

THE JOURNAL

Fall 2019 | Number 62

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PUBLISHER **J. Robert McClure III, Ph.D.** President & CEO of The James Madison Institute
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The Journal of The James Madison Institute

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Florida at the Forefront

Senator Jeffrey Brandes

FLORIDA SENATOR, DISTRICT 24

I have the honor of representing much of the Tampa Bay area in the Florida Senate as I am one of 40 members of the Senate and one of 160 members representing the most dynamic state in the U.S. Each day presents new challenges, new opportunities, and on occasion new threats. Our job as members of the Legislature is to represent those who send us to Tallahassee, to set policy goals to make Florida the most

prosperous state possible, and to create a climate to provide the most opportunity for hardworking citizens to flourish.

Over the next decade, roughly five million new residents will move to Florida, bringing the state's population to nearly 25 million. The growth Florida is experiencing is driven by shifting national demographics, the economic climate created here, and the catastrophic policy and fiscal decisions of

other states. As Milton Freedman said, “People vote with their feet.” Florida has become a home for economic freedom. From 1997-2017, more than \$185 billion in adjusted gross income has migrated from high-tax states to Florida.

While each of us elected come into office with diverse backgrounds, none of us are policy experts in every issue with which we are tasked. I am grateful to organizations like JMI who work alongside policymakers and provide platforms for thoughtful policy discussions across the state. My legislative colleagues and I, with the help of JMI’s world-class research, continue to build on Florida’s economic successes as we prepare for upcoming sessions.

While we must deal with the policy challenges of the day and address real-time issues, we must also be cognizant of emerging technologies. More and more, this means ensuring that our great state can serve as a hub for technology and innovation. No other aspect of life will determine the future prosperity of Floridians more than our ability to adapt to, embrace, and cultivate innovation and technological advances. Florida policymakers must focus on maximizing our options for the future.

With top-ranked public universities and a K-12 system climbing in the national rankings, we lead the nation in education policy, focusing on accountability while offering the most school choice options in the country. As the state’s population and the need for ever-more efficient commerce grows, the legislature is embracing next-generation mobility with technological innovations in automated, electric, and connected vehicles. Just one of several

examples of the legislature’s lead occurred in this past session with the development and deployment of transformational technology called SunTrax, a world class transportation R&D facility, connected with and located next to Florida Polytechnic University.

We possess all the elements to be a global leader in the 21st century economy – the entire playing field has been set in our favor, through the setting of conservative free-market principles. Florida continues to set the standard for disciplined fiscal responsibility, highly ranked by the Mercatus Center at George Mason University. By almost all metrics, our state government is leaner, more efficient, and with greater accountability and transparency than any other state in the nation.

Florida’s policy leadership in these and other areas has developed thoughtfully over the years and is largely driven by two prominent components: we have had the ability to sustain a shared vision over legislative cycles and have had champions, both in legislative leaders and passionate advocates, that have driven bold policy despite a term-limited legislature.

The Florida Legislature is focused on keeping Florida at the forefront. We are blessed to call this great state home and my legislative colleagues and I are fortunate to work with JMI and other groups that educate and enlighten the champions of the past, present, and future.

Senator Jeff Brandes represents Floridians of District 24 in the Tampa Bay/ St. Petersburg area



Innovation Is Our Story

Sal Nuzzo VICE PRESIDENT OF POLICY

I have the privilege of getting to travel across the country for JMI, speaking to groups small and large about how conservative economic principles ultimately are the best policy course for states to achieve the greatest amount of prosperity for all citizens. No matter the subject – healthcare, education, entrepreneurialism, criminal justice, environment, etc. – the common thread across all policy areas is that of innovation. The idea that the way things are now will inevitably be surpassed by the way

things will be five, ten, or 20 years from now.

I was a high school freshman at a boarding school in Wallingford, Connecticut in 1989. On the first day of orientation each year I stood in front of a clunky black and white 35mm camera to take a snapshot for a book that was circulated to all students as a quick way of getting acquainted with kids who came from all corners of the globe. The name of the book was, I kid not, the “Facebook.” Almost 30 years later, my high school classmates continue to share memories,

including our Facebook portraits, in our private group, yes...on Facebook.



Thank you, Frank Parent, for the reminder of how I never exited the “geek phase”

There is a running joke that “10 years ago the rules were don’t meet a stranger off the Internet, and don’t get in a car with someone you don’t know. Today you order yourself a stranger to get in the car with off the Internet.” Technology and innovation expand at exponential, rather than linear, rates. The phone I use to watch videos commemorating the 50th anniversary of the first moon launch contains 100,000 times more power than the computers that actually sent the first rocket to the moon. And it fits in my pocket.

Technology and innovation do not know a political party, a philosophical ideology, or an ethnicity. Individually and collectively, it is imperative for us to leverage both technology and innovation for our benefit. Or run the inevitable risk of getting left behind.

Florida is currently recognizing this, but that hasn’t always been the case. In

my many talks around the country, I often discuss the case of the 1982 graduating class at Miami’s Palmetto High School. On graduation day, the class valedictorian gave a relatively typical graduation speech. However, toward the end of that speech he made a bold claim – that he would change the world. Not that his class would, not that his generation would, but that he would change the world. And like so many other graduates of Florida high schools in the early ‘80s, he promptly left the state to seek out his path in life. He eventually landed, of all places, in Washington State.

Florida lost him, and so many others like him. We lost him because of the lack of economic opportunity at the time and a (valid) perception that Florida was not the beacon for technology and innovation. But what is so spectacular about this one Miami high school grad? Only that 12 years after his graduation speech, that Palmetto High valedictorian founded a small book shop using a relatively new innovation called the Internet, named it after a river in South America, and today Jeff Bezos is currently worth north of \$165 BILLION depending



on market fluctuations. And Florida lost him. To Washington State.

We didn't have to. And we don't have to lose the next one.

Fiscal conservatives, among which I count myself, often point to the past 20 years of our state's economic trajectory, in which Florida consistently has one of the best business climates in the United States. Our education system is improving through public school reforms and the expansion of school choice, our state government has one of the most efficient and effective operations in the entire country, and over the past 20 years – more than \$185 billion in annual income has migrated from states like Illinois, New Jersey, and Connecticut to Florida.

So, where does all of this intersect with innovation? Innovation is capital-intensive, and risk requires investment. Capital and investment flows tend to follow the path of greatest efficiency and where the markets lead them. While we often try to juxtapose Florida to California by way of regulations, taxes, and quality of life, there is a telling statistic that illustrates the road ahead for Florida. In 2017, Florida had its greatest year ever for venture capital investment – more than \$2 billion for the year. California captured more than that by the end of January, alone. In the first quarter of 2017, California attracted more venture capital than Florida had in the previous five years. That venture capital drives risk – it is the fertilizer of innovation. And despite all the challenges and roadblocks in its business climate, California is still light years ahead of Florida in this metric.

We now find ourselves at the launchpad. Our climate is ripe to create a state in which capital, risk, and innovation set the tone for global advances. We have done this in small business development, in agricultural production, in tourism, in international trade, in military infrastructure, and across the horizon of industries. The question we now must answer is, 50 years from now – what will our story of this century be? Will innovation be our story? Will we lead the way, or watch as progress passes us by?

It is against this setting that we seek to propel Florida forward. With all of this on the horizon, we are pleased to present to you this issue of *The Journal*.

In the Spirit of Liberty and Freedom,



Sal Nuzzo
Vice President of Policy
The James Madison Institute



Planning for the Sudden

Christopher Emmanuel

“**G**radually, then suddenly.” That’s the answer that Ernest Hemingway’s character in “The Sun Also Rises” gives in response to a question about how he went bankrupt. That curt reply could also easily describe how so many smart and established policies are being challenged and changed by rapid technological innovation. I have seen firsthand how emerging technologies have shifted the conversation around Florida’s

infrastructure, particularly when planning for autonomous and connected vehicles.

These transportation technologies have the exciting potential to change our society for the better, and each of them has already been proven reliable in certain cases around certain uses. Over the next few years, we should expect the market to grow, the technology to mature, and the business use case to strengthen. During this “gradually” phase, it is imperative for policymakers and

commentators to understand the broad trends of technology in order to properly plan for the future. It is even more important for Florida because of the commanding leadership position our state has taken in accepting and encouraging innovation.

The three technological trends most important to take into consideration are the rise of big data, the continuation of Moore's Law, and machine learning. Big data is the easiest to understand and the most commonly understood; essentially it is just the accumulation of a massive amount of information that may be (but many times is not) helpful for making decisions. Moore's Law describes the exponential growth in computer processing power as measured by transistor capacity, which has reliably doubled about every 18 months for nearly 50 years. Such incredibly fast growth means that a computer three years from now will be roughly four times as powerful, and in six years, sixteen times as powerful.

So, we have massive amounts of both data and computing power, with both increasing rapidly. The last trend, machine learning, can make the other two much more useful. Machine learning is the use of large computing power to create statistical analyses that gradually improve without being programmed. To better understand how this works, any good paper on the topic takes this next detour into the ancient Chinese board game, Go.

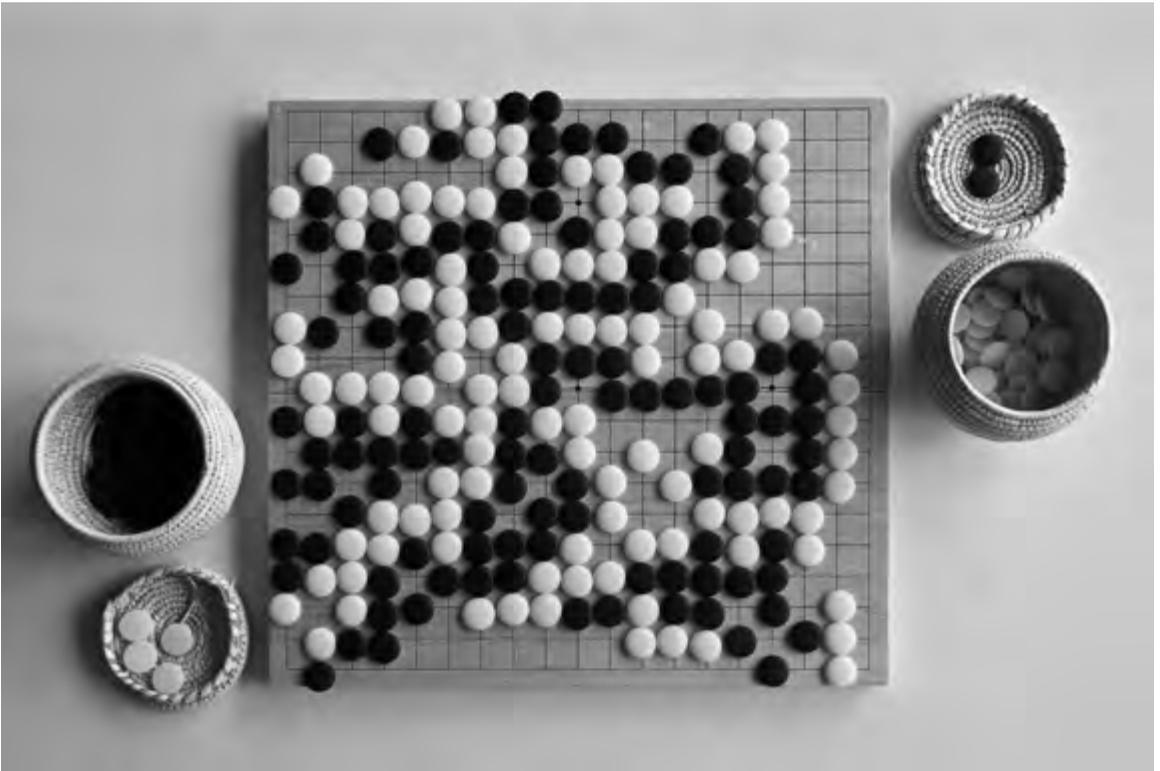
While Go has been considered the Eastern equivalent of chess, that metaphor is not quite right. Chess is a closed system, with only 64 squares and a limited amount of possible moves. Go, on the other hand, has almost an infinite number of possibilities.

Some have calculated that there are more feasible Go combinations than there are atoms in the observable universe. It is nearly impossible to have the same game twice.

Perhaps naively, I was not too worried when the computer program Deep Blue beat the world champion Gary Kasparov in Chess. After all, I was a nerd who spent my childhood playing chess and the computer program routinely beat me game after game. But the computer programmers who wrote those engines had the ability to study the notation of famous games played in the centuries beforehand to adjust their coding. Deep Blue, in a way, stood on the shoulders of nerdy, but human, giants.¹

When Google's machine learning algorithm Alpha Go played the world champion Lee Sedol, it was different. The program was left alone with the rules of the board and then rapidly taught itself the basics, then the strategy by essentially playing itself billions of times with minor adjustments. After the first few hours of this statistical reasoning, it played at roughly the same level as a child, with remarkably similar strategies. Then, after a few hours, it went through the variations that modern Go players study. Finally, Alpha Go surpassed the grandmasters completely, playing combinations that we cannot completely explain. These combinations were more statistically correct than anything a human could ever play. Alpha Go proved it by consistently beating Mr. Li, the greatest player ever, in these exposition matches.

These are interesting facts, but why are these three trends important to robot-driven cars? For starters, they point to the conclusion that the underlying



technological capacity is not a question of if it will be reached, but when. Secondly, our society has already made numerous decisions around human-driven cars which will need to be revisited when robots take the wheel. Take liability for example. Generally speaking, negligence, especially when we are talking within the automotive context, is based on the reasonable person standard. That means that an individual's actions are compared against what a reasonable person would do under similar circumstances. Product liability is strict liability; our legal system does not care how something broke or how it got to where it is, but only if it happened and if someone was injured. Ipso locator, the thing speaks for itself.

This works fairly well when there's a clear divide between those things that are

controlled by humans and those things that are, well, just things. For most of legal history, humans did not compete with synthetic objects over the exact same task. But for autonomous vehicles, the product is doing the same thing that the driver is doing, and today is doing so at a level comparable to, and in some cases better than, a typical driver. Our regulatory and judicial systems may soon be laying down the wrong incentives. Once autonomous vehicles are demonstratively safer than human-operated ones, shouldn't it be a policy preference to encourage automation in this context when it could save so many lives? To be clear, I am not suggesting that we are at that point yet. But either way, with rapidly increasing automotive data, a doubling of capacity every 18 months,

and computer programs that can do increasingly more complicated analyses, we are going to get there soon. Perhaps it is time to consider something else, maybe something like a reasonable robot standard where computers are not judged against the perfect but the possible.²

What I do know for certain is that we need to be planning for these future developments now, and Florida is leading the way. The Florida Chamber of Commerce has started down this path with its program Autonomous Florida, with the goal of making Florida the autonomous capital of North America. Governor Ron DeSantis is embracing transportation technology while focusing on safety across our roadways, signing important legislation like House Bill 311 which is arguably one of the most pro-business regulations in the country. Florida can now proudly boast six public

autonomous vehicle deployments. If we continue down this path, Florida can expect many more in the years to come. With this kind of forethought and responsible planning, changes can move from gradual to sudden, but not take us by surprise.

Chris Emmanuel is a Policy Director with the Florida Chamber of Commerce.

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- 1 Larry Greenemeier, "20 Years after Deep Blue: How AI Has Advanced Since Conquering Chess." *Scientific American*. (June 2, 2017) available at <https://www.scientificamerican.com/article/20-years-after-deep-blue-how-ai-has-advanced-since-conquering-chess/>
- 2 See Ryan Abbott, "The Reasonable Computer: Disrupting the Paradigm of Tort Liability." *George Washington Law Review*, Vol. 86, No. 1, 2018



Market-based Policies for Broadband in Florida

Mark Jamison

Digital information is growing in importance. E-commerce made up 10 percent of US retail sales in 2018, up nearly 70 percent over five years earlier. (Statista 2019) Business-to-business e-commerce in the US totaled more than \$1 trillion in 2018 (Digital Commerce 360 2019) and PWC Global reports that 80 percent of US CEOs expect that artificial

intelligence will significantly change the way they do business by 2024. (PWC 2019)

Participation in the emerging digital economy requires the use of broadband communications networks. This seems to naturally lead policy makers and sector regulators to look for ways that government officials can promote broadband growth. President Trump is championing the US

becoming a world leader in the newest mobile communications technology, called 5G. (Mihalcik 2019) Federal Communications Commission (FCC) Chairman Ajit Pai recently announced his intention to improve how the agency determines where broadband is available. (Robuck 2019) The city of Tallahassee, Florida recently launched a study of internet access within its boundaries. (Etters 2019)

For Florida, this attention to broadband begs two questions. Is there a deficiency of broadband in Florida, i.e., a broadband gap? If there is, what steps if any should Florida take to fill the gap?

This article analyzes broadband availability in Florida and what is needed to assess whether the current level of deployment of broadband networks is appropriate, and concludes with strategies that Florida could use to address the gap, if there is one, and makes suggestions for what might be the most appropriate course of action.

I. The State of Broadband in Florida

Broadband gaps are generally measured in terms of access and subscription. Access means that networks are physically available, and subscription means that individuals actually purchase network services. Both measures are expressed as percent of households or percent of population. For brevity, let's focus on access.

There are two basic technologies used for people to access broadband networks: Fixed technologies, such as coaxial cable and fiber optics,

and mobile technologies, such as 4G LTE (fourth generation long term evolution), which is what most mobile networks in the US use. Traditionally, policy makers focused on fixed access in the belief that it was superior to mobile access.

According to FCC data, Florida benchmarks competitively against the contiguous states of Alabama, Georgia, and South Carolina. Table 1 shows the percent of people in each state without access to fixed broadband for the years 2014, 2016, and 2017. Florida had greater access than nearby states each year, with only 3.8 percent of the population not having access to fixed broadband in 2018. The same pattern holds

Figure 1. Percent Total Population without Access to Fixed Broadband by State, 2014-2017

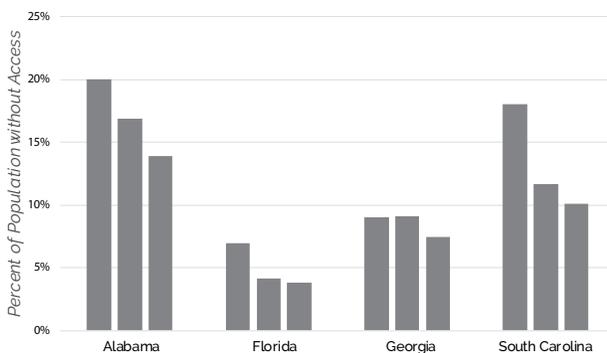
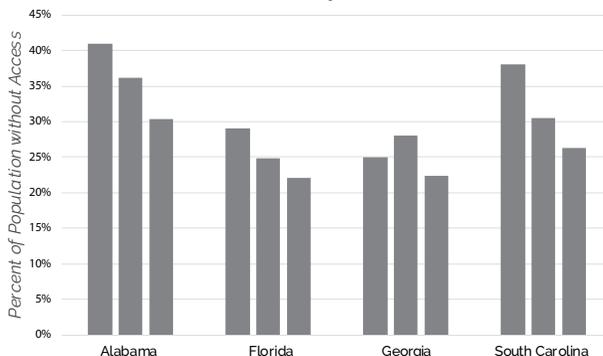


Figure 2. Percent Rural Population without Access to Fixed Broadband by State, 2014-2017



Source: FCC (2016, 2018, 2019)

for broadband in rural areas, where a little more than 22 percent of Florida’s rural population did not have access to fixed broadband. But as Figure 2 shows, rural broadband deployment in Georgia is nearly on par with that in Florida.

Even though Floridians fare well on average compared to their counterparts in neighboring states, there are wide discrepancies in broadband access across Florida. According to the FCC’s best estimates, all Floridians in 13 counties had access to fixed broadband 2018. In contrast, 0.8 percent of the residents of Dixie County had access, and less than 50 percent of Floridians in six additional counties had access. (FCC 2019)

Why do Florida counties differ so widely in broadband penetration? Per capita income and population density can explain some of the differences, but not all. Figure 3 shows fixed broadband density for Florida counties in 2018. The lighter circles represent the counties that have greater than 95 percent deployment, and the darker circles represent counties with less than 85 percent deployment. The sizes of the circles show the relative deployment densities. The vertical axis shows per capita income and the horizontal axis shows population density. In general, high-deployment counties have greater population density and higher per capita income than do lower-deployment counties.

However, the pattern isn’t universal. Per capita income in Walton County – a low-deployment county – is comparable to that in high-deployment counties. Indeed, population density appears to have greater influence over broadband deployment than does per capita income in Figure 3.

This relationship breaks down in Figure 4, which focuses just on low-deployment counties. Income seems to matter little as counties tend to cluster around the \$20,000 per capita level without having an apparent effect on deployment. The counties with greater deployment (represented by larger circles) are located at both the high end and the low end of the population density scale. So are counties with less deployment (represented by smaller

Figure 3. Fixed Broadband Density for Low Deployment and High Deployment Florida Counties, 2018

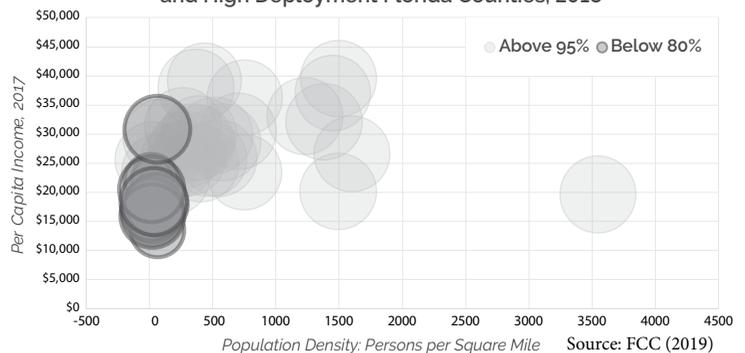
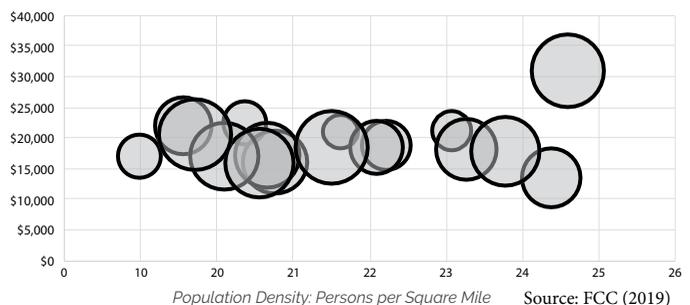


Figure 4. Fixed Broadband Density for Low Deployment Florida Counties, 2018



circles). So, while rural counties have less broadband deployment per person than do urban counties, population density does not explain differences between low-deployment counties.

While Figures 1-4 may give the appearance of broadband gaps, they do not tell the whole story: That 20 percent of rural Floridians do not have broadband access does not mean that this is a gap that should be filled. Two other analyses are needed for such a conclusion: What is the nature of the gap? Does government action pass a cost-benefit test? Neither analysis appears to have been conducted in the US, even though government has been subsidizing telecommunications deployment for over 40 years.

II. The Economics of Broadband Gaps

International best practice for identifying and assessing broadband gaps is to: (1) provide subsidies only where unsubsidized broadband is not commercially viable and (2) distinguish between areas that need help with startup costs and areas that need help with ongoing expenses. (ITU 2010) Best practice begins with identifying smart subsidy and true access gap zones. The smart subsidy zone is those rural or high-cost areas and low-income population groups for whom service is not commercially viable absent a one-time subsidy for initial investment. The true access gap consists of similar areas but with the added requirement that service isn't commercially viable without an ongoing subsidy for operating expenses and maintenance.

Gaps such as those identified in Figures

1-4 consist of smart subsidy zones, true access gaps, and market efficiency gaps. The latter appears misnamed as it does not result from a failure in markets, but rather represents a service reach that could be achieved in a fully liberalized and efficient market that lacks government barriers to competition. Such barriers might include barriers to rights of way, franchise fees, and required government permissions for service and/or facilities. This gap can be bridged through private markets if non-economic barriers are removed. (ITU 2010)

Once the smart subsidy zones and true access gaps are clearly identified, then it is important to assess the costs and benefits of attempting to fill them. For example, the FCC spent over \$42 billion from 2012 through 2016 on its programs for rural telecommunications, low income telecommunications, schools and libraries subsidies, and rural health care programs. This \$42 billion benefited the service providers and some customers, but it came at a cost. If, for example, the households that funded the \$42 billion had spent that money themselves, they might have spent an additional \$16 billion on housing, \$4 billion on health care, and \$672 million on education among other important items (assuming their additional spending was in proportion to how they spent their household incomes in 2015), according to data from the Bureau of Labor Statistics. An economically sound decision on whether government should divert citizens' incomes to fill broadband gaps should be based on an assessment that these personal expenditures are less valuable than broadband that appears to lack commercial viability.

III. The Economics of Filling Some Broadband Gaps

If government action to fill a broadband gap passes a rigorous cost-benefit analysis, the most effective means for filling the gap is to have private operators compete for subsidies through a reverse auction. A reverse auction in this case is an auction in which the bidding starts at the maximum subsidy the government is willing to provide and then private operators bid down the subsidy amount. Competition for subsidies ensures (as much as is possible) that tax dollars are not wasted. Competition within a market tends to give the best results for customers, but this competition isn't feasible in smart subsidy and true access gap zones. Consequently, the next best solution is competition for the market, an approach pioneered by Chile and Peru more than 20 years ago. In this process, the regulatory authority auctions the subsidy to the lowest bidder, similar to the process the FCC created for its Connect America Fund Phase II in 2014. Also, to ensure that tax dollars are not wasted, no subsidy is provided until services are actually delivered.

Fortunately, the FCC is conducting extensive work in line with the approaches described above. If Florida policy makers conduct their own gap and cost-benefit assessments and believe that Florida taxpayers should subsidize broadband over and above what subsidies the FCC is providing, it would be important to design a Florida system that complements the federal system.

The centerpiece of any Florida-specific program should be the FCC's system of auctions and subsidy caps with specific federal rollout commitments. If Florida wants faster rollouts or greater broadband speeds in some areas than what the FCC targets, Florida would have two options. One option would be to add funds to the FCC's system prior to an auction so that a single auction could be performed using the state's more aggressive broadband targets, and the FCC and Florida would split the subsidy commitment.

If the federal auction has already occurred, or if the area was simply under a subsidy cap, Florida could work with the FCC to either run a second auction or add a subsidy supplement for additional broadband. This would be difficult because the winner of the FCC auction would have an advantage over rivals, and because estimating subsidy needs absent an auction is difficult. Florida and the FCC would need to work carefully in establishing the subsidy the state would pay.

Florida policy makers might be tempted to choose a third path, namely the status quo of simply sending money to incumbent telecommunications providers. If policy makers choose this path, the FCC should have a one-subsidy policy: If any state or federal agency provides a subsidy that in any way duplicates the FCC subsidy, then the FCC would deduct that subsidy amount from its commitment to the recipient broadband providers.



IV. Conclusion

Providing a market-based approach for addressing broadband gaps in Florida is inherently complex. If Florida is to pursue filling broadband gaps, it should begin by carefully identifying to what extent any observed broadband gaps result from market participants simply needing time to deploy networks or uneconomic barriers to investment. Such gaps can be addressed by removing whatever barriers governmental

entities might have created. If true access gaps or smart subsidy gaps exist, then any gap policies that pass a cost-benefit test should center on complementing the work the FCC is doing to use competitive processes.

Dr. Mark Jamison is director and Gunter Professor for the Public Utility Research Center at the University of Florida, and a Visiting Scholar with the American Enterprise Institute.

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Soft Law and Emerging Technology in the States

Jennifer Huddleston

Technological innovation is moving faster than ever before, and society is adopting new technologies at a quicker and quicker pace. Still, policy solutions continue to move at largely the same pace they always have. This is commonly known as the “pacing problem.” In some cases, this disconnect can serve as a benefit that allows technology to emerge

without undue restrictions but, other times, the pacing problem can prevent technological adoption and innovation. So the question is, how can policymakers enable innovation and encourage new technologies when traditional policymaking seems unable to keep up?

As Ryan Hagemann, Adam Thierer, and I document in a recent law review article,

policymakers are turning to less formal and more flexible policymaking tools, which we refer to as “soft law,” to handle a wide variety of emerging technologies from autonomous vehicles and drones to advanced medical technologies and 3D printing.¹ While our paper focused on the use of soft law at the U.S. federal level, soft law mechanisms are also used as a tool for technology policy at the state and local level.²

In this essay, drawing on my paper with Hagemann and Thierer, I will introduce the concept of soft law and its use as a type of policy solution for fast-moving, emerging technologies. Next, I will provide examples of how states have utilized these soft law mechanisms. Then I will conclude by detailing some of the concerns regarding the potential abuse of soft law as well as possible ways to mitigate some of these concerns.

What is Soft Law?

Rules and regulations that guide and govern a policy area are no longer as clear-cut as they once were. Increasingly, a wide range of policies are made not through the more formal processes of legislation and regulation, but by sub-regulatory actions like non-binding guidance, multistakeholder processes, sandboxing, or the establishment of informal norms.³ These soft law mechanisms exist on a spectrum of formality and provide a range of certainty.⁴

In many cases, these tools can serve as a way of signaling that regulators will allow an innovation to continue to develop, while also providing both regulators and innovators much-needed flexibility during this development process. But such actions

also require a degree of regulatory humility that recognizes imperfect knowledge and solutions. Regulators must be willing to think beyond potential worst-case scenarios and consider the benefits brought by positive use cases as well.

While agencies seem to be using these new tools more and more, particularly with regard to emerging technologies, it is difficult to know exactly how many “soft law” actions have been undertaken. As Clyde Wayne Crews’ work on “regulatory dark matter” points out, the sub-regulatory and amorphous nature of such policy tools can make it difficult to truly count or quantify their impact.⁵ Yet, there are several notable examples at both the state and federal level of soft law acting as a policy solution for emerging technologies where traditional hard law has been ineffective.

New technologies pose challenges to existing regulatory functions in several ways. Notably, as discussed in the introduction, the pace of technological innovation often leaves existing policy tools struggling to adapt. This lack of adaptation will become a problem due to its propensity to allow for static, and often quickly outdated, rules that could prevent innovation. But the pacing problem is not the only reason for the emergence of soft law mechanisms. There are other reasons it has become a preferred tool for dealing with emerging technologies.

Many technologies blend or defy existing categories, forcing policymakers to take a new look at policy solutions that may require a more flexible and adaptive approach. Technologies are also increasingly able to seek out more favorable regulatory regimes⁶ or act first and seek

policy approval later.⁷ Sometimes the policy reaction to such disruption has been swifter and stricter as policymakers react to this evasion. This has played out particularly with regard to the sharing economy and micromobility devices.

While technological disruption free from any regulation may at times seem ideal to advocates of free markets, technologies rarely stay unregulated. Soft law can provide a pragmatic solution that is less restrictive than formal, traditional regulation. In doing so, it can offer certainty, clarity, legitimacy, and accountability to both innovators and regulators while remaining adaptive and allowing trust to develop between consumers, innovators, and regulators for new technologies.⁸ Soft law is far from perfect, but examining its usage in various forms for emerging technology can also reveal its usefulness as a policy tool.

Examples of Soft Law in Action

States and localities experiment with soft law mechanisms in various ways for many emerging technologies. Recent examples include less restrictive ways of regulating the testing and deployment of autonomous vehicles, sandboxes to allow new financial products, and various soft law tools in the deployment of micro-mobility devices like scooters.⁹

Currently, states have deployed a wide range of regulatory regimes when it comes to the development and testing of autonomous vehicles. They range from highly restrictive, as in California, to more permissive, as in Florida.¹⁰ Innovators are typically drawn to states that employ a more permissive regulatory approach in which

innovation is “presumed innocent” and permitted until it is proven harmful.¹¹ In many states, allowing autonomous vehicle testing and creating a system for their operation and deployment is done through formal legislation, rulemaking, or executive orders.¹² Pennsylvania, however, has taken a more soft law focused approach.¹³ This approach establishes a degree of certainty and encourages innovators and regulators to work together to determine best practices while retaining flexibility as the technology evolves.¹⁴ While this approach has many benefits over more traditional regulatory approaches, it still raises concerns about enforceability.¹⁵ Still, such an approach can be a highly beneficial alternative when states encounter difficulties in traditional regulatory processes that could impede important innovations.

The recent micro-mobility trend, particularly the emergence of dockless electric scooters, also provides examples of soft law in some localities. While some cities have banned the scooters outright over concerns, other local governments have taken a variety of more flexible approaches, including launching sandbox-style pilot programs or other more adaptive policy responses.¹⁶ While in many cases scooter launches have resembled previous sharing economy transportation platforms like Uber and Lyft, these collaborative agreements with companies allow policymakers and innovators to develop norms and terms of use for factors such as parking, use of rights of way and sidewalks, and safety.¹⁷ These agreements, unlike flat-out bans, encourage collaboration. This allows innovative entrepreneurs to respond to a

city's needs while also addressing legitimate concerns held by regulators. They also signal that policymakers are open to new, innovative ideas and willing to work with these emerging transportation options in a flexible way rather than simply regulating them away.¹⁸

Finance is typically one of the most regulated industries, but FinTech, blockchain, and other emerging technologies could solve many problems in providing financial services. However, issues arise as these innovations often fall outside of traditional categories and can be closed off by pre-existing regulations. Now, however, some states are working collaboratively with these innovators via sandboxes that allow products to launch and test without certain regulatory burdens that might deter or prohibit innovation.¹⁹ Like many soft law options, these testing grounds are not free from concerns. As my colleague Brian Knight describes, positive sandboxes use such innovative regulatory mechanisms in a way that protects consumers and benefits the public.²⁰ They also maintain an accessible and voluntary regulatory option for innovators so that more solutions will be able to enter the market and provide new options that might have otherwise been unavailable.²¹

These are not the only ways that policymakers are using soft law to respond to emerging technologies, but they provide some good examples of the beneficial ways states are taking a flexible approach that can allow innovation to flourish.

Mitigating the Problems of Soft Law

While soft law has probably been beneficial as a governing mechanism for emerging technologies when compared to clunky and static traditional hard law mechanisms, it still raises concerns. If the potentials for soft law abuse are fully realized and substantively considered before it is pursued, then, ideally, good governance would be able to mitigate these risks while maximizing its benefits.

Perhaps the most obvious risk is that soft law could merely allow the administrative state to grow larger while imposing even fewer checks on power than more formal regulatory mechanisms. This is a legitimate concern and highlights why substantive checks are necessary to ensure that soft law does not devolve into soft despotism.²² The courts can play a unique role in checking agency power and insuring those impacted have a means of redress when agency action, via either soft or hard law, crosses the line. In many ways, states have taken the lead in allowing courts to scrutinize agency actions in a truly thorough manner. While the federal courts provide varying levels of deference to administrative agencies under existing precedents²³, some states have removed agency deference while others never adopted such requirements in the first place.²⁴ For example, in 2018, Florida voters passed an amendment that ended the state's judicial deference to state agency interpretations.²⁵ In freeing courts from such requirements, these states also provide an example of what might happen on the federal level if deference was weakened or removed.

Of course, not all concerns relate to the role of the administrative state. As my Mercatus colleague Brian Knight has pointed out in his work on FinTech sandboxes, soft law that prioritizes one firm over another has the risk of becoming anti-competitive rather than expanding the market via new innovations.²⁶ Such a risk is not limited to FinTech but can occur in any scenario where the benefits created by soft law are limited to a specific number of players. For example, a similar example could be observed in limiting the number of companies able to participate in a dockless scooter pilot program. Policymakers can mitigate such concerns by allowing this regulatory flexibility to be accessed by all innovators who meet a basic set of qualifications and not privileging those who participate in the program by labeling them a “good firm.”²⁷

In many cases, if soft law proves to be successful, the response would not be to mandate additional regulatory requirements but to assess broader deregulatory possibilities for more traditional players in the industry.²⁸ Ideally, soft law might be coupled with broader regulatory reform actions to rein in the administrative state and its power.²⁹ This would help mitigate concerns about overregulation. Additionally, the assumption should not be that a successful use of soft law always requires more formal regulation, but also that it could show examples of where existing regulations may prove to be unnecessary in traditionally-regulated industries.³⁰

Conclusion

Technology is rapidly changing and developing, and the regulatory response to it should as well. In many cases, particularly at a state level, policymakers, recognizing the benefits of disruptive innovation, have embraced a more flexible regulatory approach via soft law. Rather than seeking to keep pace via static regulation that risks either being too late to prevent harms or so stringent as to prevent innovation, a soft law approach requires a degree of regulatory humility that can create a more balanced regulatory framework in a time of rapid change. There are certainly concerns surrounding how soft law, like many other policy tools, could be abused. However, substantive checks from both the other branches of government and the structure of the policies themselves can help mitigate those risks while maximizing the potential benefits that could be gained from this approach.

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Breaking Up “Big Tech” – a Bad Idea

Vittorio Nastasi

There is no doubt that our laws have failed to keep pace with technological innovation. In addressing these shortcomings, our eyes should be on the future and the seemingly endless opportunities for innovation that lie ahead. Yet, politicians on both sides of the aisle are looking to the past, channeling trust-busting sentiments from the Progressive Era.

Most prominently, Senator Elizabeth

Warren released a proposal to break up “Big Tech” as part of her 2020 presidential campaign. Meanwhile, Republicans in Congress have vocalized concerns over censorship by social media companies. Senator Ted Cruz recently stated that “by any standard measure, the big tech companies are larger and more powerful than Standard Oil was when it was broken up ... and if we have tech companies using their monopoly

to censor political speech, I think that raises real antitrust issues.” While monopolies and oligopolies are true examples of market failures, those terms simply don’t describe what’s going on with Big Tech today.

To be sure, companies like Google and Facebook have experienced tremendous growth over the past few decades. Since its founding in 1998, Google has expanded to employ nearly 100,000 workers, and Facebook—from its humble origins in a college dorm room—now reaches over 2.3 active monthly users. Together, these two companies and their subsidiaries account for over 70 percent of all web traffic.¹ This impressive growth has led many to conclude that the Big Tech firms are anticompetitive, but their growth has been driven by consumer preferences rather than special protections. In fact, proposals like Senator Warren’s call to break up firms like Google and Facebook only open the door to further cronyism and rent-seeking. Here are 5 reasons why these proposals just don’t make sense:

1. Tech firms provide a number of services, but that doesn’t make them anti-competitive

There are many search engines to choose from, but Google is overwhelmingly the most popular because it’s better than the competition. A major complaint in Warren’s proposal is alleged anti-competitive actions by Google such as prioritizing its own services in search results. For example, if you search “restaurants,” the first result will be a Google-sponsored map of nearby locations with other information like reviews, hours of operation, and price

levels—all in one easy-to-read box. Below that, on the same page of results, are links to competitors like TripAdvisor, Yelp, and OpenTable. It is hard to argue that this is harmful to consumers or severely limits competition. Results like this make Google more convenient, and competing services are certainly better off than in a world without search engines. Moreover, Google search is a free service because it generates revenue from advertisements. Warren’s proposal would require Google to separate its search functions from its other services including maps, reviews, advertisements.² The result: less helpful search that you’d have to pay for—that’s hard to sell as better for consumers.

2. Acquisitions are good for innovation

Start-ups are often swallowed by larger firms in an effort to limit competition. Facebook and Google, for example, have acquired a combined total of 362 companies—many of which were potential competitors.³ However, these acquisitions also make innovation feasible. Many small firms lack the capital to bring their ideas to market while larger firms have the scale and resources to absorb the costs associated with research and development. In effect, acquisitions shift risks from smaller firms to larger firms who can afford short-term losses.⁴ If, as Warren suggests, large firms were prohibited from making acquisitions, many innovative ideas would never see the light of day. The Department of Justice and Federal Trade Commission already have the power to prevent mergers that would significantly reduce competition. Impeding mergers without strong evidence of anti-



competitive effects would only decrease the expected payoff for start-up investors and reduce the incentive to form new businesses. On the other hand, allowing reasonable acquisitions to take place encourages new business formation, allowing innovations to reach consumers more quickly and at a lower cost—a win-win.

3. Big firms are better for data security and privacy

One advantage to scale is greater ability to invest in security. In fact, the big tech firms spend billions on developing new forms of encryption to protect user data. There is even competition among firms to provide better security because consumers demand it.⁵ Of course, there are genuine concerns about excessive data

collection and invasions of privacy, but it isn't clear that breaking up the big firms would mitigate these problems.⁶ Greater competition among smaller firms would create incentives to use our data in more profitable ways while limiting firms' ability to invest in security. Some regulation may be necessary to limit inappropriate uses of user data, but most current proposals miss the mark. It is critical that whatever legislation arises to address privacy concerns not be so restrictive that it prohibits future innovation.

4. Social media is good for free speech – even in the face of “de-platforming”

Think about a time before the internet and large social media platforms. If you wanted to express your opinions to a



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wide audience, your choices were limited. You could submit an opinion piece to a newspaper, but your opinion would be scrutinized by an editorial board, compete with other submissions, and—most likely—be rejected. Today, there are endless accusations of censorship on the part of social media platforms like Facebook and Twitter, but it is hard to argue that speech is restricted relative to any other point in history. Sure, guidelines for acceptable posts can be vague and content is removed with questionable justification, but private businesses should be allowed to remain private—even when it isn't politically

convenient. Otherwise, we risk setting a dangerous precedent. Proponents of intervention argue that dominant platforms like Facebook are so ubiquitous that they are necessary to modern life and should be treated like utilities. While competition among various platforms is different than in traditional markets, plenty of alternatives exist. Facebook CEO Mark Zuckerberg recently testified in front of Congress and his exchange with Senator Lindsey Graham illustrates this point well:

Sen. Graham: Is there real competition you face? Because car companies face a lot of competition. If they make a defective car, it gets out in the world, people stop buying that car—they buy another one. Is

there an alternative to Facebook in the private sector?"

Zuckerberg: "Yes Senator, the average American uses eight different apps to communicate with their friends and stay in touch with people—ranging from texting apps to email to..."

Sen. Graham: "Which is the same service you provide?"

Zuckerberg: "Well, we provide a number of different services"

Sen. Graham: “Is Twitter the same as what you do?”

Zuckerberg: “It overlaps with a portion of what we do.”

Sen. Graham: “You don’t think you have a monopoly?”

Zuckerberg: “It certainly doesn’t feel like that to me.”

5. More regulation really means more cronyism and less innovation

The growing tech industry may be filled with uncertainty, but the effects of regulatory encroachment are well known. Oversight sounds good at first but, over time, “mission creep” expands authority and regulatory bodies become empowered to pick winners and losers. The appeal of wielding government authority is too attractive for large firms to avoid. Before long, millions of dollars are spent on lobbying and other unproductive activities instead of generating value for consumers. Regulations will tend to favor politically connected firms, stifling competition and

reducing the incentive to innovate. Large market shares—when they result from market-based competition—are subject to changes in consumer preferences. When bureaucrats dictate outcomes, cronyism, rent-seeking, and corruption are almost sure to follow. The best way to avoid monopoly power and encourage innovation is to leave consumers in charge by allowing the market to operate freely.

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The Future of Commercial Space Technology and Florida

Dr. Adrian Moore

Home to the leading space operations site of Cape Canaveral, Florida has always been a major player in U.S. space endeavors. SpacePort Florida is already an attractive base for commercial space development and launches. The burgeoning private space industry's commercial development of space means

Florida must remain competitive as a launch and operations site. Florida's pro-business environment with no state personal income tax is a good start, but to understand how else Florida can position itself competitively, it's important to see where commercial development in space is headed. A recent Reason Foundation study argues for

rethinking NASA, government and private industry roles in space development to trigger the most advancement, and financial sustainability from where current technology stands.¹

NASA has contracted with the private sector for innovation and cost savings, but it continues to use the same antiquated and constraining structure that was first developed for exploring space. This carries an opportunity cost that slows the private sector's plans to harness space's many viable materials and properties, compared to the pace it could attain with a more market-friendly approach. Such activities could help solve Earth's most pressing problems and foster a commercial space industry that sustains itself financially.

Many space-based activities have commercial potential. For example:

- tapping space-based clean energy sources
- mining asteroids for useful raw materials
- developing safe venues for scientific experiments
- upcycling/sequestering hazardous but valuable debris currently in space
- tapping sources of water already in space, to decouple into oxygen and hydrogen for space fuels and oxidizers, and to provide radiation shielding mass
- using the low-gravity, low-temperature and other properties of space for many activities, including manufacturing and research

These endeavors—as well as our current use of space for communication, navigation, defense, etc.—argue for a change in our approach to space from the current exploration paradigm to one of commercialization. Transportation infrastructure will create the environment for private players to develop space-based industries that use commerce to greatly increase quality of life and decrease cost of living.

The basic infrastructure needed should be attainable in 10 to 20 years within the same budget currently appropriated to NASA, with the following features:

- Fuel depots (essentially gas stations) in an appropriate orbit
- Fuel (from water) and water itself
- A shuttle for travel to the lunar surface
- Lunar facilities, for resupply and water and aluminum mining for construction in space
- Orbital facility complex

While this list sounds ambitious, it is technologically feasible currently. It would allow the private sector to develop pragmatic use for space's assets much faster than government provision by creating a sustainable market-based economy in space. The current structure ties space development to conflicting political requirements and fails to fund projects adequately, making for suboptimal decisions by managers, administrators, and politicians. In contrast, changing to a commerce paradigm, in which government funds infrastructure, lays the foundation

for a sustainably-funded space industry.

In a commerce-based approach, much like we have with the seas and airspace, the private sector develops the space industry and NASA and other government parties buy transport and other key services, such as on-orbit facilities, as customers of the private providers. NASA has already begun buying some space transportation in this manner, just as we currently do with other transportation systems. Extending this good start and making it more consistent is the only way, within the current NASA budget, that leads to comprehensive advancement in space.

Given a functioning transportation infrastructure, as the private sector develops space industry, government's role changes to fostering that industry. This means a legal

framework in which to operate that defines and defends property rights, and research that leads to more diverse space activities. That allows commerce and private endeavor to flourish.

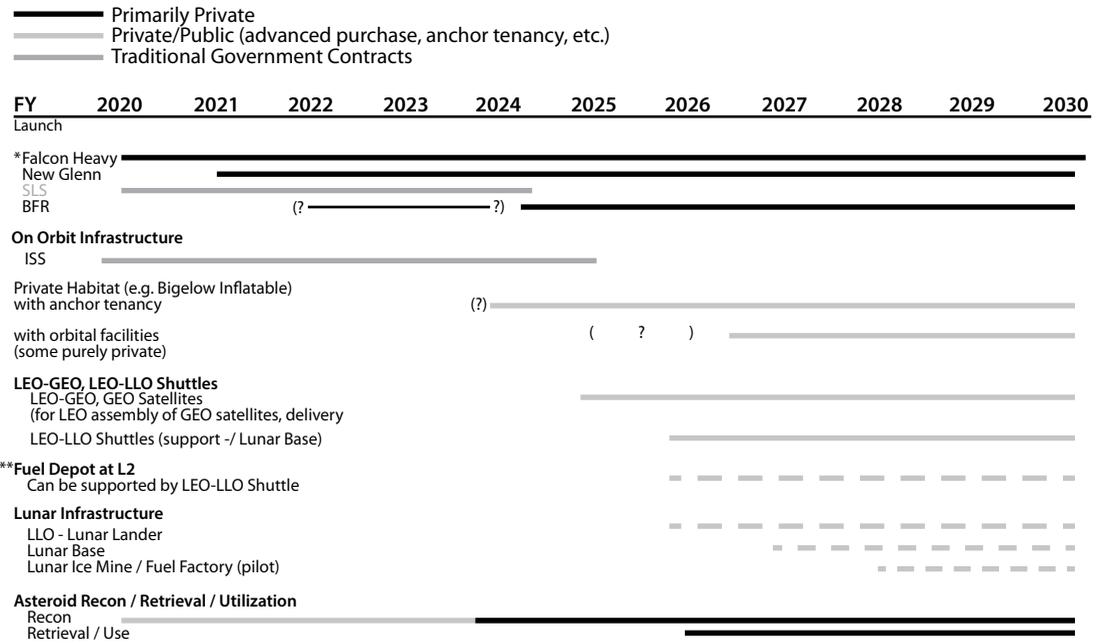
Commercialization Creates A Self-Sustaining Space Industry

Launch companies have created a profitable service focusing on occasional launches of very high-value payloads at very high prices. For example, the geosynchronous orbital position for telecommunications is so valuable that even our current highly inefficient way of accessing it is profitable.

SpaceX's Falcon 9 launch success at one-third the price of a traditional NASA-contracted launch demonstrates private-



FIGURE ES1: TIMELINE FOR TRANSITION TO PRIVATE SPACE PARADIGM



*Falcon Heavy has been in service since 2018

**Technologies for a fuel depot at L2 are proven feasible but development has not begun.

sector capability to fulfill many current NASA functions at a fraction of the cost. Such achievement frees up NASA to concentrate on its core research and exploration missions in space and allows the private sector to invest in self-sustaining space-based industry. Developing the industry depends on a certain amount of infrastructure, which can pay for itself by freeing up funds currently used for NASA's SLS (Space Launch System)/Orion program.

This redistribution of current NASA funding is the key to paradigm change, although there are political problems with terminating the current SLS/Orion program in closely contested states, like Florida, in the 2020 presidential elections.

A compromise solution might be to push for increased spending on commercial service purchase, while SLS proceeds to flight status, since the SLS will run out of surplus Shuttle engines by the early 2020s.

Changing to a commercial approach also allows for efficiencies such as mass production of equipment and standardized designs that can carry cargo or humans with few modifications—which is much cheaper and more effective than what we do now. No matter how much money Congress sinks into status-quo space activities now, utility will continue to decline, making funding increasingly ineffective, and keeping the U.S. space program confined. The first step in progress is systemic change, beginning with policy change. Every single change

that makes space operations more like airline operations bears fruit in lower costs, and those changes in turn trigger further reduction in costs.

Triggering Large-Scale Advancement In Space Without Additional Federal Funding

Private sector launch allows the market to exploit every available efficiency to develop the cheapest, most effective means of space travel. When NASA becomes a paying customer of such transportation, it fosters the development of simpler and vastly cheaper launch and vessels, which are now the most expensive, difficult and complicated part of space activity. With cheaper launch comes more launch—for the same or less cost.

With NASA as an anchor tenant on a privately contracted space station, funding is available for infrastructure such as orbital facilities, which expands current space activities and makes them better and cheaper to accomplish. Much like what the move to railroads did for U.S. exploration and settlement of the American West, transportation infrastructure levers progress in all sectors, usable

for commercial, scientific and military pursuits—without increasing NASA’s space activity budget. By redirecting funds, space infrastructure would likely be available by the mid-late 2020s.

The potential exponential cost reduction and technological advancement of such a paradigm shift cannot be precisely quantified. This is especially true in a frontier-like space, where we have only begun to identify caches of resources and uses of physical and material properties of space. The graph gives rough timeline estimates based on our current technological capability, knowledge of space resources and current costs, with firm estimates in the near future—through about 2025, when infrastructure would be complete enough to support a fully commercial space industry. From that point, estimates are less firm, as depicted by the graph’s dotted lines, as we cannot know which technologies will dominate and which additional resources and efficiencies will proliferate. New ideas will be tested, and many will fail. Some companies will fold, and others rise with new perspectives. Such a pattern and outcome are consistent with past technology leaps and acquisition

of frontiers. But we know from history that transportation infrastructure catalyzes economic advancement, and that industries are created and sustained through private investment and commerce.

Private actors and market forces have already slashed the costs of accessing space, reducing costs for not only NASA, but also civilian (mostly satellite) and military space transport as well. These cost reductions, especially for classified military applications, cannot be quantified within the current available budget breakdowns, but are likely to follow similar cost reductions to NASA's. As with other transportation industries, increasing efficiencies continue to drive down costs, but order of magnitude efficiencies come with infrastructure that can sustain an industry, as we have seen with shipping and rail industries and even with Antarctic exploration. The way forward for space shifts to an approach based on our current reality of new private launch capability at a fraction of the cost of government procurement.

To remain competitive in a more privatized space economy, legacy space states like Florida should consider what private industry, at current and anticipated

technologies, might want. These include specific changes like converting current single-use rocket facilities to those geared toward frequent reusable rocket launches, as well as broad changes like tort reforms necessary for companies to be willing to take controlled risks without fear of unreasonable liability, retaining and growing a labor pool highly skilled in new technologies, limiting business regulations that might stifle innovation, and maintaining efficient transportation/shipping capability for materials and workers.

Dr. Adrian Moore is the Vice President of Reason Foundation.

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The “Yen” And Yang Of Transforming Education

How to Turn Outdated Shopping Centers into Innovative Learning Centers

By William Mattox

Darkhorse presidential campaigns are often distinguished by their quixotic policy ideas. And Andrew Yang’s long-shot bid to become the 2020 Democratic nominee is certainly no exception.

In his effort to win over new “Yang Gang” supporters, the 44 year-old education entrepreneur has proposed a plethora of

peculiar policy proposals – including one that looks strangely out of place on the agenda of an aspirant for *federal* office.

It’s called “The American Mall Act,” and it would create a \$6 billion national fund to help struggling shopping malls all over the country. Specifically, Yang’s fund would seek to help malls innovate to “attract businesses, schools, organizations, and entrepreneurs

to find new uses for their buildings and commercial spaces.”

“Malls used to be a hub for socialization and commerce in many American communities,” Yang notes. But as e-commerce continues to take over more and more of the retail market, many malls are losing customers. In fact, Credit Suisse projects that 25 percent of U.S. shopping malls will close by 2022. Accordingly, Yang believes “these giant spaces need to be revitalized in order to spur investment in the local economy and to combat suburban and urban blight.”

Yang’s proposal is fraught with constitutional and jurisdictional problems. For starters, shopping mall revitalization is not among the enumerated powers of the federal government. And no branch of government – at any level – really ought to be in the business of creating special slush funds that favor specific commercial ventures.

Still, there is much to like about the notion of repurposing abandoned shopping centers for productive use in the 21st Century digital economy (provided it is a private market initiative rather than a public sector one). And the goal of such repurposing shouldn’t be primarily nostalgic – to preserve the favorite teen hangout of former “mall rats” like Marty McFly (Michael J. Fox’s character in “Back to the Future”). Rather, one major goal of mall repurposing should be to help future teenagers (and their younger siblings) attain an even better education than the one McFly received at Hill Valley High School.

Indeed, “schooling malls” could help address some very practical needs in

education today – such as overcrowding problems in areas with high population growth. Even more significantly, repurposed learning malls could help facilitate the rise of an alternative paradigm for how Americans think about education – a paradigm of highly-individualized learning that is vastly superior to the big-box model of K-12 schooling commonly seen in America today.

An End to “Undifferentiated Big-Box Education”

Education analyst Grant Lichtman, author of the book “Moving the Rock,” argues that “the tsunami of retail closures may well be a canary in the coal mine of ‘big-box’ education.” Lichtman notes that the disruption of the retail marketplace is being driven by e-companies that offer more than just the convenience of shopping online. These e-companies use big data and digital personal assistants “that know what we need or might want even before we do.”

“These future-focused consumer modalities are pretty much the opposite of the big-box stores that try to stock everything for everyone – at enormous expense in space, inventory, and people,” he says. Instead, these digital companies offer consumers product offerings tailored to each individual’s particular needs or preferences.

Lichtman believes “the parallels to undifferentiated, big-box education are just too clear to miss” and that schools that continue to operate with a big-box mindset “are in trouble, even if many do not see the warning signs.”

Yet, interestingly, even though digital



education software can now perform some amazing and individualized functions (like identifying and addressing a particular student's learning gaps), Lichtman does not believe that digital education ought to replace certain aspects of traditional, brick-and-mortar schooling. "Education is not retail," he says. "Learning is both relational and transactional; and, of the two, the relational is more important for long-term deeper learning."

Lichtman believes education often is more akin to shopping for a tailored article of clothing (where "fit" is highly important and having a personal relationship with the provider is often quite valuable) rather than shopping for a canned good or some other standardized product (where the exchange

is largely transactional and the value of personal interaction quite low).

Thus, the future of education ought not to be dominated by big-box schools that offer systemized one-size-fits-all instruction for the masses without the individualized learning opportunities that students increasingly want and need. But neither should K-12 education become the sole province of digital companies delivering highly individualized, self-paced learning content to students online.

For big-box education typically offers students relational learning without individualized "fit." And digital education typically offers students individualized "fit" without relational learning.

What is needed, then, is a highly

adaptable “hybrid” model of K-12 education that seeks to offer students the best possible “blend” of relational and remote learning, recognizing the different needs and interests of different students. Such a model would give parents the opportunity to choose a single provider – or multiple providers – for their child’s education. And such a model, ideally, would make it possible for students to do much of this learning under the same roof.

Which brings us back to the learning mall of the future.

What a Repurposed Mall Directory Might Offer

Historically, when people have gone to major shopping malls, they’ve found a wide variety of retail outlets there. According to the International Council of Shopping Centers (ICSC), the typical regional mall has at least two “anchor” department stores that take up at least half of the mall’s overall retail space and another 40+ specialty stores that divide the rest of the space. These smaller, “boutique” stores typically specialize in a specific area of merchandise (toys, women’s clothing, men’s clothing, shoes, hats, jewelry, health and beauty supplies, greeting cards, housewares, sporting goods, etc.), often competing with one or more of the anchors.

Indeed, shopping malls illustrate the value of both cooperation and competition in the marketplace, since mall merchants simultaneously work together (to attract shoppers to their mall) and compete against one another (in product lines they hold in common).

If shopping centers were repurposed

into learning centers, these same market dynamics very likely would occur. Large schools offering a wide array of courses in all the core subject areas would serve as education mall “anchors.” (For example, the Tallahassee Mall currently has a charter school operating in its space.) At the same time, small educational enterprises typically specializing in a single field of study where they have considerable expertise (foreign language, lab science, music education, shop class, etc.) would occupy “boutique” spaces that vary in size.

Like traditional mall shoppers, students would avail themselves of the learning mall’s offerings based on their varying needs (as determined by their parents). Some students would become veritable “learning mall rats” and spend as much time at their local learning center as they currently do in traditional schools. Other students, perhaps especially those taking advantage of online offerings at home, would come to the learning center less frequently and/or spend fewer hours when they get there.

The point is, repurposed learning centers would offer parents the opportunity to do in education what parents have always done when shopping for other goods and services – compare prices, look for the best “fit,” take advantage of exceptional values, and determine when to buy “generic” and when to “splurge” on some boutique offering that is of particular interest or need.

Put another way, repurposed learning centers would offer parents the opportunity to find the best blend of learning opportunities for their child. Rather than having to choose between two less-than-ideal extremes – standardized “big-box”



schooling or remote online learning – they’d be able to fashion the best plan for meeting their child’s specific learning needs.

The Need for an Alternative Education Currency

However appealing one may find turning outdated shopping centers into innovative learning centers, there is one obvious obstacle to this idea that would need to be overcome by state policymakers. (Yes, Mr. Yang, there is a role for government here – but it’s not what you think.)

In order to make this transformation possible, state policymakers would need to redirect the monies they currently allocate to education suppliers (school districts) and allocate them instead to education consumers (parents). While this may sound like a radical move to facilitate an uncertain outcome, it’s important to recognize that our supplier-based system of financing education is the primary reason public education in America is so heavily tilted in favor of big-box, one-size-fits-all offerings and against boutique, differentiated

offerings tailored to the unique needs of individual students.

So long as education suppliers have a financial pipeline that is divorced from individual consumer interests and needs, we'll continue to have an education system that caters to the interests of central planners. Which is to say that we'll continue to have a system that seeks to maximize one-size-fits-all standardization and to minimize individualized customization.

Thus, even if it did not lead to the emergence of a single learning mall, there still would be merit to converting our system of education finance from one that allocates monies to suppliers to one that provides "flexible scholarship accounts" for parents to govern. And such a move would hardly be radical.

In fact, Florida already offers parents of special-needs children access to per-pupil flexible scholarship accounts via the Gardiner Scholarship. These accounts function, in many ways, as an "alternative currency" with which parents can purchase a wide array of educational goods and services. And any unused monies can be saved for future use on a child's education, giving parents an incentive to seek the highest possible quality at the lowest possible price.

Universalizing these flexible scholarship accounts undoubtedly would draw lots of education entrepreneurs into the

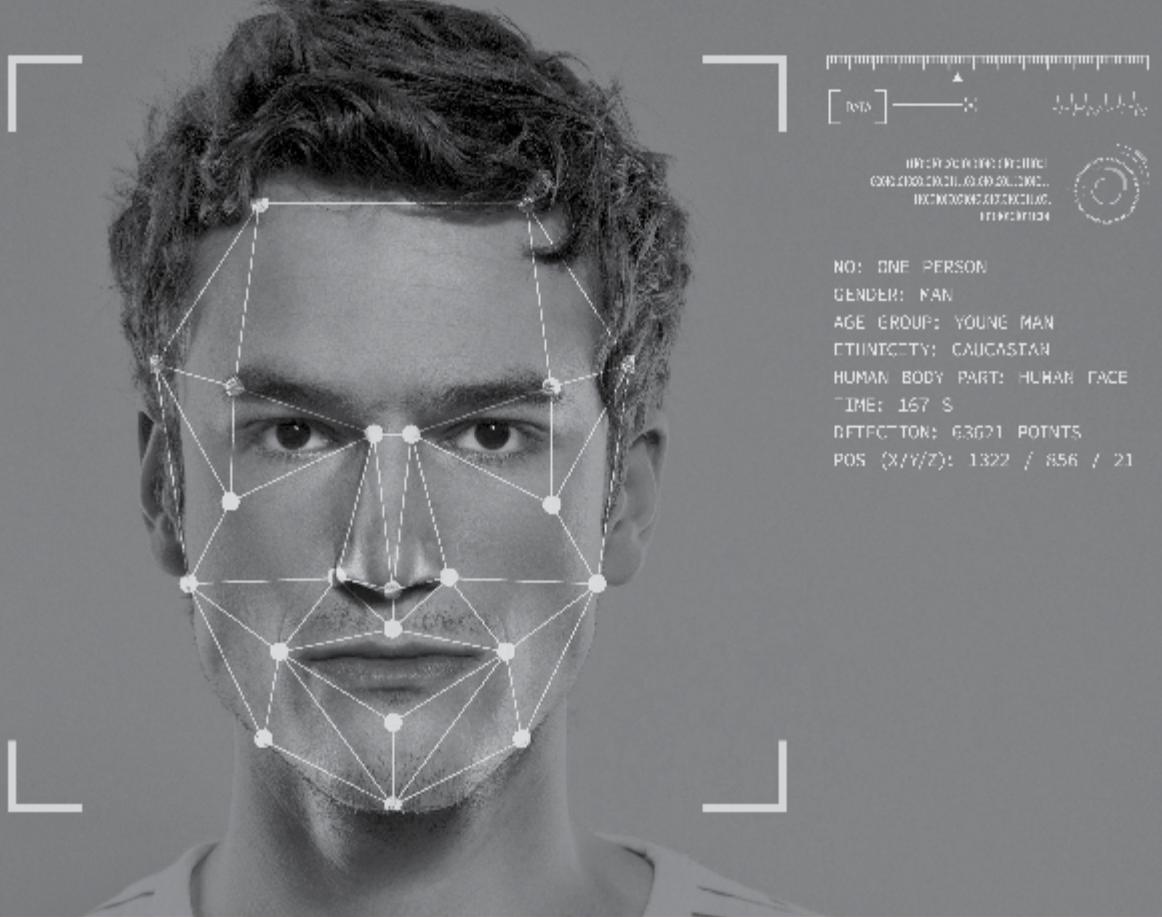
marketplace – some as "anchor" providers that bear a resemblance to existing schools, and many as "specialty" providers that offer families and students the opportunity to "go deeper" in an area of particular need or interest.

Less Yang, More "Yen"

In conclusion, Democratic presidential candidate Andrew Yang deserves credit for calling attention to the need for outdated shopping centers to be turned into innovative learning centers. But for this appealing vision to become a reality, we'll need less Yang and more "yen" (to borrow the currency term).

That is, we'll need for policymakers to deviate from Yang's reliance on central planners in the federal government to mastermind this transformation. We'll need, instead, for state policymakers to redirect existing education resources into per-pupil flexible scholarship accounts that parents can utilize to meet the specific needs of their particular children through a wide array of anchor, boutique, and online educational offerings.

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Facing the Future of Facial Recognition

Billy Easley

Imagine walking up to the automatic doors of your local convenience store only to find that, instead of opening, this time they remained tightly shut. This happened at a local Takoma, Washington convenience store earlier this year when the store started a facial recognition pilot program that compared images of known shoplifters to individuals who attempted to enter. If the store's camera and artificial intelligence matched an approaching individual with its database of facial images, the doors would not open.

When the Seattle Times interviewed patrons of the store, many of them were uncomfortable with the use of facial recognition technology. They argued that it was a privacy violation to be subjected to facial recognition without giving their consent or even being notified that they were under surveillance. In response, the store put up a sign stating that anyone who wanted to enter would have to abide by the facial recognition requirement. When the criticism continued to build, the company argued that their use of this technology

was based on safety concerns for both their employees and consumers (in 2017, over 400 people were killed in retail stores, according to The D&D Daily, a retail trade publication).

The experience of this Takoma community is a small-scale illustration of an incoming national conversation about commercial use of facial recognition technology. And these conversations will only become more commonplace as larger retail stores, like Target and Walmart, are already using similar technology to track inventory and to prevent criminal activity. Apple's iPhone X allows users to unlock their cell phone by looking at their phone instead of inputting a password. Security companies are using facial recognition technology because it's more reliable and less cumbersome than the traditional password system. The American public benefits from the rollout of facial and biometric devices through increased convenience and enhanced security. However, it's natural for consumers to feel anxious about this new technological innovation and to question its purpose. Lawmakers can respond to these fears by educating the public about the benefits of this rapidly evolving technology. They should also avoid banning the collection and use of biometric data. Adopting such a top-down approach would strangle the development of innovative uses of this technology. Instead, lawmakers should consider passing laws that: (1) require notice and consent from consumers before biometric data can be used for specific purposes, excluding security purposes; (2) allow state attorneys general to sue if they determine companies have

violated those requirements; and (3) require a violation to have resulted in harm before it can be prosecuted. These three principles will ensure that regulations will protect privacy without sacrificing technological innovation.

Lawmakers, communities, and privacy advocates have generally focused their skepticism about this technology on state and federal government use of facial recognition, rather than commercial use, and for good reason - when a convenience store uses facial recognition technology, the worst it can do is bar you from entering. When the government uses facial recognition, it can use that data as the basis to detain you or to deny you certain benefits or privileges.

Federal law enforcement agencies, including the Department of Homeland Security and Immigration and Customs Enforcement, have already started to deploy facial recognition tools to supplement their activities, but there are no comprehensive regulations guiding their use. States have also entered into agreements with federal entities to incorporate facial recognition technology into state law enforcement functions. The growing use of this technology resulted in Congress holding two hearings where lawmakers on the House of Representative's Oversight Committee shared a bipartisan desire to create explicit, limiting guidelines on data collection. Days after the committee's first hearing, privacy advocates, including the American Civil Liberties Union, asked Congress to impose a moratorium on the gathering of facial recognition data by federal agencies until regulations were signed into law.

In the midst of a contentious political environment, reining in government use of facial recognition is a rare bipartisan issue that could result in legislation being enacted.

States legislatures have been far more focused on regulating commercial, rather than governmental, collection and use of biometric data. Biometric identifiers include a multitude of data points beyond facial recognition, including fingerprints, retina scans, or even an individual's voice. These regulations, called Biometric Information Privacy Acts (BIPAs), govern the collection and use of an individual's biometric identifiers by commercial entities.

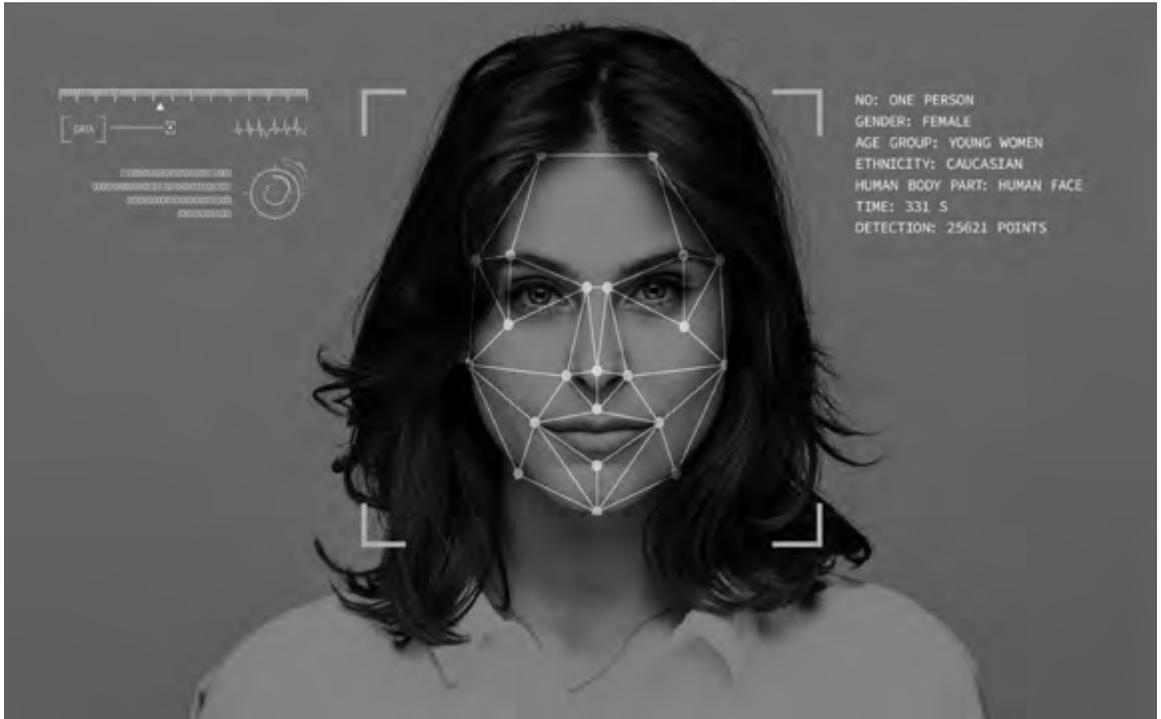
These BIPA laws usually have six components: First, they require any individual, corporation, or organization that obtains biometric data to receive written, affirmative consent before they can collect an individual's data. Second, they require companies to disclose for what purposes they're gathering the biometric data and how long they will maintain it. Third, they impose a reasonable standard of care upon any company that obtains biometric data, which creates a new legal duty to protect the information. Fourth, they require biometric data to be destroyed after a period of time. Fifth, they bar companies from selling biometric data to third parties unless an individual gives their consent. Finally, they create enforcement provisions, which usually means granting the state attorney general authority to sue companies that violate the law.

Three states have already passed BIPAs: Illinois, Washington, and Texas. A number of states are also considering similar

laws, including Alaska, Connecticut, Massachusetts, Michigan, Montana, New Hampshire, and New York. There are some critical differences between these laws and state legislators should find them instructive as they determine what types of regulations should govern facial recognition policy.

For instance, Illinois's BIPA was the very first to be signed into law and also the only one to include a private cause of action. Under the law, an Illinois resident can sue if they believe their biometric data was collected or used in ways that violated the law; for instance, if Apple didn't receive consent from an individual before taking a face geometry scan for the iPhone X's Face ID system. Illinois's law requires that an individual must prove that they have been "aggrieved" by a violation before they can be compensated under its BIPA. However, the Illinois legislature did not offer any guidance about what conduct rises to the level of harm. As a result, consumers have sued companies for clear technical violations of the law even if they weren't actually harmed. The result was a flood of litigation from plaintiffs and inconsistent court decisions regarding what types of legal claims violated Illinois's BIPA.

Howe v. Speed-way, *Rivera v. Google*, *Vigil v. Take-Two Interactive*, and *Monroy v. Shutterfly* are all examples of cases where federal judges struggled to answer the same question: if a company failed to receive affirmative consent from a consumer before collecting their biometric data, but there was no clear evidence of harm, should the plaintiff still be awarded civil damages? In other words, is the collection of biometric data, by itself, harmful to a consumer? In



Rivera, Google’s Photo feature used facial recognition to identify individuals who were uploaded by users, which is similar to Facebook’s feature allowing users to recognize mutual friends in their photos. Two people who were tagged in Google’s Photo feature sued the company but acknowledged that they had not suffered any financial harm. The court eventually decided to dismiss the case due to lack of harm, but no company would want to expose themselves to dozens of similar cases and legal liability.

This unstable legal and regulatory market has already had a negative impact on Illinois’s business environment and caused companies to not offer certain services in the state. For example, Nest, a doorbell-camera service that can use facial recognition to inform homeowners

who is at their front door does not allow that service in the state of Illinois out of an abundance of caution. Other services that use voice recognition are also not offered in the state.

Illinois offers the clearest lessons for state legislators considering similar regulations: first, biometric data policies should focus on regulating activity that harms consumers, instead of broadly restricting the collection of data. The public should know when their data is being monetized or shared to third parties without their permission. Washington’s law reflects this principle by only regulating the collection and use of biometric data if it is gathered for a “commercial purpose.” Washington’s BIPA defines commercial purpose as “a purpose in furtherance of the sale, lease, or distribution of biometric data to third



parties for the purpose of marketing goods and services which are unrelated to the initial transaction in which a person first gains possession of an individual's biometric identifier." This focus on the purpose of the data collection also allows policymakers to explicitly allow biometric collection that benefits consumers, like data gathered for security purposes. For instance, Nest allows for facial recognition services in the state of Washington because the state's BIPA has a security carveout.

Second, state legislators should empower state attorneys general to prosecute violations of biometric laws. As noted above, Illinois is the only state that allowed for private causes of action. Both Texas and Washington legislators declined to include similar provisions.

Finally, biometric regulations should only allow for litigation if there is a reasonable likelihood that a violation resulted in actual harm. It is a long-standing principle of American law that a case

cannot move forward unless a plaintiff can prove that they have standing. Put simply, that means an individual must prove to a court they have been impacted or injured by the defendant's actions before a case can proceed. The Supreme Court emphasized the importance of this requirement in 2016 when it reversed the Ninth Circuit Court of Appeals for not requiring a plaintiff to demonstrate what concrete injury they had suffered before deciding the case. Standing requirements are necessary because they separate the wheat from the chaff; courts can use them to filter out cases where no one can point to an actual harm and therefore there can be no real remedy.

Commercial facial recognition laws present a difficult task for lawmakers. They must respond to constituent fears about the collection of their data without unduly restricting technological innovation or punishing companies for conduct that doesn't harm consumers. It may not be sufficient for lawmakers and businesses to point out the commercial benefits to consumers, which include increased convenience and security. There may need to be targeted regulation of biometric data collection that responds to reasonable concerns about how this data is used. These regulations should be narrowly written and not include broad restrictions or bans on

commercial use of biometric data. They should focus on ensuring that consumers are notified and give their consent before biometric data can be collected based on the purpose of the collection, with specific exemptions for security purposes. They should allow for state attorneys generals to sue for violations of the law. They should also require that plaintiffs prove that they suffered actual harm before a case can move forward. If state lawmakers adopt these principles, they can protect the privacy of their constituents without harming American innovation.

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Disinformation and the “Deepfake”

Harith Khawaja and Christopher Koopman

This past May, a video of Mark Zuckerberg declaring that he owned billions of people’s stolen data was posted on Instagram, a platform owned by Facebook.¹ The video was fake. Using complicated data processing methods to alter publicly available footage of Zuckerberg, researchers manipulated the video to put words in Zuckerberg’s mouth. This is just the latest example of the new challenge facing social media

platforms, users, and policymakers trying to understand how to sort fact from fiction on the Internet.

One concern is that these videos could portray individuals doing or saying things they never did in an effort to spark unjustified controversy. For example, presidential candidates or the President might appear in places they never were, engaging in illegal activities. Police officers may be depicted as shooting unarmed individuals while

shouting slurs. Videos could show Muslims at a local mosque celebrating ISIS, an event that could possibly stoke violence against that community.² Or even doomsday situations in which newscasters announce the start of a nonexistent nuclear war.³

Another concern is that while these doctored videos are still easy to spot as fake now, it is becoming increasingly harder to do so. Standard video editing techniques can, at minimum, insert new objects, alter the pitch of people's voices, or change colors. The technology behind these "deepfakes" (the term given to these "fake" videos generated by algorithms called "deep" neural networks) allows programmers to superimpose faces and voices in real-time, or even generate entire videos or audio files from scratch.⁴ As a result, the doctored content is often indistinguishable from an authentic video.

This has a two-fold implication. First, viewers are fooled into believing that false content is real. Second, with the proliferation of deepfakes, viewers may be less willing to believe in real content because they would simply dismiss it as a deepfake. The resulting atmosphere is one where people can no longer believe what they see.

While many of the concerns about deepfakes involve worries about the future, these fake videos are already affecting real people. Since 2017, fabricated pornographic videos with the faces of celebrities like Scarlett Johansson, Maisie Williams, Taylor Swift, Aubrey Plaza, and Gal Gadot have been created and uploaded to online platforms like Reddit.⁵ Standalone apps have been released that enable users

with no technical experience to create pornographic videos of people they know just by uploading a few photos.⁶ In one recent case, a \$50 application available for Windows and Linux machines called "DeepNude" allowed users to undress a photo of a woman with a single click.⁷ After some backlash, the app was taken down. And critics point out that deepfakes have been repeatedly used to threaten, blackmail and slander women, and to establish dominance over their bodies, especially by representing them in non-consensual videos.⁸

These concerns may seem strong enough for policymakers to do something, but why hasn't anything been done about deepfakes? For one thing, to ban deepfakes is to ban the technology that's used to create them. The algorithmic basis for deepfakes can be assembled using open-source software toolkits developed and maintained by Google and Facebook, like Tensorflow and PyTorch. When it comes down to feeding these algorithms the data they need, programmers can obtain audio, video, and pictures online, for little to no cost. For reference, the first deepfake porn creators used Google image search, stock photos, and YouTube videos to train their algorithms.⁹ As deepfake technology becomes more and more accessible, it becomes increasingly harder — perhaps impossible — to ban deepfakes altogether.

Banning deepfakes would also forgo the positive uses of the technology. The algorithms behind doctored videos have also been used to create language processing systems like Alexa and Siri, music in the spirit of Bach, and art that has been auctioned at

Christie's.¹⁰ They have brought movie stars like Peter Cushing back from the dead to feature in film sequels.¹¹ And they are being used to generate high-resolution images to improve the accuracy of algorithms used in the healthcare industry.¹² Generated video could potentially be used in schools to teach history — imagine being transported back to World War I — and create images of extinct species that could promote conservation purposes. By banning deepfakes out of fear, we risk losing the benefits.

So how else can we effectively moderate how deepfakes are used? One suggestion has been to strip the legal immunity online platforms have under federal law.¹³ By making platforms liable for user-posted content, the argument goes, platforms would be incentivized to remove harmful content like deepfake porn, which would make the online world safer for everyone.¹⁴

Yet, this argument may end up having more costs than benefits. The Electronic Frontier Foundation, for example, has described section 230 of the Communications Decency Act (which created the immunity that online platforms enjoy) as “perhaps the most influential law to protect the kind of innovation that has allowed the Internet to thrive since 1996.”¹⁵ The promise of immunity from liability has allowed Facebook, Twitter, YouTube, Yelp and other startups to take off, and is why the Internet ecosystem has been so dynamic and competitive. Amending this protection in the name of stifling deepfakes could deal a far-reaching blow to the Internet.

This is not to say that nothing could be done. And perhaps efforts should be less focused on banning and more on identifying

deepfakes. Once a video is identified as such, efforts can then be made to inform viewers. This, however, is a difficult task.

Some argue that deepfakes can be spotted with the naked eye. By examining a video closely enough, and by concentrating on features like the perimeter of people's faces and background colors, experts can identify whether or not it is fake.¹⁶ The idea is that doctored videos often have irregularities in color, sound, pixelation and content. By detecting these irregularities, we could expose deepfakes.

While this might be a successful short-term approach, it is not going to always work. As we mention above, the quality of deepfakes produced continues to improve. Over time, these irregularities will become less and less frequent. Experts have predicted that, within a year, deepfakes will become visually undetectable by humans.¹⁷ Beyond that point, fake and real will become indistinguishable. This troublesome thought has prompted researchers to develop technologies that could do the identification for us. The US Department of Defense's Advanced Projects Research Agency (DARPA, which built the precursor to the modern internet), has spent millions of dollars toward this end. Their “media forensics” approach has endowed researchers to develop algorithms that can identify telltale signs of media manipulation much more accurately than the human eye.¹⁸ Research into this approach is ongoing but shows promise; one experiment achieved up to 92% accuracy.¹⁹

Deepfake videos raise hard questions with no straightforward answers, especially related to how to regulate them. The first

step for effective moderation, however, is increased public awareness. Policymakers should take the necessary steps to get themselves acquainted with the issues surrounding the virality of deepfakes and the immense personal and institutional threats they pose. On this front, there has been some activity. This summer, the US House of Representatives held the first hearing on deepfakes. While these efforts continue, it is important that we take a balanced approach that allows for the benefits of the technology used to create deepfakes to emerge while seeking to mitigate the harms that could occur as a result of fabricated content. Only then can we begin to provide real solutions to deepfakes.

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Permissionless Innovation in Insurance Markets

Jordan Reimschisel

We live in an uncertain world, prone to tragedies during what seems like the worst possible times. Thus, since the earliest-known societies, humans have sought ways to mitigate these uncertainties. Insurance is one such highly effective tool.

Insurance practice consists of two main parts: underwriting and rating. An

insurance company must, with some degree of accuracy, determine how much risk is associated with a group of individuals undertaking a certain activity, and then charge each of those individuals a rate that will adequately cover the anticipated losses. The calculations and decision-making processes that go into this task can be incredibly complex.

In general, the more information the insurance company can access, the more efficiently the company can distribute the risk it is assuming. For example, life insurance companies already consider information about an applicant's occupation and hobbies, as well as family and personal health history when writing a policy. It is critical to the long-term financial health of an insurance company to develop policies using as much accurate information as possible.

Thus, outright bans on the types of information insurance companies can access are concerning. A much better approach is to carefully consider the likely risks and benefits of allowing insurance companies access to certain types of information and to adopt a permissionless innovation stance towards the issue.

Permissionless Innovation

Scholar Adam Thierer lays out the permissionless innovation framework in his book of the same name by contrasting it with the prevailing attitude known as the precautionary principle. Under a precautionary model, "New innovations should be curtailed or disallowed until their developers can prove that they will not cause any harm to individuals, groups, specific entities, cultural norms, or various existing laws, norms, or traditions."

Permissionless innovation flips that approach on its head and alternatively "refers to the notion that experimentation with new technologies and business models should generally be permitted by default." Only when an opponent can compellingly convince policymakers that a new

innovation will cause serious, irreparable harm to society should innovation be inhibited by regulation.

Use of Genetic Testing in Insurance Markets

Over the last two decades, the cost of sequencing a genome has fallen at an astonishing pace. Thus, genetic testing is now affordable for most consumers. An entire industry has sprouted up to offer individuals a DNA evaluation on everything from ethnic heritage to nutrition recommendations. Several companies in this industry, like 23andMe, have become household names.

Innovation in this field has already profoundly impacted medicine. Genetic testing is now serving to tailor pharmaceutical prescriptions to individual patients, detect serious diseases like cancer earlier, and help prospective parents avoid bearing children afflicted with life-threatening diseases.

The future looks even brighter in this field. Eventually, physicians may be able to sequence any individual at birth and determine, with reasonable accuracy, his or her susceptibility to a host of diseases along with the most effective treatments for these likelihoods.

Such information would be as valuable to insurance underwriters as it is to physicians. Understanding an applicant's likely medical risks and what kinds of treatments for which they may be a good candidate can help the underwriter to create a well-tailored policy that fits that individual applicant.

Genetic Information Nondiscrimination Act

The federal government has already placed limitations on what information some types of insurers can access. The Genetic Information Nondiscrimination Act (GINA) prohibits health insurers from using genetic information to make decisions about eligibility, premiums, contribution amounts, or coverage terms. Additionally, forty-eight states have similar prohibitions against the use of genetic information in health insurance.

GINA does not apply to life insurance companies or long-term care (LTC) insurance companies. This makes sense when considering the difference between their policies and health insurance policies. Health insurance reimburses third-party providers for medical procedures. Often these are routine procedures costing in the thousands of dollars or less, rather than in the hundreds of thousands. Both life insurance and LTC insurance protect against the death of a provider and chronic medical conditions respectively, in turn demanding hefty payments.

Additionally, health insurance was made mandatory by the Affordable Care Act. Anyone who does not purchase health insurance is penalized, though that penalty is now assessed at zero dollars due to a provision in the most recent change to tax law. Life insurance and LTC insurance are entirely voluntary products sold on the private market.

Finally, health insurance premiums are reassessed every year, while life insurance and LTC insurance policies are usually structured to have flat premiums for the

entire lifespan of the policy.

These differences make it imperative that life and LTC insurers accurately calculate the risks associated with each applicant. Failure to do so could result in the assumption of too much risk and inadequate finances to cover policyholders.

Extending GINA to Life and LTC Insurers Is Problematic

Recently, scholars suggested extending GINA's prohibition on the use of genetic test results to life and LTC insurers. Concerns ranged from discrimination against those who receive unfavorable test results to the possibility that requiring genetic testing to obtain life or LTC insurance would discourage individuals from seeking out potentially life-saving testing.

While these are valid concerns, a ban on the use of genetic test results may also have unintended consequences.

Primarily, a complete prohibition on the use of such test results would limit insurance companies' ability to offer innovative pricing schemes. Without such a ban, insurance companies could offer premium discounts to applicants who submit genetic test results predicting a relatively healthy life, free from genetic markers for such diseases as breast cancer or Parkinson's. Insurance companies could even offer couples considering starting a family the kinds of policies they can open in their future child's name at low premiums if the couple submits results showing they are not carriers for any life-threatening diseases. Such policies would relate to car insurance companies reducing the premiums of individuals who demonstrate that they are

safe drivers. However, companies could not offer such policies with a complete ban on the use of genetic tests in place.

Additionally, if such prohibitions are enacted at a state level, the first state to pass such a ban would be at a disadvantage due to adverse selection. Individuals who uncover the potential for contracting cancer in their future may travel to the state with the ban in order to open a policy. This would create information asymmetry, skewed to the applicant. If this health risk does not appear in traditional sources of information (health history, family history, and medical records), then the insurance company would not be able to properly account for the risk they are undertaking by insuring the applicant. The likely result would either be more expensive premiums for all those insured, or long-term financial instability.

Other Options

While a complete ban on the use of genetic test results is ill-advised, allowing their use without any regulation whatsoever may also be imprudent. However, there are steps that can be taken to mitigate these risks short of an absolute prohibition.

Limits should be set on the kinds of genetic tests that insurance companies may solicit. Due to the falling price of genetic sequencing, the genetic testing industry has exploded. There are now more than fifty direct-to-consumer (DTC) testing kits available on the market, as well as traditional testing performed in a clinical setting. However, there are concerns regarding the privacy practices of these DTC companies and the accuracy of the tests they sell. To guarantee insurers are using the most

reliable information, they should be limited to soliciting genetic tests that have been ordered by a physician in a clinical setting. Generally, these types of tests have been evaluated for analytical validity, clinical validity, and clinical usefulness. Further, physicians and the laboratories where they practice are required by law to adhere to strict privacy standards when handling genetic data.

Additionally, state policymakers could consider policies similar to the protections enshrined in the Health Insurance Portability and Accountability Act (HIPAA). HIPAA restricts with whom covered entities (health insurers, health care providers, and health care clearinghouses) can share protected information, and requires that covered entities enact safeguards to ensure that such information is not improperly shared. Currently, life and LTC insurers are not covered by HIPAA. Requiring such insurers to protect the genetic test results they receive from applicants in harmony with HIPAA can further protect applicants' privacy.

Finally, policy makers should avoid the temptation to implement an outright and blanket prohibition on insurers denying coverage based on genetic test results. While at first glance such a policy would appear to protect against perceived unfair genetic discrimination, if insurers are forced to cover all applicants regardless of actuarial standing, they would be forced to charge higher prices that adequately account for the increased risk of these applicants. Such a ban led to the triple-digit premium increases in the implementation of the Affordable Care Act. If insurers cannot

charge higher prices to riskier individuals, the long-term fiscal health of the insurer will be compromised.

Conclusion

Insurance is a complex business that relies on enough accurate information to adequately account for an applicant's risks. As genetic testing continues to evolve and become more precise, it will be an increasingly valuable tool for insurers.

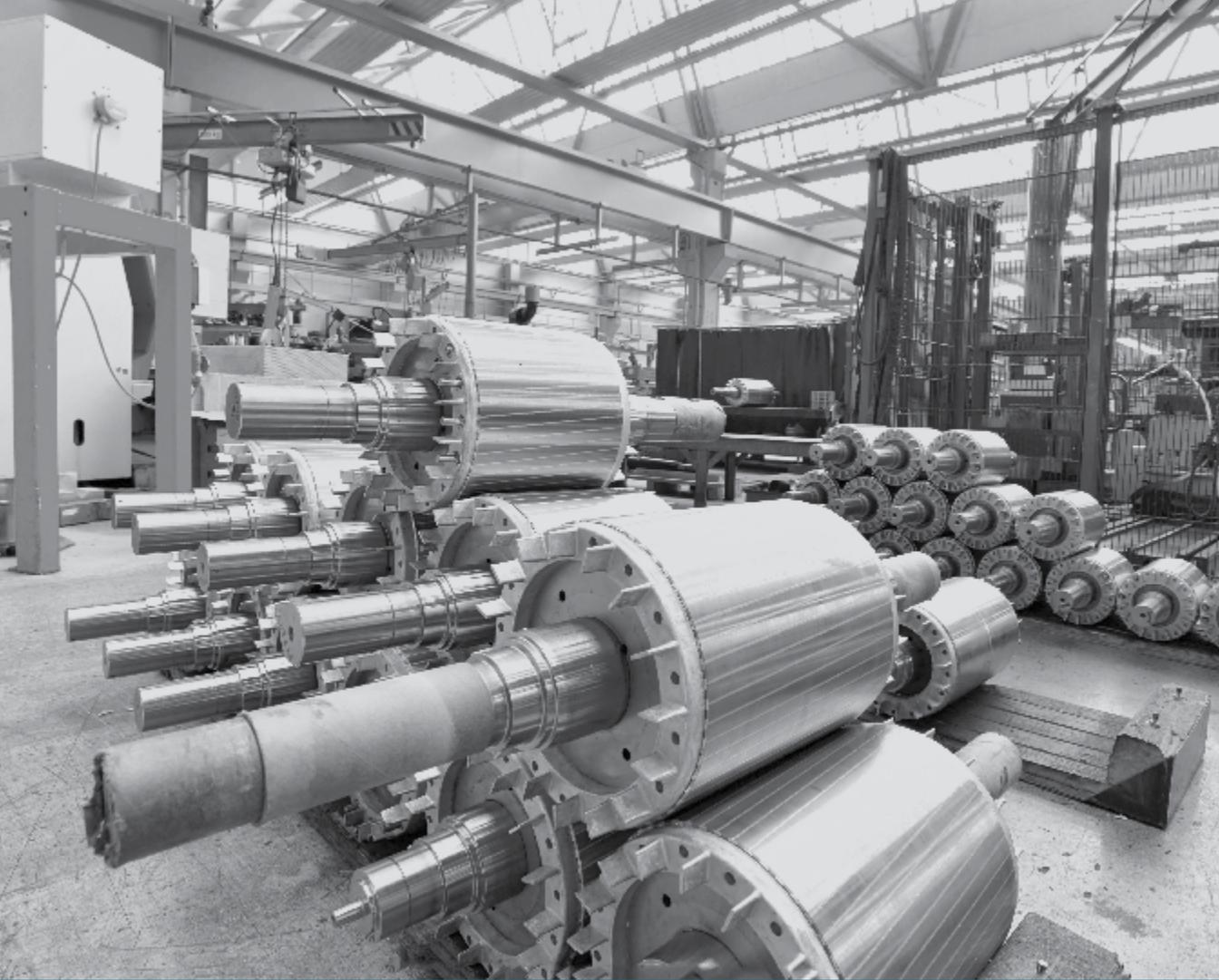
Prohibitions on the use of this information would inhibit innovation in the insurance business and could threaten the long-term financial health of the industry.

More importantly, barring genetic testing results would impact consumers

seeking insurance policies. A ban could limit the opportunities for consumers to save money through innovative pricing schemes and cause unnecessarily-inflated premiums. These higher prices would limit the ability of those most vulnerable to obtain protection against life's uncertainties.

However, adopting an attitude of permissionless innovation and allowing insurance companies to use genetic information within reasonable limits could open these valuable products up to more consumers and result in protection and peace of mind for many more.

Jordan Reimschisel is a J.D. candidate at Saint Louis University School of Law



ISO Standards – Promoting American Innovation in a Global Economy

Bartlett Cleland

Not all national policy is made in the U.S. Congress or in the state legislatures. Critical economic decisions do not all emanate from US counties or cities, and not even from global capitols. Some very consequential public policy challenges are found in international bodies where few would even think to look. One such body is the International

Organization for Standardization.

The International Organization for Standardization, or ISO, was founded in 1946 as a new international organization “to facilitate the international coordination and unification of industrial standards.” To date it has published tens of thousands of standards covering virtually all parts of manufacturing and technology. Such

standards are generally a good thing, as they help consumers to understand the quality and safety of products and services. Businesses also benefit as these standards help to increase productivity and reduce costs. But understanding how these standards are developed and by whom is critical to understanding the importance of the “right” standards being created, and to understanding the critical debate now underway.

At ISO, the standards are developed by experts from around the world in the particular subject area where the standards will be applied. The benefit is that a great deal of knowledge and expertise pours into the creation of the standard. But the creation of the “wrong” standard, one that does not reflect what is already under way

in industry, can cause industry to have to reimagine their processes and controls, thus costing time and money. The challenge is to develop standards that avoid forcing a remaking of industry to fit into some new model. As a case in point, ISO 9000 forced exactly that result in the US.

Introduced in the later 1980s, the ISO 9000 series of standards created guidelines and requirements for the operation of quality management systems, to define, establish, and maintain an effective quality

assurance system. The standard had its beginnings in World War II. The British Ministry of Defense took measures to reduce the mistakes, and the inevitable accidents, resulting in the manufacturing of munitions. Around the same time, the U.S. Department of Defense, notably the Air Force and the Navy, published procurement standards that required those who were supplying the military to comply with quality assurance requirements focused on the management of procedures rather than the actual manufacturing.

By the 1970s, the need for quality assurance beyond the military was obvious, and a British standards body published the first management systems quality standard. This standard, which greatly resembled the Ministry of Defense standards, replaced various



standards and methods for quality control across all industries in the UK. Meanwhile, the US came to dominate the manufacturing world, so companies were mainly sourcing from each other in the US. More poignantly, the real competition for US companies were other US companies. The need to comply with global standardization became less important, and as a result the US began trailing away from statistical quality assurance.

As global trade and sourcing of materials

and services from around the world boomed in the 1980s, the need for a global standard became obvious. The old British work was burnished and issued as a British, European, and ultimately as the ISO 9000, standard. The globalization of the standard caught the US somewhat flat footed. As Europe unified around the standard, the American National Standards Institute began a long, and losing battle to adjust the standard to fit the way that US companies were already doing business. Once ISO 9000 was approved and became a globally accepted standard, the US had to change how it did business to be able to compete globally, and incur the costs to conforming to a different way of manufacturing and providing services. The US had to catch up with Europe. Even by 1999 the UK still had

twice as many companies that were ISO 9000 certified and Germany had as many as the US, despite both countries and their economies being much smaller.

Why is this important? Why would US industry care if it was certified under this standard or not? As with most standards, the value is in customers understanding what they are receiving, a fundamental quality in both products and services. Moreover, in the case of global standards customers are assured that the same standards are used as a basis of comparison globally, as opposed to trying to understand how various standards from various countries might compare. Specifically, ISO 9000 stood as a proxy for quality in products and services. Hence ISO 9000-compliant companies gained a marketplace advantage.





In what seems a flashback to the ISO 9000 debate, the same challenge is playing out today with ISO 279, ultimately to become the ISO 56000 series, a newly-developing standard that will act as a new proxy for quality. These standards are being developed to provide assurance in the field of innovation management. And, again, the question is what vision of innovation will be the guide.

The ISO 56000 series of standards will provide a means for organizations to share their best practices in innovation management amongst each other in a way

that guarantees that everyone is speaking the same language. Additionally, these standards will enable collaboration and development of innovations. Critically, they will also provide a means for bringing successful innovations to market and providing assurance to the consumer. The goal is to support innovation in organizations. Decisions will be made around intellectual property, audits, assessments, idea management and even definitions and terminology.

Much like those who did not see the international standard for quality

manufacturing coming, there are those who argue that benchmarking and standardizing works against innovation. They lack a fundamental understanding of the value and use of innovation. Sometimes they mistake creativity for innovation. But, more broadly, perhaps 20 percent of an organization's innovative edge is accounted for by something difficult to replicate such as culture or creativity, but the other 80 percent is likely subject to standardization. This 80 percent is where standardization will prove valuable. Regardless, as time moves on industry, military and government broadly will begin to require vendors who have innovation management systems that can interface with other similar systems globally.

Where government entities are concerned, the push will not just be global but also local, as state and municipal governments desire to deliver world-class services, and to make sure that those with whom they work are benchmarked to a global standard. Such benchmarking provides another needed tool to guard against wasting taxpayer money on systems, products or services that do not perform as expected.

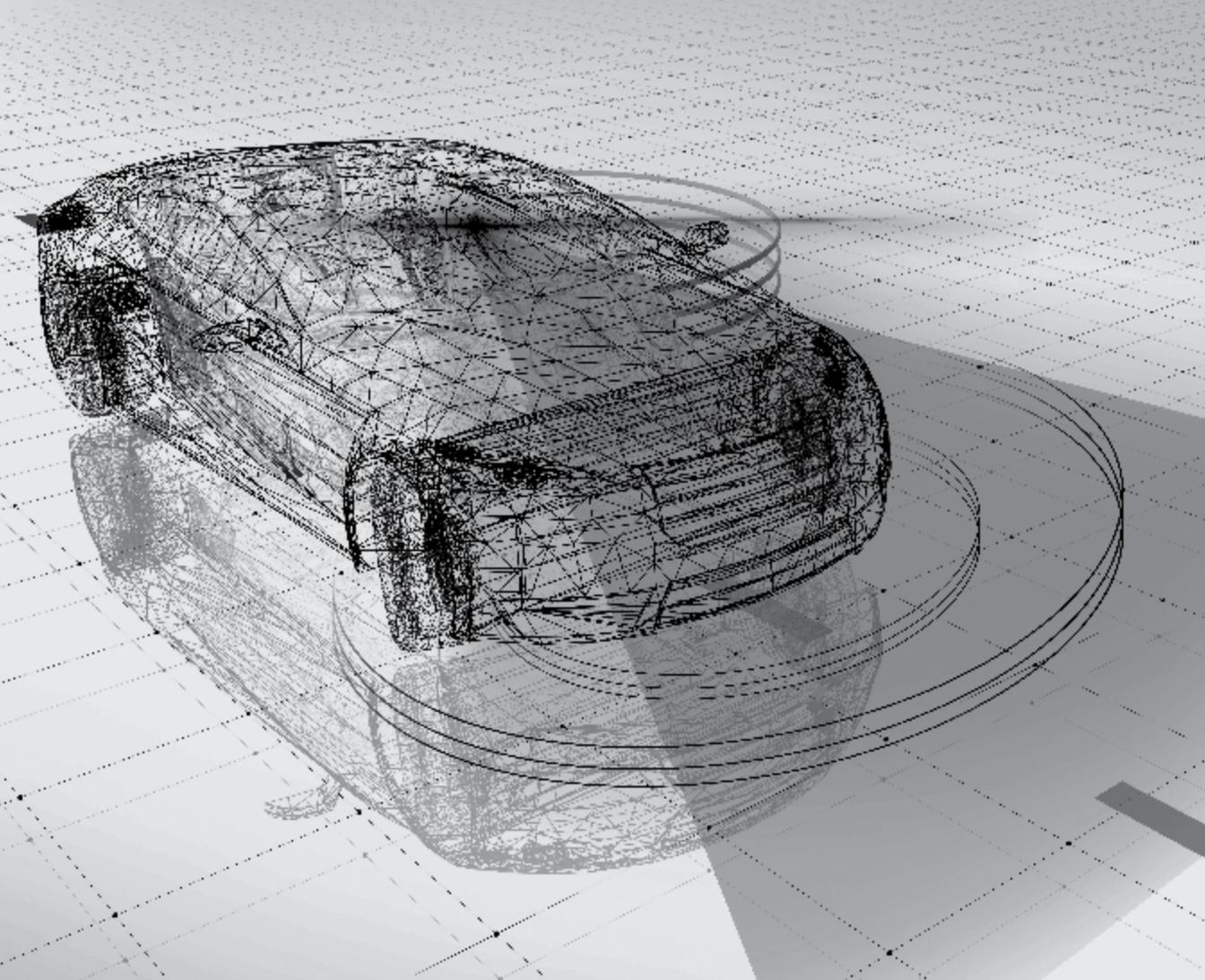
The foundations of modern innovation management have already been developed and deployed here in the US. Silicon Valley is one example, but so are places like Austin, Brooklyn, Boston, The Research Triangle in North Carolina or Florida's Space Coast.

But their way of innovation, the processes, approaches and thinking could be devalued if the "wrong" approach to innovation becomes the global standard. Oddly, but following the historic pattern, US company representation at the global standards setting meetings is minimal, with the US in general having the lowest participation of any country. Robust representation at the global standards setting meetings by US companies, government and academia is a minimum requirement for the protection of innovation done the right way.

Some of our global competition is investing heavily in making sure their view of innovation wins as a global standard. Countries like China are aggressively pushing their own interest in the development of innovation standards.

The US must engage fully from across disciplines, from industry to local, and from state and federal government to academia. To miss a beat in the race to greater innovation today will have drastically worse consequences for US industry than it did in the 1990s. As more and more of our nation's wealth and success is grounded in intellectual property and innovation the results could be dire for our economy and for US citizens. Not all national policy is made where we think, and yet the implications can be just as far reaching if not more so.

Bartlett D. Cleland is the Executive Director of the Innovation Economy Institute.



How Florida Hit the Gas on Self-Driving Car Development

Marc Scribner

Orlando, Florida was not widely known to the public as a hub of automotive innovation. But in July, more than 1,000 researchers and developers joined throngs of tourists at a large conference hotel for the 2019 Automated Vehicles Symposium, just two miles from The Most Magical Place on Earth.

The annual conference is the largest global meeting for those working on issues related to road vehicle automation, commonly lumped together by the media under the banner of self-driving cars. The meeting is usually held in San Francisco near the many startups launched over the last several years to develop these

technologies. Some understandably asked, “Why Florida?” Conference organizers and attendees knew the answers to that question and a lot of them start with a specific Florida state legislator.

On the morning of July 16, Senator Jeff Brandes (R-St. Petersburg) welcomed attendees and described how he came to be one of the most recognizable policy advocates for automated vehicle technology in the country.

“I was first elected in 2010 and was captivated by this idea that there was one big idea in every area of public policy, and I wanted to figure out what that is,” Sen. Brandes told the crowd. “And so, I went to what I thought was the single best source of knowledge for new ideas for legislators: TED Talks.”

Sen. Brandes explained how the now-famous 2010 video of former Stanford computer scientist and Google self-driving car project leader Sebastian Thrun speaking before an audience in Brussels first sparked his interest in discovering how automated vehicles would transform mobility and society. Since then, he has sponsored legislation to support testing and commercial operations. In the 2019 legislative session, a bill authored by Sen. Brandes establishing a first-in-the-nation automated vehicle validation process to be led by insurers became law.

Today, the United States observes approximately 37,000 annual traffic fatalities each year and the National Highway Traffic Safety Administration estimates that approximately 94 percent of crashes are the result of human error. The prospect of removing human beings from the driving

task holds great promise both for enhancing safety and increasing mobility.

Labor costs generally account for around 75 percent of transportation operating costs, so providing taxi-style, door-to-door transportation could become attainable to the poor and disabled who presently must often rely on slow and inflexible public transportation. And that’s only on the passenger side.

There are numerous opportunities to transform the American trucking industry, which moves \$10 trillion worth of goods each year.

Yet, outside a small group of futurists and wonks, it was difficult to find others who would take these prospects seriously.

“I was captivated,” Sen. Brandes continued at the Automated Vehicles Symposium. “I watched it over and over and over again just trying to understand the implications of what that meant. I went to my legislative aide and I said, ‘Look, I really want to run a bill on self-driving cars.’ And he said, ‘Jeff, you’re crazy. It’s 2010. Nobody is going to talk to you about self-driving cars. Nobody in the country is talking about this. They will just laugh you out of the room.’ So, I did what any good legislator would do: I got a new legislative aide who was not nearly as good at talking me out of ideas.”

Sen. Brandes proved to be correct. Major technology companies, venture capitalists, and traditional automotive firms have invested tens of billions of dollars into this suite of technologies since then, with the promise of far safer, more affordable, and more accessible automobility on the horizon.

Governments are now getting into the game, with more than a dozen active policy projects currently active at the federal level and more than three dozen states with automated vehicle policies on the books. And thanks to Sen. Brandes's foresight, Florida's legislature and Department of Transportation have become policy influencers across the country and the world.

I sat down with Sen. Brandes at the 2019 Automated Vehicles Symposium in Orlando to understand more about his outlook on automated vehicles and why Florida presents unique opportunities for these emerging technologies. What follows is a condensed form of our interview, lightly edited for clarity.

Marc Scribner: You were a new member of the legislature when you introduced your first automated vehicle bill in 2011. Were some of your colleagues a little surprised that this was what you wanted to sink your teeth into?

Sen. Jeff Brandes: I actually had to call in a favor to get a Senate sponsor because I couldn't find a senator who would sponsor it. It was so early on, was just so new, and we were talking about just testing back then. But it gave us the opportunity to introduce the topic. And then with the commitment of Google at the time to bring the vehicles—they brought them twice—and allow legislators to take a ride in the vehicle, that experience helped a lot. It's hard to imagine that back in 2011, I was driving on I-10 at 70 miles per hour in a highly-automated car.

We've now seen how far the industry has come from that point—when it was the clandestinely put-together Toyota Prius—to today, where we're seeing purpose-built vehicles designed to drive in a natural way. It's pretty incredible to see that develop. And then we see the number of deployments that are occurring here in Florida.

Marc Scribner: Florida presents some unique opportunities for these purpose-built vehicles. There seems to be great potential for low-speed, low-mass, geographically-restricted golf carts being able to serve Florida's major retirement communities and other kinds of settings where you may not be talking about highway vehicles.

Sen. Jeff Brandes: Florida has the entire range of options. If you compare it to ski slopes, we have everything from the green circle to the double black diamond and everything in between. The opportunity for you to do that in a common regulatory environment with a Department of Transportation and Department of Highway Safety that understand the promising nature of automated vehicles, as well as a legislature that's supportive of this technology, is exciting.

There's a business case that we think works in a state with 21 million people—the third largest state—that's going to grow to 25 million people in the next 10 to 15 years. We had 126 million tourists last year. Now add the opportunity to introduce them to this new market as well and get them to experience the technology firsthand, and we think all of those things play to Florida's strengths.



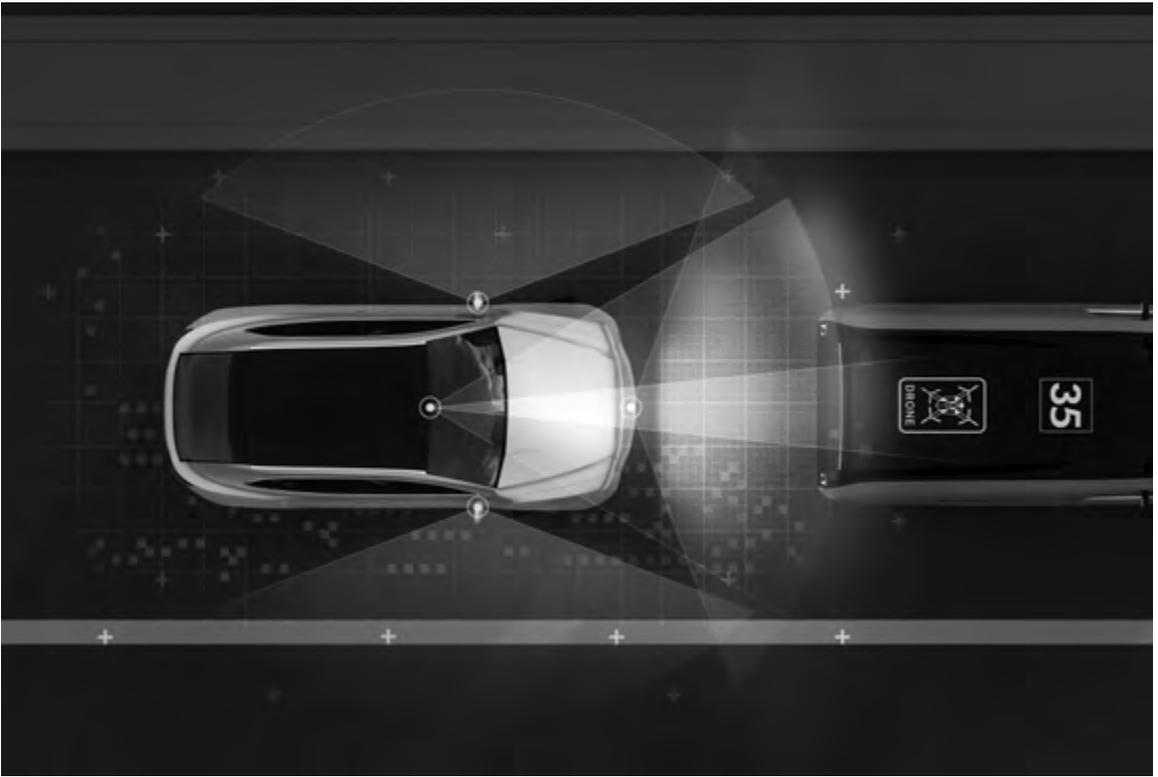
Marc Scribner: Detroit isn't in Florida. Silicon Valley isn't in Florida. But Florida has been out front on these policy issues and has become certainly the hub in the region and one of the major hubs in the United States. You've introduced a considerable amount of legislation through the years and have been continuously updating Florida's legal framework to keep up with the latest iterations of the technology. What do you think other states can learn from Florida?

Sen. Jeff Brandes: Other states can learn to simplify their process. You can protect consumers with insurance. That's what it's there for. But ultimately the insurer needs to be the Good Housekeeping seal of

approval that the technology is safe enough to deploy. That's the key takeaway from the new Florida law.

We also have to be focused on R&D. Many of the problems that states are facing around distracted driving, tired driving, around just human error in general are largely technology problems that are going to require technology solutions in order to make progress. So, how do we help facilitate technology solutions to the problems that we're facing?

Florida roads are fairly challenging. We have some of the highest pedestrian and bicyclist fatalities in the country in any given year. That's largely related to weather, and to the population of tourists that come here.



But that combination is deadly on Florida's roads. We need technology solutions to help alleviate that. Part of it is street design. Part of it is technology in the vehicle. That has to play a role.

Marc Scribner: Relatedly, with your new law, insurers are taking the lead on validation within the framework that's established, which makes sense as insurers have skin in the game. But on the federal level, the National Highway Traffic Safety Administration has yet to actually promulgate the kind of safety and performance rules that NHTSA generally deals with and legislation failed in the last Congress to speed up this lengthy process. What do you think the federal government can learn from Florida's experience?

Sen. Jeff Brandes: The federal government has a very different role than the states do as it relates to this technology. Frankly, the states are just not prepared to deal with multiple players operating in their states. You can see how long it takes the feds to investigate one accident when it occurs and to produce reports. States are generally not designed to do in-depth code reviews for these types of occurrences.

But the federal government is charged with overall vehicle safety and performance measures for those vehicles, so I think they need to continue to work through these issues but not to rush. Don't rush to put something out. Instead, focus on things that maximize our options for the future. We don't know where this technology is going. We need to make sure we allow for

the growth of this technology. Florida does that through setting a reasonable insurance standard, but I think the feds need to take a slow and cautious approach to regulation.

Marc Scribner: You were one of the early state legislators to get involved in automated vehicle policy and you've got a lot under your belt now. What are some lessons that you personally have learned moving into this uncharted policy area and having to figure things out for the first time?

Sen. Jeff Brandes: I think the key is definitions matter. How you lay out the foundational framework in the definitions ultimately is kind of the blood that flows through the entire set of legislation. So, focus on your definitions, whether that's SAE International [formerly the Society of Automotive Engineers] definitions or something outside the SAE definitions that may be more generic than the standard SAE definitions. That helps.

The other thing is you have to get legislators in vehicles. You have to get people to experience it. I always tell people that the first minute of riding in a self-driving car tends to be scary. The next five you're interested. And then you're bored the rest of the time.

Marc Scribner: And that's where you want them to be: boredom.

Sen. Jeff Brandes: Well, boredom, but that also means we've got to be focused on things inside the vehicle too—the technologies inside the vehicle. But I think what we want is people to feel safe and

comfortable in the vehicles and allow you to explore and do other things. I think that's a better use of your time.

Marc Scribner: I think another Florida invention, or at least something that's been copied elsewhere, is the Tampa approach to automated vehicle surveys. They actually did before and after surveys rather than just cold-calling random people to ask them about how they feel about self-driving cars. So, they asked what their perception of automated vehicles is before and after they experienced riding in one. And unlike a lot of online and telephone polling of random people who have never experienced one, the results show that people are far more comfortable with the concept after they've actually experienced a ride in an automated vehicle. This goes to your point about getting people in vehicles, yes? Being grounded in reality?

Sen. Jeff Brandes: I think that's a piece. The other thing is we have to rethink our cities. We have to begin to have conversations about pickup and drop-off zones. We need to rethink parking, whether that's rethinking how we're building parking garages so they can be convertible in the future, or changing rules to offer less parking as we add these modes.

You should also think about Uber and Lyft really as the canary in the coalmine for how we will operate in the future. So, how do we begin to build our cities around that? If we see how Uber and Lyft are beginning to affect restaurants, hotels, and airports in our communities where they're fully saturated, we need to be thinking of that and focusing

on those investments of a long-term nature that maximize our options. So, the question is, do you invest in a light rail system today if you believe that ultimately in 10 years from now you can have a self-driving vehicle take you from point to point? It may not make sense to make that \$40 million per mile rail investment.

Marc Scribner: When you're investing under uncertainty, I think people would say exactly that on the need to keeping our options open.

Sen. Jeff Brandes: We're in this time between the lightning and the thunder. We need to recognize that we know something big is going to happen. And I think we're going to see more transportation changes in the next 10 years than we've seen in the last 50, with the world getting more shared, electric, and self-driving options. Florida needs to be at the forefront, at least on policy, in all three of those areas.

Marc Scribner: So, what's next for Florida?

Sen. Jeff Brandes: I will tell you I think we've got the best law in the country as it relates to the sharing economy and Uber and Lyft and ridesharing. I think we've got the best law in the country as it relates to self-driving vehicles. I think you're going to

see us pivot and have the focus on making sure we get it right for electrification. That and continuing to educate our cities as to how they can be redesigned and redeveloped. We're starting to see this, as major developers are developing more drop-off zones, more pickup zones, more convertible parking garages where it allows them to grow their buildings down over time. Those are all incredibly important conversations to have.

But ultimately, the two challenges we have in the state of Florida are affordable housing and transportation. How does this technology change the paradigm for those two questions? If ultimately we're moving toward a more self-driving world, we need to recognize there will be decades of a hybrid scenario with both human-driven and self-driving vehicles. We only turn over about 6 percent of the U.S. auto fleet in any given year. It's going to take decades for us to make this transition.

But we need to be thinking about how we're planning for the future today because your buildings are going to have a 75-year lifespan. So, the buildings you're building today, most of their lives will be in an autonomous world. How do we begin to rethink our cities for that paradigm shift?

Marc Scribner is a senior fellow at the Competitive Enterprise Institute in Washington, D.C.



BIG BUSINESS

BOOK REVIEW

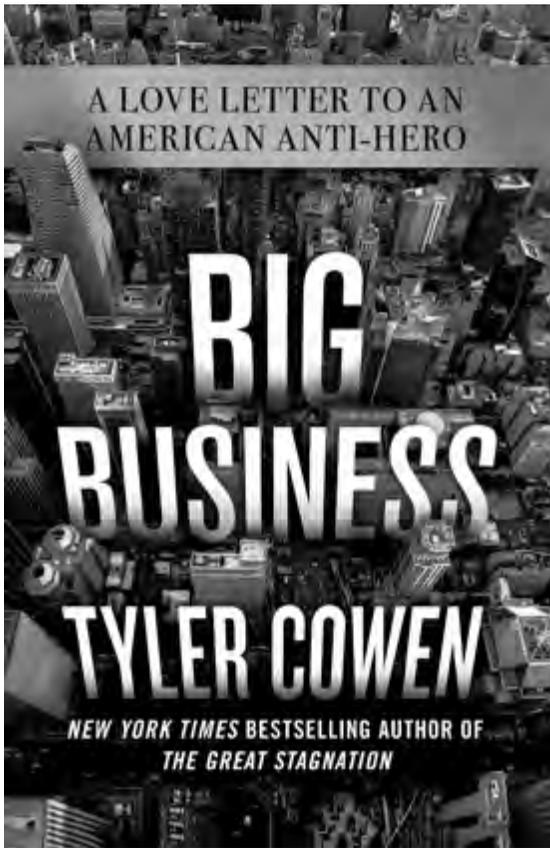
Big Business: A Love Letter to an American Anti-Hero *By Tyler Cowen*

2019 ST. MARTIN'S PRESS, 249 PAGES

Reviewed by Camille Vazquez

T Tyler Cowen's latest book, "Big Business: A Love Letter to an American Anti-Hero," is both timely and approachable. A book of this caliber is to be expected from Cowen, given his wealth of knowledge and experience, which includes serving as an economics professor at George Mason University, chairman and

general director of the Mercatus Center, adjunct scholar for the Cato Institute, author, columnist, and much more. "Big Business" came as a response to recent alarming polls showing, among other things, that 51 percent of young people do not support capitalism and, unsurprisingly, similar numbers carry across different



demographics. His intent was to dispel myths that have spread about greedy CEOs and corrupt tech companies, while also reminding Americans of all that businesses have done for our country, such as providing Americans with most of their “stuff,” countless jobs, and innovation that moves our country forward. The crux of Cowen’s love letter lies in his twofold solution for remedying this cognitive dissonance between our need for these big businesses and our malevolent perceptions of them:

first, we should lower our standards for judging their morality, and second, these businesses should strive to be more socially responsible.

To begin, Cowen raises the point that were it not for the innovation from businesses, we would be without the technology for many forms of transportation and utilities, pharmaceuticals, clothing, food, communication devices, and access to online information. Additionally, businesses provide countless jobs and salaries that allow us to purchase what we need. The idea that businesses act as our great providers is instrumental to leading Cowen into his second argument, which is that there is an inherent cognitive dissonance between our need for businesses and our negative perception of them.

Cowen explains that the root of this cognitive dissonance stems from our tendency to anthropomorphize businesses, thus creating a false perception that businesses are persons, who will adhere to a strict moral code. Subsequently, we are disappointed when they inevitably fall short of our expectations. Cowen explains that businesses are made up of flawed people and “the propensity of business to commit fraud is essentially just an extension of the propensity of people to commit fraud.” He continues to say that even if we were correct in holding these businesses up to moral codes like ours, we must recognize that we too fall short and just as often. For

example, a 2002 study from the University of Massachusetts found that 60 percent of adults will lie at least once during a ten-minute conversation. To go even further, Cowen argues that “big business has by necessity [...] become one of the most effective institutions for limiting the extent of fraud,” particularly due to digital communication raising “the price for corporate dishonesty.” Cowen implores us to appreciate the role that business plays in improving our lives and recognize that not only are we unfairly anthropomorphizing big businesses, but we are unfairly holding them up to a standard that even we cannot always fulfill.

Likewise, Cowen charges big businesses with the challenge to be more socially responsible. If businesses took advantage of the huge role that they play in our society, they could reduce crony capitalism while also “[boosting] both business and social profits including prosperity and liberty” all without the need for the type of excessive government regulation that leads to monopolies. Cowen believes that big businesses should strive to be “fundamentally ethical enterprise[s].”

Throughout his book, Cowen does a great job zeroing in on the reasons why big businesses are so disliked. He offers great solutions for the American people to reconcile the cognitive dissonance between their need for big businesses and their negative perception of these

same businesses. First, we should be more appreciative of businesses and recognize that we are unfairly anthropomorphizing them and holding them to strict moral codes that even we cannot consistently uphold. Second, big businesses should be more socially responsible. This dual-ended solution can help us to “believe in American business as something that, at its best, represents many of humankind’s highest values.”

Tyler Cowen’s “Big Business: A Love Letter to an American Anti-Hero” is a compelling appeal to facts and reason during a time when hot-blooded narratives seem to dominate the day. He expertly supports his arguments by carefully balancing his commendation of all the good that big businesses have done for our society with the gentle exposure of the hypocrisy of individuals within our society. His charging of both individuals and big businesses to change their perceptions and actions offers a refreshing closure to his book. Cowen reminds us that this formidable problem is not without a solution—and a straightforward one at that.

Reviewer Camille Vazquez is a third-year law student at the Florida State University College of Law.

NEW YORK TIMES BESTSELLER

A Torch Kept Lit



BOOK REVIEW

A Torch Kept Lit, Great Lives of the Twentieth Century by *James Rosen*

2016 CROWN FORUM, 336 PAGES

Reviewed by Mary Bebout

John F. Kennedy, concluded William F. Buckley, Jr., in his eulogy of Number 35, wanted Americans to keep the torch lit; to work – according to their own lights – so that the United States remained strong and free. Buckley penned two tributes to President Kennedy for the magazine he founded, *The National Review*, both of

which are included in “A Torch Kept Lit, Great Lives of the Twentieth Century,” edited by James Rosen, and published by Crown Forum, a subsidiary of Penguin Random House.

Buckley and JFK were handsome, yacht-loving Catholics who shared great passion for the country despite disparate

visions for its future. JFK, the Harvard grad from Massachusetts, confounded Buckley with his ability to seem conservative whilst amassing a liberal voting log. Buckley, the Connecticut, author of “God and Man at Yale,” and architect of modern American conservatism, remained unbeguiled. Nonetheless, Buckley acknowledged both the fairy-tale nature of JFK’s presidency and its monstrous end. JFK possessed universal charm; his “personal radiance warmed the whole nation.” Buckley praised JFK’s “courage, dignity, fortitude, toughmindedness, independence,” but pointed out the dissension his policies caused on the left as well as the right. Buckley adhered to his credo that while one’s personal weaknesses should be buried with the body, a public figure’s positions on civic issues must stand eternally exposed.

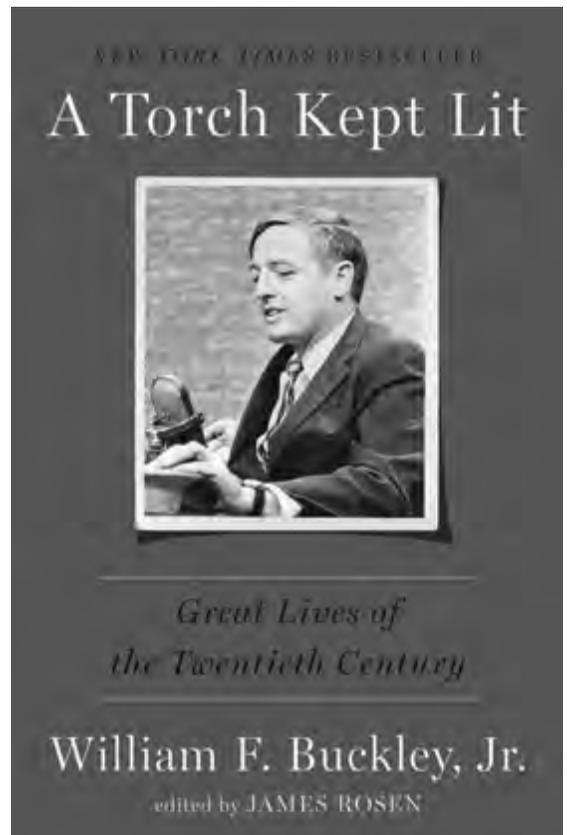
The collection of 52 eulogies is organized by theme beginning with presidents, extending to statesmen, family members, friends, and finally, foes. Buckley wrote about Jackie Onassis, Elvis, Vladimir Horowitz, John Kenneth Galbraith, Johnny Carson, David Niven, Eleanor Roosevelt, Truman Capote, Golda Meir, John Lennon and Diana, Princess of Wales.

Buckley expressed bitter disappointment with Eisenhower and Churchill for what they failed to accomplish. He ripped Nixon and Johnson alike. He worshipped patrician wife, Pat, and his father, a Texas-born self-made oilman. He heralded classical pianist and harpsichordist, Rosalyn Tureck, “the greatest living interpreter” of Johann Sebastian Bach. He hissed about Alger Hiss.

Buckley’s essays are flooded with reflections and introduced with pertinent

background information. Readers realize the equalizing effect of his military service and that his professional career launched at the CIA. The collection contains at least a half-dozen obituaries about spies and spymasters. Readers are reminded of Buckley’s ill-fated run for mayor of New York and are introduced to those with whom he sailed the globe or frequented his Swiss chalet for sophisticated apres ski.

Evident throughout is Buckley’s wit, civility and trademark cheerfulness. Many of his dearest friends were card-carrying liberals. Buckley held no litmus test for friendship. For decades he and Alistair Cooke lunched regularly at the Carlyle. His transideological alliance with Norman



Mailer sparked in Chicago at a sold-out debate over American right-wing politics. And Abe Rosenthal, the Pulitzer Prize-winning executive editor of the New York Times, invited Buckley to join a small club of “decisive voices in American journalism” to meet for lunch five to six times a year.

“A Torch Kept Lit” is a refresher course in cultural events over a half-century to be

enjoyed by readers no matter their political perspective. Certainly, Buckley fulfilled his father’s wish that he become a courteous, hard-working, God-fearing conservative. The book offers a glimpse of Buckley, the man, as he fulfilled his role as “the principal obituarist” for the National Review.

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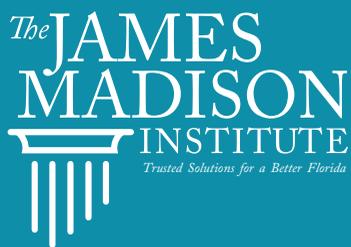
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