After School Pickup

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COMPONENTS OF A

21st Century Classroom

Technology is undeniably changing the face of education, and it's easy to see the impact already. Imagine what classrooms will be like in 20 years with the speed of technological innovation. Learn more about some of the key advancements in the 21st century classroom.

91%
of teachers have computers in their classroom...

...but just **1 in 5** feel their classrooms have the right level of technology

INCREASING THE PRESENCE OF THE FOLLOWING TECHNOLOGIES COULD CHANGE THAT RATIO DRASTICALLY

Real World Education
Project-based learning (PBL) teaches concepts, but also organization, articulation, project management and collaboration

Integrating life skills into education can improve student engagement and retention and prepare them for 21st century careers

Online Courses
Almost a third of all college students take at least one online course

Online enrollments saw 21% growth while overall higher education student population only saw 2% growth

Over 65% of education institutions count online learning as critical for long-term educational success

Games and Gamification
43% of teachers have used online games in the classroom

In one study, games raised average test scores:
91.5% With the use of digital games
79.1% Without the use of digital games

Learning Analytics
Help teachers assess top concerns and achievements related to their students

Registration for the Learning Analytics and Knowledge conference doubled between 2011 and 2012

2012
2011

One system claims to predict whether a student's likelihood of sufficient course completion with about 70% accuracy, highlighting risk factors for individual students
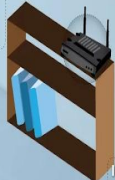
70%

Open Source Textbooks
In the next decade, open source textbooks are expected to grow to 35% of the textbook market

By 2013, e-textbooks may comprise 11% of textbook revenue

6 in 10 students have used a digital textbook
- just 4 in 10 had in 2011 -

81% of teachers believe tablets enrich classroom learning

86% of students believe they study more efficiently with tablets

1 in 5 students have used a mobile app to keep their coursework organized

Integration of Social Networks
Engaging students with a free tool they already use can help them learn in new ways, gain focus and increase participation

25% of teachers use social media for coursework, compared to now 80% of college professors

A+
One social media pilot program assisted in a class' 50% rise in grades

4 in 10 students believe integrating social networks into the classroom would benefit their education

Over 51% of colleges cited wireless upgrades as their tech priority in 2011-12 given the 60% increase in mobile devices on campus in the previous year

59% of students would like to use their own mobile devices to enhance learning

Top 3 Reasons for Teachers to Use Technology in the Classroom

76% Adapt to diverse learning styles

77% Boost student motivation

76% Enhance the material being taught

Open Colleges

Technology has been changing learning in the classroom for a long time now. With the most change being seen during COVID. Online classes became much more widespread and even younger students are implementing technology into the classroom now.

Why do I care about this?

Both of my parents are elementary school teachers and I have heard many instances of frustrations with student pickup after school

What's the problem with after school pick up?

Well for starters at the beginning of the year most teachers don't know all of the children's parents. And throughout the year children with co-parenting situations and other family members picking them up raise the issue of child safety.

What currently exists?

1. There are already apps that monitor grades, attendance, and serve as school resources.

2. D2l is an exam of a mobile application that can be modified to assist in school pickup.

3. Powerschool was the mobile app I used in middle and high school. The core idea already exists it would just need to be added.

Unique keys for security already exist and have been out for some time now. Security badges, one time passwords and account recovery have made major progress since COVID.

My program would work by creating a unique key that exists only between parents or authorized adults for pickup and each student. The parent would need to sign out the student using the code preventing strangers or family members who are not authorized from picking up students.

The design approach would be to create key value pairs that have the student ID be the key and the parents or other authorized pickup be the values.

I would take this approach so that students could have multiple authorized people to pick them up. Such as mom and dad, older siblings and other family members.

How I would design it continued

I would have to better learn how to manipulate key value pairs.

I would learn how to turn the kvp into things like QR codes and have to learn how to allow the admin user to grant temporary keys if desired. I haven't yet devised a way to go about this but I have the desired output in mind .

Why being able to grant temporary keys is a game changer.

- It allows for people you trust but don't want to give long term access to child pickup.
- The examples that come to mind are grandparents or neighbors in case a authorized user is feeling sick.

What have I learned since I looked into this project?

Something I realized is how little I know how to manipulate data. Even though I could code different functions I'm very unfamiliar with how to do large amounts of efficient data analysis and input validation. Other than that I could start coding unique kvp to get a small test run developed. Of course this would only have the bare bones features that a fully developed app would have.

The other aspect I realized I'm severely lacking in is cybersecurity in app development. I don't even have a basic understanding of how that works or how to create it. It is something I would want to learn whether through my degree or as a personal interest that I have outside of school.

Conclusion

The technology already exists and so do the key ideas. I would just change what already exists in order to satisfy a specific set of tasks. If need be I could even start from scratch. This was a project I was already personally interested in and had thought about vaguely in the past. However for this project I looked more in depth and actually thought about what style of design I would use for this idea.

Citations

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