

AUSTRALASIAN CRC FOR INTERACTION DESIGN PTY LTD  
**ANNUAL REPORT 2004-2005**



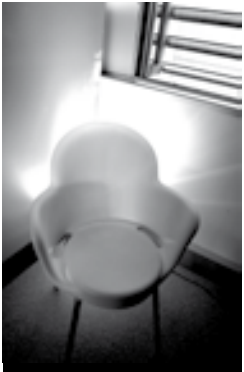
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“The best way to predict the future  
is to invent it.”

Alan Kay

# CONTENTS



Contents	
PREFACE	2
CRC OBJECTIVES	2
EXECUTIVE SUMMARY	4
CHAIR'S REPORT	6
CEO'S REPORT	6
GOVERNANCE	8
MANAGEMENT & STAFF	12
COMMERCIALISATION	18
RESEARCH	26
RESEARCH COLLABORATION	40
EDUCATION	44
COLLABORATION	48
SPECIFIED PERSONNEL	50
PUBLICATIONS	54
COMMUNICATION	56
AWARDS	57
COMMONWEALTH	
PERFORMANCE	
MEASURES	58



# PREFACE

## WHAT IS ACID?

The Australasian CRC for Interaction Design Pty Ltd (ACID) is an incorporated entity. Our core business is R&D, and commercialisation of content and technologies by the creative industries, specifically in the area of interaction design. Our expertise lies in helping people participate in the digital world.

ACID addresses prominent deficiencies in the creative industries that are both social and economic in nature: there is no core body of researchers, there is no single industry identity, and there is no single industry body that represents the collective interests of the diverse industry constituents. Through the establishment of ACID we have identified ample evidence that critical mass can be harnessed and put towards addressing these deficiencies.

## WHO IS ACID?

ACID is a Cooperative Research Centre established to build connections between consumers and industry users, content and application developers, software system developers, and hardware manufacturers. Our activity is focussed on a relatively young research domain: interaction design.

We are industry and academic professionals who are writers, programmers, conceptualists, mechanical, hardware and software engineers, designers, directors, animators, inventors, digital alchemists, ethnographers, sociologists, educators, artists and imaginers of diverse persuasions.

## WHY ACID?

The creative industries in Australia are worth more than \$21B pa, yet Australia is a net importer of these goods and services. To remain industrially relevant, Australia needs to change this position.

This is because the creative industries fuel innovation in diverse sectors not limited to manufacturing, health, research, defence, education and business. Australians will capitalise on the opportunity presented by the united front that the establishment of the Australasian CRC for Interaction Design represents.

# CRC OBJECTIVES

## OUR 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 trusted hub of at least 250 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.

## OUR MISSION

To invent and develop new forms of human interaction through trusted and 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 and
- Be inclusive

### CRC Program Objective 1:

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

Centre Objectives	Performance Measures
1.1 Multidisciplinary research that leverages existing R&D programs through a strong network of participants.	Research outputs will be in excess of 20 processes, methods, patents and publications from multi-disciplinary teams working across multiple nodes.
1.2 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.
1.3 Deploy R&D to enterprise development through the creation of flexible, transferable and reproducible processes for commercialisation.	Up to \$3M in income achieved through licenses, spin-offs, services and other income streams.

### CRC Program Objective 2:

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

Centre Objectives	Performance Measures
2.1 New partnerships and beneficial linkages, strengthening R&D efforts of industry partners.	Industry participants will receive in excess of 20 prototypes providing commercialisation opportunities for products in content, hardware and software.
2.2 Development of new communities of interest for groups such as Aborigines, the aged and children through research programs and themes, such as Virtual Heritage and Community Network.	Development of multiple, practical strategies for relating technical innovation to community development.
2.3 Develop research for national and international companies through an SME Consortium configured to provide R&D services.	SME consortium of over 12 industry partners which will attract 1-2 research/production contracts per year.

## WHAT IS INTERACTION DESIGN?

Interaction design is about finding better ways for people to interact with each other through communication technologies.

Interaction design involves understanding how people learn, work and play so that we can engineer - better, more valuable and more appropriate technologies to the contexts of their lives. As an academic discipline, interaction design is about the people-research that underpins these technologies.

ACID Research Programs develop models, methods, technologies, tools and proof-of-concepts that:

- Demonstrate new interactive content, hardware and software prototypes in market driven contexts
- Discover how to take advantage of collaborative opportunities within the creative industries
- Develop research for national and international companies through an SME Consortium that provides R&D services
- Deploy R&D to enterprise development through the creation of flexible, transferable and reproducible processes.

## WHAT IS R & D AT ACID?

For ACID, 'R & D' is about proving that a product or service has a market, and demonstrating how we expect to deliver to that market by deploying fully functional scalable prototypes - Prototypes that are tested by market-driven assessments.

Interaction design involves understanding how people live, learn, work and play

### CRC Program Objective 3:

To enhance the value to Australia of graduate researchers.

Centre Objectives	Performance Measures
3.1 Delivery of a critical mass of new research talent into an emerging industry.	40 – 50 post-graduate students, working collaboratively in cross-disciplinary, cross-institutional, international projects, with options to participate in CRC-sponsored online education and training courses. Integrate UG students.
3.2 Industry-university exchange opportunities for post-graduate students.	Establishment of a post-graduate supervision program providing 40 – 50 exchange opportunities with CRC industry participants and affiliates.
3.3 Enhancement of existing education programs in interaction design across vocational, undergraduate and post-graduate programs.	Up to 30 short courses developed from research output and taught to both internal and external clients.

### CRC Program Objective 4:

To enhance collaboration among researchers, between researchers and industry or other users, and to improve efficiency in the use of intellectual and other research resources.

Centre Objectives	Performance Measures
4.1 Research programs are designed to benefit from the multiple competencies that reside in the Centre partners.	Project proposals must demonstrate at least two university partners working in a multi-disciplinary, multi-nodal capacity.
4.2 Research is designed to respond to user needs.	Project proposals must demonstrate user input and at least one industry participant.
4.3 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.

# EXECUTIVE SUMMARY

Since establishment ACID has developed and identified specific organisational needs that will support the growth of our strong capabilities and our ability to deliver outcomes to industry. We have discovered that to be a functional organisation we need more of the right people to drive the opportunities we have before us, and our success and sustainability depends on interlocking R&D with commercialisation.

The ACID Board met in January 2005 in Brisbane to consider our R&D and commercialisation strategies. Some new and exciting ideas emerged, which have been fully considered across ACID and have had a positive impact on research funding and organisational priorities. We are diverse in our research and need to focus the use of resources on strong research teams in order to establish an even stronger operational infrastructure.

In determining our next steps ACID Researchers and Managers evaluated existing projects and the organisational structure. As a result it was agreed that we would address the following issues:

- Develop better operational processes
- Narrow the range of projects and research foundations
- Focus research efforts around a point of difference - interaction design for group-interfaces
- Establish ACID Services Pty Ltd; A wholly owned subsidiary company to commercialise emerging IP
- Re-organise ACID staffing and hire a Business Development Manager

Our first meeting of the International Scientific Advisory Group was combined with our third Innovation Forum and Showcase during May 2005. The Group reviewed the scientific and research foundations of our Programs and Projects and provided the Board and Management with a detailed review and recommendations. Their recommendations included:

- Establish a 'living' document to detail the vision and roadmap of the organisation
- Identify leaders to bring in-residence
- Appoint the task of setting up and managing 'test beds' to a senior executive
- Ensure everyone understands the vision and how they are helping to build it

The culmination of Board input and the Scientific Advisory Group recommendations have resulted in our organisational strategies for 2005-2006, which include:

1. Develop a clearer vision and mission; one that balances collaboration, research and commercialisation imperatives.
2. Implement a stronger organisational structure with key people recruited to identified gaps and establish a framework for performance management.
3. Develop a Roadmap: a clear description of how our potential, theoretical foundations and future directions are to be refined over time.
4. Develop a sustainable organisational structure that is robust enough to achieve our objectives by interlocking research, R&D and commercialisation through a structured relationship between ACID and a newly formed wholly owned subsidiary services company.

By the end of the financial year these issues were addressed and the established positions, processes and structures are now underway to take us into an even more productive year three.



“Turn the innovation process  
upside down...”

-BRW, August 18-24, 2005

# CHAIR'S REPORT

Appointed chairman of ACID's governing body in 2003, Dr Terry Cutler is overseeing the company's strategic direction throughout this exciting start up period.

It is sobering to remind ourselves that CRCs as enterprises are more challenging and complex than most technology start ups.

The typical tech start up is formed to take some existing IP to market. A CRC is supposed to first develop the IP and then commercialise it. A typical start up changes its business plans and its business models as frequently as the common Australian lizard drops its tail. A CRC by contrast is supposed to remain true to a resourcing plan that pre-dates its actual formation.

I am labouring this point because I am sometimes overwhelmed by the sheer

audaciousness of the CRC program and the magnitude of the challenges for their CEOs and Boards. No wonder our CEO thinks he merits a bonus and our independent directors think wistfully about stock options.

It has been an eventful year marked by such significant developments as:

- Success in our supplementary funding bid to develop new research into interactive advertising; this was particularly gratifying in only our second year of operation and in a funding round where no other ICT bids were successful
- A good report card from the CRC Committee's first year review of ACID
- The establishment of an international Scientific Advisory Group of global leaders in the field who are adding great value and quality control

- The formulation and DEST approval of ACID's formal commercialisation plan
- The annual board retreat in January which pushed our thinking about commercialisation into new territory
- The decision to recruit additional senior managers to strengthen our capabilities for the next phase of ACID's growth plan

What has become apparent is that, for research domains like ACID's, a lot of the IP generated is tacit "know how" which is best captured and commercialised in the marketing of services. This is quite different from contract R&D. It is the business of delivering end services into markets. This services model extends ACID's end user and real world test bed and will create an important feedback loop from markets to research teams. To maintain management focus and

# CEO'S REPORT

The creative collaborative environment and initiatives we've established nationwide have the potential to position ACID and showcase Australia's creative talent in world markets and research circles. It is clear that Australia needs ways to overcome distance in sectors that depend on critical mass, by connecting creative, educated and skilled people with effective collaboration systems. Our open collaboration practices, while still raw and heavily dependant on travel are key to our current success in R&D and the commercial opportunities before us.

It is increasingly evident via the reports in popular media, that creativity and the 'creative industries' are helping drive innovation in business and are key to innovative economies. Fortune 500 companies are locking on to this valuable insight - reconstructing market boundaries by delivering products or services driven by 'creative' innovation.

A recent BRW article cited a "movement" with the potential to "change our future." In it the authors described how knowledge was being commoditised and outsourced, and how new forms of innovation are increasingly based on better understanding creativity and culture, so that companies can develop the ability

to determine "what people want even before they can articulate it."

The underlying ethnographic, participatory design and human dimension research methods that underpin ACID's projects position us to take advantage of this profound economic shift. At the very least we can showcase the sorts of new organisational values and principles (let's get past Total Quality Management schemes) inherent in the creative process and design-centric ventures. Making sure that we can exploit these smart methods and create outcomes will be a major focus for ACID in 2005-2006. The good news for ACID is that with this global paradigm shift towards creativity, we're ahead of the game.

Emphasising our self-inflicted and creative circumstances, the First Year Review was a really satisfying opportunity to showcase our organisation to representatives from DEST and the CRC Program. It wasn't all good news though - during the Review, we discussed the issues behind our inability to secure, document and report on in-kind obligations promised by our participating organisations. It is unlikely that we will ever 'make-up' these contributions as they are behind for the following reasons:

- Difficulties in obtaining accurate

time reports from some researchers;

- Researcher attrition; researchers leaving their current organisation or re-prioritisation of their time commitments;
- Shareholder changes that result in their re-prioritisation of resources.

To an extent, these in-kind issues stem from the fact that many participants have previously had their unrealistic, but agreed expectations of direct cash inputs delivered from their participation in CRCs. However, incorporated CRCs must now operate commercially - like companies - operational realities create an environment where board directions and management discretion prevail. In spite of these issues it is exciting to remind us that for our entire stakeholder group the risks are high, but the rewards can be even higher.

For emerging industries like ours, 7 years of funding via the CRC Program is essential, but not without the flexibility to manage in-kind 'expenditure' in a way that is similar to the way we manage cash expenditure. A commercial business would normally align cash expenditure with strategic directions and subsequent operational plans. If cash and in-kind contributions cannot be aligned to strategic intent then we end up in a



discipline, the Board has decided to incorporate a subsidiary to market services developed from our research programs.

The quality of the interaction between a Board and a management team is a key factor in determining whether a start up is likely to be successful. Our skills-based Board continues to provide ACID with valuable mentoring, strategic guidance, and corporate governance discipline. My fears about the audacity of our enterprise are tempered by the stimulating working relationship I enjoy with the CEO and the pleasure of

working with such a committed Board team, united in their ambition to put ACID even more on the map as we enter year three.

Collaboration is not only the object of much of our research; it is also integral to how we need to work as an organisation. Our challenge over this coming year is to pioneer new models for collaboration and for commercialisation.

Terry Cutler  
Chairman

Appointed Chairman of ACID'S governing board in 2003, Dr Terry Cutler is overseeing the company's strategic direction throughout this exciting start up period.

dysfunctional situation. In other words, we need a mechanism for allowing in-kind contributions to expand and contract based on actual capacity and commercial needs. To address this issue we've suggested to DEST that our CRC be re-profiled to account for a varying in-kind contribution threshold.

To take these hard issues forward, along with our massive creative resource and development goals, we now have a new senior management team in place. As of July 2005, this new group comprises our Finance and Operations Director and serial entrepreneur, Rob Sale; our Research Development Manager and leading design researcher, Associate Professor Sam Bucolo; the inimitable Professor Mark Burry, Chair of our Research Leaders Group; and Ex-Microsoft IPTV guru Richard Wray as our Business Development Manager. These new people and our existing committed staff make me feel confident and assured of future successes.

These staffing arrangements are particularly key to the implementation of our Commercialisation Plan. Specifically because much of ACID's IP will be crystallised as commercial services rather than patented products. Some of these services will package protectable and licensable software and/or hardware, but much of the value-

add that ACID will provide will come from the ongoing know-how, evaluation and invention that will arise as we find mutually beneficial ways to interlock university researchers with ACID's particular commercial engagements. This goes to the future of ACID post the Commonwealth funding, as well as to the desirability of having 'untied' monies for ACID to reinvest in desirable research areas, and to counterbalance our present unhealthy level of reliance on in-kind resources, implicit in the CRC model.

For me this has been a year of huge personal and professional growth thanks to the incredible support from my family, our Board, and my Chairman, Dr. Terry Cutler. And a real personal thanks to my staff for their massive commitment and to our researchers for making this dream deeply substantial.

And finally, early this year I had the opportunity to spend some time visiting and looking at the efforts of other corporate and university R&D centres worldwide. Fabrica, (Benetton's communication research centre - <http://www.fabrica.it>), has left me with some ideas to think about, especially in relation to our creative collaboration context...

#### WANTED CREATIVITY

*Creativity is unusual stuff; it frightens; it deranges; it's subversive; it mistrusts what it sees, what it hears. It dares to doubt. It acts even if it errs. It infiltrates preconceived notions. It rattles established certitudes. It necessarily invents new ways, new vocabularies. It provokes and changes points of view.*

ACID should be creativity's workshop.  
Viva la Revolution!

Professor Jeff Jones

# GOVERNANCE

## STRUCTURE & MANAGEMENT

### THE ACID COMPANY

ACID began life in 2003 with \$8M in cash support; \$60M of in-kind from universities and industry, and \$12.4M from the Australian Government's Cooperative Research Centre (CRC) Programme.

Comprising a team of academic, postgraduate and industry researchers, ACID adds value to the way industry and academic ideas are recognised, nurtured and developed via a collaborative trans-disciplinary environment. We have over 20 educational and corporate partners both nationally and internationally as testament to our breadth of strength.

ACID forms a bridge between ideas and industry by offering leveraged research solutions via access to pre-commercial products, services, and intellectual property.

During 2004-05 initial scoping discussions resulted in the establishment of a wholly owned subsidiary, presently called ACID Services Pty Ltd. This services company will shortly be established to differentiate between the 'business' of research, versus the 'business' of commercialisation. This services company will shortly be established to differentiate between the 'business' of research, versus the 'business' of commercialisation.

2004 also secured two new participants – Imap Systems and Heritage Pacific. This has helped us further develop our corporate vision and the industry driven focus of our research activities.

### PARTICIPATING ORGANISATIONS

#### Core Participants

- Queensland University of Technology
- The University of Queensland
- RMIT University
- Murdoch University
- Silicon Graphics Pty Ltd
- Auran Technologies Pty Ltd
- Cyber Dreaming Pty Ltd
- Heritage Pacific Pty Ltd
- Imap Pty Ltd

#### Supporting Participants

- Australian Centre for the Moving Image (ACMI)
- Brisbane City Council
- HITLabNZ/University of Canterbury
- Corporation Builders
- Department of State Development Innovation and Trade - Queensland Government
- QANTM Pty Ltd
- SME Consortium
- Clui Urban

- Digital Nemesis
- DVP Media Pty Ltd
- Liquid Animation
- KROME Studios
- ToadShow
- Virtual Realms
- Zone4 Digital Media.

The withdrawal of Griffith University from ACID was buffered by the recent addition of University of Technology Sydney [UTS] to the ACID Shareholder ranks. Voted into ACID by the Shareholders at the Annual General Meeting in November 2004, UTS will officially become a Core Participant following their signatory to the Commonwealth Agreement early in the 2005 financial year.

ACID's projects researchers have maintained strong relationships with Griffith - for the most part Griffith academics will continue to be involved in our projects until those projects have finished.

### THE BOARD

The Board of Directors of ACID have an independent Chair, independent members and participant representatives acting as independent Directors. The CEO sits on the Board representing the research and management activities of ACID. This creates a skills-based Board of seven members plus the Chair.

- Chairman, Dr Terry Cutler
- Professor Jeff Jones, CEO ACID
- Arun Sharma, QUT
- Professor Neil Furlong, RMIT
- Graham Edelsten, Auran Technologies
- Bill Trestrail, SGI
- Professor Mary O'Kane, Mary O'Kane & Associates
- Michael Begun, CM Capital
- Dr Katherine Woodthorpe – ACID's CRC Visitor
- Sonya Henderson Edbrooke, Company Secretary
- Secretary to the Board, Kelina Miller, ACID
- Professor David Gardiner, QUT, resigned August 2004

### BOARD ADVISORY GROUPS

#### THE SCIENTIFIC ADVISORY GROUP

The Scientific Advisory Group met for the first time in May. The Group has been established to ensure a two-way communication between ACID and the international community. The Group will provide ACID with the means to develop links with organisations that have a substantial interest in our work, while enabling those organisations to provide feedback on ACID's research directions, the application of research, and transfer of technology.

Membership consists of the following pre-eminent leaders:

- Professor Arun Sharma, Queensland University of Technology, Chairman
- Professor Sandy Pentland, MIT Media Lab
- Dr Harry Shum, Microsoft Research Asia
- Professor Tom Rodden, EQUATOR Interdisciplinary Research Collaboration (ICR), UK

#### THE AUDIT COMMITTEE

The Audit Committee oversee and review the processes of management and the audit function with a view to achieving ACID's strategic objectives in an efficient and effective manner. The Committee assist the Board and company officers in the discharge of their responsibilities for financial reporting, compliance, internal control systems, audit activities, risk management and any other matters referred to it by the Board.

The Committee meet a minimum of three times a year, and Membership consists of:

- Professor Mary O'Kane, Chair
- Dr Terry Cutler
- Professor Jeff Jones
- Sonya Henderson Edbrooke, Secretary

#### THE REMUNERATION COMMITTEE

The Remuneration Committee oversee the recruitment, remuneration, and performance evaluation of the CEO, and determine policies and practices for executive employment and remuneration.

The Committee meet as required, and Membership consists of:

- Chair, Dr Terry Cutler
- Bill Trestrail
- Professor Arun Sharma

# BOARD BIOGRAPHIES



## DR TERRY CUTLER <sup>(1)</sup>

ACID Chairman

- Member of the Council of the Queensland University of Technology
- Industry consultant and strategy advisor in the information and communications technology sector
- Board of the Commonwealth Scientific and Industrial Research Organisation (CSIRO)
- Member of the Victorian Government's Innovation Economy Advisory Council
- President of the Australian Centre for the Moving Image
- Member of the International Advisory Panel of Malaysia's Multimedia Super Corridor
- A Director of Malaysia's Multimedia University

## PROFESSOR ARUN SHARMA <sup>(2)</sup>

- Deputy Vice-Chancellor (Research and Commercialisation) of Queensland University of Technology
- Co-founder of National ICT Australia Limited (NICTA)
- Co-founder of CRC for Smart Internet Technology
- Member of Queensland Premier's Smart State Council
- Member of ICT Sector Advisory Committee of CSIRO
- Board Member of Sugar Research Limited
- Board Member of Creative Industries Pty Limited
- Member of Governing Boards of CRC for Diagnostics, CRC for Construction Innovation and CRC for Integrated Engineering Asset Management

## PROFESSOR DAVID GARDINER <sup>(3)</sup>

- Professor of Law and Deputy Vice-Chancellor (Academic) of Queensland University of Technology
- Board Member of Farmacule BioIndustries Pty Limited
- Board Member of Tissue Therapies Ltd

## PROFESSOR NEIL FURLONG <sup>(4)</sup>

- Pro-Vice Chancellor Research and Innovation at RMIT University
- Board member of RMIT Innovations Ltd
- Board member of Spatial Vision Innovations Ltd
- Board member of Victorian Partnership for Advanced Computing
- Board member of Nanotechnology Victoria Ltd
- Member of the Academy of Technological Sciences and Engineering (Fellow since 1997)
- Senior Fellow, School of Chemistry, University of Melbourne
- Editor of the international journal Colloids and Surfaces

## PROFESSOR MARY O'KANE <sup>(5)</sup>

- Consultant and company director
- Executive Chairman of a company which advises governments and the private sector on innovation, research, education and development
- Chair of Sienna Capital Ltd and Vice Chair of the Development Gateway Foundation established by the World Bank
- Member of the Australian Aid Advisory Council
- Senior Advisor to the Australian Government on the Virtual Colombo Plan
- Fellow of the Academy of Technological Sciences and Engineering
- Honorary Fellow of the Institution of Engineers, Australia

## GRAHAM EDELSTEN <sup>(6)</sup>

- Entrepreneur and Lawyer admitted to the Queensland Bar
- Co-founder and Chief Financial Officer of the Auran Group of Companies
- Member of ICT Ministerial Advisory Group, a joint venture between the Queensland State Government and local industry players
- Member of IT Advisory Board to Austrade
- Secretary of the Game Developers

Association of Australia

- Member of the QANTM Academic Board Financial Planner

## BILL TRESTRAIL <sup>(7)</sup>

- Area General Manager of Silicon Graphics Pty Ltd (SGI) South Asia Pacific and Korea region
- Director of Silicon Graphics Pty Ltd
- Board member of Antarctic Climate and Ecosystems Co-operative Research Centre
- Governor of the Warren Centre

## MICHAEL BEGUN <sup>(8)</sup>

- Co-founder of CM Capital and brings extensive private equity investing experience, along with 20 years+ of management and engineering experience in the computer, software and telecommunications industries
- Leading Australian IT and Telecommunication investor
- Director of Dilithium Networks Inc.

## DR KATHERINE WOODTHORPE <sup>(9)</sup>

- Management adviser and professional director
- Chairman of the Cooperative Research Centre for Antarctic Climate and Ecosystems
- Chairman of the Smartprint CRC
- Board of two public companies (one listed) and several government bodies
- Fellow of the Australian Institute of Company Directors

## PROFESSOR JEFF JONES <sup>(10)</sup>

- ACID Chief Executive Officer



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## 2005 BOARD MEETING DATES

Board Member	25 August 04	24 November 04	14 & 15 January 05	23 March 05
Dr Terry Cutler	yes	yes	yes	yes
Professor Jeff Jones	yes	yes	yes	yes
Professor Arun Sharma	yes	yes	yes	yes
Professor Neil Furlong	Leigh Peterson as observer	teleconference		yes
Graham Edelsten	Greg Lane as Alternate Director	yes	yes	yes
Bill Trestrail	X	X	X	yes
Professor Mary O'Kane	yes	yes	yes	yes
Michael Begun	yes	yes	yes	yes
Dr Katherine Woodthorpe - Visitor	yes	X	yes	X
Sonya Henderson Edbrooke - Company Secretary	yes	yes	yes	yes

## AUSTRALASIAN CRC FOR INTERACTION DESIGN - GOVERNANCE FRAMEWORK

	Hierarchy of Processes	Governance Element	Responsibility	Output
Direction ↓		CRC Program	Federal Science Minister	4 CRC Program Objectives*
	<b>Strategic Plan</b> ○ Purpose ○ Values ○ Risk Management	Codes of Practice/Conduct Legal Resource Allocation	Board and Sub-Committees	Strategic Direction New Participants Compliance Science Advisory Group
	Intent-Channel/Market Development Operating Principles	The 7 Key Activities Communication strategy Finance	CEO	Priorities Sponsors Market Awareness
	<b>Operational Plan</b>	Budgets Initiatives	Executive Team	Systems Events Market Analysis
Control ↓	<b>Operating Platform</b>	Guidelines	Research Committee	Project Approval
		Policies	Program Managers	IP Registry Program Management
		Procedures	Project Leaders Project Participants	Project Execution Demonstrators/Prototypes
	← Governance Relationships →			

*CRC Program Objectives:	Sustainable long-term research	Transfer of Research Outputs	Develop Quality Researchers	Enhanced Collaboration
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ACID forms a bridge between ideas and industry by offering leveraged research solutions via access to pre-commercial products, services and intellectual property.

# MANAGEMENT & STAFF

## MANAGEMENT & STAFF

### Professor Jeff Jones Chief Executive Officer

spearheaded the vision that realised ACID. He was responsible for the raising of \$20M from government, industry and universities in Australia and internationally in New Zealand, Europe, the USA, Japan and Malaysia. ACID was officially established in 2003 with the involvement of 80+ researchers associated with the participating shareholder companies and universities. As CEO of ACID he is now responsible for marketing and profiling the Centre and implementing the management and project development requirements, as well as the initiatives that will identify and grow the ACID core competencies via industry-university collaborations.

### Robert Sale Finance & Operations Director (Commenced August 2005)

role in ACID will encompass three distinct aspects; compliance, strategy and operations; guiding the organisation towards being an efficient self funding enterprise. Robert's most recent past life was as a Director and investor in an Australian company, Seeing Machines, spun out of ANU that is in the process of listing on the AIM market of the London Stock Exchange. Robert also currently holds a seat on CSIRO Advisory Board.

Robert's experience covers the management of all aspects of the commercialisation process. He's worked with all aspects of the R&D supply chain; from early stage

businesses that have developed IP - through to commercial operations that provide a return on investment to the shareholders.

### Associate Professor Sam Bucolo Research & Development Manger (Commenced August 2005)

Queensland University of Technology, has worked on and managed a broad range of national and international projects for a variety of government and commercial organisations. He has published widely within the field of emerging design tools and evaluation of virtual environments. Current research relates to the field of Ambient Intelligence and Ubiquitous Computing as applied to emergent tangible interfaces and consumer devices.

### Richard Wray Business Development Manger

has a background in business development and technical design with high profile firms including Microsoft, BBC and British Sky Broadcasting. Prior to joining ACID Richard was the Senior Engagement Manager for Microsoft's IPTV platform in Australia and the Asia Pacific region, with his primary responsibility to ensure the successful trial and deployment of the product into the region. This included the full end to end design and selection of the most appropriate technologies and development of a trial service

Richard has held varied roles within the BBC, including Interactive Consultant, Manager - IPTV, and Interactive TV / New Platforms Development Manager. His role as Manager of IPTV focused on the delivery of the BBC's IPTV service on the Kingston Interactive Television

(Kit) platform, and was subsequently nominated for a BAFTA award in the Technical Innovation category. It also won Best Interactive Television Service at the EMMA Awards.

### Sonya Henderson Edbrooke Enterprise Development Director

is responsible for the development and implementation of the commercialisation and technology transfer frameworks, as well as the day to day business management of ACID. Sonya left ACID on 30th June 2005.

### Jana Baranovic Business Manager

looks after the day-to-day business operations, financial management, compliance and reporting for ACID as well as the management of the Project Orders. Jana is a CPA and has extensive experience in accounting and financial management gained in both profession and industry based roles including working as the financial controller for a bio-tech research company.

### Frank Chalmers Collaboration Manager

has worked as a Conceptual Designer, Content Developer for museums and interpretive centres, Designer for multi-player computer games and goals-based scenarios for entertainment and government training, Information Designer for websites and interactive CDs, Screenwriter, television drama Writer, documentary Writer-Director, Scriptwriter for educational media, Lecturer at various universities in Communication Design, Writing and Philosophy. Frank left ACID on 30 June 2005.



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**Gavin Winter  
Research Technology Manager**

coordinates and develops technology environments for ACID. Gavin's background is IT management and support in higher education and creative industries. Gavin's roles have included technical consultant to many research projects, coordinator of numerous multi-venue new media arts events, and he runs the gamut in IT systems administration and application development.

**Kelina Miller  
Communication Manager**

promoted from Communication Coordinator in August 2005. Kelina coordinates the communication and marketing functions of the organisation. Kelina is also the Secretary to the Board of Directors, and the Annual General Meeting, and is responsible for the web publishing. Prior to becoming engaged in the Creative Industries sector, Kelina held positions in sales, marketing and administration in a broad range of sectors including finance, automotive and philanthropic industries.

**Chen Reed  
Research Technology Officer**

As well as maintaining ACID's Access Grid technology, Chen plays a vital role in its deployment in educational institutions around Australia. Chen also coordinates ACID's use of Access Grid in meetings and interactive events. Chen provides desktop and network support to ACID staff and is closely involved in maintenance of the media lab and the SGI Prism system.

**Ali Kerr  
Administration Officer**

provides administrative support to the CEO and management team around office administration and the co-ordination of ACID events. Prior to working at ACID, Ali saw the inside of many corporate and government offices in Brisbane and London, dealing with administration, event organisation and sponsorship. When not progressing the day to day running of the office environment Ali enjoys running one third of a Brisbane theatre company.

**PROGRAM MANAGERS**

The ACID Program Managers oversee the overall direction, management and reporting of the research programs and projects. They meet with key ACID management on a weekly basis.

**Sam Bucolo  
Smart Living**

(See previous page for biography)

**Dr. Andrew R Brown  
Digital Media**

is a senior lecturer in music at the Queensland University of Technology and the Digital Media Program Manager for the Australasian CRC for Interaction Design (ACID). Dr. Brown's expertise is in technologies that support creativity, algorithmic music and art, and the philosophy of technology. His current research focusses on adaptive music for computer games. He is an active composer of computer music and a builder of software tools for dynamic content.

**Jeremy Yuille  
Multi-User Environments**

RMIT University, has worked widely as a designer with interdisciplinary teams in the fields of communications, education, networked art and performance. Jeremy coordinates digital media courses for RMIT's Communication Design program, where his current research focusses on the audio visual representation of information, and the role of design in the use of networked environments.

**James Hills  
Virtual Heritage**

SGL has worked on a broad range of IT projects and has extensive experience in concept development and project management of large multimedia and simulation projects, particularly in the development and application of Virtual Reality to the areas of training, simulation and scientific discovery. James has IT and Electrical Engineering qualifications and provides an industry perspective to ACID projects and activities. He is the Program Manager of the Virtual Heritage program at ACID.



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1. Professor Jeff Jones
2. Sonya Henderson Edbrooke
3. Jana Baranovic
4. Frank Chalmers
5. Gavin Winter
6. Kelina Miller
7. Ali Kerr
8. Chen Reed
9. Associate Professor Sam Bucolo
10. Dr Andrew Brown
11. Jeremy Yuille
12. James Hills
13. Michael Docherty
14. Storm Griffin
15. Professor Greg Hearn
16. Dr Margot Brereton
17. Professor Mark Burry
18. Dr Mark Billinghurst
19. Professor Duane Varan
20. Paul Cleveland

## EDUCATION PROGRAM

The Education Program team are responsible for implementing the research education program that integrates students into the ACID organisation and its projects. Key members meet on a weekly basis, with formal quarterly meetings covering a range of strategic issues.

### **Associate Professor Michael Docherty Education Program Director, Queensland University of Technology**

is working on projects in media spaces and learning environments. He has researched and published in the areas of Computer Supported Collaborative Design, computer based 'Discovery Environments' and Studio based teaching of IT, and has established an international reputation through recent works on design studies and collaborative learning. This research has important implications for the usability of new information environments and design of information services. A large part of his recent career has been focussed on developing the B.Information Environments degree (commenced 1999), the B. Multimedia Design degree (commenced 2003) at the University of Queensland. Recently appointed as the Head of the Communication Design discipline at QUT, Michael is now developing a new degree in Games Design and Development.

### **Storm Griffin Education Coordinator (UQ) now Research Coordinator (ACID)**

(was engaged part-time in the operational aspects of ACID's education program, student liaison, scholarship and seminar organisation, as part of The University of Queensland's in-kind contribution to ACID. Storm was employed at the University of Queensland for 16 years in a variety of roles, culminating in special projects for the Information Environments Program in the School of Information Technology and Electrical Engineering. Storm joined ACID full time in January 2005 and fulfils the role of Research Coordinator to organise and administer the research application process, and aid a continuous improvement in research administrative support and development of new research related systems for ACID. Storm retains part of the Education role regarding submission of research papers and assisting with seminar and workshop organisation.

## RESEARCH LEADERS

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

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

is Professor and Director of the Creative Industries Research and Applications Centre at QUT. Greg 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 with many organisations including Telstra, Stanwell Corporation, INCITEC, Energex, many Australian and Queensland government agencies and British Airways, focusing on new media strategies in organisations. He was a consultant to the Broadband Services Expert Group, the national policy forum which formulated Australia's foundation framework for the Internet in 1994. In 2003 he completed a national consultancy on the future of digital content in Australia for the federal Department of Communications Information Technology and the Arts. He is currently a working party member for the Prime Minister's Science, Engineering and Innovation Council.

### **Dr Margot Brereton University in Queensland**

designed and built a magnetic bearing prototype for the NASA space infrared telescope facility SIRTf, a low resolution toy FAX machine for children and has designed a variety of industrial machinery. She worked as an engineer for five years at Rolls Royce aircraft engines. Dr. Brereton has both extensive experience in smart electro-mechanical product design and in observational analysis. She trained in observational analysis at XEROX PARC and the Institute for Research on Learning in Palo Alto. She is recognised for her work in several fully refereed published papers on the role played by objects in supporting thinking processes (phenomenology, embodied cognition, interaction design). Her primary interests are in human centred design and interaction design for ubiquitous computing environments. She is Chief Investigator on an ARC Discovery grant to develop a framework for interactions in information environments. She is

chief investigator on UQ small grant project to the design a naturalistic gesture based input appliance for ubiquitous computing environments and mobile devices.

### **Professor Mark Burry RMIT University**

is director of RMIT's state-of-the-art Spatial Information Architecture Laboratory, which has been established as a holistic interdisciplinary research environment dedicated to almost all aspects of contemporary design activity. The laboratory focuses on collocated design research and undergraduate and postgraduate teaching with associated advanced computer applications and the rapid prototyping of ideas. Projects currently include three ARC funded activities, a combined design studio with Queensland University of Technology, the Melbourne Docklands 'Shoal Fly By' Art project (Kate McLeod and Michael Belemo), the 'Village Gateway Art Integration Project' (Brisbane City Council), The City of Melbourne Sound Project, a multimedia-based design decision support environment for students, researchers and practitioners, investigations into the ontology and representation of design, and interpreting Gaudí's drawing for the Passion Façade design for construction during the coming years. The laboratory has a design-practice emphasis and acts as a creative think-tank accessible to both local and international practices, including ARUP in Melbourne and London, dECOi in Paris, Gehry Partners in Los Angeles. Mark Burry is visiting Professor at Liverpool University (UK) and Honorary Professor at Deakin University (Australia). In 2003 he was Visiting Professor in Architecture at MIT (USA). In 2004 he was appointed to the Advisory Board for Gehry Technologies.

### **Dr Mark Billingham HITLabNZ/University of Canterbury**

is a researcher developing innovative computer interfaces that explore how virtual and real worlds can be merged to enhance face-to-face and remote collaboration. Director of the Human Interface Technology Laboratory (New Zealand) and a research scientist at the HIT Lab (US) in Seattle, he has produced over 80 technical publications and his work has been demonstrated at a wide variety of conferences. He is active in several research areas including Augmented and Virtual Reality, wearable computing and conversational computer interfaces. He has previously worked at ATR Research Labs in Japan,



British Telecom's Advanced Perception Unit and the MIT Media Laboratory. One of his research projects, the MagicBook, was winner of the 2001 Discover award for best Entertainment application.

### Professor Duane Varan Murdoch University

Professor Varan is the Director of the Interactive Television Research Institute and holds the inaugural Chair in New Media at Murdoch University. Professor Varan is recognised as a global innovator in iTV applied research and as one of Australia's foremost authorities on digital communication and marketing. Within the industry he is viewed as among the world's leading academics in the field. He has presented at conferences in the UK, USA, Spain, Portugal, Singapore, Hong Kong, New Zealand, and throughout Australia. He has also provided iTV consulting and training services for a range of high-profile international clients, including Saatchi & Saatchi, Leo Burnett, FCB, Singtel Optus, TV Cabo, Nike and Pizza Hut.

### Paul Cleveland Griffith University

has a background in graphic design and experience in marketing, promotions and digital media. Paul's research interests include the evolution of design style and its application into the development of new tools for designers. His PhD, on the topic of technology and its influence on style generation, is currently under examination. Paul is at present engaged in two research projects. The first examines methods of employing generative principals to produce the rapid generation of concept layouts based on stylistic models. The application of artificial intelligence systems based on saliency, face detection, and eye tracking further refine the process to extract appropriate solutions. The second looks at the implementation of a generative animation system which uses algorithms to apply real time animation to characters in a games environment. Paul is a member of the Australian Graphic Design Association and the Design Institute of Australia, and holds the following qualifications MTechMgt (Griffith), BEdStud (Qld), BA (Griffith), DipArt (Graphic Design) (Swinburne), DipT (BCAE), MDIA. Paul is currently the Deputy Director (Development and International) Senior Lecturer Design for the Queensland College of Art, Griffith University.

## RESEARCH FELLOWS AND ADJUNCT PROFESSORSHIPS

- John Banks, Research Fellow in the Creative Industries Research and Applications Centre, QUT
- James Hills, Research Fellow in the Creative Industries Research and Applications Centre, QUT
- Jeff Jones, Adjunct Professor in the Creative Industries Research and Applications Centre, QUT
- David McKinnon, Postdoctoral Research Fellow, Creative Industries Research and Applications Centre, QUT

## NODE COORDINATORS

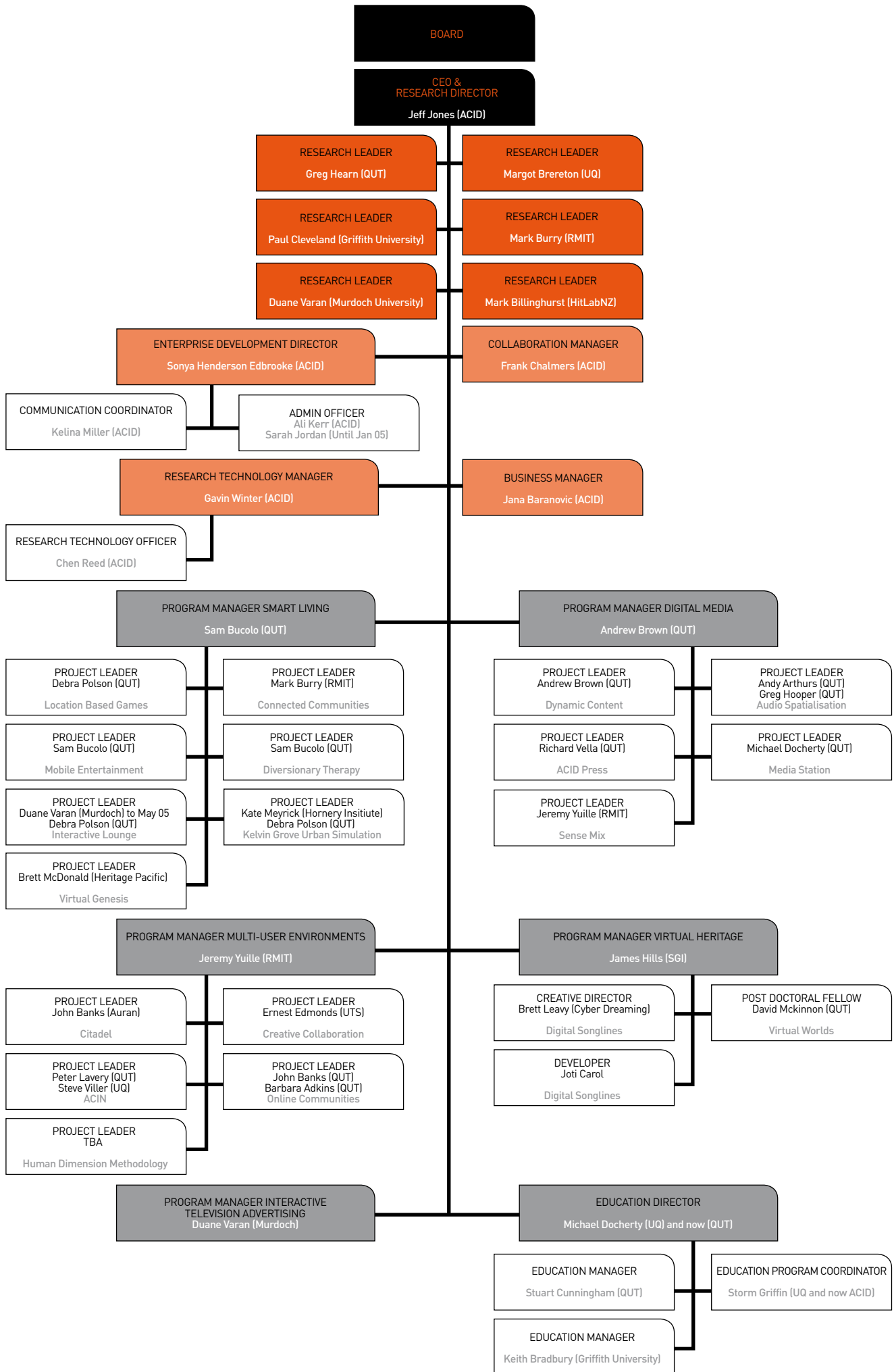
Node Coordinators form vital links within each ACID Shareholder Organisation. They help facilitate the coordination and promotion of ACID related activities amongst members of their organisation. As part of ACID's Commonwealth obligations, the Node Coordinators also assist with advice on, and responsibility for reporting and updating in-kind reporting.

Our thanks again go out to the following people for their assistance:

## DEPARTURES

- Sonya Henderson Edbrooke, Enterprise Development Director – Sonya left us to further her consulting career
- Frank Chalmers, Collaboration Manager – Frank left us to write a best-seller, we know he will
- Sarah Jordan, Administration Officer – Sarah left us to further her career in the field of HR recruitment
- Dr Stephen Viller, Program Manager Multi-User Environments – Stephen is still engaged in ACID research but has vacated this position to further his research activity
- Paul Cleveland, Research Leader – Paul, along with the Griffith team have withdrawn from ACID
- Adrian Bruch as RMIT's Node Coordinator has taken up a position with Lab 3000.

Organisation	Strategic Coordinator (signs 'Partner Returns')	Node Coordinator (collates in kind)
Griffith University	Dr Vicki Pattemore	Leanne Vogel
Murdoch University	Dr Paul D'Sylva replaced by Tim Morrison in May 2005	Jeff Billman
Qld University of Technology	Tim Kneipp	Kate Giles
RMIT University	Prof Leigh Peterson	Prof Leigh Peterson
The University of Qld	Assoc Prof John Mott	AM Simon-Mayer
University Technology, Sydney	Prof Ernest Edmonds	Dr Yusuf Pisan
ACMI	Mike Stubbs	Alison McCormack
Auran Technologies Pty Ltd	Graham Edelstein	Submit individually to ACID
Brisbane City Council	Julie Harris	Teresa Luck
Cyberdreaming	Brett Leavy	Brett Leavy
Heritage Pacific	Brett McDonald	Alana Wilson
HITLabNZ	Dr Mark Billingham	Dr Mark Billingham
Imap	John Grant	Mark Irving
QANTM	Jochen Mueller	Submit individually to ACID
SGI	Bill Trestrail	James Hills
Corporation Builders	James Paulsen	James Paulsen





Innovation today means observing consumers to discover what they want, then satisfying them with new products [and services].

-BRW, August 18-24, 2005

# COMMERCIALISATION

## & TECHNOLOGY TRANSFER

### COMMERCIALISATION STRATEGIES & ACTIVITIES

ACID's Commercialisation and Utilisation Plan was approved by the Department of Employment Science & Training on the 9 June 2005. We now have a roadmap in place by which to measure our commercial direction.

R&D activity to date has produced commercialisable outcomes some 12 months in advance of our original expectations. Early 'wins' on the board will help position ACID as a successful and viable R&D company.

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

In order for ACID to develop market-relevant prototypes we have three commercialisation focal points we must understand well – service provision, product development, and know-how. Know-how will especially be important as an aspect of developing unique selling propositions for ACID products and services.

### COMMERCIALISATION AND THE ACID BUSINESS MODEL

Planning has begun around the establishment of ACID Services Pty Ltd, a wholly owned subsidiary, established to provide services to third parties utilising ACID technology and intellectual property. ACID Services should be operable later in 2005.

Carrying on ACID's commercialisation activities through a subsidiary company has three major benefits:

1. Separating, for managerial efficiency, the different functions of ACID's activities into separate legal entities.
2. Making use of the principle of 'limited liability' as a shield for ACID's assets (including IP) against the risk of liability incurred by activities carried on by the subsidiary.
3. A separate entity will have its own accounts, thus sharpening focus on commercialisation and revenue generation issues.

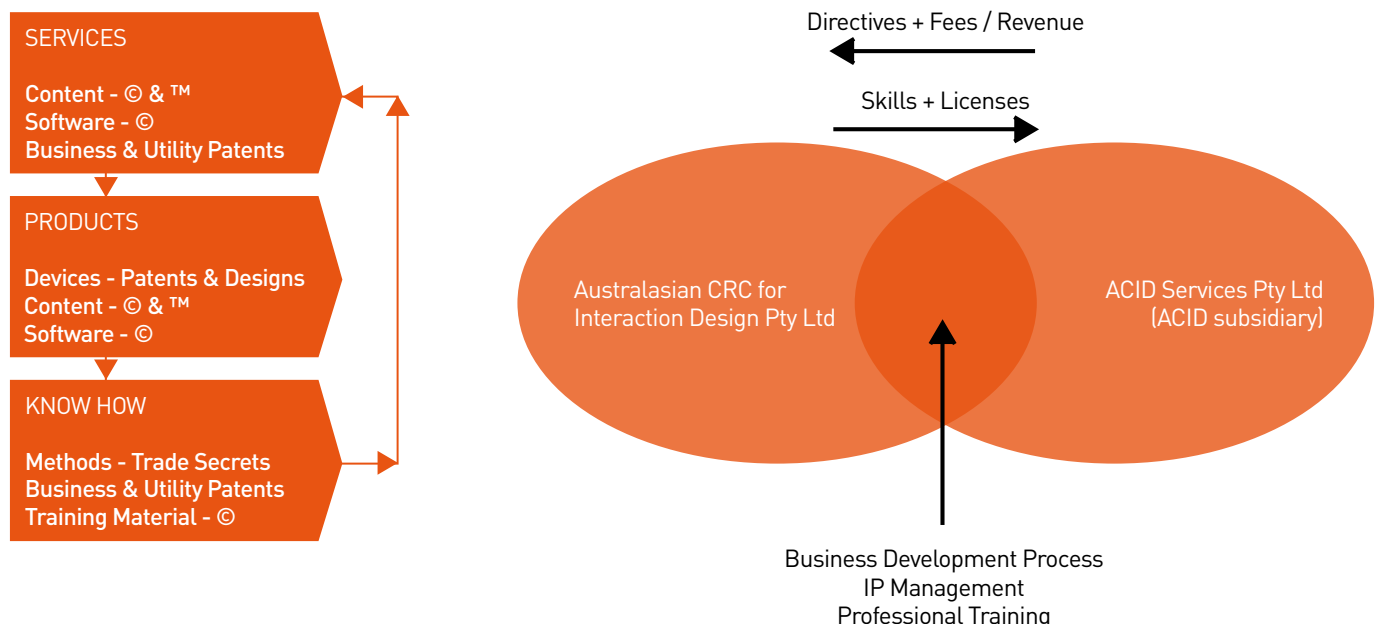
The wholly owned ACID services company will be set into the existing ACID governance and management structures. The services company will have a CEO and several key personnel and the ACID Services Board will sit as a sub-committee of the existing ACID Board. A Technology Transfer Manager for expanding professional training opportunities will work across the two organisations.

### RELEVANT GENERIC MARKETS

At this stage we have a preliminary analysis of the IP assets and opportunities presented by our existing research projects. These existing initiatives show clear commercial opportunities emerging in a broad range of industry contexts. The list below provides an indication of the target markets in our current line of sight, for when output is ready for commercialisation.

- Built environment & communities
- Media & entertainment
- Health
- Education
- Marketing & advertising
- Culture & government

R&D activity to date has produced commercialisable outcomes some 12 months in advance of our original expectations.



## CONTENT 'FORMAT' LICENSING

A content format is normally a licensed combination of a trademark [brand, logo etc], a relevant internet domain name, copyrighted material [scripts, software, databases], content [graphics, animation, scripts, video, text], and sometimes devices or utility [business processes] patents. In particular the content management services of multi-user, multi-platform applications are likely to become extremely valuable business process [utility] patents. This is a key area of development and focus for ACID.

## CONTRACT RESEARCH AND CONSULTANCIES

During 2004-2005 ACID's contract R&D activity began to ramp up from the previous year's slower start. As a result commercialisable expertise has emerged in online communities, technologies and content for master planned communities, the deployment of location based games, and the development of an end-user centric process for designing devices.

The following projects are the result of ACID's ongoing contract research capabilities:

- Location Based Games
- Diversionary Therapy
- KGUV Urban Planning Simulation
- Online Communities of Practice Consultancy
- Virtual Genesis

## CURRENT COMMERCIAL OPPORTUNITIES

Intellectual Property	Description
<b>MMSme</b> – content format and seamless integration of: <ol style="list-style-type: none"> <li>Moderated two-way end-user SMS communication</li> <li>Moderated one-way end-user MMS communication and</li> <li>Online/public display of group(global) results</li> <li>Game engine – scripts and databases that control SMS game play through trivia challenges</li> <li>Brand – A possible trademark</li> </ol>	MMS/SMS technology that allows for group interaction in public space. It provides new software, a tested content format, content management services (processing, distribution, display), business models and social capacity building activities.
<ol style="list-style-type: none"> <li><b>Location-based games (LBG)-Scoot and Cypher Valley</b> (standalone packaged game experiences)</li> <li>Design and analysis methods</li> <li>Content format and seamless integration of multiple platforms</li> </ol>	Most LBGs are not specific to an actual physical location. These games are designed to encourage the players to interact with other players, their physical surrounds and the locals in the community where the game is being played. It provides new software, interface design and social capacity building.
<b>Gesture recognition device</b> <ol style="list-style-type: none"> <li>Hardware engineering designs</li> <li>Hardware device prototype</li> <li>Gesture design and visualisation software</li> <li>Gesture recognition source code and algorithms</li> <li>Gesture input source code</li> <li>Demonstration interface and content</li> </ol>	Gesture orientation device that provides new interaction capability with interactive content. It provides a new device, software and device design and uniquely engineered composition.
<b>Human dimensions method</b> <ol style="list-style-type: none"> <li>Step-by-step guide</li> </ol>	A document with templates and activity formats describing the unique ACID-specific approach to engaging in R&D.
<b>Augmented Reality Glasses</b> <ol style="list-style-type: none"> <li>Design specification for wearable LCD glasses</li> <li>Design prototype of wearable LCD glasses</li> <li>3-D content: animation cartoon characters</li> <li>Uses open source code library for augment reality [AR]</li> </ol>	By utilising custom-designed lightweight stereo glasses and live video augmented with 3-D content new forms of animation can be used in pain management and pain diversion therapy with children.
<b>Digital Songlines</b> <ol style="list-style-type: none"> <li>Indigenous 3-D content and interactive programs</li> <li>Step-by-step guide (document with templates) to engaging indigenous communities</li> </ol>	High-end, authentic display of culture content.
<b>Collaborative Online Desktop</b>	COD is an online tool enabling groups of people to remotely collaborate to create documents, strategy, policy, reports and other formally structured content.
<b>Dynamic Music Engine</b>	The dynamic music engine is a technology that allows developers to implement audio content that is self generating over time. This allows for a more dynamic user experience in PC games and other interactive applications including new music applications for mobile phones.

## EXIT STRATEGY

ACID is a funded CRC for 7 years. Our Commercialisation Plan considers the range of exit strategies for ACID in 2010. The options under consideration are:

### Option A – Continue as Incorporated Entity Guaranteed by Shares

This option is the most likely scenario given the opportunities outlined in this document. We anticipate deriving income from the ACID Services company, VC investment and further investment by current and new ACID shareholders. This will likely involve corporate restructuring in accordance with the constitution and shareholders agreement.

### Option B – Re-bid to Commonwealth for another round of CRC funding

Possible. The management team being assembled for the CRC as discussed in this document aim to bring a commercial focus to the research and R&D so that an ACID/ACID Services model is self-sustaining. In the event of a re-bid, the management team and research directions would be re-profiled to take account of changes in the industry

### Option C – Close down Company and Sell off Assets

This is the least likely scenario given the commercial opportunities documented here. This option would be guided by normal frameworks of corporations law and in accordance with the ACID constitution and shareholders agreement.

## IP MANAGEMENT

### CONTROL AND REGISTRATION OF IP ASSETS

All IP is vested 100% in ACID unless otherwise negotiated on the Project level. The Shareholder's Umbrella Agreement and all Project Orders set this out. As part of the Projects quarterly milestone review, deliverables are analysed for assets to be protected.

ACID's explanatory Memorandum to Students details types of IP protection and the IP Policy they must adhere to when working with ACID. The associated Deed assigns to ACID the ownership of IP generated while undertaking research and technical work as part of their research higher degree. The Deed does not cover any IP that was generated by Students prior to their involvement with ACID, or IP that is generated by them wholly independent of their involvement in the work of ACID. The assignment of IP does not include assignment of the copyright in their thesis or in publications authored by them arising out of their studies. However publications must be reviewed and approved by ACID prior to submission to ensure that no unprotected IP is mentioned in the articles. The same adherence to policy is required for all researchers.

IP will be centrally documented in an IP Registry. If a patent or other protection method is warranted a meeting is held with ACID's patent attorney to review the steps and information required to submit the provisional patent and later full patent. A review of the registry by Senior Management on a quarterly basis is administered to stay abreast of ACID's IP and commercialisation opportunities.



The quiet, unpredictable way that design and creativity match up in the marketplace disturbs and baffles many people.

-The Australian Financial Review, October 20, 2000

## END-USER INVOLVEMENT

ACID is very involved with its industry participants and university researchers in understanding the broad technology environment in which it operates. Due to the fast-moving nature of the creative industries and the rapid deployment and uptake of new software and hardware from both industry and consumers, it is imperative that ACID capitalises on opportunities to commercialise research outcomes as early as possible. ACID is strongly placed to provide a fully integrated approach to the assessment of commercialisation opportunities.

As a result of the strong research efforts Projects have produced at least 12 commercial opportunities which include a Design Registration.

This is 12 month's in advance of what was originally forecast in ACID's initial business plan.

ACID's commercialisation strategy is based on two tenets: ACID researchers understanding the commercialisation process and the utilisation of market specific commercialisation processes. The IP management strategy is fully integrated into ACID's research management processes and includes:

- Projects reviewed on a quarterly basis
- Deliverables reviewed and intellectual property assessments made at each quarterly review
- A Prospectus developed for each piece of IP to assess and track its commercial potential through the remainder of the research and development process

Research Users	Association	Project	Project Activities	Key Researchers
Auran Technologies SGI	Core participants	1. Citadel 2. Digital Songlines	1. A software tool for implementing multi-user applications; MUE application framework & design specification 2. Indigenous 3-D content and interactive programs. Step-by-step guide to engaging indigenous communities	John Banks, Auran Stephen Viller, UQ Ian McColl, UQ Mark Billinghamurst, HITLabNZ Mark Burry, RMIT Andrew Brown, QUT Barbara Atkins, QUT Chris Barker, QUT
Heritage Pacific	Core participant	Virtual Genesis	A software tool for master planned communities allowing the integration of content, mobile devices and online ICTs; for applications that require virtual and location-specific components.	Sam Bucolo, QUT Brian Hay, Construct 3D
QANTM Pty Ltd Auran Technologies	Supporting participant Core participant	Media Station	A software tool for implementing multi-user, eLearning applications; content and methodology demonstrators.	Michael Docherty, UQ Stephen Viller, UQ John O'Toole, Griffith Peta Wyeth, UQ Jude Smith, QUT Ann Morrison, UQ Gavin Sade, QUT Julie Dunn, Griffith Michael Dezuanni, QUT Barbara Atkins, QUT Cathie Sherwood, Griffith
ACMI	Supporting participant	Interactive Lounge	Gesture device prototypes, multi-user content; procedures for analysing human-interaction requirements; IP & commercial partners.	Duane Varan, Murdoch Andrew Turk, Murdoch Sam Bucolo, QUT Debra Polson, QUT Margot Brereton, UQ Adam Postula, UQ Brian Lovell, UQ





- The Prospectus is expanded to develop:
  - Market Research
  - Competitive Advantages
  - Potential IP buyers
  - Risk
  - Business/Commercialisation Models
  - Marketing Strategy
  - Budget to complete prototype
  - Revenue streams

- Commercialisation Strategies include:
  - Licensing IP to partners and third parties
  - Sale of IP to third parties
  - Spin-offs for sustainable, regenerative IP
- Commercialisation budgets may be created when a:
  - Research project is transferred to a Development project for the creation of prototypes
  - Prototype is developed by a dedicated ACID Development Team
  - Prototype budget is expanded to include costs for a full IP protection/marketing/sales strategy

Several of the companies in the SME Consortium have been involved with researchers in putting forward project applications. Their involvement is key to understanding the needs of the industry as the majority of companies in the Creative Industries are micro to SME sized organisations. In the next financial year ACID is planning to develop a more formal SME organisation, expanding the concept into the other capital cities where ACID nodes are located.

Research Users	Association	Project	Project Activities	Key Researchers
Kelvin Grove Urban Village Hornery Institute QLD Dept of Public Housing	Third Party Participants	Connected Communities	Context-aware device demonstrator, engineering specifications and methodology for implementing a smart, connected, master planned urban community.	Mark Burry, RMIT Stephen Pincus, QUT Peter Lavery, QUT Neil Bergman, UQ Ljubo Vlacic, Griffith Sam Bucolo, QUT Adam Postula, UQ Duncan Campbell, QUT Ian McColl, UQ Andrew Wilson, QUT Dianne Smith, QUT Jeremy Yuille, RMIT Lawrence Harvey, RMIT
Auran Technologies SGI	Core participants	Dynamic Content	Dynamic media content APIs/plugin to software IDEs; new software tools for creating music, animation, textures, 3-D structures; IP licenses.	Andrew Brown, QUT Greg Hooper, QUT Dan Mafe, QUT Keith Armstrong, QUT Paul Cleveland, Griffith David Atkinson, RMIT Zane Trow, QUT Ralph Muhlberger,
SGI	Core participant	Digital Songlines	Rapid software application development tools for multi-platform 3-D content; content demos and sponsors.	James Hills, SGI Dr John Hayes, QUT Angelina Russon, QUT Chria Barker, QUT Dianne Eden, QUT Leonard Meenach, QUT Kathryn Trees, Murdoch Michael Broderick, Murdoch
Brisbane City Council	Supporting participant	Location Based Games	Demo a game that activates "transactions" in a real place through GPS, mobile phones (PDAs), and an online 'world'; content demos and sponsors.	Debra Polson, QUT Barbara Atkins, QUT Sam Bucolo, QUT Ian McColl, UQ Mathew Simpson, UQ

Research Users	Association	Project	Project Activities	Key Researchers
Blue Rocket Productions Roving Stage Productions	Third Party Participants	Mobile Entertainment	Mobile R&D capacity to capture opportunities presented by Australian content producers and global content aggregators.	Sam Bucolo, QUT Mark Billinghamurst, HITLabNZ
Lake Technologies	Third Party Participant	Audio Spatialisation	Software requirements specification for a multi-device audio spatialisation software layer appropriate for use by sound designers.	Andy Arthurs, QUT Andrew Brown, QUT Greg Hooper, QUT Paul Doornbusch, RMIT Lawrence Harvey, RMIT
ACMI The Transmute Collective	Supporting participant Third Party Participants	Australasian Creative Industries Network	Procedures for achieving low-latency over high-speed networks; Procedures for commissioning creative work in co-located facilities; technical white-paper.	Peter Lavery, QUT Stephen Viller, UQ Graham Kerr, QUT Keith Armstrong, QUT Jill Stanfield, QUT Nigel Oram, QUT Mark Billinghamurst, HITLabNZ Pia Ednie-Brown, RMIT Mark Burry, RMIT Jamie Maddem, UQ Leon van der Graff, QUT
ACID ToadShow	SME Sponsor	ACID Press	Multiplatform publishing system and associated methodology; provides peer review context for researchers engaged in creative practice.	Stuart Cunningham, QUT Axel Bruns, QUT Liz Ferrier, UQ Steve Dillon, QUT Richard Vella, QUT Peta Mitchell, UQ Stuart Glover, QUT
ACID The Dramatic Group	For new third party interest	Collaboration Tools	COD  Procedures for implementing collaborations in multi-user applications; collaboration "know-how"	Ian McColl, UQ Stephen Viller, UQ Andrew Burrow, RMIT Jeremy Yuille, RMIT Axel Bruns, QUT
Imap ACID	Core participants	Innovation Platform (Imap)	Web based innovation management software & methodologies.	Mark Irving, Imap John Grant, Imap Jeremy Yuille, RMIT Steve Viller, UQ Gavin Winter, ACID
ACMI Brisbane City Council	Supporting participants	Communities & Places	Methods of mobilising local place-based activity enabled by mobile/online technologies; Site/community analysis "handbook."	Margot Brereton, UQ Ian McColl, UQ Stephen Viller, UQ Mark Billinghamurst, HITLabNZ Marilyn Lim, HITLabNZ Richard Green, HITLabNZ Stephanie Hemelryk Donld, UTS Sam Bucolo, QUT Mark Burry, RMIT Gregory More, RMIT Yamin Tengono, RMIT Glenda Nalder, Griffith
SGI	Core participant	Lightweight Stereo Glasses	Feasibility for applied research to design LCD shutter glasses required for active stereo virtual reality applications; Market and technical analysis.	James Hills, SGI Sam Bucolo, QUT

## CONTRACTURAL MILESTONES

The Commonwealth Agreement provides a list of 33 Research Outcomes and target delivery dates. Current

mechanisms for tracking the outputs of specific projects and emerging initiatives provides the following snapshot of activity to date.

### EDUCATION AND TRAINING PROGRAM

<b>Outcome 19</b>	Description: Implement scholarship funding arrangements for students in core research.
<b>Status</b>	ON TARGET: Project funding documents include specific funds for students.
<b>Outcome 20</b>	ON TARGET: Student progress is tracked by the Education Director.
<b>Status</b>	ON TARGET: Student progress is tracked by the Education Director.
<b>Outcome 21</b>	Description: Implement industry-university exchange opportunities for students. Complete output will be delivered through a series of milestones from 2004 through 2010.
<b>Status</b>	BEHIND SCHEDULE: No exchanges to date.

### TECHNOLOGY TRANSFER PROGRAM

<b>Outcome 22</b>	Description: Implement a formal environment for students, researchers and industry participants to meet and exchange knowledge, ideas and research outputs. Conference will be delivered on an annual basis with a total of 7 conferences running over the life of the Centre, 2003 – 2010.
<b>Status</b>	ON TARGET: Regular ACID Conference held October 12-13, 2004 and scheduled for October 12, 2005.
<b>Outcome 23</b>	Description: Implement a formal environment for attracting new participants into research projects and other activities of the centre. Exposition to be delivered on an annual basis.
<b>Status</b>	ON TARGET: ACID Conference held October 12-13, 2004 and scheduled for October 12 2005.
<b>Outcome 24</b>	Description: Implement an informal presentation and student teaching environment on progressive research outputs.
<b>Status</b>	ON TARGET: Regular monthly seminars have been sporadic, but most projects manage students to a high standard.
<b>Outcome 25</b>	Description: Specify the needs of a Professional Education and Commercial Training Program.
<b>Status</b>	BEHIND SCHEDULE: Activity has not commenced and is not strategic at this stage; Program activity to commence during Q4 2005-2006.
<b>Outcome 26</b>	Description: Implement a Publications program.
<b>Status</b>	ON TARGET: Formal arrangements, policies and procedures finalised in early 2005.
<b>Outcome 27</b>	Description: Implement the framework and intended outcomes of the Innovation Forums and Expositions.
<b>Status</b>	ON TARGET: ACID Innovation forums-May and October 2004; Scientific advisory group attended October 2004; schedule of innovation forums is now regular.

### COMMERCIALISATION PROGRAM

<b>Outcome 28</b>	Description: Implement the exploitation requirements of interaction design R&D outcomes for commercial gain.
<b>Status</b>	ON TARGET: Business infrastructure and project funding rounds fully operationalised; Commercialisation Plan approved by Board and DEST.
<b>Outcome 29</b>	Description: Implement the Commercialisation Plan.
<b>Status</b>	AHEAD of SCHEDULE: Commercialisation Plan finalised in June 2005; Organisational restructure finalised June 2005 – new, commercially focused senior staff team in place.
<b>Outcome 30</b>	Description: Develop commercialisation prototypes for use by the CRC and its industry participants licensing and others progressed through 2 spin-off companies.
<b>Status</b>	AHEAD of SCHEDULE: Commercial prototypes have emerged 12 months ahead of plan; 6 of these are being progressed through licensing and others progressed through 2 spin-off companies.
<b>Outcome 31</b>	Description: Deploy R&D to enterprise development through the creation of flexible, transferable and reproducible processes for commercialisation.
<b>Status</b>	ON TARGET: Business infrastructure and project funding rounds fully operationalised; Commercialisation Plan approved by Board and DEST.
<b>Outcome 32</b>	Description: Implement IP Management Plan. Delivery Targets: 2003 and ongoing.
<b>Status</b>	ON TARGET: Business infrastructure implemented and innovation management software installed (lmap); IP registry populated with data for 22 projects; 1 design registration finalised with data for 22 projects; 1 design registration finalised.
<b>Outcome 33</b>	Description: Conduct research for national and international companies through several Consortia of SMEs and researchers that are configured to provide R&D services.
<b>Status</b>	ON TARGET: Project activity has accelerated resulting in mature capacity for capturing R&D contracts; project funding guidelines required participants to identify contract R&D opportunities; R&D contract in excess of \$750K expected during 2005-2006.

### ACID'S R&D PRIORITIES

While we have accomplished a great deal over 2004, we are also extremely diverse in our research. The decision was taken to refine the use of resources to concentrate on specific existing research projects and to establish an even stronger infrastructure.

Four core project mission statements have been developed which span the emerging R&D directions. An evolutionary step-on from the Research Programs - the Project Mission Statements - point ACID researchers toward a more market-focussed perspective. Specifically ACID will work in four contexts to discover the processes required for implementing group interaction scenarios within:

#### Suburban Communities - Program Manager: Sam Bucolo - Smart Living Program

ACID's mission is to provide a blueprint for articulating social interaction dynamics and deploying group-interfaces linked to content creation requirements into connected communities.

#### Virtual Communities - Program Manager: Jeremy Yuille, Multi User Environments Program

ACID's mission is to provide a process for deploying engagement methods, interaction templates and a financially viable governance & management platform for formal multi-user, multi-platform, distributed applications (Note: Here platform refers to operations not necessarily technologies).

#### Creative Communities - Program Manager: Andrew Brown, Digital Media Program

ACID's mission is to develop the services and accredited methods for effective creative collaborations in distributed environments through tools for enhanced creative interaction with digital technologies.

#### Indigenous Communities - Program Manager: James Hills Virtual Heritage, Program

ACID's mission is to provide protocols for developing and validating art/cultural content, process templates for distributed, digital content production, and engagement methods for the use of relevant tools, products and services worldwide.

### THE ACID R&D FOCUS

ACID's focus is to integrate the needs of suburban, virtual, creative and Indigenous communities into profitable content service provider businesses. These businesses will fundamentally be interlocked with a productive brains-trust of students and researchers in universities and entrepreneurs from within industry.

Key issues to be considered within all projects include:

- Methods to manage test-bed communities
- Frameworks for collecting and analysing social interaction data
- Systems for defining and deploying interface templates, prototype designs and content management services
- Engagement of industry partners for access to specific communities as a research capacity

Context	Suburban	Virtual	Creative	Indigenous
Outputs	Engagement models, research dissemination, capabilities and capacity, sample groups, formal management of test beds, demonstrations, scalable prototypes			
Outcomes	Scalable prototypes; insights, products and services that apply directly to commercialisation			
Markets (ACID customers)	Developers of Master Planned Communities [MPC's] and their stakeholders; Body corporates of existing MPCs; OEMs of digital home technologies; Telcos	Providers of distributed management software applications; large distributed organisations; industry and research associations.	Artists and cultural organisations	Indigenous communities; publishers of digital content OEMs of digital home technologies
End-Users (ACID's market's customers)	People in places	People in their workplaces	People in 'managed' experiences	People in homes; content developers; students in schools, museums
Objectives of the ACID Group	Blueprint for understanding & deploying requirements to connected communities; Formally managed test-bed locations; New enabling models, methods, templates and technologies for interactive activity	Engagement methods, interaction templates and operating platform for formal multi-user, multi-platform applications; Demonstrate how to implement financially viable applications of multi-user technologies, and experiences	Services and accredited methods for effective creative collaborations in distributed environments	Protocols, and templates for digital content production Cultural and commercial opportunities for virtual heritage tools, products and services worldwide
Year 3	Rapid prototyping processes	Fully functioning CSP*	Rapid prototyping processes	Product templates
Year 2	Book and publications	Book and publications	Book and publications	Book and publications
Year 1	Demonstrations and methods	New product integration	Product development	V1.0 Product and toolkit release
Theoretical Foundations (competencies and differentiation)	Interaction design methods for communities	Human Dimension engagement methods for online/mobile communities	Enhancing creative interaction using digital technologies.	Protocols for Engaging Indigenous People and Content

\*Content Service Provider

In 2004 – 2005 ACID has expanded its research capacity through the launch of our third round of funding. New projects across the four programs were established which strategically strengthen our core competencies within our identified R&D strengths.

At the completion of this funding round, ACID has established 22 projects. Early commercial success from many of these

projects is evident in the strong industry interest these projects have generated.

A number of projects have also been successful in securing contract research funding, allowing them to be further developed within a broader industry context. With future funding rounds the challenge for ACID is to ensure that it remains focused to support the growth of its core competencies and identified

R&D strengths. A revised research application process will be developed allowing the organisation to consolidate projects and maximize our strategic value.

*NOTE: Superscripts on project titles [28-38] refer to performance measures on pg 58.*

## SMART LIVING PROGRAM

Program Manager  
Aspro Sam Bucolo, QUT



### CONNECTED COMMUNITIES <sup>4,5</sup>

#### PROJECT LEADER

Professor Mark Burry



Brisbane is fast emerging as a city for tomorrow's world - clean, green, an economic powerhouse for the region and a strong emphasis on a healthy lifestyle, with an increasing sophistication of infrastructure and services. The concepts of 'smart living' and connected communities are acknowledged as central to this market positioning and support both the Queensland 'Smart State' agenda and the cultural strategy for Brisbane depicted in 'The Creative City'.

The advent of a series of master planned communities around the metropolitan area reflects these lifestyle drivers. Their particular urban and social characteristics of density, aggregated populations and planned delivery combined with overt lifestyle aspirations make them particularly attractive opportunities for the delivery of integrated, high end, digital networks and content. As a consequence, the ICT industry, policy makers, developers and consumers

### DIVERSIONARY THERAPY – CONTRACT RESEARCH <sup>2,4</sup>

#### PROJECT LEADERS

Associate Professor  
Sam Bucolo

#### PROJECT COLLABORATORS



The treatment of burns in paediatrics is a painful but necessary procedure which requires the child to see a physician on a 3 to 7 day cycle (potentially over a 3 month period) where bandages need to be removed and examined and then reapplied. This particularly painful experience generally causes anxiety in both children and parents. Current pain and anxiety management relies heavily on drug intervention, often requiring the child to become completely sedentary. An alternative approach is the use of diversionary therapy for children during painful procedures. Within the burns unit this involves the child's attention being diverted using toys or music therapy during the removal

of a bandage or examination of a burn. Such techniques have remained unchanged for the past 10 years.

An alternative to these approaches is the use of digital media and emerging technology as a diversionary therapy. Immersive Virtual Reality (VR) has been identified an effective tool in the management of burns patients. A limitation of VR when applied to toddler aged children is that it may raise the anxiety of the child due to the claustrophobic nature of the Head Mounted Display. Augmented Reality (AR) is a technology which may overcome the limitations of VR with toddlers and be suitable as a

### INTERACTIVE LOUNGE <sup>2,4</sup>

#### PROJECT LEADER

Deb Polson  
Margot Brereton  
Duane Varan, MU until May 2005



Digital technologies are introducing an ever increasing array of devices for television viewers to interact adding new complexity to the TV viewing experience. The 'interactive lounge' research project explores new approaches using gestural systems to better facilitate such interaction.

The research is facilitated across four parallel streams of activity, focusing on integrating engineering interface platforms and purpose-designed devices, the creation of navigation interfaces, the production of content as well as specific evaluation tools and techniques.

The Interactive Lounge team is developing exhibition prototypes of a gestural interaction system to be displayed at the Australian Centre for the Moving Image (ACMI) and tested in the Interactive Television Research Institute in Perth.

### LOCATION BASED GAMES: CIPHER VALLEY – CONTRACT RESEARCH <sup>2,4,5</sup>

#### PROJECT LEADER

Deb Polson



This third party funded project has developed a location based game initially for Fortitude Valley in Brisbane that uses combinations of mobile technologies and devices and an online environment. The game will emphasise backpacker tourists, youth, international students and emerging creatives in 'The Valley' and surrounding areas. Levels of game play will account for the transient nature of backpackers, profile creative industries, and create a model for new business opportunities that sustain the game and associated activity.

This project develops new knowledge and applications in the field of location based game [LBG] design in two key areas. First, the project expands the potential for location-based games by applying a capacity for developing relationships between people, enhancing cultural participation and cultural capital in an inner city area.

This results in new methods for:

- Designing and implementing games
- Understanding how games can be used to create social interaction

are presently aligned in their focus on generating a definition of smart living and deriving an understanding of the elements needed to future proof homes in these communities. This presents ACID with an opportunity to work with these stakeholders to develop and test concepts for new devices and services in the context of integrating information communication technology with community development strategies to form a unique definition of a 'smart community'. The Connected

Communities project is exploring these issues in the context of an emerging inner urban master planned community – Kelvin Grove Urban Village. This will then provide a foundation for a broader engagement with other master planned communities.

diversionary therapy technique in the treatment of burns and in other procedures in paediatrics. In AR, the virtual experience is created by overlaying a virtual image within the actual environment, whereas in VR the immersive experience is created by blocking out the actual environment. This research aims develop an appropriate interaction design solution to reduce the need for drug intervention for paediatric burns patients. The research will focus on developing an appropriate physician - patient – content – device solution, which will be clinically validated using the FLACC (faces, legs, activity, and cry and consol ability) scale to determine if there is a significant

reduction in pain and anxiety scores between study and control groups. The research demonstrates the role and impact the creative industries can have on professions grounded in medical sciences. Results from the pilot study will be available in July 2005 and if shown to be successful will be applied to a larger group and then applied to other departments within the hospital environment where drug intervention for pain management is administered.

- Mining of game-play data to gain insights into how social capacity emerges

Second, the project involves the development of a human-focussed approach in this area through a research design that systematically integrates research into socio-cultural and economic aspects of locations and social groups into the game design process.

To date the team has developed Cipher Valley, an LBG which has been successfully trialled in the Valley with the

cooperation of a group of participating BUNK backpackers. The trial has provided the team with valuable data on the social, spatial, technical and temporal game relationships that were both designed to occur and that emerged as potential new dimensions.

The team is currently in production phase to extend the LBG system and create more simple user interfaces that will ultimately become a 'curatorial tool' for designing future instances of LBG's, each with their own unique social and cultural features.

## PROGRAM 1 SMART LIVING PROGRAM MANAGER

Associate Professor Sam Bucolo

### PROJECT COLLABORATORS

Professor Neil Bergmann  
Ian MacColl  
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Matthew D'Souza  
Bea Lam  
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Montserrat Ros  
Professor Mike Berry  
Dr. Anitra Nelson  
Grant Dunlop (RA)  
Aspro Sam Bucolo  
Dr Duncan Campbell  
Dr Mark Gibson  
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Professor Ljubo Vlacic  
Chase Johnson (RA)  
Kate Meyrick  
Charlotte Fitzgerald  
Dr Roy Kimble  
Dr Jonathan Mott  
Dr Stuart Pegg  
Stuart Macintyre  
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Jared Donovan  
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Stuart Fraser  
Bea Lam  
Lorna McDonald

## MOBILE ENTERTAINMENT <sup>2,4</sup>

### PROJECT LEADERS

Associate Professor  
Sam Bucolo

Associate Professor  
Mark Billingham



The market for mobile phone games is exploding. This project aims to develop new mobile entertainment applications based around SMS, Java and computer vision techniques. Although most mobile phones have an integrated camera there are only a handful of entertainment applications that use video input. The research significance of this project is in developing computer vision applications which run entirely on the phone, enabling new types of handheld game interactions.

Key challenge in developing a successful mobile game is the constraints imposed by the device itself. Game developers need to take into consideration screen resolution, processor constraints, and limited input options. Computer vision techniques can be used to provide more natural input.

Using a simple marker based tracking library we have developed a novel game in which a ball rolls through a maze based on the motion of the camera in the real world. In this way we are able to create a tangible user interface for mobile devices. The Mobile Maze game is based on the traditional game where the objective is for the user to control the movement of a ball through a physical maze by tilting the maze by hand. The combination of a simple game format and advanced interaction technique provides an engaging user experience and innovative mobile game platform. We have also conducted a user evaluation that compares user input with the camera to more traditional joystick input. This is one of the first studies that presents a user study of a computer vision based mobile phone game.

## VIRTUAL GENESIS – CONTRACT RESEARCH <sup>4,5</sup>

### PROJECT LEADER

Brett McDonald



Virtual Genesis focuses on the role of interactive 3D virtual models for a master planned community. The project will focus specifically on the Genesis property development being undertaken by Heritage Pacific and on the interaction between the 3D virtual model and the various stakeholders within such a project, namely the developers, the potential property buyers, the local council, the community residents and the body corporate.

The project will be undertaken in a number of stages, with stage 1 focusing on the development of the interactive 3D virtual model. The model will depict the actual geography of the site, vegetation and housing within the development.

Subsequent stages will address the development of community applications integrated with the virtual model and evaluating their impacts on the various stakeholders. It is anticipated that this project will form part a Living Laboratory within the actual community.

The Smart Living Program also conducted the following Feasibility Studies:

**Placemakers:** Production and testing of a server system that can identify the type of handset generating a network request and serve appropriate media. This Feasibility informs a research question from the LBG Project.

**Connected Communities WA:** Will build a research and business case to present to Western Australian housing and development bodies, with a view to one or more of them becoming industry collaborators in a more substantial WA-based ACID project.

**Location Aware Real Estate:** Will research and develop a hand-held, location-tracked device enabled with a program which allows for the viewing (and configuration) of 3D models of properties.

## KELVIN GROVE URBAN <sup>5</sup> PLANNING SIMULATION – CONTRACT RESEARCH

### PROJECT LEADERS

Deb Polson  
Kate Meyrick



A community education program is being developed at Kelvin Grove Urban Village. With an overall objective of involving industry, supporting teachers and exciting students, the program will be based around the core theme of urban sustainability and provide:

- Learning through a variety of mediums
- Hands-on practical learning opportunities
- Participation in real life projects and experiences
- Intellectual support for teachers in emerging fields
- Learning from industry experts
- Interaction with other schools and types of students

Beginning with the development of education materials for on-site delivery and off-site use, the program will expand to include extension activities, including the Living Cities Project, an annual conference, and continuing professional development.

Taking a place-based approach to the design of the education program and delivery options, the program will be run from the Kelvin Grove Urban Village. This approach has the potential of bringing together not only the Kelvin Grove Urban Village education initiatives, but also providing a venue for the delivery of related or supplementary programs by QUT, Brisbane City Council, Education Queensland and industry.





That planning, which intellectuals sometimes equate with “democracy”, rewards the ability to explain and argue. [but] It discourages the restless pursuit and real-world testing of ideas.

-The Australian Financial Review, October 20, 2000

## MULTI-USER ENVIRONMENTS PROGRAM

Program Manager –  
Jeremy Yuille, RMIT



ACIN <sup>2,4,5</sup>

### PROJECT LEADERS

Professor Peter Lavery  
Dr Stephen Viller



The Australasian Creative Industries Network [ACIN] project is researching and developing the collaborative tools and methods to create an Australasian online community of shared work, exhibitions and real-time events.

ACIN has established a series of conclusions related to:

- Quality-of-service issues unique to installing high-speed network systems in two exhibitions for the display of low-latency, co-located, interactive, creative works

- Creative collaborative teams in a connected facility
- Developing tools to facilitate natural collaboration at a distance
- Real (tangible) interface devices used to support and enhance remote collaboration
- Demonstrating dual site events in the short term
- The possibilities for independent distinctive artistic works using high speed access

## CITADEL – (Suspended and Funds Redirected into Digital Songlines and Touchstone)

### PROJECT LEADER

John Banks



'Citadel' was conceived to support the development and management of massively multi-user 3D worlds. The project leverages Auran's (Brisbane based game development company) Auran Jet® game engine technology, using it as the foundation for a variety of powerful yet flexible end-user tools designed to create 3D, interactive and immersive simulations. 'Citadel' aims to allow ACIN to create massively multi-user 3D applications.

This project aims to develop:

- A methodology for developing and managing massively multi-user 3D environments

- An Application Framework that is based on the core technology of Auran Jet
- Development guidelines for plug-ins that provide new functionality and content for the 'Citadel' platform

The 'Citadel' project team collaborated to develop a functional specification document that provided an overview of the application from a technical perspective. Preliminary work has been undertaken that extends some of the capabilities of the Auran Jet engine in the area of terrain generation. With this in mind the underlying design and

## HUMAN DIMENSION METHODOLOGY

### PROJECT LEADERS

John Banks  
Barbara Adkins

PROJECT MENTOR  
Professor Peter Thomas



This project was borne out of the 'Citadel' project and focuses on new forms of consumer interaction with emerging content technologies require techniques that move far beyond human factors and usability. The products that digital consumers will use effectively and the ones that ACIN projects will deliver or inspire - require far greater degrees of insight into the interplay of technology, content and context.

To ensure that ACIN projects address early the demands of eventual commercialisation or other forms of exploitation in diverse markets, Project Touchstone will develop a methodology that will ensure engagement with a diverse range of consumer concerns and stimulate further innovation.

The methodology will be a clear, documented, concise and adaptable consumer-centred approach that can be used for market-ready outputs from ACIN projects. The methodology will

## COLLABORATION – (Suspended and Funds Redirected into an emerging and expanded collaboration initiative)

### PROJECT LEADERS

Dr Stephen Viller  
Ian MacColl



Researchers in ACIN are from diverse backgrounds and they work on multidisciplinary projects which are distributed across several ACIN locations. The Collaboration project is concerned with understanding how collaboration takes place on ACIN projects, and designing, deploying, and studying the use of collaboration technologies to support this distributed collaboration. The key research questions for Collaboration centre

around the interrelationship between these two broad processes, and using the tools themselves over an extended period of time to thoroughly explore their usefulness for supporting collaborative work. In order to effect this, the project has adopted an iterative, human-centred approach to inquiry and intervention which is known as Ethnographic Action Research (EAR).

- The mix of social and technical issues for the public visiting co-located exhibitions

A major outcome of this project has been the production of a new creative work that draws upon the embodied knowledge integral to several experimental performance forms in order to develop specific interface design and experience scenarios. This creative work - Intimate Transactions - is a new type of interactive installation that allows two

development work on Auran technology systems associated with virtual worlds has now been shifted towards the Digital Songlines project.

An outcome of the interdisciplinary research aspect of this project (ethnography, interaction design, human factors, new media studies) was an increased focus on the fundamental importance of a human dimensions approach that engages users across all stages of design and development. A 'human dimension methodology' framework was developed over the recent stages of the project that now informs other ACID projects

take into account the unique cross-disciplinary nature of ACID projects which encompass elements as diverse as digital communities, group interaction and distributed cognition.

The concrete deliverables of the project will include an online repository of information and strategic tools that can be used in the context of existing and new projects. The project will draw upon knowledge and competence in ACID participants and partners and blend this with international best

Existing approaches to using ethnography in the design process have tended to involve sending ethnographers out into the setting of interest and reporting back to the designers in the form of debriefing meetings, presentations, reports, or other structured accounts of what was observed. In contrast, EAR recruits and supports people from within the communities being studied to undertake and report on the fieldwork. EAR has

people located in separate spaces to interact simultaneously using only their bodies. By gently moving their bodies on this 'smart furniture' they instigate 'Intimate Transactions', which influence an evolving 'world' created from digital imagery, multi-channel sound and tactile feedback.

such as the Online Communities of Practice Consultancy Project. The methodology is also being extended and refined in the Human Dimensions Consultancy Methodology project - an interdisciplinary approach to participatory design that integrates both ethnography and design practice. Postgraduate student research contributed to this focus and included reports on human centred design practice and online community management strategies.

practice to create an approach which is recognised as world-leading. It will be of value not only to ACID but to the international community.

only previously been used in contexts such as introducing ICTs into developing countries. We believe the approach holds much promise for any distributed organisation with an interest in collaboration technology and a concern for implementing processes to establish continuous learning and improvement based on current practice.

## PROGRAM 2 MULTI USER ENVIRONMENTS PROGRAM

PROGRAM MANAGER  
Jeremy Yuille

### PROJECT COLLABORATORS

Dr Graham Kerr	Bernadette Flynn
Victoria Lynn	Rod Sims
Mike Stubbs	Andrew Burrow
Jill Standfield	Jeremy Yuille
Kim Montgomery	Roslyn Cooper
Nigel Oram	Cory Stewart
David Watson	Lynn Pennefather
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Billinghurst	Thom Saunders
Pia Ednie-Brown	Dr Richard Green
Professor Mark	Stephanie
Burry	Hemelryk Donald
Dr Margot	Aspro Sam
Brereton	Bucolo
Leon van der	Greg Moore
Graaff	Yamin Tengono
Alessio Cavallaro	Glenda Nalder
Marcos Caceres	Mike Stubbs
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Collective	Dr Yusuf Pisan
Dr Stephen Viller	Chris Bowman
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Jones	Ian Gwilt
Chris Denaro	Jenny Weight
Frank Chalmers	Greg Jenkins
Ian McColl	Gavin Sade
Greg Lane	Dr Jo Tacchi
Kerry Hemsley	Miranda Forwood
James Hills	Michael Dunbar
Dr Andrew Brown	Professor Jeff
Gavin Winter	Jones
Dr Barbara	Sonya
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Chris Barker	Edbrooke
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Penny Sweetser	Jeff Axup
Eryn Grant	

## MULTI-USER ENVIRONMENTS PROGRAM

Program Manager –  
Jeremy Yuille



### COMMUNITIES AND PLACE<sup>5</sup>

PROJECT LEADER

Dr Margot Brereton



The Communities and Place project seeks to understand the conditions under which communities form and sustain themselves, considering in particular the role and potential in this process of the uptake and the use of internet/communications technologies. Combinations of mobile and fixed communities are investigated.

The project takes an integrated approach to community exploration and technology exploration using participatory design methods in an endeavour to identify and design technologies that meet community needs and aspirations, and that are sustainable. The goal of the team is to combine commercial and community aspirations in order to provide

### CREATIVE COLLABORATION

PROJECT LEADER

Professor Ernest Edmonds



University of Technology Sydney's Shareholding in ACID is linked to the Supplementary Funding. The Funding was not finalised with DEST during the reporting period, however was finalised in August 2005. In anticipation of the funding commencing in 2005, the team at UTS have forged ahead with their project.

Creative Collaboration is about interactive experiences using broadband technologies. The project investigates the design of flexible technical systems

that enable information designers to integrate and build sensor technologies and visualisation environments to make interactive information, learning and art systems.

We explore interactive ambient visualisation environments employing position, sound and gesture recognition. We focus on the content designer's creativity. We enable practitioners to explore and develop new forms of information delivery and develop high-end and evolving creative media and

### SENSEMIX

PROJECT LEADERS

Jeremy Yuille



SenseMix applications help people create, share & remix media using a mobile phone. Using these applications, people can take images, text and sounds collected on a mobile phone and collage them 'intelligently' into structured forms for storage or sharing. The project will focus on developing applications that appeal to the youth market where mobile phone adoption in Australia is as high as 98% and where the SMS and DJ/remix cultures are most prevalent.

These applications help people assemble digital media stories about places, events and people and then share these stories with their personal networks. They enhance the desire to share content over mobile networks by enabling people's creativity and removing technical barriers to production and sharing.

The project team is developing a suite of components and suitable applications that add value to media captured on mobile phones. Possible

### ONLINE COMMUNITIES OF PRACTICE – CONSULTANCY<sup>5</sup>

PROJECT LEADERS

John Banks  
Barbara Adkins



This ACID consultancy will enable the establishment of an informal knowledge community in a large health services organisation, facilitating communication and collaboration within a broad base of diverse knowledge workers. This will enhance the overall quality of the organisation's services and will also facilitate the continuous professional development of its staff.

It is envisaged that the online communication tools will operate in a functional way to promote and improve intra-organisational communication within and between different professional communities across the

organisation. Further, the emergence of an online community will be a vehicle to engage staff in the organisational culture of the organisation and its human resource base.

This project covers the first phase on an ongoing process aimed at developing an online community tool that will achieve the above outcomes. It is critical that the eventual online community technologies are grounded in the culture and practices of the organisation.

This project will therefore employ ACID's human dimensions and participatory

community generated content. The Communities and Place team are working with three communities:

- A settled residential area
- A mobile community [backpackers]
- A youth community [early high school]

Outputs so far include:

- Three community studies [residential, backpackers, youth]
- Technology evaluation [of public display technologies]
- Fortitude Valley data mine
- Design brief

communications technology solutions.

The project will deliver a fully tested multiple sensor software development environment and associated interaction models. The work will be developed using the existing interactive environment in the Creativity and Cognition Studios (CCS) at University of Technology, Sydney (UTS) and link to a duplicate environment built in the Powerhouse Museum Sydney. This pair of environments will be used to develop, test and demonstrate the systems.

Our approach to investigating practice and system requirements is unique. Relevant research groups include: ARS Electronica, Future Lab, MIT Media Lab, Design Media Arts – UCLA, Human-Computer Communications Technology Laboratory - University of British Columbia, ATR Laboratories – Kyoto.

configurations of these components will be demonstrated in prototype applications designed to increase the creative agency of people in everyday scenarios. Because of the limited interfaces on mobile phones the senseMix applications will rely strongly on designed process using algorithmic techniques for automating media processing.

What can be created with Sensemix?

- A micro-documentary or media-postcard of a sporting event, holiday

or party made from images and voice annotations recorded during the event using an 'intelligent' senseMix structural template

- An interactive birthday card whose 'pages' unfold through user actions, the 'card' is assembled from text, images and sounds added by the author and assembled by a SenseMix interactive template
- A live music performance where the musician captures and remixes sounds on the phone using senseMix processes in real time

design methodologies to identify key aspects of staff orientations and practices that form the current organisational context in which issues of collaboration and communication arise.

Thus the methodology is based on a human centred approach aimed at maximising the involvement of users across all stages of design, development and implementation, and gaining an understanding of their everyday work practices and contexts.

The process starts with the development of a careful and

provisional understanding of the users' context and needs that is refined throughout the research and design phases of the broader project.

## PROGRAM 2 MULTI USER ENVIRONMENTS PROGRAM

PROGRAM MANAGER  
Jeremy Yuille

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Penny Drennan	Fiona Redhead
Penny Sweetser	Marcus Foth
Eryn Grant	Jeff Axup

## DIGITAL MEDIA PROGRAM

Program Manager –  
Dr Andrew Brown, QUT



### ACID PRESS

#### PROJECT LEADER

Associate Professor Richard Vella  
Dr Axel Bruns



ACID Press systematises the review and distribution of research findings. ACID Press will go beyond current peer reviewed research processes such as the Grant Application Management System [GAMS] to support mixed media content and dissemination of research

findings. While DEST has commissioned the Council for the Humanities, Arts & Social Sciences to investigate improvements to metrics associated with research quantum, there is a strong case for the implementation of a peer review system - a publishing

### AUDIO SPATIALISATION 2

#### PROJECT LEADER

Dr Greg Hooper



Following on from a feasibility study the same name, this project will develop a realtime Audio Spatialisation delivery platform that will enable sound designers and composers to easily implement complex audio spatialisation strategies. This will culminate in the production of a virtual "Space Control Board" (a spatial equivalent of a mixing control board) which will serve as a model for subsequent proprietary

products. Enabling technologies developed by this project along the way will include an new library of audio spatialisation elements, an audio spatialisation interchange format that could become an be an industry wide standard for representing spatialisation elements, and implementations of an audio spatialisation software engine on the Citadel and Lake Huron platforms.

### DYNAMIC CONTENT 4

#### PROJECT LEADER

Dr Andrew Brown



The Dynamic Content project develops methods, processes and tools that enable the creation of dynamically varying content for digital media. Specific domains of activity include dynamic music and procedural textures. The project employs algorithmic processes to assist creative people in the generation of animated and improvisational digital content. The processes are guided by theories and practices arising from the creative arts, cognitive sciences, artificial life

and artificial intelligence.

The chief outcomes from the project to this point include:

- An adaptive music engine for computer games
- A music performance instrument based on stochastic synthesis
- A music performance instrument based on cellular automata rhythms
- A generative system for animatedvisual textures

### MEDIA STATION 2

#### PROJECT LEADER

Associate Professor Michael Docherty



This feasibility study will explore the possibilities and potentials of the use of Massive Multiplayer Online platforms [MMO's] to assist learning. It does this by proposing a learning environment called the Media Station. The Media Station would be a virtual reality learning environment for the creation and distribution of art, entertainment and information in media rich forms. It is envisioned as a creativity playground that includes tools and materials for creating and distributing media content. Media Station is an umbrella project

covering three investigations into the potential practice of using MMOs in educational situations.

Each Media Station vision is focussed on a particular research opportunity drawn from the project participants own educational and research practice.

#### Overall Research

1. Better understand and articulate how media rich (3D visual and audio) multi-user environments can enhance learning.

### MMS ME 5

#### PROJECT LEADER

Professor Jeff Jones



<http://www.mmsme.net.au/between/>

'MMS Me' is a game; it's also an experiment with a series of social interactions. Propelled by SMS trivia and challenges and MMS images shared between teams, the game is played out via an evolving visual landscape of images displayed by a web application which can be projected and viewed anywhere.

MMS Me' is a group interface platform for:

- Modelling new content management services (i.e. the next ASP or ISP)
- Implementing mobile, multi-user games and other experiences
- Analysing social capacity and social networks
- Mobile, online and locale interactions

'MMS Me' is a global game platform and an enabler of games and other

system in its own right. ACID Press will add value to research outcomes in the creative industries by providing a valid and efficient process that supports the publishing of multimedia research outcomes.

This project is significant because nowhere else have all the aspects of audio spatialisation, interaction design, and sound design knowledge been brought together into an integrated system that uses an interchange format to logically separate spatialisation actions and intentions from hardware implementation. This approach will enable a flexible system that could be anything from a) a single spatialisation

The main areas of research include:

- Amplifying creativity with semi-autonomous computational processes
- The aesthetics of dynamic systems
- Representational systems for evolving media forms

The Dynamic Content project has led to the development of the ACID Music System. ACID partners Auran are developing a product called My Virtual Home, software designed to help the

design to be scaled from a mono speaker in a mobile phone to b) an array of several hundred loudspeakers in a public space, without the need for intervention from the sound designer.

home renovator and refurbishment market visualise their choices prior to purchase. My Virtual Home uses the ACID Music System featuring adaptive music technologies developed by ACID. The ACID Music System has been designed to create music that varies dynamically over time, therefore minimising repetition when navigating between rooms in your virtual house.

Music composed by David Lazar and Andrew Brown.

2. Better understand the implications of media rich, multi-user environments for pedagogy and curriculum development.
3. Develop and refine methods for the design, development, use and evaluation of multi-user learning environments.
4. Investigate ways to integrate online and offline learning opportunities with multi-user environments.

### Achievements

1. Research cycle data from three projects – focus groups, videos of research events, formal questionnaires
2. Analysis of data from specific perspective of individual projects
3. Prototype environments and further research
4. Journal and Conference outcomes
5. Technology transfer opportunities
6. Collection of Media Station papers
7. Implementation of research concepts in a rich graphic environment.

applications such as:

- Mobile phones used in real time
- Front-end and back-end technology
- Database technology

To date, the team have demonstrated 'MMS Me' to an eager crowd of conference participants at an international conference held in the UK in January 2005, and connected with people's playful side when the application was showcased at ACID

official Launch in October 2004. Significant international interest has been registered for this product, with multiple uses in a range of markets.

The Digital Media Programme also conducted the following Feasibility Studies:

**Audio Spatialisation:** Will move toward the establishment of an Audio Spatialisation project and acquire a specific industry participant.

## PROGRAM 3 DIGITAL MEDIA PROGRAM

PROGRAM MANAGER  
Dr Andrew Brown

### PROJECT COLLABORATORS

Professor Richard Vella  
Dr Axel Bruns  
Dr Liz Ferrier  
Dr Steve Dillon  
Dr Peta Mitchell  
Dr Robert Davidson  
Dr Greg Hooper  
Dr Andrew Brown  
Chris Bennett  
Lawrence Harvey  
Chris Gilbey  
John Banks  
Dan Mafe  
Dr Keith Armstrong  
Greg Lane  
Chris Barker  
Paul Cleveland  
Kevin Roper  
David Atkinson  
Associate Professor Zane Trow  
Dr Ralf Muhlberger  
Craig Gibbons  
Andrew Sorenson  
Associate Professor Michael Docherty  
Professor John O'Toole  
Peta Wyeth  
Jude Smith  
Ann Morrision  
Gavin Sade  
Dr Julie Dunn  
Michael Dezuanni  
Dr Barbara Adkins  
Cathie Sherwood  
Jane Turner  
Professor Jeff Jones  
Thom Saunders  
Gavin Winter

### STUDENT

Angi Buettner

# VIRTUAL HERITAGE PROGRAM

Program Manager – James Hills, SGI



## DIGITAL SONGLINES<sup>2,4,5</sup>

### PROJECT LEADERS

James Hills  
Brett Leavy



The Digital Songlines project is developing protocols, methodologies and toolkits for Indigenous Virtual Heritage applications. The project works with Indigenous communities, organisations and Universities in QLD and WA to construct 3D representations of Indigenous artistic stories, works, language, culture and heritage. The project explores the effective recording, content management and virtual reality delivery of indigenous cultural knowledge in ways that are culturally sensitive and involve the indigenous custodians, leaders and communities.

Digital Songlines will entertain, inform and educate people about Aboriginal arts, culture and heritage using immersive visualisation and leading edge gaming technology.

The Research Aims are to:

- Explore the relevance of spatial-exploratory multimedia as a means of representing and communicating aspects of (a specific) indigenous cultural heritage.
- Explore the relationship between low-bandwidth (limited immersion) style virtual heritage strategies and high-bandwidth (sophisticated kinaesthetic style immersion) strategies. What are their relative merits? What are the technical and aesthetic pathways between them? Critically examine the representational, spatial-immersive, cultural-communicative, and aesthetic outcomes.
- Determine best practice for cultural heritage public exhibition spaces for museums, interpretive centres and science centres
- Develop (and document) appropriate cultural protocols for producing indigenous virtual heritage work, with a particular emphasis upon finding effective means to control user access to culturally restricted information and to engage local participants in aspects of the production process
- Determine the criteria for developing a compelling indigenous experience for public consumption that respects and meets the appropriate indigenous protocols and communicates to the public the heritage values and experience desired by the indigenous communities.

Significant international interest has been expressed regarding the uptake of Digital Songlines in various forms.

## VIRTUAL WORLDS

### PROJECT LEADER

James Hills



The Virtual Worlds project is developing a suite of software tools enabling the creation of 3D and 4D content using dense reconstruction techniques from sets of digital images or movies.

The software libraries utilise the techniques of image feature extraction and tracking; structure from motion, 3D reconstruction and texture mapping.

The Virtual Worlds projects aims to create a series of software tools enabling the determination of the 3D data from images acquired with a digital camera. The duration of the project is 2 years of which the first 6 months has been completed.

Potential applications for the technology range from:

- Motion control for cameras in the Visual Effects industry
- Creation of low-geometry photorealistic textures for computer games and simulations
- Markerless extraction of articulated human motion
- Virtualisation of display enclosures for museum, zoo's, etc
- 3D digital content creation for preservation and display of heritage artefacts

These applications are intended to support the outcomes of the Digital Songlines project, which together present ACID with a number of good commercial opportunities.

## PROGRAM 4 VIRTUAL HERITAGE PROGRAM

### PROGRAM MANAGERS

James Hills  
Brett Leavy

### PROJECT COLLABORATORS

Brett Leavy  
James Hills  
Chris Barker  
Joti Carroll  
Ren Quan  
Dr John Hayes  
Frank Chalmers  
Professor Jeff Jones  
Gavin Winter - ACID  
Dr Kathryn Trees  
Craig Gibbons

David McKinnon  
Dale Duiguid  
Gungari Community  
Juluwarlu Aboriginal Corporation  
Kombumerri Aboriginal Corporation for Culture and Yugambeh Museum  
Kooma Community

### STUDENTS

Stef Gard  
Frank Rijavec  
Mia Thornton



# INTERACTIVE TV ADVERTISING PROGRAM: SUPPLEMENTARY FUNDING

The Supplementary Funding was not finalised with DEST during the reporting period, however was finalised in August 2005. In anticipation of the funding commencing in 2005, the team at Murdoch have forged ahead with their project.

## BEYOND:30 SECONDS

PROJECT LEADER  
Professor Duane Varan



The advent of a wide range of technologies including personal video recorders, video-on-demand, IPTV and Interactive TV are disrupting the existing paradigm of television advertising. As viewers become increasingly empowered to watch 'what they want, when they want, where they want' it becomes increasingly important for the advertising and broadcasting industries to explore new models associated with television advertising.

Broadcasters can no longer depend primarily on a single model of advertising (the 30 second commercial). Beyond:30 provides a forum where empirical exploration of a wide range of models can be better explored and the psychology of the interactive viewer better understood.

Many of the world's leading advertising brands and media platforms have now joined the project. Collectively, these brands account for almost one third of the US television advertising expenditure – so there is power within the consortium to influence change in the very structure of the industry itself.

There are two integral parts to the project. The first relates to a series of 24 empirical studies designed to test different TV advertising models and better understand the psychology of the interactive viewer. Most of these studies will be conducted in the Interactive Television Research Institute – ITRI's new interactive audience labs, featuring what is perhaps the world's most advanced audience research lab specifically designed for the study of interactive viewing behaviour.

The second dimension of the project seeks to develop a wide range of tools designed to support these studies. This will include, for example, a collaboration and rapid prototyping tool (to be developed in conjunction with Imap) and an Audience Research Suite integrating a wide range of research tools for the study of viewing behaviour in this new arena.

## INTERACTIVE TV ADVERTISING PROGRAM [Supplementary Funding]

### COLLABORATORS

Dr. Anika Schweda  
Deborah Norman  
Cheryl Clarenc  
Natalie Power  
Adrian Bollig  
Chris Watt  
Michael Gell  
Lisa Critchley  
Karl Dyktynski  
Emily Fielder  
Kristina French  
Joycelyn Ong  
James McHale  
Brett Rothwell  
Val Tomlin  
Rachelle Kalic  
Harpreet Singh



# RESEARCH COLLABORATION

## THE ACID QUILT- CAPTURING THE TEXTURE OF COLLABORATION

	ACID Press	Australasian Creative Industries Network	Audio Spatialisation 2	Beyond :30 Seconds	Citadel	Collaboration	Communities & Place	Connected Communities	Creative Collaboration	Diversionsary Therapy	Digital Songlines
QUT											
UQ											
RMIT											
Carey Thomas											
Melbourne University											
Murdoch University											
UTS											
Cognitia Studios											
Imap											
ACID											
ACMI											
Auran											
Blue Rocket Productions											
Brisbane City Council											
CyberDreaming											
HITLab NZ											
Heritage Pacific											
Hornery Institute											
Kelvin Grove Urban Village											
Lake Technology											
Leavy Consulting											
Powerhouse Sydney											
QANTM											
Qld Dept Housing											
Qld Dept of State Dev, Innov & Trade											
Roving Stage Productions											
Royal Childrens Hospital											
Silicon Graphics											
Virtual Realms [ACID SME]											
ZONE 4											



## CONTRACTUAL MILESTONES - RESEARCH

### TRACK RECORD:

The following is a snapshot of research activity to date.

Agreed 'Outcomes' are as per Commonwealth Agreement, and

'Status' indicates project's progression towards agreed 'outcomes'.

### SMART LIVING PROGRAM

<b>Outcome 1</b>	Description: Demonstrate new forms of multimodal interactive communication through the integration of technology infrastructure, new devices, software, social processes and education in community contexts. Released from 2004 through 2007.
<b>Status</b>	ON TARGET: Location Based Games, Communities & Place, Connected Communities, Location Aware Real Estate Devices.
<b>Outcome 2</b>	Description: Demonstrate the viability of 'Smart Living' communities through new enabling models, methods, templates and technologies for interactive activity. Released between 2006 & 2008.
<b>Status</b>	ON TARGET: Location Based Games, Connected Communities, Virtual Genesis, Suburban Communities, Diversionary Therapy.
<b>Outcome 3</b>	Description: Demonstrate sustainable 'Smart Living' interaction formats, infrastructure and interactive systems. Delivered between 2008 and 2010.
<b>Status</b>	ON TARGET: Location Based Games, Interactive Lounge, Connected Communities, Location Aware Real Estate.
<b>Outcome 4</b>	Description: Demonstrate technological protection measures for the tools and technologies of 'Smart Living' applications. Delivered between 2007 and 2010.
<b>Status</b>	ON TARGET: Location Based Games, Mobile Entertainment, Location Aware Real Estate.

### DIGITAL MEDIA PROGRAM

<b>Outcome 5</b>	Description: Demonstrate new forms of interaction with digital representations of dynamic media. Delivered between 2004 and 2006.
<b>Status</b>	ON TARGET: Dynamic Content, Audio Spatialisation, Sense Mix.
<b>Outcome 6</b>	Description: Demonstrate techniques for platform independent media storage and delivery. Delivered between 2005 and 2007.
<b>Status</b>	ON TARGET: Collaboration, ACID Press, Citadel (Auran Jet Port to Linux64, Macintosh...), Sense Mix.
<b>Outcome 7</b>	Description: Demonstrate how to expand the expertise, content and IP of participant industries. Delivered between 2005 and 2007.
<b>Status</b>	ON TARGET: Dynamic Content, Citadel, Digital Songlines, Devices for Pain Management, Virtual Genesis.
<b>Outcome 8</b>	Description: Demonstrate new hardware, content and software based upon existing media content. Delivered between 2004 and 2006.
<b>Status</b>	ON TARGET: Mobile Entertainment, Connected Communities, Sense Mix, Diversionary Therapy, ACID Music System.
<b>Outcome 9</b>	Description: Demonstrate a massively multi-user online, social application aimed at providing profitable technology spin-offs using existing media content and/or the new media forms described here. Delivered between 2005 and 2008.
<b>Status</b>	ON TARGET: Citadel, Digital Songlines, Media Station, ACIN, Urban Planning Simulation R&D Contract.
<b>Outcome 10</b>	ON TARGET: Dynamic Content, World Story, Media Station.
<b>Status</b>	ON TARGET: Dynamic Content, World Story, Media Station.
<b>Outcome 11</b>	Description: Demonstrate the technological protection measures for digital content distribution in a Digital Rights Management framework. Delivered between 2007 and 2010.
<b>Status</b>	ON TARGET: ACID Press.

## MULTI-USER ENVIRONMENTS PROGRAM

<b>Outcome 12</b>	Description: Demonstrate effective group-based, online activity through tele-collaboration and digital communities. Delivered between 2003 and 2010.
<b>Status</b>	ON TARGET: Collaboration, ACIN, Virtual Genesis, MMSMe, Location Based Games.
<b>Outcome 13</b>	Description: Demonstrate multi-user content and software in the CRC's key industries. Delivered between 2004 and 2007.
<b>Status</b>	ON TARGET: Collaboration, ACIN, MMSMe, Location Based Games, Collaborative Online Desktop, Connected Communities.
<b>Outcome 14</b>	Description: Demonstrate how to implement sustainable applications of multi-user technologies and experiences. Delivered between 2007 and 2010.
<b>Status</b>	ON TARGET: Most projects have these consideration built into them, Human Dimension Methodology, Online Communities of Practice.

## VIRTUAL HERITAGE PROGRAM

<b>Outcome 15</b>	Description: Demonstrate techniques for combining data acquisition and media development to enhance the preservation, production and dissemination of Australian heritage experiences. Delivered between 2004 and 2006.
<b>Status</b>	ON TARGET: Digital Songlines.
<b>Outcome 16</b>	Description: Demonstrate new data acquisition and digital production for heritage assets. Delivery Targets: New genres and data capture requirements will be delivered between 2005 and 2006.
<b>Status</b>	ON TARGET: Photogrammetry and panoramic techniques used in Digital Songlines (Virtual Worlds).
<b>Outcome 17</b>	Description: Demonstrate how cultural heritage can be disseminated and understood by the wider community. Prototypes will be delivered by 2005.
<b>Status</b>	ON TARGET: Digital Songlines, ACIN, Virtual Worlds.
<b>Outcome 18</b>	Description: Demonstrate cultural and commercial opportunities for Australian heritage products worldwide. Delivered between 2007 and 2010.
<b>Status</b>	ON TARGET: Commercial opportunities progressing in Europe, Asia and USA.

# EDUCATION

## OUR SECOND YEAR

The ACID Education Program continues to evolve in step with ACID's Research Programs. This has meant that 2004 was a year of relative consolidation with the ongoing support and development of our first student group. With the advent of ACID's Round 5 Research Program much will change for the Education Program in 2005.

Further improvement of the Program and our processes are reflected on the ACID Education web pages. Located here is our publication policy and approval forms, along with information on IP and Copyright. There is also detail around what level of support ACID can provide, students obligations to ACID, and information about the seminar programs.

ACID Projects continue to have students engaged in research teams where the participants are from both a partner university and from industry. This blend of high quality academic supervision and access to active industry participants has been part of ACID's Education Program from its inception. Without question, all students have felt the benefit of this collaboration. Not only does this enrich our research culture but students can see the direct application of much of their work. The Education team continue ongoing monitoring and feedback with each student - Vital to the smooth functioning of a diverse and flexible Education Program.

## ACID STUDENT SYMPOSIUM 2004

The First ACID Student Symposium followed on from ACID's Launch and Innovation Forum on Wednesday 13 October. The inaugural ACID Student Symposium offered a great opportunity for students to present their work to their peers as well as their Supervisors and the ACID team. Each student developed a poster illustrating their work, with the best poster winning the inaugural ACID 'Best Poster' award: Congratulations to Mia Thornton who won a book voucher for her poster titled "Virtually Yours: interactivity in the museum". Mia's poster along with the other student posters was also on display throughout the Launch and Innovation Forum and adorned the walls of the Creative Industries Precinct's "The Block".

The Symposium attendees were welcomed by ACID CEO Professor Jeff Jones, who then introduced Dr Terry Cutler, Chair of the ACID Board who officially opened the Symposium.

Throughout the day students offered insight into their work and the relevance to ACID projects via their presentations. As expected, presentations were of a very high standard and were an engaging mix of enthusiasm with excellent visual aids. There was much discussion following each presentation.

## SCHOLARSHIPS

In 2004, we had a total of 22 students engaged in ACID projects at Honours, Masters and PhD levels. Scholarship support from ACID ranged from 'top-ups' to existing APA or other stipends, half scholarships and full scholarships.

ACID will continue to offer a number of full scholarships for students wishing to undertake postgraduate study in the discipline of Interaction Design. These scholarships have been advertised nationally and will be selected on a competitive basis. Undergraduate students will also have the opportunity to engage in ACID projects for academic credit.

## SEMINARS AND WORKSHOPS

ACID began an internal seminar program in April 2004 known as ACID Speakeasy. Speakeasy is designed to give students and staff from each project an opportunity to seek a broader discussion group for their progress and research questions. The current venue for Speakeasy is QUT, with use of audio-visual conferencing to other nodes. Plans are underway to expand engagement in Speakeasy series across all the ACID nodes via the development of the Access Grid system.

"The Thesis as a Storyboard and its contribution to knowledge and Innovation," was the topic of a workshop run in May 2005 for the ACID Student community. Expertly run by Dr Barbara Adkins, the Workshop focussed on helping Students to identify innovative aspects of their thesis, and aimed to document a process for achieving innovative outcomes.

In September 2004 Robert Brown, of WriteWay Consulting "Helping Researchers to Communicate" ran a 1-day workshop called "Writing For Publication - Learning What Textbooks Don't Teach." This was a successful first step towards clarifying our students' research questions, and how to write clearly and succinctly for presentation and specifically for the posters at the upcoming Student Symposium.

## INTERNATIONAL PROJECTS

The ACID Education Program continues to have strong links with the School of Arts and Communication, Malmö University. Plans are well underway for the visit of Professor Pelle Ehn, Professor of Interaction Design at Malmö University. Professor Ehn will spend 7 months at ACID. During that time he will be engaged in a number of projects, in particular a research project to investigate new forms of interdisciplinary practices and education in creative industries knowledge production. Some of Professor Ehn's activities will become the basis of a research grant application to the EU.

The EU project will be carried out as joint activities between various ACID participants and the corresponding creative industries cluster in Malmö and the Öresund region, especially the role played by the School of Arts and Communication, Malmö University. If successful the project will have a duration of 4 years. It will be reported in the form of public exhibitions, an international conference, and two edited books on creative industries focusing on interdisciplinary creative practice and education in art, design and media.

## MOBILE COMMUNITY DESIGN, MOBILE RESEARCH METHODS, GROUP USABILITY

**NAME:** Jeff Axup  
**DEGREE:** PhD  
**INSTITUTE:** The University of Queensland  
**START:** May 2004  
**FUNDING:** UQ / ACID  
**SUPERVISORS:** Dr Stephen Viller, Ian MacColl  
**ACID PROJECT:** Communities & Places

Groups are increasingly using mobile devices to coordinate their behaviour and maintain social ties. My research focuses on developing research methods suited to understanding mobile, group behaviour to inform mobile technology design. Part of these methods will include data analysis techniques and representations to facilitate communication amongst design teams.

## ENHANCING COMMUNITY COLLABORATION

**NAME:** Keiran Bartlett  
**DEGREE:** MPhil  
**INSTITUTE:** The University of Queensland  
**START:** May 2004  
**FUNDING:** UQ / ACID  
**SUPERVISOR:** Dr Margot Brereton  
**ACID PROJECT:** Citadel and Communities & Places

Investigating ways in which technology can augment community collaboration and interaction.

## INVESTIGATING THE DESIGN OF GESTURAL INTERFACES

**NAME:** Jared Donovan  
**DEGREE:** PhD  
**INSTITUTE:** The University of Queensland  
**START:** March 2004  
**FUNDING:** UQ / ACID  
**SUPERVISOR:** 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. My research is concerned with how to design these interfaces so this promise is realised. I am 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.

## USER-CENTRED DESIGN PRINCIPLES FOR NON-PLAYER CHARACTERS IN GAMES

**NAME:** Penny Drennan  
**DEGREE:** PhD  
**INSTITUTE:** The University of Queensland  
**START:** April 2004  
**FUNDING:** ACID  
**SUPERVISORS:** A/Prof Janet Wiles, Dr Peta Wyeth, Dr Stephen Viller  
**ACID PROJECT:** Citadel

To determine the characteristics of Non-player Character (NPC) behaviour in games that add to players' engagement, and how these characteristics can be demonstrated to the player. The deliverables of this project will be design and evaluation guidelines for engaging NPCs, as a first step in the process of creating engaging NPCs.

## SENSING AND FEELING THE PRESENCE OF OTHERS IN SHARED DIGITAL ENVIRONMENTS

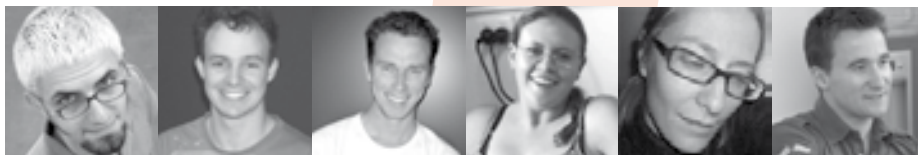
**NAME:** Pia Ednie-Brown  
**DEGREE:** PhD  
**INSTITUTE:** Royal Melbourne Institute of Technology  
**START:** May 2004  
**FUNDING:** ACID  
**SUPERVISORS:** Prof Leon van Schaik, A/Prof Peter Downton  
**ACID PROJECT:** Australasian Creative Industries Network

This project involved the design and manufacture of a tactile/haptic interface for the networked Intimate Transactions interactive installation. Vibrating inserts were designed for the shelf as well as for a wearable neck pendant. These actuators assisted the user to both locate themselves and to feel the presence of others within a shared 3-D immersive world.

## TOWARDS A DESIGN METHODOLOGY FOR ONLINE COMMUNITY NETWORKS TO GROW SUSTAINABLE URBAN NEIGHBOURHOODS

**NAME:** Marcus Foth  
**DEGREE:** PhD  
**INSTITUTE:** Queensland University of Technology  
**START:** July 2002  
**FUNDING:** APA, QUT-VC, CIRAC, ACID  
**SUPERVISORS:** Prof Greg Hearn, Prof Jeff Jones  
**ACID PROJECT:** Communities & Places

This project investigates the continued purpose and relevance of urban neighbourhoods and the quality of collective vs. networked social formations to inform the design of systems to facilitate place-based peer-to-peer social interaction that contributes to the creation of neighbourhood identity and network social capital in inner-city residential developments.



1. Jeff Axup  
 2. Keiran Bartlett  
 3. Jared Donovan  
 4. Penny Drennan  
 5. Pia Ednie-Brown  
 6. Marcus Foth

## THE RELATIONSHIP BETWEEN LOW BANDWIDTH (LIMITED IMMERSION) & HIGH BANDWIDTH (SOPHISTICATED KINESTHETIC) STYLE VIRTUAL HERITAGE STRATEGIES

**NAME:** Stef Gard  
**DEGREE:** Masters  
**INSTITUTE:** Queensland University of Technology  
**START:** June 2004  
**FUNDING:** ACID  
**SUPERVISOR:** A/Prof Sam Bucolo  
**ACID PROJECT:** Digital Songlines

To explore the different perceptions of nature and environment between indigenous and non-indigenous Australians, and determine which aspects of a virtual world need to be used in both high bandwidth and low bandwidth and which ones are only needed in the high bandwidth version.

## THE CRITICAL FEATURES OF MULTI-USER RELATIONSHIPS IN INDEPENDENT VIRTUAL COMMUNITIES THAT DEVELOP USER-GENERATED CONTENT SUCCESSFULLY

**NAME:** Eryn Grant  
**DEGREE:** Masters  
**INSTITUTE:** Queensland University of Technology  
**START:** August 2004  
**FUNDING:** ACID  
**SUPERVISOR:** Dr Barbara Adkins  
**ACID PROJECT:** Location Based Games

To study issues of collaborative relationships between users in virtual worlds and develop a logic and methodological framework for informing prototype development of multi-user environments that contain user-generated content. The key concern of this investigation is to locate the methods and framework that allows successful interactions to take place. To understand and then document the existing regulations that create community dynamics around user generated content.

## WEARABLE COMPUTING

**NAME:** Clint Heyer  
**DEGREE:** PhD  
**INSTITUTE:** The University of Queensland  
**START:** May 2004  
**FUNDING:** APA/ACID  
**SUPERVISOR:** Dr Margot Brereton  
**ACID PROJECT:** Communities & Places

To investigate affective, social and interaction aspects of wearable computing, along with a secondary interest in intelligent knowledge agents in the wearable computing platform.

## INFLUENCING THE EMOTIONS IN MUSIC

**NAME:** Steven R. Livingstone  
**DEGREE:** PhD  
**INSTITUTE:** University of Queensland  
**START:** September 2004  
**FUNDING:** UQ, ACID  
**SUPERVISOR:** Dr Ralf Muhlberger, Dr Andrew R. Brown  
**ACID PROJECT:** Dynamic Content

This project aims to develop a model of musical expression to enhance the feedback and reproduction of algorithmic music. This technique will be a major contribution to the field of affective computing. Through its application, the virtual environment can be modified to evoke the desired responses in the subject, be it ease, curiosity, fear or anger.

## SUPPORTING AWARENESS IN COLLABORATIVE COMMUNICATION

**NAME:** Jamie Madden  
**DEGREE:** Masters  
**INSTITUTE:** The University of Queensland  
**START DATE:** November 2004  
**FUNDING:** UQ, ACID  
**SUPERVISOR:** Dr Stephen Viller  
**ACID PROJECT:** Australasian Creative Industries Network

How can current technologies to support remote collaboration such as video conferencing be augmented to provide more support for people entering and leaving meetings, and how can participants' interactions and awareness of co-presence around meetings be improved? Current remote meeting technology typically supports the more formalized cooperation that takes place during meetings, but does little to facilitate the less formal interactions around them.

## LOCATION-DEPENDENT GAMES: A FRAMEWORK FOR DESIGN

**NAME:** Lorna Macdonald  
**DEGREE:** PhD  
**INSTITUTE:** University of Queensland  
**START:** March 2005  
**FUNDING:** ACID, UQ-ITEE  
**SUPERVISORS:** Dr Stephen Viller, Ian MacColl, Matthew Simpson  
**ACID PROJECT:** Collaboration

This project proposes a methodological framework for use in designing location-dependent games or experiences. An increasing interest in this genre has given rise to a number of common issues surrounding the design and development of these types of experience. Specifically, the treatment of and approach to the use of location gives rise to particular design considerations. The framework aims to highlight these and provide designers with tools and processes for use in addressing these design issues.



1. Stef Gard 2. Eryn Grant 3. Clint Heyer 4. Steven R. Livingstone 5. Jamie Madden 6. Lorna Macdonald



## SENSING AND FEELING THE PRESENCE OF OTHERS IN SHARED DIGITAL ENVIRONMENTS

**NAME:** Inger Mewburn  
**DEGREE:** Masters  
**INSTITUTE:** Royal Melbourne Institute of Technology  
**START:** May 2004 - April 2005  
**FUNDING:** ACID  
**SUPERVISOR:** Pia Ednie-Brown  
**ACID PROJECT:** Australasian Creative Industries Network

This project involved the design and manufacture of a tactile/haptic interface for the Intimate transactions piece. Vibrating inserts were designed for the shelf as well as for a wearable neck pendant. These actuators assisted the user to both locate themselves and to feel the presence of others within a shared 3-D immersive world.

## REFLECTIVE PARTICIPATORY DESIGN: A STRUCTURED, REFLECTIVE, INTERDISCIPLINARY AND DESIGN DRIVEN PROCESS.

**NAME:** Jennifer Michelmore  
**DEGREE:** Masters  
**INSTITUTE:** Queensland University of Technology  
**START:** December 2004  
**FUNDING:** ACID  
**SUPERVISORS:** A/Prof Sam Bucolo, Dr Dianne Smith  
**ACID PROJECT:** Connected Communities

This study aims to contribute to the understanding of how to conduct (and repeat) a reflective participatory design process to actively engage all stakeholder and designers in the development of emerging interactive technologies for future master planned communities, grounded in the human dimensions of the desired community.

## STUDY OF COMMUNICATIONS IN RESIDENTIAL COMMUNITIES

**NAME:** Fiona Redhead  
**DEGREE:** Masters by coursework  
**INSTITUTE:** The University of Queensland  
**START:** May 2004  
**FUNDING:** ACID  
**SUPERVISOR:** Dr Margot Brereton  
**ACID PROJECT:** Communities & Places

To study communities and networking in residential communities to understand the motivations for participation, the barriers to participation, methods of communication and networking use. The research will focus on providing better support to communities by building social, cultural and networking capital and effective environments for business.

## BEGINNING FROM AN ENTRY LEVEL, WHAT CHOICES DOES A PARTICULAR ABORIGINAL GROUP MAKE IN PURSUING ITS AIM OF TAKING UP AND APPLYING DIGITAL MEDIA; AND WHAT INFORMS THOSE CHOICES?

**NAME:** Frank Rijavec  
**DEGREE:** Masters  
**INSTITUTE:** Murdoch University  
**START:** June 2004  
**FUNDING:** Murdoch, Juluwarlu Aboriginal Corporation, ACID  
**SUPERVISOR:** Dr Mick Broderick  
**ACID PROJECT:** Digital Songlines

In collaboration with Juluwarlu Aboriginal Corporation (JAC) of Roebourne, to research and develop strategies for the application of Digital Media to recording Yindjibarndi & Ngarluma cultural and historical knowledge, and the routine production and distribution of local programming. In accordance with the JAC's stated objectives, the project will also investigate funding/resource models, and modes of production/distribution that return greatest initiative, control, autonomy and satisfaction to Aboriginal media producers.

## CONTEXTUAL AWARENESS IN GROUPWARE

**NAME:** Markus Rittenbruch  
**DEGREE:** PhD  
**INSTITUTE:** The University of Queensland  
**START:** June 2004  
**FUNDING:** UQ/ACID  
**SUPERVISORS:** Dr Stephen Viller, Dr Tim Mansfield  
**ACID PROJECT:** Collaboration

To create a conceptual framework for contextually enriched awareness in CSCW (Computer Supported Cooperative Work) and to design and implement prototypical applications that enhance existing awareness capabilities. The framework will convey a rich set of information about user activities and usage context in collaborative settings.

## FACILITATING PLAYER ENJOYMENT WITH ACTIVE GAME ENVIRONMENTS

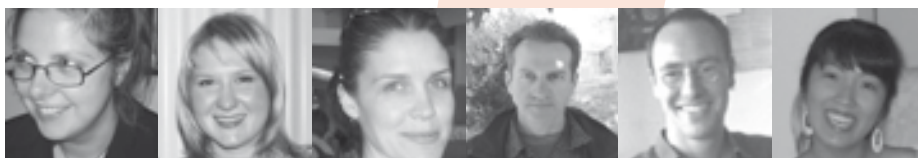
**NAME:** Penny Sweetser  
**DEGREE:** PhD  
**INSTITUTE:** The University of Queensland  
**START:** April 2004  
**FUNDING:** UQ GSS / ACID  
**SUPERVISORS:** A/Prof Janet Wiles, Dr Peta Wyeth  
**ACID PROJECT:** Citadel

To enhance player enjoyment in games by determining the factors that affect player enjoyment and designing game environments that facilitate player enjoyment.

## BEST PRACTICE IN INTERACTIVE EXHIBITION DESIGN

**NAME:** Mia Thornton  
**DEGREE:** Honours  
**INSTITUTE:** Queensland University of Technology  
**START DATE:** March 2004  
**FUNDING:** ACID  
**SUPERVISOR:** Dr Angelina Russo  
**ACID PROJECT:** Digital Songlines

To examine the two-way relationship that can exist between virtual environments and the body in museums, particularly within the context of indigenous cultural heritage.



1. Inger Mewburn  
2. Jennifer Michelmore  
3. Fiona Redhead  
4. Frank Rijavec  
5. Markus Rittenbruch  
6. Penny Sweetser

# COLLABORATION

## COLLABORATIVE TOOLS: THE COLLABORATIVE ONLINE AND DESKTOP

ACID researchers will shortly have access to the Collaborative Online Desktop, otherwise known as the COD. The COD is soon to be rolled-out amongst the researcher community to facilitate collaboration between and across project teams.

The COD is being developed as a joint venture between ACID and the Dramatic Group Pty Ltd, and will result in an online space, promoting shared-language, informal dialogue, and an improved environment from which to develop shared documents and research outcomes.



# COLLABORATION CASE STUDY

## ACID AND HERITAGE PACIFIC – VIRTUAL GENESIS PROJECT

### Company

Established in 1987, Heritage Pacific has earned a reputation as a property developer that focusses on innovation, community enrichment and environmental excellence. Heritage Pacific [www.heritagepacific.com.au] are Queensland's first property development company to be recognised with a national award for "Environmental Excellence."

### Situation

Heritage Pacific were looking for ways to value-add to their property developments to stay ahead of their competition. The property market in Queensland, and specifically on the Gold Coast is still experiencing growth, and in order to capitalise on that growth for their Coomera development, Heritage Pacific were searching for innovations to drive sales and further enhance their 'brand' in the market as an innovative property developer leading the way in the market.

### Solution

Heritage Pacific had an idea about developing a residential community that could be interactive and engaged in the physical and virtual worlds. The Genesis development at Coomera, the new flagship development for Heritage Pacific, gave them this opportunity. Strategically located in the Gold Coast's Pacific Innovation Corridor with good market drivers of location and public amenity, Heritage Pacific saw this development as an opportunity to differentiate their product and drive a new direction in development in Australia. The team at ACID after hearing about Heritage Pacific made a commitment to use the Genesis project as a platform for digitally enhancing a community. The basis for this would be ACID's work in virtual representation and community engagement and a virtual model of the development was commissioned. This model has been constructed simultaneous to the development, and was designed to help engage the traditional methods of residential engineering design.

Significant challenges with regards to the fixed or hard infrastructures and the virtual are being overcome and new studies and research questions that are relative to future communities are giving breadth to new ACID projects which Heritage Pacific are adding commercial grounding too.

workshop was held between key members of both organisations and a longer-term strategy was developed in terms of future-proofing the Coomera development to ensure that resident's homes would improve in value, and in-turn adding cachet to the value of the Heritage Pacific brand and their future developments.

The first stage of this collaborative Project between ACID and Heritage Pacific is about creating a software tool to allow potential purchasers of the Genesis estate to view actual land lots digitally and experiment with their house placement.

Stage 2, to begin later in 2005, will incorporate interactive elements, resulting in a 'living' tool for the resulting community. Investment in this project is a two-way-street in terms of financial, human and time resources, with both Heritage Pacific and ACID looking for further commercial opportunities as a result of this R&D.

### Benefits Obtained

For a relatively small investment, Heritage Pacific can further establish themselves in the market as an innovative property developer who cares about the communities they help to establish. Whilst the time and effort invested into stage 1 of this project should not be underestimated, the comparative cost and risk of Heritage Pacific developing this product in-house was significant enough for them to look outside of their core competencies and approach ACID.

Investment in this project is a two-way street in terms of financial, human and time resources, with both Heritage Pacific and ACID looking for further commercial opportunities as a result of this R&D.

# SPECIFIED PERSONNEL

Title and Name	Classification	Contributing Organisation	Time allocation	Program **
Jeff Jones, CEO	A	ACID	1.0	U
Sonya Henderson Edbrooke, EDD	A	ACID	1.0	U
Kelina Miller, Communication Coord	A	ACID	1.0	U
Ali Kerr, Admin Officer [Feb 2005]	A	ACID	1.0	U
Director of Research (TBD)	A	ACID	1.0	U
Jana Baranovic, Business Mgr [Oct 2004]	A	ACID	1.0	U
Frank Chalmers Collaboration Mngr	A	ACID	1.0	U
Gavin Winter, Res Tech Mngr	A	ACID	1.0	U
Chen Reed, Res Tech Officer [June 2005]	A	ACID	1.0	U
Technical Support Officer (TBD)	A	ACID	1.0	U
Senior Researcher	R	ACID	1.0	U
Senior Researcher	R	ACID	1.0	U
Senior Researcher	R	ACID	1.0	U
Senior Researcher	R	ACID	1.0	U
Senior Researcher	R	ACID	1.0	U
Senior Researcher	R	ACID	1.0	U
Senior Researcher	R	ACID	1.0	U
Senior Researcher	R	ACID	1.0	U
John Hartley	A	QUT	.40	U
Peter Lavery	R	QUT	.20	MUE
Computer Service Officer	A	QUT	.20	U
Stuart Cunningham	E	QUT	.40	EP
Jude Smith	E	QUT	.20	U
Andy Arthurs	R	QUT	.20	DM
Graham Kerr	R	QUT	.20	MUE
Axel Bruns	R	QUT	.20	MUE
Cheryl Stock	R	QUT	.20	DM
Barbara Adkins	R	QUT	.40	SL
Daniel Mafe	R	QUT	.20	DM
Andrew Brown	R	QUT	.75	DM
Sam Bucolo	R	QUT	.50	SL
Gavin Sade	R	QUT	.20	SL
Chris Barker	R	QUT	.50	VH
Deb Polson	R	QUT	.80	SL
Simon Perkins	R	QUT	.20	DM
Brad Haseman	E	QUT	.20	EP
Dianne Eden	R	QUT	.20	VH
Leonard Meechan	R	QUT	.20	VH
Bernadette Savage	R	QUT	.20	DM
Zane Trow	R	QUT	.20	DM
Greg Hooper	R	QUT	.30	DM
Michael Docherty	E	QUT	.40	EP
Daniel Johnson	R	QUT	.20	DM
Margot Brereton	R	UQ	.20	SL
Ian MacColl	R	UQ	.40	MUE
Penny Sanderson	R	UQ	.20	U
Matthew Simpson	R	UQ	.20	SL
Stephen Viller	R	UQ	.40	MUE
Brian Lovell	R	UQ	.20	SL
Neil Bergman	R	UQ	.20	SL
Ann Morrison	R	UQ	.20	SL
Peta Wyeth	R	UQ	.20	U

**\*\*PROGRAM:**

 SL – Smart Living  
 DM – Digital Media  
 MUE – Multi-user Environment

 VH – Virtual Heritage  
 EP – Education Program  
 U – Undecided

Title and Name	Classification	Contributing Organisation	Time allocation	Program **
Theodor Wyeld	R	UQ	.20	U
Jihan Zhu	R	UQ	.20	U
Leigh Peterson	A	RMIT	.20	U
Mark Burry	R	RMIT	.20	SL
William Cartwright	R	RMIT	.30	U
Mark Lycette	R	RMIT	.15	U
Allison Brown	R	RMIT	.10	U
Supriya Singh	R	RMIT	.20	SL
Jane Burry	R	RMIT	.50	SL
Roslyn Russell	R	RMIT	.20	U
Christopher Petite	R	RMIT	.20	U
Michael Coburn	R	RMIT	.20	U
Andrew Burrow	R	RMIT	.20	SL
Paul Doornbusch	R	RMIT	.40	DM
Gregory Moore	R	RMIT	.20	DM
Jonathon Duckworth	R	RMIT	.50	MUE
Lawrence Harvey	R	RMIT	.50	DM
Simon Jones	R	RMIT	.20	DM
Yamin Tengono	R	RMIT	.20	SL
David Atkinson	R	RMIT	.10	DM
Jeremy Yuille	R	RMIT	.20	MUE
Pia Ednie-Brown	R	RMIT	.20	MUE
Michael Greystock Jones	R	Griffith	.20	U
Mira Peter	R	Griffith	.20	U
Paul Treffner	R	Griffith	.20	DM
Howard Middleton	R	Griffith	.20	U
Margarita Pavlova	R	Griffith	.20	U
Glenda Nalder	R	Griffith	.20	SL
Ljubo Vlacic	R	Griffith	.20	SL
Keith Bradbury	E	Griffith	.30	EP
Paul Cleveland	R	Griffith	.20	DM
Cathie Sherwood	R	Griffith	.20	DM
Earle Bridger	R	Griffith	.20	U
Paul Jolly	R	Griffith	.20	DM
Bernadette Flynn	R	Griffith	.20	MUE
Susan Ostling	R	Griffith	.20	U
Yongsheng Gao	R	Griffith	.20	U
Ken Newman	R	Griffith	.20	DM
Jun Jo	R	Griffith	.20	U
Duane Varan	R	Murdoch Uni	.25	SL
Kathy Trees	R	Murdoch Uni	.20	VH
Andrew Turk	R	Murdoch Uni	.25	SL
Michael Broderick	R	Murdoch Uni	.20	VH
Ingrid Richardson	R	Murdoch Uni	.20	SL
Nicola Ritter	R	Murdoch Uni	.25	SL
Vicki Wilson	R	Murdoch Uni	.20	SL
Simon Avenall	R	Murdoch Uni	.20	SL
Rob Phillips	R	Murdoch Uni	.20	SL
TBD	A	Murdoch Uni	.50	-

# SPECIFIED PERSONNEL

## \*\*PROGRAM:

SL – Smart Living  
DM – Digital Media  
MUE – Multi-user Environment

VH – Virtual Heritage  
EP – Education Program  
U – Undecided

Title and Name	Classification	Contributing Organisation	Time allocation	Program **
Mark Billingham	R	HitLab	.20	SL
Richard Green	R	HitLab	.20	SL
Marilyn Lim	R	HitLab	.20	SL
Desmond Taylor	R	HitLab	.20	SL
James Hills	R	SGL	.40	VH
Nick Conomo	A	SGL	.10	U
Todd Churchwood	R	SGL	.20	VH
John Banks	R	Auran	.40	MUE
Greg Lane	A	Auran	.10	U
Graham Edelsten	A	Auran	.10	U
Paul Barrett	A	Heritage Pacific	TBC	U
Brett McDonald	R	Heritage Pacific	TBC	U
Alison Hedger	A	Heritage Pacific	TBC	U
Stephen Harrison	R	Heritage Pacific	TBC	U
Mark Iving	R	Imap	TBC	U
John Grant	R	Imap	TBC	U
Barry Miskin	R	Imap	TBC	U
Rod Sims	R	QANTM	.30	MUE
Garry Hargreaves	E	QANTM	.30	EP
David Cox	R	QANTM	.10	MUE
Brett Leavy	R	CyberDreaming	.25	VH
Mike Stubbs	R	ACMI	.20	MUE
Kim Montgomery	R	ACMI	.20	SL
Gale McIndoe	R	ACMI	.20	SL

The following people were involved with ACID, and have moved on. Thank you for your contribution.

Title and Name	Classification	Contributing Organisation	Time allocation	Program **
Sonya Henderson Edbrooke	A	ACID	1.0	U
Frank Chalmers	A	ACID	1.0	U
Sarah Jordan	A	ACID	1.0	U
Karen Willey	A	QUT	.20	U
Angelina Russo	R	QUT	.20	U
Stephanie Donald [rejoins shortly UTS]	R	QUT	.20	U
Norbert Nimmervall	R	RMIT	.20	U
Adrian Bruch	R	RMIT	.20	MUE
Mark Guglielmetti	R	RMIT	.50	DM
Griffith Departed 30 June 2004				
Michael Greystock Jones	R	Griffith	.20	U
Mira Peter	R	Griffith	.20	U
Paul Treffner	R	Griffith	.20	DM
Howard Middleton	R	Griffith	.20	U
Margarita Pavlova	R	Griffith	.20	U
Glenda Nalder	R	Griffith	.20	SL
Ljubo Vlacic	R	Griffith	.20	SL
Keith Bradbury	E	Griffith	.30	EP
Paul Cleveland	R	Griffith	.20	DM
Cathie Sherwood	R	Griffith	.20	DM
Earle Bridger	R	Griffith	.20	U
Paul Jolly	R	Griffith	.20	DM
Bernadette Flynn	R	Griffith	.20	MUE
Susan Ostling	R	Griffith	.20	U
Yongsheng Gao	R	Griffith	.20	U
Ken Newman	R	Griffith	.20	DM
Jun Jo	R	Griffith	.20	U



Creativity is an immensely positive force.  
What would happen if you purposefully and  
willfully set regular business metrics to one  
side and traded as if only the people in the  
company mattered?

- Experiment at Work, Andy Law, 2003

# PUBLICATIONS

## PUBLICATIONS

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- **The Dialogic Site: Interculturalism in the virtual museum**, VSMM 2004 of VSMM 2004 - Proceedings of the Tenth International Conference on Virtual Systems and Multimedia ISBN 1-58603-481-2 (IOS Press) p 637

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- **Analysing the factors influencing the successful design and uptake of interactive systems to support social networks in urban neighbourhoods**. International Journal of Technology and Human Interaction, 2(2). Accepted 8 April 2005.

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- **Social Networks in Inner-City Apartment Complexes and the Implications for the Residential Architecture of Public Space**, In A. Aurigi, P. van den Besselaar, F. De Cindio, G. Gumpert & S. Drucker (Eds.), Digital Cities 4: the Augmented Public Space, Milan, Italy.

Viller, S., Brereton, M., Redhead, F., Axup, J., Hemelryk Donald, S. & Billinghamurst, M. (2004).

- **Designing shared community information spaces**. Paper presented at the CSCW2004 Workshop: Exploring the role of Information, Information Tools, and Information

Environments in collaboration, Chicago, IL.

Polson, D., Adkins, B. & Caceres, M. (June, 2005).

- **Lesser-known Worlds: Bridging the Telematic Flows with Located Human Experience Through Game Design**. Full Paper, Published in the "DiGRA 2005 Selected Print Proceedings" Paper presented at DIGRA 2005, Simon Fraser University, Burnaby, BC, Canada. June 2005

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Adkins, B., Smith, D., Barnett, K, Grant, E. (Under review)

- **Public Space as Context in the Design of Technology for People with Cognitive Impairment Information Communication and Society**, submitted in January 2005\*

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- **Backpacker as a Revolutionary Category, Social and Cultural Geography**, submitted in January 2005

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Adkins, B., Fothm M., & Higgs, P. (2005, Jun 13).

- **The role of network' and 'community' in ecologies of innovation and knowledge integration: The case of the design sector in an Australian inner-city area**. Invited presentation at the 'Communities vs Networks Workshop' at the 2nd International Conference on Communities and Technologies (C&T), Milan, Italy.

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- **The Interactive Dynamic Stochastic Synthesizer**, Proceedings of the Australasian Computer Music Conference 2004. Wellington, NZ: ACMA

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Donovan J. and M. Brereton,

- **"Meaning in Movement."** Proceedings of the Participatory Design Conference, Vol.2 pp163-166 Toronto July 2004.

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In G. Erwin, W. Taylor, A. Bytheway & C. Strümpfer (Eds.), Proceedings: 2nd annual conference of the Community Informatics Research Network (CIRN) (pp. 341-354). Cape Town, South Africa: Cape Peninsula University of Technology. This paper received the Best Paper Award (Runner-up) at the 2nd annual conference of the Community Informatics Research Network on 26 Aug 2005 www.cirn2005.org

Foth, M. and Brereton, M.

- **Enabling local interaction and personalised networking in residential communities through action research and participatory design** pp1-4 OzCHI 2004

Gard, S., Bucolo, S. (2005)

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Larssen, A., Robertson, T., Brereton, B., Loke, L., Edwards, J. Workshop Proceedings:

- **Approaches to Movement-Based Interaction** Critical Computing 2005 - Between Sense and Sensibility, The Fourth Aarhus Conference, Aarhus, Denmark. 65 pages 21st August 2005 ISBN 0-9757948-0-9

Polson, D.

- **Designing Mixed-Reality Experiences to Revitalise Community Interactions in Urban Settings**. Presented at the International Conference on Technology, Knowledge and Society, The University of California, Berkeley, USA, February 2005

Ros, M., D'Souza, M., Chan, M., Bialkowski, K., A. Postula, A., Bergmann, N. & Toth, A. (2005)

- **Using Wireless Sensors as Selection Devices for a Multimedia Guidebook Scenario**, RealWSN 2005: Workshop



on Real-World Wireless Sensor Networks, Stockholm, Sweden, 20-21 June 2005

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- **Site** (2004) Museums Australia National Conference in Sydney 1-4 May

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Viller, S., Brereton, M., Redhead, F., Axup, J., Hemelryk Donald, S., & Billingham, M. (2004).

- **Designing shared community information spaces**. Paper presented at the CSCW2004 Workshop: Exploring the role of Information, Information Tools, and Information Environments in Collaboration, Chicago, IL.

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Bialkowski K, D'Souza M, Chan M, Ros M, Postula A., Bergmann N.

- **A Wireless Sensor Node Architecture Using Remote Power Charging**, IEEE VTC 2006: IEEE 63rd Vehicular Technology Conference Melbourne, 7-10 May

D'Souza M., Ros M., Postula A., Bergmann N.

- **A Bluetooth Hotspot Infrastructure For A Multimedia Guidebook On Mobile Computing Devices**, MUM 2005: The Fourth International Conference on Mobile and Ubiquitous Multimedia, Christchurch, 8-10 Dec 2005

McDonald L,

- **Designing for Location-Dependence**. Submitted to DAC2005 (Digital Arts and Culture) (IS THERE A DATE FOR THIS)

Ros M, D'Souza M, Postula A, Bergmann N. (

- **Location Aware Applications for a Bluetooth Wireless Sensor Information Network**, IEEE INFOCOMM 2006: The 25th conference on Computer Communications, Barcelona, 23-29 April 2006

Simpson M, MacColl I, Macdonald L, Morrison A. LOW -

- **A Locative Orientation Week** Submitted to DAC2005

## POSTERS

D'Souza, M., Postula, A., Bergmann, N. & Ros, M.

- **Mobile Locality-Aware Multimedia on Mobile Computing Devices** ICETE 2005: 2nd International Conference on E-Business and Telecommunication Networks, Reading, United Kingdom, 3-7 October 2005 POSTER

D'Souza, M., Postula, A., Bergmann, N. & Ros, M.

- **A Bluetooth Based Protocol for Multimedia Guidebooks on Mobile Devices**, ICETE 2005: 2nd International Conference on E-Business and Telecommunication Networks, Reading, United Kingdom, 3-7 October 2005. POSTER

Viller, S.

- **A Participatory Digestion and Design Game for Community and Technology Exploration** DUX 2005 POSTER

Viller, S., Brereton, M., Redhead, F., Axup, J. (submitted)

- **Designing shared community spaces**, poster, ACM SIGCHI/SIGGRAPH Designing the User Experience Conference, November 2005.

## EXHIBITIONS & PRESENTATIONS

Mafe, D., & Brown, A.

- **Collaborating on Generative Art**, A presentation to the Speculation and Innovation Conference, March 30 – 2 April, 2005. QUT, Brisbane.

Textures Exhibition at the ACID Launch, QUT Creative Industries Precinct, Kelvin Grove Textures Exhibition. **Phrasing**, at the QUT Art Museum, Gardens Point. Sept. 2004. Textures Exhibition. **Journeys**, At The Block, Creative Industries Precinct, Kelvin Grove Feb. 24-30 2005.

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Polson, D. and Wong, Y. (2005) Cipher Cities: High Level Systems Architecture. Visualisation and Description of the System and Interface Relationships.

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Polson, D. and Wong, Y. (2005) Cipher Cities: User Applications Proposal. The Main Graphical User Interfaces

Polson, D. and Wong, Y. (2005) Cipher Cities: Game Gallery Proposal for the Cipher User Portal (CUP).

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Polson, D. and Heng, S. (2005) LARE: Location Aware Real Estate Project. High Level Systems Architecture with Feasibility Overview.

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# COMMUNICATION

## COMMUNICATION

Every Stakeholder within ACID has access to the information they need -where and when they need it – that's our Holy Grail. In the meanwhile we're working towards implementing

and improving a range of communication and marketing measures to improve the effectiveness and inclusiveness in all our activities.

For ACID better integration of the Communication and Marketing functions has brought about more streamlined processes, which we aim to continually improve.

## COMMUNICATION STRATEGY

Broadly, the ACID Communication Strategy aims to:

- Advocate with policy makers to value and support improvement in ACID-related domains.
- Create a global hub for individuals and organisations to pursue the exchange of ideas, stories and developments in ACID areas of interest.
- Promote ACID's existence, mandate, and activities.
- Create a communication network as wicked as the problems ACID seeks to solve.
- Fulfill our mandatory corporate responsibilities.
- Aspire to be world's best.

## MARKETING STRATEGY

The 2004-05 period for ACID has been a dynamic year with many exciting opportunities to profile emerging project outcomes.

A Marketing Strategy was developed and implementation began late in 2004.

Key objectives of the strategy are to:

- Raise awareness of ACID with key groups and within generic markets
- Attract new investors and partners
- Promote key collaborative projects

Specific areas of focus for the Marketing Plan have and will continue to include:

- Stakeholder relations
- Government relations
- Develop marketing plans around key Projects
- Define ACID's image and brand
- Monitor and evaluate the marketing activities

Overall the development of the Marketing Strategy and implementation plans have been successful.

Government relations activities included two Federal and one State Ministerial site tours.

ACID branding has progressed with the development of new organisation brochures, stationery, PowerPoint slides, and an ever growing image library.

## MEDIA

Media coverage was all positive, with 15 known media hits since October.

Tracking media coverage is an onerous task and the recent advent of the CRC Programme assisting with this will further aid CRC's in assessing the value of their media campaigns.

Both staff and projects have received good profile, with one of our Research Assistants being the focus of an intensive QUT print and radio campaign, with ACID receiving ancillary mention.

In all, a proactive media program was achieved. Even better coverage is expected for next year, since further developed projects and prototypes are emerging.

## LITMUS NEWSLETTER

Five editions of The Litmus have been published this financial year. Added functionality to the online format has brought positive feedback, and further developments will include more detailed project and research profiles, images and an annual printed edition.

Membership to the Litmus has increased by more than 30%, up to 367 members.

## ACID WEBSITE

ACID's website has undergone substantial content changes over the past year.

Added depth and breadth of information aims to provide consistent and reliable corporate and project related information. Researcher profiles and an image gallery will shortly be added features.

## EVENTS

The official ACID Launch was held on the 12 October and was a huge success in terms of attendance, production value, and a spot on the evening news of 2 commercial TV stations. Key people from ACID's research community along with Government and industry heavyweights attended. The group were treated to a curated display of ACID's works via an assembly of multimedia.

ACID has held two Innovation Forum's this past year, one in October 2004, and one in May 2005. Both of these events have engaged researchers and industry and facilitated further goodwill and collaboration amongst our stakeholders.

## INTERNAL PRESENTATIONS

As part of our Communication Plan we run a regular 'Speakeasy' series. These Speakeasies provide a framework for researchers to present to their peers, and are designed to informally transfer knowledge. Over the past year we held 10 Speakeasies, with one being held over the Access Grid Node between ACID Brisbane and University of Technology in Sydney.

## LOOKING FORWARD

As projects begin to bear fruit, we anticipate an exciting 12 months ahead. There's some really innovative products and services being developed here at ACID.

Late in the financial year ACID adopted the Collaborative Online Desktop [COD], a development of Melbourne SME, The Dramatic Group. For ACID this has been a serious step towards the development of a robust virtual organisation and a distributed collaboration environment. The COD is a shining example of how ACID ought to work commercially with SME's.

The challenge as always will be to 'connect' a distributed organisation. And more work needs to occur around improving Shareholder and cross-project communications. Additionally our unique access to large living laboratories needs considerable focus, as we aim to create an iterative feedback loop with many potential consumers of ACID products and services.

A basic premise of the CRC model is about industry and university collaboration.

An indicator of success for ACID lies in the quality of our relationships with our Stakeholders. Communities, researchers, staff, shareholders and government are influencing the future of our direction. Effective communication has to be a two-way-street in order for ACID to be an effective CRC and a viable business.

## ACID MEDIA HITS

FORMAT	CHANNEL	PROJECT
TV	Channel 10	Songlines Interactive Lounge
TV	Channel 9	Songlines Interactive Lounge
Radio	4BC - Walter Williams	Songlines Interactive Lounge
Radio	ABC News Radio-Terri Begley	Songlines
Radio	ABC News Radio-Jesse Robilliard	Songlines Interactive Lounge
Print	The Australian - IT Section	Songlines Interactive Lounge
	Computer Daily News	Songlines
Online	Sydney Morning Herald <a href="http://www.smh.com.au/articles/2004/10/14/1097607354794.html">www.smh.com.au/articles/2004/10/14/1097607354794.html</a>	Songlines Interactive Lounge
Online	The Age <a href="http://www.theage.com.au/articles/2004/10/14/1097607354794.html">www.theage.com.au/articles/2004/10/14/1097607354794.html</a>	Songlines Interactive Lounge
Radio	2MCE-FM - Homepage [IT News] Program	Songlines
Print/Online	Various UK publications	ACIN
Print	CRC Program Newsletter - March 2005 Edition	Songlines
TV	Channel 9 - Warren Clarke	Intimate Transactions/ACIN
Radio	B105 interview	Intimate Transactions/ACIN
Print	The Courier Mail - City Beat - Tony Grant-Taylor	ACID

# AWARDS

ACID's Research Technology team took part in the international production of "HANDS Across the OCEAN: The Lost Chord". An unprecedented real-time global performing arts collaboration, with ethnic musicians spread across 4 continents to produce a global, real-time music performance.

Congratulations to Bernadette Savage and the team who won the inaugural Peoria

Prize for Creativity. This work was among 3 finalists, edging out the University of Illinois and the University of California [both well-known research universities].

Partners in the project were from the Korean Advanced Institute of Science and Technology (KAIST), the New World School of the Arts (NWSA), the Digital Knowledge Exchange (England) and the University of Florida.

Congratulations to the team from Intimate Transactions [part of the Australasian Creative Industries Network Project team] for their recent nomination and Honorary Mention for the prestigious Prix Ars Electronica in the "Interactive Art" category.



# COMMONWEALTH

## PERFORMANCE MEASURES

ACID Commonwealth Agreement performance measures (over 7 years):

	Metric	Start year	2004	2005
1	Research outputs will be in excess of 20 processes, methods, patents and publications from multi-disciplinary teams working across multiple nodes.	2003	5	36
2	Develop in excess of 20 prototypes for products in content, hardware and software as defined by user feedback and input.	2003	5	8*
3	Up to \$3M in income achieved through licenses, spin-offs, consulting and other income generation mechanisms.	2005	\$300K	\$750K
4	Industry participants will receive in excess of 20 prototypes providing commercialisation opportunities for products in content, hardware and software.	2003	5	12*
5	Development of multiple, practical strategies for relating technical innovation to community development.	2003	3	10*
6	SME consortium of over 12 industry partners which will attract 1-2 research/production contracts per year(metric = subscription fees and contract\$).	2004	\$100K	\$200K
7	40 – 50 post-graduate students, working collaboratively in cross-disciplinary, cross-institutional, international projects, with options to participate in CRC-sponsored online education and training courses. Integrate UG students.	2003	7 PhD 5 Masters 1 Honours	8 PhD 5 Masters
8	Establishment of a post-graduate supervision program providing 40 -50 exchange opportunities with CRC industry participants and affiliates	2004	Done	Done
9	Up to 30 short courses developed from research output and taught to both internal and external clients.	2004	1	3
10	Project proposals must demonstrate at least 2 university partners working in a multi-disciplinary, multi-nodal capacity.	2003	Done	Done
11	Project proposals must demonstrate user input and at least 1 industry participant.	2003	Done	Done
12	In excess of 3 projects will have international researcher involvement. The education program involves three international partners working collaboratively.	2004	1	4

\* Refer to project titles, commencing pg 28, to match the above measures to the specific projects.





Companies and designers are putting together teams to brainstorm about totally new ways of appealing to consumers.

-Business Week, July 5, 2004



Using DESIGN RESEARCH to reach consumers is one of the fastest growing trends around the world. Cultural anthropologists, videographers and psychologists are replacing conventional market researchers in the rush to really understand consumer behaviour.

-Business Week, July 5, 2004





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