

Summary and excerpts from Thomas Friedman's *The World is Flat* (2006)  
by Bill Altermatt

## CHAPTER 2: THE TEN FORCES THAT FLATTENED THE WORLD

What Tom Friedman means by the phrase “The World is Flat” is that “the global competitive playing field is being leveled...It is now possible for more people than ever to collaborate and compete in real time with more other people on more different kinds of work from more different corners of the planet and on a more equal footing than at any previous time in the history of the world” (p. 8). Friedman believes that this “flattening” of the world is the result of ten factors, which he outlines in chapter 2 of his book:

### **Flattener #1: “11/9/89, The New Age of Creativity: When the Walls Came Down and the Windows Went Up.”**

On 11/9/89, the Berlin Wall fell (“the Walls Came Down”) and the citizens of the former Soviet empire were suddenly able to participate in the global economy. Friedman uses the fall of the Berlin Wall as a symbol for a general global shift towards democratic governments and free-market economies (where consumers determine prices based on what they’re willing to pay) and away from authoritarian governments and centrally planned economies (in which prices are set by government officials). India made the conversion from a centrally planned economy to a free-market system two years after the Berlin Wall fell, when its economy was on the brink of collapse. Their annual rate of India’s growth soared from 3% per year to 7%. Friedman argues that the Berlin Wall also represented a barrier to seeing the world as a “a single market, a single ecosystem, and a single community” (p. 53). When it fell, it became easier for the world to see itself as one gigantic economic playing field.

Six months after the fall of the Berlin Wall, in May 1990, Microsoft shipped its breakthrough operating system, Windows 3.0 (“The Windows Went Up”). This may not sound like a big deal, but this operating system was so much easier to use than previous versions that Friedman argues it is in large part responsible for popularizing personal computing – everyday people began using computers. The reason that personal computing is influential is that it fostered people’s interaction with *digital* media content – music, pictures, video, and text that is represented as 1’s and 0’s on a computer and thus can be stored, manipulated, and shared in an infinite number of ways. Film is replaced with memory cards. Records are replaced with electronic files on MP3 players. This is what Friedman means when he calls this period “The New Age of Creativity” – it is the time when people are given the tools to author and share new information faster and easier than ever before.

### **Flattener #2: “8/9/95, The New Age of Connectivity: When the Web Went Around and Netscape Went Public.”**

The second flattener is a combination of technologies that gave us access to what we now know as the World Wide Web. In the late 1980s and early 1990s, using the Internet required considerable computer expertise and was often conducted over black-and-white text terminals. In the early 1990s, a scientist at CERN named Tim Berners-Lee created the programming language for writing webpages (called HTML) that allowed authors to do things like make “links” from one page to another and to store and share images. What really got things moving was the release of the first Netscape web browser in December 1994. Netscape took the HTML language and put it in the background – the foreground became the pretty combination of images, text, and links that we think of today when we browse the Web. Netscape made the Web user-friendly and suddenly *everybody* was getting online. In addition, Netscape was available for every major operating system: Microsoft Windows, Apple, and

UNIX. This meant that everyone, no matter what computer they were using, could see the same webpages, access the same data. This was a *huge* advance in business computing because prior to Netscape, it was not uncommon for the computers in a business' accounting division to be unable to communicate with the computers in the sales division. In addition to the Netscape browser, other standardizations further simplified communications among computers. Standards emerged for email (SMTP and POP), file transfer (FTP), and secure data transmission (SSL). All of this standardization dramatically increased the ability of computers, and their users, to share information over vast distances. Without the standardization, that information would have been forever marooned in the tiny networks scattered within businesses and universities. Now, the sales department can receive an order on the web and within seconds the order has been routed to accounting (to create a bill) and to shipping (to send it to the consumer).

On 8/9/95, Netscape “went public” – they began selling stock on the open market. Friedman uses this date as a symbol for the beginning of the “dot com bubble” – an enormous rise (and, in 2000, an enormous fall) in the stock prices of technology companies that had anything to do with the Internet. The bursting of the bubble in 2000, with the resulting highly publicized bankruptcies of many “dot com” corporations, led a lot of people to believe that the bubble was a failure. But one very important positive outcome of the bubble was something that happened during the bubble's explosive growth in the late 1990s: the laying of miles and miles of fiber optic cable, which could carry billions of times more information than the previous medium: the twisted-pair copper wire that is inside telephone lines. When the bubble burst, the American public still had this information superhighway, which is why high-speed (broadband) Internet service is now so inexpensive.

### **Flattener #3: “Work Flow Software”**

Work flow software is software that enables workers in different locations to collaborate efficiently. Friedman gives the example of the work that goes on behind the scenes of the popular children's program *Higglytown Heroes*. The writers work from home: Florida, London, New York, Chicago, etc. Visual design and direction is done by a team in San Francisco. Voice recording takes place in LA or New York. Computer animation is handled by programmers in Bangalore, India. Work flow software enables all of them to access and manipulate everyone else's contributions as they are made.

In Flattener #2, Friedman described how some computing standards (SMTP, FTP, SSL) allowed people using different computing systems to communicate with each other. In Flattener #3, he extends this to standards for digital *content*. Although many people bristle at Microsoft's monopolistic business practices, the widespread adoption of their Office software (Word, Excel, PowerPoint) has increased our ability to share and coordinate our work.

### **“Genesis: The Flat-World Platform Emerges”**

Friedman says that, with the addition of work flow software to the other two flatteners, we begin to see something new. With the rise of user-friendly computers (Flattener #1) that can share a wide variety of electronic content (Flatteners #2 and #3), it suddenly becomes possible to not only communicate over vast distances but also to *collaborate* – to work together with others to create new information. The next six flatteners describe some of the ways this collaboration can take place.

### **Flattener #4: “UPLOADING, Harnessing the Power of Communities”**

Uploading is the process of transmitting information from your computer to a network (as opposed to downloading, where the information goes from the network to your computer). Friedman uses it as a symbol for how people can be creators of new information as well as

consumers. Instead of people just downloading music or news, they are increasingly likely to contribute information: writing a review of a product they bought on Amazon.com, rating their professor at ratemyprofessor.com, or editing an encyclopedia entry on their favorite trivia topic on wikipedia.com.

Friedman discusses one area of uploading in depth: “Community-developed software.” Typically, people think of software development as the result of the careful planning of small teams of experts who work for big companies like Microsoft. An alternative approach has emerged in which a community of amateur programmers works on a program collaboratively. These people work on the program as a hobby, usually with no expectation of financial reward. You might think that this approach would produce poor quality, but you would be wrong. *Apache*, the operating system used by almost all servers (the computers that store Internet content), was written this way. The one problem with community-developed software is service – whom do you call when your Apache server goes down? This problem has been resolved with a hybrid model in which the software is given away for free but reliable expert support is provided for a fee. Friedman believes this hybrid model will become increasingly important in the software industry.

Another example of the “flattening” of the world through uploading is the blog. Blog is the abbreviation for “web log” and consists of one person’s online journal, often with the ability for others to post comments. While some blogs are simply diaries, many are focused on particular issues – politics, science, the environment, etc. Many are also quite informative, backing up their claims with links to online data that can be falsified. Many also reference each other, allowing a reader to rapidly expand their knowledge in a particular area. But perhaps the most influential aspect of “bloggers” is their role as “an army of citizen journalists” (in the words of Howard Kurtz of the *Washington Post*). For example, shortly after Dan Rather gave a damaging report on George Bush’s National Guard service, bloggers began posting disconfirmations and giving extensive documentation to back them up. The news media is increasingly using the community of bloggers (known as the “blogosphere”) as a source of new leads.

In general, uploading represents a flattening of the world by breaking down the barrier from individual users to the online community. Friedman predicts that business, education, and politics will be changed by the increasingly *participatory* quality of online experience.

#### **Flattener #5: “OUTSOURCING”: India**

Outsourcing is the process of taking work that used to be done in-house (e.g., accounting) and paying another company to do it. If there is another company and all it does is accounting, there’s a good chance that it can do accounting cheaper than you can do it in your company. Why not reduce costs by eliminating your accounting department and outsourcing that task? One consequence of the flattening of the world is that it is now possible to outsource “knowledge industry” jobs such as accounting, software development, or radiology to anyplace with 1) a broadband Internet connection, 2) expertise, and 3) proficiency in English. Friedman describes three major factors that contributed to *India’s* recent attractiveness to knowledge industry companies in the U.S.: 1) a huge amount of fiber-optic cable was laid in India by U.S. companies in the 1990s, which became incredibly cheap after the dot-com bubble burst in 2000, giving Indians a nearly-free broadband connection to the U.S.; 2) India’s Institutes of Technology provide world-class education in engineering, computer science, and management; and 3) thanks to its history as a former British colony, India has the world’s second-largest population of English speakers. In the beginning, US companies outsourced only low-level services such as data entry or transcription (listening to audiotapes of doctors and lawyers and typing out what they said) . Then in 1999, the “Y2K” fear gripped the U.S. Y2K refers to the

Year 2000, and the concern was that much of the existing software stored information on year using only two digits: 97 instead of 1997. The fear was that when a program advanced from December 31, 1999 to January 1, 2000, it would behave as if the year was actually 1900, potentially disrupting a huge amount of business and scientific calculations. In 1999, U.S. companies were scrambling to make their software “Y2K compliant” and they were in short supply of English-speaking programmers. Enter hordes of well-trained Indian programmers who would work for a fraction of the cost of an American programmer and deliver high-quality work. When the dot-com bubble burst in 2000, many software companies needed to cut costs and an easy way to do that was to hire back those Indian programmers they had used in 1999. Only now, thanks to the fiber-optic cable in India, those Indian programmers never have to travel to the U.S. – they can do all their work from home. Now, it is not uncommon for hospitals in the U.S. to send digital X-rays to radiologists in India, who have the reports ready when U.S. doctors come back in the morning.

### **Flattener #6: “OFFSHORING”: China**

Offshoring is when a company moves its production from its home country to another country, where it can be done with “cheaper labor, lower taxes, subsidized energy, and lower health-care costs” (p. 137). This is distinct from outsourcing, in which a company takes one of its peripheral tasks (e.g., accounting) and has another company handle it. Offshoring is what people in the U.S. complain about when they complain about manufacturing jobs moving to China. Whereas India has emerged as a center of knowledge-industry outsourcing, China has emerged as a center of manufacturing offshoring. The cost savings in moving manufacturing to China are so great that if one company begins moving its manufacturing to China, the only way for rival companies to survive is for them to also move their manufacturing to China. Friedman quotes one expert who advises U.S. companies, “If you still make anything labor intensive, get out now rather than bleed to death” (p. 140). Offshoring to China took off relatively recently, on December 11, 2001, when China joined the World Trade Organization and international companies felt safer operating in China. The main reason that China is so attractive is that its workers are paid very little. This has caused companies in other developing countries to try to cut their wages to stay competitive, driving down wages for all unskilled workers in the developing world to stay competitive with “the China price.” Needless to say, the human costs of this process can be devastating. The fact that China’s wages have such a big impact on the wages of workers all over the globe is another example of how the world has become “flatter.”

Friedman cautions that focusing too much on this “race to the bottom” of wages may blind us to an even more unsettling development: China’s race to the *top* – their encroachment into the high-skill manufacturing of items like computer processors that were at one time only able to be manufactured in First World countries because of the education and training required of workers. This is a point that Friedman emphasizes throughout his book: The real money is in *creative design* rather than manufacturing. China sees its low-wage manufacturing jobs as a stepping stone to dominating all stages of production, especially design. As soon as China’s education system catches up with the U.S., expect to see wages of our highly skilled workers (lawyers, doctors, computer programmers) fall as they start to compete against international workers who will do the same job for less money. To stay competitive in the knowledge industry, the U.S. needs to put more of its resources into education and research. At present, U.S. children are falling far behind Asian countries in their math and science performance. This must be reversed or we will be in big trouble.

It would also be a mistake to neglect some of the positive consequences of offshoring. By moving their production overseas, U.S. companies are able to sell the same items to consumers for less cost. Friedman cites a 2004 Morgan Stanley that estimated that offshoring to China has saved U.S. consumers \$600 billion since the mid-1990s (p. 143).

**Flattener #7: “SUPPLY-CHAINING”: Wal-Mart**

Supply-chaining is increasing the connections between suppliers, retailers, and customers. Friedman's example of the ultimate supply-chainer is Wal-Mart: “Wal-Mart today is the biggest retail company in the world, and it does not make a single thing. All it ‘makes’ is a hyperefficient supply chain” (p. 152). Although Wal-Mart has come under heavy criticism for its treatment of employees, an often-overlooked factor contributing to its domination of the retail market is how intelligently it handles products. When a cashier scans your item in the checkout line, a signal is sent to Wal-Mart central command alerting them to changing demand in a product as well as the local supply. If demand is increasing faster than supply, a message is transmitted to Wal-Mart's suppliers – which could be in Ohio or China – and more of that product is instantly on its way to your store. Communicating with suppliers in this way was completely new, and enabled them to increase or decrease production to keep up with demand. In addition to managing its information about supply intelligently, Wal-Mart also pioneered new ways to control its distribution of products. After it reached a certain size, it became cheaper for Wal-Mart to handle all of its own distribution. You may have seen some of Wal-Mart's distribution centers – mammoth structures where trucks come and go all night, bringing in products directly from distant manufacturers and taking out products to its stores. Supply-chaining is an example of the flattening of the world because of the way it levels the boundaries between customers and manufacturers regardless of where in the world those manufacturers exist.

Friedman also addresses the negative consequences of Wal-Mart's obsession with efficiency. Because everything about Wal-Mart is aimed at keeping prices as low as possible, store managers are under tremendous pressure to keep labor costs low. Some of Wal-Mart's more well-known infractions include locking overnight workers into its stores and contracting illegal immigrants to work as janitors. In addition to these crimes, Wal-Mart is like China in that its low wages and benefits have forced other companies to cut their wages and benefits to compete. Whereas Wal-Mart insures about 45% of its workforce, its biggest competitor, Costco Wholesale, insures 96% (p. 250). However, Wal-Mart's discounting on food saves American shoppers \$50 billion each year and its profit margin is 5.5% compared to Costco's 2.7% (p. 250). As shoppers and investors, we like Wal-Mart, but as employees and citizens, we do not. Which role casts the deciding vote in whether Wal-Mart is good for America?

**Flattener #8: “INSOURCING”: UPS**

Supply-chaining is incredibly important for companies to compete globally, but it is also incredibly complicated. If you're a little company, how can you afford the know-how to supply-chain like Wal-Mart? Insourcing is hiring another company to handle your supply chain. Friedman talks about how UPS (United Parcel Service) has transformed itself from just a delivery business into an insourcing company. UPS handles all the routing and scheduling of Papa John's supply trucks. Toshiba insourced with UPS and was told it could save a lot of money by moving its laptop repair facility inside of UPS' central distribution center in Louisville. If you send a Toshiba laptop off for repair, you slap a UPS sticker on it, it is picked up by UPS and transported to the UPS Toshiba repair lab in Louisville, where UPS technicians do all the repair and then ship it back to you. Order a pair of shoes from [nike.com](http://nike.com) and a UPS employee receives the message, picks the shoes off the shelf, inspects them, and ships them to you. By contracting with UPS, these companies gain some of the competitive advantage that Wal-Mart has achieved through its supply-chain. UPS reports that the majority of their customers are small businesses: “They are asking us to take them global. We help these companies achieve parity with the bigger guys” (p. 170). Insourcing flattens the world in three ways: by letting little companies be global companies, by dissolving barriers between companies (UPS is often so far

inside its client companies that it is difficult to separate them), and by increasing the standardization of business practices across companies and around the world.

### **Flattener #9: “IN-FORMING”: Google and Yahoo! Groups**

In-forming refers to the dramatic change in how easy it is to obtain information. The World Wide Web provides users with a depth and breadth of information never before seen. But all that information is useless unless you can find what you're looking for. The Web search engine Google contributes to in-forming because it enables people to find webpages that are more relevant to their searches than any other search service. Google is based on the idea that webpages can be ranked by the number of links pointing to them. If one webpage on Spiderman has 10 links pointing to it while another webpage on Spiderman has 400 links pointing to it, Google will rank the second webpage higher when it displays results for a search on “Spiderman”. Google combines this ranking system with a way to analyze page content to reduce false positives. It now processes over 1 billion searches per day, up from 150 million three years ago. Larry Page, Google's co-founder, says that one piece of evidence that Google is a flattener is its user base: only 1/3 of searches are U.S.-based and less than 50% are in English (p. 179). Says Sergey Brin, Google's other co-founder, “whether a kid in Cambodia, the university professor, or me who runs this search engine, all have the same basic access to overall research information that anyone has. It is a total equalizer” (p. 178). Google puts more power in the hands of individuals by letting them do their own research. Colin Powell told Friedman that when he took over as Secretary of State in 2001, he would often wait minutes or hours for an aide to find information for him. “Now I just type into Google ‘UNSC Resolution 242’ and up comes the text” (p. 248).

One new risk in the flat world is that Google is allowing people to find out more about you than was ever possible before. As more information goes online (high school newspapers, crime logs, etc.), Google puts more of that information in people's hands. It's not uncommon for prospective employers or romantic partners to Google their prospects. Dov Seidman, who runs a business ethics consulting firm, writes “In this world you better do it right – you don't get to pick up and move to the next town so easily. In the world of Google, your reputation will follow you and precede you on your next stop. It gets there before you do...Reputation starts early now” (p. 185-6).

Whereas Google connects users with information and media, Yahoo! Groups connects people with similar interests to each other. Yahoo! Groups currently has about 13 million individuals participating every month in 4 million active groups. You can now communicate with like-minded people in private, semi-public, or public discussions regardless of time or distance. All the mountains, valleys, and scheduling conflicts separating you from others have been flattened.

### **Flattener #10: “THE STEROIDS”**

Friedman defines “the steroids” as a combination of small factors that amplify the effects of outsourcing, off-shoring, uploading, supply-chaining, insourcing, and in-forming. The *digital* steroid, as discussed in Flattener #1, puts all text, sound, photo, and video media into a common standard – digital (0's and 1's in a computer) – that can be easily shared, stored, searched, and manipulated. An emerging digital flattener is VoIP (“voice over Internet Protocol”), which allows people to make phone calls using a broadband Internet connection. This is a flattener because all VoIP calls cost the same, regardless of how far you are calling – next door or to another continent. The *mobile* steroid consists of technologies that let you work away from your office. Chief among these is the spread of wireless Internet access, which allows people to work online from their portable computers in airports, hotel lobbies, libraries, and even coffee shops. *Personal* steroids shift power from institutions to individuals and include

search engines (as discussed above), personal computers (now small enough and cheap enough for individuals to afford and even carry with them), and peer-to-peer file sharing (using programs like Napster or Kazaa, which allows individuals to directly connect to other computers and share music).

An example of these steroids is the story Friedman tells of a physician attending a medical conference presentation. The physician becomes convinced that the speaker is misquoting a source to support his argument. He pulls out his pocket computer, gets online with a wireless connection, looks up the source, and then raises his hand and quotes two lines from the source that contradict what the speaker said. All this in a few minutes while sitting in a crowded room.

### CHAPTER 3: THE TRIPLE CONVERGENCE

In chapter 3, Friedman combines the ten flatteners discussed in chapter 2 with two new factors. The important point of chapter 3 is not only what those two new factors are but the fact that all three factors came together *at the same time* (they “converged”) in a way that reinforced the flattening effects of each one.

#### Convergence I

The first convergence was the convergence of all the factors discussed in chapter 2, which together produced...

...a whole new platform. It is a global, Web-enabled platform for multiple forms of collaboration. This platform enables individuals, groups, companies, and universities anywhere in the world to collaborate – for the purposes of innovation, production, education, research, entertainment, and, alas, war-making – like no creative platform ever before. This platform operates without regard to geography, distance, time, and, in the near future, even language. Going forward, this platform is going to be at the center of everything. Wealth and power will increasingly accrue to those countries, companies, individuals, universities, and groups who get three basic things right: the infrastructure to connect with this flat-world platform [especially broadband Internet access], the education to get more of their people innovating on, working off of, and tapping into this platform, and, finally, the governance to get the best out of this platform and cushion its worst side effects. (p. 205)

Friedman cites a recent article by Kevin Kelly, one of the founders of *Wired* magazine, in which Kelly proposes that the current era is a turning point in our history as a civilization, a time when

...humans began animating inert objects with tiny slivers of intelligence, connecting them into a global field, and linking their own minds into a single thing. This will be recognized as the largest, most complex, and most surprising event on the planet. Weaving nerves out of glass and radio waves, our species began wiring up all regions, all processes, all facts and notions into a grand network. From this embryonic neural net was born a collaborative interface for our civilization (p. 206).

#### Convergence II

Convergence II occurred as business practices caught up with the changes in technology produced by Convergence I. It took a surprisingly long time for companies to reap the benefits of Convergence I, but the economic historian Paul David writes that perhaps we shouldn't have been surprised. When electrification began in the late 1800s, the factories that existed were built around steam technology – they were huge and designed to support massive steam engines. Saving money from electrification didn't happen overnight. To really save money, industrialists had to scrap those huge factories and replace them with smaller and

cheaper factories that were filled with the lighter and cheaper electric motors. “Only when there was a critical mass of experienced factory architects and electrical engineers and managers, who understood the complementarities among the electric motor, the redesign of the factory, and the redesign of the production line, did electrification really deliver the productivity breakthrough in manufacturing” (p. 207). The same process took place with the rise of the ten flatteners: Companies didn’t see the benefits until there was a critical mass of experienced managers, innovators, business consultants, etc. who understood the flat world platform. The major business change was *integration* among different departments and sometimes integration of different companies. Common standards had to be adopted so that everyone in accounting (and their computers) could talk to everyone in sales (and their computers). When two businesses found that a new product (e.g., a cell phone with a camera) required their two areas of expertise, they merged to form a new, more efficient company with expertise in each area and the integration to allow this expertise to flow smoothly to create a single product. The second major change was a shift from *vertical* organization (administration gives orders to management, which gives orders to production, etc.) to a more *horizontal* organization in which information could flow in both directions: production workers could alert the designers of problems and could suggest fixes. Work teams were put together with members from several different departments so that the needs of each department were represented. Companies became more democratic and individual workers participated more at many levels.

### **Convergence III**

The third convergence is demographic. In the 1990s, the nations of China, India, Russia, Eastern Europe, Latin America, and Central Asia opened their economies and political systems so that their citizens could participate on the global platform. At the same time that the global platform was being created, an additional 1.5 billion people suddenly became players.

It is this triple convergence – of new players, on a new playing field, developing new processes and habits for horizontal collaboration – that I believe is the most important force shaping global economics and politics in the early twenty-first century. Giving so many people access to all these tools of collaboration, along with the ability through search engines and the Web to access billions of pages of raw information, ensures that the next generation of innovations will come from all over Planet Flat. The scale of the global community that is soon going to be able to participate in all sorts of discovery and innovation is something the world has simply never seen before... True, maybe only 10 percent of this new 1.5 billion-strong workforce entering the global economy have the education and connectivity to collaborate and compete at a meaningful level. But that is still 150 million people, roughly the size of the entire U.S. workforce. (p. 212-213).

These people are coming “with an enormous hunger to get ahead by outlearning their competition. What we are witnessing is a mad dash – born of fifty years of pent-up aspirations in places like India, China, and the former Soviet Empire, where for five decades young people were educated, but not given an outlet at home to really fulfill their potential” (p. 214). We should not expect that it will take them as long to catch up with us as it took for us to get where we are now because they can learn from our mistakes. At the same time, it would be more productive to see them as potential collaborators rather than competitors.

### **No Time to Rest**

Rajesh Rao, founder and CEO of Dhruva Interactive, a small game company based in Bangalore, India, told Friedman, “We can’t relax. I think in the case of the United States that is what happened a bit. Please look at me: I am from India. We have been at a very different level before in terms of technology and business. But once we saw we had an infrastructure

which made the world a small place, we promptly tried to make the best use of it. We saw there were so many things we could do...There is no time to rest. That is gone. There are dozens of people who are doing the same thing you are doing, and they are trying to do it better...If there is a skilled person in Timbuktu, he will get work if he knows how to access the rest of the world, which is quite easy today. You can make a Web site and have an email address and you are up and running. And if you are able to demonstrate your work, using the same infrastructure, and if people are comfortable giving work to you, and if you are diligent and clean in your transactions, then you are in business” (p. 222).

#### CHAPTER 4: THE GREAT SORTING OUT

Surprisingly, the flattening process that we have been discussing was foreseen by Karl Marx and Frierich Engels, who published *The Communist Manifesto* in 1848:

The need of a constantly expanding market for its products chases the bourgeoisie [the ruling class of wealthy capitalists] over the whole surface of the globe...To the great chagrin of reactionaries, it has drawn from under the feet of industry the national ground on which it stood. All old-established national industries have been destroyed or are daily being destroyed. They are dislodged by new industries, whose introduction becomes a life and death question for all civilized nations, by industries that no longer work up indigenous raw material, but raw material drawn from the remotest zones; industries whose products are consumed, not only at home, but in every quarter of the globe...In place of the old local and national seclusion and self-sufficiency, we have intercourse in every direction, universal inter-dependence of nations...The bourgeoisie, by the rapid improvement of all instruments of production, by the immensely facilitated means of communication, draws all, even the most barbarian nations, into civilization. The cheap prices of commodities are the heavy artillery with which it batters down all Chinese walls, with which it forces the barbarians' intensely obstinate hatred of foreigners to capitulate. It compels all nations, on pain of extinction, to adopt the bourgeois mode of production; it compels them to introduce what it calls civilization into their midst, i.e., to become bourgeois themselves.

In this excerpt, we have the foreshadowing of multi-national corporations (“it has drawn from under the feet of industry...”), the rise of offshoring (“all old-established national industries have been destroyed”) and global supply-chains (“raw material drawn from the remotest zones”), and a concise explanation of why industrialized production has spread so quickly across the globe (“the cheap prices of commodities are the heavy artillery...”).

Harvard political theorist Michael Sandel does not follow Marx and Engels' to their prediction of a worldwide revolution of laborers but he does reflect on some of the human institutions that are being flattened by the flattening of the world. It is not hard to see the connections between the following quote by Sandel and George Ritzer's concerns in *The McDonaldization of Society*:

...[the flattening of the world] may also pose a threat to the distinctive places and communities that give us our bearings, that locate us in the world. From the first stirrings of capitalism, people have imagined the possibility of the world as a perfect market – unimpeded by protectionist pressures, disparate legal systems, cultural and linguistic differences, or ideological disagreement. But this vision has always bumped up against the world as it actually is – full of sources of friction and inefficiency. Some obstacles to a frictionless global market are truly sources of waste and lost opportunities. But some of these inefficiencies are institutions, habits, cultures, and traditions that people cherish precisely because

they reflect nonmarket values like social cohesion, religious faith, and national pride. If global markets and new communications technologies flatten those differences, we may lose something important. That is why the debate about capitalism has always been, from the very beginning, about which frictions, barriers, and boundaries are mere sources of waste and inefficiency, and which are sources of identity and belonging that we should try to protect. (p. 237)