DESIGN HORIZONS

Provoking Thoughts

Edited by Cara Wrigley and Rafael Gomez

QUT

deem collective

Design Institute of Australia

slq state library of queensland
The Edge

Queensland Government

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Contents

Design Horizons: Provoking Thoughts aims to bring together a mix of industrial design professionals, practitioners, academics and thinkers to present, discuss and debate the future visions of industrial design in the 21st Century. The purpose of this inaugural forum is to inspire and challenge the industrial design community in a friendly and lively context.

# Design Horizons 2010: Provoking Thoughts

Foreword

Fundamental to this publication is the belief that design plays a critical role in creating a better life for humanity and for the world. As industrial designers it is our role to be aware of the impact we have on the society we design for and also to be active in shaping the future in a responsible and sustainable way. With that in mind the Design Horizons forum was conceptualised to facilitate such a purpose.

The objective was to bring together a mix of industrial design professionals, academics, recent graduates and relevant contributors to discuss and debate various topics in relation to the professions future within the local and global context. Rather than being purely informative, Design Horizons looked to identify critical themes so as to pro-actively shape our collective future in industrial design. Further, the outcomes of this forum align with the Queensland Governments Design Strategy 2020 which is committed to positioning design as a central driver to support and protect the environment, the economy, education and the health of the community.

A key element to building a positive future is the design communities need to continuously be engaged in a process of reflection, identification and resolution. Design Horizons is perfectly placed to engage with a multitude of contributors to achieve this goal, now and in the future.

Design Horizons 2010 Organisers
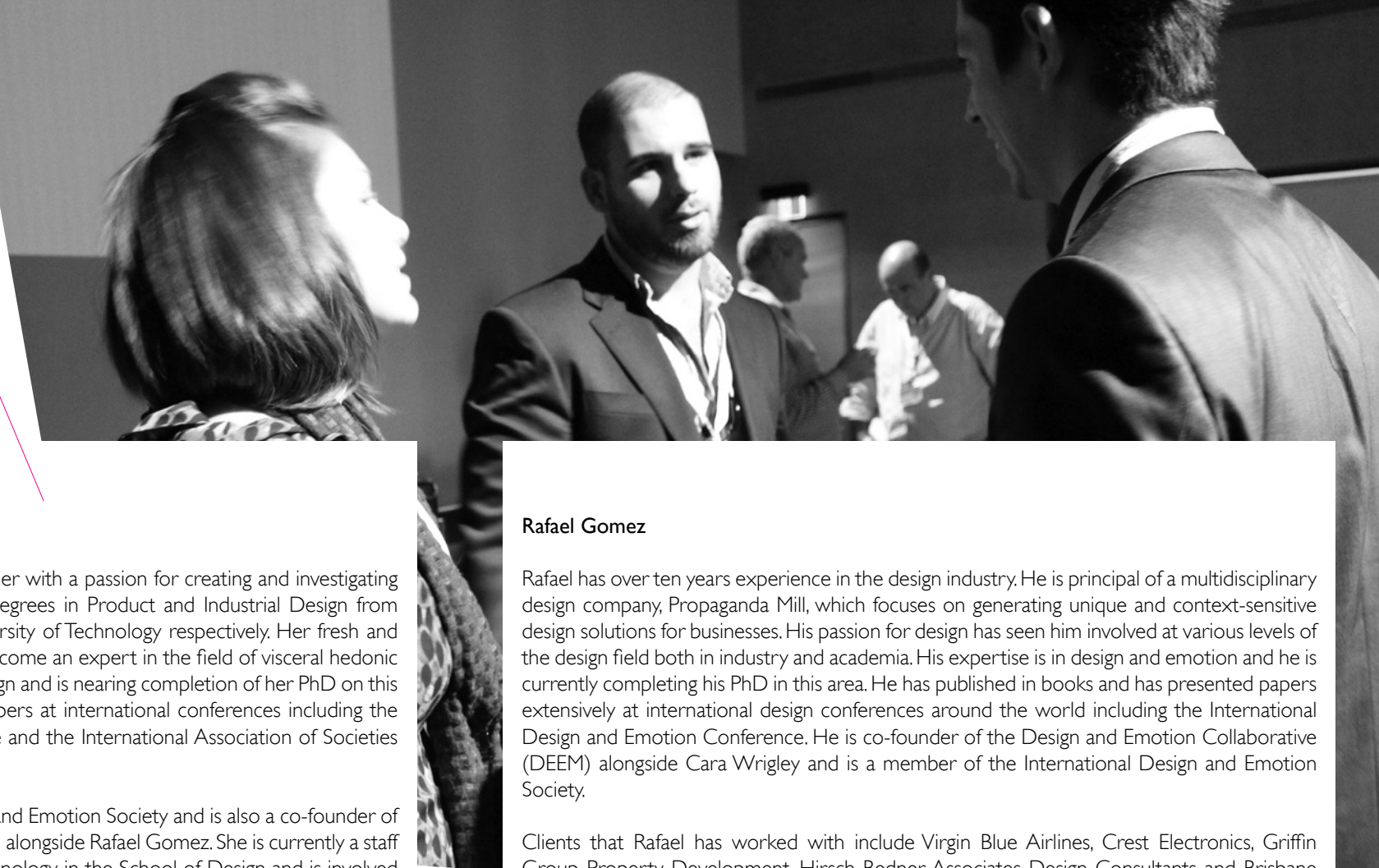
Biographies

Cara Wrigley

Cara Wrigley is a professional industrial designer with a passion for creating and investigating an array of products and services. She has degrees in Product and Industrial Design from Griffith University and the Queensland University of Technology respectively. Her fresh and innovative approach to design has seen her become an expert in the field of visceral hedonic rhetoric framed by the study of emotional design and is nearing completion of her PhD on this subject. She has published and presented papers at international conferences including the International Design and Emotion Conference and the International Association of Societies of Design Research Conference.

Cara is a member of the International Design and Emotion Society and is also a co-founder of the Design and Emotion Collaborative (DEEM) alongside Rafael Gomez. She is currently a staff member at the Queensland University of Technology in the School of Design and is involved in creating and delivering material on various subjects such as New Product Development, Design Driven Innovation, Professional Studies and Industrial Design Research. She has also worked in the design and engineering industries over her professional life.

Rafael Gomez

Rafael has over ten years experience in the design industry. He is principal of a multidisciplinary design company, Propaganda Mill, which focuses on generating unique and context-sensitive design solutions for businesses. His passion for design has seen him involved at various levels of the design field both in industry and academia. His expertise is in design and emotion and he is currently completing his PhD in this area. He has published in books and has presented papers extensively at international design conferences around the world including the International Design and Emotion Conference. He is co-founder of the Design and Emotion Collaborative (DEEM) alongside Cara Wrigley and is a member of the International Design and Emotion Society.

Clients that Rafael has worked with include Virgin Blue Airlines, Crest Electronics, Griffin Group Property Development, Hirsch Bedner Associates Design Consultants and Brisbane City Council among others. His work has spanned the areas of industrial design, graphic design, branding, architectural design and interior design. Rafael is currently a staff member at Queensland University of Technology in the School of Design and has been teaching since 2003. He lectures and has written teaching programs in Design, Digital Design Communication, Design Presentation and Human-Centred Design.

Introduction

Design and Sustainability, Design as Innovation, Design Education

Design Horizons: Provoking Thoughts

The future of industrial design is not set in stone. The future whether we think of it as next year or 50 years from now, is in fact forged by the actions that we make today. Thus, as we clome to a close on the first decade of the 21st Century it is an opportune time to reflect, take stock, and assess the landscape of the industrial design profession.

The inaugural Design Horizons forum, titled Provoking Thought, was held on Friday the 6th July 2010 at The Edge, State Library of Queensland. It was conceptualised by Cara Wrigley and Rafael Gomez to provide a space for industrial designers to motivate, challenge and encourage healthy deabate on the future of industrial design in the spirit of respect and integrity. The vision was for all involved to walk away inspired, engaged and most of all provoked by the ideas, questions and propositions presented on the day.

Thirteen speakers were invited to present their views on future issues pertaining to the industrial design profession. The speakers were a cross-section of industry professionals, academics, educators and students including; Andrew Scott, Sam Bucolo, Vesna Popovic, Dennis Hardy, Shaun Crossman, Glenn Bevan, Sophie Tobin, Neil Davidson, Warren Schroder, Tony Fry, Tory Jones, Lindy Johnson and Gerard Ryan.

The organisers aspire for Design Horizons to be an instigator for future dialogue. Further the forum has the potential to be a space where influential individuals connected to the design industry can present, discuss, debate, strategise and exchange ideas that will forge the future that the design community want to head towards. As designers continue onward, regardless of how much they progress, the horizon is always ahead; always compelling us forward.

Cara Wrigley and Rafael Gomez

Emerging Themes

"It is not the earth that needs/saving, it is us!" - Tony Fry

The organisers invited a select group of speakers to discuss relevant and imperative issues surrounding the future of industrial design in a local and global context. It was interesting to note that three strong themes emerged through the presentations. Firstly, there was a call for sustainability to become integrated and embedded into the way designers think about and practice design. Secondly, a need to expand our role from service providers to innovation leaders was identified as a future expansion of a designer's role in industry. Thirdly, underpinning all of these issues was the need to shift industrial design education and research within the local context. Thus; sustainability, innovation, and education and research emerged as the three critical themes arising from the 2010 Design Horizons forum.

Sustainability

Tony Fry set the stage with a challenging discussion on the reality that human's face in the future if we do not act on the issue of sustainability. As the population increases along with mass consumption, our role as designers needs to change. Why do we spend our time learning how to manufacture new materials when we could easily investigate how we design to get rid of them? Dennis Hardy added to this theme by addressing the design imperative that we must design around the needs of the earth and not the other way around. He identified three key areas that design should address; habitat, mobility and food. By addressing these through sustainable design thinking our quality of life on this earth would be maintained. Neil Davidson addressed what designers in practice can do on a day-to-day basis to achieve sustainable outcomes. Warren Schroder posed an important ethical and moral question; why is it that we flood the marketplace with 'crapola'? He offered an idea to develop a rating system for sustainably designed products so the general public can make better informed decisions about their purchases. Finally, Andrew Scott used the Apple iPod to exemplify how a product can help to create a relationship that is more meaningful and permanent for users and thus less likely to be disposed of easily.

Innovation

It is widely recognised in industry that by engaging in innovative thinking, companies can grow and be more competitive. Industrial design consultancies need to adapt or die says Glenn Bevan who presented the growing amount of low cost internet design services competing for projects around the world. The field of Industrial Design needs to innovate and re-define what it is they offer so as to position themselves above this emerging crowd. Shaun Crossman discussed the role designer's play as service providers and as entrepreneurs. He highlighted entrepreneurship can be a great strategic option and competitive advantage in industry. Gerard Ryan highlighted the urgency that the local design industries need to become innovative leaders or risk falling behind global trends. Following on from that Sam Bucolo discussed the unique value design thinking can provide to businesses in all sectors through a process known as design-led-innovation. Similarly Lindy Johnson brought the Ulysses program into the spotlight. The program underscores the benefits of design to business enterprises that need to utilise this type of innovative thinking.

Education and Research

Vesna Popovic focused on the theme of education and research by proposing designers address products in the framework of people, activity, context and culture. Her research posits that consumers are becoming more active and connected and as such different knowledge is needed to design more valuable products and systems to respond to these shifting demands. Sophie Tobin reflected on her young industrial design career and identified 'design as experience' as a valuable concept for design education, design inspiration and professional development. Supporting future education and research Tory Jones presented plans for the State Library of Queensland, through the Asia Pacific Design Library, to develop the best publicly accessible collection of design resources in the Asia Pacific region.

As these themes impact the future of our profession, positive action needs to be taken to ensure a healthy quality of life for the future of everyone and the world we live in

Presenters

Dennis Hardy, Vesna Popovic, Neil Davidson, Warren Schroder, Tory Jones, Gerard Ryan, Sam Bucolo, Sophie Tobin, Tony Fry, Andrew Scott, Glenn Bevan, Shaun Crossman, Lindy Johnson

DENNIS HARDY

The Design Imperative: People live around the Earth; the Earth does not live around People

The triple-bottom-line of environmental, social and economic entities that characterise sustainable solutions for global change is not without its counterpart in design. This refers to the triple bottom design for the 21st century that embraces all of us around the world. Given that we have an unprecedented world population approaching critical mass by 2050 of 10 billion people, we must seriously consider our imperative to design for People. What does that mean and where should the emphasis be put? Dennis Hardy's view would be to direct our design knowledge and global attention towards the triple bottom design in Habitat, Mobility and Food. "Clearly we can not all live in a virtual habitat or eat discarded products from human land fill sites and remain immobile while the world returns to anarchy. Or can we?"

TONY FRY

Industrial Design after Industrial Design

In a resources-stressed world of deepening climate change heading towards a global population of eleven billion by the end of the century, materially based hyper-consumptive industrial society does not have a future. At our own hands, risks are increasing: the failure of governments to adequately address climate change is leading to a growing prospect of a geo-engineered atmosphere; the drift towards regional cities of a hundred million people plus carries many dangers; and, at a time when feeding the world looks to be an increasing challenge, there is potential break down of agricultural systems by an expanding global bio-fuels industry. These are but three examples from a much longer list.

Against such a backdrop, the time to act is now. Just privileging short term economic needs and acting pragmatically displays extreme myopia. There has to be radical directional change. But for this to be possible the very context of designing, and what it means to be a designer, needs to be reframed.

Tony Fry outlined six perspectives that can usefully be deployed to drive how change can be viewed and engaged. This will recast what industrial design is and does. In so doing the very notion of change by design will be taken beyond the rhetoric and practices associated with 'sustainability'. It was argued that our immediate economic needs can be met while taking redirective action. Key to this argument will be an exposition of the idea of a 'change platform' – an individual and collective action able to take the designer beyond service-provision and into the realm of potentially 'exemplary leadership'.

NEIL DAVIDSON

Design and the Environment

Over the years we have developed many highly acclaimed technology products that are considered to be environmentally focused and friendly. Such is the infancy of the "Green Tech" industry that most clients operating in this area are Entrepreneurial or SME's. They often have a limited budget and restricted global environmental focus. As designers working on these products we do the best we can to minimise their environmental impacts. We design for longevity and select materials that are recycle-friendly.

However, from time to time in the design studio we debate what negative environmental effects these "Green Tech Products" have at a more systemic level. For example, do the negative environmental impacts of shipping products from Asia cast pollution clouds of doubt over the good that Energy Monitors or Shower Timer provide?

Industrial designers in Australia don't often get the luxury to review and consider issues surrounding higher systemic design for sustainability. Neil Davidson further explored these areas by discussing the following topics:

- Consumerism and the Supply Chain
- ID is responsible for more than a recycle code
- Product Sustainability Equation – does it balance?
- Green Wash and Sustainability Vs Capitalism
- Can technology localise the Supply Chain and help the environment?
- The real issues, what do we need to address?
- Do we care enough?

VESNA POPOVIC

Ubiquitous Design - Humanized Technology

The traditional interactive roles of the designer, client and consumer (user) are becoming more complex. Consumers are changing from passive, to active and connected. They are sophisticated and knowledgeable regarding their demands. Consumers, designers and clients are now co-designing. This means that different knowledge is needed in order to design better and more valuable devices/ interfaces and systems that will respond to contemporary demands.

The changing market environment, new technologies and design require better understanding of people, as they operate at different levels of human engagement; this has become one of the major design concerns. This also indicates that more research is needed in order to understand people's experiences and interactions. This poses the question of what design knowledge is required by designers to understand the activity and the context in which products/ systems exist. In order to be able to humanize technologies and make design ubiquitous designers require the knowledge to assist them to understand various levels of human engagement.

Activity is seen to be the focal point of any human engagement. Therefore activity-centred interaction and design require understanding of the social context in which human engagement occurs at a group or individual level. It also requires the knowledge of cultures and sub-cultures of activities. The activity engagement requires an in depth understanding. How do activity and interaction occur within the different cultural contexts? These knowledge sources reside in activities and their actors. Therefore, this approach positions artifacts into the social context consisting of people, activity, context and culture. These are the main sources from which to draw the knowledge to humanize technologies. Therefore, one of the possible ways to conduct artifacts' research and design by situating them into the social structure (people, activity, context and culture) where the artifacts are the mediators of knowledge generation and application which might lead to ubiquitous design - design everywhere.

Crapola!

WARREN SCHRODER

Cutting out Crapola!

In our world of mass consumerism there is a growing quantity of questionable, low quality products (A.K.A. "Crapola"). These products are designed to a price and lack any regard for their impact on the environment and consumers. Industrial designers have a duty or care to ensure products they are developing are fit for purpose and have a high level of utility. Furthermore designers need to lead the mission to eliminate production of "Crapola" products. How can we begin to tackle this problem? Is it a problem? Do all products have a right to exist? How does this impact design businesses and manufacturers? The discussion highlighted the need and responsibility of Industrial Design in reducing "Crapola" and consequently having a more positive impact on our world and profession.

ANDREW SCOTT

Consuming Design

On 23 October, 2001, Apple Computer Inc. revealed the iPod to a shocked and incredulous computer industry. A US$400 MP3 player? Of course the iPod has gone on to establish itself as the heart of an extensive ecosystem of products and accessories, the first cultural icon of the twenty-first century. It is the natural inheritor of the mobile music legacy of Sony's Walkman and is remaking the company that produces it, now Apple Inc.. The apparently unstoppable iPod juggernaut continues to transform itself and everything it touches in the form of the iPhone.

Nearing the end of a two-year longitudinal survey of twenty people and their iPods Andrew feels he is, in a sense, writing the personal histories or biographies of these iPods. The research shows that iPods, and now iPhones, are adopted as cherished and often cosseted extensions of personality and lifestyle. They quickly become constant companions and musical mediators of quotidian existence. And yet they hold a fragile position in the hearts of their adopted parents: they are all too likely to be cast aside for newer, more capable models. Ultimately they become guilty reminders of failed relationships, spending "conscience time" (Chapman, 2005) hidden out of sight in a drawer or cupboard until they can be disposed of. They transition from the role of commodities to cherished objects and back to commodities again, a process that Kopytoff (1986) labels commoditisation and singularisation.

Interested in what the iPod, and its progeny tell us about how we adopt and inhabit technology, how we integrate it into our lives, how it helps us construct who we are. Most of all the iPod can teach us about our relationships with our things and perhaps, ultimately, how to create artefacts and experiences that foster relationships that are more meaningful, less disposable and more enduring.

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The Edge: State Library of Queensland
9th July 2010

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Dennis Hardy
The Design Imperative: People live around the earth, the earth does not live around people

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Tony Fry
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Shaun Crossman
Entrepreneurial Trends in Industrial Design

Glenn Bevan
Future Challenges for Industrial Design Consultancy

Tory Jones
Asia Pacific Design Library

Sophie Tobin
Design and Experience: Words of an industrial design education

Sam Bucolo
Value of Design

Gerard Ryan
Industrial Designers: Functional experts or innovation leaders?

Lindy Johnson
Ulysses Project

GLENN BEVAN

Future Challenges for Industrial Design Consultancies

The business model for an industrial design consultancy is becoming outdated. The globalisation of a low cost workforce has eroded some of the traditional value of some core consultancy service offerings. There are a number of new businesses promoting design services that are internet based, crowd sourced or open innovation models. There is a commoditisation of low level design projects allowing home based businesses around the world to compete on small projects, driving down the cost expectation. Consultant businesses can either embrace this new methodology, adapting to a fast paced, low cost business model or conversely, offer a higher value service that drives innovation, promotes excellence and assists clients to be design led market leaders.

The graphic design industry has suffered a similar fate in the last 10-15 years and the industrial design sector needs to be prepared for a similar change to our industry. The design of a logo has become a commodity, but the branding of your organisation is still a high value design consultancy project. Change is inevitable, industrial design consultancy businesses need to adapt or die.

LINDY JOHNSON

Ulysses

What is Ulysses?
Ulysses is a new initiative from the Queensland Government, delivered by QMI Solutions. It is a program to help Queensland businesses realise their full potential and create wealth through becoming design-led.

Ulysses is based on world-leading business programs such as the UK's 'Designing Demand' and New Zealand's 'Better by Design' — and adapted to specifically assist Queensland businesses.

What does design-led mean?
A design-led business places design at their core, and as a central part of its corporate culture. In a design-led business, design is embedded throughout – from the board room to the factory floor.

A design-led business:
*   Predicts, understands and creatively exceeds customers' needs
*   Demonstrates an absolute 'point of difference'
*   Makes innovation real – desirable, marketable, commercialised.
*   Is a market leader — the best of their field in the world.

Iconic international companies — Apple, Icebreaker, Fisher and Paykel, Dyson and Formway — differentiate through design.

"Design-led businesses take an intuitive leap and create something that people haven't thought of.

That means they've got the space to themselves, they own and create something visionary, and if that can be executed to a high level, that can be hugely transforming for a business."

- Jeremy Moon
CEO, Icebreaker Clothing

TORY JONES

Asia Pacific Design Library

The State Library of Queensland, through the Asia Pacific Design Library, aims to develop the best publicly accessible collection of design resources in the Asia Pacific, promoting contemporary thought and analysis on design in the region. Through lectures, exhibitions, research support, studios, publications, events and a strengthened focus on design collections, the State Library will be a hub for design resources and design activity as well as a trusted archive for records of historical and contemporary Queensland design and designers.

Through strengthened investment in design collections, a bespoke Design Lounge, Design On-line and a rich program of design activity the Asia Pacific Design Library will bring a new focus for partnerships amongst leading designers and institutions. Collection development, research support, publications, exhibitions and events will concentrate especially on design of the public realm, digital design, fashion, contemporary Indigenous design, design theory, design of books and products for better living.

SOPHIE TOBIN

Design and Experience: Words of an Industrial Design Education

An industrial designer is a problem solver; aiming to solve problems of human to product interaction, product to human interaction and even human to human interaction. To devise reasonable and effective design outcomes industrial designers must integrate, question and trial both current and potential solutions. While preferred design approaches and methodologies alter between individual designers and furthermore design consultancies, the design process is essentially achieved through iteration and idea funneling.

The vastness of potential professional outcomes for an industrial designer is ever growing and can therefore be overwhelming and hard to grasp, even for a fresh graduate. This can obviously be seen as an advantage or ultimately a disadvantage. Thankfully, through the education model within Australia and furthermore the curriculum adapted at QUT School of Design, being a graduate of Industrial Design is an honor and are at a great advantage.

During the third year of the Bachelor Degree the words design and experience were strung together in a way that motivated and inspired the realm of design. The phrase, "design as experience" is certainly one of the most golden learnings from design education. Through various academic and professional opportunities in Australia and abroad, I believe a strong design curriculum can be based upon three interrelations of the terms design and experience. Thus; *design an experience*; *experience design* and *design for experience* represent fundamentals within a design education for designing user-centric outcomes, gaining and retaining design inspiration; and professional experience and development.

SAM BUCOLO

Value of Design

Open up any leading business publication and there is often an article discussing the role and value of design as a driver of innovation. But is design led innovation anything new or is it the latest buzz term hovering around the innovation landscape? Design is increasingly an influencing element in product success or failure but design is not only about the product itself. Being Design led means having a culture that recognises Design as an integral part of strategy, organisational behaviour, product innovation, market development and customer interaction. Design is an integral part of the factors shaping the future of company, market and innovative new product development.

Like the term innovation, design it is often used to describe both an activity and an outcome. Many products and services are often described as being designed, as they describe a conscious process of linking form and function. Alternatively, the many and varied process of design are often used to describe a cost centre of an organisation to demonstrate a particular competency of an organisation.

However design is often not used to describe the 'value' it provides to an organisation and more importantly the 'value' it provides to both existing and future customers. Design Led Innovation bridges this gap. Design Led Innovation is a process of creating a sustainable competitive advantage, by radically changing existing customer value propositions, through an integrated series of steps which anticipates future user needs, builds future proposal and encourages feedback which is embedded in a company's strategy, vision, culture and leadership.

GERARD RYAN

Industrial Designers – Functional experts or Innovation Leaders

As we move into the decade 2010 we are seeing increased recognition of the role of design and the emergence of the design-led=company. The big question for industrial designers is whether they are ready to take advantage of the opportunity which is now before us. What are the skills which designers need to lead and manage in this emerging environment? How can Industrial designers emerge as innovation leaders?

SHAUN CROSSMAN

Entrepreneurial Trends in Industrial Design

Design plays a major role in the entrepreneurial world. New ideas and ventures are constantly in the pipeline but how is it that they reach the market and how successful are they, and what influences success? Shaun Crossman looks into entrepreneurialism and the influences of design, strategy, innovation and more on the process of getting products to market.

Global warming is currently a huge focus, and as we reach critical points in natural resource consumption we see ever growing trends within design to create cleaner and greener products. These translate to entrepreneurial trends as design, branding, strategy and innovation, among other factors, combine with an aim to create change in the behaviours of people and society. Entrepreneurialism is about making money, it is earned reward for the significant risks, effort and money invested. But in the current wave of global warming we need to look at entrepreneurial ventures in terms of their bigger picture, is the goal to really make a difference to society or is it purely for personal gain. Are the products that come out of these ventures truly sustainable?

Fee for service design has for a long time been a major part of the industrial design industry. But as consultants we are often selling our time relatively cheaply. We get to work on great products and are paid well for our time but the IP we generate builds entire businesses. It comes back to risk and reward. Clients are the entrepreneurs taking on the significant risk. As industrial designers our skills give us advantages in taking on entrepreneurial roles ourselves, it has been happening for long time and often the most exciting new products are the result of designer entrepreneurs, or at least effective use of design within the process.

Design and Sustainability, Design as Innovation, Design Education

Future Horizons

As the organisers of the inaugural Design Horizons forum for 2010 we would like to take this opportunity to express how hounoured we feel to have had the opportunity to host such an event. The forum heard from a variety of speakers from all areas of the design industry bringing to light imperative issues for the future survival of our profession that need action today. The day was a huge success and we intend on using this as a basis to craft future forum and events.

Our aspiration is for the forum and subsequent publication to create awareness and start to shape the design industry of tomorrow with positive implications for all. Continuous engagement from the design industry including professional, practitioners, academics, educators, students and others involved in the industry can reform the ways in which industrial designers tackle these emerging themes in the future. It is our ultimate goal to make Design Horizons an important annual event in the Brisbane design calendar and we look forward for Design Horizons to grow in the years to come.

We hope designers are inspired, engaged and most of all provoked by the ideas brought to light. The future is what we make it and with continual commitment designers can move towards the horizon with confidence and create a positive future for everyone.

Acknowledgements

The organisers of Design Horizons would like to acknowledge and thank the Edge, State Library of Queensland for hosting the event. The organisers would aslo like to acknowledge the Queensland University of Technology, School of Design and the Industrial Design Discipline for their sponsorship and the Design Institute of Australia for their support.

We would also like to extend our thanks to Jill Franz, Vesna Popovic, Sam Bucolo, Rebekah Davis, Andrew Scott, Rob Geddes and Natalie Wright for their direction and guidance. A special thank you also to Rachael Dale for her brilliant photography on the day.

Last but not least, thank you to all the speakers who presented on the day and all who attended; without you the day would not have been possible.

Design Horizons 2010 Organisers