

## OUT OF OUR MINDS

*“When people say to me that they are not creative, I assume that they haven’t yet learnt what is involved.”*

**H**OW CREATIVE ARE YOU? How creative are the people you work with? How about your friends? Next time you are at a social event, ask them. You may be surprised by what they say. I have worked with people and organizations all over the world. Everywhere I go, I find the same paradox. Most children think they’re highly creative; most adults think they’re not. This is a bigger issue than it may seem.

### CREATING THE FUTURE

We are living in a world that is changing faster than ever and facing challenges that are unprecedented. How the complexities of the future will play out in practice is all but unknowable. Cultural change is never linear and rarely predictable. If it were, the legions of media pundits and cultural forecasters would be redundant. It was probably with these dynamics in mind that the economist J.K. Galbraith said, “The primary

purpose of economic forecasting is to make astrology look respectable.”

As the world spins faster and faster, organizations everywhere say they need people who can think creatively, communicate and work in teams: people who are flexible and quick to adapt. Too often they say they can't find them. Why not? My aim in this book is to answer three questions for anyone with a serious interest in creativity and innovation, or in simply understanding their own creative potential.

- **Why is it essential to promote creativity?** Business leaders, politicians and educators emphasize the vital importance of promoting creativity and innovation. Why does this matter so much?
- **What is the problem?** Why do people need help to be creative? Young children are buzzing with ideas. What happens as we grow up to make us think we are not creative?
- **What is involved?** What is creativity? Is everyone creative or just a select few? Can creativity be developed and, if so, how?

Everyone occasionally has new ideas, but how can creativity be encouraged as a regular and reliable part of everyday life? If you are running a company or an organization or a school, how do you make creativity systematic and routine? How do you lead a culture of innovation?

## RETHINKING CREATIVITY

To answer these questions it is important to be clear about what creativity is and how it works in practice. There are three related ideas, which I will elaborate as we go on. They are *imagination*, which is the process of bringing to mind things that are not present to our senses; *creativity*, which is the process of developing

original ideas that have value, and *innovation*, which is the process of putting new ideas into practice. There are various misconceptions about creativity in particular.

### Special people?

It is often thought that only special people are creative: that creativity is a rare talent. This idea is reinforced by histories of creative icons like Martha Graham (1894–1991), Pablo Picasso (1881–1973), Albert Einstein (1879–1955) and Thomas Edison (1847–1931). Companies often divide the workforce into two groups: the ‘creatives’ and the ‘suits’. You can normally tell who the creatives are because they don’t wear suits. They wear jeans and they come in late because they have been struggling with an idea. I don’t mean to suggest that the creatives are not creative. They can be highly creative, but so can anybody if the conditions are right, including the suits. Everyone has huge creative capacities. The challenge is to develop them. A culture of creativity has to involve everybody, not just a select few.

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### Special activities?

It is often thought that creativity is about special activities, like the arts, or advertising, or design, or marketing. All of these can be creative; but so can anything, including science, mathematics, teaching, working with people, medicine, running a sports team or a restaurant. Schools sometimes have ‘creative arts’ departments. I am an uncompromising advocate of better provision for the arts in schools. I will explain why later. But creativity is not confined to the arts. There are many reasons for teaching the arts in schools, including their role in fostering creativity; and there are others that are just

as compelling. At the same time, other disciplines, including science and mathematics can be just as creative as music and dance. Creativity is possible whenever we're using our intelligence.

In business too, different companies are creative in different areas. Apple, for example, is famously good at creating new products. Others, like Wal-Mart, haven't created any products at all; their area of innovation is in systems, such as supply chain management and pricing. The coffee chain, Starbucks, is creative in providing services. Starbucks didn't invent coffee; it created a particular type of culture around coffee. Actually, it did invent the \$5 cup of coffee, which was a bit of a breakthrough, I thought. An innovation in any part of an organization can transform its fortunes.

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### **Learning to be creative**

It's often thought that creative people are either born creative or not, just as they may have blue or brown eyes, and there is not much they can do about it. The fact is, there is a lot you can do to help people become more creative. If someone tells you they cannot read or write, you don't assume that they are not capable of reading and writing, but that they haven't been taught how. It is the same with creativity. When people say to me that they are not creative, I assume they just haven't yet learnt what is involved.

### **Letting go?**

Creativity is sometimes associated with free expression, which is partly why some people worry about creativity in education.

Critics think of children running wild and knocking down the furniture rather than getting on with serious work. Being creative does usually involve playing with ideas and having fun; enjoyment and imagination. But creativity is also about working in a highly focused way on ideas and projects, crafting them into their best forms and making critical judgments along the way about which work best and why. In every discipline, creativity also draws on skill, knowledge and control. It's not only about letting go, it's about holding on.

Why are these issues important anyway?

### THREE THEMES

Running throughout this book there are three fundamental themes:

- The first is that we are living in times of revolution.
- The second is that if we are to survive and flourish we have to think differently about our own abilities and make the best use of them.
- The third is that in order to do so we have to run our organizations and especially our education systems in radically different ways.

I go into each of these issues in more detail in the chapters ahead, but let me quickly summarize my argument.

#### **Facing the revolution**

No matter where you are or what you do, if you are alive and on earth you are caught up in a global revolution. I mean this literally not metaphorically. There are forces at work now for which there are no precedents. I know this is a bold claim but it is justified. Human affairs have always been turbulent. What

is distinctive now is the rate and scale of change. The two great driving forces are technological innovation and population growth. Together they are transforming how we live and work; they are putting a vast strain on the Earth's natural resources and changing the nature of politics and culture.

New technologies are revolutionizing the nature of work everywhere. In the old industrial economies they are massively reducing the numbers of people in industries and professions that were once labor-intensive. New forms of work rely increasingly on high levels of specialist knowledge, and on creativity and innovation. The new technologies in particular require wholly different capacities from those required by the industrial economy. Manufacturing is shifting to the emergent economies, especially in Asia and South America, and so too are many of the new forms of work that depend on high levels of skill in design and information technologies. Given the speed of change, governments and businesses throughout the world recognize that education and training are the keys to the future, and they emphasize the vital need to develop powers of creativity and innovation. First, it is essential to generate ideas for new products and services, and to maintain a competitive edge. Second, it is essential that education and training enable people to be flexible and adaptable, so that businesses can respond to changing markets. Third, everyone will need to adjust to a world where, for most people, secure lifelong employment in a single job is a thing of the past.

These technological changes, combined with population and climate changes, are affecting everyone on earth and the outcomes are essentially unpredictable. What is certain is that in the next 50 to 100 years, our children will need to confront challenges that are unique in human history. In the first section of the book, I outline what these forces are and some of the challenges they present.<sup>1</sup>

## Reframing our potential

In December 1862, Abraham Lincoln gave his second annual address to Congress. He was writing one month before he signed the Emancipation Proclamation, and in his message he urged the Congress to see the situation they faced with fresh eyes. He said this: “The dogmas of the quiet past are inadequate to the stormy present. The occasion is piled high with difficulty. As our case is new, so we must think anew and act anew. We must disenthrall ourselves and then we shall save our country.”<sup>2</sup>

I love the word: ‘disenthrall’. What he meant was that we all live our lives guided by ideas to which we are devoted but which may no longer be true or relevant. We are hypnotized or enthralled by them. To move forward we have to shake free of them.

Given the challenges we face now, the most profound shift has to be in how we think about our own abilities, and those of our children. In my experience, many, perhaps most people have no idea of their real capabilities and talents. Too many think they have no special talents at all. My premise is that we are all born with immense natural talents but that too few people discover what they are and even fewer develop them properly. Ironically one of the main reasons for this massive waste of talent is the very process that is meant to develop it: education.

Education is not always a good word to use socially. If I am at a party and I tell someone I work in education I can sometimes see the blood drain from their face. “Why me?” they’re thinking, “Trapped with an educator on my one night out all week.” But, if I ask them about their education, or about their children’s schooling, they pin me to the wall. They want to talk about their own experiences. Everyone has very strong opinions. Education is one of those topics that runs very deep with people – like religion, politics and money. And

so it should. Education is vital to the success of our working lives, to our children's futures and to long-term global development. More than this, it stamps us with an impression of ourselves that is hard to remove.

Some of the most successful people in the world did not do well at school. No matter how successful they have become, they often carry a secret worry that they are not as clever as they are making out. They include teachers, university professors, vice-chancellors, business people, musicians, writers, artists, architects and many others. Many succeeded only *after* they had recovered from their education. Of course, many people loved their time in education and have done well by it. What of those who didn't?

Current approaches to education and training are hobbled by assumptions about intelligence and creativity that have squandered the talents and stifled the creative confidence of untold numbers of people. This waste stems partly from an obsession with certain types of academic ability and from a preoccupation with standardized testing. The waste of talent is not deliberate. Most educators have a deep commitment to helping students do their best. Politicians too, make impassioned speeches about making the most of every student's abilities. The waste of talent may not be deliberate but it is systemic. It is systemic, because public education is a system, and it is based on deep-seated assumptions that are no longer true.

Before the middle of the nineteenth century, relatively few people had any kind of formal education. Being educated was mainly the privilege of the few who could afford it. Mass systems of public education were developed primarily to meet the needs of the Industrial Revolution and, in many ways, they mirror the principles of industrial production. They emphasize linearity, conformity and standardization. One of the reasons they are not working now is that real life is organic, adaptable and diverse.

Some weeks before our son started at university in Los Angeles, we went along for an orientation day. At one point, the students were taken away for a separate briefing on program options and the parents were taken to the finance department for a form of grief counseling. We then had a presentation from one of the professors about our roles as parents during our children's student days. Essentially he advised us to step out of their way and spare them too much of our career advice. He gave the example of his own son who had been a student at the University some years before. He had originally wanted to study the classics. The professor and his wife were not thrilled at the job prospects that a classics degree would open up for him. So they were relieved when at the end of the freshman year he said he had decided to take a major in something that would be more useful. They asked their son what he had in mind and he said philosophy. His father pointed out that none of the big philosophy firms were hiring at the time. His son took some philosophy courses anyway and then eventually majored in art history.

After college he found a job in an international auction house. He traveled, made a good living and loved the work and the life. He got the job because of his knowledge of ancient cultures, his intellectual training in philosophy and his love of art history. Neither he nor his parents could have predicted that path when he started his college studies. The principle is the same for everyone. Life is not linear. When you follow your own true north you create new opportunities, meet different people, have different experiences and create a different life.

The hierarchy of disciplines in schools is based partly on assumptions about supply and demand in the market place. The new economies demand a deeper conception of talent and the organic nature of our lives demands it too. What we become in future is deeply influenced by our experiences here and now. Education is not a linear process of preparation for

the future: it is about cultivating the talents and sensibilities through which we can live our best lives in the present and create the best futures for us all.

### Acting differently

Given the changes that are now engulfing us, most countries have recognized the need to reform their education systems. This is good but it is not good enough. The challenge now is to transform them. In the second section of the book, I look at the roots of current approaches to education and why they have marginalized the talents of so many people. I suggest a different way of thinking about the real potential of imagination and creativity in our lives. But as Lincoln said, it's not enough to think differently. We also have to act differently.

The recession of 2008 wiped out the credit and asset bubbles that had been fueling over-consumption and over-production around the world. As the recession blew like a hurricane through the old industrialized economies it left a trail of failed businesses, oceans of debt and deep pools of structural unemployment.

Among the worst affected are young people. As I write this, global levels of unemployment among young people, aged from 15 to 24, are the highest on record.<sup>3</sup> In August 2010, the International Labor Organization (ILO) published its report on *Global Employment Trends for Youth 2010*. The report concludes that there are approximately 620 million economically active young people worldwide. At the end of 2009, 81 million of them were unemployed; the highest number ever, and almost 8 million more than in 2007. The youth unemployment rate increased from 11.9 percent in 2007 to 13.0 percent in 2009. The ILO argues that these trends will have "significant consequences for young people as upcoming cohorts of new entrants join the ranks of the already unemployed" and warns of the "risk of a crisis legacy of a 'lost generation' comprised of

young people who have dropped out of the labor market, having lost all hope of being able to work for a decent living.”

For millions of young people, the future seems bleak and despairing. They have no work and see no prospect of it. Youth unemployment rates have been more sensitive to the economic crisis than adult rates of unemployment and, historically, the recovery of the job market for young men and women tends to lag behind that of adults. For people of all ages, the economic recovery, when it comes, will not be easy; and even when it does arrive, it will not be business as usual. As Thomas Friedman, author of the *World is Flat*, puts it, “Those who are waiting for this recession to end so someone can again hand them work could have a long wait.” Rebuilding the communities that have been left bereft by the recession will depend on imagination, creativity and innovation. As the ILO report argues, creating jobs for the millions of young women and men entering the labor market every year is a critical component in the path towards wealthier economies. It is not only the quantity but also the quality of jobs that matters.

Friedman continues, “Those who have the ability to imagine new services and new opportunities and new ways to recruit work ... are the new Untouchables. Those with the imagination to invent smarter ways to do old jobs, energy-saving ways to provide new services, new ways to attract old customers or new ways to combine existing technologies will thrive.” The solution is better education and training. Here too, the future cannot be business as usual. “We not only need a higher percentage of our kids graduating from high school and college – more education – but we need more of them with the right education. Our schools have a doubly hard task, not just improving reading, writing and arithmetic but entrepreneurship, innovation and creativity. We’re not going back to the good old days without fixing our schools as well as our banks.”<sup>4</sup>

All organizations are competing in a world in which the ability to innovate and adapt to change is not a luxury: it is a necessity. In 2010, IBM published *Capitalizing on Complexity*; the fourth edition of its biennial global CEO study series led by the IBM Institute for Business Value.<sup>5</sup> Introducing the report, Samuel J. Palmisano, Chairman, President and Chief Executive Officer of IBM said, “We occupy a world that is connected on multiple dimensions and at a deeper level – a global system of systems.” It is this unprecedented level of interconnection and interdependency that underpins the most important findings in the IBM report.

The study found that at the top of the agendas of global business and public sector leaders, there are three widely shared perspectives. First, they believe that a rapid escalation of complexity is the biggest challenge confronting them. They expect it to continue – indeed to accelerate – in the coming years. Second, they are equally clear that their enterprises today are not equipped to cope effectively with this complexity in the global environment.

Third, they agree overwhelmingly that the single most important leadership competency for organizations to deal with this growing complexity is creativity.

The consequences of a lack of creativity can be severe. Organizations that stand still are likely to be swept aside, and corporate history is littered with the wreckage of companies, and whole industries, that have been resistant to change. They became stuck in old habits and missed the wave of change that carried more innovative companies forward. I once spoke at a gala dinner in London to launch a list of the Fortune Global 500 Companies. The top three companies were American. Ten years earlier, the top three companies had all been Japanese. Now an increasing number of Chinese companies are climbing the ranks. No organization has an assured place at the top of any list. Fortunes rise or fall according to how well they adapt to changing circumstances. One way of describing the decline

of the Japanese companies is that they were victims of climate change. The world around them changed faster than they did and they suffered the consequences. The economies of China, South America and India, on the other hand, are adapting fast to the new demand for technological innovation.

Few people would dispute that in the eighteenth and nineteenth centuries, Europe and especially Great Britain dominated the world culturally, politically and economically. Britain was the crucible of the Industrial Revolution and its military forces secured the colonies as surely as the English language invaded their cultures. When Queen Victoria ascended to the throne in 1837, she presided over the largest empire in history: the empire on which the sun never set. If you had gone to her court in 1850 and suggested that this empire would be over within a generation, you would have been laughed out of the building. And yet it was true. By the end of World War I in 1918, the empire was fatally wounded and, by the time I was born in 1950, it was a memory. Culturally, politically and economically, the 20th century was dominated by the United States, as surely as Europe had dominated the nineteenth century. Whether it will dominate the 21st century remains to be seen. As award-winning US scientist Jared Diamond has shown, empires tend to collapse rather than fade away.<sup>6</sup> Think of the Soviet Union and its rapid dissolution in the 1980s and 1990s.

All organizations are organic and perishable. They are created by people and they need to be constantly re-created if they are to survive. When organizations fail, the jobs and communities that depend on them falter too. In a world where lifelong employment in the same job is a thing of the past, creativity is not a luxury. It is essential for personal security and fulfillment.

Leading a culture of innovation has radical implications for how institutions are organized – whether they are schools or corporations – and for styles of leadership. Many organizations

put on occasional training days to encourage their staff to think creatively; but like the ritual of rain dancing, they often underestimate the problems they are trying to solve. For these reasons, this is not a conventional book on creativity, offering tips for next week's course. It is about the root causes of the problem rather than the symptoms of it.

*"The challenge now is to transform education systems into something better suited to the real needs of the 21st century. At the heart of this transformation there has to be a radically different view of human intelligence and of creativity."*

In the final part of the book, I summarize what's involved in tackling these deeper problems.

#### CONNECTING EDUCATION, BUSINESS AND CULTURE

During my own career, I have worked with national education systems, with school districts, with principals, teachers and students from kindergarten to university and beyond, including community colleges and adult education associations. I have directed national research projects, taught in universities and trained teachers. I also work now with every type of business, including Fortune 500 companies, with major banks and insurance houses, design companies, media corporations, information technology organizations, and with retail, manufacturing, engineering and service companies. And I work with major cultural centers in the arts and the sciences; with museums, orchestras, and with dance and theatre companies and community arts organizations. My work has taken me to Europe, North America, South America, the Middle East and Asia.

In my experience, education, business and the cultural sector face many common challenges. Some are compounded by the fact that they have so little contact with each other. This book addresses all three of these fields because I believe that the future lies in closer coordination between them.

The problems that business organizations face are immediate. There are some immediate things they can do to tackle them and I say what they are. But the long-term solution lies upstream in the education system.

All over the world, governments are pouring vast resources into education reform. In the process, policy makers typically narrow the curriculum to emphasize a small group of subjects, tie schools up in a culture of standardized testing and limit the discretion of educators to make professional judgments about how and what to teach. These reforms are typically stifling the very skills and qualities that are essential to meet the challenges we face: creativity, cultural understanding, communication, collaboration and problem solving. This is not a party-political issue. Politicians of all persuasions are curiously united in this respect. They argue over the funding and organization of education, over access and selection and about the best ways to improve standards. But it is rare to hear politicians of any party raise questions about the absolute importance of academic standards or of standardized systems of education.

Ironically, they promote these policies in the interests of the economy.<sup>7</sup> I say ironically because when I talk with business leaders, they complain that education isn't producing the thoughtful, creative, self-confident people they urgently need: people who are literate, numerate, who can analyze information and ideas; who can generate new ideas of their own and help to implement them; who can communicate clearly and work well with other people. They want education to provide such people, but too often they also cling to an uncritical belief in traditional academic education.

Many educators want to provide a more balanced and dynamic form of education that makes proper use of their own creative energies. Too often they feel they cannot do any of this because of political pressures of conformity and the disaffection of students who suffer under the same malaise.

Meanwhile, parents lie awake at night worrying about the quality of their children's education. Most parents assume that education will help their children to find work and become economically independent. I know I do. I cannot tell you how much I want my children to be economically independent and as soon as possible. Parents also want education to help young people to identify their unique talents and to lead a life that has meaning and purpose. This is also what young people want for themselves. As we grow up, education is meant to guide us from childhood to maturity. It should be high among the ways in which we realize our creative abilities. More often it is why we lose sight of them.

These issues, covered in *Out of Our Minds*, affect all of us, deeply. The book touches on economic globalization and the revolutionary challenges facing business and work. It looks at some of the extraordinary developments in science and technology that will make the changes we have seen so far seem primitive by comparison. It looks at how we run companies and organizations and the changes that are needed in order to cultivate a spirit of creativity and innovation. And it looks at ideas about intelligence and creativity upon which our current systems of education are based and considers why and how they too have to change, and soon. This range of coverage is important if we're to alter the conversation about creativity and deal not just with the symptoms but with the causes of the problems we now face.

## BEYOND IMAGINING

In most respects, we human beings are like most other organisms on earth. Our lives are brief in cosmic terms; we pass through a common cycle of mortality from conception to birth to death; we have many of the same physical needs as other species and we depend on nutrients that the earth supplies.

Over the past few centuries of industrialism, more and more people have moved off the land into cities and seem to believe that we can live apart from the rest of nature. The growing climate crisis is a reminder that we cannot. But in one respect at least, human beings are radically different from the rest of life on earth. We have imaginations. As a result we have unlimited powers of creativity.

By imagination I mean the power to see beyond the present moment and our immediate environment. In imagination we can bring to mind things that are not present to our senses. We can visit the past, and not just a single view of the past. We can review and reinterpret the past. We can enhance our sense of the present by seeing with other people's eyes. And we can anticipate many possible futures. We may not be able to predict the future but we can help to shape it.

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Biologically, we are probably evolving at the same rate as other species: in cultural terms, we have always evolved at a uniquely furious rate. So far as we can tell, the cultural lives of dogs and cats are not changing that much. Left to their own devices, they seem to be doing what they have always done and to be pre-occupied with the same sorts of things. There is no need to keep checking in with them to see what's new. In human life, there is always something new, because creativity is part of what it is to be human.

It may be that some of the challenges that we have generated, in the natural environment, in politics and in our conflicting beliefs, will overcome us, and maybe sooner rather than later. If so, it will not be because we have made too much use of our imaginations but too little. Now, more than ever, we need to exercise the unique creative powers that make us human in the first place.

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