

# **IT vs. Librarians**

**By**

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# Introduction

- Disruption
- Convergence/Consolidation
- Collaboration



# Disruption

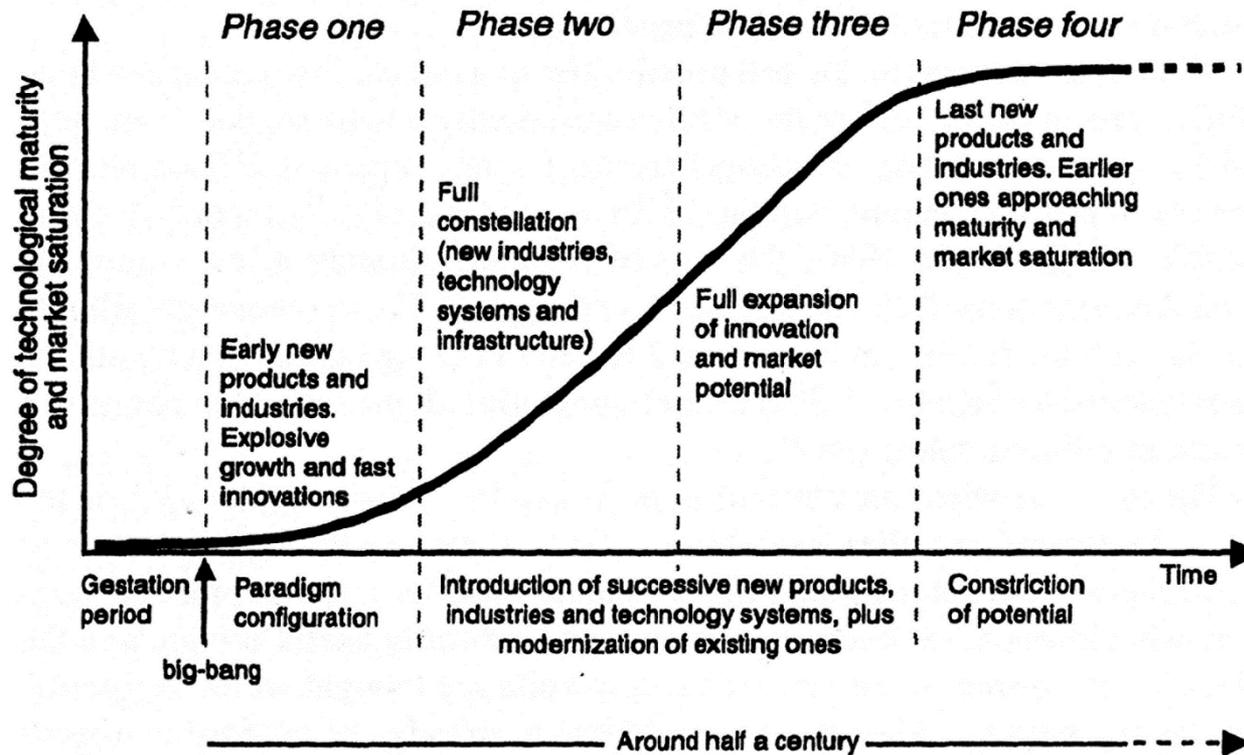
- The potential for technologies or services to change the status quo, alter the way people live and work, rearrange value pools, and lead to entirely new products or services.



# A little more disruption

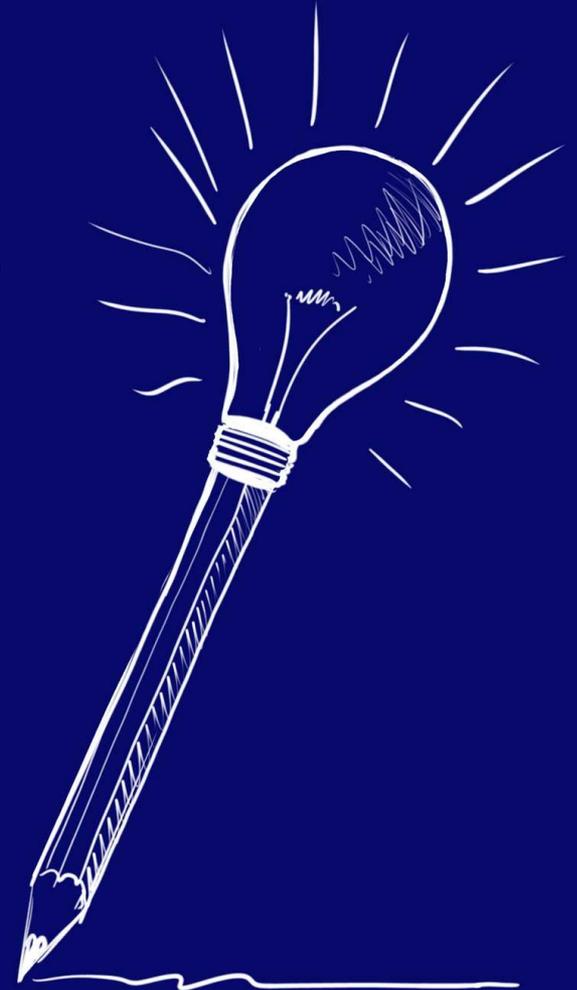
- **Something can always be done cheaper or easier.**
- **Not necessarily associated with job growth.**
- **Can open up new goods and services.**



*Figure 3.1 The life cycle of a technological revolution*

# Age of Information And Telecommunications

- Welcome.
- Define it as the introduction of the internet and accompanying technology.



# Installation Period

- Takes time for Technology to be adapted.
- Needs working infrastructure.
- Needs trailblazers.

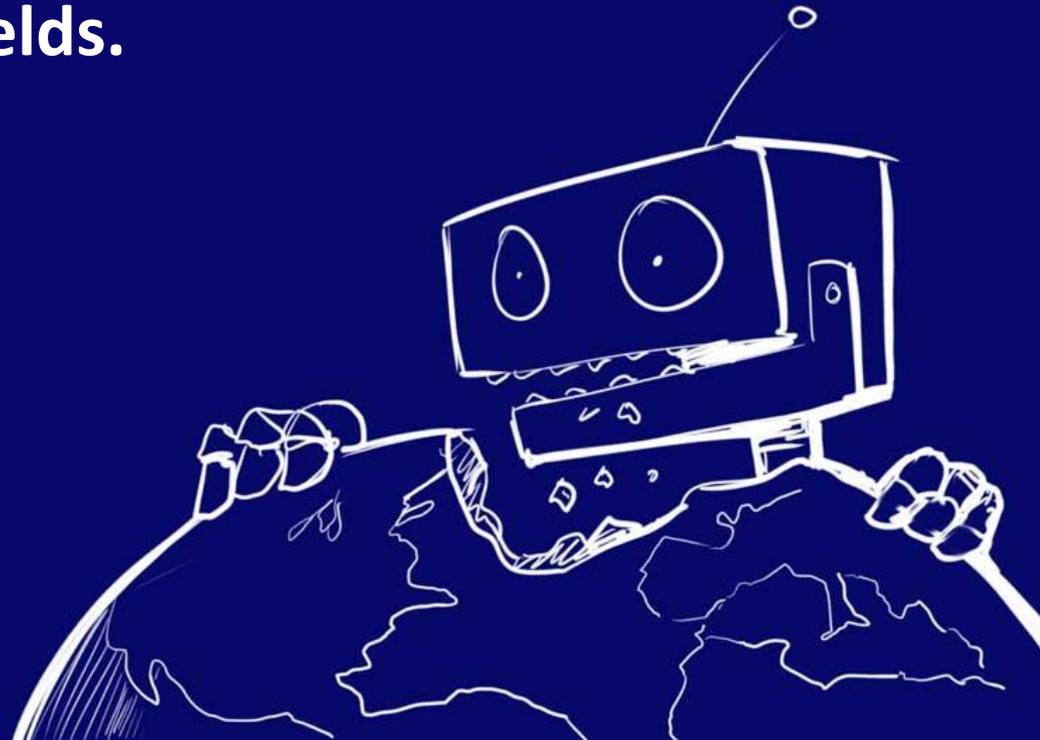


**“The spread of computers and the Internet will put jobs in two categories, people who tell computers what to do, and people who are told by computers what to do.”**

**-Marc Andreessen**  
co-author of the Netscape browser.

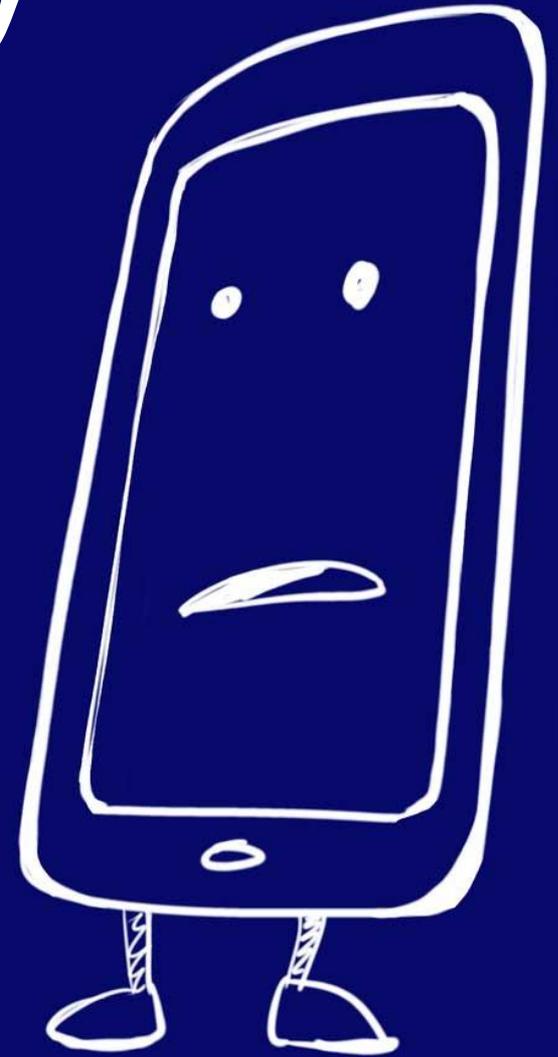
# Software is eating the world

- Routine cognitive tasks vs creative tasks.
- Technology/Software can directly replaces routine cognitive tasks (step by step instructions).
- Has eaten some job fields.



# Software/Technology

- EBooks
- Smartphone/tablet
- Internet
- Streaming Video
- Social Media
- SAS: Software as a Service / Cloud
- Voice recognition
- Artificial Intelligence



# Watson

- Winner of 2011 Jeopardy! competition.
- Deciphers patterns.
- Appearing in new markets.



# Convergence/Consolidation

- The disruptive power of technology to transform the creation, distribution and consumption of information and media.

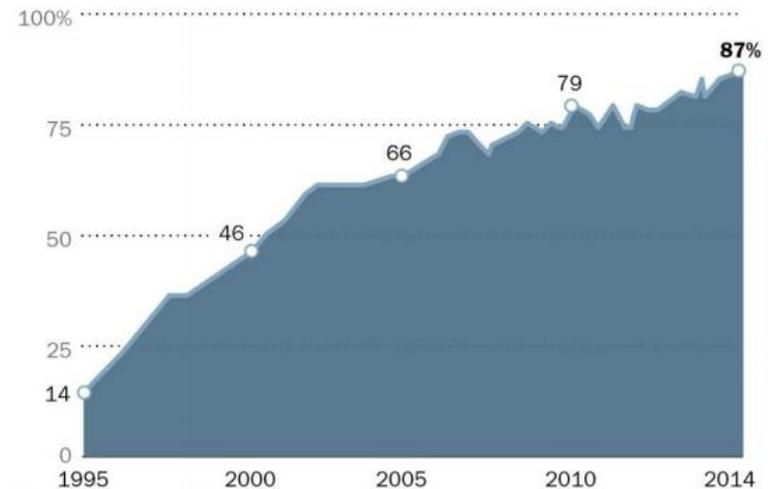


# Examples

- Rise of high speed internet to a point of market saturation.
- Rise of fixed and mobile internet connections.
- Expectation that information and media are instantly accessible.

## Internet use, 1995-2014

*% of American adults who use the internet, over time*

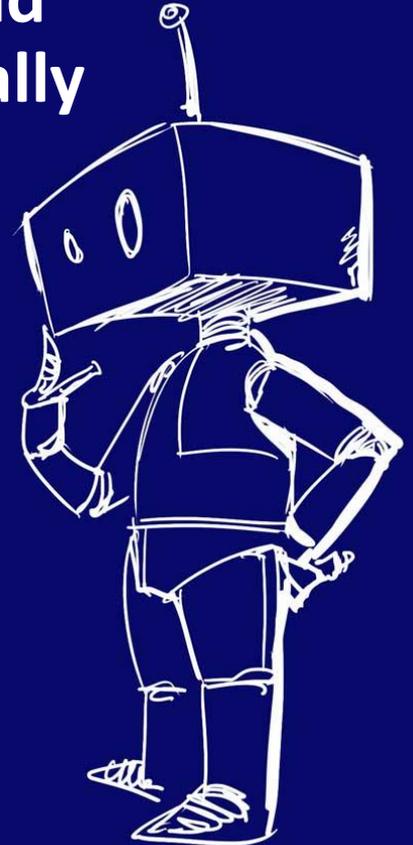


Source: Pew Research Center surveys, 1995-2014.

PEW RESEARCH CENTER

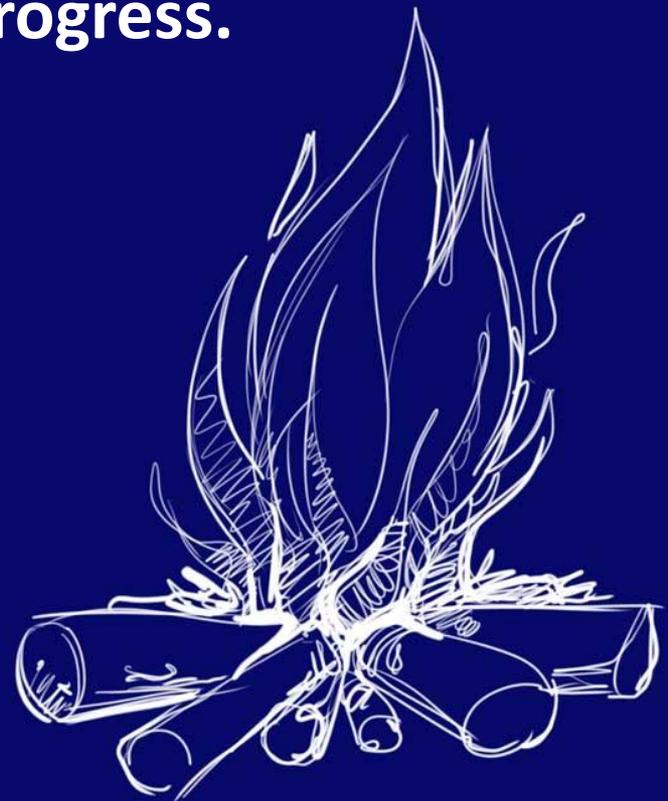
# Knowledge Management

- Automation of the knowledge worker.
- Voice recognition, pattern recognition and complex communication are fundamentally working.
- Computers are demonstrating skills and abilities that used to belong exclusively to human workers.



# General Purpose Technology

- A small group of technological innovations so powerful that they interrupt and accelerate the normal march of economic progress.



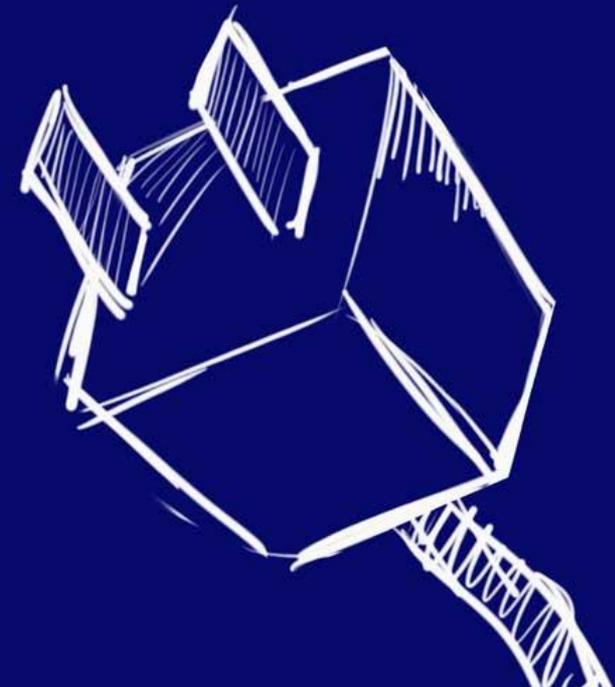
# GPT

- **Computers are the GPT of our times.**
- **Increase productivity in all industries.**
- **Ever-expanding opportunities as software is written for platforms.**
- **Advances don't expire or fade over time.**

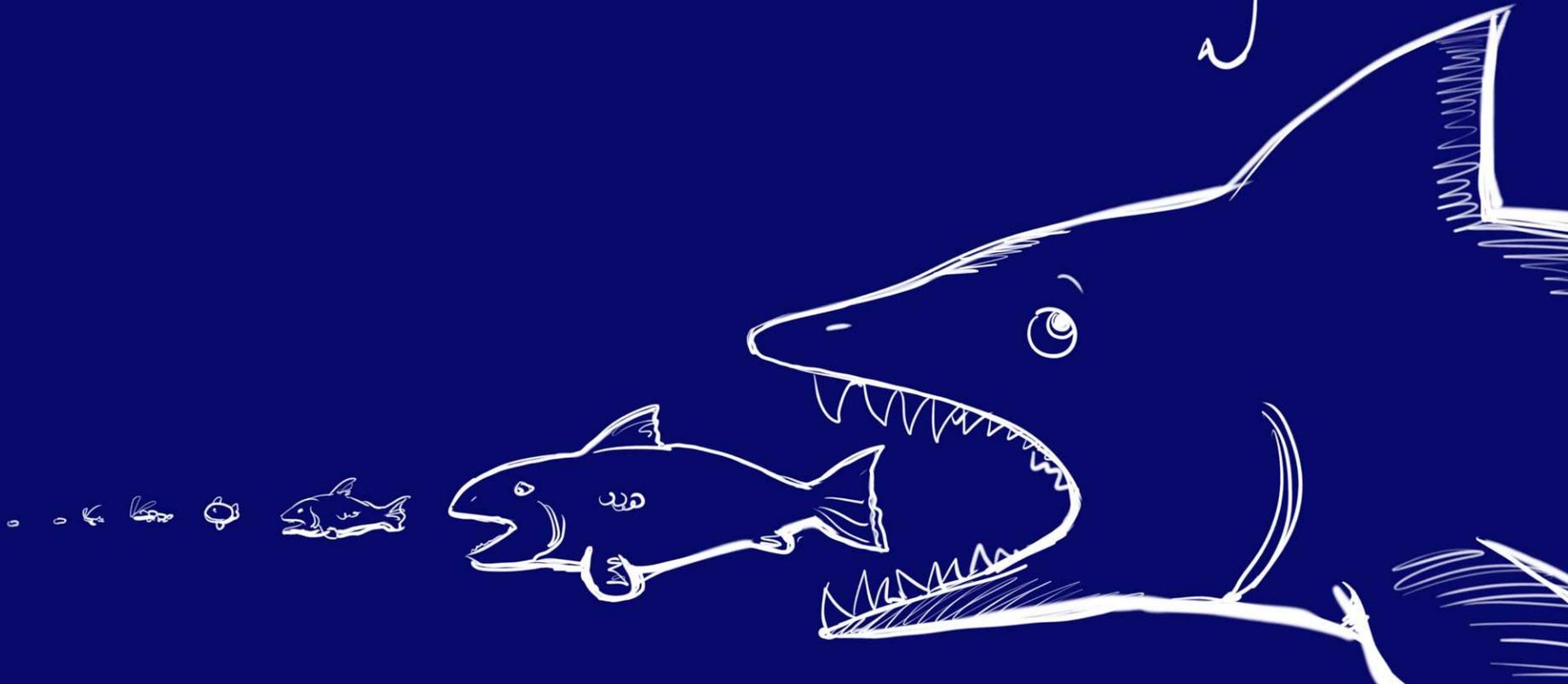


# Information Technology

- IT on a as-needed basis.
- Playing field is being leveled as technology can reach all aspects of consumers and businesses.
- Legacy infrastructure.
- IT may become a service broker.



# Rise of the ECOSYSTEMS



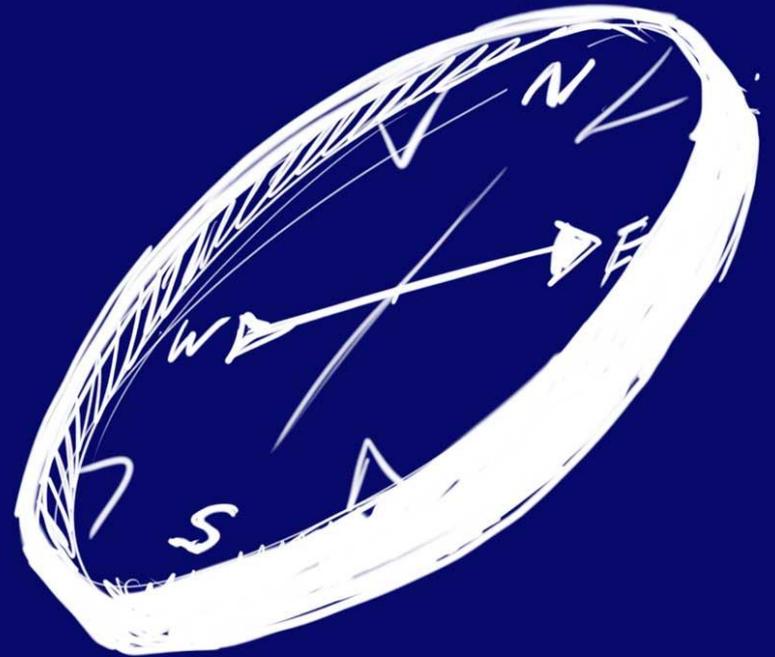
# Cloud based technology

- “Asset-light” model.
- Infrastructure as a service.
- Software as a service.
- Trust issues.
- Pricing war.



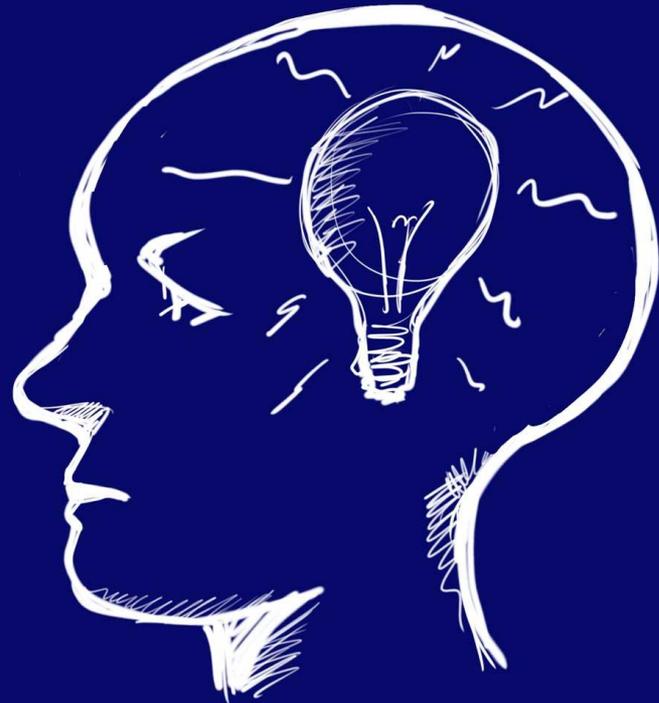
# Technology seems immune to history

- May not have a good direction.
- Each generation builds on the next.
- Smaller learning curves.
- Easy to switch services.



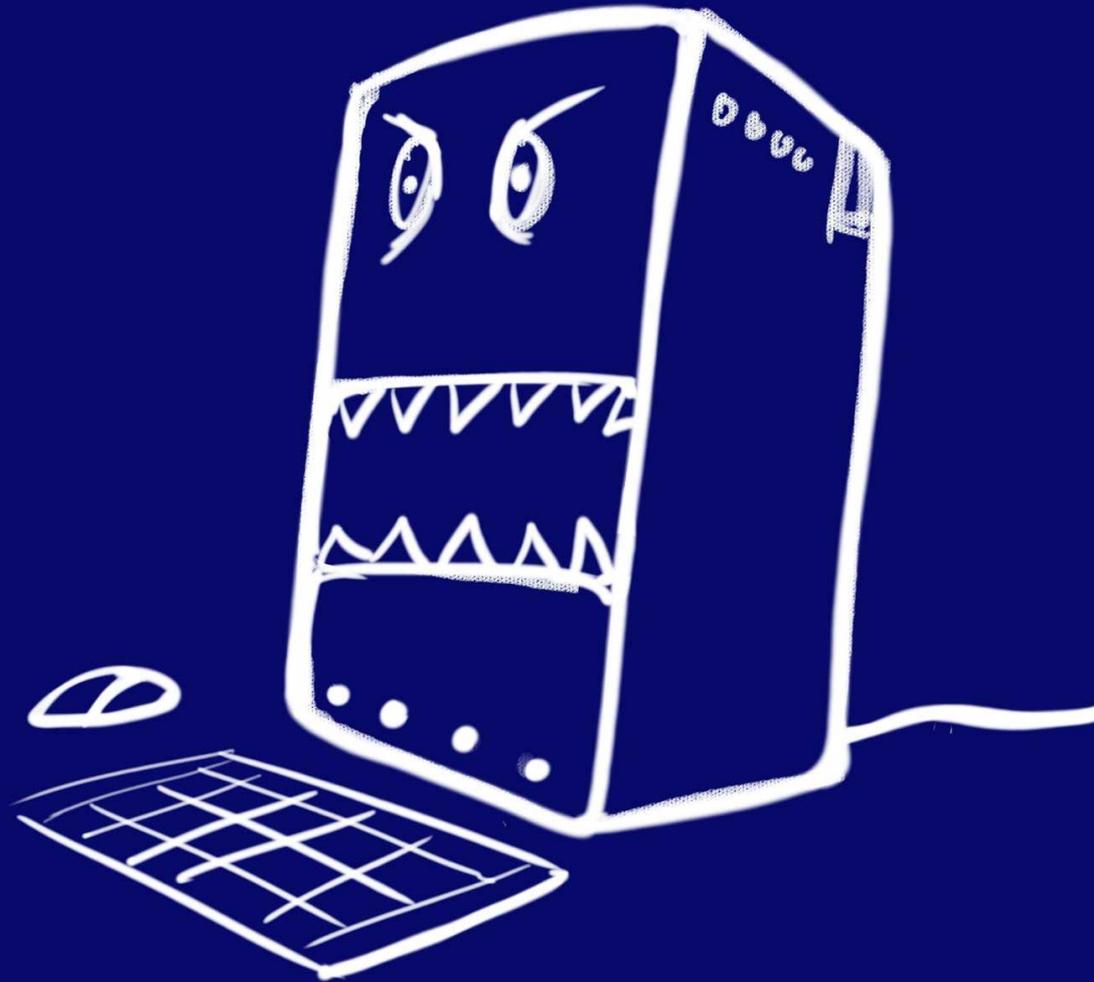
# Collaboration

- **Connecting people and information together**



# Collaboration Concerns

- Fear.
- Complexity.
- Obsolescence.



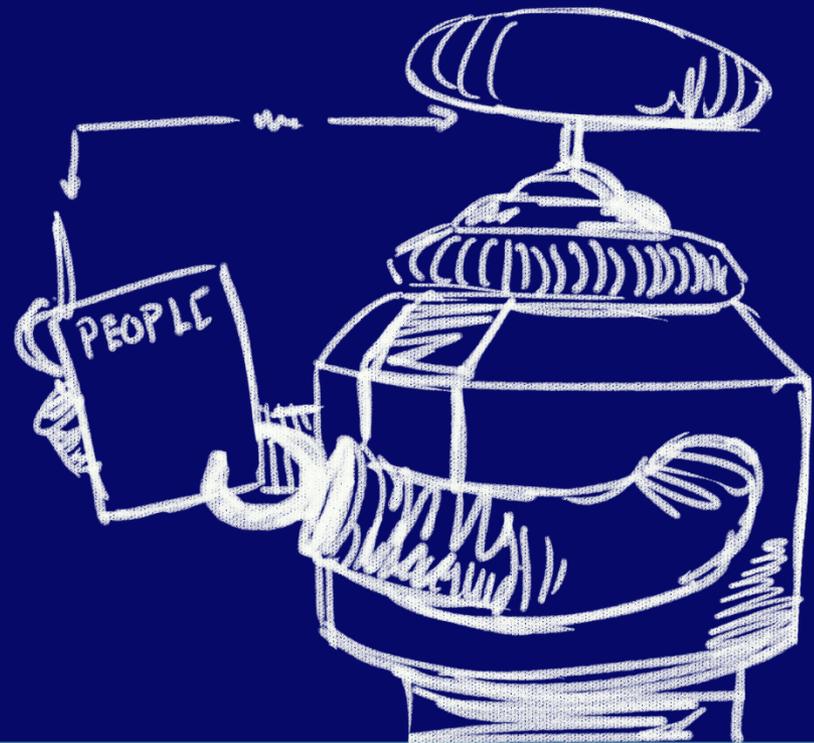
# Value

- **Demonstrate to our communities that our services are valuable.**
- **Staff must be versed in technology and software to demonstrate that value.**
- **Connected to our communities in ways that fall outside of traditional business models for libraries.**



# Digital Literacy

- Services will no longer be centralized.
- Everything is software driven.
- Expectation that libraries will be a source of technological knowledge.



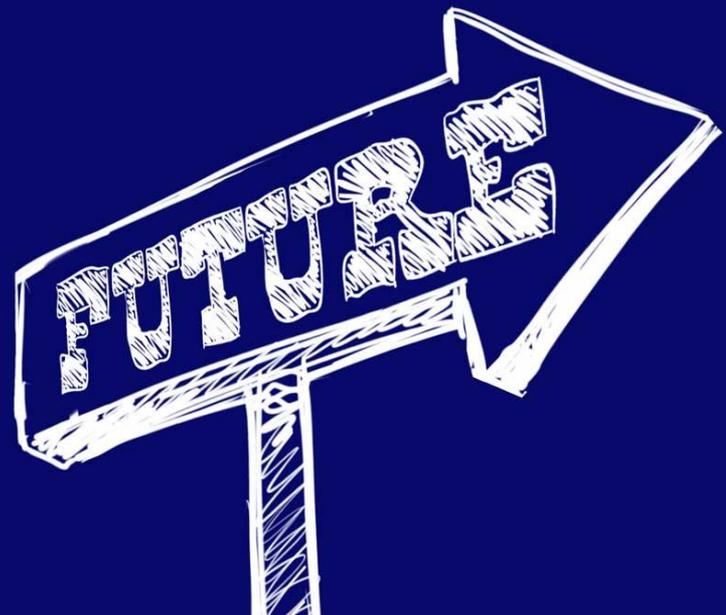
# Opportunities

- **Playing field is being leveled between IT, Librarians and library members.**
- **Information is abundant.**
- **Technology is abundant.**
- **Train both staff and community members.**



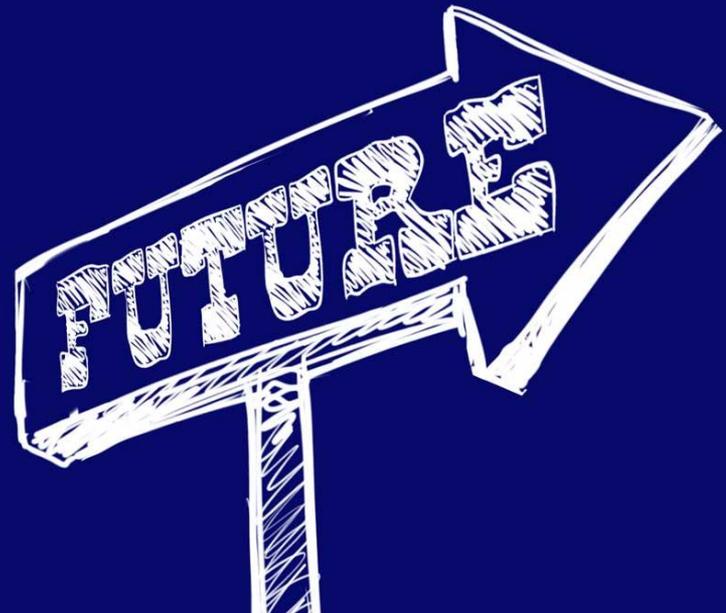
# Transitions for Librarians

- IT experience.
- Technology is not leaving.
- The benefit of technology is not diminishing.
- The nature of the internet is changing, and not in a good way.



# Transitions for IT

- IT is now abundant.
- Member Service is part of the job.
- Integrated into core business of the library.



# Conclusion

- **Library is a 24 hour a day digital service.**
- **We don't want to do old things in a new way.**
- **We want to do new things in a new way.**
- **Focus on staff/customer service.**
- **We need to add our own disruption.**

**“The world of A.D. 2014 will have few routine jobs that cannot be done better by some machine than by any human being. Mankind will therefore have become largely a race of machine tenders.”**

**-1964 Isaac Asimov**