A Review on Building Social Networking APIs

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Abstract: An application programming interface (API) specifies how some application components should interact with each other. API can be used to ease the work of programming graphical user interface components. Social networking is web-based services that allow individuals to create a public profile, to create a list of users with whom to share connection, and view and cross the connections within the system. A social networking service is a platform to build social networks or social relations among people who, for example, share interests, activities, backgrounds or real-life connections and a variety of additional services. Most social network services are web-based and provide means for users to interact over the Internet, such as e-mail and messaging. They make it easier for people to find and communicate with individuals who are in their networks using the Web as the interface. In this paper, shows a review on Social Networking API may build applications that are available to the members of the social network.

Keywords: API, Social Networking, Social Networking Sites

1. Introduction

Many application programming interfaces (APIs) have been developed to aid software developers with processing XML data, and several schema systems exist to aid in the definition of XML-based languages.[1] The introduction of the Internet and then the World Wide Web unveiled some of the most dramatic transformations that the world of communications has seen. We have now embarked on another transformation to reinforce and extend these trends – the rapid and increasing adoption of Application Programming Interfaces (APIs).Here we propose building applications with social networking APIs.

The Internet continues its relentless transformation of every business. However past investments in Internet and web technology are not enough to ensure future success. New technology enablers are emerging to change the playing field. APIs have been an important part of the computer industry since the early days. They are fundamental to the way that computer, software, and network architecture has evolved.

2. Social Networking

Since their introduction, social network sites (SNSs) such as MySpace, Facebook, Cyworld, and Bebo have attracted millions of users, many of whom have integrated these sites into their daily practices. As of this writing, there are hundreds of SNSs, with various technological affordances, supporting a wide range of interests and practices. While their key technological features are fairly consistent, the cultures that emerge around SNSs are varied. Most sites support the maintenance of pre-existing social networks, but others help strangers connect based on shared interests, political views, or activities. Some sites cater to diverse audiences, while others attract people based on common language or shared racial, sexual, religious, or nationality-based identities.

2.1 Social Networking API

We define social network sites as web-based services that allow individuals to, construct a public or semi-public profile within a bounded system, [2] articulate a list of other users with whom they share a connection, [3] and view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site. While we use the term "social network site" to describe this phenomenon, the term "social networking sites" also appears in public discourse, and the two terms are often used interchangeably. We chose not to employ the term "networking" for two reasons: emphasis and scope. "Networking" emphasizes relationship initiation, often between strangers. While networking is possible on these sites, it is not the primary practice on many of them, nor is it what differentiates them from other forms of computer-mediated communication (CMC).

3. Related Work

The API allows applications to use the social connections and profile information to make applications more involving, and to publish activities to the news feed and profile pages of Social Networks. The core Facebook Platform API is the Graph API that allows you to read and write data to and from Facebook. Microsoft was one of the most successful companies to exploit their APIs for business advantage. They made massive investments to attract the largest base of application developers to write apps for MS Windows and the Windows API. Once they achieved critical mass, it became a self-reinforcing cycle of customers choosing Windows because of the large selection of apps, which led to more developers to write apps on this platform in order to reach the largest possible customer base.

3.1 API

An Application Programming Interface (API) is a particular set of rules and specifications that a software program can follow to access and make use of the services and resources provided by another particular software program that implements that API. It serves as an interface between different software programs and facilitates their interaction, similar to the way the user interface facilitates interaction between humans and computers.
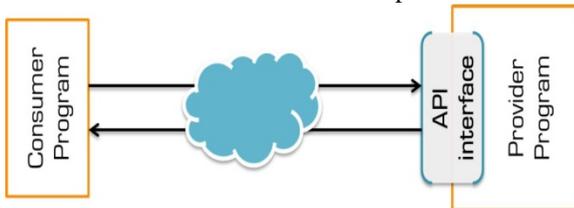

Fig.1 API Interface

APIs can be classified in several categories depending what abstraction is being described. These descriptions may seem very different, but they generally follow the guidelines of the definition. Table 1 shows typical API categories, and together with example

Table 1: API Category with Examples

API Category	Example	Timeline
Operating System	API for MS Windows	1985-
	API for Apple Mac OS X (Cocoa)	2001-
Programming Languages	Java API	1995-
Application Services	API for SAP (BAPI)	1990s-
Infrastructure Services	Amazon Web Services API	2002-
Web Services	Twitter API	2006-

4. Networks and Network Structure

Social network sites also provide rich sources of naturalistic behavioral data. Profile and linkage data from SNSs can be gathered either through the use of automated collection techniques or through datasets provided directly from the company, enabling network analysis researchers to explore large-scale patterns of finding, usage, and other visible indicators (Hogan, in press), and continuing an analysis trend that started with examinations of blogs and other websites.

For instance, Golder, Wilkinson, and Huberman (2007) examined an anonym dataset consisting of 362 million messages exchanged by over four million Facebook users for insight into messaging activities. During the growth of the computer industry in the last decades - even before the World Wide Web-APIs were at the heart of market dynamics. Frequent competitive battles were won or lost on the basis of API wars. The stakes were high, and it was usually a select few, big and powerful companies or organizations that dominated the directions for APIs.

4.1 API Timeline

The Internet, and in particular the rise of Web APIs, has had a democratizing effect compared to the dynamics of Chapter One. Now anyone can create an API to share data or services. Anyone can define their module or subsystem (to use the automotive analogy) as a web service and it will be available to be integrated in other modules or applications on the connected web. The result is more value for end customers/users and an explosion in the number of APIs.

The commercial potential for APIs is no longer limited to a handful of big companies. Anyone can spot an opportunity for a new service and with APIs slot it into a bigger framework.

Fig.2 API Timeline

Thus it makes the solution more accessible, more useful, and more powerful. For developers who build upon web services it is also easier than ever to take advantage of external services and data to enhance their offering. The result is more value for end customers/users and an explosion in the number of APIs:

5. API Development

The API allows applications to use the social connections and profile information to make applications [4] more involving, and to publish activities to the news feed and profile pages of Facebook The core Facebook Platform API is the Graph API that allows you to read and write data to and from Facebook.

5.1. Graph API

The Graph API is a simple HTTP-based API that gives access to the Facebook social graph, uniformly representing objects in the graph and the connections between them. Most other APIs at Facebook are based on the Graph API.

5.2 Ads API

The Ads API allows you to build your own app as a customized alternative to the Facebook Ads Manager and Power Editor tools. Ads management tools are what many members of the PMD program base their businesses on. Businesses in our PMD program have a strong focus on ad optimization and dedicated engineers with advanced technical skills and Facebook advertising background.

5.3 Atlas API

The Atlas APIs provides you with programmatic access to the Atlas web services. Provides operations that let you retrieve actions that are owned by the advertiser. Applications that create cost packages that use the cost-per-action (CPA) cost method would use this service. The Atlas Campaign Management API provides access to all entities, from media plans to placements, within the Atlas Media Console campaign management hierarchy.

5.4 Public Feed API

The Public Feed API lets you read the stream of public comments as they are posted to Facebook. The Public Feed API provides a stream of user status updates and page status updates as they are posted to Facebook. [14] Only status updates that have their privacy set to 'public' are included in the stream. The stream isn't available via an HTTP API endpoint, instead updates are sent to your

server over a dedicated HTTPS connection. The stream only includes basic data about the given post. From that basic data you may use the graph API to request additional metadata to supplement the updates received through the public feed API.
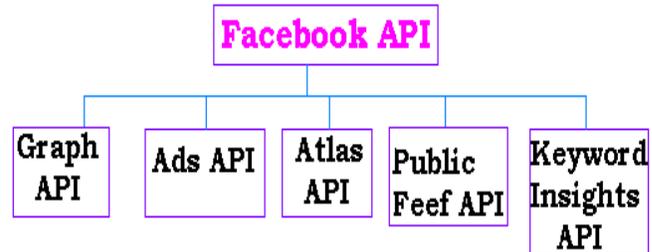

Fig.3 Facebook API

5.5 Keyword Insights API

The Keyword Insights API exposes an analysis layer on top of all Facebook posts that enables you to query aggregate, anonymous insights about people mentioning a certain term. The Keyword Insights API exposes an analysis layer on top of all Facebook posts that enables you to query aggregate, anonymous insights about people mentioning a certain term. Mentions data is queried from a Facebook Query Language (FQL) table, [5] which uses an SQL-style interface to deliver data.

6. API Structure

We can retrieve an object, delete an object, and publish objects. We can search, update objects, filter results, and even dynamically discover the connections/relationships of an object.
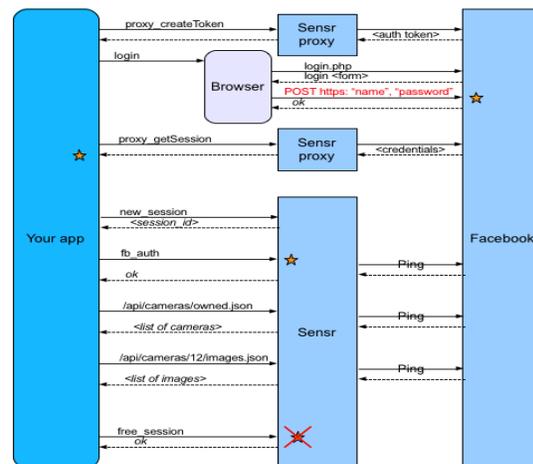

Fig.4 Facebook API Infrastructure

By default, applications have access to the user's public data. To access private data, applications must first request the user's permissions, which are called extended permissions. Using this Facebook connectivity application we can pull all the Facebook public data all the data has to be converted in to structured format [6] and then moved to hadoop database for big data testing. Using this data HR professional can contact person.

6. API Usage

Fig.5 based on a general social media API usage survey report. Facebook remains the dominant player in the social networking space. Some 71% of online adults are now Facebook users, a slight increase from the 67% of online adults who used Facebook as of late 2012.

While Facebook [7] is popular across a diverse mix of demographic groups, other sites have developed their own unique demographic user profiles.
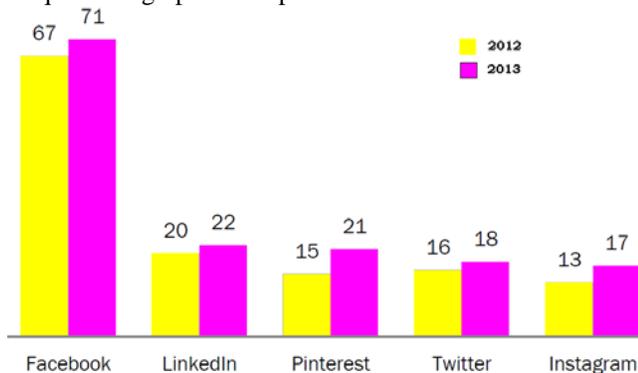

Fig.5 API Usage in Social Sites

For example, Pinterest holds particular appeal to female users (women are four times as likely as men to be Pinterest users), and LinkedIn is especially popular among college graduates and internet users in higher income households. [8] Twitter and Instagram have particular appeal to younger adults, urban dwellers, and non-whites. And there is substantial overlap between Twitter and Instagram user bases.

7. Conclusions

This paper presented a review on a method for building application with social networking API.As future work we tend to improve the API with mobile application. Mobile applications help users by connecting them to Internet services more commonly accessed on desktop or notebook computers. Content and services are the digital assets that are the core of any business. This report has shown how an

API can open up new distribution and solution options and therefore capture more value from these assets. Three advantages of using mobile apps for our business: speed, volume of information, and advertising. In Mobile Apps there's no need to wait on loading information because it is always on and also we can carry in our pocket.

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