# Annual Report 2005–06

Australasian CRC for Interaction Design Pty Ltd ABN 34 105 399 111



Established and supported under the Australian Government's Cooperative Research Centres Programme



# Annual Report 2005–06

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# About ACID

The Australasian CRC for Interaction Design Pty Ltd (ACID) is a cooperative research centre established and supported under the Australian Government's Cooperative Research Centres Programme.

Our core business is research, development and commercialisation of content and technologies in experience design and interaction design – finding better ways for people to interact with each other using communication technologies. Our expertise lies in helping people participate in the digital world.

For ACID, 'research and development' is about proving that a product or service has a market, then demonstrating how we expect to deliver to that market by deploying fully functional scaleable prototypes that are tested by market-driven assessments.

#### Vision

ACID's vision is to be a world-leading R&D company that provides group interaction products, systems and services to digital content applications and user environments. ACID will be a hub of researchers coordinated across Australia and New Zealand in a distributed organisation that enhances the capabilities of its partners and associated industry sectors through collaborative R&D projects.

### Mission

To invent and develop new forms of human interaction through identifiable distributed, trans-disciplinary, practice-led collaborations.

To bring the traditional Australian values of openness, exuberance and inventive entrepreneurship into suburban, virtual, creative and indigenous communities through technologies that support social interaction.

# Values

- ✓ Have fun
- ✓ Be the best
- Be ethical and transparent
- Be successful and profitable
- ▼ Be inclusive.

# **Executive Summary**

The 2005–06 financial year presented ACID with challenges on many fronts. In particular we progressed the refinement of our organisational structure, further focused our research programs and began commercialisation initiatives. Most organisations might tackle each of these one at a time – we worked through all three at once.

At time of writing we are planning to change our organisational structure again, mainly to address the need to sustain our strong national collaborations, emerging R&D capacity and commercialisation track record. It will also, secondarily, address feedback from several fronts about a need for clarity of roles within the organisation.

In terms of our research initiatives we've structured national collaborations around connected communities and how sustainable interaction can be designed through the use of ICTs in domains characterised as suburban, creative, virtual and indigenous communities. Within these initiatives we emphasise creativity and creative input as much as the research objective itself.

Creativity sits at the heart of innovation. This has been so from the earliest use of tools. At the centre of creative tool-making are the principles of good design, and good designers are expert at interpreting and integrating the complexities of real-world problems.

With the increasing intricacy of national priorities, scientific discovery and engineering, it's more important than ever before to design strategic processes into our science and innovation plans – right from the start and at every level. This is one overarching aim at ACID both in terms of the research we do, and the way we manage our large teams.

This does not de-emphasise the importance of strong disciplines, but at ACID we assert that integrative, interdisciplinary frameworks are equally important. In particular, an integrative framework like strategic design gives science and research initiatives a built-in innovation guarantee because it provides a mechanism for thinking about real-world needs at the same time as thinking across disciplinary boundaries and integrating the idiosyncrasies of creative thinkers.

The creativity of the Australian people is our cultural capital. Fostering it will bring wealth not only in terms of cultural richness and a strong sense of national identity but also in terms of a burgeoning economy. A recent publication by the Prime Minister's Science, Engineering and Innovation Council Working Group, *Creativity in the Innovation Economy (2005)*, agreed that Government should value, invest in and foster the emergence of a truly creative economy. ACID's researchers are now positioned to do just that.

# **Highlights**

Since the approval of our Commercialisation Plan we have adopted the required strategies for commercialisation and utilisation of research in ways that are effective for delivering intended benefits to industry and other research users. 2005–06 highlights included:

# **Organisation Highlights**

- ✓ Incremental improvement to our governance structure;
- ✓ Further refinement to the organisational structure and placement of key people;
- Improvement to project and program management processes;
- Establishment of a centralised IP registry and project catalogue online at http://ipregistry.acid.net.au.

# **Commercialisation Highlights**

- Establishment of a wholly owned subsidiary company, ACID Services Pty Ltd, to focus on commercialising our research;
- International contract R&D capability grown from zero to \$500,000 in gross revenue;
- ✓ Capability to spin-off two new companies valued at over \$2 million;
- ✓ Capability to spin-off at least one additional new company in the next 12 months;
- Capacity to commercialize 2–3 on-demand internet service platforms aimed at welldefined user-generated content markets, social software, and location-based services;
- Provisional patent has been filed and granted in Australia for the Diversionary Therapy device, with full international patents under development;
- ▼ Four non-commercial licenses executed or under consideration.

#### **Research Highlights**

- World-class research outcomes ACID researchers presented at CHI, PDC, DIGRA, SIGGRAPH, Ars Electronica;
- Clear R&D capability including expertise in experience/strategic design, virtual property services, mobile futures, and user interfaces for software services.

#### **Education Highlights**

- ▼ Forty-six potential students registered interest;
- Twenty-two students received scholarships, including nine international students from Singapore, Hong Kong, Germany, Norway and France.

# **Communication Highlights**

- Communication strategy refined and operationalised with the single overarching goal of supporting the business strategy as articulated in the Commonwealth Agreement and other relevant documents;
- Digital Songlines project won an AIIA Merit Award and was presented at United Nations World Summit on the Information Society in Tunisia;
- Over 12,000 people exposed to ACID's Mobile Entertainment innovations at the Point & Tilt exhibition at ACMI, Melbourne;
- ▼ Intimate Transactions received an Honorary Mention at Prix Ars Electronica 2005.

We are continuing to build deep and substantial research as a strong foundation for our other commercial imperatives. The next steps are to take our strong collaborations global, focusing first on the Asia-Pacific region, and then refine our work from interaction design to include experience design.

Australia is poised like no other economy to exploit the ability to think strategically about design – how it is approached, what it accomplishes, and how it is brought into the new creative economy. And by incorporating strategic design principles as intrinsic to creativity and innovation, ACID is set to help create an Australian economy based on understanding and meeting stakeholders needs and utilising creative capital much more effectively.

In getting to this next level we hope ACID will be admired for its distinctive organisational style – in the sense of who we are as well as how we present to the 'outside' world.

ACID's style is based on technological excellence, research and innovation, quality and design, a strong market focus, a keen interest in culture and the arts, attention to social issues, and a commitment to continuous improvement in relations with staff (and their families), key stakeholders and the surrounding local and global territories.

# **Governance, Structure and Management**

### Governance

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

The ACID Board abolished the Remuneration Committee on 29 March 2006, and now addresses remuneration matters at the whole-of-Board level.

# **Board of Directors**

ACID's Board of Directors sets the strategic direction and establishes the policies that shape the organisation's operations. The Board 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.

ACID has a skills-based Board of Directors comprising independent members and participant representatives plus an independent Chairman. The CEO is a Director.

The ACID Board of Directors comprises:

- ✓ Dr Terry Cutler, Cutler & Co, ACID Chairman
- ▼ Professor Jeff Jones, ACID CEO & Company Secretary
- Michael Begun, CM Capital Investments
- Graham Edelsten, Auran Technologies
- ▼ Professor Neil Furlong, RMIT University
- ▼ Professor Mary O'Kane, Mary O'Kane & Associates
- ▼ Professor Arun Sharma, Queensland University of Technology
- ▼ Bill Trestrail, SGI.

Dr Katherine Woodthorpe is the CRC Visitor and attends Board meetings in that role.

Three ACID Directors had active Alternate Directors during the 2005-06 year:

- ▼ Bill Trestrail's Alternate Director, Michael Armitage, resigned on 28 July 2005;
- ✓ Graham Edelsten's Alternate Director is Gregory Lane of Auran Technologies;
- ▼ Prof Arun Sharma's Alternate Director is Professor David Gardiner of QUT.

Board Member	9 Aug 05	23 Nov 05	29 Mar 06	31 May 06
Dr Terry Cutler	✓	~	~	✓
Professor Jeff Jones	✓	~	~	✓
Michael Begun	✓	~	~	✓
Graham Edelsten	~	~	~	✓
Professor Neil Furlong	~	×	×	✓
Professor Mary O'Kane	~	~	~	✓
Professor Arun Sharma	~	David Gardiner	~	✓
Bill Trestrail	~	~	×	$\checkmark$

#### Board Meetings 2005–06

# **Audit Committee**

The Audit Committee 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 Chairman
- ✓ Dr Terry Cutler, ACID Chairman
- ▼ Professor Jeff Jones, ACID Company Secretary.

# **Scientific Advisory Group**

ACID's Scientific Advisory Group ensures 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 Scientific Advisory Group meets at least once per calendar year. It met in May 2005 and again in August 2006.

Members consist of the following pre-eminent leaders:

- ▼ 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.

# **Directors' Qualifications and Experience**

#### 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 the information economy and digital content.

Terry currently holds the following appointments:

- Director, Commonwealth Scientific & Industrial Research Organisation (CSIRO)
- Chairman, CSIRO Board Commercial Committee
- Member, International Advisory Panel, Multimedia Super Corridor, Malaysia
- Member, Innovation Economy Advisory Board, Victoria
- Director, MSC Technology Centre, Snd. Bhdl, Malaysia
- Director, Multimedia University (Universiti Telekom Sdn. Bhd.), Malaysia
- ✓ Council Member, Queensland University of Technology
- Director, Innovation Xchange Australia Limited.

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.

#### Professor Jeff Jones, ACID

Professor Jeff Jones is a recognised authority in interactive content technologies. He is an experienced academic and a results-oriented entrepreneur and strategist for start-up companies, small businesses, governments, universities and cultural institutions worldwide.

After being appointed Professor of Communication Design at QUT and Director of Applications for the Creative Industries Research and Applications Centre, Jeff led the development of the Australasian CRC for Interaction Design as a spin-off research and development company. ACID was established in 2003.

Jeff's academic and professional interests include computational media, multimedia software design and programming, software design, multimedia production, audio design, animation and graphics, games, and the linkages between business, creativity and technology.

He is a Graduate of the Australian Institute of Company Directors, and a Member of the Australian Information Industry Association, the National ICT Roundtable, and the Australasian Interactive Multimedia Industry Association.

#### Michael Begun, CM Capital Investments

Michael Begun is Co-Founder and Managing Partner of CM Capital Investments, a venture capital investment firm specialising in life sciences and telecommunications. Mr Begun has over 25 years' experience in the telecommunications arena in both the US and Australian commercial markets, and he is one of the leading IT&T private equity investors in Australia.

His career highlights include experiencing the convergence of the telecommunications and computer industries through his participation in the development of strategic technologies in both industries.

Mr Begun co-founded Technology Concepts Inc., which was later acquired by Bell Atlantic Inc. Subsequently, Mr Begun worked on business development transactions in the Asia Pacific region for Bell Atlantic. This led to his being appointed the 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.

Mr Begun 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.

#### Graham Edelsten, Auran Technologies

Graham Edelsten co-founded Auran Games Pty Ltd in 1995 and has since helped the company 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, Australia's first gaming-focused teaching institution.

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.

# 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 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.

#### 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.

Prof O'Kane 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.

She serves on several boards and committees in the public and private sectors. She specialises in high technology, national research strategies and higher education policy. Prof O'Kane is a Vice-Chair of the Development Gateway Foundation's Board of Directors.

#### Professor Arun Sharma, Queensland University of Technology

Professor Arun Sharma is the Deputy Vice-Chancellor (Research and Commercialisation) at the Queensland Institute of Technology. He has played a leadership role in the development of national research capacity in ICT. He was co-founder of NICTA and the 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 Cooperative Research Centre for Smart Internet Technology.

Prof Sharma's current advisory roles include the Queensland Premier's Smart State Council and the ICT Sector Advisory Committee of CSIRO. His board memberships include Sugar Research Limited, Farmacule Bioindustries Pty Ltd, QUT Innovation and QMI Solutions Pty Ltd.

#### 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. He is a Chartered Accountant.

Bill holds Board positions with SGI subsidiaries and is a member of the Board of the Antarctic Climate and Ecosystems Research Centre.

#### Dr Katherine Woodthorpe, CRC Visitor

Dr Katherine Woodthorpe is a management adviser and professional director. Her varied background is in the business of science and technology, HR and government interaction.

Katherine is a consultant to Government instrumentalities on innovation and commercialisation. Her expertise includes developing strategies for rapid growth and commercialisation of technology products and services and accessing government funding.

Katherine is a Fellow of the Australian Institute of Company Directors, and holds a number of Board positions:

- ▼ Chairman, Antarctic Climate and Ecosystems Cooperative Research Centre
- ✓ Chairman, Smartprint Cooperative Research Centre
- ✓ Council Member, University of Technology Sydney
- ▼ Director, Ventracor Limited
- Director, Insearch Limited
- ▼ Director, Environmental Biotechnology Cooperative Research Centre Pty Ltd
- ▼ Director, Sustainable Tourism Holdings Pty Ltd
- ▼ Director, The Warren Centre (Sydney University)
- ✓ Member, Flagship Advisory Council, CSIRO.

# Management and Staff

#### Professor Jeff Jones, Chief Executive Officer

As Chief Executive Officer, Jeff leads ACID's day-to-day management and project development. He develops and articulates the organisation's vision, profiling ACID and growing the core ACID competencies via industry–university collaborations.

#### Assoc Prof Sam Bucolo, Research & Development Director

Sam is responsible for the strategic direction of ACID's research program, and for ensuring research programs and projects meet their stated objectives. He has managed a broad range of national and international projects for public and private-sector organisations in Australia and Europe, and has published widely in the fields of emerging design tools and the development and evaluation of augmented/virtual environments.

#### Rob Sale, Finance & Operations Director

Rob joined ACID in August 2005, taking on responsibility for ACID's compliance, strategy and operations activities, and for guiding the organisation toward being an efficient, self-funding enterprise. In February 2006, Rob moved into a leadership role responsible for commercialising one of ACID's first market-ready products, the Diversionary Therapy Technology Devices.

#### Assoc Prof Michael Docherty, Education Director

Michael is responsible for leading the research education program that integrates students into ACID and its projects. He has established an international reputation in design studies and collaborative learning, and has published in the areas of computer-based 'discovery environments', computer-supported collaborative design, and studio-based teaching of IT.

#### Jana Baranovic, Business Manager

As Business Manager and Financial Controller, Jana is responsible for ACID's daily business operations, financial management, tax and other compliance processes, and management and statutory reporting. She is a CPA with extensive experience in business and financial management in both professional and industry settings.

#### Amanda Boland-Curran, Communication Manager

Amanda joined ACID in February 2006 and is responsible for developing and delivering the strategic communication plan. She is a senior organisational communication practitioner with extensive experience in the public and private sectors, consultancy and small business, with particular expertise in applying business practices to the communication function.

# Glenn Smith, Development Manager

As Development Manager, Glenn is responsible for assisting in the development of key ACID projects, closing the gap between research and industry to make ideas tangible. He is a qualified industrial designer, with international consultancy and industry experience focused on manifesting ideas and research. Glenn joined ACID in January 2006 and has been instrumental in getting our Diversionary Therapy Technologies spin-off company finalised.

# Sheridah Puttick, Education Officer

Sheridah develops and coordinates the education program, working with ACID's student cohort. She is responsible for education program events including student orientation and conference, professional development workshops and ACID Speakeasies. She also maintains the research database and provides administrative support.

# Chen Reed, Network & Systems Officer

Chen coordinates and develops technology environments for ACID, and maintains and deploys ACID's access grid technology across the range of institutions that make up the ACID organisation. He provides desktop and network maintenance and support to ACID staff and researchers.

#### Harpreet Singh, Research Technology Manager

As Research Technology Manager, Harpreet provides strategic technical input to ACID projects, manages ACID's intellectual property, and provides content services platform development. He has a Masters in Information Technology, with specific expertise in software development life cycle processes. Harpreet was appointed to the role in January 2006.

#### Ali Kerr, Office Manager

Ali manages ACID's head office function and leads the administration team responsible for the smooth functioning of ACID's back-of-house activities. She has extensive experience in administration, event management and sponsorship, gained in Australia and Europe.

#### Roseanne Hill, Administration Officer (Research)

Rosie joined ACID in January 2006 as Administration Officer (Research). She is the main contact for research- and project-related administrative matters including contract agreements and in-kind reporting. She is secretary to the Program Managers and Project Review Committee, and has a background in market research and administration. Rosie has a BA in Art History and Media Studies.

# Kathleen Chivers, Administration Officer

Kat joined ACID in April 2006 as Administration Officer (Reception), responsible for ACID's 'first impressions' with visitors and callers. Kat also manages the diaries of ACID's senior executives. She has a range of administrative and operational skills which she gained in a leading Brisbane legal firm.

# Miranda Forwood, Software Engineer

Miranda is a Project Manager and Software Engineer, contributing to a number of key ACID projects and contracts in development, testing and leadership roles. Her development work includes J2ME, Symbian C++, AR Toolkit, Macromedia Flash and PHP. She is a role model for young women in information technology, having participated in media features and industry events.

# Yang Wong, System Designer

Yang designs and develops back and front end systems for location-based products and services, with a focus on games and interactive narrative multimedia. Yang's systems are web-enabled and intended to be used by both general public users and content developers and designers. Yang joined ACID in January 2006.

#### Debra Polson, Research Fellow

Deb joined ACID as Research Fellow and Project Leader in August 2005. She lectures in interaction design at QUT and has designed interactive children's games for over 10 years. She specialises in location-based games, having implemented several projects at various sites around Australia. Deb's research interests lie in new immersive forms of game play, with a particular focus on the community interactions that emerge from these experiences.

# **Research Leaders**

The ACID Research Leaders contribute to monitoring and guiding the strategic direction of the organisation and its projects.

#### Professor Greg Hearn, Queensland University of Technology

Professor Greg Hearn is Professor and Director of the Institute for Creative Industries and Innovation at QUT. He has been at the forefront of the digital revolution for the last decade with a focus on the human and organisational issues that new technologies bring, directing research grants worth more than \$4 million.

Greg has also been involved in high-level consultancy and applied research focusing on new media strategies in many organisations including Telstra, Stanwell Corporation, Incitec Limited, Energex, British Airways, and Australian and Queensland government agencies. In 2005 he was a working party member of the Prime Minister's Science, Engineering and Innovation Council.

#### Dr Margot Brereton, University of Queensland

Dr Margot Brereton has extensive experience in participatory design, design methods, ethnographic studies and design of ubiquitous computing. Her current projects involve designing multi-modal interfaces for dentists and participatory design to support suburban community communication.

#### Professor Mark Burry, RMIT University

Professor Mark Burry is Professor of Innovation (Spatial Information Architecture) and Director of RMIT's Spatial Information Architecture Laboratory.

He is Executive Architect and Researcher to the Temple Sagrada Familía in Barcelona, and has published internationally on the life and work of architect Antoni Gaudí. He has also published on 'challenging' architecture, and on the broader issues of design, construction and the use of computers in design theory and practice.

Mark is Visiting Professor at Liverpool University UK, Professorial Research Fellow at Victoria University Wellington, and Conjoint Professor, Faculty of Engineering and Built Environment, at University of Newcastle. He is a Member of the Advisory Board for Gehry Technologies and the Prime Ministers' Science, Engineering and Innovation Working Party, and an ARC Federation Fellow. He chairs ACID's Research Leaders Group.

#### Dr Mark Billinghurst, HITLabNZ/University of Canterbury

Dr Mark Billinghurst is a researcher developing innovative computer interfaces exploring how virtual and real worlds can be merged to enhance face-to-face and remote collaboration. He is active in several research areas including augmented and virtual reality, wearable computing, and conversational computer interfaces.

Mark is Director of the Human Interface Technology Laboratory in New Zealand and a research scientist at the HITLab in Seattle USA. He has produced over 100 technical publications and his work has been demonstrated at a wide variety of conferences. One of his research projects, the MagicBook, won the 2001 Discover award for best entertainment application.

#### Professor Duane Varan, Murdoch University

Professor Duane Varan is the Director of the Interactive Television Research Institute at Murdoch University where he holds the Foundation Chair in New Media. Prof Varan is the recipient of numerous awards including the Prime Minister's Award for University Teacher of the Year (2001), the Australian Award for University Teaching in Economics, Business and Related Studies (2001), and an ITT Award of Excellence in recognition of his attempts to bridge the gap between business strategy, information technology and creative design. He is a global authority on the future of television, advising many of the world's leading advertising brands and media networks.

#### Professor Ernest Edmonds, University of Technology Sydney

Professor Ernest Edmonds is an international expert on human-computer interaction and creativity. He is Professor of Computation and Creative Media in the Faculty of Information Technology at the University of Technology, Sydney where he runs a multidisciplinary practice-based art and technology research group, the Creativity and Cognition Studios. Ernest also works as an artist in the constructivist tradition and first used computers in his practice in 1968. He first showed an interactive work with Stroud Cornock in 1970, and a time-based generative work at Exhibiting Space in London in 1985. He has exhibited throughout the world, from Moscow to LA. He has about 200 refereed publications in the fields of human-computer interaction, creativity and art. Artists Bookworks has recently published his book *On New Constructs in Art.* 

#### **Program Managers**

ACID's Program Managers oversee the direction, management and reporting of the research programs and projects.

#### Assoc Prof Andrew Brown, Digital Media

Andrew is a music academic and coordinator of the Computational Arts Research Group at the Queensland University of Technology. His expertise is in technologies that support creativity, algorithmic music and art, and the philosophy of technology. He is an active composer and a builder of software tools for dynamic content.

#### Assoc Prof Sam Bucolo, Smart Living Program

(see page 14 for biography)

#### James Hills, Virtual Heritage

James is based at ACID industry partner SGI, and provides an industry perspective to ACID projects and activities. He has worked on a broad range of IT projects, with extensive experience in concept development and project management of large multimedia and simulation projects, particularly in the development and application of virtual reality to training, simulation and scientific discovery.

#### Joanne Jacobs, New Models of Television Advertising

Joanne is seconded from the Brisbane Graduate School of Business at QUT. Her research is focused on interactivity and social software, and she has a background in web-based production and research. Joanne is a regular media commentator, and is on the advisory boards of several organisations. She was appointed by the Premier of Queensland as an Advisor for the 2006 Brisbane Ideas Festival and she has recently co-edited the book, *Uses* of *Blogs*.

#### Jeremy Yuille, Multi-User Environments

Jeremy is a senior lecturer in the Media and Communication Design Studio at RMIT University. He has worked widely as a designer with interdisciplinary teams in the fields of communications, education, networked art and performance. His current research focuses on the audio-visual representation of information, social networking, and the role of design in the use of networked environments.

# **Participating Organisations**

#### 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.

#### **SME Consortium**

- 🗸 Clui Urban
- ✔ Digital Nemesis
- ▼ DVP Media Pty Ltd
- ▼ Liquid Animation
- ✔ KROME Studios
- ▼ ToadShow
- ▼ Zone4 Digital Media.

The University of Technology Sydney joined ACID as a new Core Participant in September 2005 under a Deed of Variation between the Commonwealth and the Core Participants.

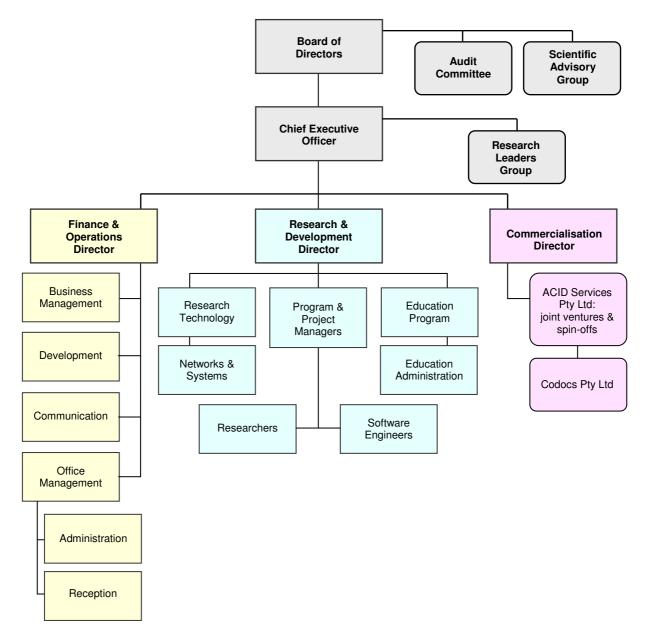
During the 2005–06 year, the Brisbane City Council exited the Supporting Participants group after the election of the new Lord Mayor, and Virtual Realms exited the SME Consortium.

# Node Coordinators

Node Coordinators form vital links within each ACID shareholder organisation, facilitating the coordination and promotion of ACID-related activities among members of their organisation. Node Coordinators also assist with advice on and responsibility for reporting and updating information on shareholders' in-kind contributions.

Name	Organisation
Tony Sweeney	ACMI
Graham Edelsten	Auran Technologies Pty Ltd
James Paulsen	Corporation Builders
Brett Leavy	Cyberdreaming
Brett McDonald	Heritage Pacific
Dr Mark Billinghurst	HITLabNZ
John Grant	iMAP Systems
Tim Morrison	Murdoch University
John Moss	QANTM
Oliver Britz	Queensland University of Technology
Prof Leigh Peterson	RMIT University
Bill Trestrail	SGI
Assoc Prof John Mott	University of Queensland
Prof Ernest Edmonds	University of Technology, Sydney

# **Organisational Function Chart**



# **Context and Major Developments**

# **Changing Industry Context**

2005–06 saw continued rapid changes in the marketplace and industry sectors in which ACID operates. These have led us to conduct annual reviews of our business strategy, operations and commercial model, adapting them to meet the evolving needs of our marketplace. Our organisational model continued to evolve around strong and very specific initiatives that are now our commercial strengths. ACID has therefore changed as our industry sectors have changed; we have become a platform for delivering commercial activities through new companies, new services and a focused capacity to undertake contract research and development.

During 2005-06 we developed:

- world-class research outcomes (ACID researchers presented at CHI, PDC, DIGRA, SIGGRAPH, Ars Electronica);
- ✓ contract R&D capability from \$0 to \$500,000 in gross revenue;
- ✓ capability to spin-off two new companies valued at over \$2 million;
- ✓ capability to spin-off at least one additional new company in the next 12 months;
- capacity to commercialise 2–3 on-demand internet service platforms aimed at welldefined user-generated content markets, social software, and location-based services.

Our model for interlocking University research with industry markets, which emerged very quickly after the CRC was established, has become an example of how the outputs of University research can become a rapid and ongoing foundation for a commercially viable research and development organisation. The interplay and interdependency between ongoing research programs and 'go to market' strategies drive the emerging ACID model for a sustainable research enterprise and are the heart of our Commercialisation Plan.

As a result, ACID is positioned to be a sound financial investment for each of our participants and shareholders.

# ACID Pty Ltd

ACID is now a company that manages world-class R&D and commercialisation initiatives in interaction design. We find better ways for people to interact using communication technologies. Our design research helps companies get closer to customers. Our scientists, designers, developers, ethnographers and living laboratories help companies really understand consumer behaviour. ACID provides R&D capability for creative applications of IT in smart living, digital media, multi-user environments, virtual heritage, and new models of television advertising. ACID is the premiere experience design IT company in Australia.

# ACID Services Pty Ltd

During 2005–06 ACID established a wholly owned subsidiary company, ACID Services Pty Ltd, to focus on commercialisation of ACID's research. Establishing the spin-off allows the organisation to differentiate between the business of research and the business of commercialisation. As a commercialisation vehicle, ACID Services Pty Ltd:

- now owns 50% of a company that specialises in document collaboration www. codocs.com;
- will be the joint partner in a new company to commercialise our Diversionary Therapy Technologies;
- has a clear R&D capability including expertise in experience design, virtual property services, mobile futures, and user interfaces for software services.

ACID and ACID Services are 'ideas to industry' companies with a focused set of capabilities.

#### In-Kind Contributions

ACID is currently using approximately two-thirds of its contracted in-kind contributions, and we expect to maintain this level for at least the next three years. Nevertheless, we are exceeding the outcomes and milestones specified in the Commonwealth Agreement. In addition, we are commercialising new technology and services and undertaking new opportunities much faster than expected.

Our intellectual property register and catalogue, and this annual report, provide evidence that we are achieving our contracted outcomes.

We are progressing the research at a sustained pace with fewer people provided as in-kind contributions by participants. The realities of getting a CRC up and running in this rapidly changing, highly commercial sector have proved somewhat different than some of our partners anticipated at establishment. As a result some participants found it difficult to see a 'fit' once we began to focus on specific projects and collaborative arrangements. Others found our commercial model 'too' commercial, but the beneficial result has been that we have attracted people and companies from outside the participant group. We have been working side-by-side with various other businesses in our sectors who are giving in-kind resources in addition to resources from our committed participants.

Our tighter focus on aligning research with commercial opportunities means we have continued to deliver on the Commonwealth Agreement while using a lower level of overall resources. In particular:

- we are achieving faster outcomes by utilising different types of resources than those originally contracted; and
- we have attracted in-kind resources from people and companies outside the original participant group.

As a result, we are not requesting the same broad level of in-kind support from our participants as indicated in the Commonwealth Agreement.

ACID will enter into discussions with the Commonwealth in 2006–07 to negotiate a formal variation to our contracted in-kind contributions. We expect our Third Year Review in 2006–07 will demonstrate our delivery of the objectives described in the Commonwealth Agreement. We also expect to show a much more rapid commercialisation capability than was originally expected.

#### **Changes in Participants**

Brisbane City Council, Canterbury Development Corporation and Melbourne University have ceased their connections with ACID due to relevant changes in their own operations. The ACID projects to which they were contributing are continuing with researchers and resources from other ACID participants and partners.

#### Reviews

#### Scientific Advisory Group

ACID's international Scientific Advisory Group (SAG) visited in May 2005 and August 2006 to review our research, projects and operations. During 2005–06 we made a number of refinements as a result of the comments and recommendations made by SAG at their May 2005 visit, which they reviewed in August 2006.

Both the May 2005 and August 2006 SAG reviews provided valuable international feedback and perspectives.

The August 2006 review was carried out over two days: one day of project presentations in Brisbane and by access grid from national locations, followed by one day of meetings in Melbourne with the Research Leaders Group and ACID Board.

SAG commended ACID's efforts and progress. They consider that ACID has made considerable improvement in the portfolio of projects supported, in the overall coherence

of activities, in the focus of research activities, and in the development of a clearer view of the research program. They also commented that ACID has been successful in developing a common culture across a number of sites.

SAG considers that the research projects supported by ACID show considerable promise and nearly all have the potential to make a significant impact. Nevertheless, the projects vary considerably in terms of maturity, scope and level of adventure and ACID must manage and understand them in this context. This is particularly critical in terms of ACID's commercial activities.

The Scientific Advisory Group will next visit ACID in August 2007.

#### Third Year Review

June 2006 marks the end of ACID's third year of operations. We are due to undertake a formal Third-Year Review commencing in September 2006.

#### Key Appointments

At the beginning of 2005–06 ACID had clearly defined an organisational structure and recruited key people into new roles and re-defined positions. These key appointments have led us to the point where we are a very commercially focused R&D company.

#### **Rob Sale, Finance and Operations Director**

Rob Sale, an experienced entrepreneur, joined ACID in August 2005 as Finance and Operations Director. With his help ACID refined its commercial focus, identifying strengths which, along with the recommendations of the Scientific Advisory Group, underpinned ACID's strategic plan for 2006–07. Rob's strong track record in commercialisation positioned him to become a head of an initiative in to commercialise our diversionary therapy technologies through a spin-off company to be formed in the 2006–07 year. Rob will be the founding CEO.

#### Glenn Smith, Development Manager

Glenn Smith joined ACID in January 2006 as Development Manager, to oversee the management of ACID's intellectual property portfolio, assess markets and end users, and generally extract value from research projects. Glenn has been instrumental in finalising the Diversionary Therapy Technologies spin-off.

#### Amanda Boland-Curran, Communication Manager

Amanda Boland-Curran joined ACID as Communication Manager in February 2006 and immediately expanded our capacity to profile ACID and its initiatives. During the short

time Amanda has been with ACID, our projects have been better profiled in industry forums.

# **Looking Forward**

As a result of our successes in 2005–06, we are positioned to take advantage of a variety of commercial opportunities.

However, various internal reviews, including input from the Scientific Advisory Group, have noted that ACID is facing a critical moment in its development. Our organisational structure is complex, and we need to promote and support researcher engagement and embed an entrepreneurial culture across our research activities.

Significant energies have gone into restructuring the organisation, but it is clear from our discussions across the organisation that structures and roles remain unclear and uncertain, and that this is impacting the effectiveness of our research activities.

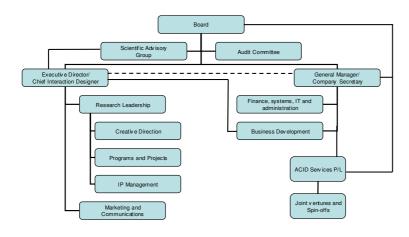
A number of organisational structures for ACID are under consideration, including:

- movie production companies;
- ✓ venture capital/DARPA-style research models;
- ▼ IDEO-style models (www.ideo.com).

ACID will restructure in 2006–07 to refine, but not change fundamentally, the way we work within project teams to commercialise our research outputs.

We have developed a more effective matrix model with a clear role for ACID projects and an explicit relationship to the ACID nodes executing these projects.

# Proposed organisational relationships



# Commercialisation, Technology Transfer and Utilisation

# **Commercialisation/Utilisation Strategies and Activities**

Since the approval of our Commercialisation Plan we have adopted the required strategies for commercialisation and utilisation of research in ways that are effective for delivering intended benefits to industry and other research users. As shown below our commercialisation activities are on target and the milestones are being met or exceeded.

Commercialisation arrangements with industry included two new company formations either finished or under way, a growing revenue base from contract R&D, and four non-commercial licenses executed or under way. We are verifiably creating new or improved products, services and processes that are being taken up by industry.

# Summary of commercial activity

#### Spin-offs

- ACID Services Pty Ltd: ACID's commercialisation subsidiary as described in the approved Commercialisation Plan;
- Codocs Pty Ltd www.codocs.com: new company delivering document collaboration services and developing ongoing links to ACID research expertise;
- Diversionary Therapy Technologies: new company to sell pain management devices used in paediatric burns. Investment term sheet executed and due diligence period finalised early in 2006–07 financial year.

#### Patents

A provisional patent has been filed and granted in Australia for the Diversionary Therapy device; full international patents are under development.

#### Licences

Four non-commercial licenses have been executed or are under consideration:

- Symbian OS and C++ Motion Flow Libraries for an exploration of next generation phone interfaces;
- ▼ C++ Virtual Worlds Libraries to QUT for an airport surveillance application;
- C++ Design Time gesture recognition software to Sparke Technologies in New Zealand for a dental application;
- ✓ .asp libraries licensed as Yodel Services to various research organisations.

# Other

ACID has also registered a number of internet domains in consideration of current research projects and future commercial activity:

- ▼ acid.net.au
- bushfiremitigation.net.au
- ✔ ciphervalley.com
- ✓ creativecommunities.net.au
- ▼ indigenouscommunities.net.au
- ▼ interactiondesign.com.au
- ▼ intimatetransactions.net
- intimatetransactions.com
- intimatetransactions.org

- ▼ mmsme.org
- ▼ mmsme.net.au
- mmsme.net
- ▼ mmsme.com.au
- ▼ suburbancommunities.net
- suburbancommunities.net.au
- virtual-communities.net.au
- ▼ yodelservices.com
- ▼ digitalsonglines.com.au

2005–06 outputs or milestones, including unmet past milestones	Achieved?	Progress during 2005–06 and planned activities in 2006–07	Why output or milestone has not been achieved	Strategies to achieve unmet outputs or milestones
Commercialisation Milesto	nes			
30.1.1 Develop in excess of 20 processes and methods for commercial benefit to the CRC, participants and industry. [2004 & ONGOING]	YES	31 delivered to date.	n/a	n/a
30.1.2 Develop in excess of 20 prototypes for commercial products in content, hardware and software. [2004 & ONGOING]	YES	12 delivered to date.	n/a	n/a
31.1.3 Income achieved through licenses, spin-offs, consulting and other income generation mechanisms. [2006 & ONGOING]	YES	Contract R&D capability grown; revenue generated. Capability to spin off new companies through capital raising; one revenue- generating spin-of established. Capacity to commercialise two to three on-demand internet services platforms. Capability to spin off at least one additional new company in 2007.	n/a	n/a
32.1.2 Establish protocols for the valuation, registration and utilisation of existing participant IP in research [2003 & ONGOING]	YES	ipregistry.acid.net.au generic term sheet contract R&D templates and rate card	n/a	n/a
32.1.3 Establish protocols for the valuation, registration and utilisation of existing participant IP in research [2003 & ONGOING]	YES	ipregistry.acid.net.au Generic term sheet Contract R&D templates and rate card Background IP and Special conditions Schedules in the Project Orders	n/a	n/a

#### **Commercialisation Outputs and Milestones**

2005–06 outputs or milestones, including unmet past milestones	Achieved?	Progress during 2005–06 and planned activities in 2006–07	Why output or milestone has not been achieved	Strategies to achieve unmet outputs or milestones
32.1.4 Establish protocols for joint venture development of IP [2004 & ONGOING]	YES	Commercial MOU templates: • Shareholders Agreement • Constitution • IP Transfer Agreement • R&D contract templates and rate card	n/a	n/a
32.1.5 Establish protocols for setting up spin-offs [2005 & ONGOING]	YES	Investment Term Sheet and templates: Shareholders Agreement Constitution IP Transfer Agreement Subscription Agreement Secondment Agreement Service Level Agreement R&D contract templates and rate card	n/a	n/a
33.1.2 Develop project contract templates for contract R&D [2003 & ONGOING]	YES	R&D contract templates and rate card	n/a	n/a
33.1.3 Establish 'brokering' partnerships with lead agencies in the US, UK, Europe and Japan [2003 & ONGOING]	ON TRACK	Partnership established with Innovation Xchange for intermediary services.	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 & ONGOING]	ON TRACK	ACID HR registry (tied to in-kind reporting). 2006–07 strategic plan as a defined project recruitment process.		

# **Intellectual Property Management**

ACID registers intellectual property and other information extracted from projects centrally on our IP registry and project catalogue – http://ipregistry.acid.net.au. The Commonwealth Agreement sets out the specific research outcomes that are also collected and catalogued as part of a normal set of project management tasks. ACID's Research Technology Manager is charged with maintaining the IP and outcomes catalogue and assisting the process of extracting and registering the elements ACID collects from projects.

Registration of current and past project milestone deliverables and other outputs are collected so that we can report against the Commonwealth Agreement and track the required IP management, protection and registration requirements. In particular all documents and other tangible outputs, including any material IP related to milestone acceptance criteria, are registered. This activity is required as part of clause 4.4 of ACID's Umbrella Project Agreement. The following categories of IP assets form the basis of our IP registry and project catalogue.

	· ·	
Asset Class	Description	Relevant project considerations
Patents	Components of standalone industrial and consumer devices.	Relevant legal advisors to been engaged by ACID as required
Utility Patents	Business Methods – Normally, combinations of software and business process.	Project catalogue should identify possible utility patents. Relevant legal advisors have to engaged by ACID.
Trademarks	Does the project have a unique name and logo that we should register as a trade mark?	ACID needs to keep a registry of IP and how and when it needs to be formally registered. Fees for registering trade marks may not be within the scope of the project.
Domain names	If the project has a unique trademark, does it also have a branded web site and domain name to be registered.	Currently using register.com to register domain names. Registered owner should be ACID until transfer of ownership is required.
Designs	For the design of industrial and consumer devices	Relevant legal advisors to been engaged by ACID as required
Circuit Layouts	For the design of industrial and consumer devices	Normally owned by ACID unless ownership in background IP and information is retained by original owners as per normal commercial practice. May require licensing arrangements.
Trade- secrets	Research methods; Customer engagement methods; Trans-disciplinary R&D processes and procedures.	All students and researchers sign a confidentiality agreement. Specific methods, processes and know-how should clearly be identified.
	Content Scripts	Normally owned by ACID unless ownership in background IP and information is retained original owners as per normal commercial practice. May require licensing arrangements.
	Simulation diagrams and user interfaces	As above
	3-Models	As above
	Graphic and web designs (new)	As above
Copyright materials	Audio sequences	As above
catalogued centrally	Computer programs â€" source code; describe programming language and document files names and functionality	As above
	Animation	As above
	Still Images	As above
	Video sequences	As above
	Background material; brochures, internal documents, etc; plans; design guidelines; course outlines; historical data; census data; etc.	Ownership probably retained by current owners. May require licensing arrangements or other permissions.

# **Intellectual Property Assets**

# **End-User Involvement and Impact**

ACID works closely with industry partners and university researchers to understand the broad technology environment in which we operate. Due to the fast-moving nature of our industry, and the rapid deployment and uptake of new software and hardware by both industry and consumers, it is imperative that we capitalise on opportunities to commercialise research outcomes as early as possible. We are strongly placed to provide a fully integrated approach to the assessment of commercialisation opportunities.

Several of our participants have been involved with researchers in putting forward project applications. Their involvement is key to understanding the needs of industry.

Industry or other research users and basis of interaction	Type and location of activity	Nature and scale of benefits to end users	Actual or expected benefit to user
ACMI	Museum. ACID Supporting Partner. Melbourne Australia.	Procedures for achieving low latency over high-speed networks; Procedures for commissioning creative work in co-located facilities; Methods for mobilising local place-based activity enabled by mobile & online technologies.	Point and tilt games exhibition: ACID technologies used to profile ACMI to approx 12,000 exhibition visitors.
Auran Technologies	Games Developer. ACID Core Participant, Industry Partner. Brisbane Australia.	Indigenous 3D content and interactive programs; Content and methodology demonstrators; Dynamic media content APIs plug-in to software IDEs; New software tools for creating music, animation, textures, 3D structures.	Step-by-step guide to engaging Indigenous Communities; Software tool for implementing multi-user e-learning applications
Bushfire CRC	Research Organisation. Client. Melbourne Australia.	Online bushfire mitigation tool.	Website to be launched in late calendar 2006 for use internationally by homeowners and domestic designers & builders in bushfire-prone locations.
Cyberdreaming	Multimedia Development Company. ACID Core Participant, Industry Partner. Brisbane Australia.	Indigenous 3D content and interactive programs.	Step-by-step guide to engaging Indigenous Communities; Capacity to take up new focus on cultural heritage management; Investment funding and business planning under way.
DOFF Holdings	Multimedia Development Company. Industry Partner. Melbourne Australia.	Expertise in usability and user interfaces for software services.	New company launched: Codocs Pty Ltd.
Heritage Pacific	Property Developer. ACID Core Participant, Industry Partner, Client. Brisbane Australia.	Software tool for master- planned communities allowing integration of content, mobile devices and online ICTs for applications requiring virtual and location-specific components.	Signed term sheet for new company valued at \$2.3 million; Planning for virtual property services company under way; Execution of new company documentation pending.
Horner Institute	Community Development Organisation. Industry Partner, Client. Sydney/Brisbane/Melbourne, Australia.	Prototype urban planning simulation pending further funds and development.	Further funding and development has the potential to exceed \$250K.
imp Systems	Software Developer. ACID Core Participant, Industry Partner. Melbourne Australia.	Multiplatform publishing system and associated methodology; Web-based innovation management software and methodologies.	Platform for multimedia peer review context for researchers engaged in creative practice
Kelvin Grove Urban Village	Property Developer. Client. Brisbane Australia.	Prototype urban planning simulation pending further funds and development.	Further funding and development has the potential to exceed \$250K.

# End User Involvement and Impact

Industry or other research users and basis of interaction	Type and location of activity	Nature and scale of benefits to end users	Actual or expected benefit to user
Nokia Research Center	Research Organisation. Client. Helsinki Finland.	Application of human-centered design methodologies to the testing of computer science assumptions and findings	Ongoing collaborations in 2006–07 and beyond.
Powerhouse Sydney	Museum. Industry Partner. Sydney Australia.	Procedures for achieving low latency over high-speed networks; Procedures for commissioning creative work in co-located facilities; Methods for mobilising local place-based activity enabled by mobile & online technologies.	Various exhibitions at the beta space experimental environment in collaboration with Ute's Creativity and Cognition Studios, involving ACID students and researchers.
QANTM	Digital Media Educator. ACID Supporting Participant. Brisbane Australia.	Content and methodology demonstrators; New software tools for creating music, animation, textures, 3D structures.	Software tool for implementing multi-user e-learning applications.
Queensland Department of Housing	Public Sector Provider and Policy Organisation. Client. Queensland Australia.	Prototype urban planning simulation pending further funds and development.	Further funding and development has the potential to exceed \$250K.
Queensland Department of Public Works	Public Sector Provider and Policy Organisation. Client. Queensland Australia.	Prototype urban planning simulation pending further funds and development; Online bushfire mitigation tool.	Further funding and development has the potential to exceed \$250K; Website to be launched in late calendar 2006 for use internationally by homeowners and domestic designers & builders in bushfire-prone locations.
Royal Children's Hospital Brisbane	Hospital, Research Organisation. Industry Partner, Client. Brisbane Australia.	Development of diversionary therapy technology devices incorporating augmented reality technology in a portable, robust device; Observational studies with clinical staff.	Evidence-based medicine; Clinical trials of device demonstrate significant reduction in pain scores among pediatric burns patients.
Silicon Graphics	Computing, Visualization & Storage Provider. ACID Core Participant, Industry Partner. Sydney/Adelaide/Brisbane/Mel bourne/Perth Australia.	Indigenous 3D content and interactive programs; Dynamic media content APIs plug-in to software IDEs; New software tools for creating music, animation, textures, 3D structures; Rapid software application development tools for multiplatform 3D content.	Step-by-step guide to engaging Indigenous Communities; Content demos and sponsors; Market and technical analysis.

# **Research Activity and Achievements**

# Alignment with Strategy

During 2005–06 ACID consolidated its research activities to reflect the Strategic Plan. Thirty-four projects from Rounds 1–3, which had been structured under five research program areas, were collapsed into five foundation projects:

- Suburban Communities: This interdisciplinary project monitors ICT trends and opportunities to develop and trial ICT tools to satisfy identified community and residential needs using real-life laboratories and test-bed communities. The project will develop tools and toolkits, such as the Future Community Ethnography Toolkit and the Community Digital Assistant, for social studies and trials in residential and neighborhood communities;
- Creative Communities: This project coordinates the development of innovative processes and technologies across three areas of contextual studies: public cultural events, online creative communities and generative art/design practitioners. It is identifying new processes for assisting the establishment and containment of creative communities, as well as new dynamic software that supports creative activities;
- Virtual Communities: This project explores how different types of organisations require and handle collaboration, particularly idea generation and evaluation. The research focuses on how collaborators understand their roles within a task, project or organisation, and how these understandings impact on the task. The project also explores the approaches that should be employed to study collaborative work and what tools and techniques can assist collaboration. Industry partners present particular contexts of the challenge of facilitating collaboration;
- Indigenous Communities: This project aims to protect, preserve and promote Australian Indigenous Culture, practices, myths and legends, and connection to the land. It is building a virtual landscape of oral histories and mythological stories. The project is helping Indigenous Communities maintain their culture and identity, as well as developing frameworks, toolkits and protocols for validation of data which will provide important benchmarks for the development of other 3D virtual worlds
- New Models of Television Advertising: This research project focuses exclusively on new models of television advertising. It recognizes that although change may be inevitable, any solutions which brands explore will need to evolve from existing approaches – that is, they must be consistent with existing brand values and character. The project focuses on better understanding audience demand and how

audiences respond to digital capabilities already feasible, even though specific applications associated with such solutions might still need to be developed.

# **Changes to Funding Methodology**

In August 2005 ACID launched its fifth round of project funding, with major changes aimed at addressing comments from the Scientific Advisory Group and ensuring projects focus on the research outcomes in the Commonwealth Agreement.

The following changes were made:

- ✓ ACID called for research proposals in line with the five foundation projects;
- ✓ A maximum budget was set at \$250,000 per project;
- ✓ A single application process was introduced;
- Each research proposal was required to include a three-year outline with detailed outcomes and budget for the first year;
- Pre-application workshops were held to allow research leaders, industry partners and researchers to meet before submitting an application;
- ✓ Post-graduate students were aligned to strategic areas;
- Quarterly project reviews were standardised and scheduled to fall due on the same date across all projects.

#### **Key Research Achievements**

Research associated with the Virtual Communities project (multi-user environments) underpinned the development by ACID and DOFF Holdings of online document collaboration tools and the spinoff of Codocs Pty Ltd as a new company to deliver them as a marketable product.

Collaborative research between ACID and the Royal Children's Hospital Brisbane led to the development and clinical trial of diversionary therapy devices which reduce pain scores in paediatric burns patients. This project has been an exemplar in collaboration spanning creative industries, physical sciences and medicine. ACID and an external investor are preparing documentation to formalise the spinoff of a new company to exploit this research and the commercial opportunities presented by the technology.

ACID's Indigenous Communities project delivered Digital Songlines, a virtual repository for Indigenous cultural heritage, which won a Merit Award in the education and training category of the Australian Information Industry Association's 2006 iAwards. In November 2005, ACID final-year PhD student Marcus Foth was awarded an Australian Research Council Postdoctoral Fellowship for a three-year study to map the use of new media and ICT that support social capital in the Kelvin Grove Urban Village.

# **Refereed Publications**

See Appendix B on page 51.

# Contract R&D

In 2005–06 ACID deliberately sought out and took up commercial research and development contracts which add value to the core research programs.

New industry-based partnerships have been established, providing new contexts for validation of research outside our shareholder partnership environment. These have included:

- a bushfire mitigation tool for residential application, for the Queensland Department of Public Works and undertaken by ACID in conjunction with the Bushfire CRC;
- the SCAPE urban planning simulation, funded by the Queensland Department of Housing and QUT and undertaken by ACID in conjunction with the Hornery Institute;
- ▼ a virtual community development study, for the Mater Private Hospital Brisbane;
- the application of human-centred design methodologies to the testing of computer science assumptions and findings, for the Nokia Research Center Finland.

# **National Priorities**

Although our research program is not driven by the National Research Priorities, we continue to make significant contributions to the priorities, particularly Frontier Technologies for Building and Transforming Australian Industries: Smart Information Use, and Promoting an Innovation Culture and Economy.

We develop ICT platforms that enable practitioners within the creative industries to develop novel end-user experiences with emerging technologies.

For example, we have developed:

- ✓ a unique set of motion flow libraries for mobile phones;
- an ICT platform to enable the creation and deployment of location-based SMS games;

- the Design Time platform, allowing for the rapid creation of applications to make sure of gesture recognition without the need for laboratory analysis;
- a platform that improves the efficiency of new product testing by combining interaction design principles with secure online testing;
- software and devices that enable graphic designers to create and use photo-realistic 3D models acquired automatically from images.

# **Research Collaborations**

# **External Collaboration**

In addition to our consultancy R&D contract work, ACID participated in a number of external research collaborations during the year.

For example, we participated in the HxI Experts Workshop with NICTA, CSIRO and DSTO. ACID researchers also collaborated intimately with the Gungarri people of South-West Queensland on 'Irene's World', the first iteration of the Digital Songlines cultural heritage tool. And ACID commenced a collaboration with the CRC for Spatial Information on the Virtual Australia project.

We intend to value-add our project research by building strategic relationships with new industry partners and external funding sources, and by extending our external partnerships into longer-term relationships, to reduce our reliance on internal ACID funding for research capacity.

#### Internal Collaboration

Our contract R&D work is providing opportunities for researchers within different ACID programs and projects to share expertise and collaborate on specific deliverables.

We communicate these projects across the organisation, and identify additional opportunities for cross-organisational collaboration, at our Innovation Forum and internal showcase events. ACID held an Innovation Forum on 12 October 2005 and a showcase event on 28 June 2006.

#### State Government Support

The Queensland Department of State Development, Innovation and Trade provided financial support to ACID in 2005–06:

- ✓ a one-off development grant of \$32,800 for the Diversionary Therapy project
- ✓ operating grants of \$50,000 per year for four years.

## Looking Forward

No significant changes to ACID's research program are planned for 2006–07. We will build on last year's alignment of our research with our vision and strategic direction.

ACID projects will be required to focus on delivering on the objectives articulated in the Commonwealth Agreement, research quality and commercial impact.

2005–06 outputs or milestones, including unmet past milestones	Achieved?	Progress during 2005–06 and planned activities in 2006–07	Why output or milestone has not been achieved	Strategies to achieve unmet outputs or milestones
Research Milestones (Com	monwealth A	greement)		
1.1.3 Design methods (some technology based) for understanding and evaluating new forms of distributed community- based activity and communication [2006]	YES	Variations of a foundation method have been developed, based on design-driven ethnographic models.	n/a	n/a
1.2.1 Establish sites for evaluating end-user experiences with new devices and software; deploy and evaluate technologies in communities [2006–07]	YES	Three foundation projects have worked closely with pilot living laboratories. Ethics guidelines have been established. Engagement strategy for living laboratories due 2007.	n/a	n/a
2.1.1 Develop prototype design specifications for interface devices, content and software tools for use in the CRC's key industries. [2006]	YES	Prototype design specifications have been developed and deployed in existing communities.	n/a	n/a
5.1.2 Develop models for storing and analysing media based on techniques drawn from affective computing, machine learning, pattern recognition and pattern/symbol manipulation [2006]	YES	Processes have been developed and are being refined. Media asset storage models documented.	n/a	n/a
5.2.2 Develop models for interaction with media recorded through techniques drawn from affective computing, machine learning, pattern recognition, and pattern/symbol manipulation. [2006]	YES	Processes have been developed and are being refined.	n/a	n/a
5.3.2 Develop models of technology convergence based on interactive narrative genres. [2006]	YES	Models developed that connect web-based and mobile phone technologies around a common narrative.	n/a	n/a

### **Research Outputs and Milestones**

2005–06 outputs or milestones, including unmet past milestones	Achieved?	Progress during 2005–06 and planned activities in 2006–07	Why output or milestone has not been achieved	Strategies to achieve unmet outputs or milestones
6.1.2 Develop methods for integrating metadata standards, with interoperability requirements and the archiving of digital media assets. [2006]	YES	Our virtual heritage tools have been developed in consideration of cultural heritage management and registration process that uses the UN meta-data standards for virtual heritage.	Work in metadata standards began with ACMI researchers in 2004, but ceased when those researchers left ACMI.	Post doctoral fellow based at QUT has undertaken this work and has finalised the integration of meta-data functions into various ACID software libraries
8.1.2 Define processes for creation and development of hardware, content and software [2006]	YES	A specification for the rapid creation of spatialised audio content and a design for easy creation of location based activities completed.	n/a	n/a
9.1.2 Develop narrative structures and spatial metaphors that efficiently support new client-server systems and account for lag critical interactions amongst users (and their online representations). [2006]	YES	Metaphors have been found to be effective in development of narratives and spatial structures, as has the use of gestures as new modes of interaction with mobile phones.	n/a	n/a
9.2.2 Demonstrate how users can visually change visual and spatial attributes in virtual worlds through limited options and enhancements which may include sophisticated retexturing and remodelling techniques. [2006]	YES	Techniques developed for generative positioning of image and sonic elements in a 3D virtual world. Applied to a virtual version of an audio visual artwork and to ACID's virtual indigenous worlds.	n/a	n/a
10.1.2 Document markets and develop product plans for new digital media applications and development tools. [2006]	YES	Possible business models canvassed for creative media content systems.	n/a	n/a
10.1.2 Establish relationships with commercial partners. [2006]	YES	New relationships formed with more than eight program and commercial partners	n/a	n/a
11.1.2 Develop methods for integrating intellectual property. [2006]	YES	ACID's IP registry is a catalogue and registration process which clearly identifies ownership issues for each type of IP asset registered (http://ipregistry.acid.net.au).	n/a	n/a
12.1.2 Define best practice standards for integrating physical and digital communications and media assets to create connected information environments. [2005–06]	YES	Documented: physical device & media asset configurations for group interaction across high bandwidth networks; methods for use of public displays in community settings; methods for users to create location-based experiences; methods and technologies for awareness of presence over distributed networks	n/a	n/a

2005–06 outputs or milestones, including unmet past milestones	Achieved?	Progress during 2005–06 and planned activities in 2006–07	Why output or milestone has not been achieved	Strategies to achieve unmet outputs or milestones
12.1.3 Define security and user identification requirements for connected digital communities. [2004–06]	ON TRACK	Security and user ID requirements specified for ACID IP registry. Models and demonstrators being defined for federated identity platforms within distributed organisations.	n/a	n/a
15.1.3 Implement methods that specify skills, hardware and software requirements of technology-based heritage capture and production. [2006]	YES	Innovative cultural heritage capture, production and publishing tool developed in conjunction with Indigenous Communities. Successful trials concluded.	n/a	n/a
16.1.2 Determine hardware and software tools required to remotely capture Australian heritage [2006]	ON TRACK	Mobile Mnemonic device presented. On track for completion by December 2006.	n/a	n/a
16.1.3 Determine hardware and software requirements for tools that integrate data captured from diverse digital media sources and acquisition technologies [2006]	ON TRACK	Mobile Mnemonic device presented. On track for completion by December 2006.	n/a	n/a
Research Milestones (Sup	plementary Fu	Inding Bid)		
1.1.1 Expand Interactive Television Research Institute's (ITRI) current research facilities – small capital expenditures that provide the research technologies required to undertake the 24 proposed studies over three years. [JUL 05]	YES, APR 06	Completed upgrade of ITRI Facilities in Quarter 2, as reported in Q2 report, April 2006.	n/a	n/a
1.1.2 Conduct a series of 24 interactive advertising research studies for industry partners over 3 years (8 per year). [ONGOING]	YES & ONGOING	Seven reports complete at July 2006.	n/a	On track to have all 24 reports completed by the end of Year 3.
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	Ongoing & documented in confidential project reports.	n/a	n/a
1.2.1 Conduct research using existing systems to identify areas in need of improvement and develop the technical specifications for the research program. [JUL 05]	YES, DEC 05	Also ongoing in terms of constant feedback on use of proprietary system from industry partners and ITRI.	n/a	n/a
1.2.2 Develop analysis suite prototype (non- integrated). [DEC 05]	YES, JUN 06	Completed prototype program	n/a	n/a

2005–06 outputs or milestones, including unmet past milestones	Achieved?	Progress during 2005–06 and planned activities in 2006–07	Why output or milestone has not been achieved	Strategies to achieve unmet outputs or milestones
2.1.1 Document methods for defining needs by understanding organisational contexts and expertise gaps (gaps are barriers to commercialisation) at all organisational levels. [JUL 05]	YES	Completed & documented.	n/a	n/a
2.1.2 Document methods for case-by-case analysis of industry contexts (incl. how to select each context), that allow for the understanding and supporting of creative and commercial processes. [July 06]	YES	Reported in Beyond :30 study reports	n/a	n/a
2.3.1 Evaluate and customise existing collaboration environments that allow multiple teams to create, view and document new ideas. [AUG 05]	YES	Completed through development of prototype and collaboration online and a range of existing collaborative tools	n/a	n/a
2.5.1 Develop the technical specifications for the RPP platform. [OCT 05]	YES, MAR 06	Manual complete at Q2 (March 2006).	n/a	n/a
2.5.2 Build the prototype Rapid Prototyping Platform [Dec 06]	YES	Prototype complete at June 2006 and deployed with industry partners.	n/a	n/a

				Rese	arch Pro								Contra	ct R&D			
	Virtual Communities	Suburban Communities	Creative Communities	Indigenous Communities	Mobile Communities	Beyond :30 & Rapid Testing	ACID Press	Human Dimensions Methodology	Virtual Worlds	Cipher Platform	Diversionary Therapy	Bushfire Mitigation Tool	Codocs	SCAPE: KGUV Urban Planning Simulation	Mater Hospital Consultancy	Vritual Genesis	Nokia Pocket project
ACMI									-						_		
Auran																	
Bushfire CRC																	
CyberDreaming																	
D&F Holdings																	
Heritage Pacific																	
HITLabNZ																	
Hornery Institute																	
iMAP																	
Kelvin Grove Urban Village																	
Murdoch																	
Niche Studios																	
Nokia Research Centre																	
Powerhouse Sydney																	
QANTM																	
Qld Dept of Housing																	
Qld Dept of Public Works																	
Qld Dept of State Development																	
QUT																	
RMIT																	
Royal Children's Hospital Brisbane																	
Silicon Graphics																	
UQ																	
UTS																	
Virtual Realms																	

## The ACID Quilt: the texture of collaboration

## **Education and Training**

During 2005–06, the ACID Education Program built on previous years' successes and contributed to the ACID Research Program.

Over the year, 46 potential students registered their interest with ACID. Twenty-two students received scholarships, including nine international students from Singapore, Hong Kong, Germany, Norway and France.

Each ACID student is associated with a specific ACID project and their research contributes to project outcomes. Because each project has an industry sponsor and engagement, students have direct access to industry partners. In some cases, industry partners are also associate supervisors.

Student/industry involvement is monitored via quarterly reviews with industry partners.

Further industry involvement in education comes from end-user input into the Faculty Advisory Board, Creative Industries Faculty, QUT. And ACID gave back to industry this year by delivering a Location-Based Game development workshop.

ACID is on track to meet its student recruitment and supervision targets. As at 30 June 2006, ACID had 22 new and continuing students at Honours, Masters and PhD level. Three new students will join ACID in 2006–07, and we expect to offer 10 new intake scholarships in 2008. By the end of 2008, we expect 52 students will have completed studies through ACID.

This year, the second cohort of six ACID students completed their studies and submitted theses. Of those, two have taken up academic positions in multimedia and game design, one has joined a game design company as Team Leader, one has taken a post-doctoral position with the Institute for Creative Industries and Innovation, two are undertaking further study.

In 2005–06 we introduced a number of initiatives to add value to the students' association with ACID:

- All new students participated in a student orientation day in March 2006; this is an annual induction program;
- Monthly ACID Speakeasies offer opportunities for students to participate in discussions with Project Leaders and team members; this is available to students in both Brisbane and other nodes via access grid;

- The ACID Innovation Forum on 12 October 2005 allowed students to showcase their work alongside project researchers, and to engage with other researchers and the public; this public event was scheduled to coincide with the annual student conference so that more students could attend by consolidating travel arrangements;
- Students contributed content to the August 2006 visit of the Scientific Advisory Group, providing students with international critique.

ACID students are located at a number of universities across Australia, making geographical dispersion a challenge. We addressed this with a higher uptake of video conferencing via access grid, including installing a dedicated access grid node at each participating institution over the course of the year.

Looking forward, the ACID Education Program will further enhance value for students:

- ✓ We will focus in 2006–07 on professional development programs for all students;
- We will continue to address the geographical dispersion of students; for example, by holding the 2006 student conference in Sydney rather than at ACID's home campus (QUT in Brisbane);
- ✓ We will introduce a National Indigenous Scholarship in July 2007;
- We will continue to work with partner universities to address the ongoing administrative challenge relating to timely processing of scholarship project orders by partner universities.

## **Research Scholarships**

See Appendix C on page 57.

#### **Education and Training Outputs and Milestones**

2005–06 outputs or milestones, including unmet past milestones	Achieved?	Progress during 2005–06 and planned activities in 2006–07	Why output or milestone has not been achieved	Strategies to achieve unmet outputs or milestones
20.2.3 Define education and project pathways from vocation and undergraduate courses to research and R&D projects. 2005–06	YES	Honours students and non-RHD undergraduate students involved in specific ACID projects via course work and internships. UG students participate in ACID seminars and annual student conference. Student engagement with ACID is monitored.	n/a	n/a

## **Communication Strategy**

## Goal

ACID's Communication Strategy has a single overarching goal: to support the business strategy as articulated in the Commonwealth Agreement and other relevant documents. All communication activities are framed in line with the overall business strategy and direction.

## **Objectives**

Within that overarching goal, our objectives include:

- strengthen stakeholder relationships
- ▼ build and protect ACID's brand
- develop good governance and practice in communication activities
- continuously improve ACID's communication activities so they best support the business strategy.

#### Stakeholder Relationships

During the 2005–06 year, ACID has consolidated its communication activities targeting stakeholders, particularly SME industry partners, increasing their direct participation in our research and education activities.

#### ACID Brand

In 2005–06 ACID pursued a number of opportunities to build the brand among our target audiences, with particular attention to new, non-academic audiences. In addition to our existing brand-building work within academic fields, we participated actively in professional and industry organisations and awards programs; took up a number of media opportunities including television, radio and press; and participated in exhibitions and installations demonstrating our work.

#### **Good Governance and Practice**

We have begun a program of developing and updating communication-related practices, policies and procedures. These will give ACID's staff and researchers clear guidelines on the organisation's communication activities, advice on how best to exploit their own communication opportunities within the ACID structure, and support to do so.

#### **Continuous Improvement**

Towards the end of the 2005–06 financial year, we started assessing all existing communication channels to search for opportunities for improvement and gaps in our

communication activities. This will become a permanent, ongoing aspect of ACID's communication approach, with the aim of ensuring that all our activities are delivering optimal support to the business strategy in line with world's best practice.

#### Awards

Community Informatics Research Network, Best Paper Award (runner up), August 2005.

Foth, M., & Adkins, B.

A Research Design to Build Effective Partnerships Between City Planners, Developers, Government and Urban Neighbourhood Communities. In proceedings: 2nd annual conference of the Community Informatics Research Network (CIRN) (pp. 341-354).

# Australian Information Industry Association 2006 iAwards, Award of Merit for Education & Training, April 2006.

Digital Songlines.

**Prix Ars Electronica 2005, Honorary Mention, Interactive Art, September 2005.** Intimate Transactions.

## **Exhibitions & Presentations**

#### Intimate Transactions installations.

Ars Electronica, Linz, Austria. September 2005; Institute of Contemporary Arts, London, UK. November 2005; Bios, Athens, Greece. November 2005; Artspace, Sydney, Australia. May 2006; To be presented simultaneously in Brisbane and Cairns, Australia during the Brisbane Festival. 15–22 July 2006.

#### Mobile Entertainment - Point & Tilt exhibition.

ACMI, Melbourne, Australia. October-December 2005.

**Parallel Worlds installation and workshop with Canadian artist Stacey Spiegal.** Institute of Modern Art, Brisbane, Australia. 12–14 November 2005.

#### Digital Songlines demonstration.

United Nations World Summit on the Information Society, Tunis, Tunisia. 16–18 November 2005.

#### Digital Songlines launch.

Mitchell State School, Mitchell, Australia. 5 April 2006.

#### CRCA Conference, CEO Workshop.

Brisbane, Australia. 17 May 2006.

# CRCA Conference, short presentation to joint session of Education Managers and Communication Managers.

Muhlberger, R. and Rittenbruch, M. Supporting and Enhancing Virtual Communities. Brisbane, Australia. 17 May 2006.

#### ACID Innovative Living Month.

Demonstrations and installations at Innovation House 2, Heritage Pacific Genesis development, Gold Coast, Australia. June 2006.

**Digital Songlines installation.** Dreaming Festival, Woodford, Australia, 9–12 June 2006.

## **Diversionary Therapy poster.** Commercialisation Expo, Melbourne, Australia. 18–20 June 2006.

**Trade Show exhibit by Creative Industries Precinct, ACID participation.** 2nd China International Animation and Games Festival, Shanghai, China. 25–28 June 2006.

## I-Wall installations. Interactive digital notice-board display system installed in public venues, allowing the community to add and alter content using their mobile phones.

UTS City Campus, Sydney, Australia. June 2006.

Heritage Pacific Genesis development, Gold Coast, Australia. June 2006.

To be presented at Sydney Esquisse annual art and design festival, Customs House, Sydney, Australia. August 2006.

#### Looking Forward

Like any SME, ACID's resources available to the communication function are finite and limited. Within those constraints, our communication strategy will move forward to build on the goal and objectives outlined above.

In 2006–07 we will particularly attend to further enhancing both our stakeholder relations program and our provision of centralised communication support to ACID projects, spin-offs and subsidiaries.

# **Performance Measures**

## **CRC Programme Objective 1:**

Enhance the contribution of long-term scientific and technological research and innovation to Australia's sustainable economic and social development.

ACID Objectives	Performance Measures	Start Year	2004	2005	2006
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.	2003	5	36	34
Demonstrate new interactive content, and hardware and software prototypes in user-driven contexts 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.	2003	5	8	43
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.	2003	\$300K*	\$750K*	\$216K <sup>#</sup>

\* projected <sup>#</sup> actual invoiced in 2005–06 (less than full value of contract awarded)

## **CRC Programme Objective 2:**

Enhance the transfer of research outputs into commercial or other outcomes of economic, environmental or social benefit to Australia.

ACID Objectives	Performance Measures	Start Year	2004	2005	2006
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.	2003	5	12	46
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.	2003	3	10	11
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. [metric = subscription fees and contract \$]	2003	\$100K*	\$200K*	\$120K <sup>#</sup>

\* projected

<sup>#</sup> actual invoiced in 2005–06 (approximate conversion of 70,000 euros)

## **CRC Programme Objective 3:**

Enhance the value to Australia of graduate researchers.

ACID Objectives	Performance Measures	Start Year	2004	2005	2006
Delivery of a critical mass of new research talent into an emerging industry	40–50 PG students working collaboratively in cross-disciplinary, cross-institutional international projects with options to participate in CRC-sponsored online education and training courses. Integrate UG students.	2003	7 PhD 5 Mast 1 Hons	8 PhD 5 Mast	17 PhD 2 Mast 3 Hons
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	2003	Done	Done	Done
Enhance existing education programs in interaction design across vocational, UG and PG programs.	Up to 30 short courses developed from research output and taught to both internal and external clients.	2003	1	3	3

## **CRC Programme 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.

ACID Objectives	Performance Measures	Start Year	2004	2005	2006
Research programs are designed to benefit from the multiple competencies that reside in the CRC's partners.	Project proposals must demonstrate at least two university partners working in a multi-disciplinary, multi- nodal capacity.	2003	Done	Done	Done
Research is designed to respond to user needs	Project proposals must demonstrate user input and at least one industry participant.	2003	Done	Done	Done
Whenever practical, international collaborators are involved in projects to enhance the global perspective.	In excess of three projects will have international researcher involvement. The education program involves three international partners working collaboratively on one project per year.	2003	1	4	5

# **Appendix A: Specified Personnel**

Specified Personnel	Contributing Organisation	Position	% Time contributed to CRC activities	Changes during the year
Jeff Jones	ACID	Chief Executive Officer	100%	—
Sam Bucolo	ACID	Research & Development Director	100%	appointed Aug05
Rob Sale	ACID	Finance & Operations Director	100%	appointed Aug05
Jana Baranovic	ACID	Business Manager	100%	_
Amanda Boland-Curran	ACID	Communication Manager	100%	appointed Feb06
Glenn Smith	ACID	Development Manager	100%	appointed Jan06
Michael Docherty	ACID	Education Director	100%	—
Sheridah Puttick	ACID	Education Officer	100%	appointed Aug05
Chen Reed	ACID	Network & Systems Manager	100%	
Harpreet Singh	ACID	Research Technology Manager	100%	appointed Jan06
Ali Kerr	ACID	Office Manager	100%	—
Rosie Hill	ACID	Administration Officer	100%	appointed Jan06
Kathleen Chivers	ACID	Reception	100%	appointed Apr06
Miranda Forwood	ACID	Researcher	100%	appointed Mar06
Yang Wong	ACID	Researcher	100%	appointed Jan06
Paul Holland	ACID	Consultant	60%	appointed Jan06
Kim Montgomery	ACMI	Researcher	20%	—
Gael McIndoe	ACMI	Researcher	10%	—
Vincent Trundle	ACMI	Researcher	10%	appointed Jan06
Mike Stubbs	ACMI	Researcher	20%	—
Tony Sweeney	ACMI	Node Coordinator	5%	—
Graham Edelsten	Auran	Industry Partner	5%	—
Greg Lane	Auran	Industry Partner	10%	—
James Paulsen	Corporation Builders	Node Coordinator	5%	_
Brett Leavy	Cyberdreaming	Researcher	100%	—
Wayne Wharton	Cyberdreaming	Researcher	10%	appointed Oct05
Paul Barrett	Heritage Pacific	Industry Partner	10%	—
Alison Hedger	Heritage Pacific	Industry Partner	10%	—
Stephen Harrison	Heritage Pacific	Industry Partner	10%	—
Brett McDonald	Heritage Pacific	Industry Partner	10%	
Jill McDonald	Heritage Pacific	Industry Partner	10%	appointed Oct05
Mark Billinghurst	HITLabNZ	Research Leader	30%	—
Nathan Gardiner	HITLabNZ	Researcher	5%	appointed Oct05

Specified Personnel	Contributing Organisation	Position	% Time contributed to CRC activities	Changes during the year
Marilyn Lim	HITLabNZ	Researcher	5%	—
Amanda Mander	HITLabNZ	Researcher	10%	appointed Oct05
David Sickinger	HITLabNZ	Researcher	5%	appointed Jan06
Mark Irving	iMAP	Industry Partner	10%	_
John Grant	iMAP	Industry Partner	10%	_
Barry Miskin	iMAP	Industry Partner	10%	_
Tim Morrison	Murdoch Uni	Node Coordinator	5%	_
Reece Plunkett	Murdoch Uni	Research Assistant	40%	appointed Jan06
Mark Gibson	Murdoch Uni	Researcher	10%	appointed Oct05
Ingrid Richardson	Murdoch Uni	Researcher	20%	—
Kirsty Best	Murdoch Uni	Researcher	10%	appointed Oct05
Duane Varan	Murdoch Uni	Research Director (ITRI)	20%	_
Steve Bellman	Murdoch Uni	Deputy Research Director (ITRI)	50%	—
Anika Schweda	Murdoch Uni	Project Manager	100%	appointed Sept05
Debbie Norman	Murdoch Uni	Researcher	100%	appointed Sept05
Georgia Drake	Murdoch Uni	Administration Assistant	5%	—
Cheryl Clarence	Murdoch Uni	RA Coordinator / Administration Assistant	100%	_
Anna Hynd	Murdoch Uni	Research Assistant	100%	appointed Sept05
Emily Fielder	Murdoch Uni	Research Assistant	100%	_
Lisa Critchley	Murdoch Uni	Research Assistant	40%	—
Kristina French	Murdoch Uni	Research Assistant	53%	—
Petra Skeffington	Murdoch Uni	Research Assistant	100%	appointed Feb06
Mel Robson	Murdoch Uni	Research Assistant	100%	appointed Sept05
Vivien Kemp	Murdoch Uni	Research Assistant	100%	appointed Sept05
Joel Murray	Murdoch Uni	Research Assistant	40%	appointed Mar06
Chris Winkler	Murdoch Uni	Research Assistant	65%	appointed Apr06
Joey Kaur Bal	Murdoch Uni	Research Assistant	100%	appointed Mar06
Laura Majewski	Murdoch Uni	Research Assistant	90%	appointed Apr06
Michael Gell	Murdoch Uni	Programmer	70%	appointed Sept05
Trevor McDade	Murdoch Uni	Programmer	70%	appointed Nov05
Karl Dyktynski	Murdoch Uni	Technology Officer	100%	<b> </b> _
Elizabeth Zajc	Murdoch Uni	Research Assistant	50%	appointed May06
Hanadi Haddad	Murdoch Uni	Research Officer	95%	appointed Mar06
David Teo	Murdoch Uni	Production Assistant	50%	appointed Aug06

Specified Personnel	Contributing Organisation	Position	% Time contributed to CRC activities	Changes during the year
John Moss	QANTM	Industry Partner	10%	appointed Oct05
Oliver Britz	QUT	Node Coordinator	5%	—
Peter Lavery	QUT	Researcher	20%	—
Stuart Cunningham	QUT	Researcher	20%	—
Jude Smith	QUT	Researcher	20%	—
Andy Arthurs	QUT	Researcher	20%	_
Graham Kerr	QUT	Researcher	20%	_
Cheryl Stock	QUT	Researcher	20%	_
Gavin Sade	QUT	Researcher	20%	—
Brad Haseman	QUT	Researcher	20%	_
Dianne Eden	QUT	Researcher	20%	—
Leonard Meechan	QUT	Researcher	20%	—
Bernadette Savage	QUT	Researcher	20%	—
Greg Hooper	QUT	Researcher	30%	_
Daniel Johnson	QUT	Researcher	20%	—
Andrew Brown	QUT	Program Manager	75%	—
David McKinnon	QUT	Post Doctoral Fellow	100%	appointed Mar06
Greg Hearn	QUT	Research Leader	20%	_
Stephen Pincus	QUT	Researcher	5%	appointed Oct05
Daniel Mafe	QUT	Researcher	20%	—
Chris Barker	QUT	Researcher	10%	—
Jane Turner	QUT	Researcher	60%	appointed Nov05
Joti Carroll	QUT	Researcher	100%	appointed Oct05
Craig Gibbons	QUT	Researcher	100%	appointed Oct05
Brendan Ledwich	QUT	Researcher	50%	appointed Oct05
Richard Vella	QUT	Project Manager	50%	appointed Jul05
Axel Bruns	QUT	Researcher	100%	—
Robert Davidson	QUT	Researcher	5%	appointed Jul05
Steve Dillon	QUT	Researcher	20%	appointed Jul05
Erica McWilliam	QUT	Supervisor, Indigenous Communities	5%	appointed Oct05
Christy Collis	QUT	Supervisor, Indigenous Communities	5%	appointed Oct05
John Banks	QUT	Supervisor, Indigenous Communities	5%	appointed Oct05
Allison Brown	QUT	Supervisor, Indigenous Communities	5%	_
Joanne Jacobs	QUT	Program Manager	100%	appointed Sept05
Deb Polson	QUT	Researcher	100%	_
Barbara Adkins	QUT	Researcher	40%	—

Specified Personnel	Contributing Organisation	Position	% Time contributed to CRC activities	Changes during the year
Leigh Petersen	RMIT	Node Coordinator	20%	—
Yolande Strengers	RMIT	Researcher	20%	appointed Oct05
Jeremy Yuille	RMIT	Program Manager	40%	—
Andrea Babon	RMIT	Researcher	20%	appointed Oct05
Mike Berry	RMIT	Researcher	10%	appointed Oct05
Mark Burry	RMIT	Research Leader	10%	_
Anitra Nelson	RMIT	Project Manager	60%	appointed Oct05
Arianna Wilson	RMIT	Project Coordinator	40%	appointed Oct05
Fiona Peterson	RMIT	Researcher	40%	appointed Dec05
Fiona Peterson	RMIT	Supervisor, Virtual Communities	5%	appointed Jan06
Laurene Vaughan	RMIT	Researcher	40%	appointed Sept05
Daria Loi	RMIT	Researcher	20%	appointed Dec05
Jane Burry	RMIT	Researcher	10%	_
Lawrence Harvey	RMIT	Researcher	5%	—
Yoko Akama	RMIT	Researcher	20%	appointed Sept05
John Power	RMIT	Supervisor, Virtual Communities	5%	appointed Jan06
Bill Trestrail	SGI	Node Coordinator	5%	—
Nick Conomo	SGI	Node Coordinator	10%	—
James Hills	SGI	Program Manager	40%	—
Todd Churchward	SGI	Researcher	10%	—
John Mott	UQ	Node Coordinator	5%	_
Penny Sanderson	UQ	Researcher	20%	—
Brian Lovell	UQ	Researcher	20%	_
Ann Morrison	UQ	Researcher	20%	—
Matt D'Souza	UQ	Research Assistant	20%	appointed Oct05
Margot Brereton	UQ	Research Leader	20%	—
Ian MacColl	UQ	Project Manager	40%	—
Adam Postula	UQ	Researcher	20%	appointed Oct05
Fiona Redhead	UQ	Researcher	20%	appointed Oct05
Ralf Muhlberger	UQ	Researcher	40%	appointed Dec05
Stephen Viller	UQ	Researcher	40%	—
Matthew Simpson	UQ	Researcher	20%	—
Theodor Wyeld	UQ	Researcher	10%	—
Markus Rittenbruch	UQ	Researcher	100%	appointed Jan06
Roslyn Cooper	UQ	Researcher	50%	appointed Dec05

Specified Personnel	Contributing Organisation	Position	% Time contributed to CRC activities	Changes during the year
Mary Laughren	UQ	Supervisor, Indigenous Communities	5%	appointed Oct05
Chris Caines	UTS	Researcher	20%	appointed Jan06
Ernest Edmonds	UTS	Project Manager	20%	appointed Jan06
Ross Gibson	UTS	Researcher	5%	appointed Oct05
lan Gwilt	UTS	Researcher	20%	appointed Jan06
Steve Hatzellis	UTS	Researcher	20%	appointed Oct05
Cameron Tonkinwise	UTS	Researcher	10%	appointed Oct05
Yusuf Pisan	UTS	Researcher	20%	appointed Dec05
Chris Bowman	UTS	Researcher	5%	appointed Jan06
Shigeki Amitani	UTS	Post Doctoral Fellow	100%	appointed Mar06
Deborah Turnbull	UTS	Personal Assistant	20%	appointed Apr06
Greg Turner	UTS	Researcher	30%	appointed Jan06
Zafer Bilda	UTS	Research Assistant	50%	appointed Jan06
Lizzie Muller	UTS	Post Doctoral Fellow	100%	appointed Jan06
Alastair Weakley	UTS	Post Doctoral Fellow	100%	appointed Jan06
Toni Robertson	UTS	Supervisor, Suburban Communities	10%	appointed Jan06

The following people were involved with ACID and have moved on. We thank them for their contributions to the organisation.

Specified Personnel	Contributing Organisation	Position	Percentage of time contributed to CRC activities
Kelina Miller	ACID	Communication Officer	100%
Gavin Winter	ACID	Research Technology Manager	100%
Richard Wray	ACID	Business Development Manager	100%
Storm Griffin	ACID	Research Coordinator	100%
John Banks	Auran	Researcher	40%
Richard Green	HITLab	Researcher	20%
Desmond Taylor	HITLab	Researcher	20%
Kathy Trees	Murdoch Uni	Researcher	20%
Andrew Turk	Murdoch Uni	Researcher	25%
Michael Broderick	Murdoch Uni	Researcher	20%
Nicola Ritter	Murdoch Uni	Researcher	25%
Vicki Wilson	Murdoch Uni	Researcher	20%

Specified Personnel	Contributing Organisation	Position	Percentage of time contributed to CRC activities
Simon Avenall	Murdoch Uni	Researcher	20%
Rob Phillips	Murdoch Uni	Researcher	20%
Rod Sims	QANTM	Researcher	30%
Garry Hargreaves	QANTM	Researcher	30%
David Cox	QANTM	Researcher	10%
Simon Perkins	QUT	Researcher	20%
Zane Trow	QUT	Researcher	20%
William Cartwright	RMIT	Researcher	30%
Mark Lycette	RMIT	Researcher	15%
Supriya Singh	RMIT	Researcher	20%
Roslyn Russell	RMIT	Researcher	20%
Christopher Petite	RMIT	Researcher	20%
Michael Coburn	RMIT	Researcher	20%
Andrew Burrow	RMIT	Researcher	20%
Paul Doornbusch	RMIT	Researcher	40%
Gregory Moore	RMIT	Researcher	20%
Jonathon Duckworth	RMIT	Researcher	50%
Simon Jones	RMIT	Researcher	20%
Yamin Tengono	RMIT	Researcher	20%
David Atkinson	RMIT	Researcher	10%
Pia Ednie-Brown	RMIT	Researcher	20%
Neil Bergman	UQ	Researcher	20%
Peta Wyeth	UQ	Researcher	20%
Jihan Zhu	UQ	Researcher	20%

## **Appendix B: Publications**

#### Publications

- Adkins, B., Foth, M., Summerville, J., and Higgs, P. Ecologies of Innovation: symbolic aspects of cross-organisational linkages in the design sector in an Australian inner-city area. In *American Behavioral Scientist* (forthcoming in 2007).
- Adkins, B., Smith, D., Barnett, K. and Grant, E. Public Space as Context in Assistive Information and Communication Technologies for People with Cognitive Impairment. In *Information, Communication and Society* 9(3): 355–372.
- Berry, M., Gibson, M., Nelson, A. and Richardson, I. How smart is 'smart'? Smart homes and sustainable housing. In Nelson, A. (Ed.) Steering Sustainability; policy, practice and performance in an urbanising world. Ashgate/RMIT Publishing, London, UK/Melbourne, Australia (forthcoming in 2006).
- Edmonds, E. A. and Muller, L. On Creative Engagement. In *Visual Communication* (to appear) Oct 2006; 5: 307 322.
- Lee, D. and Muhlberger, R. A Technology Introduction View on Mobile Marketing. In Encyclopedia of Mobile Computing & Commerce (forthcoming in 2006).
- Lee, D. and Muhlberger, R. Mobile Marketing as Technology Intervention: a locales framework analysis. In *International Journal of Mobile Marketing*, 1 (1), June 2006: 59–65.
- Rittenbruch, M., Viller, S. and Mansfield, T. Announcing Activity: design and evaluation of an intentionally enriched awareness service. In *International Journal of HCI*, special issue on awareness (forthcoming).

#### **Conference Papers, Presentations, Tutorials & Workshops**

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- Axup, J., and Viller, S. Augmenting Travel Gossip: design for mobile communities. In Proceedings of the 19th Conference of CHISIG. Canberra, Australia. 21–25 November 2005.
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## **Appendix C: Research Scholarships**

## Jeff Axup

#### Mobile Community Design, Mobile Research Methods, Group Usability

Degree: PhD Institution: UQ Start: May 2004 Funding: UQ/ACID Supervisors: Dr Stephen Viller, Ian MacColl ACID Project: Communities and Places

Groups increasingly use mobile devices to coordinate their behaviour and maintain social ties. The research focuses on developing research methods suited to understanding mobile group behaviour to inform mobile technology design. The methods will include data analysis techniques and representations to facilitate communication amongst design teams.

#### Gerhard Bachfischer

#### New Quality of Typography

Degree: PhD Institution: UTS Start: 2003 Funding: UTS/ACID Supervisors: A/Prof Toni Robertson ACID Project: Creative Communities

Research to establish a framework to allow the emerging New Quality of Typography – created by movement, reactiveness, and interaction – to be described and evaluated from the point of view of a reader who is increasingly also a viewer and a user of typographically enhanced texts.

### **Reuben Braithwaite**

#### Scattered Signs: found objects categories in networked media

Degree: Masters Institution: RMIT Start: March 2003 Funding: ACID Supervisor: Dr Fiona Petersen ACID Project: Virtual Communities Creating a dynamic database structure and content management system focussed on fluid cross-fertilisation of ideas and knowledge. Critical theory and art theory inform the development of an engagement model that defines the criteria to recontextualise and reassemble divergent media.

## Marcos Caceres

#### **Customisable User Interfaces**

Degree: PhD Institution: QUT Start: March 2006 Funding: QUT/ACID Supervisor: A/Prof Andrew Brown ACID Project: Creative Communities

Making incremental updates to a web document affords developers the ability to create richer interactive experiences. It also significantly increases the expectations of end-users in respect to what they want to be able to do with web documents, putting significant strain on existing web technologies, particularly XHTML. This research explores the technicalities of creating rich customisable user experiences on the web.

## Jared Donovan

#### Investigating the Design of Gestural Interfaces

Degree: PhD Institution: UQ Start: March 2005 Funding: UQ/ACID Supervisors: Dr Margot Brereton ACID Project: Interactive Lounge

Gestural interfaces promise to let people interact with electronic devices in ways that are more natural and intuitive. The research is concerned with designing these interfaces so this promise is realised, exploring participatory design methods to involve end-users in the design of gestural interfaces which engage their abilities for skilful action and better fit with the way they work.

## **Michael Dunbar**

# Beyond Skin Deep: Exploring Potential of the Communication Designer in Interaction Design

Degree: PhD Institution: RMIT Start: March 2006 Funding: ACID Supervisor: Jeremy Yuille ACID Project: Virtual Communities

Communication designers and interaction designers have a history of collaboration. But the communication designer is often seen as surface decorator, only able to contribute to 'the look' or the finish of an interface, thus limiting their potential. This research seeks to explore methods for greater interdisciplinary cohesion, unlocking potentials between communication design and interaction design, leading to richer and more holistic user experiences.

#### **Brian Green**

#### It's a Matter of Trust: Virtual Communities in Medicine

Degree: PhD Institution: UQ Start: January 2006 Funding: ACID Supervisor: Dr Ralf Muhlberger ACID Project: Virtual Communities

One of the problems of ICT is the overabundance of information. What can be done to alleviate the issue of information overload? A software agent such as artificial intelligence would allow each member of the virtual community to limit the volume of information being requested and passed between those who have an interest.

#### Irina Haugane

#### Sápmi Landscape

Degree: Honours Institution: QUT Start: March 2006 Funding: ACID Supervisor: Dr Jillian Clare ACID Project: Indigenous Communities

The research contributes to the aspiration of expanding the Digital Songlines project to other indigenous cultures outside of Australia. It explores the opportunity of implementing a Digital Songlines software for the Sami people, the indigenous people of Finnoscandia.

#### **Clint Heyer**

#### Sociable Wearables

Degree: PhD Institution: UQ Start: May 2004 Funding: UQ/ACID Supervisors: Dr Margot Brereton ACID Project: Communities & Place

The end-user experience is of a wearable device that not only has a useful purpose, but fits well into a person's social context. Commonplace wearable systems like the Apple iPod or RIM Blackberry demonstrate the potential of ubiquitous personal computing. This project examines how wearables can be successfully designed so that they are supportive and respectful of the social environment and what users desire of a social wearable system.

## **Sherwin Huang**

#### **Community Building and Location-Based Games**

Degree: Masters Institution: QUT Start: March 2006 Funding: ACID Supervisor: Debra Polson ACID Project: Creative Communities

Location-based games have always been about putting the human element back into game play. Many games require too much technology, or privilege the few who live where such games are being organised. ACID's Cipher Cities tool allows the creation of location-based games free from geographical or technological constraints. How can a stratum of communities be formed around this tool, and how can established conventions for promoting online communities be applied to location-based games?

## Alissa Huie

## Connect Me! Creating Social Connections in Urban Villages through Ubiquitous Computing

Degree: Honours Institution: QUT Start: March 2006 Funding: ACID Supervisors: Debra Polson ACID Project: Creative Communities

The project investigates how ubiquitous computing, particularly mobile technology, can facilitate social connections and engagement with space to create a sense of community in urban villages.

## **Andrew Johnston**

#### Software to Enhance Musical Expertise

Degree: PhD Institution: UTS Start: August 2004 Funding: UTS/ACID Supervisors: Prof Ernest Edmonds ACID Project: Creative Communities

Developing interactive sound toys that respond to live musical input. Musicians and music students make discoveries about their musicianship and technique as they explore the effect of their playing on the toys.

### **Dennis Lee**

## Mobile Marketing as Computer Supported Collaborative Work: A Locales Framework Analysis

Degree: PhD Institution: UQ Start: March 2004 Funding: UQ/ACID Supervisors: Dr Ralf Muhlberger, Dr Mark Brown, Matthew Simpson ACID Project: Virtual Communities

Research on what makes mobile marketing effective, and how to use this channel for marketing, is still in its infancy. Researchers from the related disciplines are pursuing their

own objectives. There is a need for a holistic research framework in this area. We offer an inter-disciplinary approach.

## **Steven Livingstone**

#### Can Computers Detect and Manipulate Emotions in Music?

Degree: PhD Institution: UQ Start: August 2004 Funding: UQ/ACID Supervisors: Dr Ralf Muhlberger, A/Prof Andrew Brown ACID Project: Dynamic Content

Dynamic modifications of music to reflect the changing emotional state of interactive experiences such as computer games, virtual realities and music-mixing software. The real-time adaptive music is based on rule-based emotion models.

#### Andrew Loch

#### Group Hug: Adding Emotional Depth to the Locales Framework

Degree: PhD Institution: UQ Start: July 2002 Funding: ACID Supervisors: Dr Ralf Muhlberger, Dr Stephen Viller ACID Project: Virtual Communities

Affective computing has introduced a range of new technologies. As yet no design or analysis methods are available which incorporate user emotionality among general human–technology interaction.

## Susan McCauley

#### The Creative Producer in Virtual Communities

Degree: PhD Institution: RMIT Start: 2002 Funding: ACID Supervisor: Dr Fiona Peterson ACID Project: Virtual Communities The Creative Producer is needed in multi-disciplinary project teams to provide expertise in the practice of collaborative methodologies. This model is applicable to creative and commercial environments. End users of products and services will benefit from this conceptual framework that provides an innovative model of production.

## **Colleen Morgan**

The Figmentum Project: Building Community with Generative Arts

Degree: Honours Institution: QUT Start: February 2006 Funding: ACID Supervisor: Debra Polson ACID Project: Creative Communities

The Figmentum Project appropriates a generative arts system for the purpose of building upon community sentiment and consequently increasing creative capital and social cohesion.

#### **Julien Phalip**

#### Enhancing Creativity in Film Music Composition

Degree: PhD Institution: UTS Start: April 2006 Funding: ACID Supervisor: Prof Ernest Edmonds ACID Project: Creative Communities

Technology can enhance composers' creativity by building a set of evaluated software tools to accompany composers in their creative process.

#### Malcolm Pumpa

#### The Impact of Digital Media on Aboriginal Community Development

Degree: PhD Institution: QUT Start: January 2006 Funding: QUT/ACID Supervisor: Prof Erica McWilliam ACID Project: Indigenous Communities The research investigates the processes and relationships that constrain or enable the development of digital media resources that faithfully represent Aboriginal cultural knowledge practices. The study will focus on how Aboriginal knowledge practices can be faithfully represented and communicated in a digital environment, and examine the impact of the process of digital media development on Aboriginal communities. Finally, the processes will be examined to ascertain if they can reliably contribute to the theory and practice of Aboriginal education.

## **Kirsten Sadler**

#### **Understanding Mobility**

Degree: PhD Institution: UTS Start: July 2004 Funding: UTS/ACID Supervisors: A/Prof Toni Robertson; Dr Melanie Kan ACID Project: Suburban Communities

This research seeks to contribute to research in the area of IT and human-centred design by rethinking the conceptual foundations of design for mobile technologies, by exploring ways to extend traditional user-centred design tools to the mobile context, and by examining mobile practices and technology use.

## **Ting Shan**

#### Design Efficient Query Algorithms in Multimedia Data Mining

Degree: PhD Institution: UQ Start: April 2004 Funding: UQ/ACID Supervisors: Prof Brian Lovell ACID Project: Interactive Lounge

## **Yolande Strengers**

#### Environmentally Sustainable Households: Connecting the Disconnected

Degree: PhD Institution: RMIT Start: March 2006 Funding: ACID Supervisors: A/Prof Mike Berry; Dr Anitra Nelson ACID Project: Suburban Communities

We would need four Earths to support our lifestyle if everyone on the planet lived like Australians. The rise of home automation sits within a wider debate about how new technologies can minimise Australia's unsustainable ecological footprint. The research aims to inform government and industry about the ability of home automation features to improve, or detract from, the environmental sustainability practices of householders.

# **Appendix D: Glossary**

## ACID

Australasian Cooperative Research Centre for Interaction Design

## ARC

Australian Research Council

#### CHI

Conference on Human Factors in Computing Systems

#### CPA

Certified Practising Accountant

#### CSIRO

Commonwealth Scientific and Industrial Research Organisation

#### DIGRA

Digital Games Research Association

## DSTO

Defence Science and Technology Organisation

#### HxI

Research initiative by Australia's major publicly funded ICT research organisations – CSIRO, DSTO and NICTA – aimed at providing leadership in both the Australian and international research community in the area of ICT-augmented human interactivity.

## ICT

information and communications technology

#### IP

intellectual property

## IT

information technology

National ICT Australia Limited

## PDC

Participatory Design Conference

### R&D

research and development

### SAG

ACID's international Scientific Advisory Group comprising:

- ▼ Professor Arun Sharma, QUT Chairman
- Professor Pelle Ehn, Malmö University, Sweden
- ▼ Professor Sandy Pentland, MIT, USA
- ▼ Professor Tom Rodden, University of Nottingham, England
- ✓ Dr Harry Shum, Microsoft Asia.

#### SIGGRAPH

Association for Computing Machinery's Special Interest Group on Graphics and Interactive Techniques

## SMS

short message service