



(CONTRIBUTED PHOTO)

In March of this year, King visited Maine Standard Biofuels, a company that collects used cooking oil and recycles it into quality biodiesel. With King (center) in the above photo are Jarmin Kaltsas, left and Michael Leonard, right, with Travis Kennedy, King's regional representative for Cumberland County, in the background.

## Seven questions with King about inventions and Maine

Maine's newest U.S. Senator Angus King talks about innovators, innovations and what can be done to help move things forward

### 1. Do you have a favorite inventor and why?

Apple founder and former CEO, Steve Jobs, is far and away my favorite inventor. He was a brilliant visionary whose innovations repeatedly transformed the ways in which we interact with information and communicate with one another. His revolutionary devices – including the GUI interface on the original Mac, iPods, iPads, and the now ubiquitous and much copied iPhone – threw open the doors of global information sharing, making it easier than ever before to connect with people and resources around the world. Steve's journey – an adopted child from a family of modest means who dropped out of college – also proves that there is no traditional path to success. His work illustrates that the power of ideas, paired with

vision and determination, can be the most powerful factors in determining a person's future. It is the American dream.

The world was fortunate to have had an innovator of Steve's caliber, and I have no doubt that his ideas will continue to propel the IT sector forward for generations to come.

### 2. What do you think is the most amazing innovation of the last 50 years?

In my opinion, the development of the Graphical User Interface, or GUI, has been the most amazing innovation of the last 50 years. Early computers (and we're talking the 80's here, not ancient history) required a person to master what was essentially a foreign language and enter lines of complicated command codes to make the computer perform even the most rudimentary functions. This burdensome process significantly limited the number of people who could readily use a computer, thereby diminishing the impact the device could have on the lives of everyday Americans.

The evolution of the GUI, however, drastically simplified

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how we interact with computers – making them accessible to virtually everyone. This enabled the vast majority of people (like me), without any sort of training in commands and code, to access the resources, tools, and opportunities computers provide. It's important to note that Steve Jobs did not "invent" the GUI (that happened at XEROX Parc); his genius was in grasping its implications as soon as he saw it and then translating the concept in a way that was both powerful and simple to use. Similarly, he did not invent the smart phone (anybody remember the Palm Treo—or even the Apple Newton?) or the digital storage of music, but he grasped the intrinsic power of these ideas and then put the elements together in a new and supremely usable ways.

### 3. Is there a person in Maine with whom you are particularly impressed with as an innovator? Who and why?

John Coleman, founder of The VIA Group – a Portland based advertising and branding company. John has a non-traditional approach to business that I think has

greatly contributed to his success. Most people in his industry gravitate toward New York, Los Angeles, and other major cities; however, John was determined to base his company in his home state of Maine. Although operating in Maine may have presented him with some hurdles, his creative spirit, ability to attract world-class talent, perseverance and commitment to his community have enabled him to overcome those initial obstacles and create one of the country's top ad agencies. John realized before many others the possibilities inherent in distributed work—that the internet and good transportation infrastructure meant that you could be close to your customers wherever they are—that geography was not a barrier. He also realized the attraction a place like Maine would have for creative talent—provided they could be provided with reasonable incomes and professional challenge.

Like Steve Jobs, John didn't invent the concept of working nationally from Maine, but he grasped the power of the idea and executed it with imagination and flair. That's innovation in the best sense.

### 4. What device would you like to possibly see in the future – however unlikely it might seem right now?

I'd like to see a "well-being" monitor; a device that could predict disease. It would prod us toward healthier lifestyles, notify us at the otherwise undetectable onset of

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disease, and help prevent illnesses. I am a strong believer in the power of preventative medicine not only as an important way to keep Americans healthy, but also as a means of addressing this country's financial problems. The primary driver of our national debt and deficit is the soaring costs of healthcare and yet a major percentage of our healthcare expenditures are preventable. A "doc on the wrist" could keep us healthier and save money—not a bad combination.

### 5. Will Maine ever depend on wind power like it does on oil?

As one of the most oil-dependent states in the nation, it's crucial – both for Maine's economic health and for our environment – that we continue to transition away from fossil fuels by investing in a diverse portfolio of renewable energy resources.

To get to your question – I think it actually has two parts: will Maine ever be fully dependent on wind power? And two, will oil continue to dominate our energy supply?

Number one – Until the problem of storage of electricity from intermittent sources like wind and solar is solved, they cannot be the sole source of energy. There will always have to be some source of back-up power for when the wind doesn't blow or the sun doesn't shine. Having said this, I have no doubt that storage technology will continue to improve (electric cars, for example—sales of which grew 30% this year over last—are actually a distributed storage battery), allowing renewables to play a larger and larger role in our energy mix.

In my view, energy sources in the future will include a substantial amount of intermittent renewables like on- and off-shore wind, solar, tidal power, and baseload renewables like hydro and biomass. Wind – especially off-shore wind – will play a large role in this, although it will never be the dominant source, at least until better storage technologies are available. Maine does not have oil or gas reserves, but we do have wind, biomass, strong tides, and hydro resources – our state is well-positioned in the future of energy. That is one reason that I introduced my Biomass Thermal Utilization bill which incentivizes the use of home-grown biomass energy.

Number two – Natural gas has already displaced oil as dominant in electricity generation, and, in the short-term, will provide the baseload generation for electricity while we ramp up renewables. I believe that we can also wean ourselves off oil in the transportation and heating sectors, by moving to things like electric cars, electro-thermal storage and electric heat-pumps for space heating. Distributed generation and distributed storage will also help us manage our new gas-and-renewables grid – and, ultimately, Maine will have low-cost, home-grown, clean electricity.

### 6. What is the most limiting factor facing Maine for future innovative advances?

The short answer is that the only factor limiting innovation in Maine is our own attitude and imagination. Great ideas can come from anywhere at any time and we have to create the infrastructure to unleash those ideas here in Maine.

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took a step forward in connecting rural Maine to the rest of the world through the Three Ring Binder broadband project, which provides a backbone for high speed internet throughout the state. Investing in education and specifically in Science, Technology, Engineering, and Mathematics (STEM) education and research and economic development will foster innovative ideas. Finally, we can't live in a silo. We must collaborate and connect with other thought leaders in New England, across the country and throughout the world.

### 7. What is the best thing that the federal government can do to encourage innovation and create jobs?

The most important thing Congress could do to improve the business climate and job creation in the U.S. is to competently perform its most basic functions—passing a budget in timely manner without self-induced crises and chaos would be a good place to start. Doing this would show that we are serious about getting the fiscal health of this country back on track and that we are capable of the most basic function of governing.

We all know what the issues are, and we all know where the dollars are. With a good faith effort, I think this could be worked, so long as our ideological blinders are left at the door. Yet, we have continued to let political brinkmanship get in the way. Showing that we can deal with fiscal issues in a responsible way would begin the process of restoring the American people's confidence in their government which would undoubtedly increase our future prospects for financial growth and stability. •