Increase the usage of library resources

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ies Consulting
Resources versus Workflows
Resources

versus

Workflow
60% of students consider Google to be the easiest place to start research.

Search without understanding

• Google Search is to hunt for text in publicly accessible documents that have been indexed by their crawler

“PageRank”

• Priority rank plays large part in selection. Unidentified information ranks lower than known information – a potential fundamental weakness for an engine that has no specialized scientific entity classification

Poor scientific synonym & semantic capabilities

• Google has very basic capabilities with no detailed scientific entity classification nor synonym/disambiguation capabilities
As training moves to more digital formats, it's colliding with new realities in learners' jobs, behaviors, habits, and preferences.

Today's employees are overwhelmed, distracted, and impatient. Flexibility in where where and how they learn is increasingly important. They want to learn from their peers and managers as much as from experts. And they're taking more control over their own development.

**UNTETHERED**

Today's employees find themselves working from several locations and structuring their work in nontraditional ways to accommodate their lifestyles. Companies are finding it difficult to reach these people consistently and even harder to develop them efficiently.

- 37% of the global workforce is expected to be "mobile" by the end of 2015
- 30% of full-time employees do most of their work somewhere other than the employer's location
- 20% of workforce comprised of temps, contractors, and freelancers

**ON-DEMAND**

Employees are accessing information—and learning—differently than they did just a few years ago. Most are looking for answers outside of traditional training and development channels. For example:

To learn what they need for their jobs, employees access:

- 70% search engines
- 50-60% online tutorials

People are increasingly turning to their smartphones to find just-in-time answers to unexpected problems.

**COLLABORATIVE**

Learners are also developing and accessing personal and professional networks to obtain information about their industries and professions.

- 80% of workforce learning happens via on-the-job interactions with peers, teammates, and managers
- 55% of training courses are delivered by an exception of 2,000+ peer learners
- At Google, 55% of learners are asking other people

**EMPOWERED**

Rapid change in business and organizations means everyone needs to constantly be learning. More and more people are looking for options on their own because they aren't getting what they need from their employers.

- Half (61%) of many professional skills
- 38% of workers who say they have opportunities for learning and growth at their workplace
- 62% of IT professionals who report having paid for training out of their own pockets

Number of times online every day early days of the Internet today:

- 5
- 27
- 41%

Distracted...

- 4 minutes
- 9 times every hour
- 2/3

Impatient...

- 5 and 10 seconds
- 5

1% of a typical workweek is all that employees have to focus on training and development.
State Workflow: Research Skill Sets

101 Innovations in Scholarly Communication
The Changing Research Workflow

Science is in transition. This poster gives an impression of the exploratory phase of a project aiming to chart innovation in scholarly information and communication flows from evolutionary and network perspectives.

101 Innovative tools and sites in 6 research workflow phases (< 2000 - 2015)

Most important developments in 6 research workflow phases

Typical workflow examples
State Workflow:
Research Skill Sets

1. Authoring: find the questions
2. Publishing: find the channels
3. Outreaching: find the audiences
Sequential Workflow: Collaboration Process
About NLB Labs
The National Library Board Singapore (NLB) set up NLB Labs as a platform for collaboration...

Mash, Create, Collaborate...
NLB keenly seeks alliances with industry players and individuals by offering datasets and web services,...

Open Data Apps Showcase
This page features apps that have been created independently by developers using data or API...

Our Innovation Journey
NLB strives to enrich the library experience through smart use of technology to deliver more...

Taking the Leap
Innovation is about observing and learning what is happening around you, leveraging on existing methods...

Bringing the Library closer to Patrons
All of our services work on the same principle: We want to meet the needs...

Cultivating Innovation
Translating creative ideas into tangible benefits for NLB In order for NLB to remain relevant...

Partnering Up
Through explorations and adaptation of technologies, as well as actively seeking collaborations with strategic partners...
Query-driven Workflow: Questioning Process

Think You Need A Daily Vitamin Supplement? Think Again

It’s 6 am, the alarm goes off, and you start your daily routine: climb out of bed, brush your teeth, eat breakfast, and pop your multivitamin. Sound familiar? According to a 2016 study, about 56% of Americans take dietary supplements. But what does that supplement actually do? Not much. A 2016 review in the Annals of Internal Medicine was blisteringly direct about supplements. “The message is simple: Most supplements do not prevent chronic disease or death. Their use is not justified, and they should be avoided.” The piece summarized the state of research on vitamin and mineral supplements, showing that the majority are completely ineffective and some, such as beta-carotene, vitamin A, and high doses of vitamin A, actually increase your chances of dying prematurely. The appeal of supplements is understandable, since it’s hard to find time to plan meals based on vitamin intake. The good news is that for most of us, supplementation isn’t necessary. In 2012, the CDC reported that less than 10% of the US population has even a single vitamin deficiency; if you eat a varied diet, you probably already get everything you need. Still, not all supplements are useless: there is scientific evidence to support taking vitamin B12 (especially for vegetarians and vegans, folate acid for pregnant women), and vitamin D. Rethinking your vitamin intake? Keep learning about which ones are worth it (and which ones aren’t) in the videos below, coated forums around the web.

HOW TO SPOT FAKE NEWS

CONSIDER THE SOURCE
Click away from the story to investigate the site, its mission and its contact info.

READ BEYOND
Headlines can be outrageous in an effort to get clicks. What’s the whole story?

CHECK THE AUTHOR
Do a quick search on the author. Are they credible? Are they real?

SUPPORTING SOURCES?
Click on those links. Determine if the info given actually supports the story.

CHECK THE DATE
Reposting old news stories doesn’t mean they’re relevant to current events.

IS IT A JOKE?
If it is too outlandish, it might be satire. Research the site and author to be sure.

CHECK YOUR BIASES
Consider if your own beliefs could affect your judgement.

ASK THE EXPERTS
Ask a librarian, or consult a fact-checking site.
About

Industrial Revolution

1st revolution
Water/Steam

2nd revolution
Electricity

3rd revolution
Automation

4th revolution
Cyberphysical systems

Books:
- The Fourth Industrial Revolution
- Makers
- The New Industrial Revolution
- Industry and Empire
- The Most Powerful Idea in the World
- Liberty's Dawn
- The Industrial Revolution 1760-1830
Great Lakes Science Boot Camp for Librarians 2016: Schedule

### Tuesday, July 12
- 4:00 - 10:00pm
  - Early Arrival - Check-in at Keough Hall Dormitory

### Wednesday, July 13
- 9:00 - 11:45am
  - Pre-Camp Sessions for Early Arrivals
    - 9:00-10:15am: Open Science Framework at Notre Dame, Room 129 Hesburgh Library (Don Brower)
    - 10:30-11:45am: Information Literacy Framework, Room 248 Hesburgh Library (Leslie Morgan)
- 11:30am - 1:00pm
  - Registration & Packet Pick-up, Jordan Hall of Science Concourse
  - Lunch, Jordan Hall of Science Reading Room
- 1:00pm
  - Opening Remarks: Lou Jordan, Room 101, Jordan Hall

### Thursday, July 14
- 7:00 - 8:30am
  - Breakfast
- 9:00 - 11:30am
  - Public Health and Disease - Room 101, Jordan Hall of Science
    - 9:00-9:50: Dr. Neil Lobo: "The Role of Mosquitoes in the Spread of Infectious Diseases"
    - 9:50-10:10: Break
    - 10:10-11:00: Dr. Marya Lieberman: "Finding Fake Medicines"
    - 11:00-11:30: Public Health & Disease Q & A
- 11:30am - 1:00pm
  - Lunch, Jordan Hall of Science Reading Room
  - Opening Remarks: Lou Jordan, Room 101, Jordan Hall

### Friday, July 15
- 7:00 - 10:00am
  - Checkout of Keough Hall Dormitory
- 7:00 - 8:30am
  - Breakfast, South Dining Hall
- 9:00 - 11:30am
  - The Environment - Room 101, Jordan Hall of Science
    - 9:00-9:50: Dr. Jeanne Romero-Severson: "Forests"
    - 9:50-10:10: Break
    - 10:10-11:00: Dr. Joanna Westerink: "Hurricanes and Storm Surge and Storm Wave Prediction"
    - 11:00-11:30: Environment Q & A
- 11:39am - 1:00pm

Looking for the 2017 Great Lakes Science Boot Camp, hosted by Michigan State University from July 19-21? Follow this link:
Thank YOU
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