Using Analytics for Decision Support and Planning: Trends and Challenges

Michael Corn
Deputy CIO
Brandeis University
Trends

• Organizational Analytics
  – Building usage and HVAC
  – Institutional Reporting (IR): grant funding + space usage;
  – Modeling: true cost of hiring N faculty across Y domains (HPC needs, wet lab needs/costs…)

• Big Data Analytics (BDA)
  – Traditional IR: hand crafted reports to answer specific questions
  – BDA: Here’s a pile of data, what can we learn from it?
Challenges

• Consumer based assumptions: predictive analytics are magic
• Our data tends to be operationally defined and isn’t instrumented for analysis
• Precedent: will this open the door for general research on this information?
• Expertise: True BDA is a professional endeavor – most expertise will be around structured data
• Privacy issues
  – Who needs to be in the conversation?
Privacy: a conversation

• Data Governance
  – Clear metrics / outcomes
  – What’s out of bounds?
  – Anonymization process
  – Data retention

• Transparency (notification)

• User Agency (opt in/out)

• Expanded use (student outcomes \(\rightarrow\) faculty effectiveness \(\rightarrow\) ?)
Brandeis’ Approach

Structured

• Assessing the impact of the required first-year library instruction on students usage of library resources

• Analyzing library collections and usage patterns to facilitate decisions in the areas of budgeting, acquisitions and facilities

• Explore existing tools (e.g., Splunk) for data analysis and mining (of unstructured data)

Exploratory
References & Contacts

• Educause iPAS Report: http://goo.gl/6BC2bz

• Brandeis Initiatives Contacts
  – Laura Hibbler, Manager of Library Instruction
    lhibbler@brandeis.edu
  – Mark Paris, Collections Analysis Librarian
    meparis@brandeis.edu
  – Michael Corn, Deputy CIO mcorn@brandeis.edu