



Assignment #1

Inpixon: Indoor Positioning Analytics

By:
Greg Patton



Inpixon is a tech company based out of Palo Alto, California that is a leader in Indoor Positioning Analytics (IPA). Their IPA platform is designed to detect and position all active cellular, WIFI, and Bluetooth devices within a building while securing privacy and anonymity.

<https://inpixon.com/inpixon-jibestream/>

“Inpixon Indoor Positioning Analytics (IPA) is the first indoor positioning solution and data analytics suite to deliver simultaneous locationing, tracking and analysis for virtually any and every mobile device and asset—all from a single platform.”

<https://inpixon.com/wp-content/uploads/InpixonIPA-brochure.pdf>

With their acquisition of Jibestream, a Toronto-based firm focused on indoor mapping and location platform, Inpixon has developed a technology that is being used by:

- Governments
- Retail/Property Management
- Manufacturing
- Healthcare
- Corrections/Law Enforcement

inpixon Indoor Intelligence



JIBESTREAM

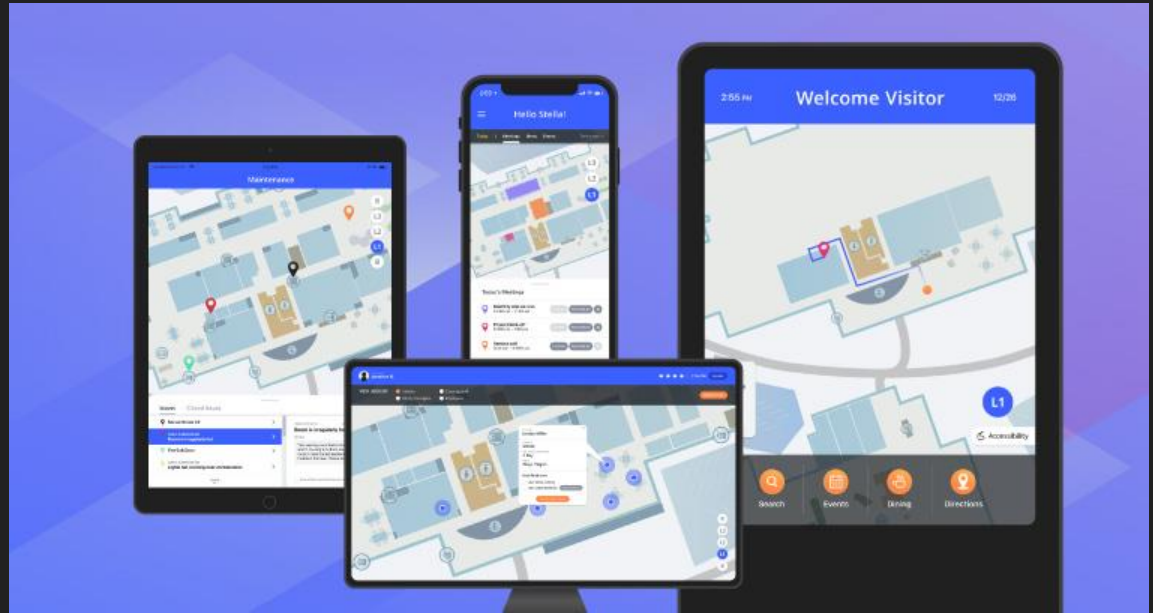
An Inpixon Company



There are five aspects to this technology that could be very interesting to the Educational System:

- Indoor Navigation
- Asset Tracking
- Geofencing
- Proximity Messaging
- Security Management

Indoor Navigation



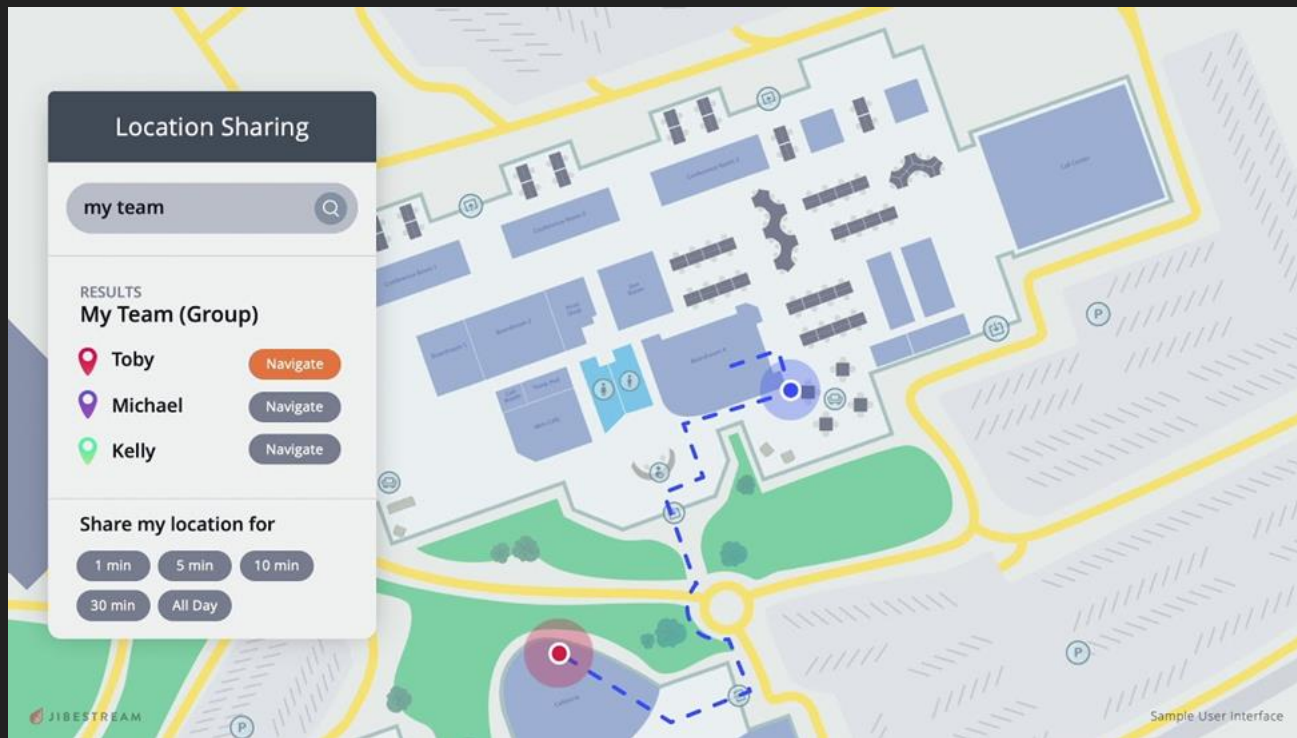
“Our indoor mapping platform empowers users to navigate between two waypoints on a map or to a particular destination. Our wayfinding algorithm uses speed, weight, and accessibility parameters, along with distance, to generate an optimal travel path.” <https://www.jibestream.com/use-cases/indoor-navigation>

Educational Potential

Indoor Navigation:

- Indoor map of school provided to all students.
- Student can locate any place in school by entering title in map.
- Student can find easiest route to next class, or personalize route for daily travel.





Asset Tracking

“Visualize static assets and moving assets to display and track their location and movement on high-fidelity indoor maps. (Y)ou can also display attribute information to assets and easily navigate to them.” <https://www.jibestream.com/use-cases/asset-tracking>

Educational Potential

Asset Tracking:

- Once wireless device is on and recognized by school network, staff and students could be found quickly within the school.



Geofencing



Use geofences to create a virtual perimeter on a map and target users that cross this virtual boundary. Geofences can be any shape or size and can be set up to trigger alerts or targeted messages when a user enters, exits or dwells within the predefined area. <https://www.jibestream.com/use-cases/geofencing>

Educational Potential

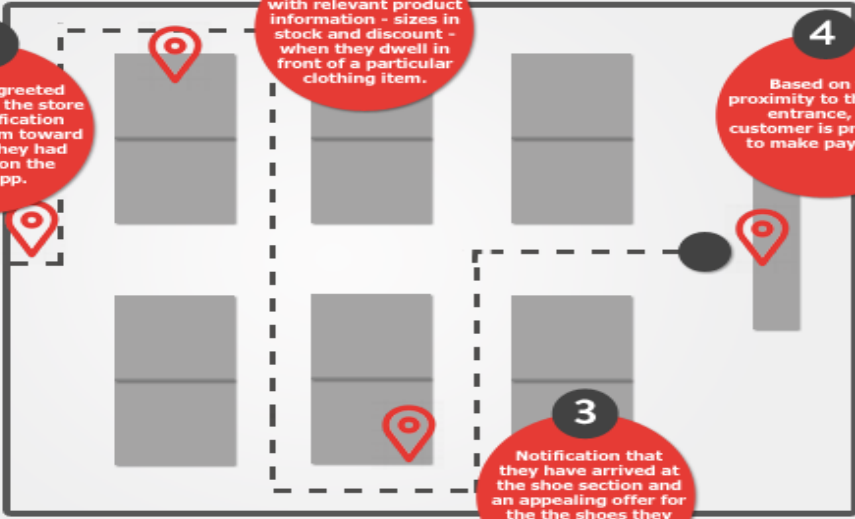
Geofencing (with wireless connection):

- Attendance could be taken as students passed over the geofence of their class.
- Times of entry and exit of building for staff and students could be logged.





1
Consumer greeted as they enter the store with a notification directing them toward the shoes they had looked at on the store app.



2
Consumer engaged with relevant product information - sizes in stock and discount - when they dwell in front of a particular clothing item.

4
Based on the proximity to the till or entrance, the customer is prompted to make payment.

3
Notification that they have arrived at the shoe section and an appealing offer for the shoes they are interested in purchasing.



Proximity Messaging

“Trigger messages and build a library of data around the proximity of assets, users and locations. ... (U)se this data to deliver hyperlocal content in real-time based on destinations and points of interest around them, such as nearby stores, coffee shops or other relevant spaces.” <https://www.jibestream.com/use-cases/proximity-messaging>

Educational Potential

Proximity Messaging (with wireless connection):

- Once a geofence has been crossed, messages could be pushed out; examples being announcements, future assignments, marked assignments, notifications from the office, appointments for counselling, and bells.



Security Management



“With our **indoor navigation and mapping platform**, users can monitor, locate, and visualize incidents on a map in real-time. Embed location-aware indoor maps into existing and custom mobile and web-based staff guidance apps.”

<https://www.jibestream.com/use-cases/intelligent-security>

Educational Potential

Security Management (with wireless connection):

- Unrecognized signals, and people, could be monitored.
- fire exit routes could be sent to students in accordance of their location in the school.
- Shelter in place/lockdown notifications could be pushed out to students and staff.



Final Thoughts

Though Inpixon is not currently using their platform in an educational setting, this technology could transfer into school buildings and have the potential to be a “game changer” when it comes to how schools run. As I am an administrator, I have focused most of the benefits in accordance with my role in schools, but the usefulness to the educators’ side of schooling is quite apparent and is something I plan to further develop for Assignment #3.

There are a plethora of privacy and security questions, not to mention numerous parental concerns, that a school district would need to answer before delving into a platform like this. But as our educational worlds all change towards a larger online presence, is technology like this that far off from being in our schools?