.

6.   The CRC has met its obligations in relation to the treatment of Intellectual Property. A statement signed by the Director, to the effect that Intellectual Property in all Contract Material is vested as provided in the Commonwealth Agreement and no Intellectual Property has been assigned or licensed without the prior approval of the Commonwealth has been sighted.

7.   In accounting for Commonwealth Funding and Contributions the CRC has exercised proper accounting standards and controls, as required under Clause 9.

8.   Cash contributions are paid into and expended from the centre account maintained by the CRC as required by Clause 12.

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Chartered Accountants

Albert Loots
Partner

Dated at Brisbane this 24th day of October 2007

3

Glossary of Terms

ACID	Australasian CRC for Interaction Design Pty Ltd
ACID Services Pty Ltd	wholly-owned subsidiary of ACID
ACIN	Australian Creative Industries Network
Archaeognostic	Greek: 'ancient knowledge'
B-HERT	Business/Higher Education Round Table
CEO	Chief Executive Officer
CRC	Cooperative Research Centre
CSIRO	Commonwealth Scientific and Industrial Research Organisation
Diversionary Therapy	methods of therapy that aim to divert the patient's attention from the area of treatment
DSTO	Defence Science & Technology Organisation
GM	General Manager
HXI	interaction between humans and any form of technology
ICT	information and communications technologies
IP	intellectual property
IT&T	information technology and telecommunications
NICTA	National ICT Australia
NZ	New Zealand
OzCHI	the annual conference for the Computer-Human Interaction Special Interest Group of the Human Factors and Ergonomics Society of Australia
Qld	Queensland
QUT	Queensland University of Technology
R&D	Research and Development
RLG	Research Leaders' Group
RMIT	RMIT University, Melbourne
SAG	Scientific Advisory Group
SME	Small to Medium Enterprise
Speakeasy	informal ACID symposium for students
UTS	University of Technology, Sydney
UQ	University of Queensland
VSMM	Virtual Systems and Multimedia

Refereed Publications 2006–07

Note: an asterisk (*) indicates a publication previously reported as 'forthcoming' or 'under review'

A: Books

1. Brown, A.R. (2007) *Music education and computers: Amplifying musicality*. New York: Routledge.

2. Hamilton, J.G. (ed.) (2006) *Intimate Transactions: Art, exhibition and interaction within distributed network environments*. Brisbane: ACID..

B: Book Chapters

1. Brown, A.R. and Dillon, S.C. (2007) 'Networked improvisational musical environments: Learning through online collaborative music making.' In *Music Education with Digital Technology*, eds. Finney, J. and Burnard, P. London: Continuum International.

2. Dillon, S.C. and Brown A.R. (2006) 'The art of ePortfolios: Insights from the creative arts experience.' In *Handbook of Research on ePortfolios*, eds. Jafari, Ali and Kaufman, Catherine: 418–431. Hershey, PA: Idea Group.

3. Leavy, B. and Wyeld, T.G. (2007) 'Re-presenting land as virtual artefact: embodying Australian Indigenous cultural heritage in a 3D game environment'. In *Virtual museum artefacts: theories of cultural heritage spatiality and strategies for interpretation*, ed. Chittenden, T. London: Routledge (in press).

4. Leavy, B., Wyeld, T.G., Hills, J., Barker, C. and Gard, S. (2007) 'Digital Songlines: digitising the arts, culture and heritage landscape of Aboriginal Australia'. In *New Heritage*, eds. Kalay, T., Kvan, T. and Affleck, J. Hong Kong: Taylor & Francis (in press).

5. Lee, D. and Muhlberger, R.A. (2006) 'Technology introduction perspective of mobile marketing.' In *Encyclopedia of Mobile Computing & Commerce*, ed. Taniar, D: Hershey PA: Information Science Reference, IGI Global. http://www.igi-pub.com/reference/details.asp?ID=6453*

6. Mafe D., and Brown A.R. (2006) 'Emergent matters: Reflections on collaborative practice-led research'.In *Speculation and innovation: applying practice led research in the creative industries.* Queensland University of Technology. Retrieved 25 September 2007 from http://www.speculation2005.qut.edu.au

C: Journal Articles

1. Adkins, B., Foth, M., Summerville, J. and Higgs, P. 'Ecologies of innovation: symbolic aspects of cross-organizational linkages in the design sector in an Australian inner-city area'. *American Behavioral Scientist* 50(7): 922–934. http://eprints.qut.edu.au/archive/00003916/ *

2. Adkins, B. and Grant, E. 'Backpackers as a community of strangers: the interaction order of an online backpacker message board'. *Qualitative Sociology Review* III(2): 188–201.*

3. Akama, Y. 'Designers' agency: human-centred design in communication design'. *Design Principles and Practices: An International Journal* 1(2): 1–6. ISSN 1833-1874.

4. Akama, Y., Cooper, R., Vaughan, L., Viller, S., Simpson, M. and Yuille, J. 'Show and tell'. *Artifact Journal* ISSN 1749-3463.

5. Axup, J. and Viller, S. 'Sampling mobile opinion: a contextual postcard questionnaire study'. *First Monday* 11(9) http://www.firstmonday.org/issues/issue11_9/axup/.*

6. Brown, Andrew R. 'Software development as music education research'. *International Journal of Education & the Arts* 8(6): retrieved 14 July 2007 from http://ijea.asu.edu/v8n6/

7. Brown, A.R. 'Code jamming'. *M/C Journal* 9(6): retrieved 13 Jan 2007 from http://journal.media-culture.org.au/0612/03-brown.php

8. Brown, A.R. and Dillon, S. 'ePortfolios in arts learning and assessment'. *Music Education Research and Innovation* 12(1): 7–36.

9. Edmonds, E.A. and Muller, L. 'On creative engagement'. *Visual Communication* 2006(5): 307–322.*

10. Foth, M. 'Facilitating social networking in inner-city neighbourhoods'. *IEEE Computer* 39(9): 44–50. http://eprints.qut.edu.au/archive/00004750/

11. Foth, M. and Hearn, G. 'Networked individualism of urban residents: discovering the communicative ecology in inner-city apartment complexes'. *Information, Communication & Society* 10(5). http://eprints.qut.edu.au/archive/00006100/

12. Livingstone, S.R., Mühlberger, R., Brown, A.R. and Loch, A. 'Controlling musical emotionality: an affective computational architecture for influencing musical emotions.' *Digital Creativity* 18(1): 43–54.

13. Livingstone, S.R. and Thompson, W.F. 'Multi-modal affective interaction: a comment on musical origins'. *Music Perception* 24(1): 89–94.

14. Muller, L., Edmonds, E. and Connell, M. 'Living laboratories for interactive art'. *CoDesign: International Journal of CoCreation in Design and the Arts*, Interactive Art Collaboration (special issue) 2(4): 194–207.

15. Rittenbruch, M., Viller, S. and Mansfield, T. 'Announcing activity: design and evaluation of an intentionally enriched awareness service'. *International Journal of HCI* 22(1): 137–171.*

16. truna aka Turner, J. 'Claiming places: game mods and graffiti'. *Youth Arts Queensland Papers* 2007(1).

17. Vaughan, L. 'Where am I, where are you'. *Design Principles and Practices: An International Journal* 1(1): 39–46. ISSN 1833-1874.

18. Wyeld, T.G., Carroll, J., Gibbons, C., Ledwich, B., Leavy, B., Hills, J. and Docherty, M. 'Doing cultural heritage using the Torque game engine: supporting indigenous storytelling in a 3D virtual environment'. *International Journal of Architectural Computing*, special edition on cultural heritage.

D: Conference Papers

1. Axup, J., Viller, S., MacColl, I. and Cooper, R. 'Lo-fi matchmaking: A study of social pairing for backpackers'. Ubicomp 2006, Eighth International Conference on Ubiquitous Computing, Orange County, USA. 17–21 September 2006.*

2. Bidwell, N., truna aka Turner, J., Holdsworth, J., Lemmon, C. and Shay, M. 'Heritage and habitus: designing to support situated, living knowledge'. Mobile HCI 2007, Singapore. 9–12 September 2007.

3. Davidson, R. 'Individual melodic style in music and language'. Music and Evolutionary Thought Conference, Durham, UK. 22–23 June 2007.

4. Davidson, R. 'Prosody as individual music composition'. Music as Human Communication: An HCSNet Workshop on the Science of Music Perception, Performance and Cogition, Sydney. 17–18 July 2006.

5. Edmonds, E. 'Abstraction and interaction: an art system for white noise'. Computer Graphics, Imaging and Visualization, Sydney. 25–28 July 2006.*

6. Foth, M. and Axup, J. 'Participatory design and action research: identical twins or synergetic pair?' 2006 Participatory Design Conference, Trento, Italy. 31 July–5 August 2006. http://eprints.qut.edu.au/archive/00004347/*

7. Gard, S., Bucolo, S. and Wyeld, T.G. 'Capturing Australian Indigenous perceptions of the landscape: virtual environments with cultural meanings'. Association for Literary and Linguistic Computing conference, Paris, France. 4–9 July 2006.*

8. Gard, S. and Wyeld, T.G. 'Modelling the Aboriginal rock art of Mt Moffatt'. Combined 5th Trans-Tasman Survey Conference and 2nd Queensland Spatial Industry Conference, Cairns. 19–23 September 2006.*

9. Gerber, A. and Brown, A.R. 'Visualising music with Impromptu'. Australasian Computer Music Conference, Adelaide. 2006.

10. Gibbons, C., Leavy, B., Hills, J. and Wyeld, T.G 'Creating an authentic aural experience in the Digital Songlines Game Engine: part of a contextualised cultural heritage knowledge toolkit'. 12th International Conference on Virtual Systems and Multimedia, Xian, China. 18–20 October 2006.*

11. Gibbons, C., Wyeld, T.G., Leavy, B. and Hills, J. 'Reflecting on the creation of an authentic aural experience in the Digital Songlines game engine'. IEEE Symposium on Visual Analytics Science and Technology, Nicosia, Cyprus. 31 October–2 November 2006.*

12. Gifford, T. and Brown, A.R. 'The Ambidrum: automated rhythmic improvisation'. Australasian Computer Music Conference, Adelaide. 2006.

13. Indigenous Communities Project. 'Digital Songlines Environment'. 2006 International Conference on Game Research and Development, Fremantle. December 2006.

14. Jeon, S., Kim, G. and Billinghurst, M. 'Interaction techniques in large display environments using hand-held devices'. ACM Symposium on Virtual Reality Software and Technology, Limasson, Cyprus. 1–3 November 2006.*

15. Jeon, S., Kim, G.J. and Billinghurst, M. 'Basic interactions in tabletop display environments using camera equipped mobile phones'. Pacific-Rim Conference on Multimedia 2006, Hangzhou, China. 2–4 November 2006.*

16. Johnston, A., Marks, B., Candy, L. and Edmonds, E. 'Partial reflections: interactive environments for musical exploration'. Engage 2006: Interaction, Art and Audience Experience, Sydney. 26–28 November 2006.

Refereed Publications 2006–07

17. Johnston, A., Marks, B. and Edmonds, E. 'Charmed circle: an interactive toy for musicians'. DIMEA 2006: International Conference on Digital Interactive Media Entertainment and & Arts, Bangkok, Thailand. 25–27 October 2006.

18. Leavy, B., Wyeld, T., Hills, J., Barker, C. and Gard, S. 'The ethics of Indigenous storytelling: using the Torque game engine to support Australian Aboriginal cultural heritage'. DiGRA, Digital Games Research Association, Tokyo, Japan. 24–28 September 2007.

19. Livingstone, S.R., Mühlberger, R. and Brown, A.R. 'Influencing perceived musical emotions: the importance of performative and structural aspects in a rule system'. Music as Human Communication: An HCSNet Workshop on the Science of Music Perception, Performance and Cogition, Sydney. 17–18 July 2006.

20. Livingstone, S.R., Mühlberger, R. and Brown, A.R. 'The music–emotion lifecycle'. HCSNet Workshop on Perception and Action, Sydney. 30 November 2006.

21. Livingstone, S.R., Mühlberger, R. and Brown, A.R. 'Music, speech and a theory of mind: investigations wiht a computational model of musical emotions'. HCSNet Workshop on Human and Machine Speech, Sydney. 1 December 2006.

22. Morgan, C. and Polson, D. 'The Figmentum project: appropriating information and communication technologies to animate our urban fabric'. Digital Cities 5: Urban Informatics, Locative Media and Mobile Technology in Inner-City Developments, 3rd International Conference on Communities and Technologies, East Lansing, USA. 28 June 2007.

23. Muller, L. and Edmonds, E. 'Living laboratories: making and curating interactive art'. ACM SIGGRAPH, Boston, USA. August 2006.*

24. Muller, L., Turner, G., Khut, G. and Edmonds, E. 'Creating affective visualisations for a physiologically interactive artwork'. 10th International Conference of Information Visualisation, London, UK. 5–7 July 2006.*

25. Nelson, A., Strengers, Y. and Berry, M. 'E-work, households and suburban neighbourhoods'. Isolation: disconnection, solitude and seclusion in a connected world interdisciplinary conference, Hobart. 14–16 December 2006.*

26. Opie, T. and Brown, A.R. 'An introduction to ecostructuralism'. International Computer Music Conference, New Orleans. 9–11 November 2006.

27. Peterson, F. 'The new media cultural debate: transformative experience?' 6th International Conference on Knowledge, Culture and Change in Organisations, Prato, Italy. 11–14 July 2006.*

28. Pumpa, M. and Wyeld, T.G. 'Database and narratological representation of Australian Aboriginal knowledge as information visualisation using a game engine'. International Conference on Information Visualisation, London, UK. 5–7 July 2006.*

29. Pumpa, M., Wyeld, T.G. and Adkins, B. 'Performing traditional knowledge using a game engine: communicating and sharing Australian Aboriginal knowledge practices'. IEEE International Conference on Advanced Learning Technologies, Kerkrade, Netherlands. 5–7 July 2006.*

30. Sadler, K., Robertson, T. and Kan, M. 'It's always there, it's always on: Australian freelancer's management of availability using mobile technologies'. MobileHCI 2006, Espoo, Finland. 12–15 September 2006.

31. Sadler, K., Robertson, T., Kan, M. and Hagen, P. 'Balancing work, life and other concerns: a story of mobile technology for use by Australian freelancers'. NordiCHI 2006, Oslo, Norway. 14–18 October 2006.

32. Simpson, M., Viller, S., Vaughan, L., Akama, Y., Cooper, R. and Yuille, J. 'The object of interaction'. Refereed workshop at OZCHI2006, Annual Conference of the Australian Computer–Human Interaction Special Interest Group (CHISIG), Sydney. 20–24 November 2006.

33. Strengers, Y. 'The smart metering system in Australia: Implications for the sustainable consumption of energy and water in households'. AHURI Student Symposium, Brisbane. 18 June 2007.

34. truna aka Turner, J. 'Destination space: experiential spatiality and stories'. Cybergames & Interactive Entertainment 06, Perth. December 2006.*

35. truna aka Turner, J. 'Digital Songlines Environment'. Cybergames & Interactive Entertainment 06, Perth. December 2006.

36. truna aka Turner, J. 'To explore strange new worlds: experience design in 3-dimensional immersive environments – role and place in a world as objective of interaction'. OZCHI2006, Annual Conference of the Australian Computer–Human Interaction Special Interest Group (CHISIG), Sydney. 20–24 November 2006.

37. Vaughan, L. and Akama, Y. 'Designing a design consulting methodology'. Design Research Society International Conference, Lisbon, Portugal. 1–4 November 2006.*

38. Vaughan, L. 'Embodying design: the lived relationship between artefact, user and the lived experience of design'. 2006 Participatory Design Conference, Trento, Italy. 1–5 August 2006.*

39. Vaughan, L. 'Coaching as a creative practice'. 3rd Art of Management and Organisation Conference, Krakow, Poland. September 2006.*

40. Weakley, A. and Edmonds, E. 'Non-deliberate sharing in support of creative collaboration'. OZCHI 2006, Annual Conference of the Australian Computer–Human Interaction Special Interest Group (CHISIG), Sydney. 20–24 November 2006.*

41. Yuille, J., Forwood, M., Brown, A., Sade, G., Jenkins, G. and Weight, J. 'senseMix: sharing creative mobile content'. Eighth conference on Human–Computer Interaction with Mobile Devices and Services, Helsinki, Finland. 12–15 September 2006.*

E: OTHER

1. Davidson, R. (2006) *Three conflicts.* Musical-video composition (25 minutes). In *Video Circus* (DVD). Serrated Records.

2. Davidson, R. (2007) *Vague memories.* Musical composition (20 minutes) for two guitars, violin, double bass, clarinet/bass clarinet, piano and percussion. Premiered by Dominant Seven, Canberra School of Music, 22 June 2007.

3. Morgan, C. (2006) *The Figmentum project: exploring the relationships between ICTs and people's social and cultural experiences of place.* Unpublished Honours thesis, Queensland University of Technology.

F. ACCEPTED FOR PUBLICATION AFTER REPORTING DATE

1. Banissi, E., Burkhard, R.A., Grinstein, G., Cvek, U., Trutschl, M, Stuart, L., Wyeld, T.G., Andrienko, G., Dykes, J., Jern, M., Groth, D., and Ursyn, A. 'Information visualisation'. 11th European Information Visualisation Conference, Zurich, Switzerland. 3–7 July 2007.

2. Berry, M., Gibson, M., Nelson, A. and Richardson, I. (2006) 'How smart is '"smart"? Smart homes and sustainable housing.' Forthcoming in *Steering Sustainability in an Urbanising World: Policy, Practice and Performance*, ed. Nelson, A. London: Ashgate.*

3. Bidwell, N., truna aka Turner, J. and Browning, D. 'Wanderer beyond game worlds'. PerthDAC2007, 7th International Digital Arts and Culture Conference, Perth. 15–18 September 2007.

4. Brown, A. and Sorensen, A. 'Dynamic media arts programming in Impromptu'. International Computer Music Conference, Copenhagen, Denmark. 27–31 August 2007.

5. Johnston, A. and Marks, B. *Partial Reflections.* Leonardo Transactions (in press).

6. Johnston, A., Marks, B. and Candy, L. 'Sound controlled musical instruments based on physical models'. International Computer Music Conference, Copenhagen, Denmark. 27–31 August 2007.

7. Lakemond, R., McKinnon, D. and Sridharan, S. 'A feature clustering algorithm for scale-space analysis of image structures'. ICSPCS'2007, 1st International Conference on Signal Processing and Communication Systems, Gold Coast. 17-19 December 2007.

8. Livingstone, S.R and Thompson, W.F. 'The emergence of music from the theory of mind'. *Musicae Scientiae*.

9. McKinnon, D., Lakemond, R., Fookes, C. and Sridharan, S. 'Ground-plane based projective reconstruction for surveillance camera networks'. ICSPCS'2007, 1st International Conference on Signal Processing and Communication Systems, Gold Coast. 17-19 December 2007.

10. Morgan, C. 'The Figmentum project'. Electrofringe, Newcastle. 29 September 2007.

11. Morgan, C. and Polson, D. (2008) 'The Figmentum project: appropriating information and communication technologies to animate our urban fabric'. Forthcoming in *Urban informatics: community integration and implementation*, ed. Foth, M. Hershey PA: Information Science Reference, IGI Global. http://www.urbaninformatics.net/book/

12. Phalip, J., Morphett, M. and Edmonds, E. 'Alleviating communication challenges in film scoring: an interaction design approach'. OZCHI 07, Australasian Computer–Human Interaction Conference, Adelaide. 28–30 November 2007.

13. Phalip, J. and Edmonds, E. 'Guidelines for communication in film scoring'. ICoMCS, the inaugural International Conference on Music Communication Science, Sydney. 5–7 December 2007.

14. Polson, D., Huang, S. and Morgan, C. 'Cipher Cities: effective user interface design for building a digital social network around location-based gaming'. International Conference on Mobile Technology, Applications and Systems, Singapore. 10–12 September 2007.

15. Polson, D. and Morgan, C. 'MiLK: the mobile informal learning kit. Collaborating to design successful mobile learning applications'. IADIS Mobile Learning, Lisbon, Portugal. 5–7 July 2007.

16. Sorensen, A. and Brown, A.R. 'aa-cell in practice: an approach to musical live coding'. International Computer Music Conference, Copenhagen, Denmark. 27–31 August 2007.

17. Strengers, Y. 'Renegotiating comfort practices through the smart energy meter'. ERE 2007, 11th Annual Environmental Postgraduate Conference, Cairns. 2–5 December 2007.

18. Strengers, Y. 'Renegotiating comfort standards through the smart energy meter'. GSSSP Symposium, Melbourne. 21 August 2007.

19. truna aka Turner, J. and Bidwell, N. 'Through the looking glass: game worlds as representations and views from elsewhere'. IE2007, Australasian Conference on Interactive Entertainment, Melbourne. 3–5 December 2007.

20. Vaughan, L., Viller, S., Simpson, M., Akama, Y., Cooper, R. and Yuille, J. 'Design plus people: an approach to interaction design projects'. *International Journal of Design Research*

21. Weakley, A., Deverell, K. and Yuille, J. 'Scribblr: supporting remote sketching to create a more complete communications system'. HCI International, Beijing, China. 22–27 July 2007.

22. Wyeld, T.G. 'Using the Digital Songlines game engine to embed Australian Aboriginal cultural knowledge in "country"'. Keynote address to 11th European Information Visualisation Conference, Zurich, Switzerland. 3–7 July 2007.

23. Wyeld, T.G. and Pumpa, M. 'Narratological constructs in the gestalt of the 3D game environment: Aboriginal knowledge and its connection to the data landscape metaphor'. IV07: 11th European Conference on Information Visualisation, Zurich, Switzerland. 3–7 July 2007.

24. Zhang, Y. and Weakley, A. 'Resolving assumptions in art–technology collaboration as a means of extending shared understanding'. HCI International, Beijing, China. 22–27 July 2007.

G: In Review at Reporting Date

1. Axup, J. and Viller, S. 'Exploratory research methods for the extremely mobile: supporting community interaction amongst backpackers'. Submitted to *Journal of Computer Supported Cooperative Work*.*

2. Humphreys, T., Leung, L. and Weakley, A.J. 'Embedding expert users in the participatory design process'. Submitted to *Design Studies*.

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