DATA ANALYTICS: A DRIVER FOR COMPETENCY-BASED LEARNING

Susan Rundell Singer
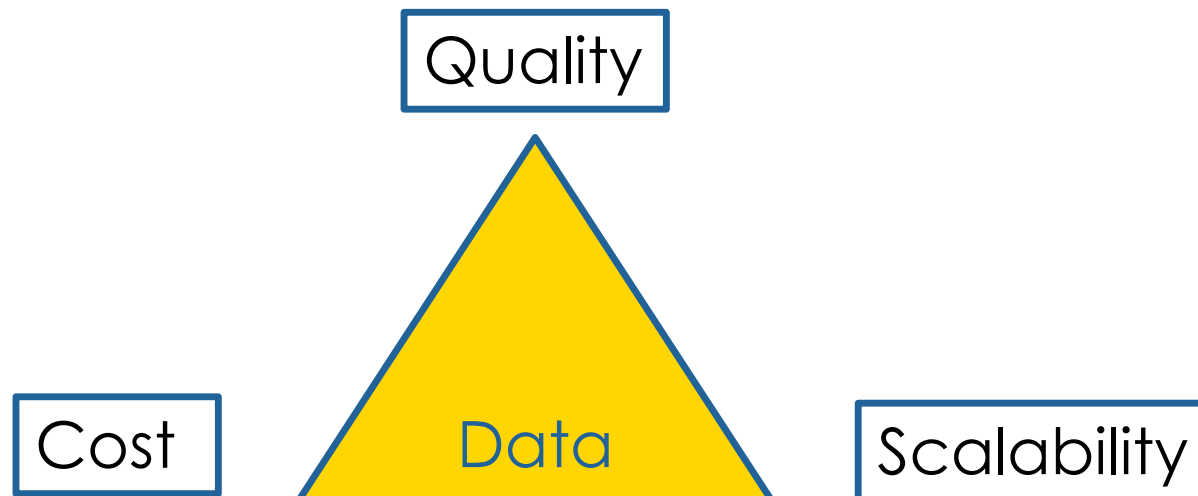
Vice President for Academic Affairs and Provost

Rollins College

Rollins
EST. 1885

Institution-wide Perspective

➤ **Competencies for work of the future**

- Leverage general education

➤ **Integrated approach to data management and analytics to iteratively improve <u>university-based</u> and <u>workplace-based</u> acquisition of competence**

Quality

Cost

Data

Scalability

Preparing students & workers:
Work of the Future

➢ **T-shaped individuals**

- Deep disciplinary knowledge and competencies

- Ability to work across disciplinary domains

- Strong intrapersonal and interpersonal skills (socio-emotional domain)

➢ **Growing body of evidence on learning provides guidance for redesigning the undergraduate experience to:**

- support students' success as learners, and

- as adaptive contributors in the workforce.
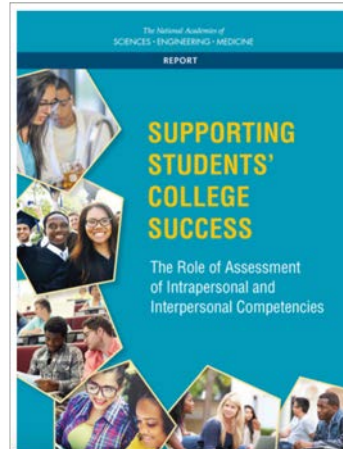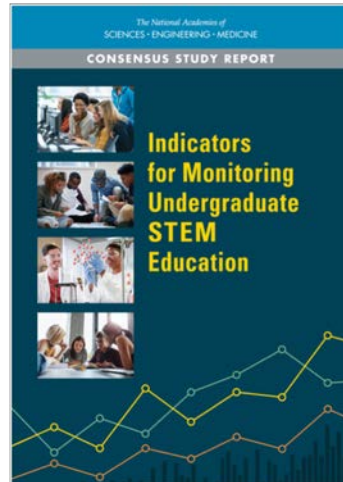
To meet the challenges of tomorrow:
NAE Grand Challenges Scholars Program

Robot-Ready

➤Talent Competency: mentored research/creative experience

➤Multidisciplinary Competency

➤Viable Business/Entrepreneurship Competency

➤Multicultural Competency

➤Social Consciousness Competency
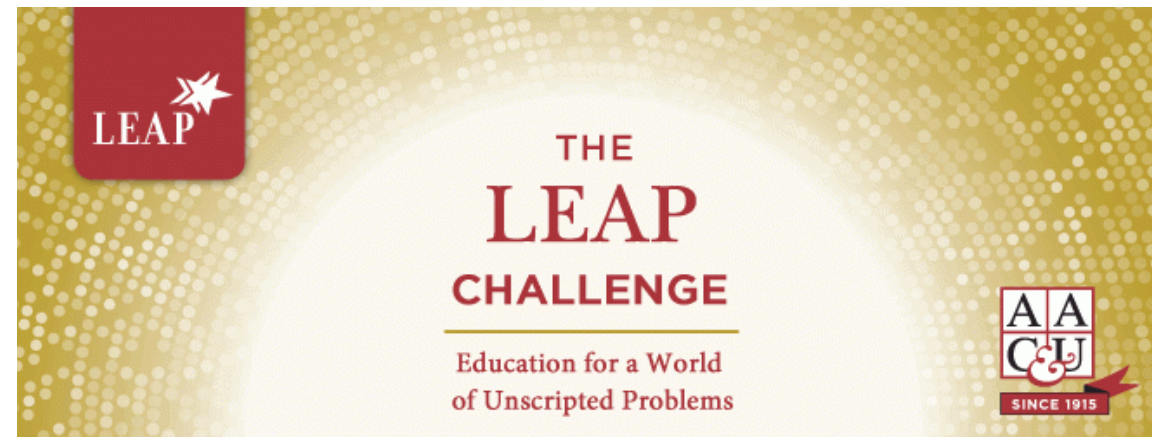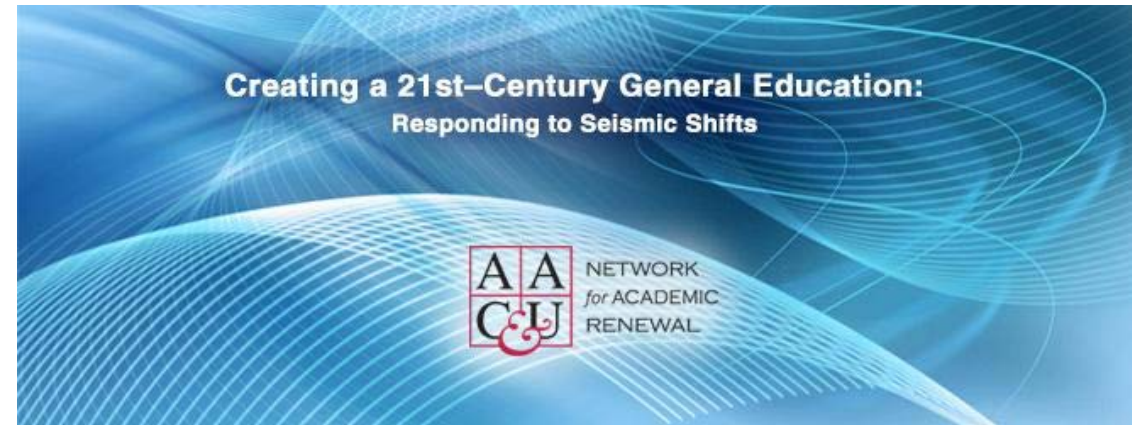

NAE Grand Challenges Scholars Program

Preparing a Generation to Tackle the Grand Challenges

General Education:
For a World of Unscripted Problems

Rollins Foundations

Empowering students to make connections across perspectives and to anticipate an increasingly global future.

Focused study in a major

Foundations:
- Themed & Integrated
- Developmental
- Capstone

Creating a 21st–Century General Education:
Responding to Seismic Shifts

AAC&U NETWORK for ACADEMIC RENEWAL

LEAP

THE LEAP CHALLENGE

Education for a World of Unscripted Problems

AAC&U SINCE 1915

Learning Science + Learning @ Scale + Data Analytics
–> Enhanced Competency
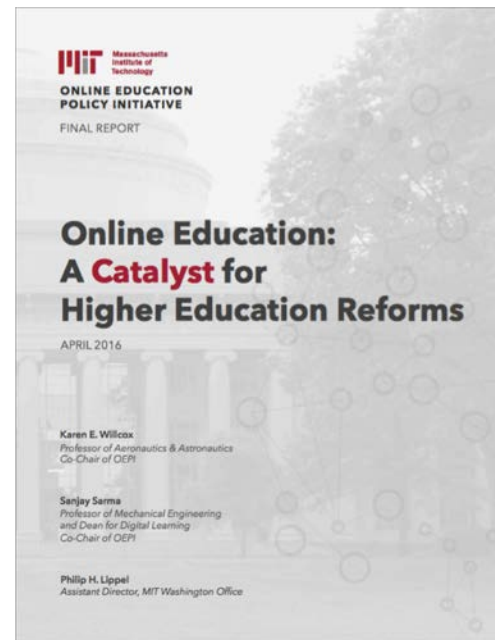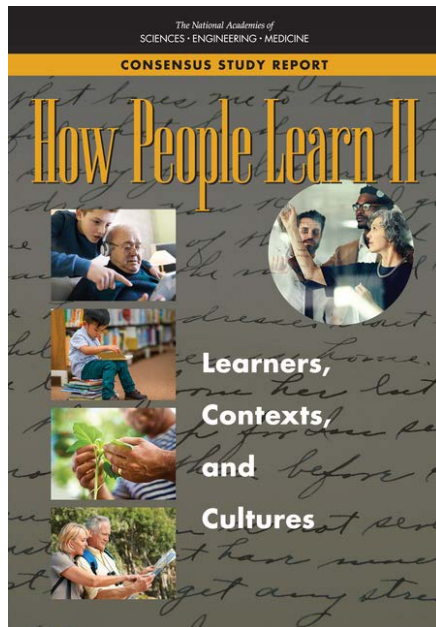
Postsecondary and Workplace Based Learning

Managing and Analyzing a Sea of Data

Higher Education
- Class-based Learning
- Online Learning/Simulations/VR
- Course Management Systems
- General Education & Majors/Minors
- Certificates/Credentials (Lynda.com)
- Career and Life Planning
- Student Success Initiatives
- Institutional Research
- Institutional Effectiveness
- Financial Aid
- Finance
- Alumni affairs

A lot of data to manage
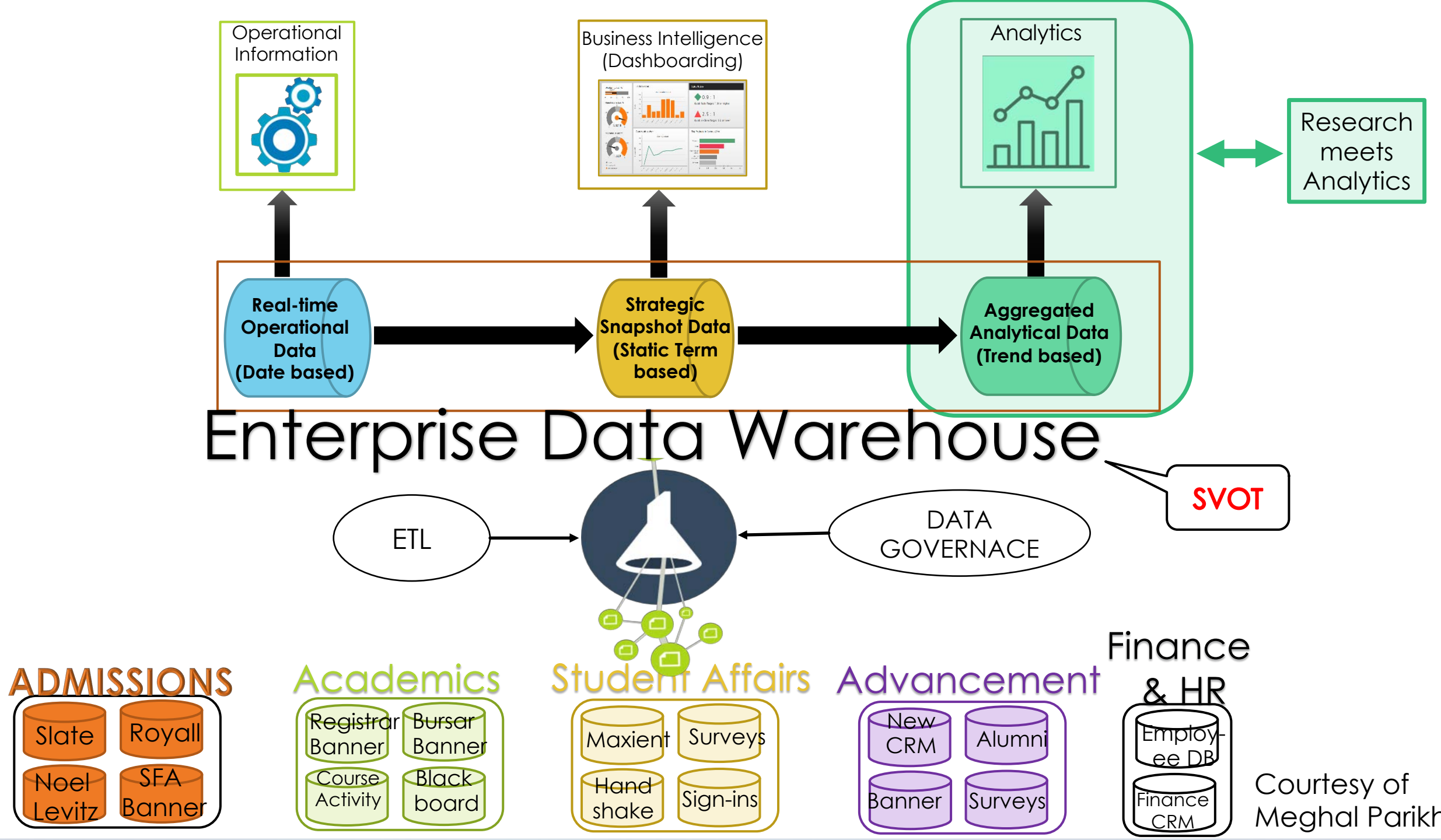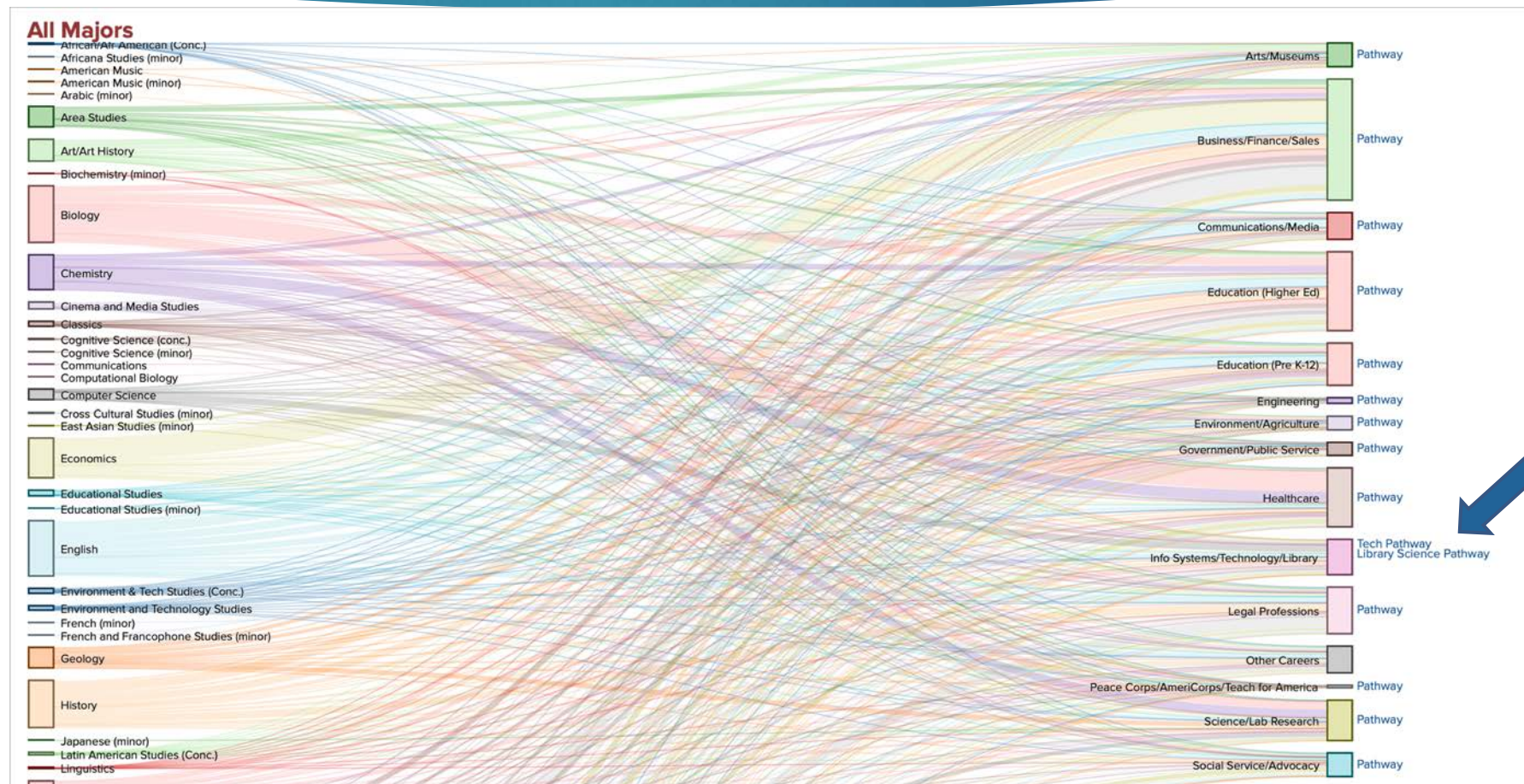
Continuous Improvement

Pattern Detection
- AI
- Machine Learning

Workplace-based learning
- Micro-internships
- Internships
- Co-ops
- Apprenticeships
- Upskilling
- Hands on & online
- Certification
- Credentials
- Micro-masters

Operational Information

Business Intelligence (Dashboarding)

Analytics

Research meets Analytics

Real-time Operational Data (Date based)

Strategic Snapshot Data (Static Term based)

Aggregated Analytical Data (Trend based)

Enterprise Data Warehouse

SVOT

ETL

DATA GOVERNACE

ADMISSIONS
- Slate
- Royall
- Noel Levitz
- SFA Banner

Academics
- Registrar Banner
- Bursar Banner
- Course Activity
- Black board

Student Affairs
- Maxient
- Surveys
- Hand shake
- Sign-ins

Advancement
- New CRM
- Alumni
- Banner
- Surveys

Finance & HR
- Employ-ee DB
- Finance CRM

Courtesy of Meghal Parikh

Analytics

https://apps.carleton.edu/career/visualize/

Computers & Information Technology

Snapshot of a computer science course taught by David Liben-Nowell, Associate Professor of Computer Science.

The Carleton undergraduate experience provides a uniquely strong foundation for careers that deal with computers and technology. The ability to think critically, communicate clearly, and understand industry standards is a huge benefit. Students can participate in various events around campus related to this pathway, such as the annual CarlHacks national hackathon.

Questions? Suggestions?

- Courses
- Off-Campus Studies
- Co-Curricular Groups & Activities
- Student Employment
- Internships & Jobs
- Research & Fellowships
- Alumni
- Additional Education
- Related Media & Resources

📅 Related Events

Wed Mar 20
Diversity Virtual Career Fair *9:00 am*

Thu Apr 4
Computer Science & Technology Graduate School Virtual Fair *9:00 am*

Thu Apr 11
Middlebury Institute of International Studies at Monterey *12:00 pm*

Thu Apr 18
Tech Mock Interviews with Sam Tucker '11 (Amazon) *12:00 pm*

People To Talk To

Staff:

Janet Scannell
Chief Technology Officer, Information Technology

Alumni

Potential Job Titles

Data coordinator

Information technology manager

MIS manager

Operations systems manager

Oracle developer

Programmer

Software designer

Software implementation consultan

Strategic technologist

Systems consultant

Webmaster

Alumni in the Field

Please visit the Carleton Alumni Network to learn more. For this pathway, consider learning more about alumni working in *Computers/IT*.

- *Learn more about Networking at the Career Center!*

Edwin A. Avalos '11
Linguistics, Special Major
View Full Profile

Janet L. Campbell '03
Computer Science
View Full Profile

Becky H. Diffen '03
Computer Science, Political Economy, Latin American Studies (Conc.)
Partner, Chair of Renewable Energy Sector , McGuireWoods LLF
View Full Profile

Colin Justin '10
Sociology/Anthropology
Instructional Technologist for the Humanities , Whitman College
View Full Profile

Sarah A. Maris '85
Economics
Small Business Consultant/Freelance Web Development , Self Employed
View Full Profile

Gregg A. TeHennepe '87
Philosophy
Program Manager, Computational Sciences , The Jackson Laboratory
View Full Profile

Douglas R. Walker '82
Physics
View Full Profile

Internships & Job Sites to Consider

This list of internships and jobs is not intended to be a comprehensive guide to all opportunities in this particular career path. Rather, this page offers a sampling of different options for students interested in careers in Computers and Information Technology. Additional resources can be found online and in-person at the Career Center.

Find out more about jobs and internships at the Career Center page: The Tunnel: Job and Internship Postings. Career Center internship database: *Where have Carleton students interned?*

Additionally, thanks to the generosity of former Carls (alumni and parents), there are a number of funding opportunities that may be able to support your internship. Take a look at the Career Center's list of funding opportunities for internships to determine whether you might be able to apply for internship funding.

For career opportunities and internship information, also check out the Carleton Sentinel, the newsletter of the Department of Computer Science and the Computer Science Student Opportunities page.

Apple Internships
Alumni Directory: *Alumni working at Apple*

Join hundreds of other interns from around the world working in areas such as communications, design, finance, hardware engineering, information technology, marketing, operations, software, and wellness. This is hands-on learning at its best.

Careers at Care2
Alumni Directory: *Alumni working at Care2*

Care2 is the largest online community of people passionate about making a difference.

Chegg
Alumni Directory: *Alumni working at Chegg*

Students on more than 7,000 campuses nationwide use Chegg for homework help, courses, textbook and eTextbook options, student deals, scholarships and more!

Code 42 Software, Inc.
Alumni Directory: *Alumni working at Code 42*

Code 42 is an innovative software company in Northeast Minneapolis. We protect the world's data with our current products, CrashPlan, CrashPlan PRO and CrashPlan PROe. Code 42 is at a stage of intense growth right now, so this is an excellent time to get on board and have a real impact on a truly great company.

Questions and Discussion