

Don't We Need A New "US Department of *Next Digital Technology*"?

An OPED
By Ken Malloy

Bill Gates and *Microsoft* made software that brought new applications to the masses. Steve Jobs and *Apple* revolutionized digital technology. With such technologies growing to such importance to the US economy and having such an unfair advantage, should we not be concerned that they are going to thwart the development of more innovative technologies?

In today's Washington, I'm surprised that we haven't already heard that we clearly need a "government solution" for this concern - like a new Cabinet Department committed to funding subsidies and developing the next generation of digital technology. We could call it The ***US Department of Next Digital Technology***.

After all, we have witnessed such successful government-inspired solutions before haven't we?

Who can forget President Lincoln's concerns about the country's overreliance on whale oil for illumination and his government program to jumpstart the production of kerosene from crude oil, eventually leading to light bulbs? Oh, that's right. That didn't happen. The free market made that transition happen.

Or, how about at the turn of the 20th Century, as horses became literally a lethal pollution problem in New York City, how President Theodore Roosevelt recognized the barrier that horses posed to the entry of cleaner more effective transportation technology, and that through government's leadership and subsidies, Henry Ford was encouraged to churn out Model Ts? Oh, that's right. That didn't happen either. Again, it was the free market that brought us that innovative transition.

Despite that fact that there is no positive historical legacy to support such government intervention in the market place, these rationales have been used to shore up massive government support for "*alternative fueled vehicles*" (AFVs), leading to wasteful subsidies and mandates for ethanol, electric vehicles, hybrids, etc.

And, now natural gas wants to sidle up to the slop bucket.

HR 1380, the so-called **NAT GAS Act**, would extend to "*natural gas vehicles*" (NGVs) similar subsidies to those of other AFVs. After all, doesn't it make sense that if the government is subsidizing AFVs, not withstanding market results, then why not also

include “*natural gas vehicles*” subsidies as well? There is actually bipartisan support for such a concept.

However, having the government intervene to jumpstart a transition from gasoline vehicles to AFVs makes as much sense as the government being responsible for picking future winners and losers in the digital technologies market place of Microsoft and Apple.

Yes, there is a long laundry list of rationales for support of AFVs, but how viable are they really?

- **“We need to reduce oil imports.”** Crude oil is a global market and is available to those willing to pay the price set in that market. Great Britain imports little oil and Japan imports all of its oil. Still, Japan is no more vulnerable than Great Britain because both will pay the same for a barrel of oil on the world market. The amount of oil imported into the US is an irrelevant yardstick to judge our vulnerability to price shocks.
- **“OPEC will cut us off.”** Middle East economies are heavily dependent on oil revenue for political stability. Thus, their governments are more economically and politically dependent on U.S. demands for oil than the U.S. is dependent on Middle Eastern supplies. Besides, the majority of America’s imports are not from OPEC, but from Canada and Mexico.
- **“Oil consumption funds terrorism.”** US reliance on imports does not correlate with terrorist funding. Middle Eastern geology results in relatively cheap oil supplies for which there is strong global demand. If the US did not buy OPEC oil, other international consumers would.
- **“We are running out of oil.”** Assume arguendo, the point about Peak Oil (we are on a downward slope of supply). Economics is a discipline which understands scarcity and the allocation of resources. As oil becomes scarcer, prices will signal that it is time to search for substitute fuels (electric cars) or substitute transportation (mass transit or carpooling) or substitute practices (living closer to work or telecommuting).
- **“Gasoline causes pollution.”** If consumed unabated, gasoline contributes to air pollution. Because of catalytic converter and other technology, the amount of air pollution from cars has been reduced 90% since air alerts in the 1960s. For additional pollution reductions, economists agree that a *harm charge* or tax is significantly more efficient than trying to pick winners and losers.

- ***“Climate change is coming. Run for your life.”*** The EPA estimates that about 27% of CO² emissions are from the transportation sector.

Again, assuming *arguendo* that the US should engage in a carbon abatement strategy as climate policy, the government’s choice of AFV/NGV technologies is suspect. Ethanol as a transportation fuel, from a carbon perspective, proved to provide no carbon gains, requiring carbon-intensive energy in its production. Electric cars also require increased electric generation mostly from fossil fuel. Subsidies and mandates that assume AFV/NGV as winning technologies may chill private investment in what might have been real winning technology for dealing with carbon mitigation.

As part of a *global comprehensive strategy* to reduce carbon, pricing carbon would send more efficient signals and allow all technologies to compete and for energy usage to be used according to their carbon efficiencies.

For example, it may be that, given the right price signal, it is more efficient and results in lower carbon emissions to use natural gas for electric generation and not to power cars.

- ***“We must reduce carbon emissions.”*** Carbon mitigation is a questionable policy for climate change so long as the technology available is extraordinarily expensive and substitute energy sources will have disruptive economic consequences. Subsidies/mandates for AFVs are simply not an efficient policy as part of a coherent climate strategy. That’s like developing a program in 1900 to change the eating habits of horses so they produced less manure.
- ***“Gasoline is an entrenched technology.”*** While market barriers are created by entrenched gasoline with its established distribution infrastructure of gas stations and franchises, new technologies have always had legacy technologies to overcome. Schumpeter argued that “creative destruction” is one of the most salient features of capitalism. Compare the 1939 list of companies on the **Dow Jones Industrial Average** to today. Each had 30 companies, only three (AT&T, DuPont, and GE) are on both lists. Without taxpayer support, technology for viewing movies moved from theatres to VHS, then to DVD, then to DVR and now to On-Demand. AFVs will penetrate when necessary.
- ***“We need to support R&D.”*** Some “basic” research justifies government support, but “applied” research has the government competing with private interests. Government’s track record of choosing winners and losers is a sorry one. Profit motive and intellectual property rights are sufficient to drive applied R&D.

The fact is that markets handle innovation and transition to new technologies pretty well.

Government has a horrendously poor track record of picking technology winners and losers... Did I hear someone say Solyndra?.

When the government supports innovation *to solve a uniquely governmental problem* — like send a man to the moon, develop a communications technology in the event of a nuclear war (internet), or military defense technologies — it often hits a home run and these successes can result in spin-offs that benefit the economy and consumers (GPS technology).

But when it tries to get one step ahead of the market, it historically fails miserably.

The question is: Can you think of a single consumer technology that became ubiquitous because the government was foresighted enough to anticipate a consumer need and subsidized a technology?

Neither can I...

Why do we think cars will be different?

ABOUT THE AUTHOR:



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Mr. Malloy was named by *Public Utility Fortnightly* as one of five “Energy Innovators: Ringing in an Age of Enlightenment.” He started his career as a law professor teaching in the field of economic regulation. He served as an Attorney and Policy Director with the **Federal Energy Regulatory Commission**; was Deputy Executive Director and General Counsel with the **Illinois Commerce Commission**, and served with the **US Department of Energy’s** policy office for over ten years specializing in natural gas, electric, and oil competition policy.

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