API Discovery: 15 Ways to Find APIs

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How do you find an API? Well, a Google search is likely your first guess, however, there are a trove of curated API marketplaces, directories, and lists for you to peruse before you make a decision. We've highlighted **15 different ways to find APIs**, including all the major **API directories**, and our insights into the past and potential future of API discovery trends.

This article was last updated on July 6, 2017.

Defining 'API Discovery'

In the world of application programming interfaces or APIs there are differing methods for cataloging these services in order to make them **discoverable**. Certainly major headlines can spread the news of an API release, but developers need unique integrations for their specific situation, which may not match the API

release of the week. Thus, **API directories** and API-specific **search engines** have emerged as a win-win scenario — they help market APIs from the provider side, and help developers discover the perfect match for their systems.

API directories are as diverse as the space itself — each with it's own method of collecting and cataloging APIs. But which discovery format can scale with the future growth of the API industry? What search style presents the most relevant results to efficiently help developers find the *right* API for their application?

Manual Vs Automation

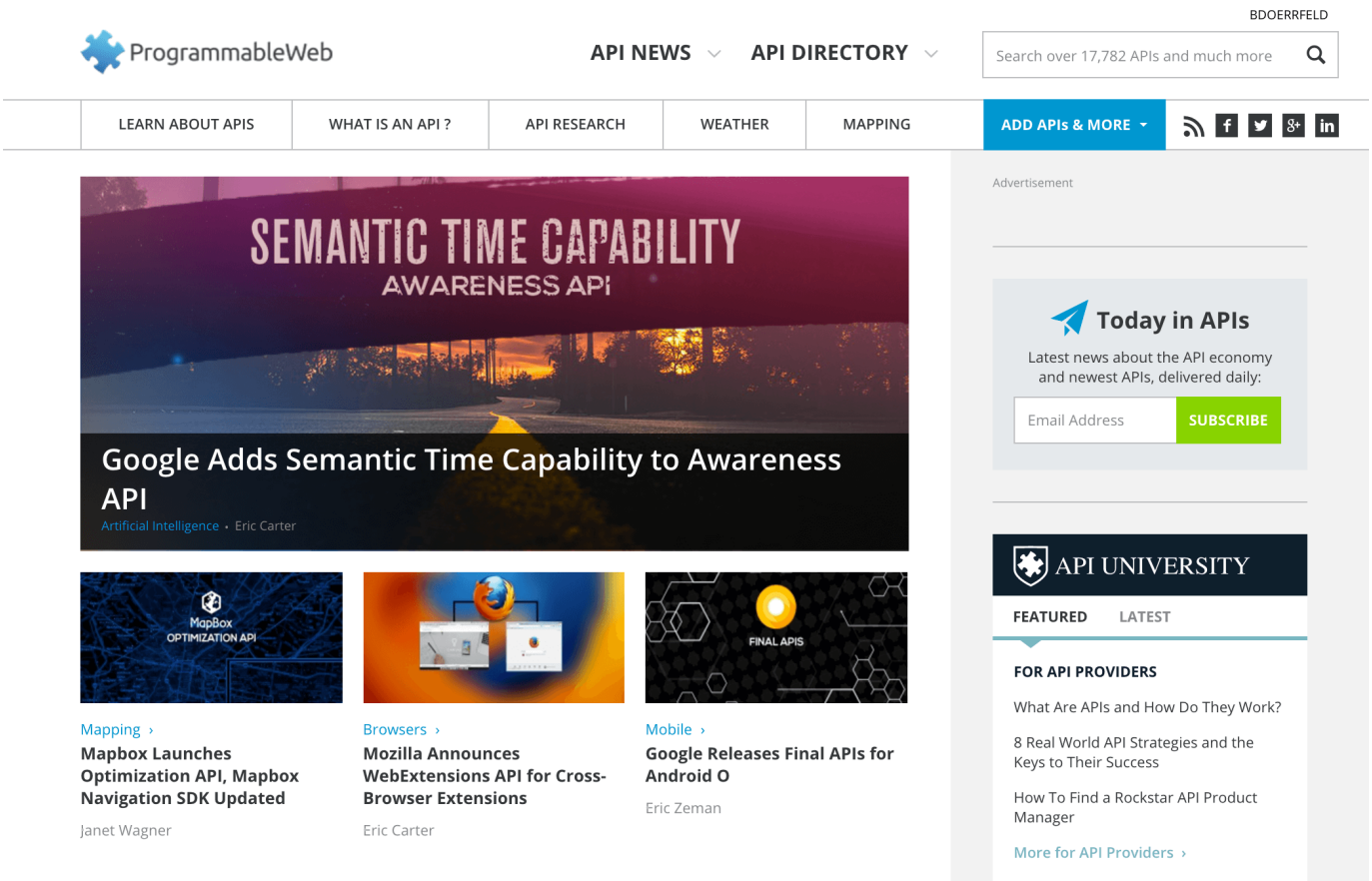
Imagine that rather than automatically scanning the web, Google maintained a single database and hired a team to contact business owners to inquire if they had a website. That's essentially the **manual** legwork that's been done to grow API directories like ProgrammableWeb to date. Hand-curation is feasible in the short run, but some feel the **scalability** of this process is weak if we anticipate future growth in the hundreds of thousands — or millions of APIs. To this end, API search engines have been developed such as APIs.io or APIs.guru that leverage **automation**to increase scalability and standardize the cataloging process.

15 Ways to Find APIs

We'll now explore fifteen approaches to finding APIs, outlining major API directories, marketplaces, and community curated lists, while giving a short review of their services.

1: ProgrammableWeb

Owned by Mulesoft, ProgrammableWeb distributes API-related press releases, news articles, reviews, and maintains the world's largest hand-curated directory of APIs — now measured at over **17,000**.



In addition to APIs, the database also catalogues mashups and developer tools like **SDKs**, frameworks, **libraries**, and **code samples**. A lot of work goes into searching for APIs and vetting user-submitted APIs, and unique descriptions on API functionalities accompany each profile. The directory has an

intricate tagging system, enabling a user to browse hyper-specific categories relevant to their app's industry.

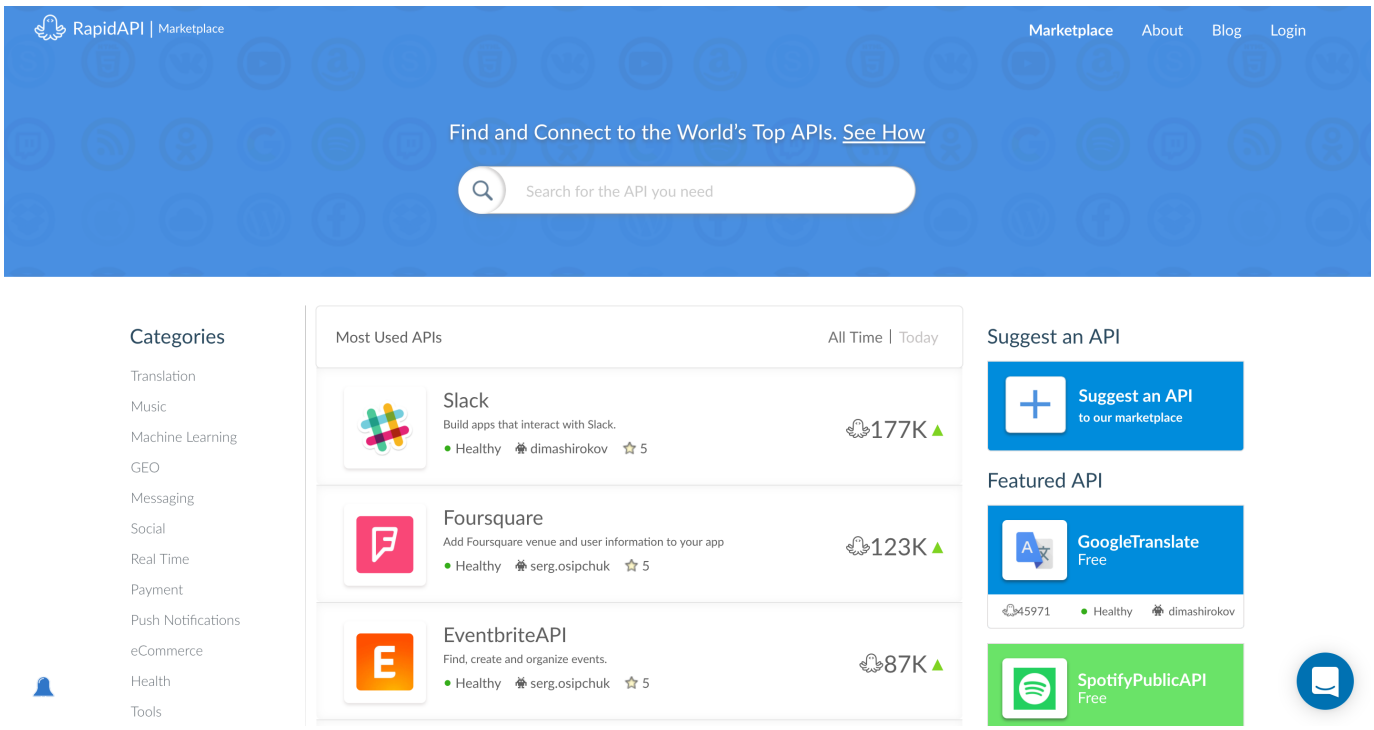
PW.com is also a consistent publishing machine, shooting out articles on new API releases, code tutorials, reviews, and more every day. Utilizing all their internal data, the PW.com research center also provides helpful resources for directing presentations on the API economy.

PW.com is exhaustive. With such a large collection, a potential problem is that there isn't a quality ranking assigned to the APIs. Nevertheless, while the directory is comprehensive, the PW.com journal retains a proficient view of the API economy.

> Check out additional Ways to Market Your API

2: RapidAPI.com

With the recent merger of Mashape's Public APIs and RapidAPI, RapidAPI.com has become a top curated marketplace of high impact APIs. The site aggregates some the "world's top APIs" into subcategories like Payment, Machine Learning, eCommerce, Health, Geolocation, and other specific areas. Each API profile lists specific endpoints unique to the service. RapidAPI also allows users to test APIs and embed them into their apps, all through the RapidAPI account panel, allowing developers to track and monitor their API dependencies.



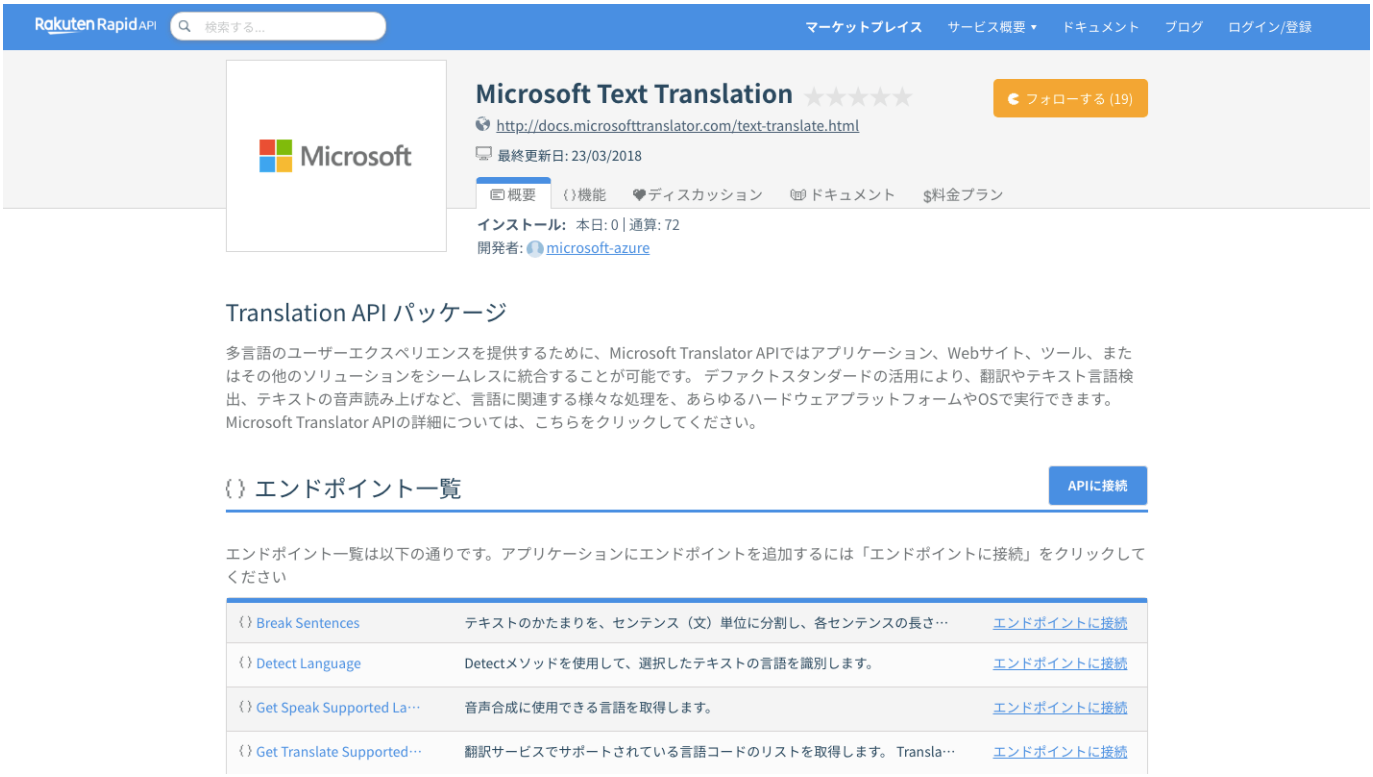
Visitors can search through and compare their array of API profiles, which include short descriptions and links to the provider's documentation. You can also suggest new APIs to expand the directory.

2.5: Rakuten RapidAPI

Seeking to enter the Asia Pacific Region? Rakuten recently localized the RapidAPI marketplace for Japanese developers. This means that APIs can now be listed on both channels, increasing your visibility.

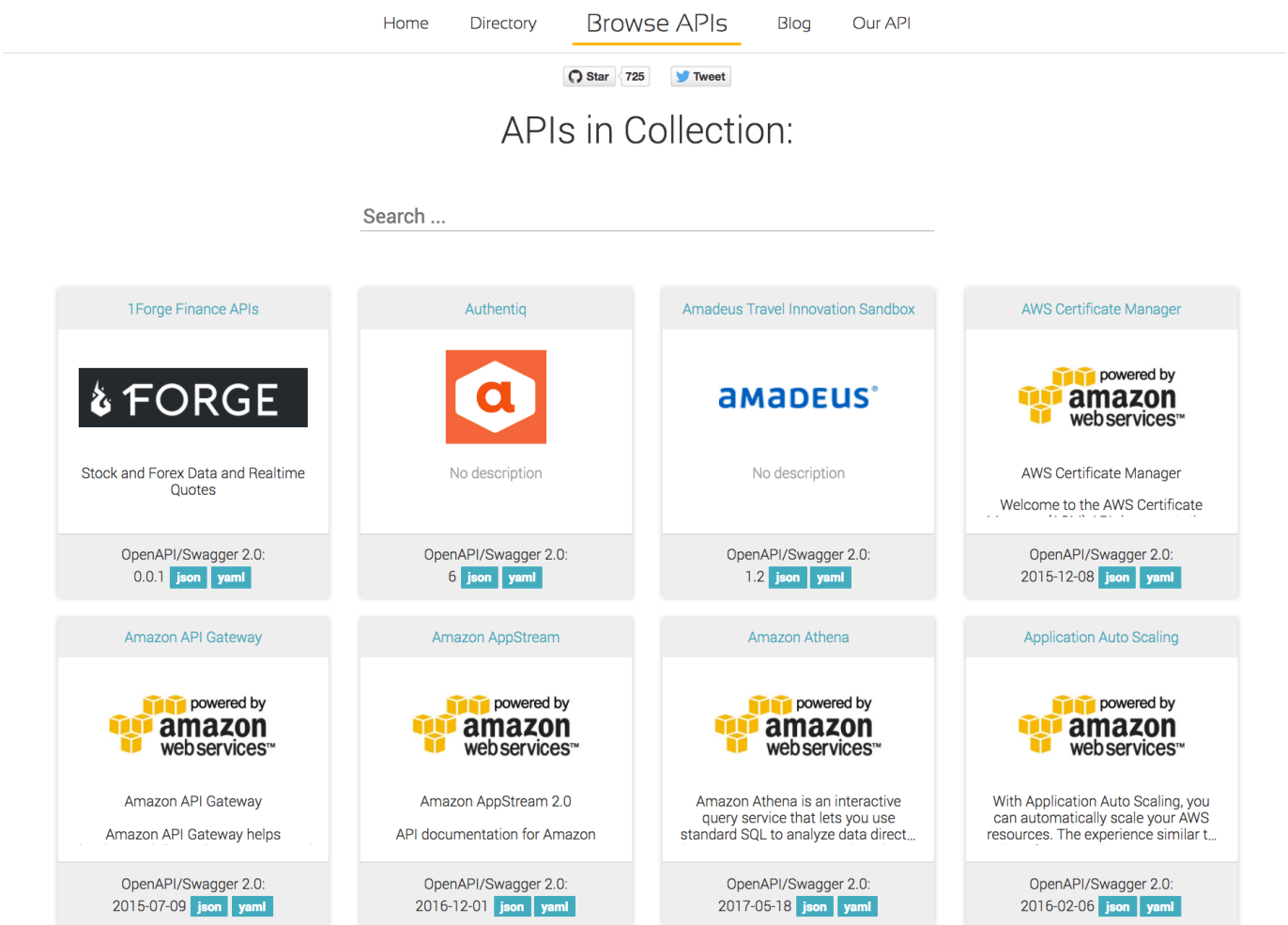
3: APIs.guru OpenAPI Collection

APIs.guru is a machine-readable Wikipedia for publicly available REST APIs. The site accepts URLs for publicly hosted API specifications, and converts formats into the Swagger 2.0 / Open API Specification, automatically



The Rakuten RapidAPI team prioritized a couple hundred APIs, putting their documentation through the wringer of high quality human translation. The rest were auto-translated.

updating when specs change. You browse the growing APIs.guru collection here, and view each specification in JSON or YAML. API owners or contributors or can add an API. They also provide their own API to access the directory programmatically.

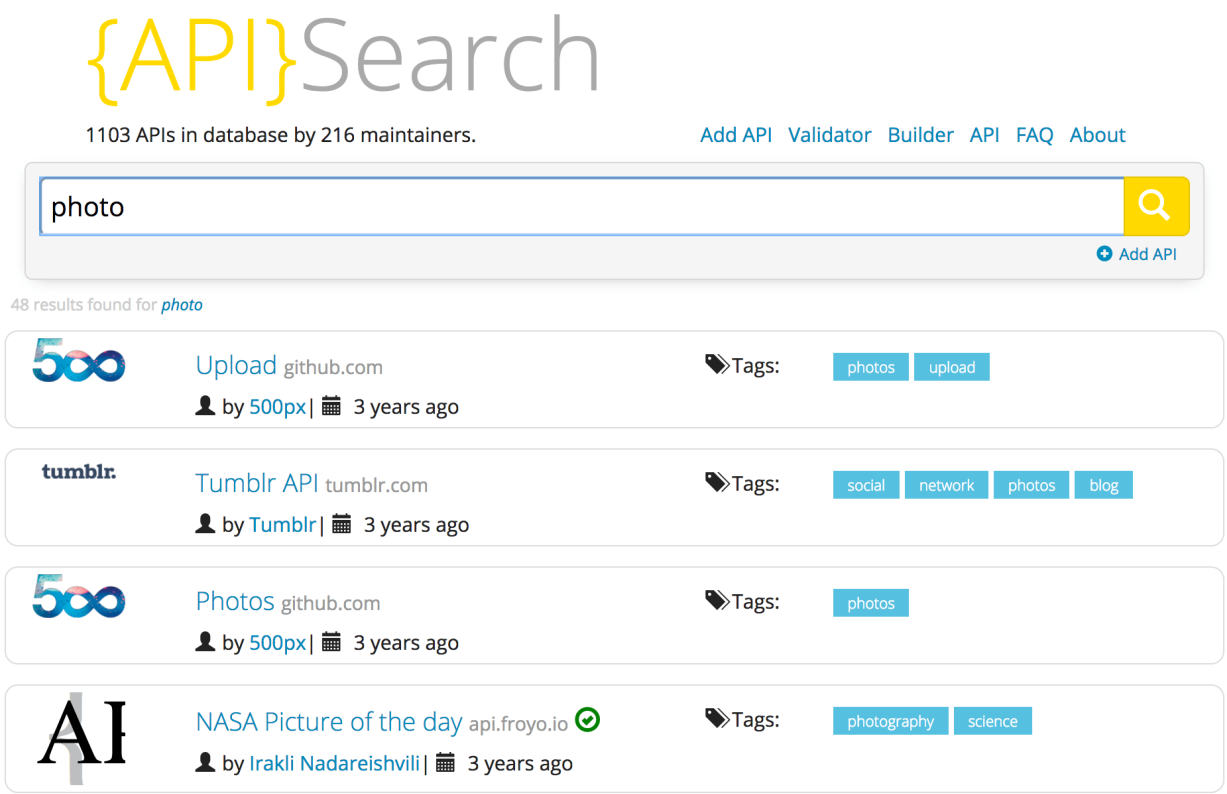


4: Public-APIs

Not to be confused with the retired PublicAPIs.com, the Public-APIs Github repo is an impressive curated list of the developer favorite APIs in over **40 niche categories**, simply described as "📚 *A public list of APIs from round the web.*" If you are seeking quick options for how to implement Identity Verification, Machine Learning, Geolocation services, or any other data-heavy cloud solution, the APIs listed here are likely your top contenders.

5: APIs.io

At 7 characters, "APIs.io" certainly wins for brevity. Powered by 3Scale, API Evangelist, and API Tools, the {API}Search engine uses a kind of metadata to automate API discovery.

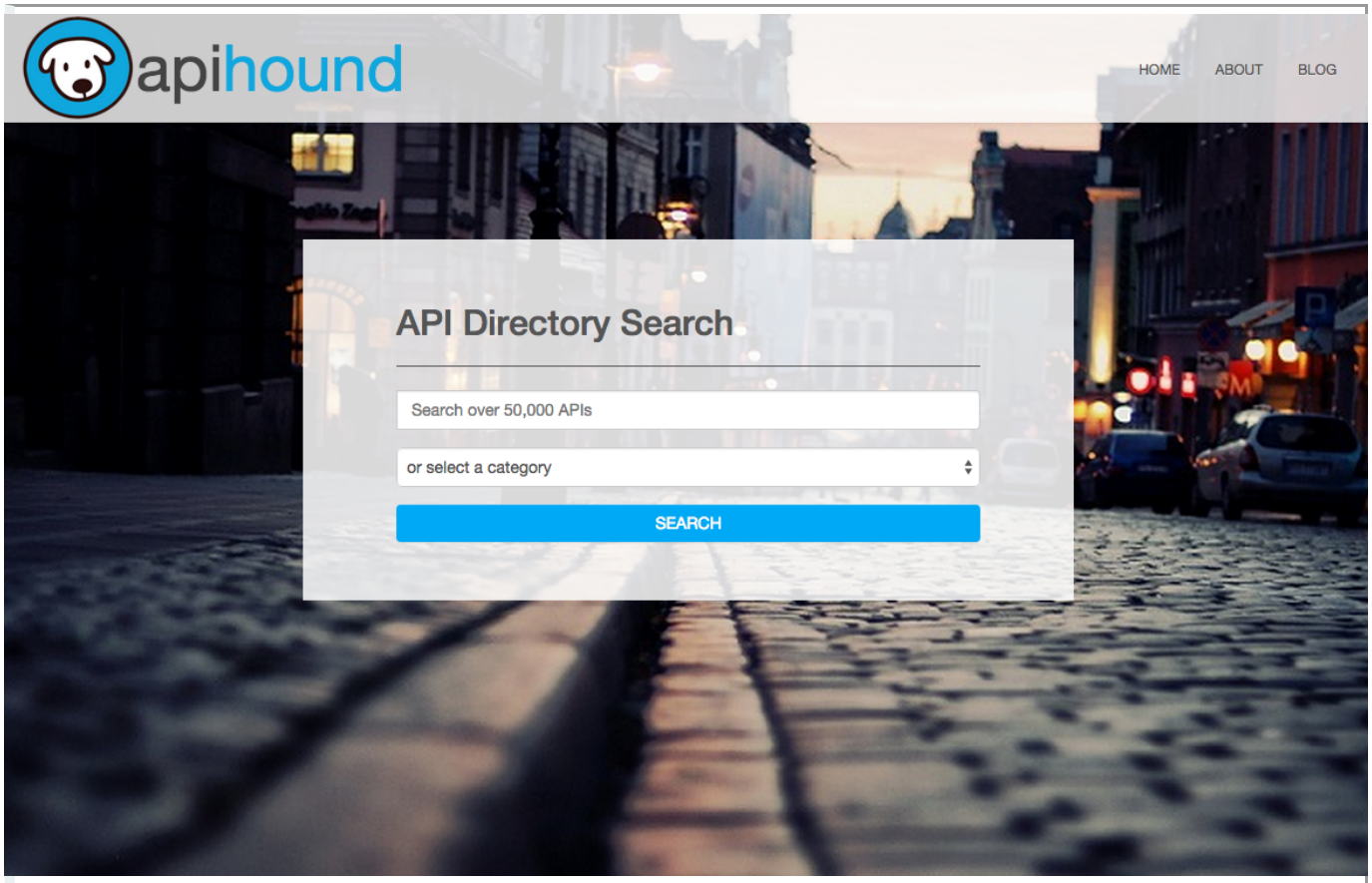


> "The only way to discover APIs and their properties is via human driven search through public search engines or in hand curated API Directory listings. While these methods work, neither can scale to the potentially hundreds of thousands and millions of APIs which will be published over the next few years…The objective of APIs.json is to help fix this problem by making it easy for people to signpost where the APIs on a given domain are and provide information on how they work. The format is simple and extensible and can be put into any web root domain for discovery."

Still in an experimental phase, the APIs.json format definitions are open sourced, and ongoing discussion occurs in this Google group. Though the directory is still in it's infancy, APIs.io or a derivative could be a scalable alternative to traditional modes of API cataloging.

6: API Hound

Relatively new to the API discovery game, API Hound uses **machine scanners** to find APIs. According to the API Hound blog, the service uses keyword searches to automatically scan the web for APIs. Textual analysis associates the results with specific categories, allowing APIs to be ranked in relevancy fueled by undisclosed algorithms. Search results provide direct links to the API provider's site.

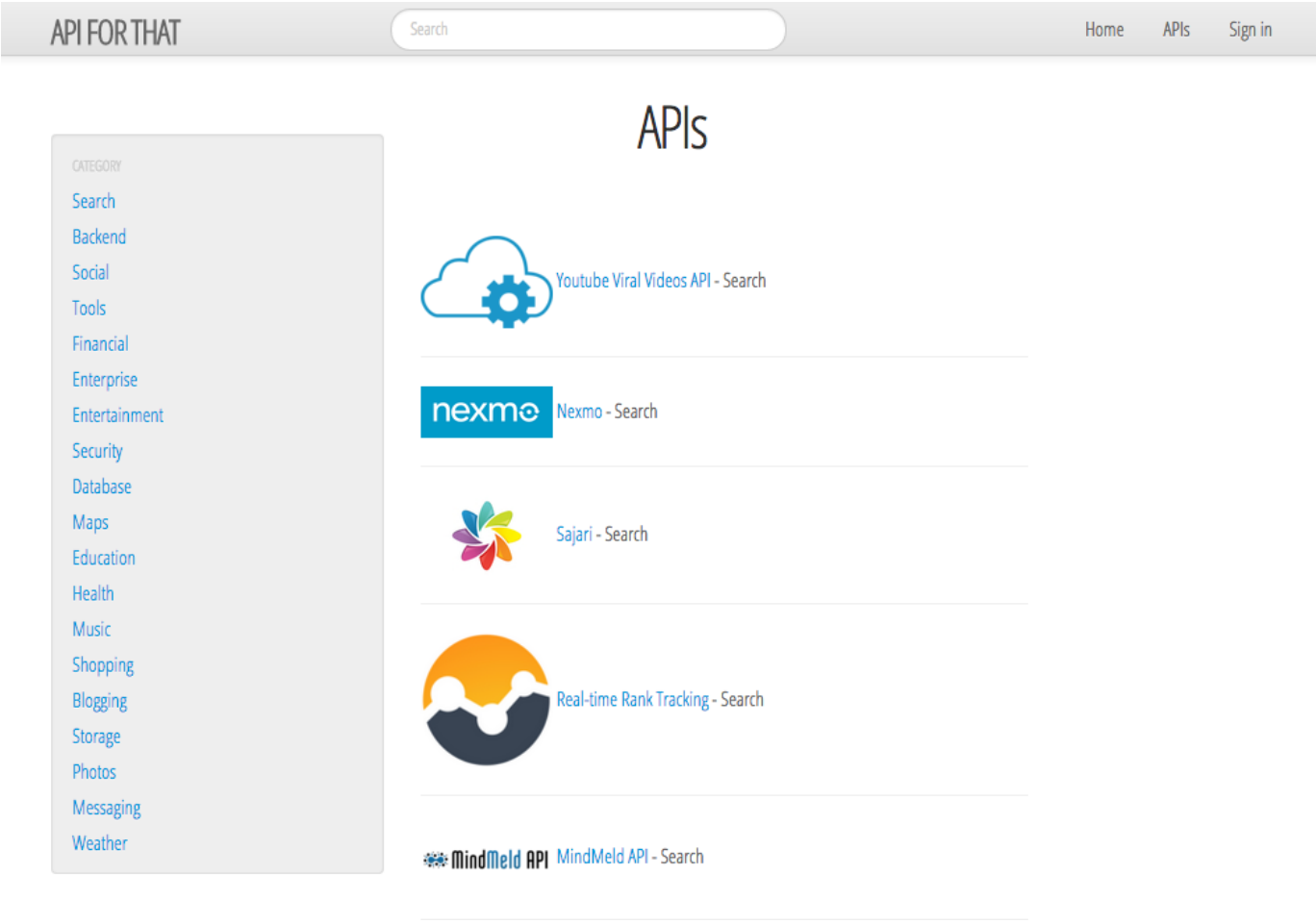


> "We launched APIHound because -like you- we depend on finding APIs to build cool stuff. We searched for a good API directory, but all we found were sites like ProgrammableWeb that have been manually collecting APIs for years and PublicAPIs which has a very small API database. There had to be more APIs out there waiting to be found.We decided it was time to bring API Searching into the 21st century. APIHound is continuously examining billions of pages to locate the best API resources.The result is that APIHound has uncovered over 50,000 APIs indexed, categorized, and available for searching."

The site architecture could use some work — all data is populated by the URLs, the user-facing search results are not intuitively displayed, and no profiles for the APIs exist. However, the purported 50,000 APIs that the engine can purportedly access makes the service no laughing matter.

7: API For That

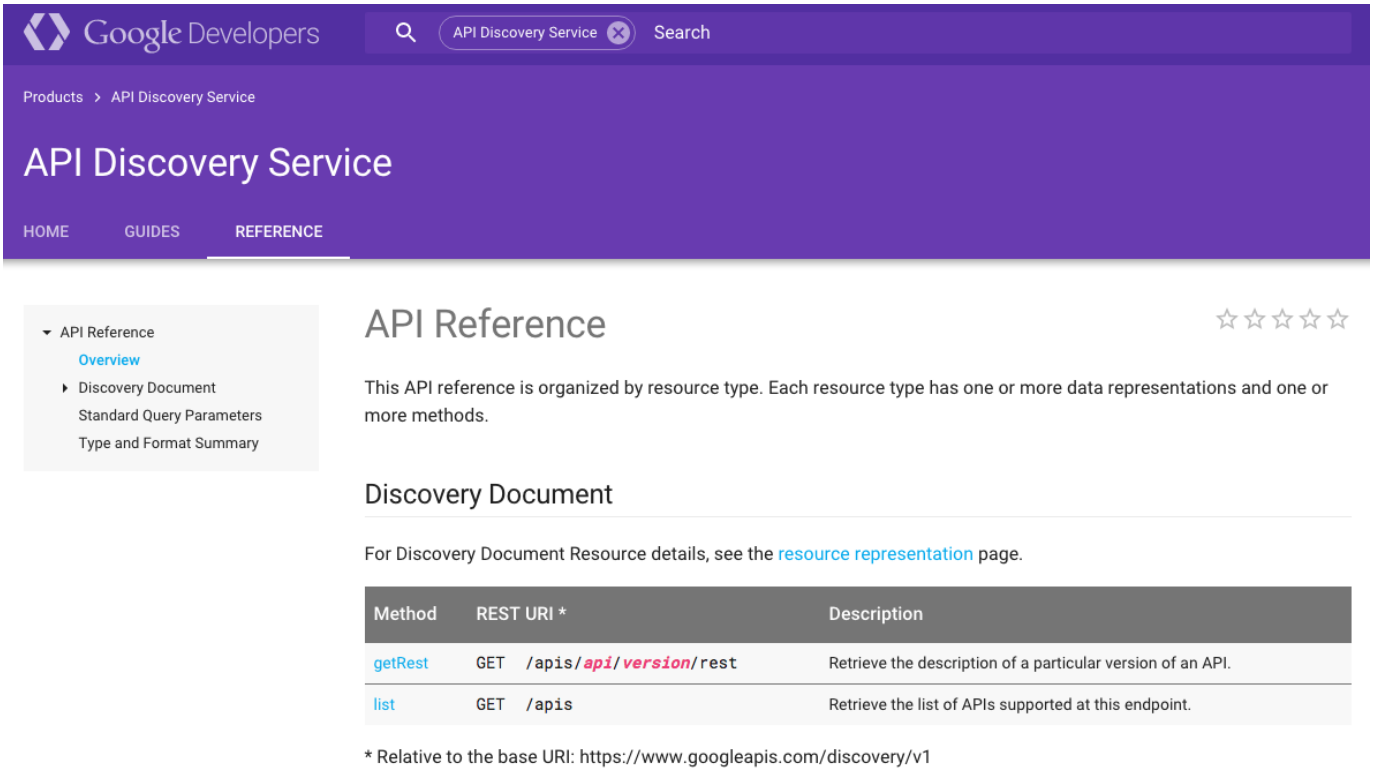
API For That is a hand-curated API directory. Organized into about 20 industry categories, API For That catalogues an estimated 400+ API profiles with links to documentation, a provider home page, and a short description for each API. The site encourages API developers to submit their APIs into the directory, and once an hour their Twitter tweets a new API that has been recently added.



> "We are bringing APIs from all over the web and beyond into one location. We help you find exactly what you're looking for by sorting them, categorizing them, and keeping them up to date."

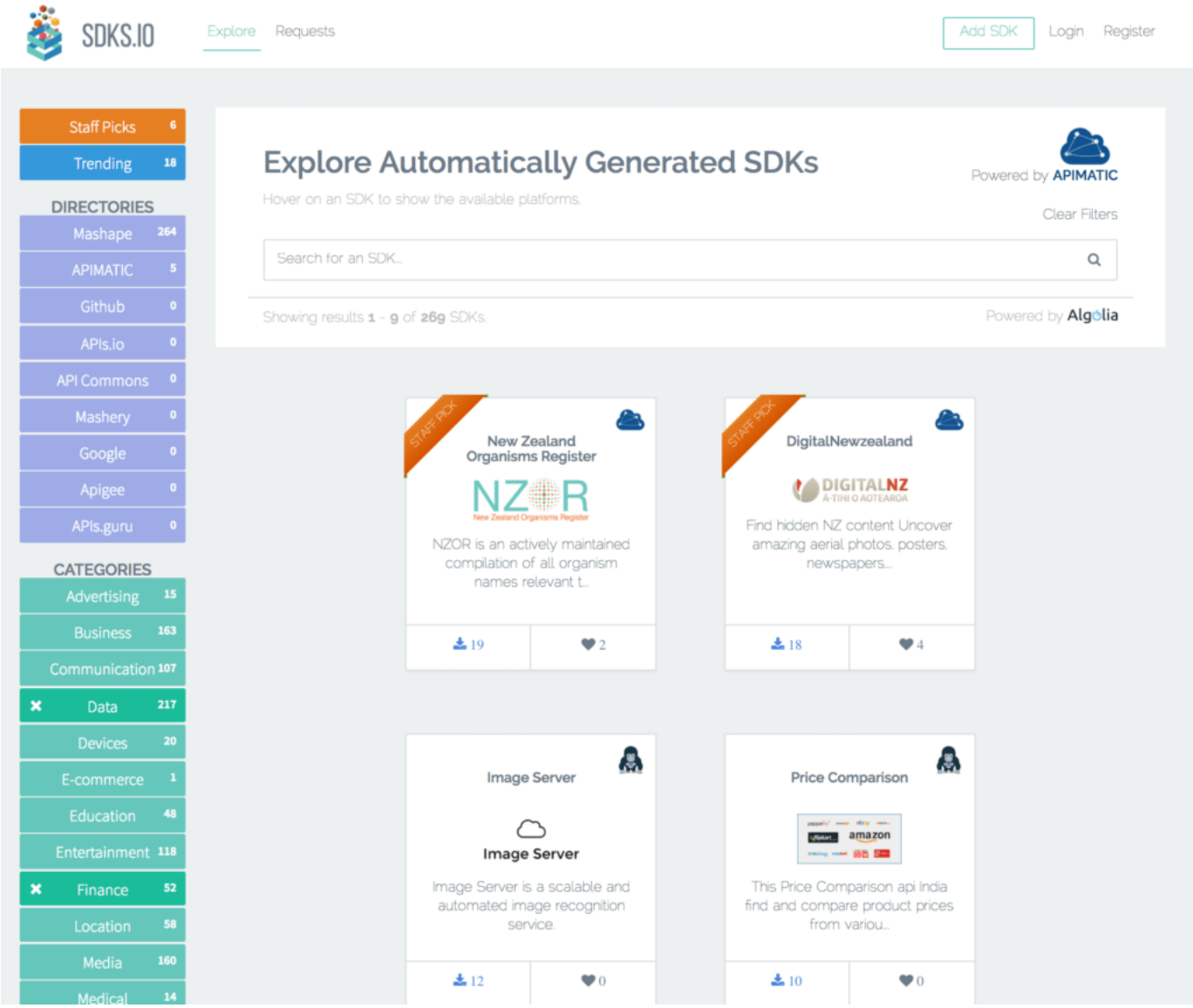
8: Google APIs Explorer

Due to the vastness of the Google APIs collection, the Google APIs Discovery Service can programmatically return data on Google APIs through a "lightweight, JSON-based API that exposes machine-readable metadata." In addition to the machine-readable format, the APIs Explorer provides an interactive web tool for human eyes.



9: SDKS.io

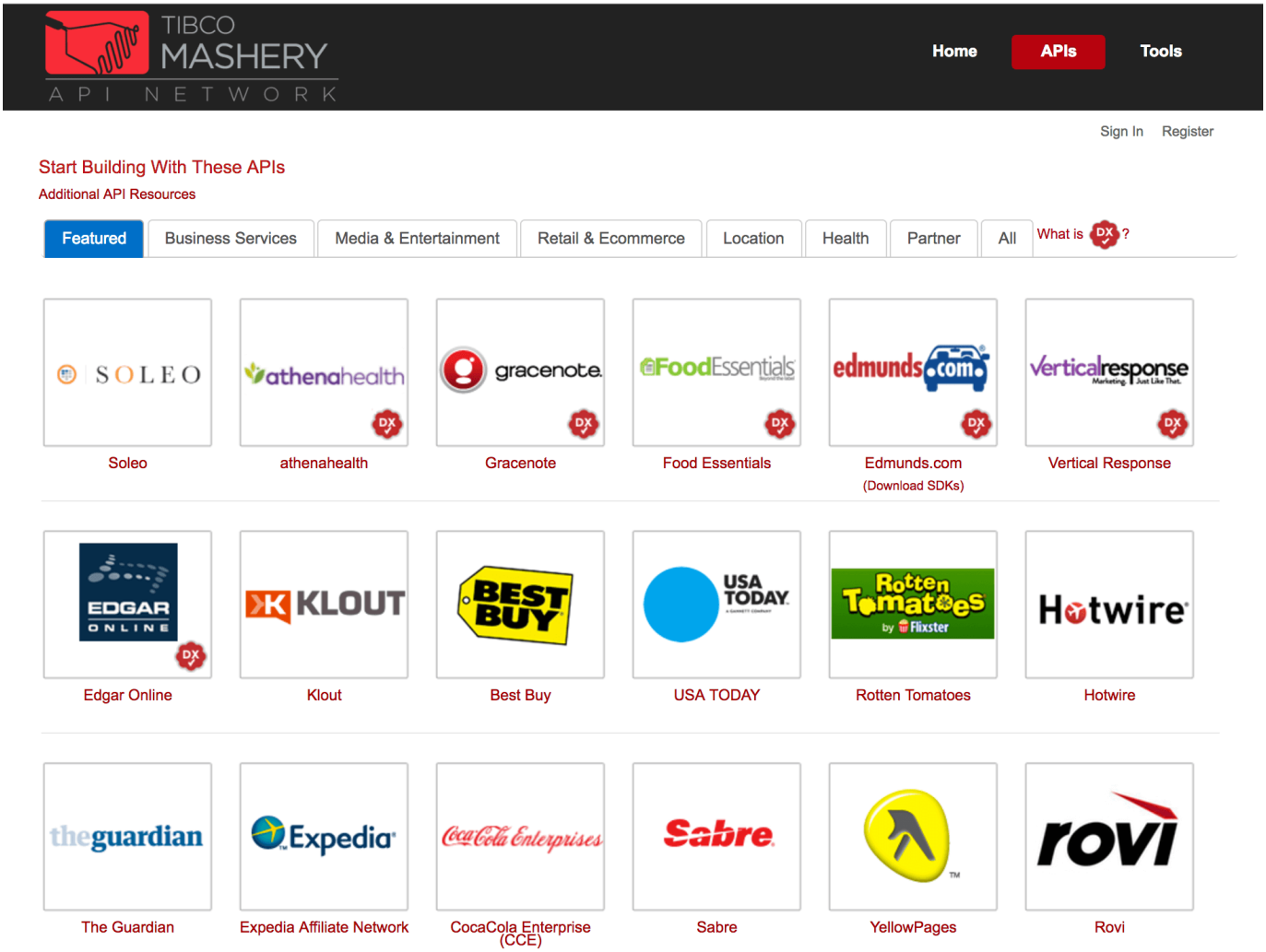
SDKs.io ties into directories and API discovery formats to automatically generate data on SDKs and APIs that are available for public use. Visitors can explore the catalog by directory or category, discover APIs related to their needs, and peruse documentation for specific languages and platforms.



Learn How to [Integrate APIs Into Creative Marketing Attempts]

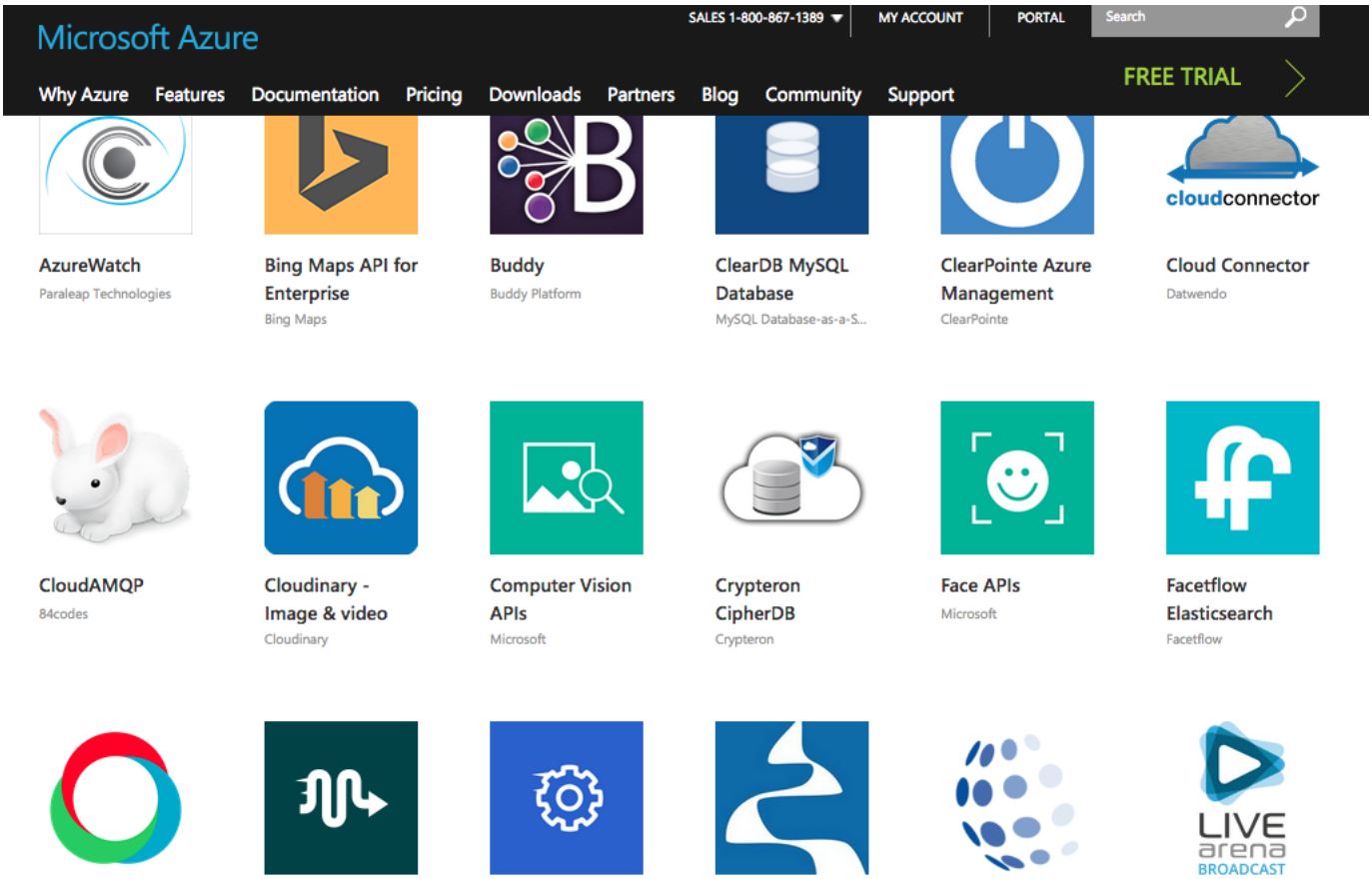
10: [Mashery API Network]

TIBCO's Mashery API Network hosts around 40 public APIs from various providers. Their [directory] of APIs caters to categories like business services, media, eCommerce, location, health, and more. Only listing Mashery-powered APIs, it's not an all-inclusive directory. Other than the listing, Mashery offers a suite of tools designed for developers, packed with open source interactive documentation tools.



11: Azure Marketplace by Microsoft

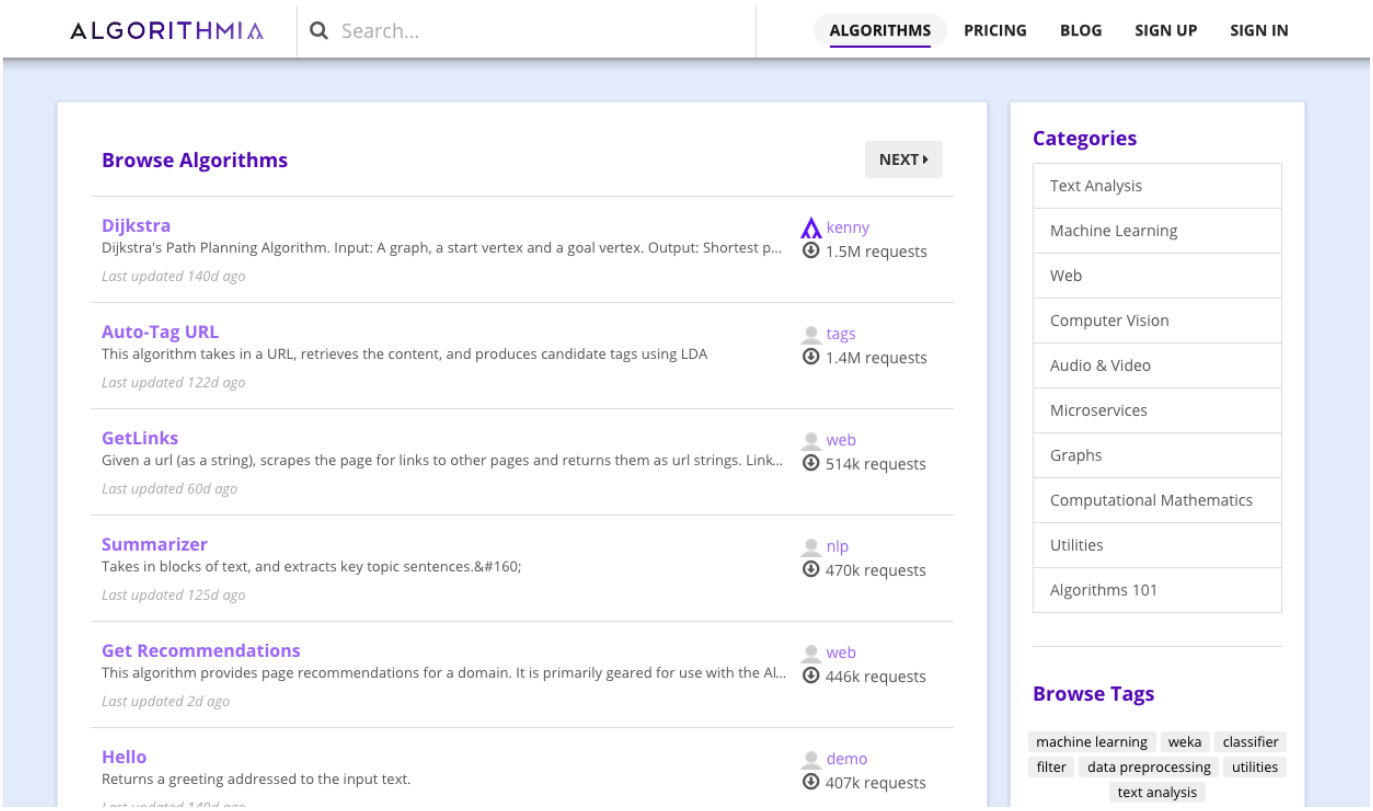
Microsoft Azure is amping up its developer services game. Computer vision, face APIs, speech TTS APIs, and more are all part of some developer services powered by Azure for cloud applications listed in their marketplace.



Read More: More Ways to Market Your API's Operations Stage

12: Algorithmia

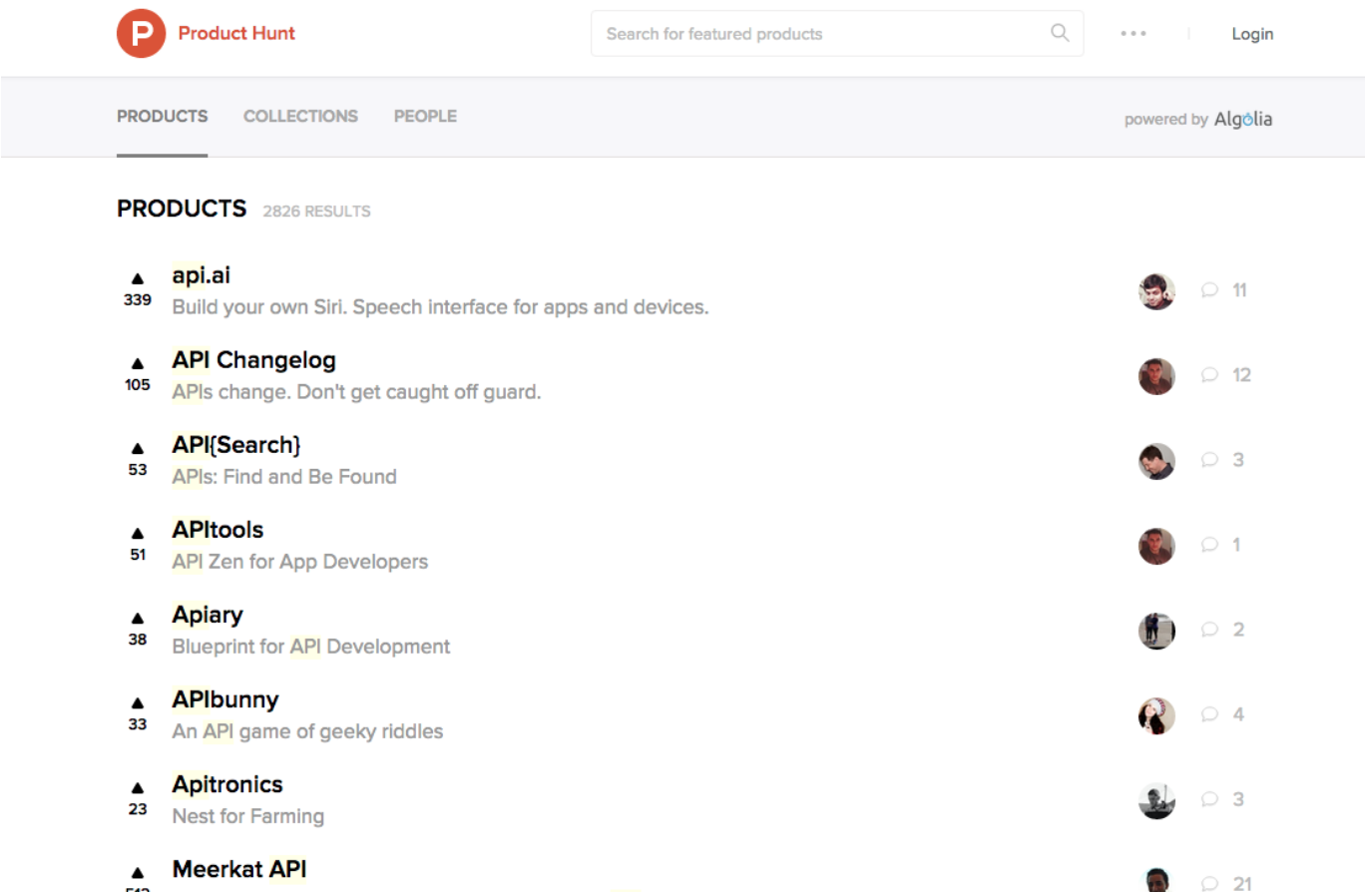
Who says the genius of academic computer scientists should stay on campus? Algorithmia provides an open marketplace for mathematicians to expose their algorithms. This enables smart micro tools in the fields of textual analysis, machine learning, computer vision, audio & video, graphs, computational mathematics and more to be exposed and integrated into apps. Though technically throttled through the Algorithmia API, the quickly expanding array of micro tools makes this an API directory in it's own right.



Developers can expose these algorithms in a RESTful JSON format for integration into third party apps, or can upload their own to monetize the system and play the algorithm market.

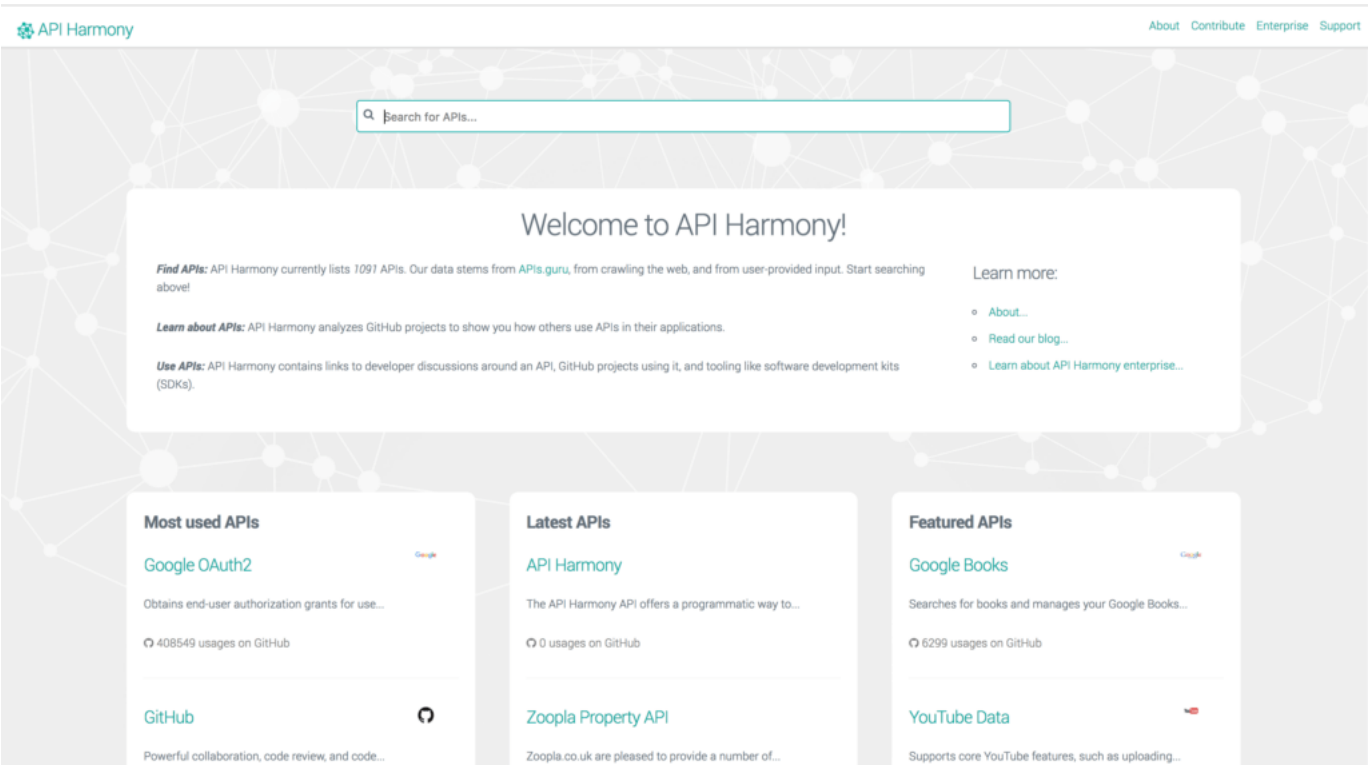
13: Product Hunt

Product Hunt is a community-curated directory of technology products that mimics the Reddit up-vote style. Though not exhaustive or explicitly related to APIs, many new APIs are often submitted and disseminated throughout the community, or arranged into favorite lists. Due to the crowd-sourced and somewhat competitive nature of the platform, it doesn't hurt to follow Product Hunt to keep on the lookout for the freshest technologies and APIs.



14: IBM's API Harmony

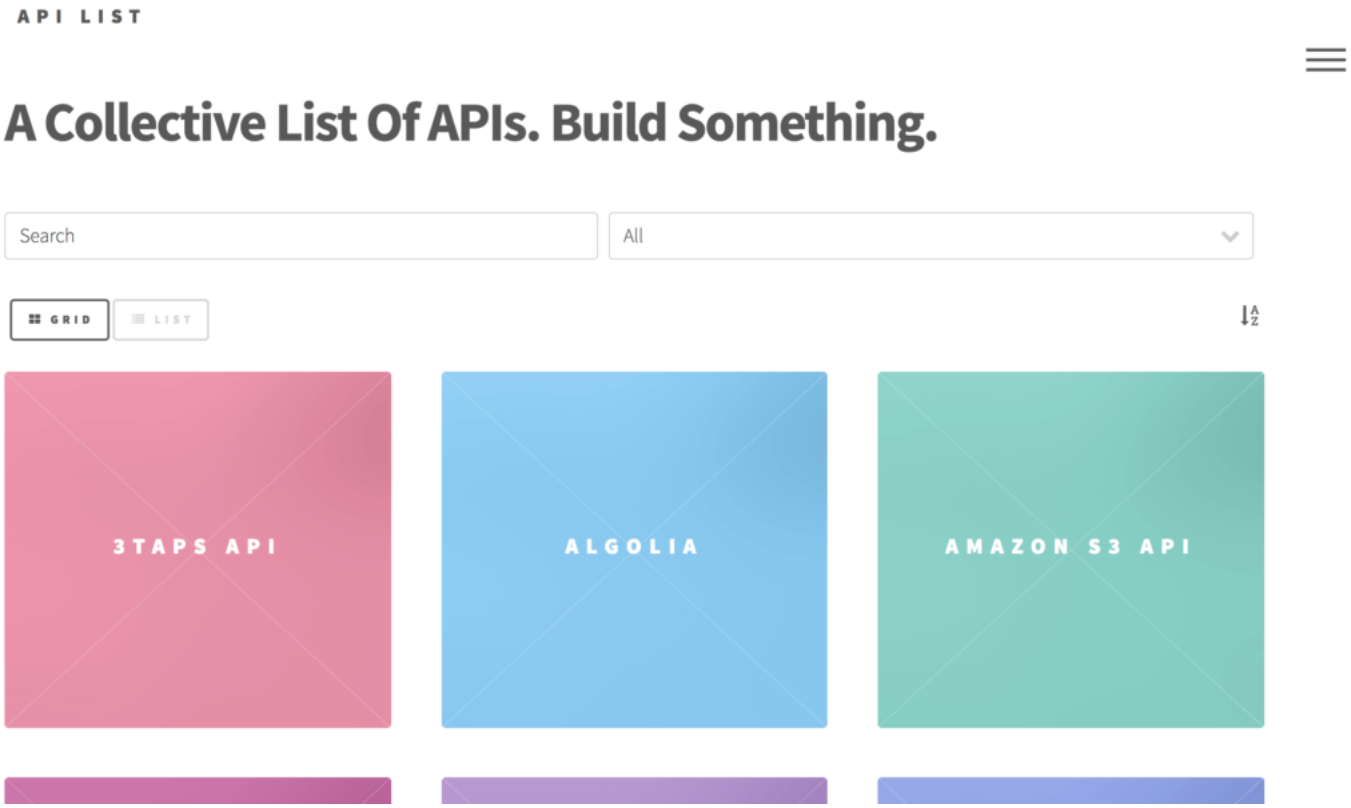
IBM's API directory takes a contextual approach to discovering APIs, structuring relationships between APIs based on their use cases and related information, such as developer discussions, usage advice, and Github projects using the API. The directory is populated with data from APIs.guru, and manual curation. Browse on API Harmony by search field or see their Featured, Popular, and Latest APIs lists.



15: API List

API List has a small but growing curated directory of popular developer APIs. From Algolia's Search-as-a-service , to Face++ image detection, visitors can browse and learn about a wide range of programmable software.

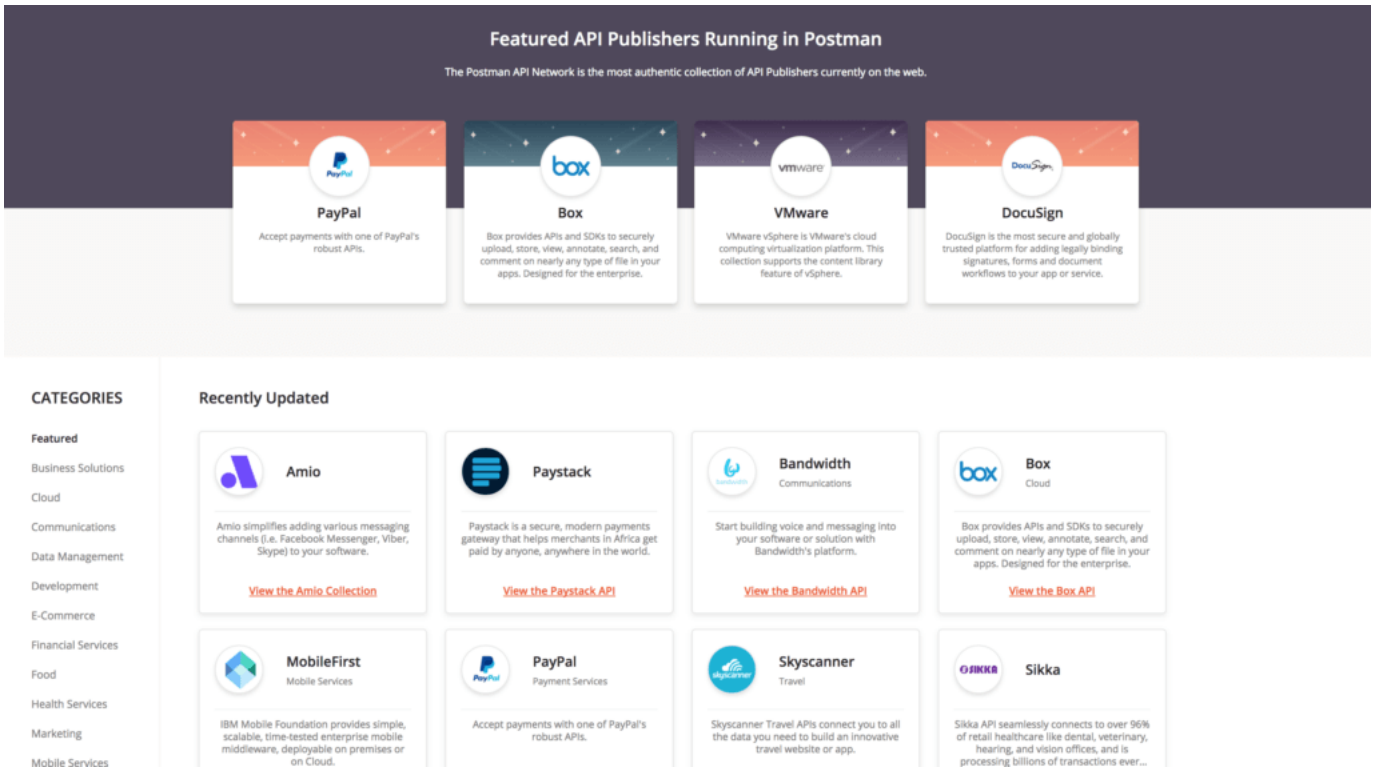
API profiles come with a brief description, category, and feature information like SSL support, endpoint URL, authentication method, and supported data formats. Maintained by web entrepreneur Adam Hodara, API List is also open to public contributions.



16. Postman API Network

"The Postman API Network is the most authentic collection of API Publishers currently on the web."

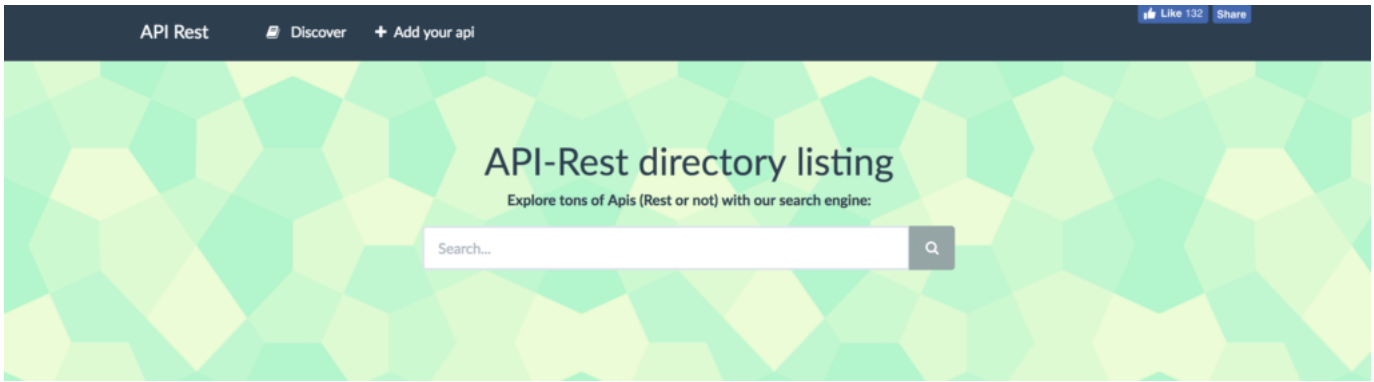
Postman is a popular tool in the API space, and they've recently released their own API Network, an aggregation of over 100 critical APIs in industries such as Business Solutions, eCommerce, Financial Services, Travel, and other areas. Visit the API Network to browse the APIs currently within the catalogue.



17. API-Rest

"Explore tons of Apis (Rest or not) with our search engine"

API-Rest is a directory of RESTful (and non-REST) APIs. The directory is well-tagged, so you can search by niche topics. For example, a search for "NLP" returns profiles on APIs like Machine Linking API, Visual Context Graph, Lemmatizer API, and others. Each API profile displays simple information, such as base endpoint and developer home page. The Discover page allows you to see the top viewed APIs to get a sense on what is popular. You can suggest to add your API here.



A Short History of API Discovery

Things are only catalogued if there are too many of them to count. So, when we talk about discovery, we must first talk about growth. If compared to the trend in website growth in the 90s and early 2000s, a similar exponential growth has occurred with APIs. Now estimated at over 17,000 public APIs in existence, the world is quickly becoming too large to manage, too diverse to know all containments, too extraordinary to recall.

Enter **API Discovery**. For John Musser, **ProgrammableWeb** didn't emerge because he saw a business opportunity — it was out of pure necessity. Musser began to hand-catalogue web APIs while preparing for a completely separate project, and in the process realized that no directory for APIs existed at the time. In 2005, he launched a simple site, which quickly received a lot of attention. By 2008, PW.com had 1,000 APIs listed. As

a community hub, the ProgrammableWeb directory grew larger, and satisfied the needs of developers looking to create mashups, mobile apps, web apps, and more with these new, somewhat unprecedented technologies.

In 2014 we saw the emergence of a new breed of API discovery – **automation**. Powered by the minds behind 3Scale, API Evangelist, and APITools, APIs.io works on the proposed APIs.json discovery format, essentially a tag API providers can add to their code to automatically submit their API to the directory. What began with a few APIs has quickly emerged into nearly one thousand APIs.

Aside from the APIs.json discovery format, as we've covered above, today there are a slew of API management providers, API directories, listings, marketplaces, search engines, and so forth, each with their own method of making sense of the API jungle. Still, even with these tools, it's important to note that API discovery will highly depend on SEO and word of mouth. The latter takes the form of talk at developer conferences, meetups, hackathons, sound bites on TechCrunch, a 10 minute fame on Product Hunt, or perhaps an integration walkthrough on the Nordic APIs blog.



The Future of API Discovery

As APIs become more and more ubiquitous, the way they are catalogued and found naturally becomes an increasing concern. Treating an API as a product, providers must consider all possible marketing attempts — and in this space, searchability is key. This may mean **adding your API to all the applicable directories mentioned above** to maximize exposure.

Though API directories like PublicAPIs have a nice user interface with curated collections, they require manual updating. The prospect of machine-machine automation offers benefits like auto-update of API information and the ability to crawl, offering up some tasty benefits to the future of API discovery.

Have any thoughts on what should be done to help APIs become more discoverable? Did we leave out an API directory or API discovery service? Please share below!

111 Facebook 21 Twitter 7 Google+ 3 LinkedIn Reddit HackerNews
Total: 142

api, API directory, API For That, API Harmony, API List, api marketing, APIHound, APIs, APIs Explorer, APIs.guru, Azure, Bill, Bruno Pedro, collection, directory, discoverability, discovery, Doerrfeld, engine, findability, future, Google, How to find APIs, list, marketing, Mashape, Musser, ProgrammableWeb, PublicAPIs, RapidAPI.com, SDKs.io, search, searchability



15 Comments