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BE IN THE RIGHT PLACE AT THE RIGHT TIME

‘The nerds have won.’

– Tom Peters, management writer

The position of power that Microsoft enjoys today is the culmination of a business strategy that Bill Gates and his partner Paul Allen formulated many years ago when both were still in their 20s. The key to that success resides in a combination of factors, including the dazzling technical brilliance of the early Microsoft programmers, the enormous energy and ferocious competitiveness of Gates himself, and his unique vision of how the PC revolution could be brought about and the role that Microsoft could play in it.

It's easy to put Microsoft's success down to one extraordinary piece of good luck – securing the contract to supply IBM with the operating system for its first PC. But there was more than just luck involved. Bill Gates understood the significance of the deal. He knew that an operating system providing a common platform could change the history of personal computing. He worked tirelessly for more than six months to ensure that the opportunity, when it came, would fall to Microsoft. In this way he gave luck a helping hand.

When Gates was preparing to pitch for the IBM contract he is said to have told his mother that she would not see him for six months. During this time he virtually lived at the office devoting himself entirely to winning the IBM business. He sensed how important it was.

The main competitor for the deal was a company called Digital Research Inc, which owned the operating system that ran the Apple II, the most successful desktop computer at that time. At a crucial stage of the negotiations, however, the key contact at Digital Research was away on vacation for a month. Gates, who viewed vacations as a sign of weakness, made sure he capitalized on his competitor's absence. He clinched the deal with IBM – a deal that heralded a new era for business.

NERD POWER

From the cradle of the digital revolution, a new kind of business leader was emerging. The nerds were coming and Bill Gates was leading the charge. Gates is the ultimate expression of 'nerd power'. His own rise to fame and fortune personifies a change in the business constellation. Once unfashionable in corporate America, in the wake of the computer revolution the technical experts – or techies – have risen to prominence.

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For the first time ever, a high level of technical understanding was essential to understand the strategic possibilities that the brave new world of information technology opened up. The traditional generalist executive was out of his depth. Many still couldn't even operate the computer on their desk, let alone programme one.

The blue-suited IBMers who had dominated the computer business for decades were wrong-footed by the switch from mainframes to personal computers. Standing on the threshold of the change was Bill Gates, ready to usher in the new paradigm. Gates and Paul Allen, his high school friend and partner in computer language development, were very different to the IBMers. The new entrepreneurs of Silicon Valley didn't wear suits.

The young Gates, with his bottle-glass spectacles, dandruff and acne, and Allen, with his long hair and shaggy beard, provided Americans with a caricature of the nerds they knew at school. More significantly, for the first time corporate America's discomfort with raw intellect and technical expertise was challenged.

The prevailing myth among the business community of America was that grit, determination, luck and sheer hard graft was enough to get on in business. Brains alone were not seen as the distinguishing factor. In fact, they were sometimes seen as a handicap, especially where they were accompanied by a certain social awkwardness and eccentricity. Corporate America didn't like geeks. The new computer whiz-kids flew in the face of the anti-intellectual tradition. As one commentator observed: 'The vocabulary might change – eggheads in the 1950s, nerds in the 1970s – but the message is the same: brains are a liability not an asset'.

Until the 1970s, American business heroes were people like Lee Iacocca, the CEO of Chrysler – more John Wayne than Peewee Herman. But suddenly with the rise of Microsoft and Apple, the geeks were inheriting the business world. The era of nerd power had begun.

Of course, the pejorative use of the word nerd is an indication of the value society attached to a certain set of characteristics and attitudes – a hangover, in fact, from earlier days when physical prowess and being down-to-earth were regarded as more valuable attributes. What we are now experiencing is a shift in values. This is most obvious in the business world, where we are witnessing the rise and rise of the so-called 'knowledge worker'.

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This represents a significant shift in economic power. It has been likened to the change that took place during the industrial revolution when the application of technology in factories altered employment patterns and wealth distribution beyond all recognition. Many experts claim that the onset of the IT revolution represents an even more significant change. The impact on the corporate world is clear for all to see.

THE DOS BOSS

Bill Gates was in the right place at the right time. At a fateful meeting with IBM in 1980 the future of the computer industry – and arguably the entire business world – took an unexpected turn. Executives from Big Blue signed a contract with a small Seattle-based software firm to develop the operating system for its first PC. They thought they were simply saving time by outsourcing a non-core activity to a small contractor. After all, they were in the computer hardware business, where the real money and power lay. But they were wrong. The world was about to change. Unknowingly they were signing over their market leadership position to Bill Gates' Microsoft.

Much has been made of Bill Gates' manipulation of IBM. But the decision to sign the contract with Microsoft was the culmination of a series of mistakes by Big Blue that reflected its complacency at that time. As a result, it frittered away its dominance of the computer industry. One former IBMer likened the culture at Big Blue during that period to the old Soviet bureaucracy, where the way to get ahead was to impress your immediate boss rather than serve the real interests of the people. So it was that a bloated and complacent IBM collided with a hyperactive and hungry Microsoft. The effect was like introducing a fat and sleepy buffalo to a piranha.

Gates was lucky. But had the same opportunity fallen to one of his Silicon Valley peers, the outcome might have been very different.

In Bill Gates, IBM had picked the one man who would not fumble the ball. On such moments does history turn.

Presented with the chance of a lifetime, Bill Gates would make the most of it. What IBM couldn't see, Gates saw very clearly. The world of computing was on the brink of a major change – what the management theorists like to call a paradigm shift. Gates understood in a way that the old IBM guard could not, that software and not hardware was the key to the future. He knew, too, that the muscle of IBM, the market leader, would be required to establish a common standard, or platform, for software applications. That platform would be based on an existing operating system that Gates bought from another company, called QDOS – renamed MS-DOS by Microsoft. But even Gates could not have imagined just how lucrative the deal would be for Microsoft.

HOW IBM FUMBLED THE PC MARKET

IBM was late off the mark with the PC. The company which dominated the main frame computer business failed to recognize the importance – and the threat presented – by the rise of the personal computer. By the time Big Blue decided to enter the PC market in 1980, Apple, which had pioneered the desktop computer, had become a $100 million business.

Frank Cary, IBM chairman at the time, ordered his people to produce an IBM-badged PC by August 1981. Already in catch-up mode, the IBMers put in charge of the project made two fundamental technical errors. Both mistakes came from a single decision to go outside the company for the two critical elements of the new machine – the microprocessor that would be at the heart of the new PC and the operating system. Intel agreed to supply the chips and a small, relatively unknown software company based in Seattle agreed to supply the operating system.

The launch of the IBM PC was initially a commercial success. But the company ended up giving away most of the profits from its PC business to its two partners. Under the initial contract between IBM and Microsoft, Big Blue agreed to fund most of the development costs of MS-DOS, but only Microsoft was allowed to license the system to third parties. This was the killer clause.

As the PC industry exploded, thousands of new competitors entered the market. Virtually all of them ended up using MS-DOS, and paying Bill Gates for the privilege. But IBM's mistakes didn't end there. When it recognized its initial error, IBM failed to renegotiate the licensing contract or to break with Microsoft. Even more mystifying, senior managers at IBM killed an internally developed operating system that could have broken Gates' stranglehold on the PC market.

More than a decade later, IBM was still manufacturing more PCs than any other company, but its personal systems division was losing money. The only companies making large profits in the highly competitive PC business were the suppliers of the microchips and operating systems. To this day, Intel remains the dominant player in the former and Microsoft in the latter.

STAYING LUCKY

Bill Gates was too bright not to realize that if he played his cards right, his operating system MS-DOS could become the industry standard. At that time, the operating system itself was just one of several on the market.

Many inside the computer industry felt that from a purely technical perspective MS-DOS had some serious drawbacks. Apple was already established as the provider of choice for desktop computers. Apple's founders had brought new attitude and culture to the computer business. Apple's machines were popular because they were simpler to operate and fun to use. The company had yet to develop the famous icon-based Apple Macintosh operating system, but the signs were already there that the people at Apple were ahead of the game.

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But Gates had an important ally. He had the muscle of IBM behind his operating system. Big Blue had dominated the mainframe business for years and, somewhat belatedly, was preparing to enter the PC market. The credibility of the IBM name would be crucial in the battle ahead. Gates judged rightly that the best opportunity of establishing an industry standard other than one based around the Apple system lay with the arrival in the PC market of the world's most trusted computer manufacturer. For many years, IBM's proud boast was that 'no one ever got fired for buying an IBM.' At that time, it had a reputation for dependability unmatched in the computer world. The IBM PC was bound to take a big slice of the market for desktop computers.

The fact that IBM-badged machines were about to flood the market also meant that the operating system they used would be catapulted into first or second place. Every single PC shipped by IBM would have MS-DOS installed. For Microsoft it was the perfect Trojan Horse. Every IBM-badged PC that landed on a desk gave a free ride to the Microsoft operating system that lay hidden inside. This was Bill Gates' amazing piece of luck. But what happened next goes a long way to explaining why Bill Gates and not Steve Jobs, or some other Silicon Valley entrepreneur, is now the richest man in the world.

By the late 1970s, Microsoft was already licensing its software to a variety of customers. In 1977, Gates supplied software for Tandy, but it also licensed BASIC 6502 to Apple for the Apple II Computer. Microsoft went on to work with many of the other leading computer companies. This suited Bill Gates' purposes perfectly. Microsoft was already beginning to set the industry standard with its software. It was this strategy that he continued with MS-DOS, persuading as many PC makers as possible to license the system and distribute it in their computers.

Microsoft was already beginning to set the industry standard with its software

Apple, on the other hand, took the view that the only way to ensure the quality of its products was to try to retain control of everything. Later this included its proprietary Macintosh operating system.

Apple didn't want anyone else to 'clone' its computer. For years, the company resolutely refused to license its Apple Mac operating system to other manufacturers. This meant that anyone who wanted the user-friendly Apple operating system had to buy an Apple computer. It was a strategy that seemed to make sense – but only by the old rules of the game. The problem for Apple was that in terms of business model and strategic vision, it was only one generation on from the hardware dinosaur IBM.

Apple was in both the hardware and software businesses. Even though its managers recognized the growing value customers attached to the intangible software over the physical hardware, they were unable to divorce the two strategically.

Apple reasoned that they had a killer combination; they reckoned that in the Apple Mac they had the best operating system and the best machine on the market, it was just a matter of time before they dominated the desktop industry. The mistake lay in believing that the best technology will win in the end. They were wrong. By the time they realized their mistake Gates and Microsoft had seized 80 percent of the market. (Had Apple's executives taken a look at the development of the VCR some years earlier, they would have realized that they were not the first to make this mistake. Despite an apparent technological advantage Sony's Betamax video system was eventually eclipsed by the technically inferior VHS system.)

Gates' business savvy won the day. MS-DOS was established as the industry standard. The question was whether Gates could go the distance. By the mid-1980s, Gates' reputation as an outstanding programmer was widely accepted. Few doubted that he was one of the most talented techies to emerge from the maelstrom of the Silicon Valley revolution. His competitive spirit and personal drive to succeed were legendary. What critics questioned were his managerial credentials. They asked whether he had the necessary skills and charisma to lead a company that was fast becoming a major player in corporate America.

As early as 1984, *Fortune* magazine chided him for failing to develop the management depth to turn the temporary victories he had won into long term dominance.[1] What the business press had still to learn was that Gates was much more than just a techie or a computer nerd on a lucky streak. There was a lot more to Bill Gates than met the eye. His ascendancy to the corporate throne marked an important shift in the balance of power in the business world.

MOORE'S LAW

In 1965, in what came to be known as Moore's Law, Gordon Moore, a founder of Fairchild Semiconductor and later of Intel, quantified the rate at which microchips would increase in power. Based on his calculation of the rate at which the technology was advancing, Moore predicted that over the next ten years the number of components that could be fitted on a microchip would continue to double every twelve months.

The concept of setting standards remains at the heart of the Microsoft business strategy

What this meant, in effect, was that the capability of the chips would double every year without adding significantly to the cost. The prediction proved amazingly accurate. But in the early 1970s few people understood what that would mean for the future of the industry. A couple of computer fanatics from Seattle thought they had a clue.

Moore's law inspired Bill Gates and Microsoft co-founder Paul Allen to set up Microsoft. Gates credits Allen with showing him Moore's Law and pointing out the business potential in exponentially improving semiconductor technology. Exponential phenomena are rare, recalls Gates, asking Allen sceptically. 'Are you serious?'

Allen was deadly serious. What he and Gates understood that the suits at IBM and DEC didn't were the implications of this. The two reasoned that if Moore was right then processing power would make micro computers viable in a very short space of time. 'It's going to happen', they said, and they set about preparing to write software for the machines that would follow.

SETTING THE STANDARD

The decision to outsource the operating system to Microsoft was a mistake that cost IBM dearly. Similarly, Apple's decision not to license its operating system was one that subsequently prevented it from taking a larger market share and almost bankrupted the company. These were mistakes that Bill Gates had no intention of repeating.

Those two fateful decisions helped shape the Microsoft culture. There is an awareness that the company that establishes the industry standard will almost always dominate the market. It is a point hammered home to those who work at Microsoft.

'We set the standard', was an unofficial Microsoft slogan even before it signed the deal with IBM. It underlines the clarity of Gates' thinking from the very beginning. It explains his obsession with bringing new products to market first. Where someone got the jump on Gates, it also explains the ferocity with which Microsoft marketed its own version when it came out. In some cases, too, Gates simply bought a software company lock, stock and barrel if he believed it had established a significant technological lead on his own company with an important application. In doing so, he ensured that Microsoft dominated that market from the outset. At the same time, he acquired the technological know-how by bringing the brains behind it into the Microsoft fold.

The concept of setting standards remains at the heart of the Microsoft business strategy, a timely reminder to anyone at Microsoft who might forget the importance of the IBM lesson. Now, of course Gates is setting new standards, but this time in his philanthropic endeavours.

UBIQUISOFT

Love him or loathe him, there is no denying Bill Gates' achievements with Microsoft. The fact is that Microsoft software still dominates the global computer industry. The Windows operating system has over 90 percent market share, meaning that nearly all desktop computers run one or other version of Microsoft's Windows software. Moreover, the vast majority of new PCs are shipped with Microsoft software installed. This gives Microsoft an enormous head start over its rivals.

In the years before Gates stepped down from the day-to-day running of the business, he showed that he was very adept at leveraging Microsoft's dominant position to capture new and emerging application markets. Some say that he used what amounted to a stranglehold on the PC software market to foist Microsoft products onto customers. On the other hand, Gates simply did what any smart businessman should do; press home an advantage.

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It is tempting to look back at the history of personal computing and regard Microsoft's dominant market position as a given. To do so, though, is to view the PC revolution through a narrow lens; to think that the market for PCs would have automatically taken off regardless of the actions of key players such as Bill Gates would be assuming too much. An alternative interpretation is to look at Microsoft's domination as the result of the mistakes of others – principally IBM and Apple. But this, too, is seriously to underestimate the role of Gates and his colleagues at Microsoft.

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In the era of the knowledge worker, technical know-how and creativity are the new corporate assets. Combine these with business acumen and a highly competitive nature and you have a rare bird indeed. Throughout his tenure at the head of the world's most famous software company, Gates exemplified that rare bird. But it was also a remarkable piece of good fortune that carried him to an altitude where his special talents allowed him to soar. The first lessons from the Bill Gates school of business leadership are:

- **Nerd power: let the technology shape your strategy.** Gates was one of the few business leaders who really understood the technology. This enabled him to make strategic decisions based on his own vision of where the technology was heading.
- **Be in the right place at the right time.** Microsoft had a huge dollop of luck in 1980 when IBM, then the market leader in the computer industry, signed a contract with Bill Gates to develop the operating system for its first PC.
- **Stay lucky – don't fumble the ball.** Being lucky only gets you so far; it's what you do with that luck that really counts. There are a great many millionaires in Silicon Valley who might have been billionaires if they had exploited their good fortune as Gates has. When the opportunity of a lifetime dropped into his arms, Gates grabbed it with both hands. He's been scoring touchdowns ever since.
- **He who sets the standard, wins.** What Gates understood that others did not was that in the computer business,

market share is self-perpetuating. Once a company establishes an industry standard it becomes much harder for a newcomer to usurp their position. 'We set the standard' was the unofficial Microsoft motto even in its early days, long before it signed the fateful contract with IBM.

- **Leverage your bits off.** Gates successfully leveraged Microsoft's dominant market position to establish its own versions of new applications. True, Microsoft may have overdone things a little, at least in the eyes of some authorities. The principle remains though, if you have power, use it to your advantage – within the law, of course.