CORE RESPONSIBILITIES OF DESIGN LEADERS IN COMMERCIALLY DEMANDING ENVIRONMENTS *

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LITTLE OF SUBSTANCE has been published on design leadership. Senior practitioners in business and design are struggling to understand what is involved in leading design. Unfortunately few published references offer any guidance or inspiration.

Is there a real difference between design *leadership* and design *management*, or is 'design leadership' a new buzzword for an old subject? Frontline experience over many years points to the conclusion that there are significant differences. In summary, design management is essentially reactive while design leadership is essentially pro-active.

SEPARATE SKILLS SETS

THE DIFFERENCE between reactive management and pro-active leadership generally lies in asking the right questions. Peter Ellyard, at the Futures Foundation, sums up the fundamental differences between the two as follows: "Instead of asking what the future will be like, ask what it should be like?" There is a fundamental difference between the skills needed to address both issues (Futures Foundation web site).

Management is essentially about responding to a given business situation. The basic skill is about facilitating a change process. This is at the core of what design managers do.

Leadership, on the other hand, is about describing what the future needs to be like, then choosing the direction to take in order to get to that future. That is at the core of what design leaders do.

Each area of expertise depends on the other for its relevance to business. Without design leadership, you don't know where you are going; without design management, you don't know how you are to get there. The first is a stepping-stone to the second. Both are critically important to business and both are necessary to get maximum value from design.

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ESSENCE OF DESIGN MANAGERS' ROLE

DESIGN MANAGEMENT is about delivering effective design solutions in an efficient, cost-effective way. Design managers need to master a wide range of skills as they often address very difficult problems.

One can distil the essence of the design manager's role under five headings:
- Design people
- Design budgets
- Design timetables
- Design work
- Design infrastructure.

First, managing *design people* — that is, everyone involved in design activity (whether design trained or not) such as end-users, clients, consultants, in-house designers, technical specialists and suppliers.

Second, managing *design budgets* — ensuring that all expenditure on design is explicit and deriving maximum value from such investment.

Third, managing *design timetables*. Anyone who has tried to manage the design activity involved in, say, a product launch knows how difficult managing to a timetable can be. In some cases, getting the timetable wrong may be catastrophic. For example, for every six months Heathrow's new fifth terminal is late in opening, the loss of revenue to BAA will be measured in hundreds of millions of pounds.

Fourth, managing *design work*. This relates to ensuring that appropriate design projects are set up to address identified business issues, and solutions generated represent effective responses to those issues. Many design managers will confirm that these responsibilities demand a great deal of their time.

Fifth, managing *design infrastructure* — putting into place an appropriate design organization within the business that, for example, ensures the commitment of sensible design budgets and other resources to address business needs, gain design approval, use resources efficiently through to implementation of design proposals, then build on the experience gained.

Design management is complex, and the role of design managers is made more challenging by the fact that they often fulfil design leadership roles, too.

ESSENCE OF DESIGN LEADERS' ROLE

THE ESSENCE of *design leadership* is to help companies:
☐ clarify where they wish to go
☐ define desired futures for them
☐ demonstrate what those desired futures might be like
☐ develop design strategies that help them get there
☐ turn the desired future into reality.

Design leadership involves helping to generate tangible business scenarios, clarifying their implications for the company, then checking whether the right design direction has been selected. Once that direction has been set, design leaders formulate design strategies and programmes to turn those visions of the future into reality.

The nature of the design leader's role can be explored under six headings:
☐ Envisioning the future
☐ Manifesting strategic intent
☐ Directing design investment
☐ Managing corporate reputation
☐ Nurturing an environment for innovation
☐ Training for design leadership.

ENVISIONING THE FUTURE. Organizations need to understand what their future business could, or should, be. Encapsulating a company's vision so that everyone can relate to it is a fundamental role of design leadership. That role should also extend to the implementation of such visions.

MANIFESTING STRATEGIC INTENT. Design is one of the few resources in business that provides a practical link between discussions in boardrooms and the day-to-day activities of companies. Design leaders are responsible for establishing such practical links and ensuring they are maintained. One of the most important aspects of this responsibility is to help make the strategic intent of organizations tangible to different stakeholders, not least by ensuring that design activity is focused on turning corporate visions and strategies into 'living' realities.

DIRECTING DESIGN INVESTMENT. Vast sums are spent on design. Unfortunately, only a small proportion is formally acknowledged as design expenditure. It is the responsibility of design leaders to determine exactly what the total sums are, ensure the money is spent in the right way, then maximize the return on investment.

Design leaders also need to address the fact that the money spent on design is the largest area of expenditure that company Boards know least about!

MANAGING CORPORATE REPUTATION. Design helps organizations manage their relationships, and hence their corporate reputations, with all their stakeholders. A fundamental challenge for design leaders is to ensure that design is used to deliver the most appropriate experience at every point of contact between company and stakeholders — to enhance the challenging *'moments of truth'* Jan Carlson mentioned when Managing Director of Scandinavian Airlines (Peters and Austin, 1985).

NURTURING AN ENVIRONMENT FOR INNOVATION. Continuous and radical innovation are often critical to business success. Though not well understood in society (or the design professions), design leaders have to harness and sustain innovation by creating environments in which innovation flourishes.

TRAINING FOR DESIGN LEADERSHIP. Little is known about training for design leadership and grooming successors to positions of leadership. Yet to maximize the full potential of design in business, it is crucial that those gaps in knowledge, skills and experience are redressed.

Before exploring design leaders' core roles and responsibilities in greater detail, it is worth outlining some of the different aspects and perceptions of design leadership.

DIFFERENT ASPECTS OF DESIGN LEADERSHIP

THERE ARE two common perceptions of design leadership:
☐ Leadership in generating *distinctive and innovative design solutions* that change our perceptions, enhance the quality of life, create new opportunities, as well as setting new benchmarks and trends.
☐ *Leaders in design* — individuals (not necessarily design-trained) at different levels in organizations who are outstanding 'creatives', nurture creative environments and/or inspire exceptional performance (Topalian, 1990; BSI, 1999).

However, at least three further aspects of design leadership are equally important:
☐ Distinction in *leading through design* — in the way design and the 'designerly' approach to problem-solving can upgrade corporate performance. This includes contributions from the 'visual dimension' of communication, the tangibility and 'finishing power' that design brings to meeting aspirations, satisfying needs and, often, delighting beyond expectation.
☐ Sustaining design leadership *over time*. First, where successful design solutions are generated quickly and immediately 'feel right' to clients and users. Second, where the effectiveness of solutions and overall contribution of design are maintained over the longer term, even when attention is distracted and priorities change.

And third, in building on design experience through virtuous spirals of development and innovation.

☐ Finally, we should seek leadership in *gaining acknowledgement for achievements through design* (or re-claiming them for design when credit is assigned elsewhere). This encompasses getting the 'design message' across to prime audiences and providing ammunition for other stakeholders to 'sell design on' to their own constituents. A key characteristic of such leadership is ensuring that the term 'design' is never buried, side-lined or otherwise ignored.

ENVISIONING THE FUTURE

DESIGN LEADERS have to be concerned with envisioning the future. One of their core responsibilities is to help businesses understand what their strategic options are, and what these might 'look' and 'feel' like. This could be done by presenting a range of 'living' scenarios — covering the spectrum from simple/cheap to complex/resource intensive — made more tangible through vivid imagery and descriptions of experiences.

This is well illustrated by the process that has underpinned the design development of the new fifth terminal at London Heathrow Airport.

Terminal 5 is a massive undertaking in scale, cost and programme. In many ways it could be viewed as 'a company within a company' rather than a 'project'. The main facility consists of a terminal building and two satellites, each 400 metres long to cater for an additional 30 million people a year; a car park with 5,000 spaces; a mainline underground railway station catering for Heathrow Express, the London Underground and safeguarded platforms for another service; and a new spur road to the M25 orbital motorway. Overall, Terminal 5 will cost around £2.5 billion and, after a four-year Public Inquiry, will take just over six years to build.

BAA has considerable experience in designing airport terminals though, prior to Terminal 5, this related to generic facilities where almost any airline could come in as tenants. By contrast, Terminal 5 has been designed primarily for British Airways. This presented a strategic challenge as there was little common ground regarding the nature of this facility between BAA (the airport operator) and British Airways (the principal tenant). The only point of agreement was that the final design had to contribute to satisfying some of the wider strategic objectives of the two companies.

When asked what it was his team was trying to design, the recently appointed managing director of the project suggested that the answer could be found in a large file that contained a detailed specification and complementary documentation for Terminal 5. This defined everything about the technical and accommodation requirements of Terminal 5; all the logistics of people and planes; annual energy consumption targets; down to the number of toilets required, and so on. However, the file gave no insights into whether the solutions generated needed to be different from anything else at Heathrow. It provided few clues as to how designers would know when they had arrived at a good solution.

In summary, there was no real vision of what Terminal 5 should be like. It is a bit like comparing motorcars. A Mercedes e-class, a BMW 5 series or a Volvo V70 have virtually the same specification, but are very different cars! Each has a clear proposition and vision of what it stands for in the marketplace. In Terminal 5's case, there was no proper vision of what it needed to be like. This was critical to the continuing development of the project because that vision had to do three fundamental things.

First, it had to contribute to BAA's and British Airways' global aims. Both aspire to be world leaders. BAA has a mission *"to be the world's most successful airport operator",* while British Airways claims to be *"the world's favourite airline".* So, a minimum requirement had to be that Terminal 5 fits in with those overriding ambitions.

Second, the vision had to establish a world benchmark in airport design to reflect the missions of the organizations involved.

Third, it had to set standards for Heathrow's planned network of passenger terminals.

An internal consulting exercise eventually led to a consensus on the vision for Terminal 5. This was summed up by a simple phrase: *"The world's most refreshing interchange".* Some people commented that this sounded like marketing jargon which conveyed little meaning. However, those sceptics were proved wrong. It quickly became apparent that the vision provided a common perception as well as a common language. It also encouraged executives in the two organizations to 'buy in' to the ideas behind the new development.

This expression of vision — or 'motivating proposition' as it was called later — was loaded with meaning and implications. However, these had to be fleshed out with fuller, descriptive narratives, then translated for the different teams so as to draw colleagues in and enable all to move forward together.

First, Terminal 5 had to be an interchange where several forms of transport came together. Transferring between them had to be easy, if not seamless.

Second, the whole facility had to leave passengers positively refreshed. In other words, they actually feel good about their experiences of Terminal 5. It should not leave them frustrated and exhausted.

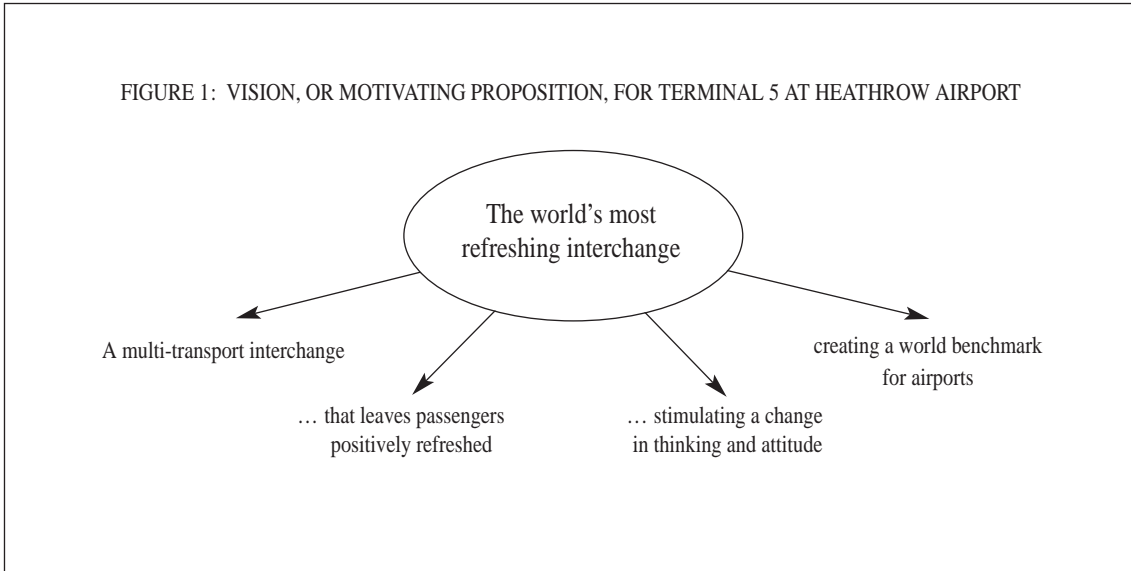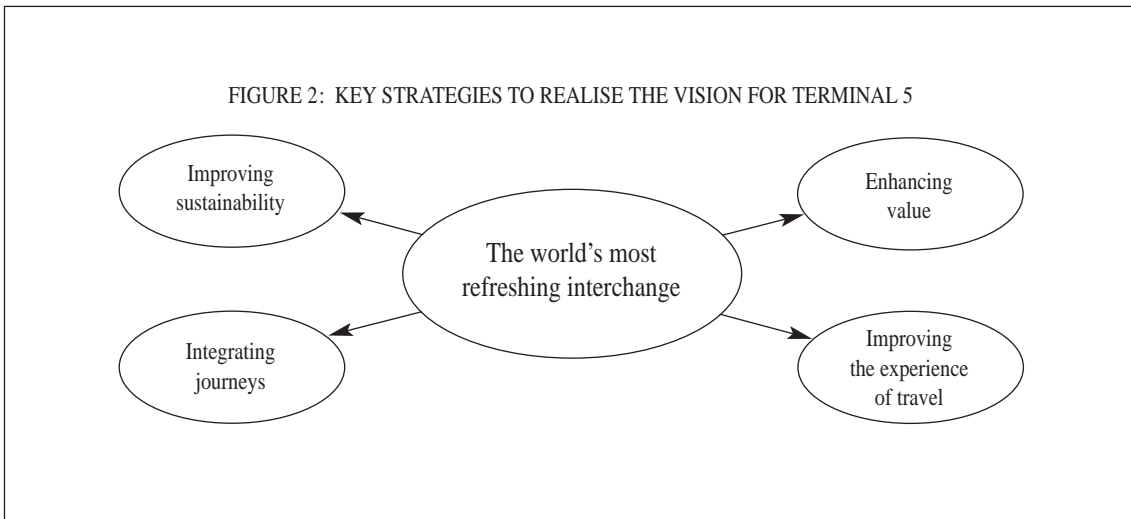FIGURE 1: VISION, OR MOTIVATING PROPOSITION, FOR TERMINAL 5 AT HEATHROW AIRPORT

The world's most refreshing interchange

A multi-transport interchange

… that leaves passengers positively refreshed

… stimulating a change in thinking and attitude

creating a world benchmark for airports

FIGURE 2: KEY STRATEGIES TO REALISE THE VISION FOR TERMINAL 5

Improving sustainability

Enhancing value

The world's most refreshing interchange

Integrating journeys

Improving the experience of travel

Third, it had to stimulate a change in thinking and attitude among the people designing, constructing and operating the terminal. If this did not occur, the outcomes were likely to be 'business as usual' which, by definition, could not produce *"the world's most refreshing interchange"*.

Finally, Terminal 5 needed to establish new standards in airport design — a world benchmark which operators planning the next major international airport facility would need to better.

Having created a vision, albeit mostly in aspirational terms, the team identified four inter-related key strategies needed to realise that vision.

The first concerned improving the sustainability of airport facilities. It was essential that, once built, Terminal 5 could be sustained as a long-term property development and in terms of 'future build' over a life of at least 25 years. Consequently, future long-term change had to be accommodated even though it could not be anticipated or fully understood at present.

The second involved integrating all manner of journeys without making any of them feel like second-rate experiences. For example arriving by car and leaving by plane, arriving by train and leaving by car, arriving by plane and leaving by plane, and so on.

The third was to improve the experience of travel beyond anything achieved until then. The aim was to make the experience 'refreshing' at least to the extent that people would say "that's how it should be done, a pleasure not a chore". The starting point to this was to understand the steps people take on their different journeys through the airport, then to create and manage the most appropriate experiences for them.

The fourth was concerned with enhancing value for the people who were to use the facility: the passengers, business partners and staff, in whatever way those different groups wanted.

For the purposes of this paper, the design of the physical facility is not really relevant; the key point is that design leadership was critical in taking the companies involved into unfamiliar territory when developing a vision of what the future needed to be like.

Moreover, it helped BAA and British Airways to decide whether the future described by that vision was where they actually wanted to go. Better to reveal such discrepancies early rather than investing time and money into designing the wrong thing! In BAA's case, the cost of pursuing inappropriate solutions was profound as the investment in Terminal 5 equals roughly half BAA's net worth. The impact of inappropriate design direction in other companies could be proportionately as damaging though their investments in design are unlikely to be as great as in BAA.

The inevitable conclusion from this fact is that design leadership is fundamental to envisioning the future, and even creating it and this, in turn, is a major contributor to business success.

MANIFESTING STRATEGIC INTENT

ANOTHER CORE RESPONSIBILITY of design leaders is to help align strategic intent with delivery, not least by linking decisions emanating from the boardroom with day-to-day activities of the business.

A simple chart will help to explain the meaning of such alignment (see *Figure 3*).

'Strategic intents' take many guises. Sometimes they sum up business objectives or market aspirations. Sometimes such intents are like sound bites: for example, *"A Coke within arm's reach"* or, for the manufacturer of small Japanese engines, *"Three in every garage"*.

The strategic intent for Heathrow's Terminal 5 was to deliver a world-class facility for £2.5 billion. However, strategic intent is not enough on its own: a vision is needed to capture the potential of that intent. Such visions provide the platforms for developing design and operational strategies to realise those intents. But before strategies can be manifested, the corporate values that steer everything a company does need to be understood, as they condition all that flows from those strategies. Finally, those individual strategies are made manifest 'on the ground' by a series of design responses. Every strategy will have a number of design responses to deliver it and they all link back through the values to the vision and strategic intent of the organization.

Design has a role to play in all these areas. It is one of the few disciplines in business that provide a clear and practical link between strategic intent and the day-to-day activities of the business. Without such alignment, shareholder value cannot be maximised from design investment.

Heathrow Express, the train service between Heathrow Airport and London's Paddington Station, provides an example of these connections in practice. Its development followed the process outlined in *Figure 3*. The managing director expressed his overall aim thus: *"To design a rail service that customers want at a price they can afford, all delivered for £300 million"*. However, he recognised, that this did not provide adequate guidance.
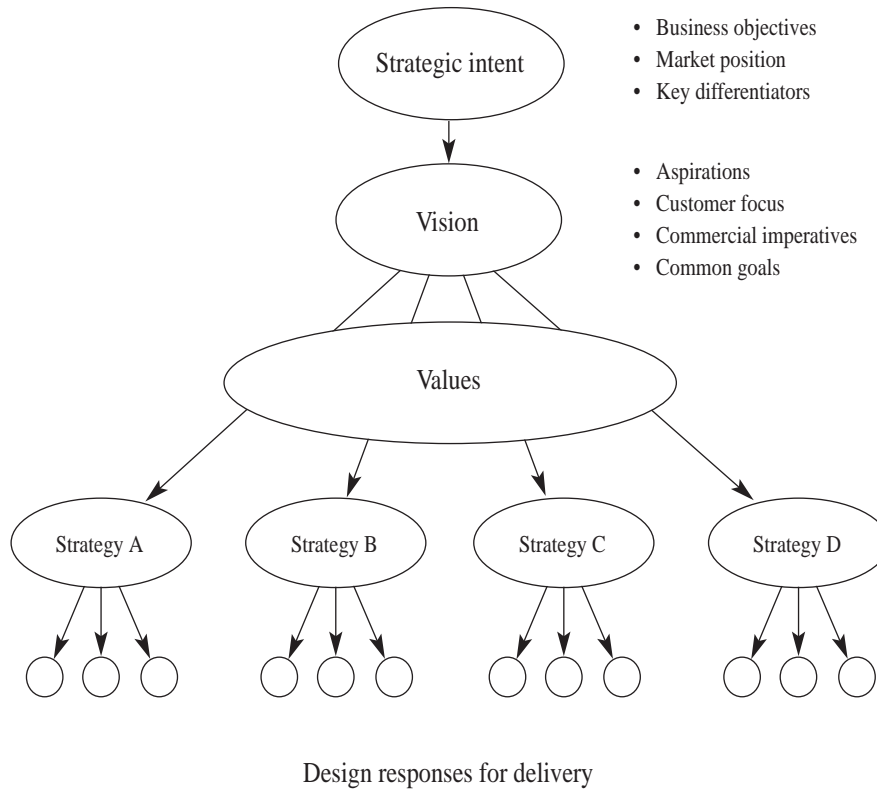
Therefore, a preliminary requirement was to identify what the strategic intent meant in terms that the design team would find useful. Team members needed to understand the vision for this service if they were to help the managing director achieve his business objectives. Eventually the essence of the proposed rail service was distilled within the vision statement: *"Bringing Heathrow Airport to London in 15 minutes"*. Naturally, it was rather more complex than that.

It was not enough to tell designers how much money was available and how fast the service should be. Without a tangible grasp of the service aspiration, designers might generate inappropriate solutions. So they needed to know whether the business proposition was for a low-cost commuter-like service with a ticket price of, say, £5 (for a journey of just 15 minutes), or a luxurious intercity service priced at, say, £25. Or perhaps something completely different was indicated.

The designers presented scenarios showing the design implications for a range of ticket price options. These were then taken to the marketplace for testing. Customer responses to these scenarios pointed to a service more like a plane than a train; something that had some quality to it, not a 'pack-em-high' kind of service. Significantly, potential customers said they were prepared to pay for it. This was enough for the designers to develop the product currently in service. Around 20,000 people use the Heathrow Express every day, so it must be delivering the strategic intent to a great extent. It has been remarkably successful, as many design and transport awards confirm; nevertheless a number of faults still need to be ironed out.

The conclusion from this can only be that design leadership is key to manifesting strategic intent because it is one of the few disciplines in business that provides a clear and practical link between strategic intent and the day-to-day activities of the business. As such, it facilitates the successful implementation of corporate strategy.

FIGURE 3: ENSURING THAT DELIVERY IS ALIGNED WITH STRATEGIC INTENT

Strategic intent

- Business objectives
- Market position
- Key differentiators

Vision

- Aspirations
- Customer focus
- Commercial imperatives
- Common goals

Values

Strategy A   Strategy B   Strategy C   Strategy D

Design responses for delivery

DIRECTING DESIGN INVESTMENT

EFFECTIVE INVESTMENT in design requires an enlightened understanding of the context for design within an organization: where design touches, or is used by, an organization.

For example, retailers will have somewhat different design requirements to, say, train operators, car manufacturers, research institutions or insurance companies. So understanding 'design context' is a route to finding out who is formally responsible for design and how design responsibility is spread around organizations.

'Context' is also a route to determining how and where money is spent on design in an organization. Without that knowledge, executives cannot assess the level of investment necessary to contribute to the achievement of corporate objectives, nor how to direct that investment.

Nevertheless, information on the wider context is not always forthcoming. Design leadership needs to earn its spurs by building confidence and trust between the various parties involved, and so demonstrate the added value of that information.

In reality, wherever one looks, some kind of design activity is taking place involving all levels of staff — in finance, production, research and development, marketing, human resources and so on. Unfortunately, much of this activity is not acknowledged as such. Gorb and Dumas identified 'silent designers' across organizations: typically individuals with no design training who, often unknowingly, influence or make design decisions, without consultation or guidance (Gorb and Dumas, 1987). The majority of design decisions are made by relatively junior people, not at board or senior management level. Is it sensible to allow such influence and discretion on expenditure without a wider strategic view and awareness of the implications?

A simple matrix can help to clarify how much is at stake. This shows 'Management Hierarchy' along one axis and 'Operational Activities' on the other, with a plot of how much is being spent, on what, and who sanctions

the allocation of resources. This can be very illuminating.

Experience shows that, invariably, the amount spent on design is the largest sum of money that company boards know least about! It is critical that design leaders redress this 'blindness'. Typically, well-informed executives spend three to four times more on design than they realise. Less informed executives often underestimate their expenditure on design by a factor of five to ten. In companies where executives are unfamiliar and inexperienced with design, it could be even more.

For example, in BAA a great deal of attention will be focused on a £100 million project, not least how the design budget is actually spent, because this is a serious amount of money. A portfolio of one hundred £1 million projects presents a considerably greater challenge because, relatively, each project represents a small amount of expenditure; however, cumulatively they could have a major impact on BAA's customers. Therefore it is critically important that someone in the organization is responsible for the collective effect of this design investment on all people that come into contact with the organization, including customers and staff.

The inevitable conclusion is that directing design investment is a key responsibility of design leadership because it is crucial to the way an organization operates. It also provides focus for dispersed design activity and expenditure across the business.

MANAGING CORPORATE REPUTATION

THE FOURTH core responsibility of design leaders relates to managing corporate reputation. There is an irrefutable link between company reputation and the experience that customers have of that organization. Design can be used to create the most appropriate experience for all those people who come into contact with the organization. In other words, good experiences with a company normally lead to an enhanced reputation in the minds of those involved. Conversely, bad experiences tend to diminish reputations. Design helps shape those experiences and so has a powerful influence on a company's image and reputation. This, in turn, has a direct impact on the profitability of the business. Yet executives rarely acknowledge that the reputations of their organizations are a function of the way they direct design budgets.

Understanding customer experiences and how to manage them have become critical concerns in business. As such, it ought to be high on business development agendas. BAA has mapped out what a customer's journey should look and feel like. It has produced a sophisticated diagram of people on 'outward bound', 'inward bound' and 'transferring' journeys through an airport.

If you 'drill down' behind each step in the diagram, you will find a complete description of the experience people have, or need to have. Understanding the difference between the two is a key issue for corporate management. The direction given in design is crucial to distilling and addressing these differences.

The Lexus motor car company and BT are two other organizations that have explored in considerable detail customers' experiences of their organization and how design might help improve the quality of these experiences. *Figure 4* outlines the different 'service journeys' experienced by Lexus customers when purchasing and having their cars serviced. *Figure 5* shows just one interface between a BT customer and the company among the many points of contact between someone on the high street and a BT shop. Only when this level of detail is explored can designers feel confident that they have sufficient information to direct design resources effectively for the business and its customers.

Ultimately, these diagrams indicate that leading through design is about creating total experiences for customers and staff. Without such focus, customer experiences of businesses will not be maximised. Design leadership is key to creating those customer experiences on which corporate reputations thrive.

CREATING AN ENVIRONMENT FOR INNOVATION

THE FIFTH core responsibility of design leaders relates to creating an environment for innovation. Innovation is 'home territory' for the design professions: a significant proportion of designers believe they are in the business of 'innovation' though many other specialist disciplines (such as accountancy and law) also require innovation. But how is strategic context provided for innovation?

There is no point in innovating for the sake of innovation. Some organizations set up special innovation centres, and their work is assessed and filtered through a 'strategic relevance process'. The 'strategic intent diagram' *(Figure 3)* can be used to test the relevance of all innovative thinking in a business.

There are two interesting facilities in Bilbund, the home of Lego in Denmark. One is the factory where Lego bricks are manufactured. The other is Lego's innovation centre on a separate industrial estate whose purpose is to generate ideas for new products using existing bricks, or ideas about future Lego products. It is an amazing environment and the work they do is all about what the future could be like. Staff at the centre are called 'innovators' or 'imaginers'. They explore the

FIGURE 4: CUSTOMER JOURNEYS RELATING TO PURCHASING
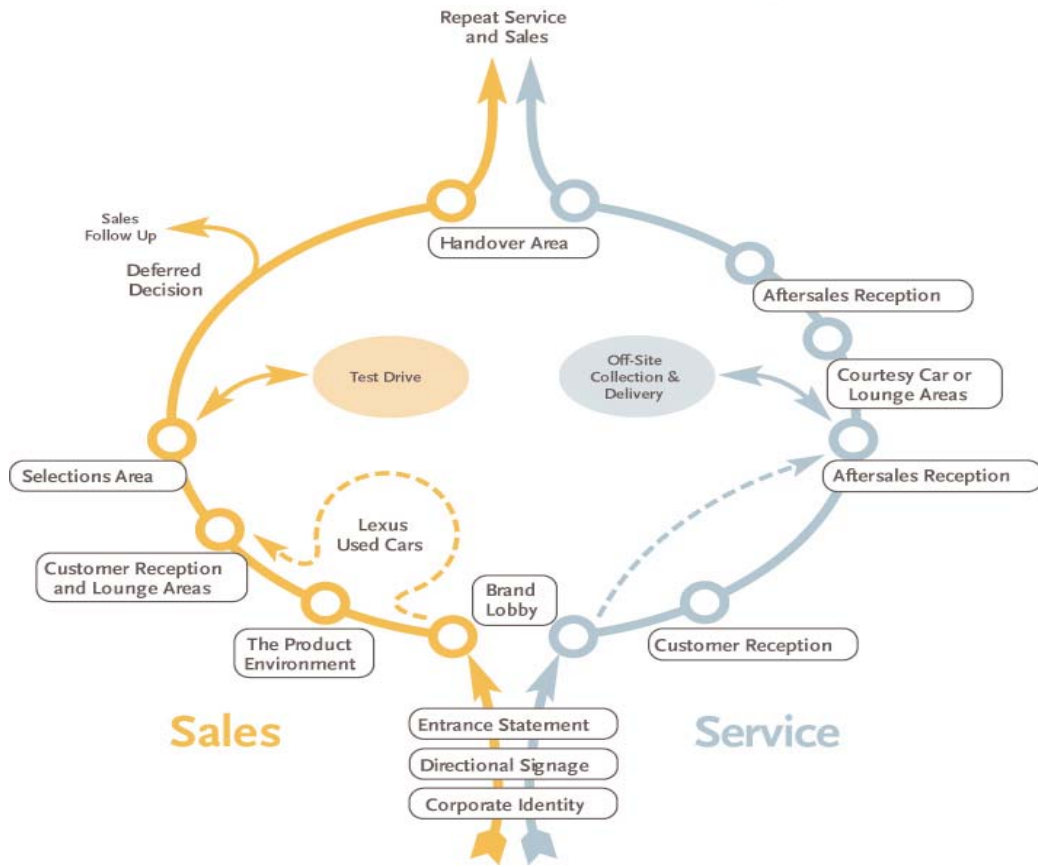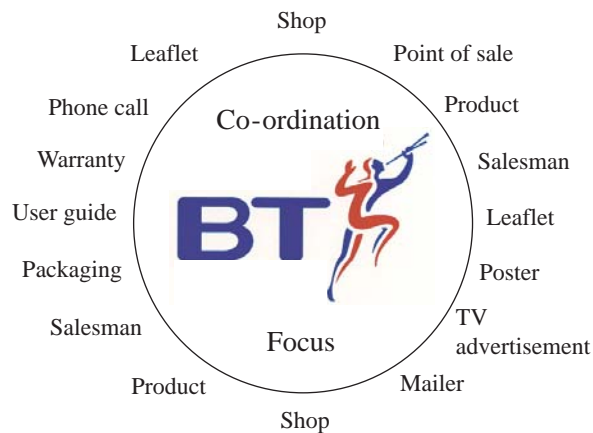AND SERVICING LEXUS CARS

FIGURE 5: POINTS OF CONTACT BETWEEN CUSTOMERS AND BT STORES

nature of play and the role Lego might have in creating that future — living, sleeping and walking innovation almost unfettered. However, to support this creative 'free-for-all', an assessment process is used to guide the future development of the company as a whole and to evaluate all ideas against market potential and business aims.

It is crucial that design leaders create and sustain environments that nurture and sustain innovation. However there is little guidance that inspires in this area.

DESIGN LEADERSHIP AND TRAINING

THE FINAL core responsibility of design leaders relates to training. It is one thing to say that design leadership is important, but quite another to put in place appropriate mechanisms to develop design leaders. Unfortunately, we are far from understanding how to do that — it is virtually virgin territory.

Training and organizing for design leadership is about putting design into the DNA of organizations: getting to the position where design becomes normal mainstream activity in business that is second nature to all involved like quality control or financial management (Turner, 1999; Topalian, 1989). Unless this is achieved, the long-term benefits and value from all that design offers as a rigorous business discipline will not be realised.

We need to facilitate the use of design in business and encourage executives to embrace it as a core discipline in their companies. Though designers will always have a pivotal role, many others have valid creative inputs to make. That is why design needs to become part of the DNA of companies and should not be left to 'specialists'. Reward systems need to be re-oriented towards providing incentives for staff to use design more effectively and sharpen-up their design decision-making. Systems already exist for upgrading approaches in other disciplines, so there is no reason why similar upgrades are not possible for design. However, business executives must acknowledge their ultimate responsibility for rigour and professionalism when handling design, not only to generate quality solutions, but also retain their integrity through exemplary implementation over time. That responsibility should never be abdicated.

SUMMARY

THIS PAPER HAS HIGHLIGHTED the fundamental difference between design management and design leadership. Each area of expertise is dependant on the other for its relevance in business. Without design leadership, executives don't know where they are going; without design management, executives don't know how they might get there. The first is a stepping-stone to the second.

Moreover, design leadership is critical to business success for six reasons:

- ☐ It helps to envision the future
- ☐ It manifests strategy
- ☐ It helps direct corporate investment and maximises the return on such investment
- ☐ It shapes customer experiences and, through that, the reputations of businesses
- ☐ It is responsible for creating and sustaining an environment for innovation
- ☐ It is responsible for organizing and training for design and innovation within business.

Ultimately, design leadership is a commercial imperative because it enables a company to differentiate itself from others, create and sustain competitive advantage, and evolve into a world-class performer.

REFERENCES AND FURTHER READING

Futures Foundation website: www.futurists.net.au

Peters, T and Austin, N (1985). *A passion for excellence.* Collins, London

McAlhone, B (Ed) (1985). *Directors on design: SIAD Design Management Seminars.* 4 volumes. Design Council

Gorb, P and Dumas, A (1987). *Silent design.* Design Studies, 8(3), pp 16-21

Topalian, A (1989). *Organizational features that nurture design success in business enterprises.* Proceedings of the Second International Conference on Engineering Management, Toronto; September; pp 50-57

Topalian, A (1990). *Design leadership in business: The role of non-executive directors and corporate design consultants.* Journal of General Management; 16(2) Winter; pp 39-62

Turner, R (1990). *Design into Management.* Design Management, Architecture Design and Technology Press; pp 107-124

Blaich, R (1992). *Design leadership: A way of integrating function, technology, marketing orientation and quality.* In 'On design leadership'; University of Industrial Arts, Helsinki; pp 83-90

Turner, R (1992). *Realising a vision — Design at Eurotunnel.* Qualities of success: University of Industrial Arts, Helsinki

Cooper, R and Press, M (1995). *The design agenda: A guide to successful design management.* Wiley

Turner, R (1999). *Design and business DNA.* Design Management Journal; 10(3), Summer; pp 10-13

Hollins, B and Hollins, G (1999). *Over the horizon: Planning poducts today for success tomorrow*. Wiley

Topalian, A (2000). *The role of innovation leaders in developing long-term products.* International Journal of Innovation Management; 4(2) Special issue June; pp 149-171

– (2002). *Directors on design*. Director Publications

Topalian, A (2002). *Promoting design leadership through skills development programs*. Design Management Journal, Design Management Institute, Boston; 13(3); Summer; pp 10-18

ACKNOWLEDGEMENTS

DESIGN LEADERSHIP FORUM

THE DESIGN LEADERSHIP FORUM is an initiative of Alto Design Management. It was established to fill a critical gap in opportunities for business executives, design specialists and suppliers to get together regularly to discuss issues of common interest and share experience to mutual benefit — in a strictly non-commercial context. The focus is on the substance of presentations and quality of discussion.

The Forum seeks to promote the leading edge of professional design management practice — particularly at the corporate level — revealing and making more tangible the reality of design's strategic contribution to business and enhancing the quality of life.

The issues addressed will challenge speakers and participants alike, by helping to stimulate new initiatives that stretch all participants beyond their current views and practices. A significant element of presentations should be to envision how things might develop in the long-term future.

The Forum should help to generate new knowledge thus contributing to a significant expansion in the body of shared experience in design leadership.