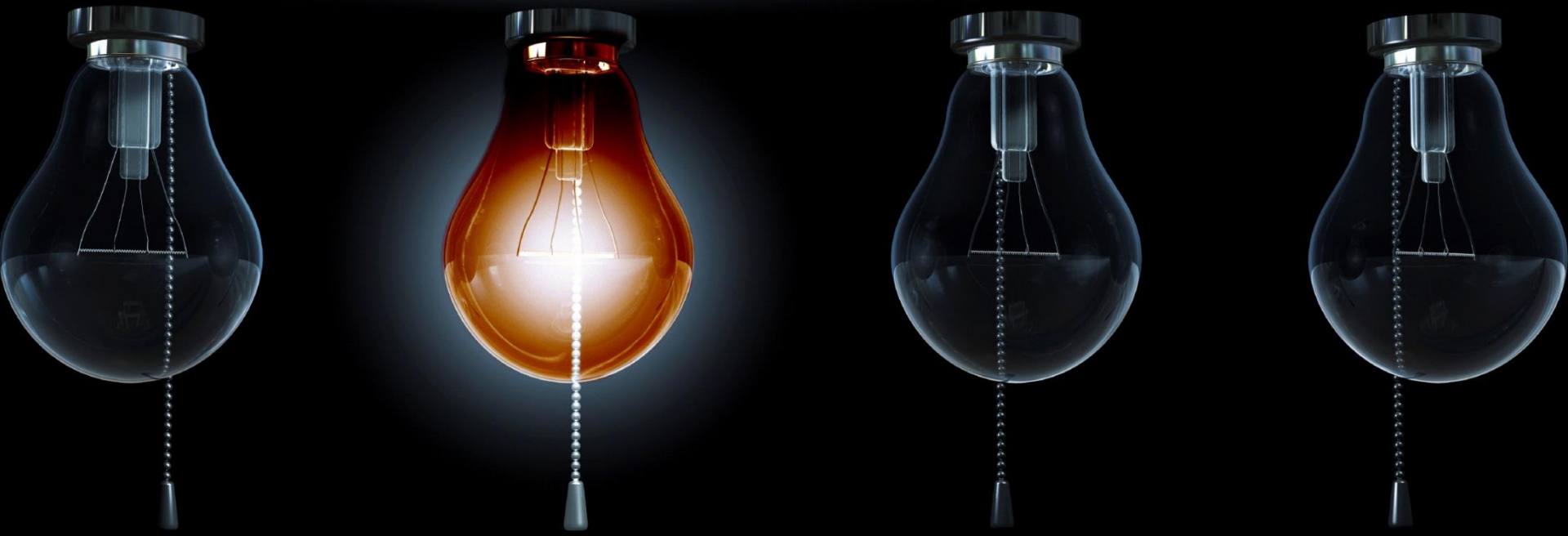
#THINK*forward*: Technology Trends for Research, Education and Innovation



2014 ORION THINK conference
Presented by Jaigris Hodson, PhD,
Instructor Ryerson University MDM Program
Director of Social Media and Research, GCI Canada

Overview

1. The Internet of Things
2. Wearable Technology
3. The Data Revolution
4. 3D Printing
5. Concluding Remarks and Questions

The Internet of Things

The Future?

Benefits and Challenges of the Internet of Things

Benefits:

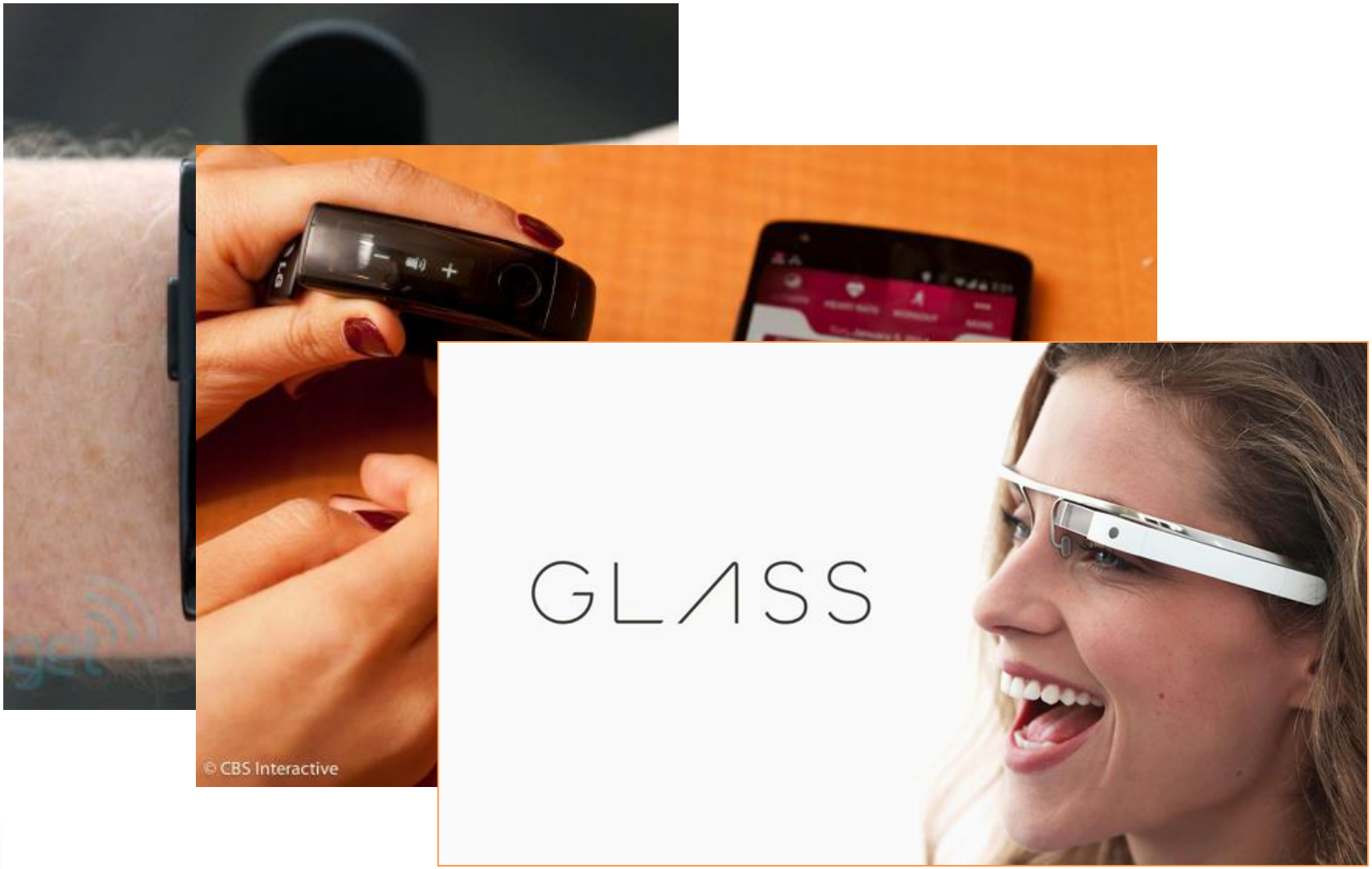
- Immediate anytime feedback
- Access to information/data
- The declining importance of screens
- Connections on a global scale, expanded reach
- Convenience: Data at your fingertips

Challenges:

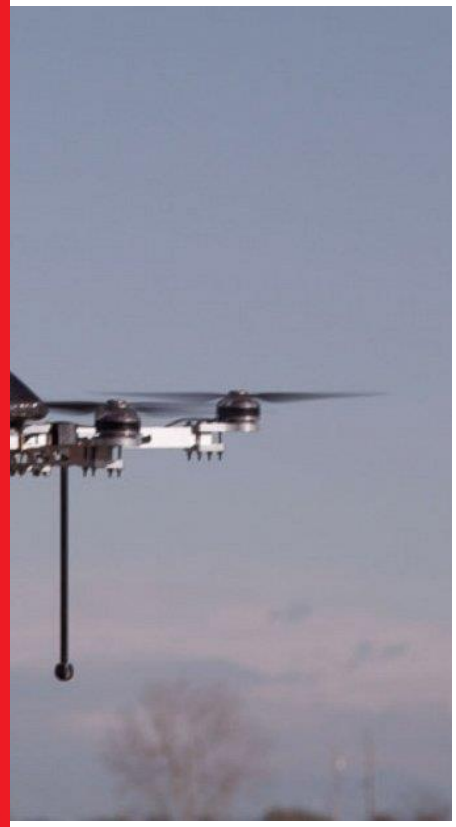
- Holding interest in a world of distraction
- Privacy and information security
- Increased competition
- Increased expenses
- How to maintain trust, reputation and expertise with global competition

Wearable Technology

Now

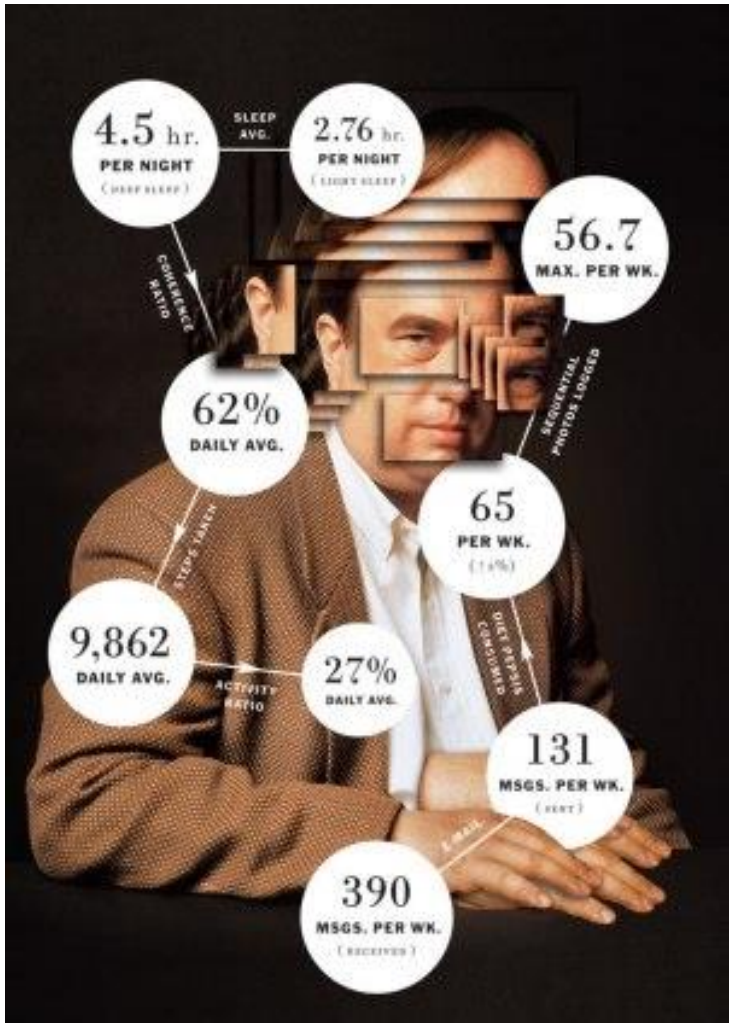


The Not-So-Distant Future



Be All You Can Be: There's an App for That!

- In 2014, Deloitte predicts consumers will be wearing more than $3 billion of newly purchased computer equipment
- This equipment can positively impact health outcomes via the *Quantified Self Movement*
- As these technologies increase, the results for research and public education are staggering.



The Data Revolution

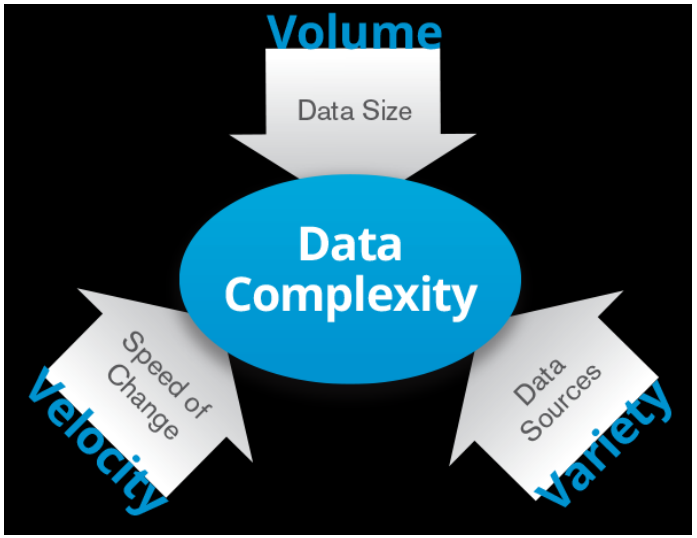
Context-Aware Computing

According to Gartner, context-aware technologies are expected to make a $96 billion dollar impact on annual consumer spending across the globe by 2015

Big, Global Data

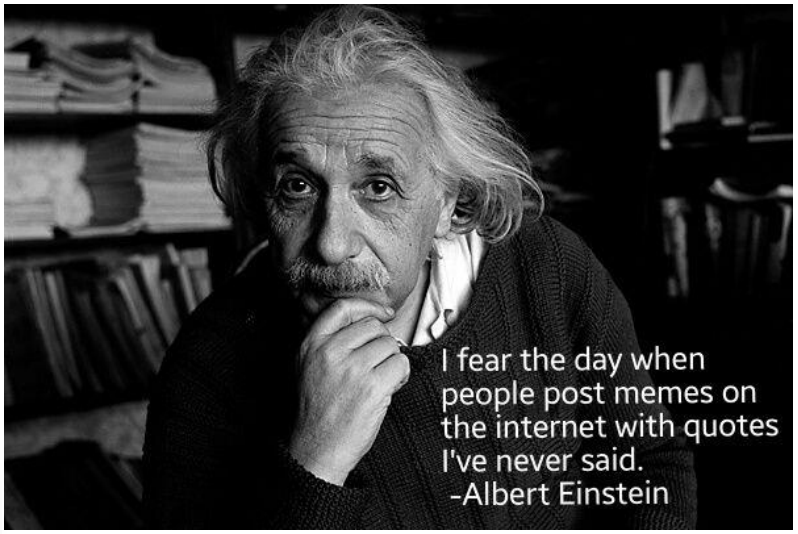
Examples:

- Fraud detection – Are your credit cards being used where you say they are?
- Advertising – Personalized, immediate
- Curing disease– Track the spread of viruses, find correlations between health and other factors over large populations



"By 2015, we expect Google, Microsoft, Nokia and Apple to be continuously tracking the daily journeys and digital habits of 10% of the world's population"
- Gartner Group

The Spread of Misinformation

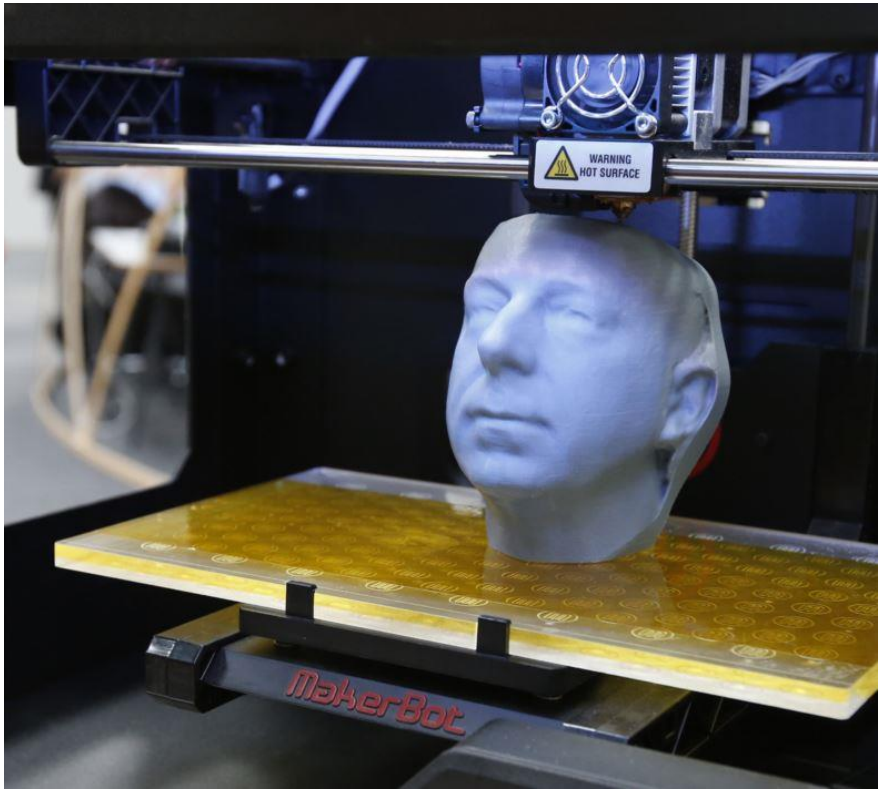


- Misinformation already spreads quickly – especially when it confirms people's already existing points of view
- As big data grows, this problem may continue to increase
- How do you get the right information to those who need it most?

3D Printing

Makers Unite!

- Cost of 3D printing is entering consumer range
- Implications in health care, robotics, fashion, even space travel
- A new revolution in personalized manufacturing?



Implications:
A New Innovation Landscape

Research and Innovation

- Jobs declining in some sectors
- But others cannot grow quickly enough
- New opportunities emerging:
  - Data governance
  - 3D printing patterns
  - Data health specialist
  - Contextual scientist
- Require the blending of previously disparate fields

Education

- Education will also be impacted (is already)
- Networked communities
  - Personal learning networks create new dynamics
  - Spread of information on an unprecedented scale
  - New opportunities for reaching new communities
- Requires creative problem solving – working across silos, "zone learning"

Concluding Remarks

- It is an exciting time for education, research and innovation
- New developments potentially have very positive impact
- Challenges include privacy, security, expense and unequal access
- Find new opportunities to innovate
- Gains can be made by considering both the technological side, and the human or contextual side of new technologies – work around traditional divides in education, research and innovation

Thank You!

For more information contact

Jaigris Hodson, PhD

Instructor, Ryerson University MDM program

Director, Social Media and Research, GCI Canada

Email: jaigris.hodson@gcicanada.com

Phone: 416-486-7219

Twitter: @SocMedDr