

AMENDED Exhibit 907

PLAINTIFFS' OMNIBUS OPPOSITION TO DEFENDANTS' MOTIONS FOR SUMMARY JUDGMENT

Case No.: 4:22-md-03047-YGR

MDL No. 3047

In Re: Social Media Adolescent Addiction/Personal Injury Products Liability Litigation

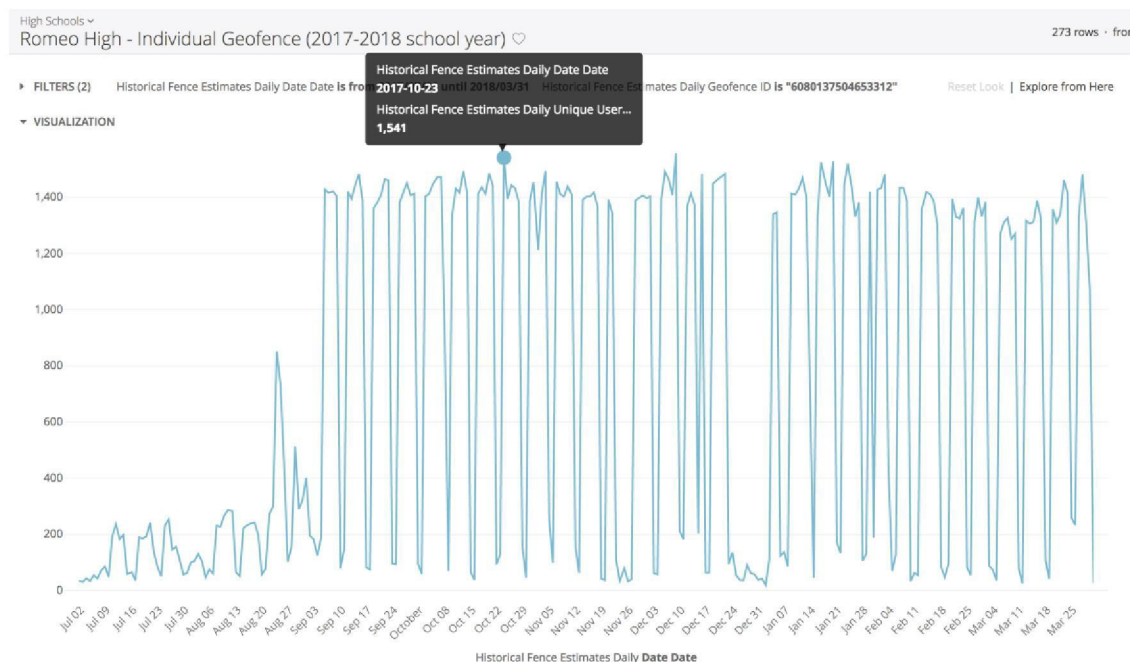
From: [REDACTED]
 Sent: 9/11/2018 7:57:28 AM
 To: Josh Siegel [REDACTED]
 CC: [REDACTED]
 Subject: Re: Modeling HS / College student growth

Hey Josh,

I've done something similar on the geofilters team in the past to measure swipe rates and users within a fence to find areas in need of geofilter creative as well as tons of polygons for high schools in the US and Canada.

I've modified my data to fit your use case, here's an example I'll detail below for my former high school.

I created a [looker](#) to view the number of unique users, geofilter swipes, and session counts within a geofence. [\(looker link\)](#) As a special note, at some point we stopped keeping track of unique users with geofences, [REDACTED] crafted this table and [REDACTED] has been maintaining it to my knowledge if it is of use for you.



Assuming the metrics are correct, it appears that there are approx. 1,400-1,500 unique users within the Romeo High School geofence.

I also have attached metadata to our geofences in BBG a while back, this data comes from an open government source and was appended to each fence. From this we can easily see the student population of the high school and links to a detailed breakdown of demographics, tests, and other information about the school. (see screenshot below)

TARGETABLE TAGS (USED FOR TARGETING)

GRADES_9-12 x US_High_School x Add a targetable tag

BUSINESS CATEGORIES (NOT FOR TARGETING)

Select business categories

CHAIN NAME (NOT FOR TARGETING)

Enter chain name

SEARCH KEYWORDS

Maponics_School_Grounds_2.17.1 x MAPONICS_UPLOAD_03_17_2017 x Add a search keyword

MAPONICS_SCHOOL_ID_20504785 x High Schools x Middle Schools x US_High_School x

Student Population: 1787 x NCES_School_ID_263009006597 x VERIFIED x

VERSION DATE: 03-01-2017 x GRADES_9-12 x Primary Schools x MAPONICS_VERSION_2.17.1 x

US_Schools x Great_Schools_ID_3086 x Maponics x NCES_District_ID_2630090 x Schools x

METADATA URIS

https://nces.ed.gov/ccd/schoolsearch/school_detail.asp?ID=263009006597 x Add Metadata URIs

maponics://school_grounds/20504785 x

https://nces.ed.gov/ccd/schoolsearch/school_list.asp?DistrictID=2630090 x

DATA SOURCE (NOT FOR TARGETING)

The link here (https://nces.ed.gov/ccd/schoolsearch/school_detail.asp?ID=263009006597) points to the high school and contains a ton of insight into the demo break down of the school (screenshot below)

School Details (2015-2016 school year)

County: Macomb County [schools in county](#)

Locale: Suburb: Large (21)

Magnet: No

Title I School: Yes

Title I School-Wide Program: No

Total Students: 1,684

Classroom Teachers (FTE): 54.38

Student/Teacher Ratio: 30.97

Enrollment Characteristics (2015-2016 school year)

Enrollment by Grade:

	8	9	10	11	12	Ungraded
Students	0	425	415	418	426	0

Enrollment by Race/Ethnicity:

	American Indian/Alaska Native	Asian	Black	Hispanic	Native Hawaiian/Pacific Islander	White	Two or More Races
Students	4	18	40	108	0	1,503	11

Enrollment by Gender:

	Male	Female
Students	841	843

Free lunch eligible: 239

Reduced-price lunch eligible: 56

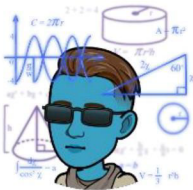
We can then see that we have 1,684 students attending for the 2015-2016 school year.

Thus a rough estimation is we have 1,450 unique users out of 1,684 students for a penetration of 86.1%

You could recreate this process for other countries, however there will be some challenges:

- Public data about the amount of students attending per high school or college
 - Colleges will be easy to source globally, while high schools may be more challenging for countries that do not have as robust data sets
 - Public data will often lag for a year or two for student enrollment, this will require some estimation (although it should be fairly close)
- Polygons are required to properly measure users within the school
 - We are scaling up oversea operations for contractors to trace fences, if desired we could trace high school/college boundaries for you on a global scale
 - This also requires data to know of the schools existence - Verrazano (maps teams new database) will have a lot of information, however sourcing this data and the quality will vary by country (Europe should be fairly easy, while India/Latin America/Developing Nations may be more of a challenge)

I hope this explanation helps, happy to assist going forward.



On Mon, Sep 10, 2018 at 8:45 PM Josh Siegel [REDACTED] wrote:

Hey [REDACTED]

We're talking about better ways to model growth, specifically about how we can model school-by-school penetration (theory is that we grow by penetrating school after school in a new market).

We're also interested in measuring retention in each school, e.g. if we had 80% DAU penetration at Penn last year, how has that changed this year?

We don't have a great way to do this but I feel like we could do it with GPS / geofilter use / friend graph / etc.

Have you looked at this before / do you have any recommendations on where to start? What about in other markets, e.g. India?