Student and Faculty Perceptions of Data That Should and Should Not Be Collected at Universities

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ABSTRACT: This poster presentation summarizes results from a mullti-institutional qualitative project examining stakeholder perceptions of learning analytics in higher education. The current study focused on student and faculty perceptions of data that should and should not be collected at universities. To do this, we analyzed interview responses from 20 students enrolled in three higher education institutions in the United States, as well as 10 faculty employed at seven higher education institutions in the United States. We examined student and faculty responses to four interview questions that asked for perceptions of "learner" data that should and should not be collected, as well as "instructor" data that should and should not be collected. Qualitative data analysis involved coding the interview responses using holistic coding with an attributional layer, and tallying top responses for each stakeholder group. Results suggested that many stakeholders agree that student engagement and satisfaction data should be collected, while perceptions varied surrounding the collection of student demographic information and performance. Additionally, the majority of participants agreed that instructor data measuring teaching performance should be collected. Additional rounds of coding will consider nuances in participant responses, as well as participant commentary given in combination with responses.

Keywords: learning analytics, higher education, data, ethics, students, faculty, qualitative

1   INTRODUCTION

The field of learning analytics aspires to use data to understand the learning process and enhance student learning (Dawson, Joksimovic, Poquet, & Siemens, 2019). Proponents suggest that learning analytics can transform higher education (online, hybrid, and face-to-face) at the student, instructor, and institutional level by providing easily accessible data paired with actionable solutions (Siemens, 2013). However, questions remain regarding how to best use learning analytics in effective and ethical ways (e.g. Slade & Prinsloo, 2013). For example, data privacy can be understood as a three-part relation between a certain domain of data, people who have privacy related to that data, and other people who have access to that data (e.g. Rubel & Jones, 2016). This suggests that data privacy can only be understood in the context of all three components, and in the field of learning analytics, a lack of involvement from data subjects can undermine the trustworthiness of the collection and use of data (Drachsler & Greller, 2016). The current study addresses this area, as we investigated student and faculty perceptions of what data "should" and "should not" be collected at universities. This allowed us to investigate the data subjects' perceptions of domains of data that they think are appropriate to be used by personnel at their institutions.

2   METHODOLOGY

This study was part of a multi-site interview study that investigated stakeholders' perspectives surrounding learning analytics in higher education. For the current study, we analyzed responses from 20 students and 10 faculty that described data that they think should and should not be collected about learners and instructors in higher education. All of the data were collected from March to September 2020, during the COVID-19 pandemic.

We recruited 20 student participants from three higher education institutions located in different areas in the United States. Students were eligible to participate if they were currently enrolled as degree-seeking students with more than one year (2 semesters or 3 quarters, not including summer terms) of experience at the institution. We recruited 10 faculty participants from seven higher education institutions located in different areas of the United States. Faculty were eligible to participate if they were full- or part-time faculty with a minimum of 2 years consecutive teaching experience at the institution (4 semesters or 6 quarters, not including summer terms). Student and faculty participants completed 60 minute interviews via Zoom. For the current study, participant responses to four interview questions were qualitatively coded using holistic coding with an attributional layer (Saldaña, 2016). Table 1 describes relevant codes

Table 1: This table describes relevant codes for "learner data" and "instructor data."

Code	Description	Examples
Demographic information	Relatively stable characteristics about students/instructors used to group individuals	gender, race/ethnicity, SES, age, sexuality, parent demographics
Student/ instructor satisfaction	Feedback about campus experiences, as well as in courses	evaluations, surveys, feedback
Student performance	Data about students' performance in their college coursework	final grades, quiz grades, feedback on course assignments
Teaching performance	Evaluation data about instructors' teaching behaviors and past performance	teaching evaluations, student success, responsiveness
Instructor qualifications	Data related to instructors' professional experience and expertise	educational history, teaching history, degrees
Student engagement	Data about students' behaviors that indicate participation and effort levels	Timeliness, tardiness, attendance, LMS interactions
Educational history	Data about students' academic performance prior to current course enrollment	standardized test scores, past credits, past course failures
Personal life information	Information about students' life circumstances external from the university environment	stress, physical and emotional illness, life events, disability

3   RESULTS

Top codes included in Table 2 were mentioned by at least 15% of at least one stakeholder group.

Table 2: Student and Faculty Perceptions of Data That *Should* and *Should Not* Be Collected

	Learner Data (data about students)		Instructor Data (data about faculty)	
	Should Be Collected	Should Not Be Collected	Should Be Collected	Should Not Be Collected

Code	% of students (N=20)	% of faculty (N=10)	% of students (N=20)	% of faculty (N=10)	% of students (N=20)	% of faculty (N=10)	% of students (N=20)	% of faculty (N=10)
Demographic information		20%	30%	20%			30%	20%
Student satisfaction	50%	60%			40%			
Instructor satisfaction						20%		
Student performance	50%	40%	25%					
Teaching performance	20%	20%			95%	90%		
Instructor qualifications					20%			
Student engagement	30%	30%				20%		
Student educational history				30%				
Personal life information				40%			15%	

4   CONCLUSION

Results reveal varied perceptions of the usage of learning analytics. Many faculty and students mention that student engagement and satisfaction data should be collected while the results are less clear about student demographics and student performance. Respondents also considered student satisfaction, teaching performance, and student engagement data to be both learner and instructor data, suggesting that distinctions between the learner and instructor categories may not be clear cut. The most universal finding related to teaching performance, with 95% of students and 90% of faculty believing that this data should be collected. Additional coding will consider the lack of emergent themes in response to what instructor data should not be collected, the nuances behind the conflicting answers about student performance and demographics, and participant commentary and discussion given in combination with participants' responses. Some of this commentary may suggest burdens and benefits of collecting certain kinds of data, awareness of data collected, as well as specific personnel that they think should have access to that data (e.g. it is possible that they may think certain data is appropriate for advisors to use, but not instructors). Future research can further investigate the impact of collecting different data, combined with perceptions of data sensitivity, as that information may explain why different stakeholders think data "should" or "should not" be collected.

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