

## FaceTech: The Technology of the Future?

With the rapid advancement of facial-recognition technology in the past decade, an increasing number of companies have chosen to implement this futuristic face-scanning technology into their systems. Facial-recognition technology has a wide range of applications, from preventing banned fans from entering a stadium, to speeding up airport security checkpoints, even to simply unlocking a smartphone. Businesses and venues including Walmart and Madison Square Garden have already begun experimenting with facial-recognition technology to detect and prevent unwanted guests. However, companies adopting facial-recognition technology face legal challenges and backlash from customers due to invasions of privacy. FaceTech, a private corporation specializing in facial-recognition technology, has presented the University of Hawklandia with a proposal to sell facial-recognition technology. The technology would be installed at Herky Football Stadium to ensure that banned students cannot enter the stadium, underage students cannot buy alcohol, and to allow for a new form of payment via face-scanning. The University should not purchase FaceTech products at this time due to the uncertain effectiveness of facial recognition technology, potential privacy infringement relating to the facial recognition photo database, and difficulty getting consent from all students.

Badaracco's four frameworks, particularly the net/net and individual rights frameworks, support the University's decision not to purchase FaceTech products. Under Badaracco's net/net framework, a decision should be made based on the number of people that are impacted. For example, if purchasing FaceTech would allow the University to prevent 200 banned students from entering the stadium but would result in 2,000 student complaints, while not purchasing FaceTech would allow 200 banned students to enter the stadium but lead to no student

complaints, then the University should not purchase FaceTech because 200 banned students is less than 2,000 student complaints. Following Badaracco's individual rights framework ensures that a decision does not infringe on peoples' inalienable rights, such as the right to life, the right to privacy, and the right to free speech. After applying the net/net framework to FaceTech's proposal, the University should not purchase FaceTech's products because the number of banned students that would be prevented from entering the stadium is less than the number of false positives that FaceTech's system would create.

The point of FaceTech is to make identifying students easier; the significant number of false positives that occur with current facial-recognition technology makes achieving this goal impossible. Studies have found that facial recognition technology is not 100% effective at identifying people. According to a report from the Department of Homeland Security, the median facial-identification programs from a sample had an approximate 93% identification rate. Assuming that FaceTech has a 93% identification rate, this means that 7% of the students processed through FaceTech's system will be incorrectly flagged. Given that 30,000 students attend the University of Hawklandia, 2,100 students will likely not be identified correctly by FaceTech's system. The 2,100 students that would be incorrectly flagged by FaceTech must deal with the ensuing stress that would come from a false positive. In addition, the University would have to spend valuable time and resources training security guards on how to use FaceTech's system and dealing with issues arising from false positives. FaceTech's false positives may also create a problem at concession stands; if a student's face is incorrectly identified, another student could instead be charged for the purchase. A modest increase in sales that FaceTech claims their technology will generate pales in comparison to the backlash and lost sales resulting from students incorrectly charged for something they did not purchase. The significant number of false

positives that are generated by current facial-recognition technology far outweighs any benefits that FaceTech's system can provide to the University. Applying Badaracco's net/net framework to FaceTech's system, the significant amount of time and money that would be spent by the University dealing with potentially two thousand false positives far outweighs the benefit of having a small number of students be correctly identified and prevented from entering the stadium. Along with violating Badaracco's net/net framework, FaceTech's system also defies Badaracco's individual rights framework due to the threat it poses to students' right to privacy.

The storing of student photos on FaceTech's servers without their consent violates students' individual right to privacy. Students have a reasonable expectation that their university-issued ID photo and other photos of themselves that they upload to the Internet will not be taken and used by companies such as FaceTech without their consent. If FaceTech was to attempt getting students' permission to use their photos in FaceTech's database, they will likely find it difficult, if not impossible to get a response from 30,000 students, especially if a student knew they were banned or if the student was underage and intended to buy alcohol in the stadium. Another privacy issue faced by students is the safety of their identifying photos and other data that FaceTech gathers. Students cannot be sure that FaceTech, a for-profit corporation, will not sell their personal information to another company. As a result, students will be hesitant when deciding whether to give FaceTech permission to use their photos. Another barrier to getting students' consent is the accuracy of current facial-recognition systems. Students will be hesitant to allow FaceTech to use their photos if they know that they may be falsely identified, especially if they are an Asian or African American. According to a study conducted by the National Institute of Standards and Technology, false positives for Asian and African Americans were found to be "10 to 100 times" more common than Caucasians, depending on the algorithm used.

The University risks losing the trust of its Asian and African American students if FaceTech cannot identify their faces as well as their Caucasian peers. Under Badaracco's individual rights framework, a decision should not be made if it would violate individual rights; allowing FaceTech to gather, store, and potentially sell student photos violates the students' right to privacy. While declining FaceTech's proposal avoids the significant side effects that a facial-recognition system entails, turning down the proposal may turn out to be a poor decision if other universities find success with similar facial-recognition systems.

A negative potential side effect of the University of Hawklandia's decision not to purchase FaceTech's products is that other universities implement their own facial-recognition software which become popular with students. If another Big 10 University were to implement their own facial-recognition software at football games and students are satisfied with the results, then the University of Hawklandia will face scrutiny from students and faculty who question why the University turned down FaceTech's proposal. In this case, FaceTech's proposal would be a missed opportunity for the University to lead the way in the adoption of facial-recognition technology. If facial-recognition technology was a success at other universities, these universities could sway donors away from the University of Hawklandia. However, the success of facial-recognition software at other universities appears unlikely due to the inconsistencies present in current systems and the difficulty getting students' consent to share their photos. As an alternative, the University of Hawklandia could conduct a trial of FaceTech. A small number of students would be randomly chosen, and they could choose to opt-in to FaceTech. One FaceTech check-in station would be present at the entrance to the stadium, and another FaceTech station would be set up at a concession stand. Student responses would be gathered after the trial run

ends. However, it could prove difficult to determine how many of the university's 30,000 students support FaceTech given the limited number of participants in the trial run.

The inaccuracy of current facial recognition technology, privacy infringement relating to FaceTech's student photo database, and difficulty getting consent from all students present compelling reasons why the University should not purchase FaceTech products at this time. Badaracco's net/net and individual rights frameworks would be violated if the University purchases FaceTech's products because of the overwhelming number of false positives as well as the invasion of students' privacy caused by FaceTech's system. As facial-recognition technology continues to advance and the frequency of false positives falls, students will likely be more willing to have their photo added to FaceTech's database. Until facial-recognition technology advances to have fewer false positives and companies such as FaceTech focus more on protecting students' right to privacy, FaceTech and other facial-recognition companies will find it difficult to get the University of Hawklandia's support.

## Works Cited

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