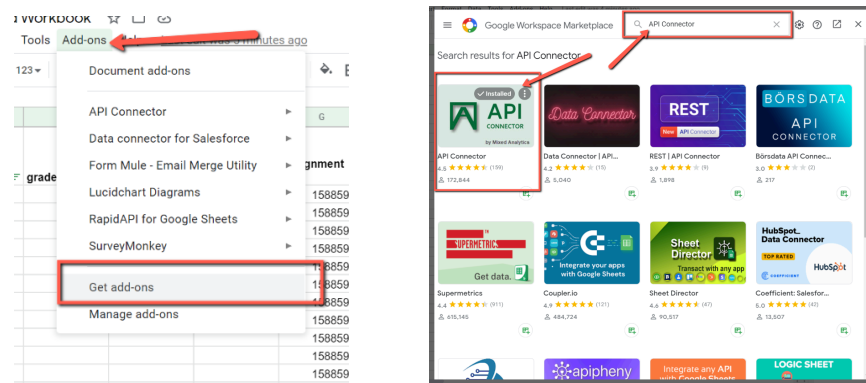


Documentation Example (redacted for data privacy): API Data Pulls from Canvas

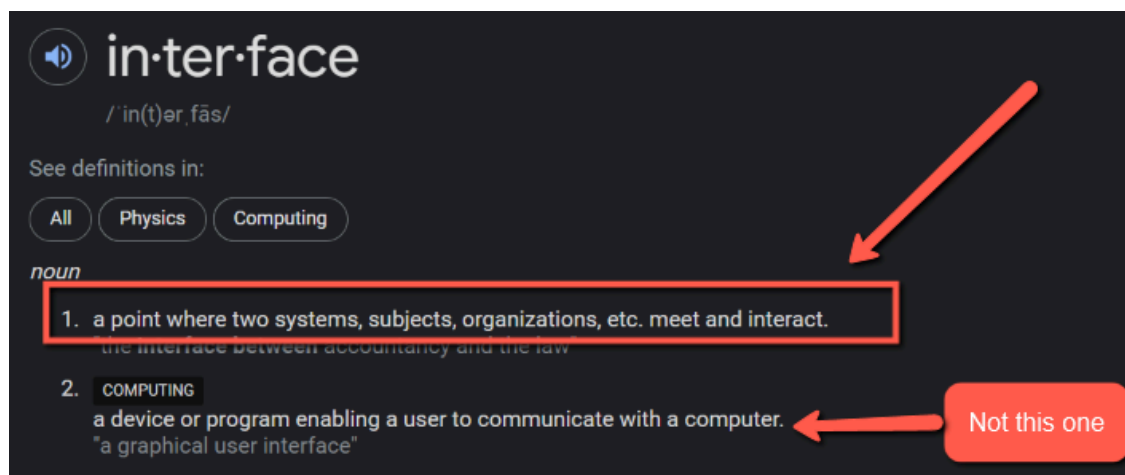
Overview:

Canvas reports can be limiting. There is even one piece of data (Submissions) that as of April 2021 is not available in a report. The Submissions data, plus other data, can be retrieved via the API. Pursuit is already displaying data in a dashboard via Google Sheets, so having the API data going automatically into the sheet is the most direct transfer of data. To accomplish this, we are using an add-on for Google Sheets, [API Connector](#) (by [MixedAnalytics](#))



API Quick Intro:

Application Programming Interfaces, or APIs, are often referred to as a “handshake” between systems. Some confusion can come from the word “Interface” because you might think of an interface as a screen or window - a way to work with a computer. But a more accurate definition in this case is a point where two systems “meet and interact,” or even more directly in the verb form - the action of two systems meeting and interacting with each other.



The handshake that we are making is being facilitated by the API Connector Google Sheet add-on. The main thing we are using APIs for is “getting” information from Canvas. APIs are capable of “pushing” information into any system, but we won’t be doing any of that, at least right now. The handshake that happens is more technically referred to as “making API calls.” There are different types of calls, including GET calls and PUSH calls. Since we are only “getting” information from Canvas, we are only using GET API calls.

APIs One Step Deeper:

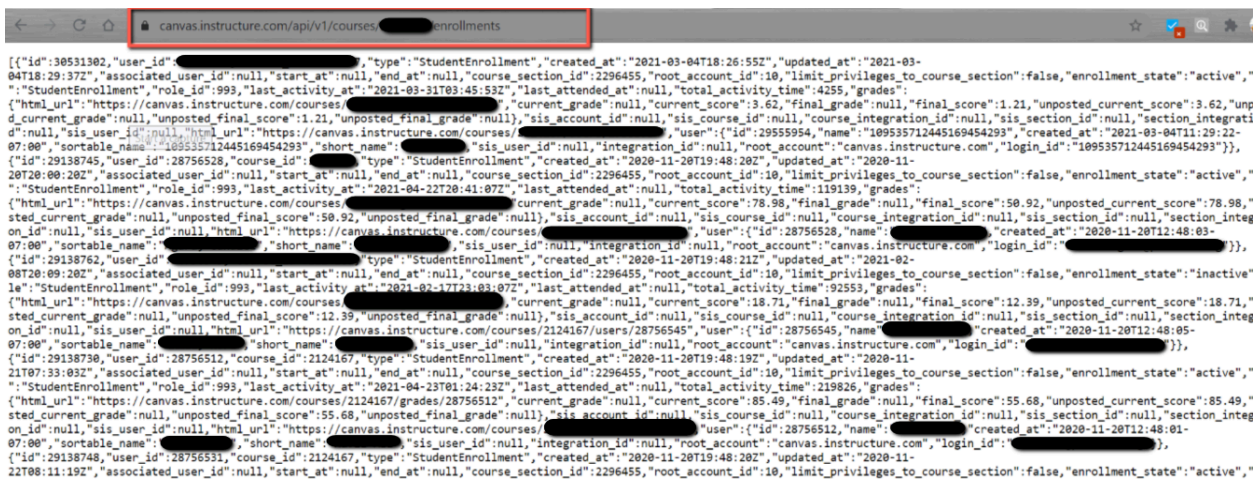
An API call looks almost like a URL you would put into your browser to go to a website, and in fact you can put an API call into a browser. Here is an example of an API call for Canvas - it is asking Canvas for information about Enrollments in a specific course (Pursuit Core 7.1):

[https://canvas.instructure.com/api/v1/courses/\[REDACTED\]/enrollments](https://canvas.instructure.com/api/v1/courses/[REDACTED]/enrollments)

*You must be signed into Canvas in another tab for this to work

****Canvas provides [documentation](#) to help you learn how to write these calls.**

Unfortunately, when you get data back from a call like this in the browser, it ends up looking like gobbeldy-gook:



That is why we have things called API Clients. It is a platform (a website or a downloadable software or an add-on to Google Sheets) that is built to manage all the API calls that you might want to make. One common API client is [Postman.com](https://www.postman.com). With the client you can make the API calls without signing into Canvas (because you can have “authorization” added in like in the screenshot below), you can save several API calls that you’ve written, you can organize your work, and you can use programming languages to code in whatever you need your APIs to do.

But you might notice that the result of the API call - that information we were looking to get - is still coming out in a format that is not common. This format is called JSON, and although it is

more understandable than what we get in the browser, it still isn't as great as it could be. In Postman and in many other API clients, we would need some programming code to get the information in a way that we can use it.

Enter, API Connector.

This add-on for Google Sheets is a lot like Postman - it is a place where we can create, store, and run API calls. But there are a few great reasons why we would use this tool instead of something more robust:

1. We are already using Google Sheets for our Dashboards of Canvas data.
2. Without additional code, the add-on can:
 - a. Transform data from JSON format into rows and columns of data.
 - b. Work with the fact that most API calls have limits on how many results they will return (called Pagination).
 - c. Schedule your calls to happen automatically at any time of day.
3. It has the ability to use cells in Google Sheets in your API calls to help make them dynamic.

THE REMAINDER OF THIS DOCUMENT HAS BEEN REDACTED - YOU CAN EMAIL EMILY@MAKETECHWORKFORYOU.COM FOR MORE INFORMATION.