

GETTING DESIGN OFF THE SUBSTITUTES BENCH: REFRAMING AND REALIGNING DESIGN PROCESSES FOR THE BUSINESS DEVELOPMENT GAME

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ABSTRACT

Within many developed and developing economies there is increased interest in the creative and design sectors and their role in supporting economic growth. Such support is perceived to emanate directly from the innovation and trading activities of dynamic and entrepreneurial design and creative companies, and indirectly from the work they undertake to assist product and business development in partner and client firms. Indeed, the design industry is now viewed in many quarters as an important player in national economic health, articulating and facilitating as it does the processes of creativity and innovation that lie at the heart of enhanced economic competitiveness (Cox Review, 2006). However, the profile and enhanced reputation of design in policy and trade development circles has not been translated fully to the business sector.

Whereas some design clients report improved performance via the embedding of design as a strategic tool, large numbers of manufacturers and service providers have as yet failed to explore the potentials and opportunities that might be afforded by positioning design more centrally in the business and strategy development process (Topalian: 2006; Delaney: 2005). This paper, based on research undertaken at Manchester Business School and Central St Martins College in the UK, argues that this failing is founded in significant disconnect and misalignment in the design-business relationship. The paper examines the causes and implications of the disconnect (in the UK situation) and presents a strategy – based fundamentally on the re-figuring of curricula in

design and business schools – for realignment and realisation of the full potential of design in business and innovation contexts.

Keywords: innovation; design-business relationship; opportunity development

INTRODUCTION

It is clear that the term ‘innovation’ has recently enjoyed significantly heightened exposure in policy and political discourse and it is arguable that the term now stands alongside (or perhaps has replaced) ‘competitiveness’ and ‘education’ at the forefront of the consciousness of the political elite. Indeed, the notion of innovation has been at the heart of much recent economic and industrial policy-making and the past few years have witnessed a rash of initiatives and incentives designed to stimulate and support increased innovation activity. In line with this re-focusing of thought and effort around innovation, there is much evidence of growing interest in the creative and design sectors as fundamental props and engines for innovation.

The support for innovation that is provided by the design sectors is perceived to emanate from two sources: first, directly from the innovation and trading activities of dynamic and entrepreneurial design and creative companies; second, indirectly from the work they undertake to assist product and business development in partner and client firms. Indeed, the design industry is now viewed in many quarters as an important player in national economic health, articulating and facilitating as it does the processes of creativity and innovation that lie at the heart of enhanced economic competitiveness and business success (Cox, 2006). However the contribution of design to the UK – measured in purely economic terms - does not appear reflect these assertions (Whyte and Bessant, 2007).

Given the reinvigorated interest of politicians and industrial and economic commentators in the role and significance of design, it is perhaps surprising that little effort has been applied to a serious appraisal of the ways in which design enters, functions and impacts in industrial and commercial settings (i.e., the way design ‘gets done’ in everyday designer-client encounters and the way that it is mobilised and actualised in business environments). If the design sector is such an important driver and facilitator for innovation, a detailed understanding of the interplay between design, innovation, business and the exploitation of commercial opportunities is surely

crucial (especially if an important goal of policy action - the articulation or embedding of design in business processes - is to be achieved). It is in this 'gap' in current understanding that this paper is positioned. Here we argue that some bold, and perhaps flawed, assumptions regarding the relationship between designers and their business clients have been allowed to go unchallenged. Specifically, we argue that the connection and interchange between the two parties - often assumed to be unproblematic - is frequently fraught and strained: historically, design practitioners have displayed little adroitness in promoting the benefits of their offering, whilst their counterparts in business have failed to recognise the potential in embracing and embedding design as a core business activity (Delaney, 2005; Topalian, 2006). It is our contention that this situation has resulted in a sub-optimal utilisation and positioning of design in UK enterprises. Further, we suggest that the problem is founded in a significant degree of *disconnect* between the aspirations, vocabularies, cognitive frameworks and worldviews of designers and their actual and potential clients in the manufacturing and services sectors. This disconnect has important implications for the ways in which design is deployed in business contexts, and the nature and implications of the disconnect – and some possible remedies, in the form of *realignments* – are the key themes that the paper will address.

The material presented below is based largely on recent UK experience, and much of the argument elaborated here results from two ongoing studies of trajectories, challenges and strategies in the industrial design sector (one managed by researchers at the Innovation Centre at Central St Martins and the other by researchers at Manchester Business School)¹.

¹ Methodological note: the study undertaken at MBS has involved (a) extended interviews with 20 senior practitioners in larger UK Product Design Agencies, and (b) analysis of Design Council survey data from 2005. Interviews were conducted by the author (Green) and colleagues (Professor Bruce Tether and Dr Andrea Mina) and were undertaken throughout late 2006 and 2007. Survey data analysis was undertaken primarily by Professor Tether. The study is funded by AIM at the UK Economic and Social Research Council and is designed to provide a broad-ranging review of trajectories, challenges and strategies in the UK product design sector. Data derived from ongoing research at Central St Martins is part of that organisation's 'Business Interaction Pilot Project' undertaken in conjunction with London Development Agency. The study is designed to measure the effectiveness of seminars, training and showcase events within five business sectors (food, luxury goods, retailing, animation & games, and biomedicine).

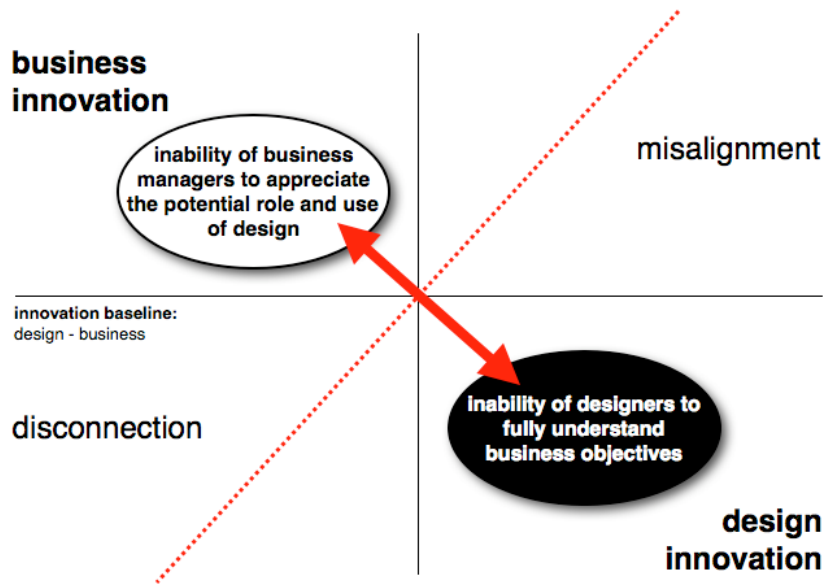


Diagram 1: trajectories, challenges and strategies in the design–business relationship

The paper opens by examining the context in which business and design activities in the UK are currently played-out, i.e., the *Business and Design Game*. Here we consider the linkages between design, innovation and competitiveness, and the ways in which the design sector has been perceived to constitute an important contributor to economic growth. On the basis of findings from our joint research activities, we highlight some of the realities that product design practitioners in the UK face today and allude to misalignments and fractures in the design-business relationship that we identify as *disconnection factors*. The next section moves on to deal more specifically with the role of design and designers in innovation, and to unpack and decode the problem of disconnection (relating this to contributions from relevant literatures). The paper concludes by arguing for *realignment*, in essence, the development of an effective shared vocabulary, the establishment of congruent cognitive frameworks, and the facilitation of change in cultural attitudes - among players in both camps - towards the business and design game. Here we propose some solutions in the form of *realignment strategies* that are designed to address both the causes and symptoms of disconnection. We also explore the notion that some of the main perpetrators of disconnection (albeit unwitting offenders) are close at hand in our Business and Design Schools. It is our contention that we need to move beyond tokenism, perceived prejudices and veneer orientations to each others theories and practices in order that we can engender new, innovative approaches to business and design school thinking. Attitudes,

curriculum content and pedagogic strategies can and should change, and meaningful collaborative practice can surely deliver mutual benefits.

THE ROLE OF DESIGN IN THE BUSINESS DEVELOPMENT GAME (A UK PERSPECTIVE)

We are frequently told, particularly in the UK, that design is an important strategic component of the creative industry's contribution to the UK's current and future economic success. The clear implication here is that there is some form of strategic value within the business and design game. In addition the importance of design thinking within business activities is currently a hot topic (Design Council, 2006). IDEO and Stanford University, in particular, reference the need for more *T-shaped* practitioners in business. However our research indicates designers in the UK frequently complain that their clients fail to understand the real value and potentially (substantial) contribution of design across the range of business development activities. Indeed, it is clear that the marginal role of design in the business development game is a sore point: here we consider that role from both a strategic- and a practise-based perspective.

A GAME OF TWO HALVES: THE 'STRATEGIC PERSPECTIVE'

The importance of strategic partnerships in achieving business success is frequently articulated by government organisations and publicly-funded agencies (DTI, Design Council, regional development agencies etc.). These pronouncements are mirrored by organisations in the private sector, where corporations and trade and professional associations often speak of the fundamental value of commercial linkages and partnerships in an increasingly networked economy. Despite the power of these narratives and the currency of the networking vogue, many design professionals in the UK speak of the *fickleness of clients*: they assert that even where long-term co-working has led to market successes, clients will often walk away from relationships in search of cheaper options. Moreover, once a designer has established a meaningful partnership, maintaining contact with business clients appears to present an ongoing problem. The movement of design buyers and design managers - *industrial churn* - often constitutes a concern for design consultancies. Design industry representatives report that there is considerable flux within client companies and long-term relationships can be lost where a design buyer/manager leaves a client company. Further, transfer of responsibility (where supplier-client contacts are maintained) almost invariably implies the downgrading of relationships. Conversely,

the movement of design managers and buyers can lead to the development of new business with the companies into which such individuals implant themselves. Some designers report that where strong relationships have been established with individual buyers/managers, movement is not necessarily a problem: there are examples of design agencies generating important business in new sectors via the movement of contacts from existing clients

The quality of designer-client relationships depends fundamentally upon the level at which designer access to a company is achieved. Many designers report that they tend to '*get in*' at middle-management level: this is problematic for a number of reasons. First, a 'strategic' role for design is obstructed or obviated; second, middle managers will frequently lack sufficient power to sanction designs (extended and mediated negotiations and 'Chinese Whispers' will then ensue); and third, middle ranking managers can be concerned more with elevating their own power, interests and position rather than securing 'good' and appropriate design. Informants report the existence of some 'enlightened' and 'design savvy' clients – these companies tend to (a) employ design managers (either trained at university level or with a practitioner background in design), or (b) possess directors that maintain a close eye on design issues. Enlightened clients tend to recognise and allow a broader and more strategic role for design (however, such companies are few and far between).

It appears that there remains a disconnection between the strategic importance of delivering innovation to the market and the *value of design* in delivering innovation to end users: too often, design is perceived as a cost rather than an investment. Recent years have witnessed significant commoditisation of design (it has become easy and cheap to buy basic design services as practitioner numbers within the industry have swollen), and a growing perception that design should be designated a *craft* rather than an intellectual or professional activity. According to senior design industry commentators, to avoid further commoditisation, designers should re-focus their offer around 'building brand' for their clients. The commoditisation of design has also implied that clients have increasingly perceived design as an activity that is relatively 'easy' – with over-supply in the market and a failure to recognise the real value of design (and longer-term designer-client relationships), many clients are happy to shop-around in search of reduced design outlay and increased 'novelty', quality or fit. Many agencies report that a squeeze on development budgets has implied that design buyers are eager to push-down design costs.

An important factor to emerge from the Manchester study concerns the client-ascribed and self-ascribed status of design and designers. Many experienced and senior designers speak of a 'confidence deficit' in the design industry and serious status asymmetries in the design-business relationship. They argue that, to a degree, design professionals have perceived themselves (and allowed themselves to be perceived) as subservient to their clients. Status asymmetries are an important challenge for the industry – senior managers within clients firms (with a background and training in business), are likely to perceive their own status as significantly superior to that of the designers they hire. Indeed, business training and acumen, underpinned by an academic education in a 'good' University or business school, is held to confer status well beyond that conferred by design education - often perceived as 'craft' or 'vocational' training - in a middle-ranking university or former polytechnic. In addition to the linked issues of status and confidence, senior designers indicate that it is crucial that design practitioners speak (and understand) the language of business. A command of business argot and an understanding of business culture, values and attitudes can assist designers in conveying their message and a sense of their worth: confident communication from a shared platform of knowledge and values ensures that design 'gets noticed'. However, a majority of designers indicate that few amongst their number have any significant business training and that this disadvantages them in the commercial world (for example, some designers will still engage in 'free pitching' despite the controversy surrounding such activity and the dangers inherent in the approach).

THE 'PRACTICE PERSPECTIVE'

The Cox Review clearly recognises the role of creativity and design in helping to deliver innovation to the market place (and Cox is certainly not alone highlighting the linkage). Given this broad recognition, there are surely valid questions relating to *why* design appears to be undervalued as a driver and tool for business development. A useful means of exploring these questions is found via consideration of current UK *practice*, and an examination of the *focus* of contemporary design activity.

Early results from the research at Manchester Business School, indicate that designers (often including those from larger, more successful and well-established agencies) report that their main focus is on the *design* rather than *business* problems of clients. Whilst almost all informants indicate that they conceive of a more strategic role for their services, convincing clients of the value of design as a strategy-development or strategy-forging tool is deeply problematic. Most designers report that simply securing access to senior management or board members – i.e.,

those with some clout in the strategy-building process - is extremely difficult. Some informants suggest that experience and track record (i.e., *professional gravitas*) can open doors into the higher echelons of a business, but once there, maintaining a presence is a formidable challenge (and one that is made more difficult by the ascriptions and prejudices noted above). Only the largest agencies, and within them, the most senior designers, report that their normal mode of access is at the higher levels of client organisations and that activity is centred on strategic development.

Increasing 'dependence' and pressure on pricing are frequently identified as further problem issues in the design-business relationship for UK practitioners. Some report that dependence (in the form of either 'dependent clients' or a client's perception that a design supplier is 'trade dependent') can constitute a negative consequence of very close client interactions. In the first case, the investment of energy and resource in the development of a relationship with a specific client can imply that alternative opportunities are missed. This is a particular problem for smaller agencies or for agencies that deal with SMEs where absorptive capacity relating to design inputs can be limited or non-existent (Cohen and Levinthal, 1990, Tether, 2000, Miles, 2005). In the second case, where a client suspects or knows that a designer has invested significant resource in relationship building (and in design work for that client) and that an agency has few alternative clients, downward pressure on prices can result. This relates to the 'fickleness' noted above and in some respects is a symptom of very high levels of competition and possible over-supply in the sector. It also relates to creeping commoditisation of design and alleged undervaluing of the skills of the designer. Conversely, although dependence is perceived broadly as a negative phenomenon, there are examples of clients and designers working in deliberately 'dependence-intensive' relationships. This is especially true in high budget development projects (typically large infrastructure enterprises), where upfront investments in design hardware and software are required: here it is not uncommon to find clients funding such investment and locking themselves in to long-term, trust-based relationships.

Adding to pressure on UK designers is the allegedly *increasingly demanding* nature of clients. Designers report that heightened demands are experienced in the form of requirements to produce a broader range of alternative designs, to produce this range against tighter timescales, and to deliver on the basis of reduced fees. These changes are perceived to be linked to some degree to the diffusion and more sophisticated use of ICTs in both design consultancies and client firms (and certainly, CAD has led to an expectation that design work can be produced

rapidly and that many competing alternatives of any given artefact can be presented - in photo realistic mode - within a short timescale). Beyond this however, there is suspicion among the designer community that increased pressures are linked with a fundamental failure on the part of some clients to understand the process of generating and delivering 'good' design. Many UK designers contend that 'more design' at a lower cost is not necessarily better use of design budgets and is rarely likely to result in development of an optimal design (let alone one that will encapsulate or enhance brand value or strategy).

Another recent and evolving threat to design is the growing global re-location of manufacturing. This trend has seen many clients of UK design shift their operations to low-wage economies in the East. Whilst this has not implied that design work has disappeared from the UK, several agencies in the Manchester study report that it is likely that some (perhaps most) elements of design will gradually agglomerate in global centres of production. There is certainly anecdotal evidence that re-location of former UK-based manufacturers is leading to a loss of design opportunities and trade in the UK. According to informants, the quality of design education and design teams (often led by UK and European designers) in the East is improving. Whilst Far East designers have yet to develop a sophisticated understanding of the visual language and culture that will permit them to operate successfully in European markets, there are signs that progress is being achieved at a rapid rate. Moreover, designers in the East are obviously perfectly placed to supply design services to support burgeoning demand for industrial and consumer products in domestic Eastern and Asian markets.

SUMMARY: FRAMING DISCONNECTION

It is clear from a survey of the early findings of the two UK studies that disarticulation and misalignment in the design-business relationship is evident at both strategic and operational levels. To summarise, we argue that it is possible to identify a number of key 'disconnection factors' that require attention if it is to be possible to improve (for mutual benefit) future interactions between the design and business communities in the UK. These disconnection factors are:

- Underestimation of the value (and potential role) of design
- Fickleness in clients' attitudes to the design-business relationship

- Discontinuity in relationships (loss of key contacts with client organisations (as a result of 'churn')
- Inadequate access to key decision makers within organisations (and a consequent lack of a strategic role for design)
- Globalisation - re-location of client's operations and re-location of design
- Pressure on pricing ('dependence relationships' and commoditisation of design)
- 'Confidence deficit' and status asymmetries in the design-business relationship

CONCEPTUALISING PROBLEMS IN THE BUSINESS DEVELOPMENT GAME

CONCEPTUALISING INNOVATION AND DESIGN

Innovation is viewed as an important aid to both sustained success in business and the exploitation of new ideas ahead of the competition (Cox, 2006). Innovation activity and investment is clearly of growing importance to businesses, with greater numbers of companies listing innovation as one of their organisation's top three priorities (Boston Consulting Group, 2006). More significant is the proportion of companies that indicate that innovation is their number one priority: this figure has more than doubled to 40% in the past 12 months (Boston Consulting Group, 2006). Beyond the private sector, there is also growing interest in innovation and 'modernisation' in the public sphere with pressure to improve service provision and delivery stimulating high levels of investment in both 'top-down' and 'local' innovation initiatives in healthcare, education and government (Cunningham *et al*, 2005). Indeed, the public sector is now perceived as a central locus for innovation in service delivery, organisational alignment, and technology utilisation, all of which – incidentally or otherwise - are areas in which public-private partnerships are finding an increasingly important role.

However, the swarming of interest around - and increased activity in relation to - innovation in its many guises and varieties can sometimes obscure the important issue of definition: for the purposes of the current study we need to be clear what we mean when we use the term. There is now a substantial history of scholarly endeavour in relation to innovation, and approaches from various disciplines (economics, management, sociology etc.) have generated multiple, often overlapping definitions (see for example, Nelson and Winter, 1977; von Hippel, 1988; OECD, 1995; Johansson, 2004). These definitions, at the most fundamental level, are concerned with

“the successful exploitation of new ideas” (DTI, 2006), and it is this orientation that we take as our starting point. In addition though, many definitions are linked to notions of creativity and design, and in our research we have focused on the interrelationship and interdependency of *creativity*, *design* and *innovation* as outlined by Sir George Cox in his (UK-based) review of Creativity in Business (DTI, 2005). For Cox, *creativity* involves the “generation of new ideas...new ways of looking at existing problems...seeing new opportunities [or] exploiting emerging technologies or changes in markets”; *innovation* involves the practical realisation of such ideas in the form of new products and services; and, *design* is the bridge that links creativity and innovation, shaping ideas into attractive propositions and client offerings (for Cox, this is “...creativity deployed to a specific end”, Cox Review, 2005: p2).

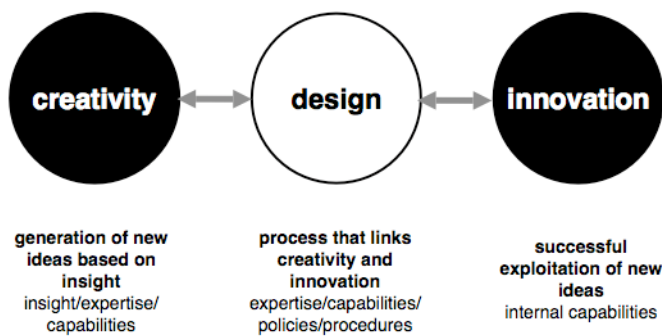


Diagram 2: Cox Model of creativity, design and innovation (Cox Review, 2006)

Moving beyond Cox, however, we contend that these three factors themselves exist within and are conditioned by *contexts* and *cultures*. This view is supported by the findings of the DTI ‘Report on Creativity, Design and Business Performance’ (2005), in which ‘culture’ (i.e., the culture that is internal and external to an innovating organisation), and ‘context’ (the structure of markets and orientations of consumers) are identified as having a significant impact on the delivery of business success.

If we are to address the disconnect between designers and their actual and potential clients, and assist in realigning the relationship between business and design we believe that there is a need to *contextualise* creativity, design and innovation by considering the *cultural* dimension. For us, ‘culture’ is the key factor that influences the decision to commission and to adopt design. Culture

shapes the expectations, assumptions and worldviews of designers and business managers (especially important in negotiations and discussions concerning design inputs to the business process) and affects the external parameters that can influence responses to designer's insights, the adoption of new products (and processes and practices), and the recognition or realisation of desirable outcomes.

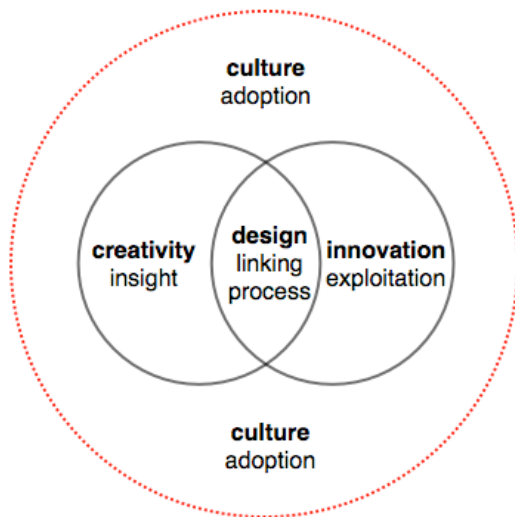


Diagram 3: Revised Cox Model of creativity, design, innovation and culture

CONCEPTUALISING DESIGN AND BUSINESS

Within the context of innovation, design and designers are perceived as a key interface between businesses and their customers. The role of designers is understood to incorporate the delivery of innovation from a strategic brand level through to product and service experience at the user level (Design Council, 2004). The importance and potential breadth of this role cannot be underestimated and implies that it is crucially important to understand why there remains – in many instances - a significant disconnection between designer and business client.

The Cox Review provides an insight into the problem by indicating that, *“numerous case studies prove that many companies simply don’t recognise the opportunities or how to pursue them”*. Tim Brown of IDEO articulates the frustration felt by designers from an industry perspective: he suggests that *‘a key issue in the failure of design to add real value is that the wrong briefs are being tackled’*. For Brown, designers and business clients waste much time in ‘talking past’ one

another, failing to understand perspectives and orientations of the other, and failing to communicate effectively in the mutual specification of a brief that really connects with the visible and hidden, near-term and longer-term needs of the client.

It can be argued that the worldviews and cognitive orientations of Business managers and design practitioners are fundamentally different. Whilst generalisations and caricatures can be unsafe, it is fair to assert that business practitioners are frequently characterised as *rational thinkers*, whilst their counterparts in design are cast as *creatives* or *intuitives*. It has been argued recently (on the basis of developments in neuroscience, neuro-diversity and psychology) that cognitive orientations and preferences and identifications can be connected with brain function, and that differences exist between individuals in which 'left brain' or 'right brain' are favoured or dominant (Ornstein, 1997; Gazzaniga, 1998; Strauss, 1998). Building on work by Trevarthen and Sperry (1973), theorists within this paradigm maintain that a 'left brain orientation' suggests a more linear, rational, analytical, and linguistic approach, and that a 'right brain orientation' is associated with more artistic, musical, spatial and intuitive skills. It may be true to say that both camps (i.e., business and design), may readily associate themselves with one or other of these stereotypes, but neither is entirely specific to one group.

The exchange of information between business and design functions (or disciplines) is a critical feature in facilitating success (Cooper and Kleinschmidt, 1987). However it can be argued that each discipline has developed its own system of communication, its own language or argot, and its own set of conventions used by those in a specified group or sphere of activity. It can be argued further that these conventions foster disconnections: according to Boland and Collopy (2005) "we are always trapped by our vocabulary of management that brings premature closure to problem solving". Whilst these authors write from a business perspective, it is clear that their observations are also true in relation to design.

Research relating to innovation management at Central Saint Martins has revealed that the communication methods used by managers to convey ideas, aspirations and methodologies to designers frequently fail to work in business scenarios. Conversely, the ability of designers to link concepts and make connections with a range of possible tools and methodologies is rarely found in the make-up of (technically-oriented) business managers. Clearly, there is evidence here of disconnection. Via the testing of different methods and approaches, the Central team found that

designers respond better where concepts are communicated in a sequential pattern with clearly defined rationales.

Applying the notion of 'problem space' Simon (1996) argues that the first step in any problem-solving episode involves 'representing the problem'. This simple notion highlights a second element that contributes to disconnection between business and design practitioners. Coughlan and Prokopoff (2005) suggest that tools for traditional business planning embark from the assumption that 'maintaining current state' represents an optimal strategy, and that 'incremental growth' is 'satisfactory growth'. They support and extend this assertion by expressing their continual surprise at "how difficult it is for managers, who typically have extensive quantitative and qualitative data at their disposal to 'see' their reality because the data have been stripped of the emotional content that forms the basis for most compelling initiatives." These authors argue that this inability to see the 'problem space' exerts a major impact on the problem solving process. Effective design (whether incremental or radical) begins with a clear understanding of the problem to be solved. For Coughlan and Prokopoff, business managers need to "get in touch with their customers (and other stakeholders') unarticulated needs and desires", and in order to do this, they must understand that the fundamental approach adopted by designers is to "...create frameworks so that they can simplify and unify design opportunities in order to conceive of possible futures..."

Further disconnection is apparent when we consider the notion of *constraints*. Vandenbosch and Gallagher (2005) argue that constraints act as limitations on actions and set boundaries on solutions. They highlight the differences between approaches to constraints in the business and design communities and suggest, "many design disciplines recognise and accept constraints as fundamental to their process...[however] unlike those in design disciplines, managers rarely explore constraints. Instead, they expend energy to work around or eliminate them." The authors go on, "[C]onstraints can be accepted or challenged, adopted or explored", and foreground the cultural differences and differences in orientation to constraints that exist between business and design practitioners. They also indicate that the former must contend with organisational culture and resource allocation as factors that can lead companies to fail to fully understand and explore constraints.

According to Boland and Collopy (2005), incumbents in business and design functions frequently demonstrate different attitudes to problem solving. They have arrived at this position via

substantial exposure to design thinking and problem solving in the course of working closely with the architect Frank Gehry. Their experience led them to the view that both management practice and education have allowed development of a 'limited and narrow vocabulary of decision making'. Boland and Callopy contend that via a focus on teaching advanced analytical techniques for choosing among alternatives, "attention to strengthening design skills for shaping new alternatives has withered." They believe that business schools (particularly those in the USA) facilitate a decision-based approach to problem solving which they call a "decision attitude". They define "decision attitude" as the process whereby managers face a set of alternative courses of action from which a choice must be made. Decision making behaviour assumes that it is easy to generate alternatives but difficult to choose among them. Boland and Callopy argue that this approach is overwhelmingly dominant in management practice, especially in the USA. The approach aims to solve problems by making rational choices among alternatives and by deploying a range of analytical tools including economic analysis, risk assessment, multiple criteria decision-making and simulation. Boland and Callopy assert that a fundamental weakness of the approach is that "it starts with the assumption that the alternative courses of action are ready at hand – that there is a good set of options already available, or at least obtainable." The authors suggest that the *decision attitude* approach "is too susceptible to early closure" and that it carries with it a *default representation* of the problem being faced. By contrast, a *design attitude* begins by questioning the way in which problem is represented. On the basis of their research, Boland and Callopy believe that design schools adopt a different approach to problem solving and foster an alternative attitude to that found in business schools. A *design attitude* approach focuses on "finding the best answer possible, given the skills, time and resources of the team and takes for granted that it will require the invention of new alternatives". The contrast with business school thinking here is fundamental insofar as a design approach assumes that it is "difficult to design a good alternative, but once you have developed a truly great one, the decision about which alternative to select becomes trivial".

Contrasting the *design* and *decision* attitude, Boland and Callopy identify four core characteristics of the former: first, a design attitude aims to question basic assumptions in order to determine the *real* problem that is faced; second, it relishes the lack of predetermined outcomes; third, it resolves to develop best possible, practical solutions; and, fourth, good design often resolves problems that were not envisaged in the first instance. Given their clear preference for a design attitude, Boland and Callopy recognise however that the approach has a potential shortcoming insofar as it is "susceptible to keeping the search going after it is beneficial."

SUMMARY: FRAMING MISALIGNMENT

On the basis of the research activities undertaken at Central and Manchester (and via review of relevant literatures and case examples), we contend that design-business misalignment has been spawned and is maintained by conflicts of language, non-correspondent cultures, and differences in attitudes and approach. We highlight the following as key contributory factors in misalignment:

- Multiplicity of definitions of innovation and innovation practices (providing opportunities for multiple and non-congruent interpretations of activities and approaches)
- Differing systems of communication and differing conventions and protocols (leading to lack of mutual comprehension)
- Differing approaches to the identification and recognition of opportunities and problems
- Conflicting attitudes and approaches to problem solving (resulting from differing pedagogic and disciplinary codes)

NEW RULES FOR THE GAME – REALIGNMENT STRATEGIES

It is clear that innovation is viewed as an important aid to both sustained success in business and the exploitation of new ideas (Cox, 2006). It is also apparent that design is potentially an important strategic component of current and future economic success (Design Council, 2006). The obvious implication therefore is that design carries some form of strategic value in the business development game. Yet our activities and findings suggest that disarticulation and misalignment in the design-business relationship is evident at both strategic and operational levels (see Table 1). We have also found that misalignment is being reinforced through conflicts of language, culture and attitudes within the business development game.

Design-Business Change Focus	Disconnection and Misalignment Factors
<i>Educational Practices</i>	<ul style="list-style-type: none">• 'Confidence deficit' and status asymmetries in the design-business relationship• Multiplicity of definitions of innovation and innovation practice (interpretation)• Differing systems of communication and conventions (comprehension)• Conflicting attitudes and approaches to problem solving (design-business culture)

Strategic Practices	<ul style="list-style-type: none"> • Underestimation of the value (and potential role) of design • Globalisation - re-location of client's operations and re-location of design • Fickleness in clients' attitudes to the design-business relationship •
Operational Practices	<ul style="list-style-type: none"> • Discontinuity in relationships (loss of key contacts within client organisations (as a result of 'churn')) • Inadequate access to key decision makers within organisations (and a consequent lack of a strategic role for design) • Pressure on pricing ('dependence relationships' and commoditisation of design) • Differing approaches to the identification and recognition of opportunities and problems

Table 1: disconnection and misalignment factors in the design-business relationship

If it is to be possible to improve (for mutual benefit) future interactions between the design and business communities in the UK, the key 'disconnection factors' that require attention relate to current *cultural, strategic* and *operational* practices (see Diagram 4).

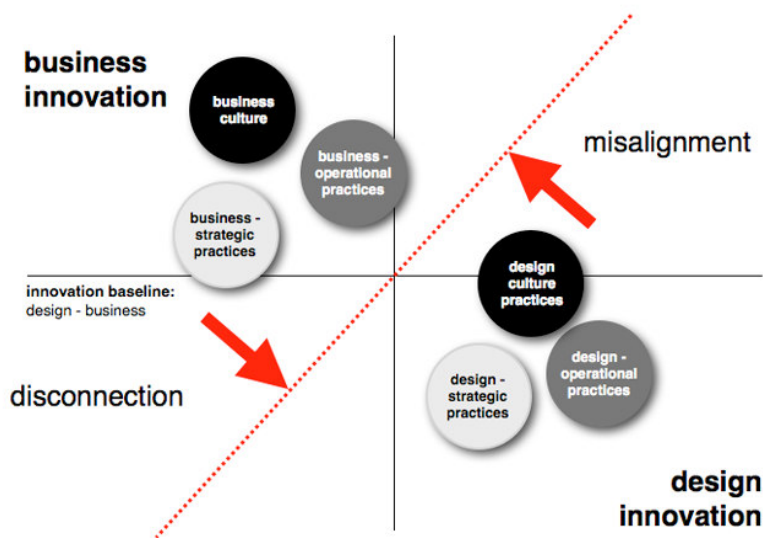


Diagram 4: key 'disconnection factors'

ALIGNMENT AND CONNECTION

In order to facilitate the reconnection and realignment of design processes within the business development game (see Diagram 5) we believe that there is a need for the development of an effective common vocabulary, the establishment of congruent cognitive frameworks, and the facilitation of change in cultural attitudes (among players in both camps) towards the business and design game.

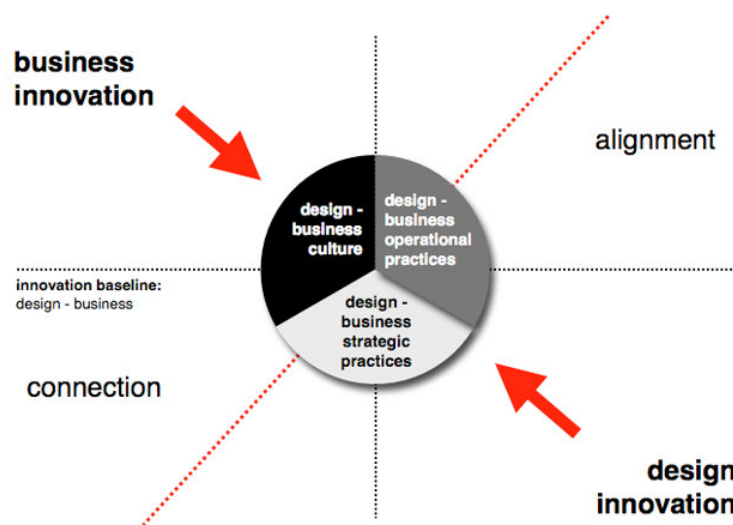


Diagram 5: connection and alignment in the design-business relationship

The starting point for change is education, in particular design and business education at graduate level. A radical approach must be pursued if we are to break down the current cultural barriers to the adoption of design processes within business. We advocate a five-step process.

Step 1 focuses on avoidance of the use of the word *design*. We propose a move towards acceptance (or at least discussion) of a new vocabulary wherein ‘opportunity development’ might replace the term ‘design’ in a common metalanguage. It is our experience that greater common ground can be established in the design–business space where the notion of *opportunity development* is mobilised in favour of *design*: all commercial organisations realise that they need to identify and develop opportunities in order to sustain their business (and public agencies seize

on opportunity development as a means of leveraging service improvements and efficiency gains). **Step 2** concerns the stimulation of greater use of *design thinking* - at a strategic level - as a tool for the identification and translation of business opportunities. As *design thinking* should be embedded into business school activities, so too *business thinking* needs to be at the heart of the design school curriculum. The aim here is to focus on strategic development of opportunities (understanding and promoting the fundamental interrelationships between the design and business disciplines in this process), in order that graduates will be equipped to foster and lead innovation in the organisations that employ them. **Step 3** focuses on the development of a *Congruent Cognitive Framework* that will serve as a departure point for both graduate design and business school teaching: here the aim is to provide insight into and mutual appreciation of: (1) design-business cultures (i.e., attitudes and behaviours); (2) design-business operational practices (activities and constraints); and (3) design-business strategic practices (roles, goals, drivers and actions). It is also envisaged that the *framework* will provide a reference point for potential graduate managers. **Step 4** concerns the introduction (into both design and business schools) of greater emphasis on practice-based, co-operative and synergistic approaches to problem solving and opportunity development. The aim is to encourage graduates to creatively explore risk taking through experimentation. Such an approach will help to break down the *decision attitude* problems identified above, and assist in the development of designers that are comfortable and acquainted with collaboration-based and business-sensitive design. **Step 5** is founded on the promotion of greater collaboration between (and the joint development of curriculum activities within) graduate business and design schools. Novel approaches to business and design school thinking are within reach and are required urgently if innovation capacity is to be enhanced and design is to find its true role in both innovation and opportunity development processes.

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