

Congress of the United States
Washington, DC 20515

October 15, 2014

Ralph J. Cicerone, President
The National Academy of Sciences
2101 Constitution Avenue, NW
Washington, DC 20418

Dear Dr. Cicerone,

As Members of Congress, we are committed to improving America's success and maintaining America's competitiveness, and digital literacy is a key component to both. In order for our children to be successful throughout their education and in their daily lives, and to remain competitive when they enter the workforce, they must be able to solve problems by applying basic digital skills and using the Internet to evaluate, create and utilize information from a variety of sources. In a more connected and technologically advanced economy, digital literacy is fundamental.

However, in 2013, the Organization for Economic Cooperation and Development (OECD) conducted an in depth study that found that American young adults ranked near the bottom for using digital skills to solve problems. These skills include the ability to use digital tools to acquire and evaluate information. Being able to use technological tools at a fundamental level to access, analyze and understand electronic information is necessary for an individual to participate in the 21st century competitive economy and easily navigate our digital lives. In order to maintain America's competitiveness, we must improve these skills and address disparities in digital literacy across the country.

As policy makers, it is our responsibility to prudently use the tools and resources we have to help improve digital literacy. One way to improve these skills is by taking appropriate measures to tackle this disparity through public Pre-K—12 education programs. Across the country, we have witnessed examples of excellence that facilitate increased access to technology and the development of effective skills in the 21st century workforce. For example, the P-Tech schools are preparing students for specific careers in the STEM workforce, with help through partnerships with industry leaders. P-Tech is a unique school that runs from grades 9-14 created through a partnership between IBM and the City University of New York, where students learn the traditional core subjects, but with an additional education in computer science and completion of two years of college work. They graduate with an Associate's Degree and a qualified record, and are uniquely set up for a job with IBM. However, we worry that effective digital literacy programs are not being implemented on a national scale. If all students do not have access to high-quality instruction in digital literacy, the "digital divide" will continue to grow.

To help Congress assess the actions it and others can take, we ask that the National Academy of Sciences conduct a thorough study of the current status of and next steps needed to improve digital literacy in the U.S. As an independent, objective body, the National Academy of

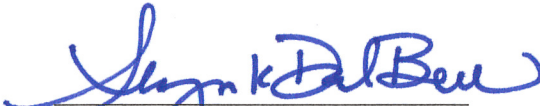
Sciences has a distinguished reputation for providing advice on national issues of science and technology. Your 2007 report entitled *Rising Above the Gathering Storm* brought national attention to the the need to increase research, innovation and coordination in STEM fields, which led to Congress passing the *America COMPETES Act* to significantly increase our commitment to basic research and innovation. It is our hope that the requested report will achieve similar consensus for action on digital literacy education and opportunities.

Specifically, we request the National Academy of Sciences to convene an expert committee to conduct a study and author a report with recommendations for action, where appropriate, on five aspects of digital literacy:

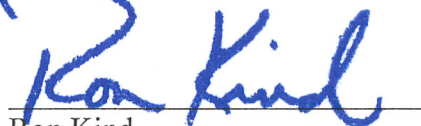
1. Define the knowledge, skills and abilities that comprise “digital literacy” at different levels of Pre-K—12 education, taking into account the ongoing changes to digital technologies used in education, the workplace, and family and civic life.
2. Summarize what is known about current levels of digital literacy among Americans of different ages, socioeconomic status, ethnicity, and location (regional, urban, suburban, and rural), with special attention to literacy levels among Pre-K—12 aged students. Based on this summary, identify gaps or disparities in digital literacy.
3. Characterize the range of digital education programs currently available in Pre-K—12 schools, after-school and informal learning environments, across diverse schools and communities varying in socioeconomic status, ethnicity, and location. Based on this description, identify gaps or disparities in digital literacy offerings, including, where possible, gaps or disparities specific to home, teacher, student or administrative capabilities related to digital literacy educational offerings.
4. Review, synthesize, and analyze the available research literature on the effectiveness of the range of current digital education programs. Based on this review, identify instructional design principles to strengthen teaching and learning of digital literacy for all young Americans.
5. Recommend federal, state, and district policies and programs to reduce gaps in current digital literacy levels and digital literacy educational offerings and strengthen the digital literacy of the American population.

We look forward to working with you on this request.

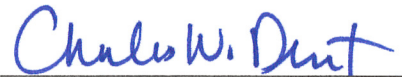
Sincerely,



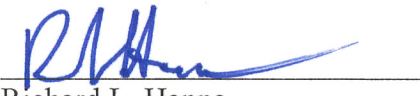
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Member of Congress



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