

# OLLI at Vanderbilt

## Innovative Thinking in a Digital Age

### Some Issues to Think About

*The New York Times*, "Karen Spack Jones (1835-2007)" by Nellie Bowles, January 7, 2019, D6. (Spack Jones was a pioneer in computer science, combining statistics and linguistics, laying some of the groundwork for search engines.) "Decades before Silicon Valley was having its moral reckoning, Spack Jones cautions engineers to think of their work's impact on society. 'There is an interaction between the context and the programming task itself. [...] You don't need a fundamental philosophical discussion every time you put your finger to keyboard, but as computing is spreading so far into people's lives, you need to think about these things.'"

What power and authority have humans assigned to algorithms?

What world views, preconceptions, or prejudices exist within algorithms and their application?

How can algorithms and their creators be held accountable?

What kind of education would you recommend for a programmer, statistician, or data specialist?

How are digital tools creating gaps of innovation or of mind sets by age, race, and economic status?

How do we determine the reliability of data and of its use?

How is the human mind being changed by the existence of digital tools? Is the tool that can solve a problem determining how humans conceive and imagine and create or are humans still in charge of the tool as a means to innovation?

How does innovation occur in the digital age? What role does collaboration play? Is a "super mind" in which humans, in various groups and networks, work collaboratively with computers a feasible vision of future optimal use of the potential of digitally-based technology?

How is digitalization affecting the preservation and collection of the artifacts of culture? The dissemination and accessibility of knowledge and information?

What kinds of innovative applications of digital technology are attractive for licensing and commercial sale and does commercial potential influence the nature of research?

In your opinion, do the convenience, efficiency, and benefits of digital innovation outweigh the dangers it may pose?