Policy Memo 1 (1037 words)

TO: School Board of Minerva High School

FROM: Ethics consultant

SUBJECT: Hephaestats Privacy Concerns

1. **Background**

Minerva High School in Pittsburgh, PA, was forced by their school board to address their middling graduation rate and high dropout rate to protect funding and stay open (Princeton 2018). To address this demand, the principal of Minerva High School, Mr. Vulcani, hired Hephaestats, a local private firm that specialized in using artificial intelligence to provide valuable insights. The goals they created together were three-fold: find predictors that would lead to dropout and tag those students, give teachers tools to help these at-risk students, and keep transparency in how the system is used (Princeton 2018). To achieve these goals, the school board and Mr. Vulcani offered Hephaestats any new data collected in addition to previous databases collected by the school over the last several years. Despite the drastic improvement in graduation rate after Hephaestats was contracted, many questions remain about if the privacy of the students was violated.

1. **Privacy Considerations**

Hephaestats collected and were given data related to the personal and academic lives of the students such as their home life or test results, which is sensitive information reserved for the school and typically given away at the discretion of the student or parent. As defined by Westin (1967), privacy is the ability to choose how information about oneself is conveyed. Because the students were not given the option to opt out of their data being shared, their privacy was potentially violated. Further in his paper, Westin (1967) makes note of anonymity, the third state of privacy, and how freedom in open places is destroyed when people are under organized observation in these public places. Hephaestats’ involvement amounts to systematic observation, leading to a privacy concern in which the relative anonymity afforded to students in the public space of school was possibly breached.

Foucault’s (1975) analysis of the Panopticon is the perfect showcase of Westin’s fears for what lack of privacy does to the individual. While not meant as a response to his work, Foucault believes the Panopticon to be the perfect institution of power which shows a passive agreement with Westin that a constant lack of privacy “would destroy the human organism.” Those within the Panopticon are always under the guise of being observed, so they question every action they take, creating the inherent control mechanism of the building. The students of Minerva High School are unknowingly having their data sent to Hephaestats as it’s collected, so even if the students were initially unaware of the data transmission, this amounts to the students being under constant surveillance with no privacy, harking to a variant of the Panopticon.

In the case of Hephaestats and Minerva High School, the students’ information is given away to an unknown outside entity as it is collected without consent. Students can reasonably expect the school to have all the information about their academic life and required personal data. However, Hephaestats had access to all that information as well. In essence, a stranger knew everything about their academic lives and some personally identifiable information, which many would consider a violation of privacy despite the principal’s laudable goals to increase graduation rates. Additionally, not only were the students automatically opted-in to this research, but they were also not informed it was even happening at all, resulting in a breach of privacy regarding information entrusted to the school.

1. **Rejected Actions Options**

*Inform the Parents and Students*

A simple course of action is to tell the students and their parents about what data is collected, how that data is being used, and why Hephaestats is getting the same information. New students would be informed of this policy on registration while an email and newsletter home would be sent to returning students, so all students are at the very least aware of possible privacy risks. Although I agree that everybody deserves to know what data is collected about them and how it’s used, the primary privacy issue remains: there was no option to opt-out of this school policy. Research shows that behavior surrounding privacy is affected by default disclosure options, so the lack of the option to opt-out leads students to disclose more information than they might personally prefer (Acquisti et al. 2015).

*Delete Data after Graduation*

Hephaestats is given student data from the school to increase graduation rates, so data regarding a particular student should be unnecessary after their graduation. Thus, it could be proposed that each student’s data is deleted from Hephaestats’ system after they graduate. This shouldn’t necessarily be problematic for individual students as the school district says the databases were already pseudonymized, but research has shown that such databases can be de-anonymized with relative ease (Barocas & Nissenbaum 2016). Additionally, a student’s privacy has already been violated at that point, so while data deletion addresses future privacy implications involved with retention, it does not fix the privacy concerns as they happen.

1. **Favored Action Options**

*Default Opt-Out Policy*

I propose that each student is automatically opted-out of the program but given the option to opt-in to having their academic data given to Hephaestats for analysis. This approach addresses the problem in the rejected action option where students have no control over the flow of their academic information. Normally, students provide academic records voluntarily to others through things like transcripts, and this option will ensure that behavior remains consistent regarding the sensitive academic information. One downside of this approach is that Hephaestats’ insights are likely to become significantly less useful due to having less data on which to train and analyze. However, this cost should be acceptable given that Hephaestats already analyzed a vast amount of data and could still prove effective using the more readily available information like student race, ethnicity, gender, and address.

*Reject Hephaestats and Listen to Teachers*

Schools have been around for centuries, and artificial intelligence is a rather new technology that may not be needed at all in the sector. Many teachers, who interact with students the most, voice concerns about at-risk students and offer possible remedies, yet administration often fails to implement such suggested changes. Therefore, I propose to remove Hephaestats from the equation completely and focus on listening and empowering those dedicated to helping the students, removing several previously discussed privacy concerns incurred by going through a private entity. While this change will certainly require more work from administrators and even teachers, the graduation rate should see a similar increase without implicating student privacy.

1. **References**

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* Barocas, Solon, and Helen Nissenbaum. “Big Data's End Run Around Anonymity and Consent.” Privacy, Big Data, and the Public Good: Frameworks for Engagement, Cambridge University Press, 2014, pp. 44–67.
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