ARC18 CHANGE THE GAME

OCLC Americas Regional Council Conference

Learning Analytics
Understanding Behaviors and Perspectives

ABIGAIL GOBEN, UNIVERSITY OF ILLINOIS AT CHICAGO

MICHAEL PERRY, NORTHWESTERN UNIVERSITY

KYLE M. L. JONES, INDIANA UNIVERSITY-INDIANAPOLIS (IUPUI)

#OCLCARC18

OCLC

Panel and Topic Overview

- **Perry**: Overview of learning analytics, library learning analytics, and data issues

- **Jones**: Provide emerging findings from interviews about ethics issues

- **Goben**: Discuss the ARL SPEC Kit 360 Results

- **Full Panel**: Introduce the Data Doubles research project
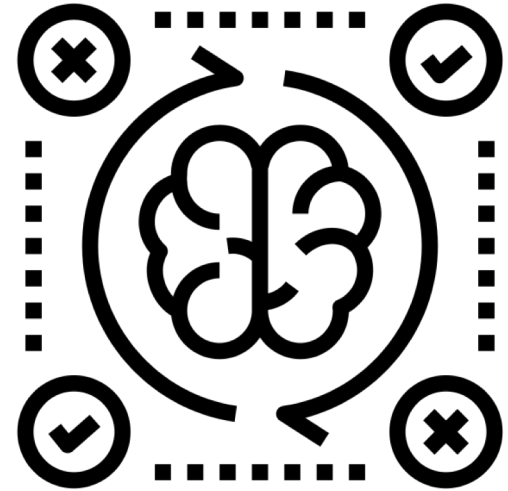
What are Learning Analytics?

OCLC

Michael Perry

Head of Assessment and Planning

Northwestern University

OCLC

What are Learning Analytics (LA)?

"measurement, collection, analysis and reporting of data about learners and their contexts, for purposes of understanding and optimizing learning and the environments in which it occurs" (Siemens, 2012)

Learning Analytics vs. Assessment

Created by Nithinan Tatah
from Noun Project

OCLC

Just because you can doesn't mean you should

Learning analytics and their ethical issues as discussed by academic library and information science professionals

OCLC

Kyle M. L. Jones

Assistant Professor

School of Informatics and Computing

Indiana University-Indianapolis (IUPUI)

OCLC

Value of Academic Libraries

- Academic library impact on student success

- Much work has been done in this area since 2010, the year of the Value of Academic Libraries (VAL) report (Oakleaf, ACRL)

- VAL has proven to be a useful and motivating research agenda

- Now seeing a transition in the language around VAL

OCLC

Library Learning Analytics

- Work by OCLC (Connaway et al.), ACRL, and Oakleaf et al. all argue for VAL work to be aligned with and influenced by learning analytics

- Moves VAL work toward data mining and quantitative analysis methods

- Asserts that libraries should/must provide user data to centralized data warehouses

- Data centralization will enable greater insights into library alignment with institutional goals, impact on student success (however defined)

OCLC

Ethical Issues

- Learning analytics are fraught with real and possible ethical issues

- **Privacy**: Access, control, consent, appropriate flow

- **Autonomy**: Data opacity, predictive measures

- **Justice**: Profiling, unfair allocation of resources

- **Informational harms**: Censorship, filtering, intellectual freedom

OCLC

What We Know

- These are not entirely unknown problems

- Hinchliffe and Asher commented on some of these issues in 2014

- Briney (under review) has analyzed VAL literature and found that poor data management practices may lead to privacy invasions

- Jones and Salo (2018) argued that library learning analytics practices are in direct conflict with several principles in the ALA Code of Ethics

OCLC

What We Don't Know

- When library and information science professionals do library learning analytics work…

- **What** ethical issues do they face in practice?

- **How** do they resolve the problems, if possible?

- These are empirical questions that have gone unaddressed

- This project addresses those questions

OCLC

Study Design

- **Paradigm**: Naturalistic, exploratory qualitative study

- **Sampling**: A mixture of homogeneous purposive and snowball sampling procedures (academic library professionals who had experience with learning analytics technologies and/or initiatives)

- **Participants**: 14 participants; 11 USA, 3 international

- **Method**: semi-structured interviews in audio-only web conferences

- **Analysis**: Constructivist grounded theory strategies (e.g., coding, memoing, theoretical sampling)

OCLC

Theme #1: Bright Lines

- Pursuing learning analytics meant having to deal with "ambiguous, grey areas"

- There seem to be no clear, ethical boundaries, no "bright lines"

- The ethical ambiguity was discomfiting for some

- The profession seems to want these issues to be "black and white," but they do not exist as such

Key Quotes

- "People want a bright-line [rule]," as SP said, "there is never a bright-line [rule] in questions of ethics."

- "[I am] informed by [ALA's] Code of Ethics, [but] I don't work for ALA: I work for [my university]. So, I need to put the priorities of the institution ahead of the priorities of ALA."

- "I think that probably in the last decade or 15 years we have begun to embrace [ALA's Code of Ethics] more loosely."

- "The environment has so significantly altered that it feels, you know, it feels like it would be an opportune time to have a serious go at talking about whether [ALA's Code of Ethics] should be changed or not."

OCLC

Theme #2: Ethical Boundaries

- Participants argued that the most important ethical check came from their respective institution's research review board (IRB)

- IRBs set the ethical boundaries at the beginning of learning analytics projects

- Participants use IRBs to "make a case" regarding data access, management, security, and analysis purposes

- But, some saw IRBs as "rubber stamps" because learning analytics work is exempted from comprehensive review

- Some participants did additional ethics reviews in-house

OCLC

Key Quotes

- "I think if you are working within the context of your local IRB and they're okay with the work that you're doing, I think that that's another indication that the work that you're doing fits within a broader sort of ethical criteria or ethical sort of framework that's, you know, very well established and very well respected."

- "If you perform research, you have to demonstrate justification, theory research, like, you know, in terms of have you considered the implications of the research on the participants? You have to have a hypothesis for your research, as well… There is this caveat that anything you do for the purpose of learning and teaching is fine. You don't need any sort of ethical oversight."

OCLC

Theme #3: Data Limits

- The ethos of Big Data advocates and many learning analytics proponents is to maximize data retrieval in order to increase the likelihood of interesting, possibly actionable results

- Participants did not accept this view

- They wanted only the data necessary to answer "narrow" research questions

OCLC

Key Quotes

- "Just because you can [gather data] doesn't mean you should."

- "I'm not in favor of collecting everything in the hopes that we can potentially use it. For me, it's very much about what are the correct data points."

- "Just because the data is there doesn't mean we need it. So what data do we really truly need in order to do our job or to answer the question that we're charged with answering?"

OCLC

Theme #4: Informed Consent

- Above all else, informed consent proved to be the most dominant theme and ethical concern

- Participants reflected on whether or not students should have the opportunity to opt out or opt in to learning analytics

- No one expressed a clear way to resolve the informed consent problem

- But they overwhelmingly agreed that students need to be made aware of learning analytics practices

- However, some were aware that informing students of learning analytics may "frighten the students"

OCLC

Key Quotes

- "It's the biggest issue," CA said, "that we haven't really resolved."

- Students should be made "absolutely aware of what kinds of things are being collected."

- "I don't want anybody using my data in ways that I don't want it to be used. So [students] should have the same say…. because it's information that attaches to them. And it's information that could have an adverse effect on their future careers or on their future lives."

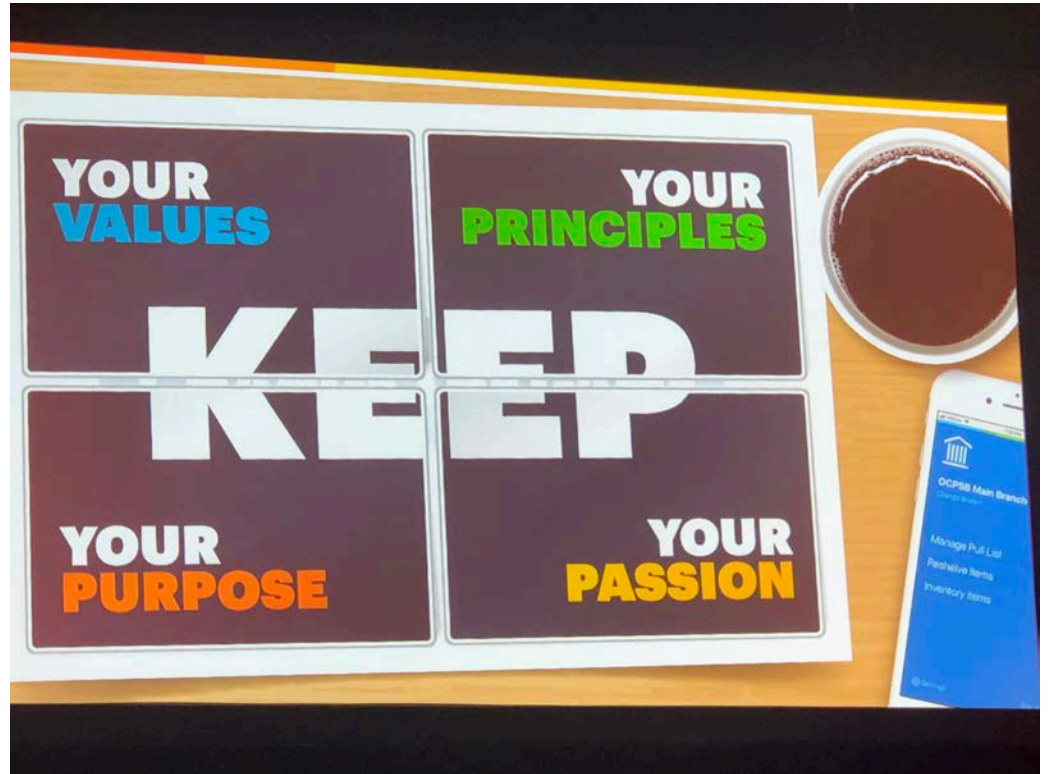# Other Emerging Themes in Need of More Data/Analysis

- Participants expressed that they didn't have the freedom to make ethical decisions—the institution makes them on their behalf

- Some expressed that they were "shamed" by their professional peers for even participating in learning analytics

OCLC

Reflections

- If pursuing learning analytics, libraries need to engage library and non-library staff in ethics conversations

- Ethics conversations should consider a variety of professional ethics codes (e.g., IFLA, NISO, ALA)

- Libraries should develop in-house ethical review committees to go above and beyond what IRBs require

- LIS professionals need to work with legal, information officers, and other policy developers to make sure their positions are heard and accounted for in administrative decisions

OCLC

Final Takeaway

- Can we **keep our principles, our values** when powerful interests want libraries to capture—surveil…—and mine student data for learning analytics purposes?

- Do **our principles, our values** need to be reevaluated?

OCLC

Quick Notes

- Thanks to M. Brooke Robertshaw for her support when this project was just beginning

- This research was financially supported in part from a grant by the Association for Library and Information Science Education
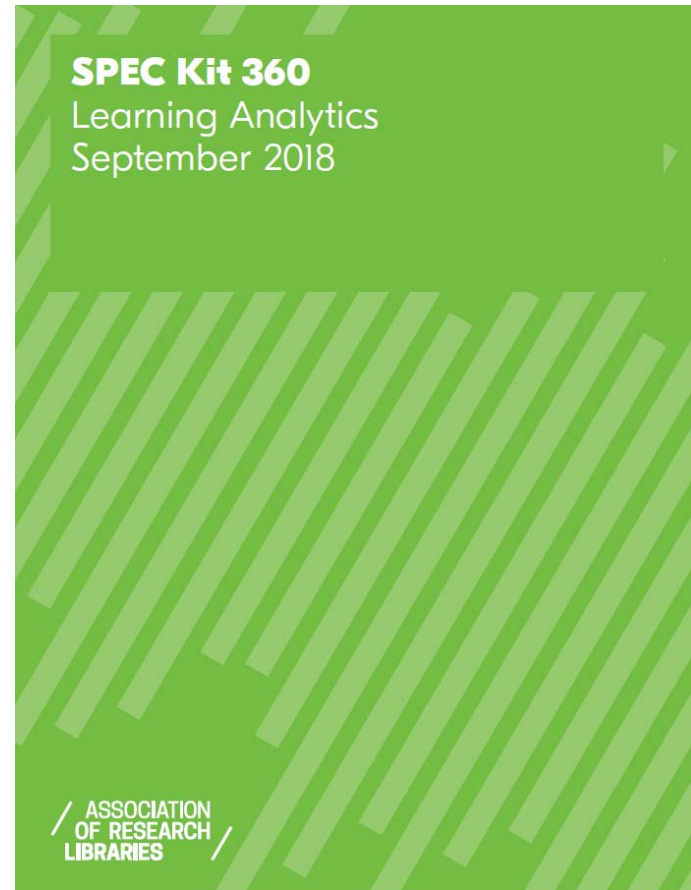
#OCLCARC18

OCLC

Abigail Goben

Associate Professor and Information Services Librarian

Library of the Health Sciences

University of Illinois at Chicago
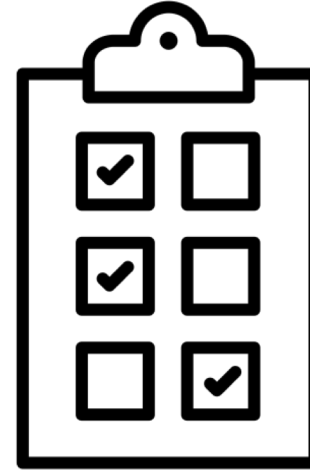
OCLC

The ARL SPEC Kit 360

- Association of Research Libraries (125 member institutions)

- SPEC surveys gather information from ARL member institutions on current research library practices and policies

- 53 Respondents; April 30-June 15, 2018

SPEC Kit 360
Learning Analytics
September 2018

ASSOCIATION
OF RESEARCH
LIBRARIES

https://publications.arl.org/Learning-Analytics-SPEC-Kit-360/

OCLC

Topics Covered in the Survey

- LA initiative participation
- Library practices
- Library and institutional data sharing
- Data protections
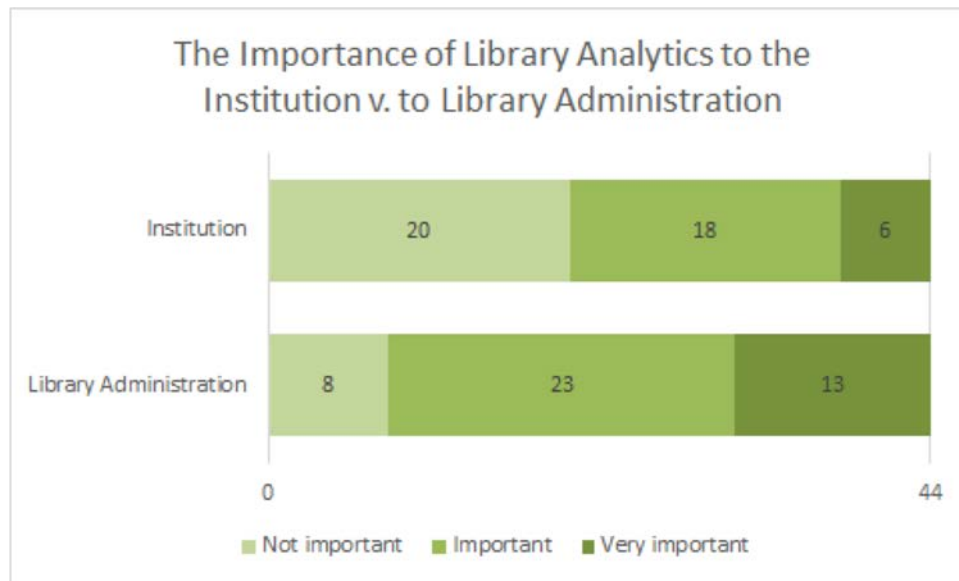- Privacy policies and practices
- Procedures
- Partnerships

Created by Made by Made
from Noun Project

OCLC

SPEC Kit 360: Data Points

- 81% of respondents participating in learning analytics

- <50% had a retention/records management policy

- 31/53 Library Privacy Policy

- 23/53 had CCTV or other cameras

- 42% (19) inform students about library learning analytics
  - Of those-- nearly 3/4ths (11) don't allow opt out

- ¼ had internal guidelines and documents for staff to refer to

- 16% said no training available

OCLC

SPEC Kit 360: Library Administration and University Gap

- How important is library data to learning analytics initiatives at your institution? N=44

- How important is library data to learning analytics initiatives at your institution? N=44

The Importance of Library Analytics to the Institution v. to Library Administration

	Not important	Important	Very important
Institution	20	18	6
Library Administration	8	23	13

OCLC

SPEC Kit 360: Open Comments

- Nascent participation

- Willing to gather data without reservations

- Lack of training or best practices

- Few data management handling practices

OCLC

SPEC Kit 360: Recommendations for Libraries

- Libraries should put in place a schedule for reviewing and/or developing privacy and data management policies

- Libraries should expand training on data handling best practices that goes beyond institutional FERPA and IRB training

- Libraries should develop best practices for assessing the ethical and personal privacy risk to students internally, rather than relying on IRBs

- Libraries should be more transparent about their student learning analytics projects

OCLC

Data Doubles

An IMLS-Funded Project to Study Student Perspectives of their Privacy

OCLC

The Data Doubles Project

- **Background info**
  - http://datadoubles.org/
  - https://www.imls.gov/grants/awarded/lg-96-18-0044-18

- **What we will accomplish**
  - The research project will conduct a student-centered, three-year research agenda into student perspectives of privacy issues associated with academic library participation in learning analytics (LA) initiatives

- **Three stages**
  - Stage one: Discovery interviews
  - Stage two: Cross-institutional survey to explore informational norms
  - Stage three: Scenario-based focus groups

#OCLCARC18

OCLC

The Data Doubles research team is comprised of scholars and practitioners at seven institutions

Find out more about each researcher at datadoubles.org/team

Kyle M. L. Jones (PI)
Indiana University - Indianapolis (IUPUI)

Andrew Asher
Indiana University - Bloomington

Kristin Briney
University of Wisconsin - Milwaukee

Abigail Goben
University of Illinois at Chicago

Michael Perry
Northwestern University

M. Brooke Robertshaw
Oregon State University

Dorothea Salo
University of Wisconsin - Madison

#OCLCARC18

OCLC

IMLS Funding

- This project was made possible in part by the Institute of Museum and Library Services (IMLS) (LG-96-18-0044-18)

- The views, findings, conclusions or recommendations expressed in artifacts stemming from this research project do not necessarily represent those of the Institute of Museum and Library Services

Current Work: Discovery Interviews

- **Protocol general questions**: Awareness of Web Analytics; Learning Analytics; Library Learning Analytics

- **Protocol sub-topics**: Privacy, data sharing and use, data protections, awareness of and reactions to learning analytics, libraries and learning analytics

- **Interviews**: Will complete 120 interviews across eight institutions

#OCLCARC18

OCLC

Questions?

OCLC

THANK YOU

Abigail Goben

UIC

agoben@uic.edu

Michael Perry

NORTHWESTERN

michael.perry@northwestern.edu

Kyle M. L. Jones

INDIANA UNIVERSITY-INDIANAPOLIS (IUPUI)

kmlj@iupui.edu