Leading A Shared Vision of Enterprise Digital Scholarship and Digital Integration

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UNLEASHING OUR VISION

LEADING URBAN PUBLIC UNIVERSITIES INTO A NEW ERA OF INNOVATION AND IMPACT
Journey to Transformational Change

DIGITAL TECHNOLOGIES & INNOVATION

PEOPLE

SPACE

DATA to INFORMATION to KNOWLEDGE

The University of Cincinnati Libraries will become the *globally engaged, intellectual commons of the university* —positioning ourselves as the hub of collaboration, digital innovation and scholarly endeavor on campus.
Key Emerging Digital Trends and Assumptions

- How research is transforming in a changing world:
  - New technologies – driven by the Fourth Industrial Revolution (4IR) and propelled by Big Data, AI (Artificial Intelligence), data visualization, AR/VR. These technologies will transform research methods, modes of research outcomes/scholarship, measurement of impact, and funding priorities.
  - AI-enabled research examples: sift and analyze hidden data trends, personalized and predictive services, aid peer review, identify plagiarism, and predict and evaluate research impact.
  - All research will be data-driven. AI-enabled Data Science will allow all disciplines to engage new questions in the area such as “how can we ask questions on what we don’t know what we don’t know”.
  - Large-scale, cross-disciplinary collaborations will enable a “team science” approach for “moonshot” problems at a global scale.
  - The Open Movement will dominate the future of scholarly communication and publishing.

- How teaching and learning are being transformed:
  - Personalized, customized, predictive, and measurable learning will become mainstream.
  - Digital Literacy will be one of the key credentials to differentiate learners’ competitiveness for employability.
  - AI-enabled learning experiences: individualized academic advising, customized course delivery, algorithmic and data-driven reasoning as a liberal art for the 21st century.
Established in 2016 as a joint venture between the College of Arts and Sciences + UC Libraries.

The DSC has assembled research groups that genuinely span multiple disciplines, with people trained to think very differently about every step in the research process. Teams are composed of true partners across entire research lifecycle:

- Formulation of research questions
- Pitching grant proposals
- Dataset cleanup and manipulation
- Data analysis and visualization
- Argument formation
- Publication of findings

In 2017, the DSC received a $900,000 from the Andrew W. Mellon Foundation to expand this mission.

DSC was selected as one of six anchor team to Digital Future building.
RDS Mission:
The UCL Research Data Services group inspires the creation of knowledge and enhances research productivity across the UC research community through the development and implementation of interdisciplinary research data services that enables research and promotes synergistic collaborations between UCL and UC researchers.

Areas of Focus

- Research Data Services
- Data Management
- Data Analytics
- Biomedical Informatics
- Geographic Information Systems
Our core mission is to break silos and cross wires across the university. We work at the intersection of data science, the arts and humanities, and the libraries.

Enterprise Digital Integrator (One of six worldwide, projects with eight colleges) + Digital Futures Anchor Team

What We Do:
- Machine Learning and Human-interpretable Data Visualization
- We are a technical catalyst: technology to activate new research.
- We translate between disciplines that rarely interact in order to connect content experts with technical experts.
- We provide resources and infrastructure to nurture research questions and collaborations that slip between the cracks of colleges and funding agencies.
- Create new opportunities: $3.1 Million in grants, 3 Books + 10 Articles, Commercialization (CincyTech, P&G, 84.51°), Community advocacy over past 3 years.

www.libraries.uc.edu

RESEARCH
Networked Structure: Leverage different funding models and different research outputs for common team goals
- Human-Centered AI (University-wide)
- Data Visualization + Human-Computer Interaction (HCI)
- Digital Health + Patient-Centered Data (Academic Health Center)
- Commercialize “Analog” Expertise with Digital Technologies (Colleges + 1819 Innovation Hub)

TEACHING
- Introductory Coursework and Workshops within Colleges
- Student Research and Publication in Faculty Teams
- Job Placement and Digital Training for all Students
- NextGen Masters and PhD for the Digital World

CORE SERVICES
- Digital Tool Development and Training
- Faculty Development – Digital Skills combined with analog expertise and archives.
- Integrated Research & Data Services (RDS) operations
UC’s Digital Catalyst

**TEACHING**
- Intra coursework & workshops
- Student research in faculty team labs
- Job placement & digital training

**Digital Scholarship Center**
Mission: To create new areas of research and discovery across the university by applying AI & data visualization to human problems.

Vision: The DSC will be a distinctive global leader in transdisciplinary digital research.

**CORE SERVICES**
- Digital tools development & training
- Faculty development
- Digital skills for analog expertise & archives

**RESEARCH**
- Networked Research: Leverage different funding models and different research outputs for common team goals.
Engage, Enable and Empower – A Design Thinking Approach for Next UC Libraries Strategic Framework

• Why we need a new strategic framework
• Why choose the Design Thinking approach
  • The planning processes
    • Desired outcomes
    • Lessons learned