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."

CREATING THE FUTURE

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've worked with people and organizations all over the world. Everywhere I go, I find the same paradox. Most children think they're creative; many adults think they are not. This is a bigger issue than it may seem.

We are living in a world that is changing faster than ever and face challenges that are unprecedented. How the complexities of the present will play out in future is all but unknowable. Cultural change is never linear and rarely predictable. If it were, the legions of pundits and forecasters would be out of a job. It was probably with this 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, organizations everywhere need people who can think creatively, communicate and work in

teams: people who are flexible and quick to adapt. Too often they can't find them. Why not? My aim in this book is to answer three questions.

- 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 part of everyday life? If you are running a company or an organization or a school, how do you make innovation systematic? How do you lead a culture of innovation?

RETHINKING CREATIVITY

To answer these questions, it's important to be clear about what creativity is and how it works. There are three related ideas, which I'll 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?

One misconception is that only special people are creative. This idea is reinforced by histories of creative icons like Martha Graham, Pablo Picasso, Albert Einstein, Thomas Edison, Virginia Wolf, Maya Angelou and Steve Jobs. Companies seem to think this too. They 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've been struggling with an idea. I don't mean that the creatives are not creative. They can be highly creative, but so can anybody

"My starting point is that everyone has huge creative capacities as a natural result of being a human being. The challenge is to develop them. A culture of creativity has to involve everybody, not just a select few."

if the conditions are right – including the suits. Everyone has creative capacities. The challenge is to develop them. A culture of innovation has to involve everybody, not just a select few.

Special activities?

A second misconception is that creativity is about special activities, like the arts, or advertising, design or marketing. All of these can be creative, but so can anything, including science, mathematics, teaching, medicine, running a sports team or a restaurant. Some schools have "creative arts" departments. I am an uncompromising advocate of better provision for the arts in schools but creativity is not confined to the arts. Other disciplines, including science and mathematics, can be just as creative. Creativity is possible in any activity that engages our intelligence.

Companies are creative in different areas. Apple is famously good at creating new products. Wal-Mart's creative strength is in systems, such as supply chain management and pricing. Starbucks did not invent coffee; it created a particular service culture around coffee. Actually, it did invent the \$8 cup of coffee, which was a breakthrough, I thought. A culture of innovation should embrace all areas of the organization.

Letting go?

Creativity is sometimes associated with free expression, which is why some people worry about encouraging too much creativity in schools. They think of children running wild and knocking the furniture over rather than getting on with serious work. Being creative often does involve playing with ideas and having fun and enjoyment. It is also about working hard on ideas and projects, crafting them into their best forms and making critical judgments along the way about which ones work best and why. In every discipline, creativity draws on skill, knowledge and control. It's not only about letting go, it's about holding on.

Learning to be creative

It is often thought that people are either born creative or not, just as they may have blue or brown eyes, and there's not much anyone can do about it. The fact is, there is a lot you can do to help yourself, and other people, become more creative. If someone tells you they can't read or write, you don't assume they are not capable of it, just that they haven't learnt how. It is the same with creativity. When people say they are not creative, I just assume they have not learnt how. I also assume that they can. Why are these issues important anyway?

THREE THEMES

There are three core themes in this book.

We are living in times of revolutionary change

No matter where you are or what you do, if you live 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. Human affairs have always been turbulent. What is distinctive now is the rate and scale of change. Two of the driving forces are technological innovation and population growth. Together they're transforming how we live and work, changing the nature of politics and culture and putting perilous strains on the earth's natural resources. The outcomes are unpredictable. What is certain is that we and our children are confronting challenges that are unique in human history.¹

We have to think differently about our talents and abilities

Given the challenges we face, the most profound shift has to be in how we think about our abilities and those of our children. In my experience, many people have little idea of their real talents. Too many think they have no special talents at all. My premise is that we are all born with immense talents but that too few people discover or develop them. Ironically, one of the reasons is education. The waste of talent is not deliberate. Most educators have a deep commitment to helping students do their best. Politicians make impassioned speeches about making the most of every student's abilities. The waste of talent may not be deliberate but it is systemic. Dominant approaches to education and training are preoccupied with certain types of ability that systematically overlook the talents and stifle the creative confidence of untold numbers of people.

We have to run schools, companies and communities differently

Leading a culture of innovation has radical implications for how institutions are organized, whether they are schools or corporations, and for styles of leadership. Business and public sector leaders commonly share three perspectives. They know that one of the biggest challenges they face is the increasing complexity of the global environment, which they expect to accelerate in the coming

years. They are concerned that their organizations are not equipped to cope with this complexity. They agree that the most important leadership skill for dealing with this growing complexity is creativity. Many organizations put on occasional training days to encourage their staff to think creatively; but, like the rituals of rain dancing, I believe they may misunderstand the problems they're trying to solve. The problems they face are immediate and there are some immediate things they can do to tackle them, but the long-term solutions lie upstream in the education system.

I've worked with national education systems, with school districts, principals, teachers and students from kindergarten to university and beyond, including community colleges and adult education associations. I've directed national research projects, taught in universities and trained teachers. I also work now with every type of business, including Fortune 500 companies, major banks and insurance houses, design companies, media corporations, information technology organizations, and with retail, manufacturing, engineering and service companies. I've worked with cultural centers in the arts and the sciences; with museums, orchestras, and with dance and theater companies and community arts organizations. My work has taken me to Europe, North America, South America, the Middle East and Asia. I know first hand that the education, business and the cultural sectors face many common challenges. Some are compounded by the fact that they have so little contact with each other.

When I talk with business leaders, they complain that education isn't producing the people they urgently need: people who are literate, numerate, who can analyze information and ideas; who can generate new ideas and implement them; who can communicate clearly and work well with other people. They want education to provide such people and complain that it does not. When I work with educators they complain that the culture of standardization and testing, which

politicians usually impose in the interests of the economy, is stifling the creativity of teachers and students alike. They 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 can't 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. They assume that education will help their children to find work and become economically independent. They also want education to help young people to identify their unique talents and to lead a life that has meaning and purpose. This is what young people want for themselves. The best future for all of us lies in deeper forms of understanding and collaboration between all of these groups.

ONLY CONNECT: EDUCATION, BUSINESS AND CULTURE

Education is not always a good word to use socially. If I'm at a party and tell someone I work in education, I can see the blood drain from their face. "Why me?" they're thinking, "Trapped with an educator on my one night out all week." If I ask them about their education, or about their children's schooling, they pin me to the wall. Education is one of those topics that run deep with people, like religion, politics and money. It should. The quality of education affects all of us: it is vital to our own fulfillment, to our children's futures and to long-term global development. It stamps us with an impression of ourselves that is hard to remove.

Some of the most eminent people did not do well at school. No matter how successful they've become, they often worry that they are not as clever as they seem. They include teachers, university professors, vice-chancellors, business people, musicians, writers, artists, architects and many others. Many succeeded despite their education not because of it.

Of course, many people loved their time in education and have done well by it. What of all those who did not? Given the changes that are now engulfing us, governments everywhere are pouring vast resources into education reform. This is good, but it is not good enough. The challenge is not to reform education but transform it.

As the technological and economic revolution gathers pace, education systems throughout the world are being reformed. Most countries have a dual strategy. The first is to increase access to education, and especially higher education. The demand for educational qualifications grows annually; education and training are now among the world's largest businesses. The second strategy is to raise standards. Educational standards should be high and it is obviously a good idea to raise them. There is not much point in lowering them. But standards of what? Educating more people and to a much higher standard is vital, but they have to be educated differently.

Education is not an impartial process of developing people's natural abilities and it never was. Systems of mass education are built on two pillars. The first is economic: they have been shaped by specific assumptions about labor markets, some of which are now out of date. The second is intellectual: they have been shaped by particular ideas about academic intelligence, which often disregard other abilities that are just as important, especially for creativity and innovation.

Before the middle of the nineteenth century, relatively few people had a formal education. Being educated was mainly for the privileged few who could afford it. Mass systems of education were developed primarily to meet the needs of the Industrial Revolution and they mirror the principles of industrial production: linearity, conformity and standardization.

In almost all of them there is the same hierarchy of disciplines, which shows itself in the time given to them; whether they are compulsory or optional; whether they are in the mainstream curriculum or after school; whether they are included in standardized tests and how much they feature in political polemics about raising standards. At the top of the hierarchy are mathematics, languages and sciences; next come the humanities – history, geography and social studies – and physical education; at the bottom are the arts. There is another hierarchy within the arts: art and music usually have higher status than theater and dance. There is hardly a school system in the world that teaches dance every day as a compulsory discipline in the way that mathematics is taught. This hierarchy is not accidental: it is based on assumptions about supply and demand in the marketplace and about intelligence and academic ability in particular.

Many government reforms in education have been doubling down on this model. They have reinforced the hierarchy, imposed a culture of standardized testing and limited the discretion of educators in deciding what and how to teach. This is not a party political strategy. Politicians 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. It is rare to hear politicians of any party raise questions about the absolute importance of academic standards or the need for standardized tests to secure them. Ironically, they promote these policies in the interests of the economy.2 I say ironically because these reforms are stifling the very skills and qualities that are essential to meet the challenges we face: creativity, cultural understanding, communication, collaboration and problem solving.

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.³ The consequences of being inflexible to change can be severe. Organizations that stand still may be swept aside: corporate history is littered with the wreckage of companies, and whole industries, that were resistant to change. They became stuck in old habits and missed the wave of change that carried more innovative companies forward. It's not only companies that risk decline.

Few 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 1870 and suggested that this empire would be over within a generation, you would have been laughed out of the building. But 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 twentieth century was dominated by the United States, as surely as Europe had dominated the nineteenth. Whether it will dominate the twenty-first century remains to be seen. As award-winning US scientist Jared Diamond has shown, empires tend to collapse rather than fade away.4 Think of the Soviet Union and its rapid dissolution in the 1980s and 1990s.

All organizations are perishable. They are created by people and they need to be constantly revitalized if they are to survive. When organizations fail, the jobs and communities that depend on them falter too. Among the worst affected these days are young people. Youth unemployment rates are more sensitive than adult rates to economic turbulence, and the recovery of the job market for young men and women tends to lag behind that of adults. For millions of young people, the future seems bleak and despairing. They have no work and see no prospect of it. The International Labor Organization consistently argues that 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. In a world of headlong change, where lifelong

employment in the same job is a thing of the past, creativity and innovation are not luxuries, they are essential for personal security and the health of communities.

Thomas Friedman, author of the *World is Flat*, argues that, "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 ser-

vices, 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."⁵

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

One of the reasons the old systems of education are not working now is that real life is not linear or standardized: it is organic, creative and diverse and always has been.

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. He advised us to step out of their way and spare them too much of our career advice. His own son had been a student at the university some years before and had originally wanted to study

the classics. The professor and his wife were not optimistic about his job prospects. They were relieved when, at the end of the freshman year, he said he'd decided to major in something "more useful." They asked 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 eventually majored in art history. After college he found a job in an international auction house. He traveled, made a good living, 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. As you live your life you take or avoid opportunities, meet different people, have unexpected experiences and create a unique biography along the way. What we become in the future is deeply influenced by our experiences here and now. Education is not a straight line to the future: it is also about cultivating the talents and sensibilities through which we can live our best lives in the present.

BEYOND IMAGINING

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 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."

I love the word "disenthrall." 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. Over the past few centuries of industrialism, more and more people have moved off the land into cities and seem to believe that they can live apart from the rest of nature. The climate crisis reminds us that we cannot. In most respects, we are like most other organisms on earth. Our lives

are brief; we pass through the same cycle of mortality from conception to birth to death; we have the same physical needs as other species and we depend on nutrients that the earth supplies.

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Biologically, we are probably evolving at the same rate as other species, culturally, we are evolving at a uniquely furious rate. The cultural lives of dogs and cats are not changing that much. They seem to do pretty much what they've always done. There's no need to keep checking in with them to see what's new. In human life, there is always something new and the pace of change is quickening every day. The reason is that, in one respect at least, we human beings are different from the rest of life on earth. We have powerful imaginations and unlimited powers of creativity. In imagination 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. We can anticipate possible futures and we can act creatively to bring them about. We may not be able to predict the future, but we can help to shape it.

It may be that some of the challenges we are creating, 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 these unique creative powers that make us human in the first place. The challenges we face are global and personal. As this is my book, let's start with me.