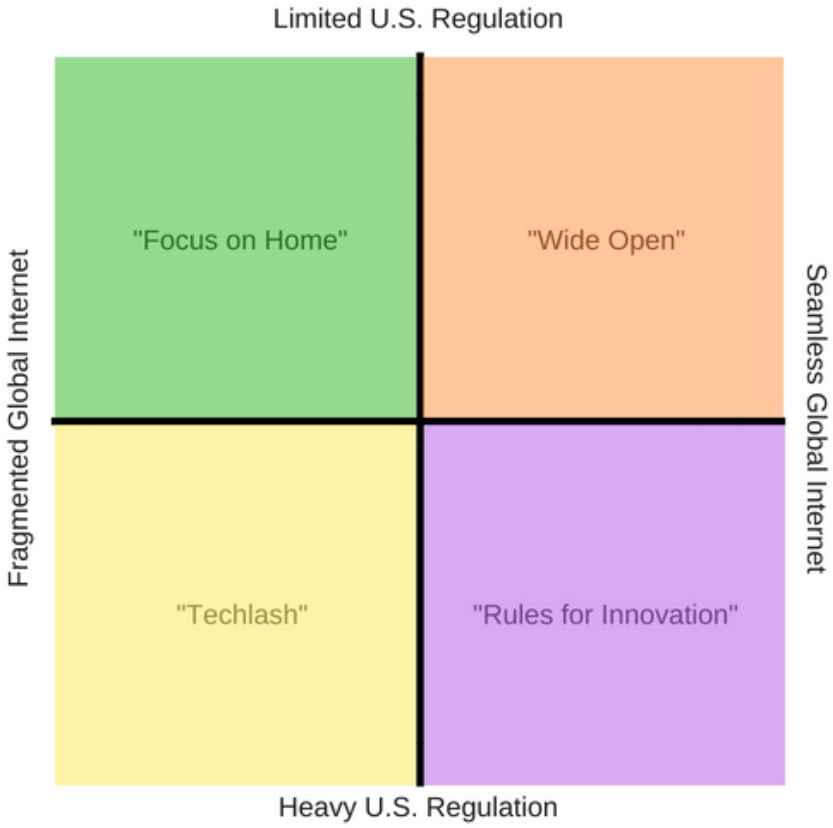
The Futures of Work: How Will the Internet Change My Job?

Peter Schwartz, one of the pioneers of scenario planning, in his book, “The Art of the Long View,” that you should use most important drivers that will shape the future to develop scenarios.

When it comes to the role of the Internet in defining the Futures of Work, two of the most important factors are regulation and Internet fragmentation. Other factors affect or are affected by these drivers but focussing on these two allow us to define four very distinct and instructive scenarios for the future of the U.S.

Each scenario is based somewhere between 5 and 10 years in the future.



Examples of U.S. Government Intervention: trade protectionism; privacy regulation; national security focused blocking and banning of companies and services

Examples of fragmentation of the internet: limits on foreign investment by either the U.S. or other countries; limits on global data sharing; foreign and domestic standards on cybersecurity; anything that undermines the ability of U.S. tech firms to operate at the global level, either domestically or abroad

Feel free to contest our stated “positives” and “negatives” for each scenario. These are simply discussion prompts.

TECHLASH

The Internet and social media are being blamed for a wide range of problems such as cyber-bullying, intellectual property theft, election meddling, and cyber-espionage. U.S. policymakers have become more inclined to regulate the Internet, particularly in the interest of national security.

Since many of the largest global internet and cloud players are based in the U.S., domestic policy decisions have a global impact.

Policies introduced include: mandated encryption backdoors; blocking the transfer of American user data to foreign companies; country specific limits on foreign investments; government-imposed strict cybersecurity standards and state-level privacy law.

There is concern that other countries may retaliate, imposing their own national rules.

As startups find it harder to bear the cost of new regulations, a few dominant tech companies emerge that are strictly held to account and heavily regulated by all levels of government.

Positives

- National security could be improved, cyber-espionage prevented, and there is limited access to US data by untrustworthy foreign actors
- Fewer data breaches occur due to very punitive measures against companies with poor cybersecurity practices
- Many established industries are less threatened by new entrants, either foreign or domestic
- Large U.S. tech companies are held strictly accountable by government

Negatives

- Innovation slows and U.S. tech companies play a smaller international role
- The U.S. market becomes less global as regulations on international trade make it more costly
- U.S. technology may not be globally accessible, and new foreign technologies may not be available in the U.S.
- Lower productivity and limited markets will mean fewer new jobs and wage stagnation, especially in the tech sector

Key question: How likely is it that policy makers respond to pressure from frustrated workers, the unemployed, and the underemployed by putting greater restrictions on technology?

WIDE OPEN

Government regulation is limited. The global Internet is available to all workers and companies, with access to a great choice of free or low-cost services.

There are few government restrictions on startups, such as on the use of user data. At least so far, many online services are customizable for users, and workers, businesses, and consumers have easy access to new tools and technology.

The on-demand and peer-to-peer economies are fast growing. For consumers, much of life begins to feel fairly automated, with most products and services readily available at the push of a button.

The changing economy requires some human support staff, but despite new jobs in automating industries, like customer service, many workers have decreasing access to traditional employment.

Some displaced workers find new work in the peer-to-peer and on-demand economies but government statistics fail to tell us how engaged and satisfied these workers are. The government decides to replace binary unemployment statistics with worker engagement and satisfaction.

Positives

- Fast innovation, with large portions of tech industry profits being invested in research and development leading to U.S. tech companies being globally successful
- Consumers, businesses, and workers are presented with a large choice in services that tend to be well integrated
- Acquisitions by big tech make successful innovators rich quick
- Employment opportunities are widespread, many young people work in several different jobs at once before deciding on a specific career path

Negatives

- Governments face pressure to update welfare, education, healthcare, and licensing regulations, but political disagreement has delayed solutions, leaving some people vulnerable
- Sometimes companies innovate faster than they can prepare best practices, increasing the risk of data breaches, fraud, employment malpractice, and poor treatment of workers and consumers
- Some workers who struggle to adapt to a new risk-taking entrepreneurial economy and may miss out on some of its benefits

Key question: Will workers in every sector benefit from unrestricted innovation and open markets

FOCUS ON HOME

A handful of U.S. tech companies hold large market share in their particular industries, and millions of U.S. citizens feel reliant on them for their services.

Recent, well-publicized data leaks companies, alongside accusations of unsupportive or even toxic work environments has put increasing pressure on the foreign governments to "reign in the American tech titans." As a result, they create policies that target U.S. tech firms, such as restrictions on data collection, taxation regardless of physical presence, media regulation, and licensing requirements.

Some U.S. tech companies decide to dial-down foreign investment and instead focus on their domestic market.

Punitive regulations and inefficient market structures abroad limits the reach of foreign tech companies. Few establish themselves enough to compete with dominant U.S. tech companies on the global stage.

Positives

- There is limited access to U.S. data by untrustworthy foreign actors
- While foreign companies may copy U.S. intellectual property, their lack of presence in the USA, and the lack of U.S. tech presence in foreign countries prevents IP theft having a great impact
- The U.S. economy grows much faster compared to other, more restrictive, countries and U.S. technological dominance therefore remains fairly uncontested

Negatives

- Transnational companies and their employees find it hard to collaborate effectively across national markets, slowing their growth and productivity
- The internet feels less global, and many are disappointed the rest of the world appears to be left behind as technology in the U.S. continues to advance – global inequality begins to grow
- The loss of profitable access to foreign markets does somewhat limit growth for U.S. tech companies, and the wider economy
- The lack of domestic competition from foreign tech companies limits consumer and business choice, and somewhat undermines the incentive for U.S. tech companies to innovate

Key question: How will workers be impacted by with the lack of global services and global interoperability?

RULES FOR INNOVATION

A handful of U.S. tech companies own large portions of domestic market share in digital infrastructure and services.

Governments, concerned about their unchecked influence on the U.S. economy, intervene in markets, attempting to consumers and guarantee competition. Policies implemented include net neutrality regulations on both telecommunications and "edge providers", data "ownership" or portability requirements, and rigorous antitrust enforcement.

Local governments begin to play a greater role in regulating how technologies are locally implemented, including restrictions on the peer-to-peer and on-demand economies to protect local businesses.

Positives

- In a world with limited competition, workers would not have to learn how to use new and different digital tools--just adapt as new versions of the services and new features from the "tech titans"
- Government tries to balance innovation, consumer welfare, and stability
- Checks on innovation mean minorities vulnerable to technological change, such as those without transferrable skills, feel more secure
- Work is more stable, and jobs are less likely to be threatened by disruptive, new technologies and business models
- The public generally feel more "in control" of their relationship with tech, and are less concerned about changes in the economy and how their data is handled

Negatives

- Costly regulation that limits the payoff from new technologies hinders innovation, particularly in areas that require large capital expenditure
- Lobbying by established industries is often used to harm competition and new tech
- Increases in the costs of compliance undermines U.S. startup culture, and workers dissatisfied with their current employment feel less empowered to start up their own innovative businesses
- Chinese tech companies are comparatively less regulated begin to take a larger share of the tech market overseas and in the U.S.

Key question: Can government regulations promote US technology companies AND help workers in non-tech sectors (e.g. brick-and-mortar retail, manufacturing, agriculture)?