Solving a serious education problem with augmented reality

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One of the problems with the education system is that—through no fault of its own—a main portion of schooling happens when self-esteem is at teenage levels. Trying not to stand out in the crowd can become a default for students, which is particularly troubling when it comes to not understanding a lesson being taught. No one wants to be the kid that's constantly raising her hand and saying she doesn't understand. The good thing is that schools understand this is a problem. It's where the phrases, "there's no such thing as a stupid question" and "the only stupid question is the one you don't ask" come from. Unfortunately, that's not a very effective way to combat the issue. If the teacher is paying attention, they are often in the best position to address the issue. But sometimes, singling out a struggling student does more harm than good. I say this as the girl in Honors Algebra II who the teacher—after every new lesson—would single out to ask, "Kasey, do you understand this?" It was mortifying and I still don't understand algebra.

This leaves us with an interesting dilemma: How does a teacher know who is struggling, if the student won't speak up?

The solution may be in a marriage between augmented reality and smart phone technology.

The system, called Augmented Lecture Feedback System (ALFs) [1], was actually designed with universities in mind, but could really be used in any lecture-style class. To use the system, the teacher would wear a pair of augmented reality glasses—probably they should get Google to design them—that would project symbols over specific students indicating their level of understanding of the subject. The students, in turn, use their phones to let the professor know if they're keeping up with the lesson by selecting the corresponding symbol from a server. The student can indicate if the professor is going too quickly or show they know the answer to the question. If the teacher asks a question, students can use the system to show virtually raise their hand. It also allows the teacher to view all submitted answers simultaneously to allow for a better assessment of the lesson.

There are several advantages to using the system. The professor gets real-time feedback for the lesson and can adjust as necessary and the students have a less embarrassing way of showing they didn't quite get that last slide.

This system could really help out students and teachers. Should the students be confidant enough to ask questions and speak up? Probably, but that doesn't mean they will. Fear of being ridiculed is a strong emotion when it seems like everyone else understands the lesson and you don't. I'm in favor of anything that ensures a better education.

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