



Google+ Sign-In for Web Apps

Building on the Google+ Platform

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Questions



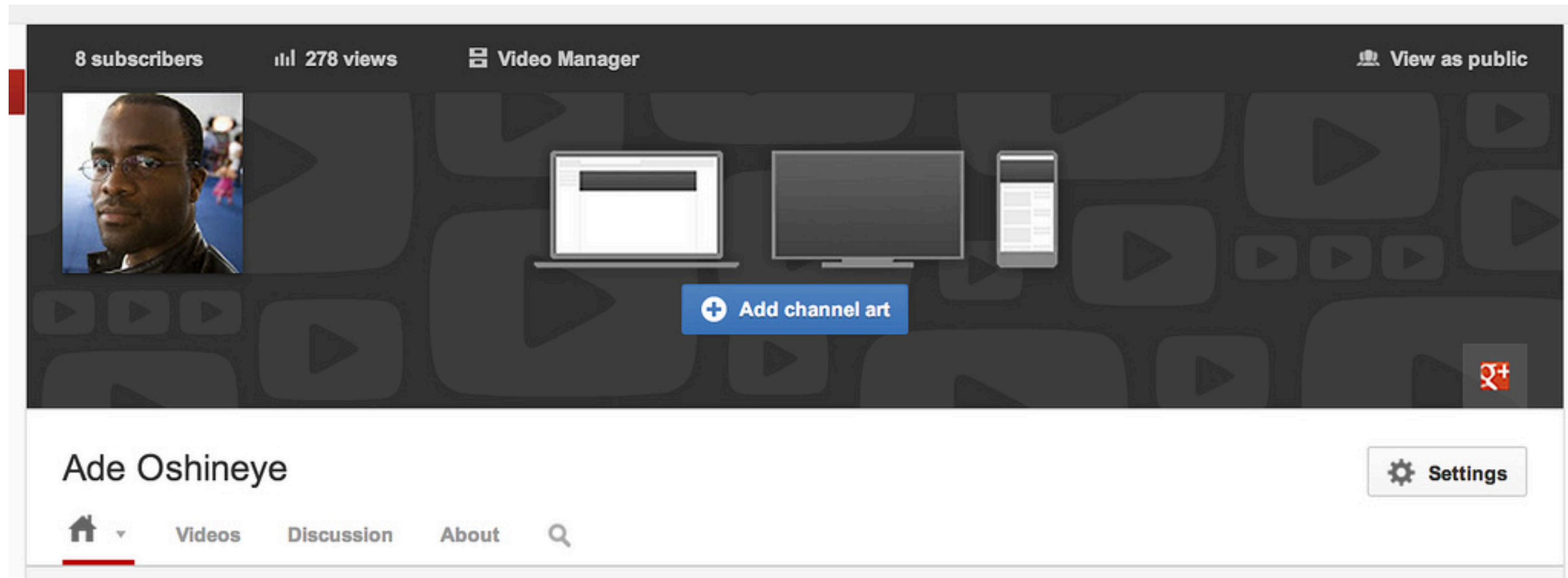
Web Sign-In



Web versus Apps?



It all starts with the web



~~Social~~ web apps



Solutions not just technologies



Client libraries and SDKs


Client Library	Project Home	Google+ Quick-Start App
Google APIs Client Library for .NET (beta)	google-api-dotnet-client	Quick-start instructions Download zip github
Google APIs Client Library for Go (alpha)	google-api-go-client	Quick-start instructions Download zip github
Google APIs Client Library for Google Web Toolkit (alpha)	gwt-google-apis	–
Google APIs Client Library for Java (beta)	google-api-java-client	Quick-start instructions Download zip github
Google APIs Client Library for JavaScript (alpha)	google-api-javascript-client	Quick-start instructions Download zip github
Google APIs Client Library for Objective C	google-api-objectivec-client	–
Google APIs Client Library for PHP (beta)	google-api-php-client	Quick-start instructions Download zip github
Google APIs Client Library for Python	google-api-python-client	Quick-start instructions Download zip github
Google APIs Client Library for Ruby (alpha)	google-api-ruby-client	Quick-start instructions Download zip github (Sinatra)
SDK	Download	Google+ Quick-Start App
Android Google Play services SDK	Use the Android SDK Manager	Quick-start instructions
Google+ iOS SDK	Download zip	Quick-start instructions



Quickstarts

 Android

 iOS

 C# / .NET

 Java

 JavaScript

 PHP

 Python

 Ruby



Google+ Platform

Grow your audience across devices

Ten minute quick start

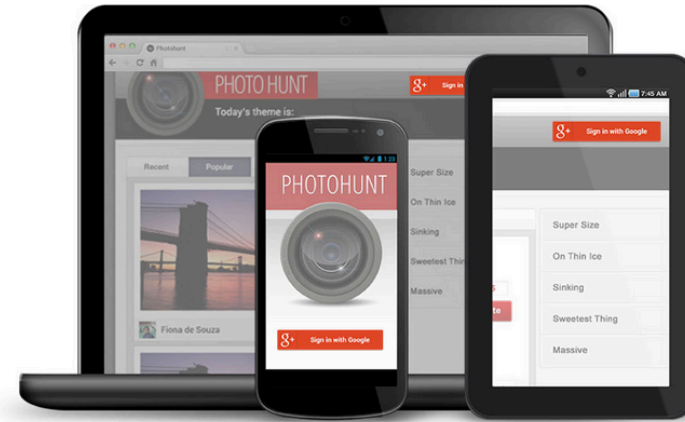
Choose your language:



Google+ Sign-In

Google+ Sign-In is a simple, trusted way to let people sign in with their Google credentials and build even more engaging experiences across desktop and mobile.

[Try our sample app](#)



Simple, secure authentication

Improve registration and sign-in conversion with a fast and secure authentication option for users.

[Learn more](#)



Interactive posts

Help your users prompt friends to take specific actions in your app from a Google+ post.

[Learn more](#)



Over-the-air installs

Let web users instantly download and install your app to their Android device.

[Learn more](#)



Integrated Hangouts

Build collaborative Hangout Apps that bring people together in new ways.

[Learn more](#)



Profile & social graph access

Show relevant content and connections from circles and profile information.

[Learn more](#)



Lasting re-engagement

App activities can help you re-engage users when it's relevant in the future.

[Learn more](#)



Engagement analytics

Tune your performance with stats on downloads, signed-in users, and their activity.

[Learn more](#)



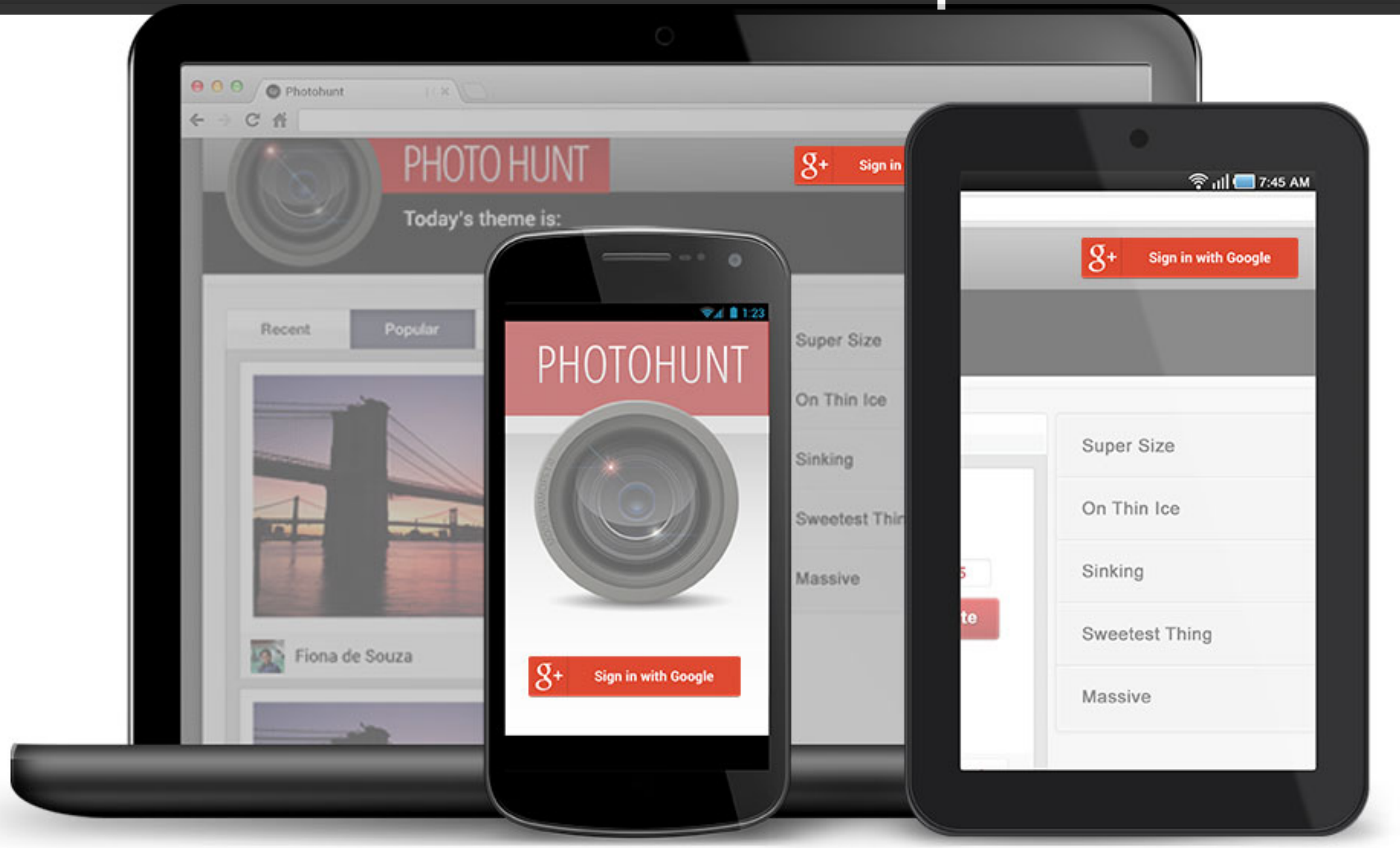
Google+ plugins

Add plugins to your site to grow your audience, on and off Google+.

[Learn more](#)



Multi-device & multi-platform



<http://ade-photohunt.appspot.com>



Start with sign-in





One password. All of Google.

Want to enjoy the best of Google? Just stay signed in. One username and password is all you need to unlock more features from services you use every day, like Gmail, Maps, Google+, and YouTube.



developers.google.com/console

The screenshot shows the Google APIs console interface. On the left is a navigation sidebar with options: Overview, Services, Team, API Access, Reports, and Quotas. The main area is titled 'Dashboard' and contains a 'Project Summary' table and a 'Service' status table. A 'Create project' dialog box is overlaid on the right side of the dashboard.

Project Summary

Name	API Project
Project Number	58975561423
Project ID	Register...
Google+ Page	Request connection
Owners	adewale.demo@gmail.com - you

Service

Service	Status
Google+ API	■■■ No known issues

Create project [X]

Enter the name for your project:

Create project Cancel



Add Google+ API

Google apis

Ade's Photohunt ▾

- Overview
- Services**
- Team
- API Access
- Reports
- Quotas

Dashboard



Project Summary

Name	Ade's Photohunt
Project Number	532115518293
Project ID	Register...
Google+ Page	Request connection
Owners	adewale.demo@gmail.com - you

Google apis

Ade's Photohunt ▾

- Overview**
- Services**
- Team
- API Access
- Reports
- Quotas

 Google+ API  ON



Teamwork works

Google apis

Ade's Photohunt ▾

Overview

Services

Team

API Access

Reports

Quotas

Team

You can collaborate on this project with as many or as few people as you like.

Permissions

adewale.demo@gmail.com - **you**

Is owner ▾

Add a teammate:

Is owner ▾

Add



Projects contain Client IDs


Ade's Photohunt ▾

- Overview
- Services
- Team
- API Access**
- Reports
- Quotas

API Access

To prevent abuse, Google places limits on API requests. Using a valid OAuth token or API key allows you to exceed anonymous limits by connecting requests back to your project.

Authorized API Access

OAuth 2.0 allows users to share specific data with you (for example, contact lists) while keeping their usernames, passwords, and other information private. A single project may contain up to 20 client IDs.  [Learn more](#)

Create an OAuth 2.0 client ID...

Simple API Access

Use API keys to identify your project when you do not need to access user data. [Learn more](#)

Key for browser apps (with referers)		
API key:	AIzaSyAnCFPChG07tEMHfZQMo6YVMjdYVBkMz94	Generate new key...
Referers:	Any referer allowed	Edit allowed referers...
Activated on:	May 8, 2013 6:29 PM	Delete key...
Activated by:	adewale.demo@gmail.com – you	

[Create new Server key...](#) [Create new Browser key...](#) [Create new Android key...](#) [Create new iOS key...](#)



Create Client ID

The screenshot shows the Google APIs console interface. On the left, a sidebar contains the project name 'Ade's Photohunt' and a navigation menu with items: Overview, Services, Team, API Access (highlighted with a yellow warning icon), Reports, and Quotas. The main content area displays a modal dialog titled 'Create Client ID' with a close button in the top right corner. The dialog is divided into sections. The 'Branding Information' section includes a text box for 'Product name' containing 'Ade's Photohunt Demo', a 'Google account' field showing 'adewale.demo@gmail.com - you' with a note to link the project to this account's profile, and a 'Product logo' field with a URL 'http://example.com/example_logo.png'. Below the logo field is a placeholder image with a diagonal line and an 'Update' button, with a note 'Max size: 120x60 pixels'. The 'Home Page URL' field contains 'http://ade-photohunt.appspot.com'. At the bottom of the dialog are 'Next' and 'Cancel' buttons, and a 'Learn more' link in the bottom right corner.

Google apis

Ade's Photohunt

Overview

Services

Team

API Access

Reports

Quotas

Create Client ID


Branding Information

The following information will be shown to users whenever you request access to their private data using your new client ID.

Product name: Ade's Photohunt Demo

Google account: adewale.demo@gmail.com - you
Link your project to this account's profile and reputation.

Product logo: http://example.com/example_logo.png

 Update
Max size: 120x60 pixels

Home Page URL: http://ade-photohunt.appspot.com

Next Cancel [Learn more](#)



OAuth configuration

Create Client ID

Client ID Settings

Application type

Web application
Accessed by web browsers over a network.

Service account
Calls Google APIs on behalf of your application instead of an end-user. [Learn more](#)

Installed application
Runs on a desktop computer or handheld device (like Android or iPhone).

Authorized Redirect URIs [\(fewer options\)](#)
One per line. For example: `https://example.com/path/to/callback`

Authorized JavaScript Origins
One per line. For example: `https://example.com`

[Create client ID](#) [Back](#) [Cancel](#) [Learn more](#)

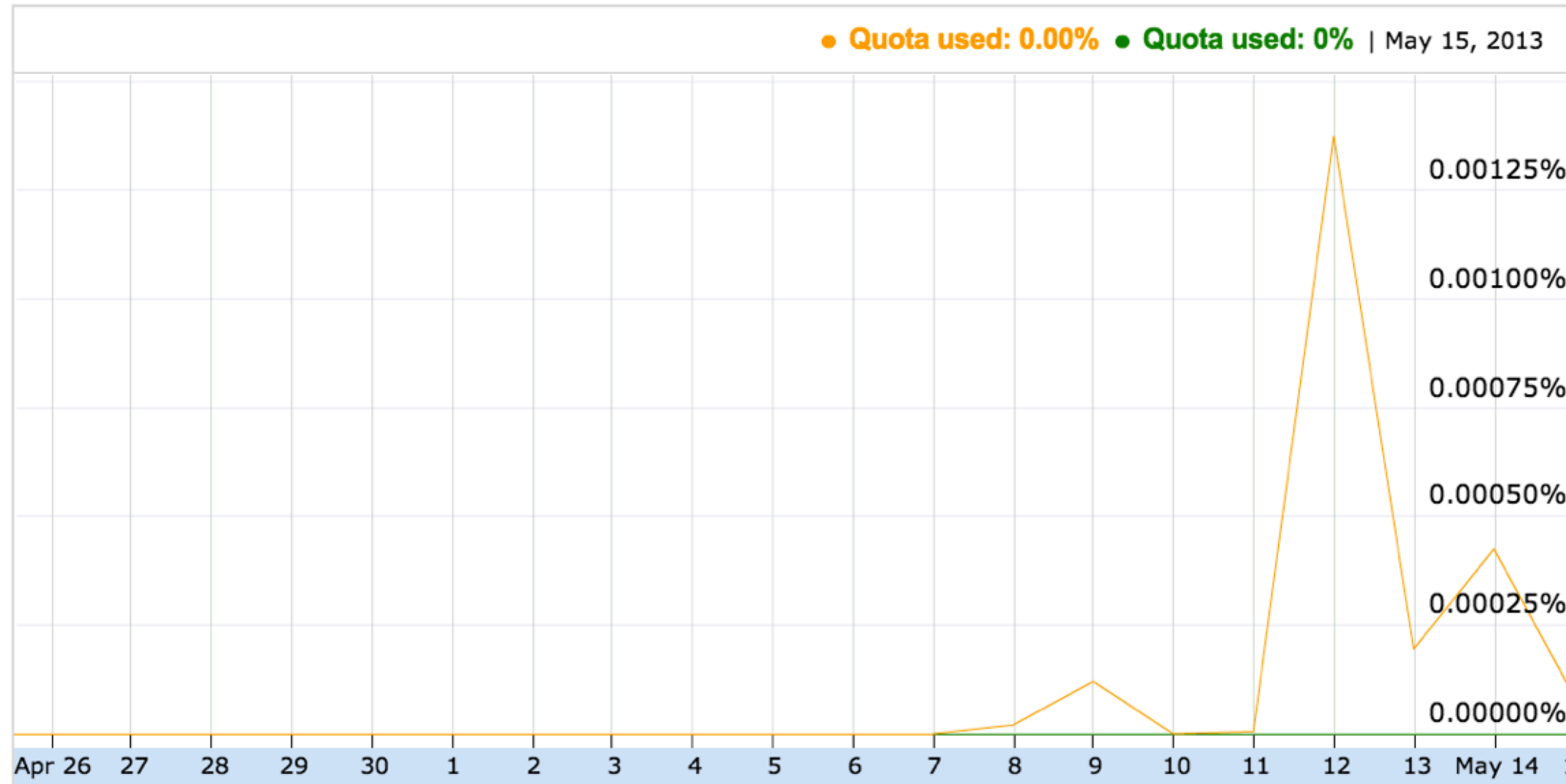
[Terms of Service](#) [Privacy Policy](#)



API traffic reports

Traffic Reports for Ade's Photohunt

Total requests **443** Requests/day **275** peak **15.82** average Start Date **Apr 18, 2013** Sample Period **28** days



- Google+ API # of requests
Bucket: Sign-in
Daily quota: 20M
28-day total: 443
[Download Historical Quota Usage Data](#)
 - Google+ API # of requests
Bucket: default
Daily quota: 10k
28-day total: 0
[Download Historical Quota Usage Data](#)
- Select:



Quotas

Traffic Controls for Ade's Photohunt

Usage Limits

Billing status:

Billing is not enabled

API usage will be restricted to courtesy limits [Learn more](#)

Effective limits:

API	Per-User Limit	Used	Courtesy Limit	
Google+ API	5.0 requests/second/user	<div style="width: 0%;"></div> 0%	10,000 requests/day	Request more...
Google+ API (Sign-in)	250.0 requests/second/user	<div style="width: 0%;"></div> 0%	20,000,000 requests/day	Request more...

[Set per-user limits...](#)



Client-side sign-in: why?



Client-side sign-in



```
<script type="text/javascript">
(function() {
  var po = document.createElement('script');
  po.type = 'text/javascript'; po.async = true;
  po.src = 'https://plus.google.com/js/client:plusone.js';
  var s = document.getElementsByTagName('script')[0];
  s.parentNode.insertBefore(po, s);
})();
</script>
```



Client-side sign-in



```
<div id="gConnect">  
  <button class="g-signin"  
    data-scope="https://www.googleapis.com/auth/plus.login"  
    data-requestvisibleactions="http://schemas.google.com/AddActivity"  
    data-clientId="532115518293.apps.googleusercontent.com"  
    data-callback="onSignInCallback"  
    data-theme="dark"  
    data-cookiepolicy="single_host_origin">  
  </button>  
</div>
```



Client-side sign-in



```
onSignInCallback: function(authResult) {
```



Client-side sign-in

User is now signed in to the app using Google+

If the user chooses to disconnect, the app must delete all stored information retrieved from Google for the given user.

User's profile information



Hello Ade Oshineye!

Tagline: I'm that guy doing the demo. If you interact with this account you're likely to end up in my demos.

About: You should really follow: <https://plus.google.com/+AdeOshineye>

Ade Oshineye



Disconnect

```
url: 'https://accounts.google.com/o/oauth2/revoke?token=' +  
     gapi.auth.getToken().access_token,
```



What about the server-side?



The hybrid flow

```
data-redirecturi="postmessage"  
data-accesstype="offline"
```

- Opaque code in authResult
- Exchange the code for an access token and refresh token
- Verify the access token is for the current user and for your app
- Defend against request forgery



Connect & customize



User brings their profile and their circles

Profile >

About

Posts

Photos

YouTube



Ade Oshineye

♂ 2,490 have him in circles

2 circles



Developer differentiates the experience

Extract interests from profile



Extract interests from profile

The image shows a vertical screenshot of a Google+ profile for Ade Oshinoye. The profile is organized into several sections:

- About:** Features a profile picture of Ade Oshinoye and a cover image of a classic car.
- People:** A section for connections, currently showing "In common with you".
- Work:** Lists professional roles, including "Developer Advocate at Google".
- Basic Information:** Provides personal details such as gender (Male) and location (London).
- Apps:** Lists various mobile applications used, such as "App Engine Mobile - Google" and "Stack Overflow".
- Story:** A central area for posts, including text updates and links to articles or other content.
- Places:** A map showing locations visited or tagged.
- Links:** A list of external links, including "Other profiles" and "Contributor to".



Developer differentiates the experience

Extract interests from profile

Match & merge social graphs

Make recommendations

Magical OOB



Encourage interaction



Interactive posts: before



Ade Oshineye

Shared publicly - 18:15

#Novel

I really loved the novel. I hope the movie lives up to it.



An Epic Of India Gets A Canvas Its Own Size :
NPR

<http://www.npr.org/2013/05/09/182334238/an-epic-of-indi...>

+1



Add a comment...



Ade Oshineye

Shared publicly - 18:19

A unique umbrella



Unbreakable Self Defense Umbrella - \$180

thefancy.com

+1



Add a comment...



Interactive posts: after



Ade Oshineye

Shared publicly - 18:17

#Novel

I really loved the novel. I hope the movie lives up to it.



NPR Social Tools

An Epic Of India Gets A Canvas Its Own Size :
NPR

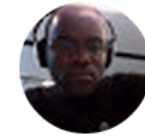
Midnight's Children, from Oscar-nominated filmmaker Deepa Mehta, is a sweeping big-screen adaptation of Salman Rushdie's great novel of modern Indian history. NPR's Bilal Qureshi talks to the two storytellers about their collaboration on the project.

Listen

+1



Add a comment...



Ade Oshineye

Shared publicly - 18:22

A unique umbrella



Fancy

Unbreakable Self Defense Umbrella - \$180

The Unbreakable Self Defense Umbrella. Truly the Clark Kent of umbrellas: discreet, yet able to pack a wallop at any moment. Anyone who can use a stick for defense can use this umbrella. Do you know how to swing a baseball bat? Do you know how to strike with a sturdy stick? If you do, you know all you need to know... The Unbreakable Self Defense Umbrella looks like any ordinary umbrella, yet is able to strike as hard as a steel pipe. The umbrella d...

Buy

+1




Add a comment...




Interactive posts: concepts

Share on Google+



Add a comment...



NPR Social Tools
An Epic Of India Gets A Canvas Its Own Size : NPR
Midnight's Children, from Oscar-nominated filmmaker Deepa Mehta, is a sweeping big-screen adaptation of Salman Rushdie's great novel of modern Indian history. NPR's Bilal Qureshi talks to the two storytellers about their collaboration on the project.

[Listen](#)

To: Public + Add more people

[Share](#) [Cancel](#)



Interactive posts: implementation

API Project and Client ID

Load our JS

Choose a label out of 100 options

Design and add a button



Interactive posts: implementation

```
class="g-interactivepost"  
data-contenturl="https://plus.google.com/pages/"  
data-contentdeeplinkid="/pages"  
data-clientid="xxxxx.apps.googleusercontent.com"  
data-cookiepolicy="single_host_origin"  
data-prefilltext="Engage your users today, create a Google+ page for your business."  
data-calltoactionlabel="CREATE"  
data-calltoactionurl="http://plus.google.com/pages/create"  
data-calltoactiondeeplinkid="/pages/create">
```



Surface activities



Is this thing on?





App activities





plus.google.com/apps/activities




App settings **App activities**

Added **Photo by Ade Oshineye for Flowers | Photo Hunt**
1 day ago on  Ade's Photohunt Demo - Shared privately

Added **Photo by Ade Oshineye for Flowers | Photo Hunt**
1 day ago on  Ade's Photohunt Demo - Shared privately

Added **Photo by Ade Oshineye for Flowers | Photo Hunt**
1 day ago on  Ade's Photohunt Demo - Shared privately

Added **Photo by Ade Oshineye for Flowers | Photo Hunt**
1 day ago on  Ade's Photohunt Demo - Shared privately



Defining app activities

Activity type



10 types of app activities

AddActivity

BuyActivity

CheckInActivity

CommentActivity

CreateActivity



10 types of app activities

DiscoverActivity

ListenActivity

ReserveActivity

ReviewActivity

WantActivity



Defining app activities

Activity type

Target

Itemtype

Name

Description

Image



Using app activities

Choose activity type

Entity type from schema.org

Make sure it's user-centric



Moments?

URL-less moments?



Historical moments?
Future moments?



Implementing app activities

API Project and Client ID

Sign-in button

Ask for “requestvisibleactions”

Insert meaningful moments



Implementing app activities

```
var moment = {
  'type' : 'http://schemas.google.com/AddActivity',
  'target' : {
    'url' : 'https://developers.google.com/+web/snippet/examples/widget'
  }
};

var request = gapi.client.request({
  'path' : 'plus/v1/people/me/moments/vault',
  'method' : 'POST',
  'body' : JSON.stringify(moment)
});

request.execute(function(result) {
  console.log(result);
});
```



Implementing app activities

```
// This example shows how to create a moment that does not have a URL.  
var momentWithoutUrl = {  
  'type' : 'http://schemas.google.com/AddActivity',  
  'target' : {  
    'id' : 'a-unique-id-1',  
    'name' : 'The Google+ Platform',  
    'description' : 'A page that describes just how awesome Google+ is!',  
    'image' : 'https://developers.google.com/+web/snippet/examples/thing.png'  
  }  
};  
  
var request = gapi.client.request({  
  'path' : 'plus/v1/people/me/moments/vault',  
  'method' : 'POST',  
  'body' : JSON.stringify(momentWithoutUrl)  
});  
  
request.execute(function(result) {  
  console.log(result);  
});
```



Implementing app activities

```
// This example shows how to create a moment that is associated with a URL that has schema.org markup.  
Moment moment = new Moment();  
moment.setType("http://schemas.google.com/AddActivity");  
ItemScope itemScope = new ItemScope();  
itemScope.setUrl("https://developers.google.com/+plugins/snippet/examples/thing");  
moment.setTarget(itemScope);  
Moment momentResult = service.moments().insert("me", "vault", moment).execute();
```

```
// This example shows how to create moment that does not have a URL.  
Moment moment = new Moment();  
moment.setType("http://schemas.google.com/AddActivity");  
ItemScope itemScope = new ItemScope();  
itemScope.setId("target-id-1");  
itemScope.setType("http://schemas.google.com/AddActivity");  
itemScope.setName("The Google+ Platform");  
itemScope.setDescription("A page that describes just how awesome Google+ is!");  
itemScope.setImage("https://developers.google.com/+plugins/snippet/examples/thing.png");  
moment.setTarget(itemScope);  
Moment momentResult = service.moments().insert("me", "vault", moment).execute();
```



Act on analytics



Data > Anecdotes



Platform Insights



Platform Insights

Platform Insights

Sign-in activity ▾

Last 7 days ▾

↑ **90**
Total users

86
New users



To protect privacy, we only show data that represents a significant number of users, and numbers may be approximated.



Platform Insights

32

Int. posts published

14,724

Post views

461

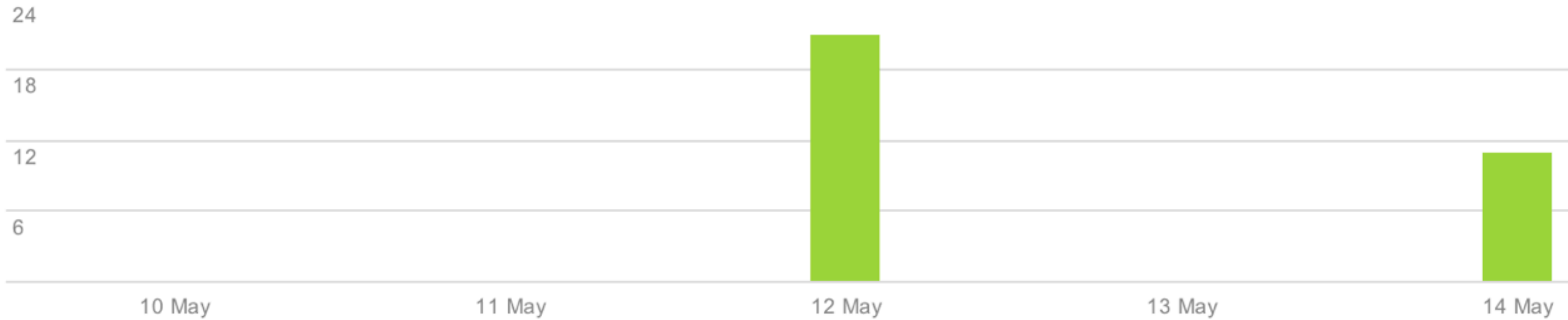
Clicks

3.24

CTR

0

App-install clicks



To protect privacy, we only show data that represents a significant number of users, and numbers may be approximated.



Create a Google+ Page

About

Posts

Photos

Videos

Reviews

View profile as: **Yourself** ▾



Ade's Demo Photohunt | ↗

<http://ade-photohunt.appspot.com/>

Change cover

+2



Connect Page and API Project

Request connection with a Google+ Page ✕

Enter Google+ Page ID to view Google+ Platform Insights for this project.

Google+ Page ID: plus.google.com/



Connect Page and API Project

Notifications

Managers

Platform Insights

Connected servi...

For your site

View page

Connected services

Google APIs Console

Connect your Google+ page to your Google APIs Console to monitor the performance of your mobile apps and website. You can connect up to one app to a page.

Ade's Photohunt Demo
532115518293

Status
Active

Disconnect

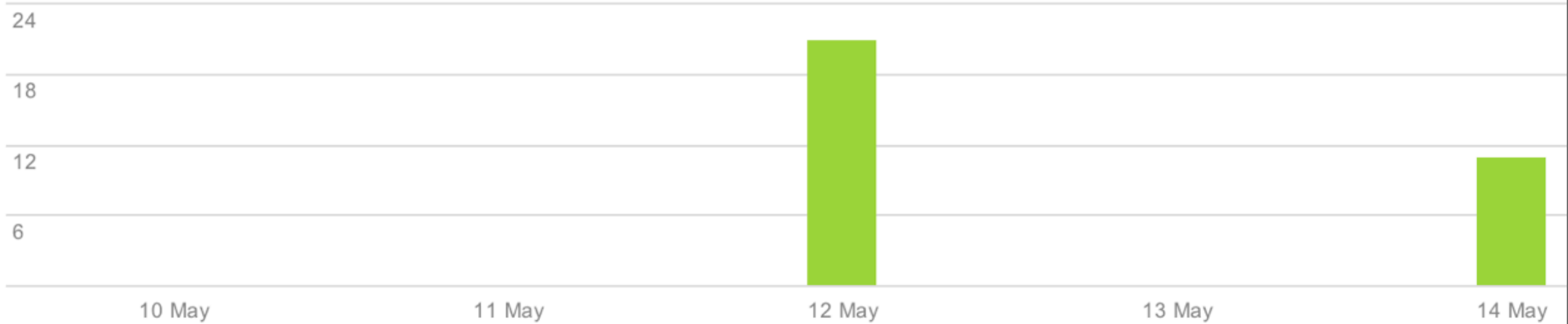
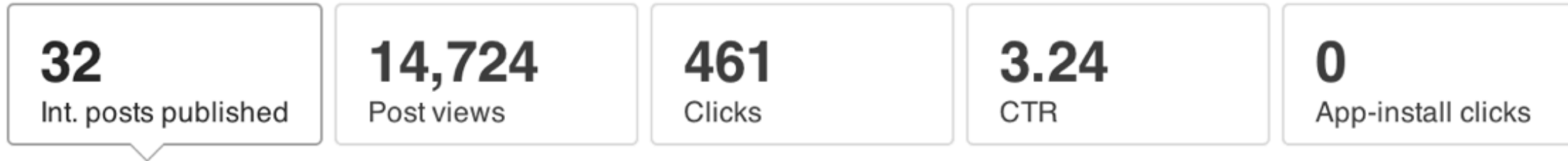


Data > Anecdotes

Create a Google+ Page
Connect Page and API Project
Act on Platform Insights



Take action



To protect privacy, we only show data that represents a significant number of users, and numbers may be approximated.



Wrap it up in a bow

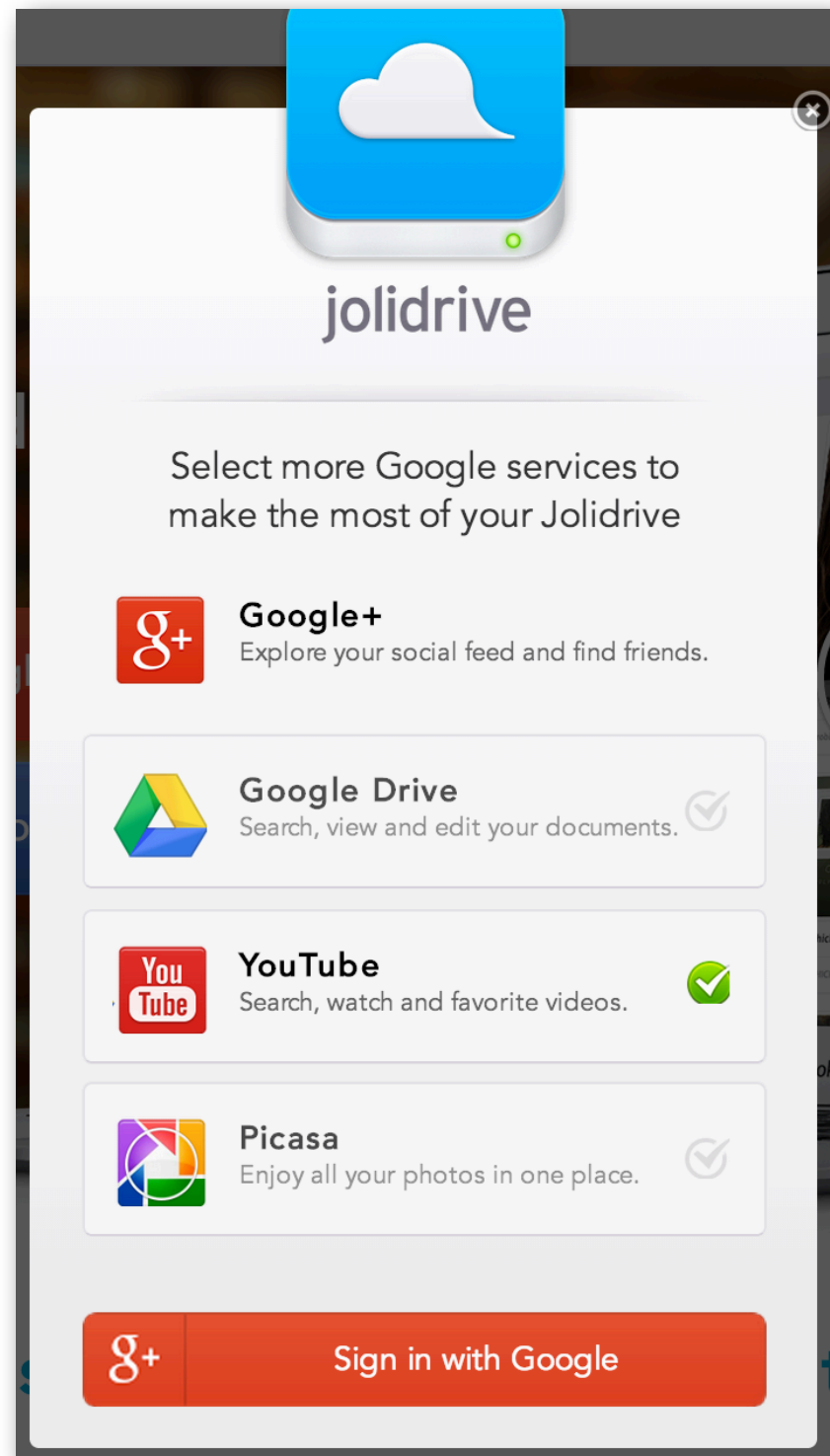


Add your own magic

Bring in all of Google
Combine things creatively



Bring in all of Google



Add your own magic

Unique connection with users
Use unique Google+ features



Create a unique and
valuable social
experience for your
users



<Thank You!>



<http://goo.gl/4urfo>

Questions

NOW







Google
Developers