THE TEN GREATEST PREDICTIONS OF ALL TIME

It is mid-September, 1930, in Germany. Significant electoral gains have seen the Nazi Party become the country's second biggest party in terms of the number of seats in Parliament. Hitler believes his moment has come, proclaiming boldly that the Nazis will win the next election and that their rise to the pinnacle of power is now inevitable and unstoppable.

Fast forward eighteen years to 14 May 1948. Outside Tel Aviv Museum in Palestine, the Jewish People's Council approves a proclamation declaring the establishment of the new State of Israel. Meanwhile, Hitler's Thousand-Year Reich has come crashing down a full 985 years too early after orchestrating the worst crime in human history.

It is during this cataclysmic period of modern history between 1930 and 1948 that we encounter two of the best predictions of all time. The first is Winston Churchill's warning to the British parliament in 1933 that a second major European war would take place in the foreseeable future as a result of German rearmament and deep-seated grievances. The second is the fulfilment of an ancient prophecy about the founding of a homeland for the Jews after centuries of exile and statelessness.

I will analyse both forecasts, along with eight other stunning examples of social foresight, but first we need to decide how to measure the degree of success of a prediction. This will enable us to rank these ten predictions in order of merit. It is proposed that prescience, defined generally as knowing about something before it happens, is produced by far-sightedness, the ability to look ahead in time, combined with a sense of the scale, magnitude or importance of the subject matter to society. In addition, the logic or method informing the prediction should be sound. By these three criteria, predictions which look far ahead, give insight into momentous, world-changing events and employ strong theoretical logic could be considered great.

In April 1933, Churchill uttered these prescient words in parliament: 'as surely as Germany acquires full military equality with her neighbours

while her own grievances are still unaddressed and while she is in the temper which we have unhappily seen, so surely shall we see ourselves within a measurable distance of the renewal of general European war'.[356] Six years later, on 1 September 1939, Germany invaded Poland. It is thought some 60 million people died in the war that followed. Although Churchill's prediction was not *far*-sighted time-wise, it was certainly momentous on a historical scale. His logic was that Germany's humiliation in the first war provided a deep-seated motive for its resurgence and eventual aggression.

While in exile in ancient Babylon, the major Hebrew prophet Ezekiel, in his public career from 593–571 BC, described detailed visions of the future national restoration of the then stateless Israelites. Some of these visions can apply to the establishment of a modern state of Israel in 1948, 1,878 years after the destruction by the Romans of the second temple in Jerusalem in AD 70. We know that the founding of modern Israel occurred only a few short years after the harrowing events of the Holocaust. Significantly, Ezekiel referred to the founding of a new country of Israel after an 'outpouring of wrath/fury' [20:34]. The Hebrew word for 'fury' used in this particular verse is *chêmâh*, which connoted fever resulting from being poisoned. The word could have signified poisonous rage, an apt description of the murderous racial hatred which motivated Hitler's so-called Final Solution. If we join together various verses from Ezekiel's prophecies of national restoration, we can get a sense of how he foresaw this event happening in a way which locates the fulfilment of the historical vision in modern Israel, rather than in ancient Palestine at the time of the second temple: 'I will bring you from the nations and gather you from the countries where you have been scattered – with a mighty hand and an outstretched hand and with outpoured wrath [20:44]…. You will live in the land I gave your forefathers [36:28]….This is where I will live among the Israelites forever [43:7].' The word 'forever' in the last verse denotes permanence which is why it cannot refer to Israel's second temple which lasted from 516 BC to AD 70. The time period from the start of Ezekiel's prophetic ministry in 593 to the founding of Israel in1948 is simply enormous: just under two and a half millennia.

Although on a smaller time scale, another remarkable and far-sighted prediction was made by an Enlightenment thinker at the time of the French Revolution about the future rise of equal political rights for

women, just under a century before this came to pass in the real world. We are talking about a man who deserves to be seen as the grandfather of a modern study of the future.

Although he cannot be described as a futurist, the Marquis de Condorcet (1743–1794), was certainly a prognostic thinker. He anticipated the increase of political equality in a new era in which scientific knowledge, allied to liberty, was destined to play a decisive role in society. A French mathematician, philosopher and political scientist, Condorcet concluded his study of the history of humanity's intellectual and moral development with a chapter on the future progress of mankind as he foresaw it. In this penetrating look into the far future, he wrote, with unconcealed passion: 'Among those causes of human improvement that are of the most importance to the general welfare, must be included, the total annihilation of the prejudices which have established between the sexes an inequality of rights, fatal even to the party which it favours….And here we may observe, how much the abolition of the usages authorised by this prejudice, and of the laws it has dictated, would tend to augment the happiness of families...'.

British suffragette Mary Wollstonecraft published *A Vindication of the Rights of Women* in 1792, but the first country to grant women suffrage in national elections was New Zealand in 1893, just under a century after the posthumous publication of Condorcet's treatise on progress.

In addition to predicting the rise of women's rights several decades before it happened, Condorcet also foresaw the coming of an extensive economic globalisation process: 'the moment knowledge shall have arrived at a certain pitch in a great number of nations at once, the moment it shall have penetrated the whole mass of a great people, [a] whole language shall have become universal, and the whole commercial intercourse shall embrace the whole extent of the globe'. Again, these words, perhaps history's first definition of globalisation, are deeply foresightful. I have allocated this French thinker first and third positions on the league table of great predictions (at the end of this appendix).

Thomas Malthus (1766–1834), a clergyman and economist, wrote *An Essay on the Principle of Population* in 1798 just a few years after Condorcet died. Malthus argued that population growth in the long-run tended to outrun a country's means of subsistence, especially its food production rate. He predicted that the modern era would experience huge famines

due to over-population. It has proved true that starvation and malnutrition have haunted the modern era amidst all the wonderful signs of progress, including the Great Irish Famine of 1846–1851, the Ethiopian famine of 1888–1891, the Soviet famine of 1931–1933, the Great Chinese Famine of 1959–1961, as well as famines in Biafra in the late 1960s, Ethiopia in 1984–5 and North Korea in the 1990s, to mention only a few.

The nineteenth century witnessed further attempts at long-range social forecasts. The most prognostic was *The Coal Question* by British economist and logician W. Stanley Jevons. This 1865 treatise forecast the depletion of the country's coal mines during the ensuing one hundred years. Jevons correctly identified the crucial role of industrial energy in determining a nation's socio-economic future. This book is one of the best works of factual foresight ever written.

Jevons was concerned about two things: namely, the loss of Britain's economic supremacy due to the shrinking of its coal resources and the long-term social decline this would cause. Just over ninety years after the publication of *The Coal Question*, US geophysicist M. King Hubbert confirmed that the production pattern for world coal production had, as anticipated by Jevons, peaked, leading to sharp declines in the post-peak period. Hubbert illustrated the steep decline in production of coal after 1925, confirming the general accuracy of Jevons' main thesis regarding Britain's anticipated 'Peak Coal'.

Hubbert himself produced, in my view, the twentieth century's greatest predictions. In a paper entitled 'Nuclear Energy and the Fossil Fuels' presented to the American Petroleum Institute in San Antonio, Texas, in March 1956, Hubbert, then employed by Shell, correctly predicted that US oil production would peak within twenty years by the early 1970s. He also forecast that global oil production would peak at the turn of the century. Due to the accuracy of his prognostications, he has become known as the father of the theory of Peak Oil. This phenomenon has far-reaching worldwide implications for our own times. It could become the biggest change in industrial history, a turning-point in the evolution of human society.

But Hubbert was a geophysicist, not a futurist. The greatest pioneer of the systematic study of the future was H.G. Wells, science fiction writer and the world's first real futurist. In 1901 Wells wrote *Anticipations*, the earliest attempt at a scientific study of the long-range social future. The

book's stated aim was to outline 'a rough sketch of the coming time… [an] anticipatory balance-sheet'. Wells set out to construct a 'picture of a human community somewhere towards the year 2000'. *Anticipations* presented a one-hundred year vision of society as the twentieth century was beginning.

The point of departure for Wells' vision of the future was that transportation systems constitute the most critical catalyst for broad social development: 'upon transport, upon locomotion, may also hang the most momentous issues of politics and war'. He regarded the steam engine, for example, as the dominant transport technology of the nineteenth century in Britain. He explained that cities and towns had developed around key transport, or transit nodes, creating a 'railway world'. Based on this logic, he predicted that new motorised vehicles, namely trucks carrying goods, motor omnibuses transporting people *en masse* and privately owned motor vehicles, would compete with the railways and create new transportation systems. There would be widespread development of roads specifically for motor vehicle use. Time has proved his forecasts of a transport revolution to have been accurate. The twentieth century did turn out to be dominated by suburban and urban development built around motor vehicles and the road system which transported them. We still live today in the motorised world predicted by Wells in *Anticipations*. That fact demonstrates how momentous his 1901 forecasts really were (although he also got a lot of forecasts wrong in the book due to faulty theorising).

Finally, I regard J. Richard Gott's forecast about the fall of the Berlin Wall as a breakthrough prediction because it was based on the precise use of mathematical probabilities. In 1969 Gott, an American astrophysicist, visited this menacing wall and wondered how long it would remain in place.

His scientific training told him that Copernicus had shown that earth did not occupy a special position in the solar system. It was logical to extend this argument, he thought, to the idea that no location anywhere in space or in time is ever special. 'If there was nothing special about the location of my visit in time, there was a fifty percent chance that I was observing the wall sometime during the middle two quarters of its existence….So standing at the wall in 1969, I predicted…that there was a fifty percent chance that the future longevity of the wall would be between two and two-third years and twenty-four years....When the wall

came down in 1989, after twenty years, in agreement with my original prediction, I decided that I should write this up.'

Gott's principle is that we observe things at random, i.e. non-special, times so that there is always a fifty percent chance that we are doing so in the middle of their lifespan. You just have to find out their start date, as Gott did when he visited that oppressive symbol of the Cold War. He developed a smart and unique way of estimating the future duration of entities, from buildings to organisations, from species to societies.

Evaluating these ten predictions according to how far-sighted, socially significant and theoretically logical they turned out to be, we arrive at the following rankings and conclusions, by allocating 5 points for 'very high' down to 1 point for 'low' for each of our three criteria of successful predictions.

In terms of social predictions, the honour of producing the best ever forecasts must go to the Frenchman Condorcet for accurately foreseeing the rise of both equal women's rights and the global economy, two world-changing developments he anticipated many decades ahead of their time. Another European forecast in the table of top ten predictions is the work of the Club of Rome for understanding back in 1972 that environmental constraints would ultimately put the brakes on global economic growth and force the world to look more closely at the systems concept of sustainability.

The table also features four world-class British forecasts, namely the ways motorisation would change the nature of society throughout the twentieth century (H.G. Wells in 1901), the long-range forecast of the loss of Britain's economic supremacy due to decline in its coal reserves (Jevons in 1865), the rise of famines in the modern era caused by overpopulation (Malthus in 1798) and the coming of World War Two (Churchill in 1933).

Two American thinkers have made important contributions to the world's heritage of great predictions. M. King Hubbert is the father of Peak Oil, one of the most important theories of our time. And the method J. Richard Gott used to predict the fall of the Berlin Wall twenty years before it happened holds much promise for developing knowledge of the future lifespans of a wide range of entities.

Together, these ten historical predictions decisively show the way forward for the human production of social foresight.

Table 4 Top ten predictions of all time

Forecaster	Prediction	Date of prediction	Date when prediction was fulfilled	Far-sighted	Momentous	Logic	Rank
Marquis de Condorcet	Rise of equal rights for women	1795	From 1893	Very high (5)	Very high (5)	High (4)	1st (14)
M. King Hubbert	Peak Oil for USA and world	1956	1970 and 2000 respectively	High (4)	High (4)	Very high (5)	2nd (13)
Marquis de Condorcet	Rise of economic globalisation	1795	From Bretton Woods July 1944	Very high (5)	High (4)	High (4)	3rd (13)
Club of Rome think- tank led by Dennis L. Meadows	Slowing down of global economic growth due to ecological and environmental constraints with an end to all high growth by 2022	1972	From the 2008 credit crisis and subsequent euro zone crisis onwards	High (4)	High (4)	Very High (5)	4th (13)
H.G. Wells	Motorisation of society in twentieth century	1901	From debut of Ford's Model T in 1908	Moderate (2)	Very high (5)	Very high (5)	5th (12)

W. Stanley Jevons	Decline of British global supremacy due to depletion of coal resources	1865	From the steep decline in production of coal after 1925	High (4)	Moderate to high (3)	Very high (5)	6th (12)
Ezekiel	National restoration of Israel after lengthy exile and following a time of 'outpoured wrath'	593–571 BC	1948	Very high (5)	High (4)	Moderate (2)	7th (11)
Thomas Malthus	Rise of famine due to overpopulation in modern era	1798	From Great Irish Famine of 1846–1851 to famine in North Korea in 1990s	High (4)	High (4)	Moderate to high (3)	8th (11)
Winston Churchill	Outbreak of Second World War due to German rearmament	1933	1939	Moderate (2)	High (4)	High (4)	9th (10)
J. Richard Gott	Fall of the Berlin Wall	1969	1989	Moderate to high (3)	Moderate (2)	Very high (5)	10th (10)