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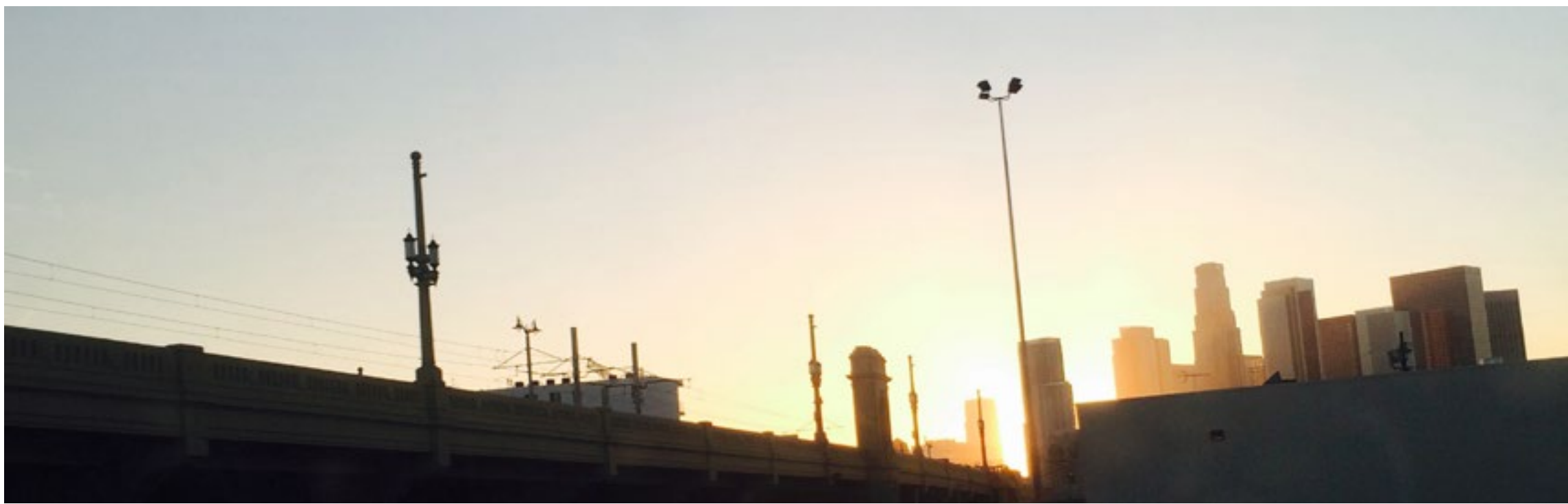**Author**

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The Coded Schoolhouse:
Tablet Computers and Public Education

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ABSTRACT:

Using a South Los Angeles charter school of approximately 500 students operated by a non-profit charter management organization (CMO) as the primary field site, this two-year, ethnographic dissertation project examines the implementation of a one-to-one tablet computer program in a public high school. This poster examines the variety of ways that information and communication technology (ICT) functions in everyday life within the institution — including classroom instruction, school discipline, and evaluation — through qualitative methods, primarily class observations, photographs, and interviews with teachers, students, and administrators as the program evolved over two consecutive school years. This project contributes needed empirical context to questions of technological innovation in public education, providing the first-ever multi-year study of a one-to-one tablet computer program in a California public school.

SITE DESCRIPTION:

Los Angeles United Academic is a large, nonprofit charter organization in Los Angeles, comprised of 26 free, public high schools and middle schools that serve 11,000 low-income students. From their website: "United Academic employs the highest achievement standards and latest innovations in technology to prepare our students for success in college and future careers."

In 2013, LAUA launched an ambitious plan to give all of its high school students, teachers, and administrators tablet computers and a suite of educational apps. The program was piloted at a South Los Angeles school called Number Seven.

LAUA High School Number Seven (schools are referred to by number until a donor purchases the name rights) has no cafeteria, gymnasium, or library. Number Seven's 500 students are roughly 95% Latino and 5% African American: there are no white or Asian students. Like many charter schools in Southern California, Number Seven is an "intensely segregated learning environment."[1]

RQ1:

How are the various uses of tablets supported by social and technical networks within the institutional framework of the school? How do decisions about the configurations of devices and their supporting infrastructure express the interests of students, teachers, administrators, manufacturers, publishers, and the larger community?

"We should all be using it more. It's good for the kids. But most of the time, I just don't have time to deal with the...frustration." --Ms. Quezada, Math
"When I'm in a class and I need help, I can just grab one of the kids and say, 'Hector, fix this for me.' We couldn't do this without them."--Ms. Tate, English

RQ2:

What kinds of data are generated by the use of tablets in the school's daily activities — e.g., instruction, discipline, evaluation, surveillance — and how do such data circulate? Who may access such data and how may various stakeholders use these data? How does use of tablets ignore, enhance, or impede existing data regimes?

"We have new kinds of assessments we can give that we couldn't give before, because we just didn't have the hardware for it. All the data is right there. Then I can see which teachers need to work more on lessons and who has been doing a good job. This tablet let's me see everything. They [teachers] can look at it too, if they want. "--Mr. Tustin, Administration, English

RQ3:

How do the communities involved directly or indirectly in the daily life of the school describe the use of tablets vis-à-vis the central legitimating ideal of public schooling? How do discursive regimes around public schooling and technology address the specific resources required for the iPads and their software to function?

"The research shows you have to use technology to engage students. My two year-old has a tablet. I don't want him to have an iPad, but you have to. It's the future. If we don't show these kids how to use technology, they won't be able to compete." --Mr. Gomez, Administration

FINDINGS:

In general, the use of tablets in the school followed the pattern observed by Cuban et al. in 2001 in a study of one-to-one laptop programs: "high access and low use."[2] High school instruction is still an analog affair. The bulk of the considerable amount of largely unanticipated IT work that accompanied this one-to-one tablet program was done by a team of student workers, STUDENT TECHNOLOGY LEADERS (STLs), who reported spending, on average, three hours per day doing IT work. Students received no pay or class credit for this work. Recognizing that tablets were not being used much in formal instruction, school administrators issued a rule in 2015 that instructors in English and math must periodically deliver lessons on tablets via a Common Core-aligned app produced by Pearson. By contrast, school administrators reported no consistent set of barriers for the use of tablets in testing, college applications, or discipline, adding to their already considerable surveillance capacity. [3]

This project is particularly interested in the labor that keeps the program running, the non-instructional uses of tablets, and the implications for technological adaptation and institutional change.

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