

# Training and Scholarly Impact in a Digital World

Victoria Stodden

Associate Professor

School of Information Sciences

University of Illinois Urbana-Champaign

Scholarship for a Post-Pandemic World: A Conversation

Council of Graduate Schools 60th Annual Meeting

Thursday, December 3, 2020, 2:45 – 3:30 PM

# Sources of Technological Change

---

## 1. Research:

- **computational tools and technologies,**
- **data management, data inference and analytics,**
- **domain technologies e.g. sequencing, sensor development, ...**
- **large scale data harvesting, web scraping, ...**

## 2. Beyond research:

- **social media**
- **web/internet technologies**
- **social and cultural change**

# Sources of Technological Change

---

## 1. Research:

- **computational tools and technologies,**
- **data management, data inference and analytics,**
- **domain technologies e.g. sequencing, sensor development, ...**
- **large scale data harvesting, web scraping, ...**

## 2. Beyond research:

- **social media**
- **web/internet technologies**
- **social and cultural change**

***Information dissemination  
and consumption***

# Digital “Pro-suming”

---

## 1. Students are digital *pro-sumers*:

- research produces more and more diverse shareable digital objects than ever before (data, software, figures, text, etc)
- longstanding research culture norms support transparency and sharing for verifiability and reproducibility

## 2. Incentives:

- *social reward* through social media sharing but limited/incoherent *research reward*

# Key Issues on Impact Incentives in a Digital World

---

1. **Conflating research ideas and researchers**
  - *social reward* through social media sharing but *limited/incoherent research reward*
2. **Relevance: challenge to capture/maintain student interest in research**
  - Training in new/appropriate areas
  - Providing rewards for excellent research done in novel and innovative ways
3. **Training for reproducible computational research and dissemination**