

The Virtues of 'Blue Sky' Projects: How Lunar Design Taps into the Power of Imagination

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In an era of globalization, intense competition and unpredictability, organizational creativity is increasingly important and, hence, tapping into the power of imagination in the work setting is propelled to unprecedented heights. This article explores how imagination is encouraged among employees within a successful NPD consultancy (Lunar Design Inc.) through the processes of 'initiating', 'defining', 'imagining' and 'implementing' 'blue sky' projects. Such activities enhance creative thinking, generate new knowledge, break down stereotypes, enhance employees' morale and satisfaction and build a reputation of a visionary organization. We urge managers to address the hidden danger of pigeonholing conventional work as mundane, especially in times of a recession where more structure needs to be incorporated in 'blue sky' activities.

Imagination is more important than knowledge, for knowledge is limited while imagination embraces the entire world.

Albert Einstein

Introduction

The uncertainty (Daft & Lengel, 1986) and ambiguity (Daft & Weick, 1984) that characterize contemporary rapidly changing markets (Jacobson, 1992) have propelled the importance of organizational creativity to unprecedented heights. In the past, competitive advantage has been achieved mainly by lowering production and distribution costs or by gaining differentiation in existing industries and businesses (Hart & Sharma, 2004). Today, competitive advantage is increasingly no longer won by adding value to existing products/services or by introducing new ones in existing markets, but by generating and dominating fundamentally new markets (Hamel & Prahalad, 1991). During the last fifteen years we have, for instance, witnessed the commercialization of the Internet, robots and handheld devices; products that have changed the way people interact, shop and communicate with each other. It is clear that traditional markets are shrinking and companies are

forced to move beyond their current market boundaries and to redefine their industries. Organizations are therefore increasingly relying on their employees' imagination and intuition to explore future possibilities and exploit new competitive opportunities (Christensen, 1997; Hamel, 2000; Hamel & Prahalad, 1994; March, 1991). A proactive approach is hence imperative in dealing with the unprecedented rate of uncertainty evident in the external environment. We propose that this proactive approach requires the initiation of processes that probe the future; practices that mobilize and utilize employees' imagination. In this article, we first provide a theoretical background on the concept of imagination and its value for enhancing creativity in work settings. We then present our inductive, exploratory methodology and highlight the processes involved in mobilizing imagination in the context of Lunar Design. Lastly, we identify the virtues of 'blue sky' projects and discuss the challenges that they raise for managers of creative organizations.

Theoretical Background

The ability to create is a unique quality endowed to human beings (Goldenberg &

Mazursky, 2002). This is the kind of creativity that enabled Leonardo Da Vinci to imagine a helicopter over 500 years ago, Edison to develop the light bulb and more recently, Steve Jobs to develop the personal computer (Andriopoulos & Dawson, forthcoming). In this realm, imagination is an essential driver to evolution and can be used to create solutions to real-life problems (Szulanski & Amin, 2001). As noted by Hamel and Prahalad (1994, p. 89), 'industry foresight grows out of a child like innocence about what could be and should be, out of a deep and boundless curiosity' and imagination is a critical component.

However, throughout history, the term 'imagination' has remained somewhat unclear.¹ The concept of 'imagination' originates in the work of classic Greek philosophers Plato and Aristotle. The first mention of the word can be traced back to Plato's idea of '*phantasia*' (e.g. mental images) and his effort to bring together sensory awareness and logical thinking leading to the creation of knowledge (Shaw, 2000). In this respect, imagination has been viewed as 'power necessary to the knowledge of the material world' (Bundy, 1927, p. 48). In other words, Plato suggests that nothing can be known that cannot first be imagined. From another perspective, Aristotle perceived imagination as a 'function present to the intellect that interprets sensation without which there is no thought' (Brann, 1991, p. 40). Later on, in the eighteenth and nineteenth centuries, the Romantic Movement considered imagination as the greatest source of artistic creativity (Abrams, 1953), while in the twentieth century, imagination was often defined as the competence of fantasy or non-actual ideation (Thomas, 1999). Recently, several scholars have attempted to shed some light on the concept of imagination by exploring the relationships between imagination, imagery, image and mental processes (Clancey, 1997; Kosslyn, 1994; Pylyshyn, 1991). In this realm, imagination has been increasingly viewed as the ability to envision and express human potential and limitations by manipulating products, symbols, signs and so on (Appadurai, 1996).

Despite the growing interest in the area, creativity researchers at large still leave the concept of 'imagination' undefined, making use of other synonyms, such as fantasy or day-dreaming or even using the terms creativity and imagination interchangeably (Ainsworth-

Land, 1982; Valkenburg and van der Voort, 1994). In addition, little is yet known about the processes and underlying mechanisms that mobilize imagination in organizational settings. For instance, although Appadurai (1996, p. 5) acknowledges the fact that staff in many contemporary organizations are starting to bring their imaginations into play in their everyday working lives, he does not explain how imagination is or may be implemented within the working environment. This is not surprising if one considers that imagination and playfulness are often discouraged in the workplace, and even considered by many as a waste of time or an indication of laziness (Adams, 2001). What is clear, however, is that similarly to the development of creativity in individuals (Amabile et al., 1996; Cummings & Oldham, 1997), the organizational environment and the resources available to employees can mobilize or inhibit imagination in the work setting. Fitzpatrick (2002), therefore, argues that firms need to take appropriate initiatives (for instance, she talks about the importance of improvisation in encouraging the deliberate action of novel activity) to facilitate this engagement and encourage employees to use their imagination in their work.

The scarcity of research in this interesting area has triggered this exploratory study. This paper seeks to identify useful lessons for practitioners by exploring how a clearly successful new product design consultancy enhances its employees' engagement to imaginative action. For the purposes of this study, we define imagination as the process through which individuals envision and/or create objects and events that do not yet exist from the combination and recombination or transformation of established concepts (Adams, 2001; Assagioli, 1965; Kristensen, 2004; Roos & Victor, 1999, p. 350; Valkenburg & van der Voort, 1994).

To explore the processes involved in mobilizing imagination in the workplace, we focus on a new product design consultancy, because such firms are under constant pressure to perpetually present clients with novel and unique solutions that stand out from the crowd and create competitive advantage (Angelmar, 1990; Cooper & Kleinschmidt, 1987). Furthermore, the constant pool of clients and projects from multiple (mainly high-tech) sectors implies that these firms have to relentlessly 'stay ahead of the game' of product innovation. One of their key challenges is, therefore, not only to anticipate the future, but often to define it (Brown & Eisenhardt, 1997). The next section discusses the research methods employed for the purposes of this study.

¹ A full review of the historical evolution of the concept of imagination is beyond the scope of this paper. We refer interested readers to Shaw (2000) as a useful starting point.

Research Methodology

The Context

Lunar Design Inc. is a leading new product design and engineering consultancy, employing around 30 staff. Lunar has offices in Palo Alto and San Francisco, with clients ranging from Fortune 500 to small, start-up companies. The firm has been operating for twenty years, remains profitable and is continuously praised in the business and design press for its innovative output. In addition, Lunar has been consistently ranked in the top-ten design firms of *Business Week* magazine's Industrial Design Excellence Awards (IDEA). The continuous publicity the company receives in the media, portraying this organization as a leader in creativity and innovation in its industry, was the main reason for selecting Lunar as the case organization for this research.

Methods Adopted

In an attempt to explore the processes through which Lunar encourages imagination in its work setting and to identify the benefits that these offer to the company, a qualitative research design was adopted. A qualitative approach was deemed appropriate since this study seeks 'to describe, decode, translate, and otherwise come to terms with the meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world' (Easterby-Smith, Thorpe & Lowe, 1991). Specifically, the case-study approach was adopted integrating a diverse range of sources, including archival records (websites, magazines, company brochures and employee handbooks), interviews and observation, all of which have provided a rich dataset on a phenomenon in which exhibited behaviours could not be manipulated through the use of experiments (Yin, 1984). We chose this approach because extant theoretical perspectives on processes that mobilise employees' imagination in work settings are relatively rare and underdeveloped. Although a limitation of this paper is the fact that its findings are based on the analysis of a single case study (Eisenhardt, 1989), scholars support that one detailed case employing a viable methodology can play a significant role in developing theory, especially in under-researched areas such as the focus of this paper (Bryman, 1988; Dyer & Wilkins, 1991; Gummesson, 1993; Sutton & Hargadon, 1996; Yin, 1984). The worldwide reputation of Lunar as one of the leaders in foreseeing the future of product development in multiple industries suggests that findings from this case can offer valuable insights to

practitioners that seek to mobilize imagination in their own work settings.

Interviews with Key Employees

The research took place during the summer of 2001, involving seventeen in-depth interviews with Lunar employees, ranging from founders and directors to engineers and industrial, product and graphic designers. A topic guide with open-ended questions was used to gain insights on the processes that encourage imagination in the workplace. The use of a list of questions that served as an *aide memoire* covering the topics to be discussed ensured that not only the predetermined topics were covered but also gave the authors the opportunity to explore topics or subject areas that required further discussion.

Observation

Findings from the in-depth interviews were also complemented by two weeks of non-participant observation in the company's two offices, respectively in Palo Alto and San Francisco. Observation of formal meetings, brainstorming sessions and informal interactions among employees within their disciplinary groups or across disciplinary groups provided the authors with more information to supplement and cross-validate interview data.

Analysis

The interviews that we have conducted were tape-recorded and then transcribed. Confidentiality and anonymity were ensured throughout the process. We analysed the interview and observation data in order to identify the emergent themes inductively in the first instance and then synthesized them using the constant comparison method in order to explain the activities (and their benefits and consequences) under investigation (Glaser & Strauss, 1967).

Research Findings

Our research highlighted that the company under investigation initiates its own 'blue sky' project work to mobilize imagination and leverage the development of new materials, processes and technologies or address product categories that could greatly benefit from the attention of thoughtful design and engineering. These programmes are called 'Moonshine' and are intended to unleash employees' imagination in areas outside the traditional 'fee for service realm'. As the projects undertaken

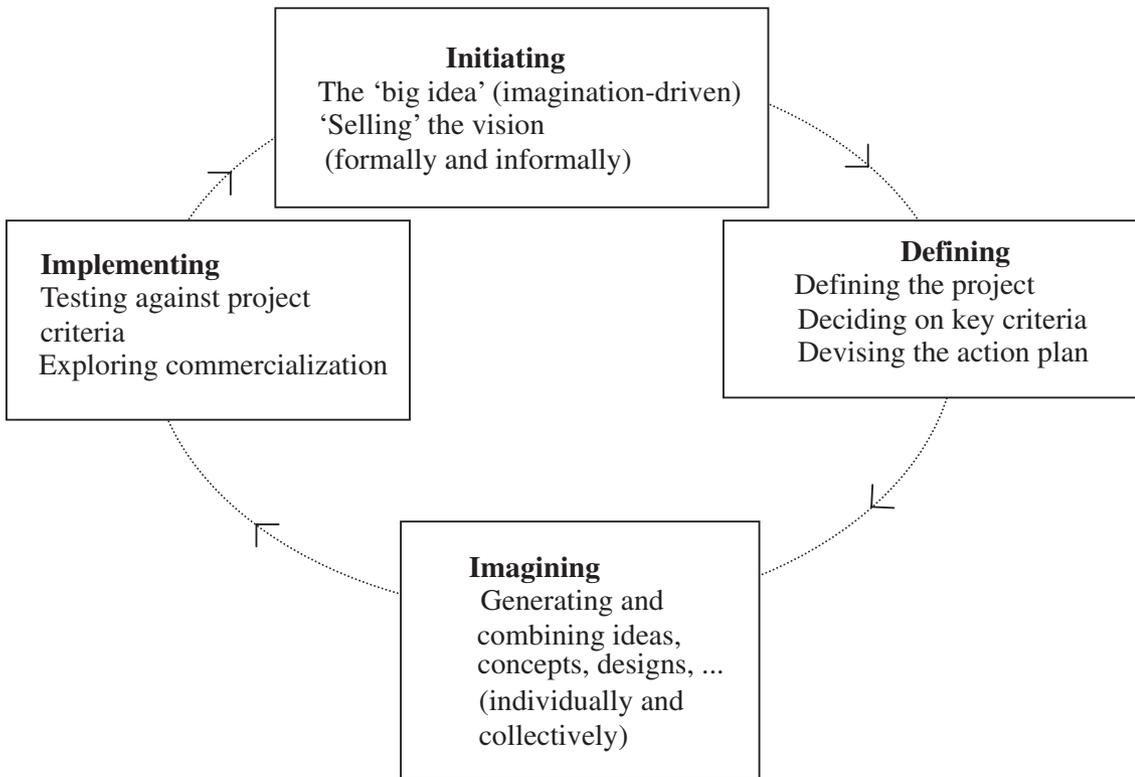


Figure 1. Mobilizing Imagination in Lunar: The 'Blue Sky' Process

within Moonshine are 'blue sky' in nature, team members have complete freedom to develop solutions that are quite different from client projects, which are typically constrained by criteria such as manufacturing costs and regulatory or brand requirements.

These conceptual projects encourage employees to utilize their imagination to explore, expand and document different possibilities and evaluate the materialization of these ideas into commercial applications. Lunar's employees embark on such creative endeavours on a regular basis; all the staff that we have interviewed, from senior to junior, stressed that these conceptual projects are of high importance to the company. Design without boundaries allows staff an additional level of creative freedom; a blank canvas where there are no client specifications, no predefined budgets, no criteria set by the client's industry and no competitive products to consider. In Lunar's case these 'blue sky' programmes initiate and sustain imagination on a systematic basis. The process works as follows (Figure 1).

Initiating

Interviewees stressed that unless an organization creates the conditions for encouraging

imaginative actions, relatively few wild and impractical ideas are likely to occur. Consequently, Lunar placed great emphasis on formalizing 'blue sky' activities that mobilize employees' imagination. An industrial designer explains how the Moonshine concept was first initiated in the firm:

Initially, four people were a little bit frustrated with clients' projects and once in a while they wanted to explore using all their imagination; now Moonshine is like a regular activity

The company was from the very beginning supportive towards this activity. Interestingly, our observation in the company's offices also highlighted that Moonshine participants tended to regularly discuss their 'blue sky' projects both informally during impromptu meetings with other employees but also formally through presentations in staff meetings. Staff used these meetings as opportunities to 'sell' the vision of the project to fellow employees and proselytize them to the work.

Most of the time, Moonshine projects start small, at the individual level, taking the form of self-expression or internal investigation. As Moonshine initiators start talking about their ideas, they generate an interest and hence other colleagues, who may feel that they have similar interests or that they can contribute to

the project, start 'buying into' the work and the team begins to grow. The company operates an all-inclusive strategy where anybody who has an interest in exploring any 'blue sky' projects further may initiate his/her own internal Moonshine programme. As the Director of Technology pointed out:

. . . then we have the Moonshine project. Anybody who has an idea, they kind of run with it. They use all our resources; I think that for the designers is the ultimate. It helps them and it helps Lunar at the same time

Defining

After the initiation stage, where an idea is generated and members are recruited, participants then go through the process of clearly defining the area to be further explored and specifying the product category. Team members also discuss and have to agree around the criteria and internal evaluation process. In conjunction with the company as a whole, an action plan is devised, which sets up clearly the goals of the project and the potential outcomes as well as the resources needed and the proposed timeframe. Moonshine project criteria usually revolve around developing something new and noteworthy within an established budget and pre-determined timeframe.

Imagining

Employees stressed that Moonshine is a way of independent thinking and behaving that leads to ideas, sketches, concepts and designs that are original and inspiring. This approach allows Lunar to define leadership and future opportunities for their clients, the media and themselves. The main aim of the 'imagining' stage is for participants to generate as many ideas or design concepts as possible related to their passions, fantasies and opinions regarding the future of the selected product category. The unanticipated combination of participants' ideas, knowledge and skills, in conjunction with an attitude, which is less resource-driven and more imagination-driven, enhances the identification of new opportunities.

The 'imagining' stage is usually characterized by several brainstorming sessions exploring possible and desirable future developments for the area under investigation. At the brainstorming sessions that we attended employees were asked not to criticize or praise others' ideas. The whole point of this type of activity is to generate an abundance of ideas and not to judge or filter them; it is about

throwing them out on the table, building upon others' ideas and inspiring colleagues' creative thinking, as explained by the President of the company:

In these Moonshine things we can take risks and do things that our clients might never accept. You do experimental things and you are open to failure. Like, oh well, we thought it would be a cool thing but it's just a failure. We can't do that to a client, they come to us because they need to have a successful product

This stage is not only limited to collective work. It may also involve a more silent and individual aspect, as explained by a graphic designer:

Right now I am working on labelling connectors and stuff and I am quite doing that but I am thinking in the back of my mind the Blu Jacket that I am working on too and when I have an idea I write it down . . .

Moonshine projects are ideal for risk-taking, which in return results in an atmosphere that could be described as a 'designer's playground'. Since the projects are internal to Lunar Design, failing to achieve project goals has no impact on a client's business.

Implementing

The pool of ideas and images generated at the previous stage then comprise the basis upon which different concepts are tested against the project's requirements. This stage involves a feasibility analysis of the generated ideas that takes into consideration the potential challenges and restrictions in implementing the proposed concepts. This is the time where the participants start talking to suppliers, vendors or other companies and exploring whether they can transform their dream into reality. For instance, a Moonshine project focusing on a bike saddle resulted in a provisional patent application. Three of the world's leading bike-saddle manufacturers subsequently expressed interest in the concept. The company is still in the process of seeking a licensee for this design.

Lessons for Practitioners: The Virtues of 'Blue Sky' Projects

Having explained Lunar's 'blue sky' process for unleashing imagination, two key questions arise. First, what do employees gain by being involved in 'blue sky' projects? Second, how does the company benefit from initiating these internally driven programmes? Following is

an explanation of five of the virtues in initiating 'blue sky' internal projects.

Enhancing Creative Thinking

No matter what the result is, 'blue sky' projects provide team members with opportunities to explore potentially uncharted territory thereby expanding their creativity. For instance, in the course of a discussion with an industrial designer, he explained the importance of 'blue sky' work to their creativity:

... looking at moonshine is the ultimate place for creativity, total freedom, a lot of brainstorming

However, although 'blue sky' projects are an effective way for designers to use their imagination, experiment and work on their wildest ideas, sustaining this 'anything is possible' climate is not always easy. An industrial designer illustrated this by noting that:

The moonshine projects are another way to foster creativity. It can be harder because there are no restrictions and you must still be creative. They allow us to think about things that we do not normally think [about]

Generating New Knowledge

Employees' knowledge and experience are enhanced as the internally driven projects comprise another arena for employees to be exposed to external stimuli. The main goal of 'blue sky' projects is to increase external stimuli so that employees' perspectives are refreshed and stimulated. Creativity can take many forms in society and that is why it is important for employees to be open-minded and seek for its expressions outside their particular field.

Breaking Down Stereotypes

The diversity within the 'blue sky' projects helps to maximize employees' tolerance threshold towards their colleagues. In Lunar's case, Moonshine teams are cross-functional, making use of a diverse range of talents within the organization from different disciplinary groups. This means that employees participating in these programmes may work together with people from other disciplines for the first time. By being involved in a mutually exciting and challenging project, employees from the different disciplinary groups are given the opportunity to appreciate fellow colleagues' skills and capabilities. In other words, the more employees are exposed to co-workers with different backgrounds, skills, education

and abilities, the more likely they are to break down stereotypes and become used to the diversity in the workplace (Sutton & Kelley, 1997).

Enhancing Employees' Morale and Satisfaction

The initiation of 'blue sky' projects also enhances employees' morale and satisfaction. Employees who are involved in interesting work tend to be more satisfied (Amabile et al., 1994; Mainemelis, 2001). In addition, 'blue sky' projects keep Lunar's designers fresh, sharp and energized, which is highly beneficial to their clients. The Vice President of the company reflects her observations with regard to the importance of imaginative actions when she feels 'down' creatively:

I think also Moonshine initiatives have proven to be a really good way because we have a lot of projects that come out of that, that's proven to be a really good way to let people explore things that they interested in doing . . .

Apart from enhancing employees' morale, these internally driven projects are another way of encouraging employees' satisfaction. Moonshine participants are thrilled to have the opportunity to frolic in the 'designers' playground'. A senior designer demonstrates the impact of new projects on his satisfaction.

They've always been supporting on the stuff that I'm interested in doing and I've tried to respond to that generosity or mutual respect, with doing work that hopefully places Lunar in a good light, it puts us in places where maybe our day to day work won't go. Because I've done a lot of outside projects, like the 'blu' jacket, that require mutual faith on both parts and being mutually constructive and they've done a great job at creating an environment where that could happen.

Building a Reputation of a Visionary Organization

'Blue sky' projects can help creative organizations to build and maintain a favourable reputation with their stakeholders. For instance, the Blu e-fibre jacket (one of the most successful Moonshine projects to date) was featured not only in design magazines but also mainstream consumer-oriented and business-oriented magazines, such as *Wired*, *Conde Nast Traveller* and *Worth* magazines. The generated publicity confirms that Lunar thrives in envisioning and creating novel objects that do not yet exist in the competitive landscape. These projects offer excellent opportunities to show

to potential clients, or even prospective employees that the company is visionary; that it is a forward thinker, which will use staff's imagination to forecast the trends for a particular product line or even teach them how to think creatively.

Challenges

'Blue sky' projects are a useful activity for mobilizing imagination towards directed innovation and identifying opportunities that companies can possibly commercially exploit in the future. There is, however, a hidden danger that employees may at some point compare 'blue sky' projects with client work and, hence, 'pigeonhole' conventional project work as mundane. If this occurs, management may therefore need to stress that the purpose of 'blue sky' projects is not purely an opportunity to unleash creative energy, but also an activity organized to trigger employees' imagination about the future of multiple industries. Staff also need to be continuously reminded that the company's central mission is client success, and that every client project demands the staff's wholehearted focus and commitment (even if some of the projects do not provide the same creative outlets as the 'blue sky' projects do).

In the case of a recession (like the one that many companies have experienced after 2002) or in situations where companies do not have the financial ability to fund such programmes in a free-form state (giving staff the opportunity to apply their imagination without the expectation of receiving any direct financial reward) there is probably a need for incorporating more structure to these types of activities. For instance, there may be a need to focus only on funding 'blue sky' projects that will enable the company to gain exposure in new markets and win awards in conceptual categories. Firms facing the aforementioned challenges would have to focus on 'blue sky' projects, which deliver a tangible result, for instance, by exploring relevant royalty and licensing opportunities.

Conclusions

Although extant literature highlights that tapping into the power of imagination is critical for mobilizing creativity and innovation in the workplace, there is a clear dearth of empirical studies exploring processes that actually encourage imagination in the context of creative organizations. Researchers increasingly stress the importance of imagination as key to

mobilizing individual creativity and, hence, as a building block towards sustaining organizational innovation (Appadurai, 1996). Scholars also propose that the organizational environment, the resources available and different management initiatives can mobilize or inhibit imagination in the work setting (Fitzpatrick, 2002). In our search for initiatives that aid organizations to tap into the power of imagination, this study has discovered the virtues of 'blue sky' projects and identified several organizational benefits in initiating and supporting such activities.

Although the findings are drawn from a single case study, Lunar has been a star performer for more than one decade, achieving worldwide recognition for its foresight in multiple-product innovation and, hence, this case study provides valuable insights on processes that can mobilize imagination in other work settings. We, however, encourage fellow academics to extend this research and examine the degree to which such processes exist in a wider context of creative companies through further exploratory studies (Miles & Huberman, 1984).

This study also provides managers of creative organizations and creative individuals with useful insights on the merits of internally driven, 'blue sky' projects as a means of tapping into the power of imagination in their workplace. We have highlighted the key stages of Lunar's formalized Moonshine process and encourage managers to consider the benefits, challenges and potential application of Lunar's 'blue sky' projects with reference to their own organization. Although the outcome of these projects is, most of the times, conceptual in nature and (in most cases) seldom leads to commercial applications, managers should not undermine the importance of both the intellectual capital generated by 'blue sky' teams as well as the feeling of empowerment that employees experience when, as in Lunar's case, they are given the space to channel their creativity in such innovative endeavours. The development of different possibilities about the future as well as the search for partners to team up with in order to translate dreams into tangible products are likely to lead to longer lasting and more rewarding jobs for staff in such work settings.

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