





Google+ Sign-In

For Android Developers

Lee Denison - Developer Programs Engineer

Wes Tarle - Software Engineer





Sign in with Google





Sign in with Google





Over The Air Installs

tunein Local Music Sports News Talk By Location Search Sign In Sign Up

Sign in with TuneIn

Save your favorite stations and shows and discover new ones that you will love.

 Sign in with Google

 Connect with Facebook

or

Email

Password

Remember me



Over The Air Installs

The image shows a composite of two screenshots. On the left is the TuneIn website's sign-in page, featuring the TuneIn logo and navigation tabs for Local, Music, Sports, News, Talk, and By Location. The sign-in section includes social media options for Google+ and Facebook, and input fields for Email (containing 'user name/email') and Password (containing 'password'). A 'Remember me' checkbox is visible at the bottom. On the right is a Google Play store window titled 'Google Play' with the URL 'https://play.google.com/isoinstall?id=tunein.player&idToken...'. It displays the TuneIn Radio app card, which includes the app icon, name 'TuneIn Radio', developer 'TuneIn Inc', a 5-star rating from 271,424 reviews, and app details: 'App Version: 7.1' and 'Size: 6.5M'. A notification banner asks, 'Would you also like to install TuneIn Radio on your Android device?'. Below the app card, it says 'Install TuneIn Radio on:' followed by a dropdown menu showing 'T-Mobile LGE Nexus 4'. A section titled 'This application has access to the following:' lists permissions: 'Your location: approximate location (network-based)', 'Network communication: full network access, pair with Bluetooth devices', and 'Phone calls: read phone status and identity'. At the bottom of the notification are 'No thanks' and 'Install' buttons.



Over The Air Installs

The image illustrates the 'Over The Air Installs' concept by comparing a desktop website with its mobile app counterpart. On the left, the desktop version of the TuneIn website is shown, featuring a navigation bar with categories like Local, Music, Sports, News, Talk, and By Location. A prominent sign-in form is visible, offering options to sign in with Google+ or Facebook, or via email and password. On the right, the mobile app interface is displayed, showing the TuneIn logo at the top, a 'Now Playing' section for 'Radio 3 Live in Concert: City of London..', a progress bar (00:17 / -2:29:35), and a large red and white '3' logo.



Over The Air Installs

Implementation

HTML

```
<span id="signinButton">  
  <span  
    class="g-signin"  
    data-callback="signinCallback"  
    data-clientid="CLIENT_ID"  
    data-cookiepolicy="single_host_origin"  
    data-apppackage="com.example.android.package"  
    data-requestvisibleactions="http://schemas.google.com/AddActivity"  
    data-scope="https://www.googleapis.com/auth/plus.login">  
  </span>  
</span>
```



Over The Air Installs

Find out more...



Google+ Sign-In For Web Apps





Google Play Services

Trusted Identity Platform





Google Play Services

Trusted Identity Platform



Device Accounts

Uses accounts already registered on the device.





Google Play Services

Trusted Identity Platform



Device Accounts

Uses accounts already registered on the device.

Token Management

Handles OAuth2.0 exchanges.
Takes care of token management and caching.





Google Play Services

Trusted Identity Platform



Device Accounts

Uses accounts already registered on the device.

Token Management

Handles OAuth2.0 exchanges.
Takes care of token management and caching.

Additional Scopes

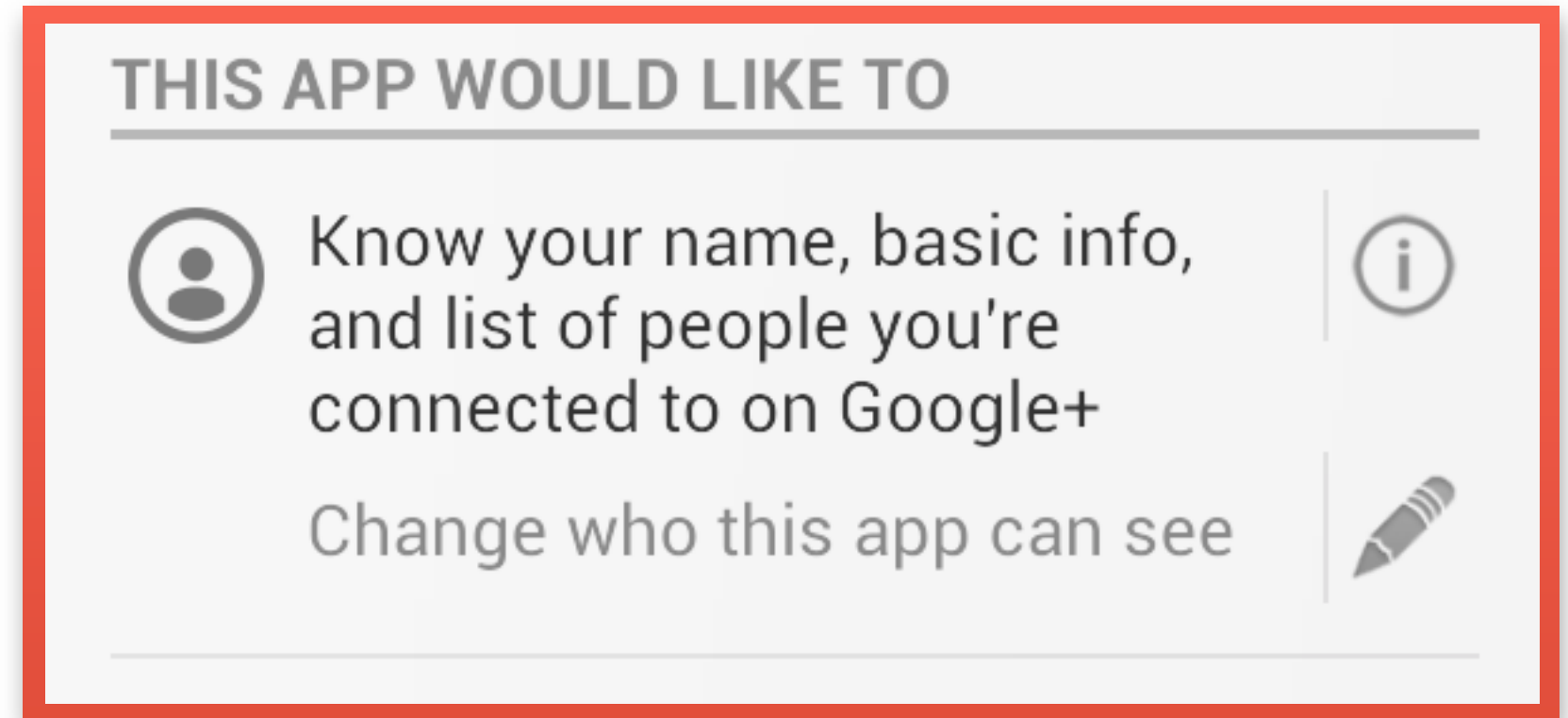
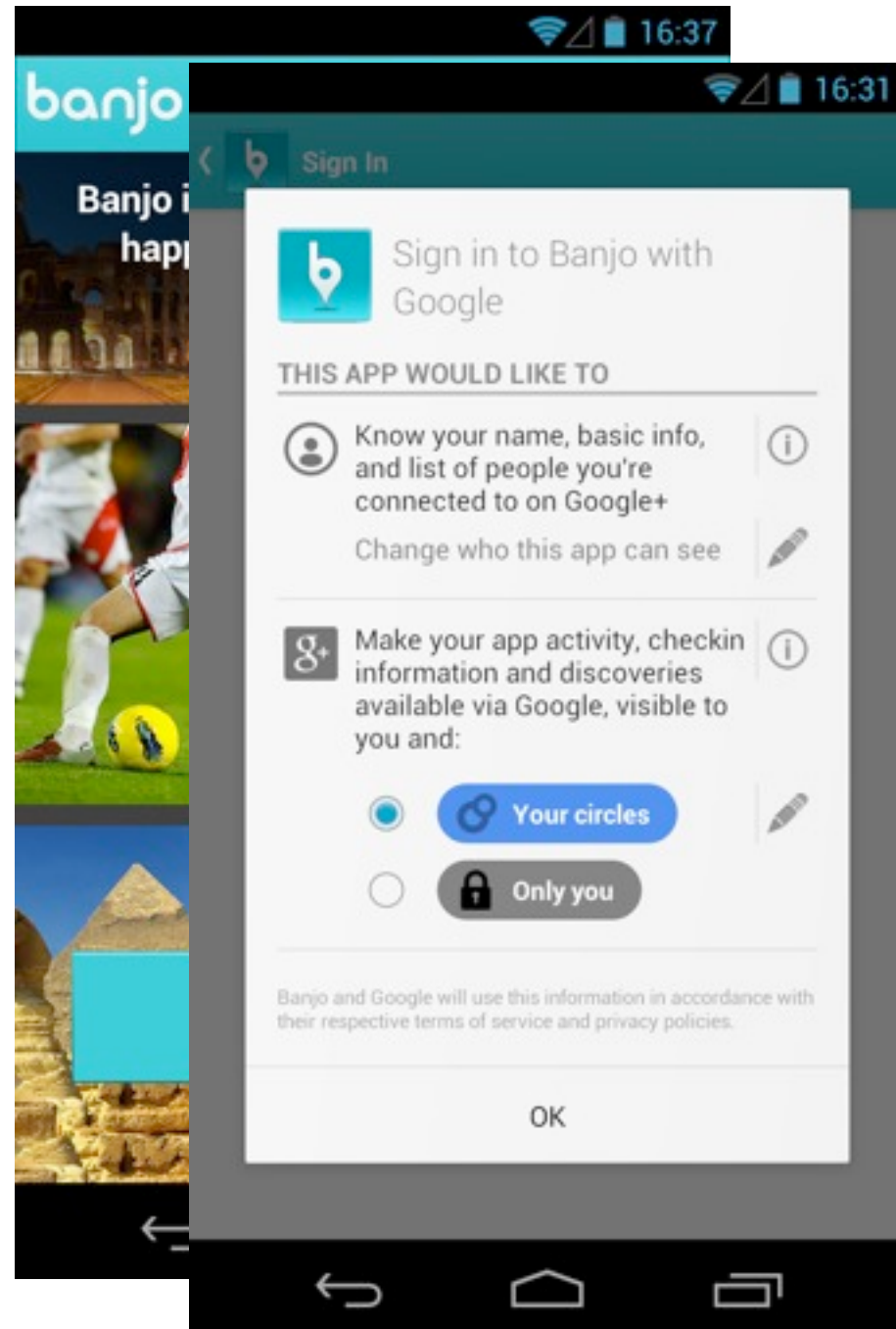
Can be used with additional scopes for other Google APIs.



Google+ Sign In Flow



Google+ Sign In Flow

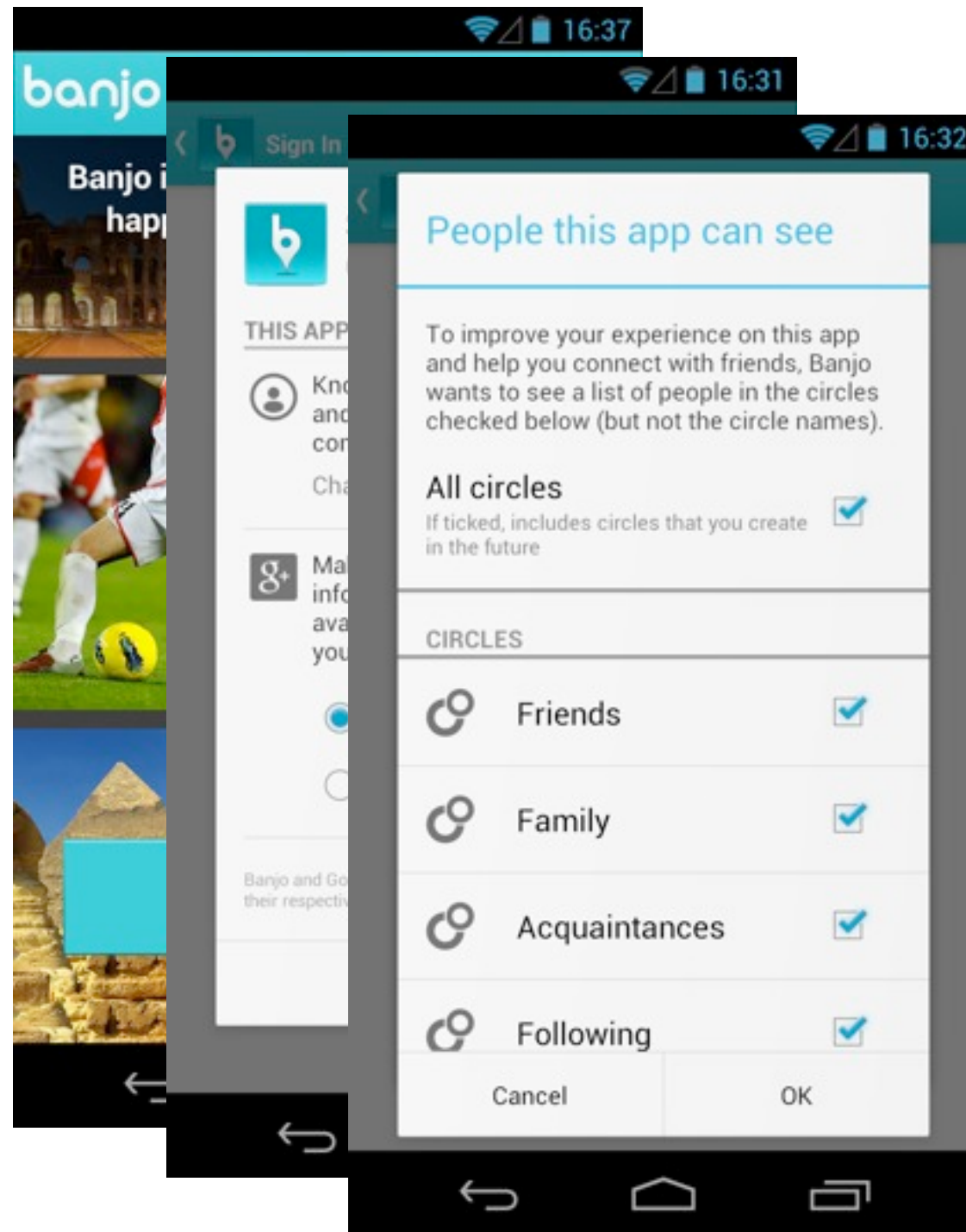


Native Consent Dialog

Keeps the user informed and in control.



Google+ Sign In Flow

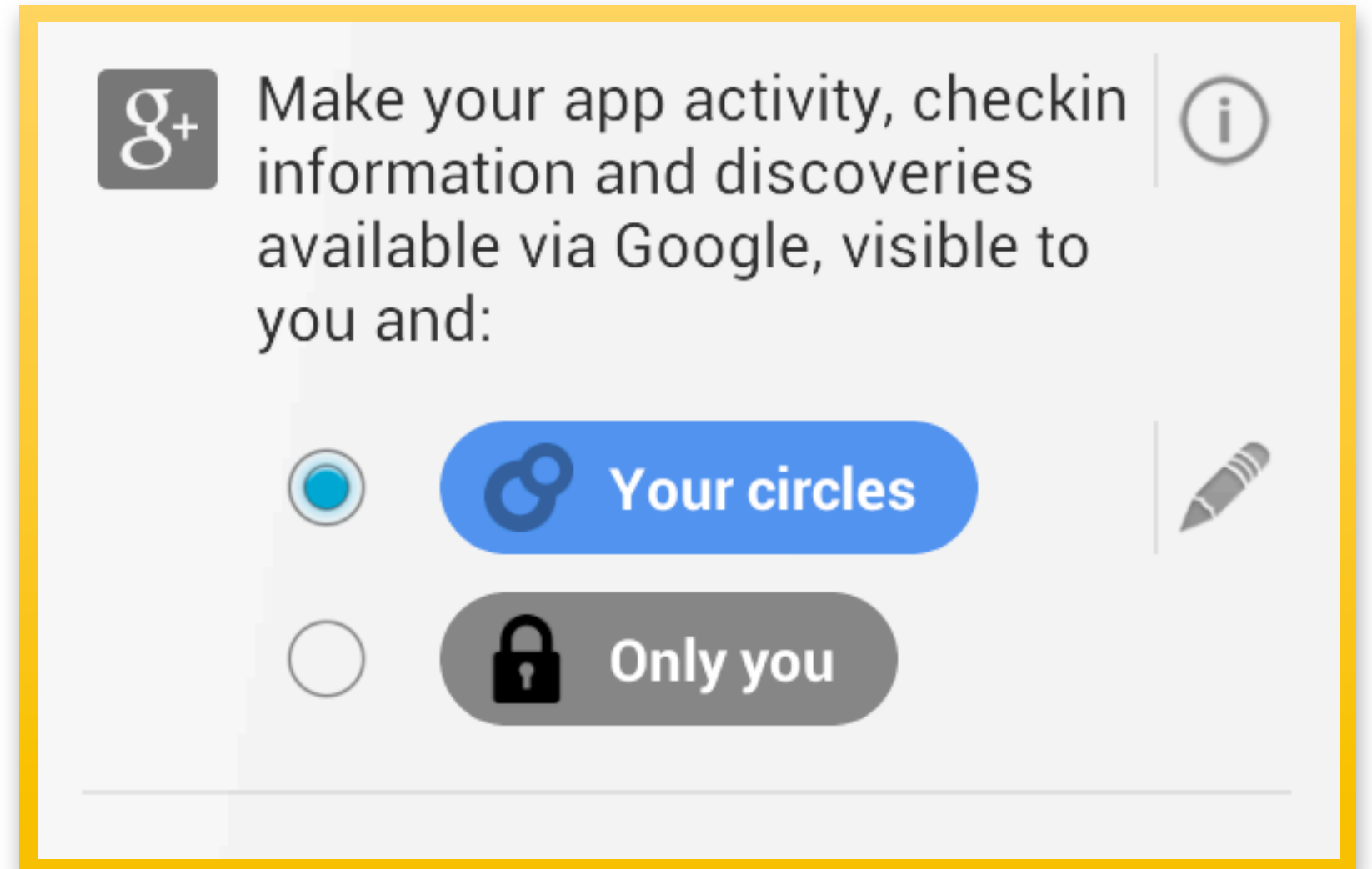
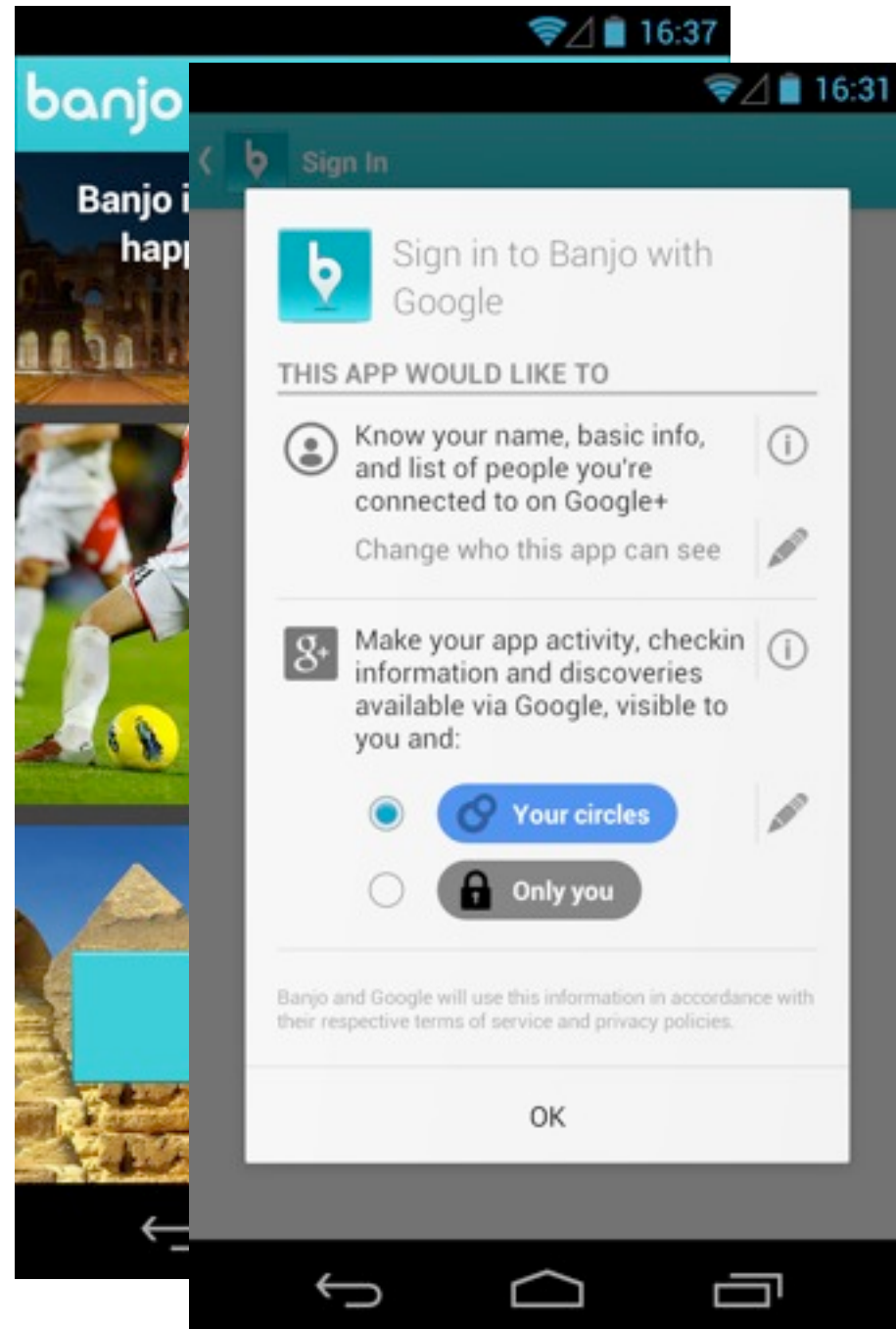


Grant Access To Circles

User controls which circles an app has access to.



Google+ Sign In Flow

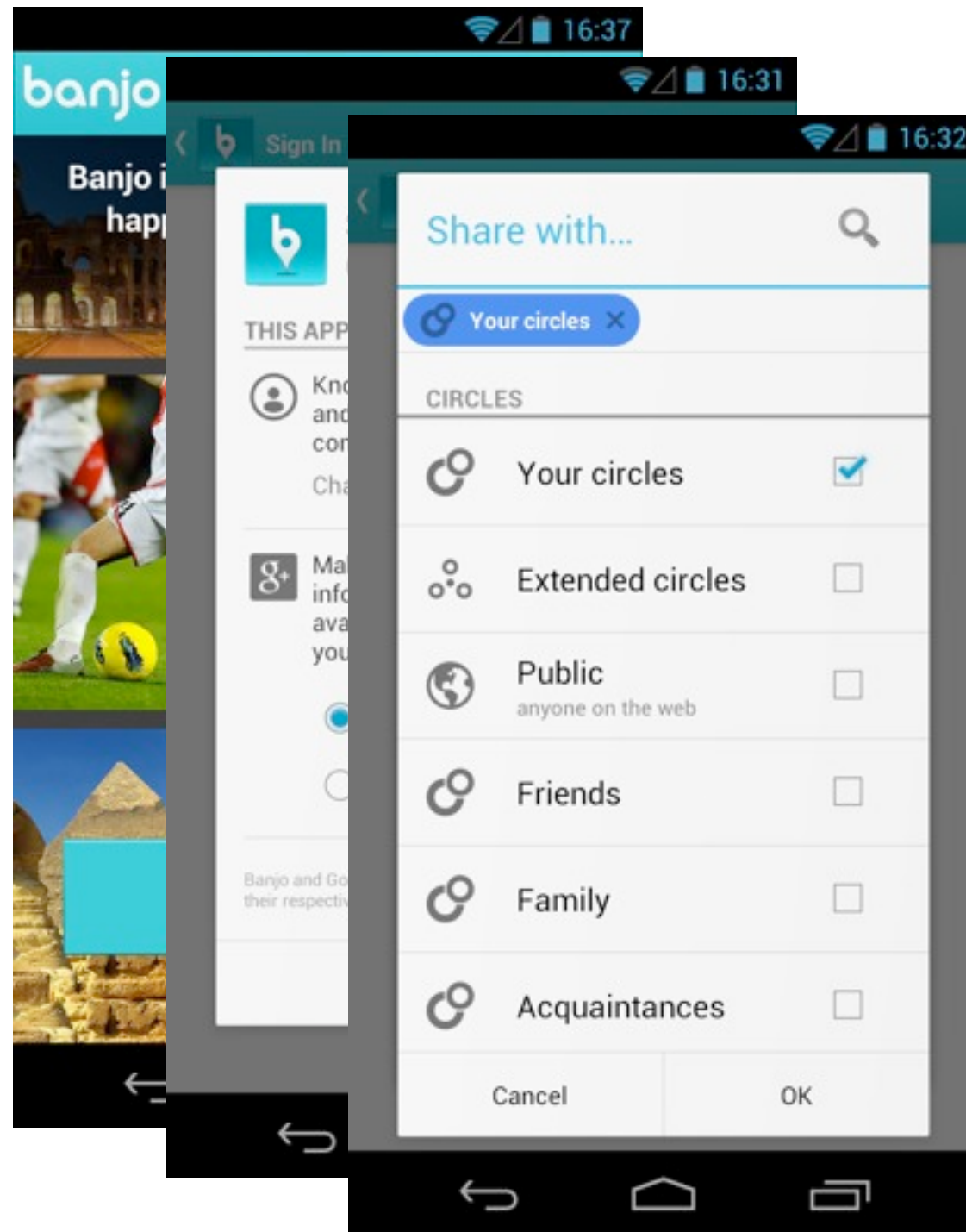


App Activity Visibility

User controls who can see app activities written by this app.



Google+ Sign In Flow



App Activity Visibility

User controls who can see app activities written by this app.







Google+ Sign-In

Implementation

Google+ Sign In

Implementation

```
<com.google.android.gms.common.SignInButton  
    android:id="@+id/sign_in_button"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content" />
```

XML

```
public class ExampleActivity extends Activity implements View.OnClickListener,  
    ConnectionCallbacks, OnConnectionFailedListener {  
  
    private PlusClient mPlusClient;  
    private ConnectionResult mConnectionResult;  
  
    // ...  
}
```

Java



Google+ Sign In

Implementation

Java

```
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    mPlusClient = new PlusClient.Builder(this, this, this)
        .setVisibleActivities("http://schemas.google.com/AddActivity",
            "http://schemas.google.com/ListenActivity")
        .build();

    findViewById(R.id.sign_in_button).setOnClickListener(this);
}

protected void onStart() {
    super.onStart();
    mPlusClient.connect();
}

protected void onStop() {
    super.onStop();
    mPlusClient.disconnect();
}
```



Google+ Sign In

Implementation

Java

```
public void onConnected() {
    Person user = mPlusClient.getCurrentPerson();

    /* Here you can use, for example:
    *     user.getDisplayName()
    *     user.getId()
    *     user.getImage()
    */
}

public void onConnectionFailed(ConnectionResult result) {
    // Save the result and resolve the connection failure upon a user click.
    mConnectionResult = result;
}
```



Google+ Sign In

Implementation

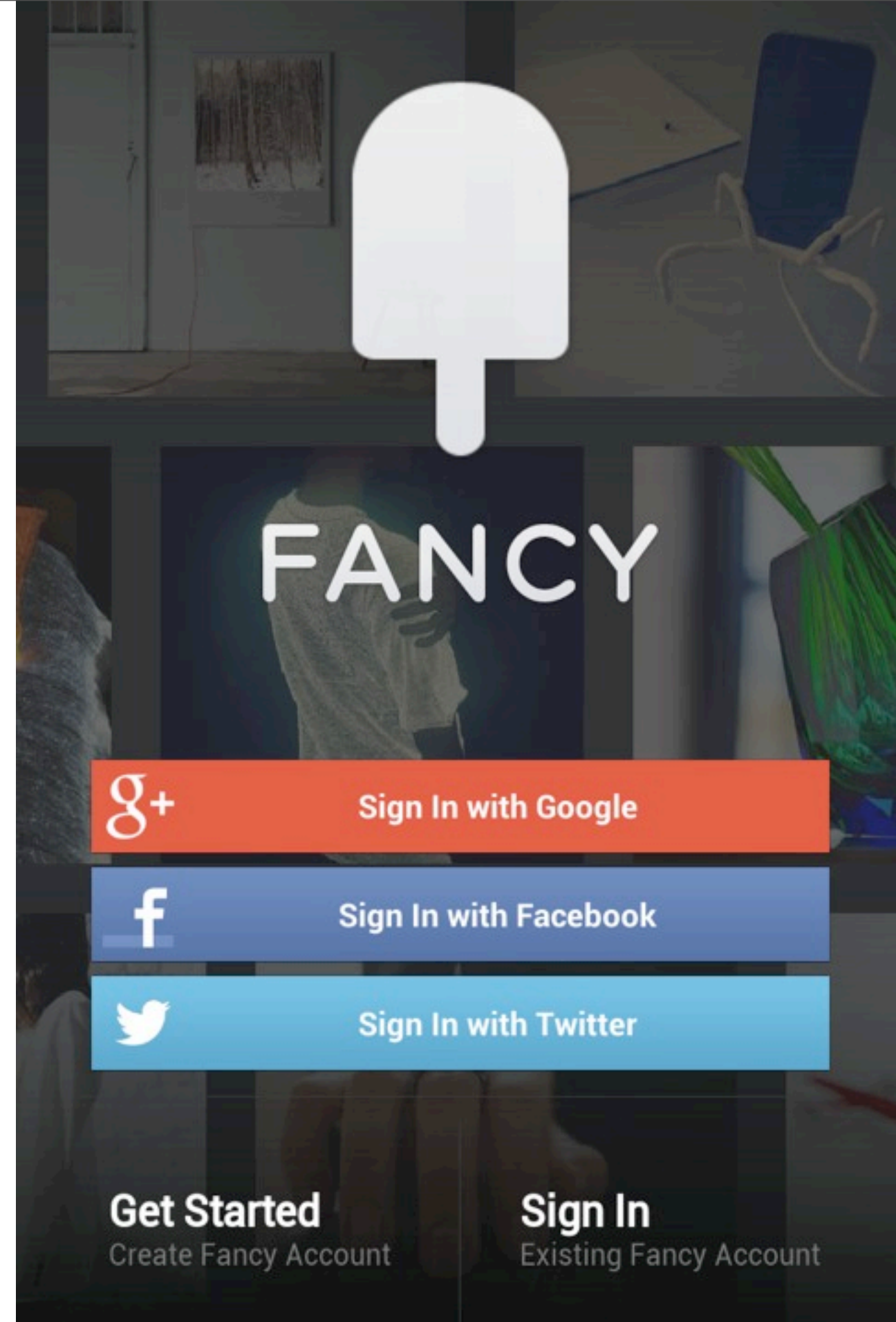
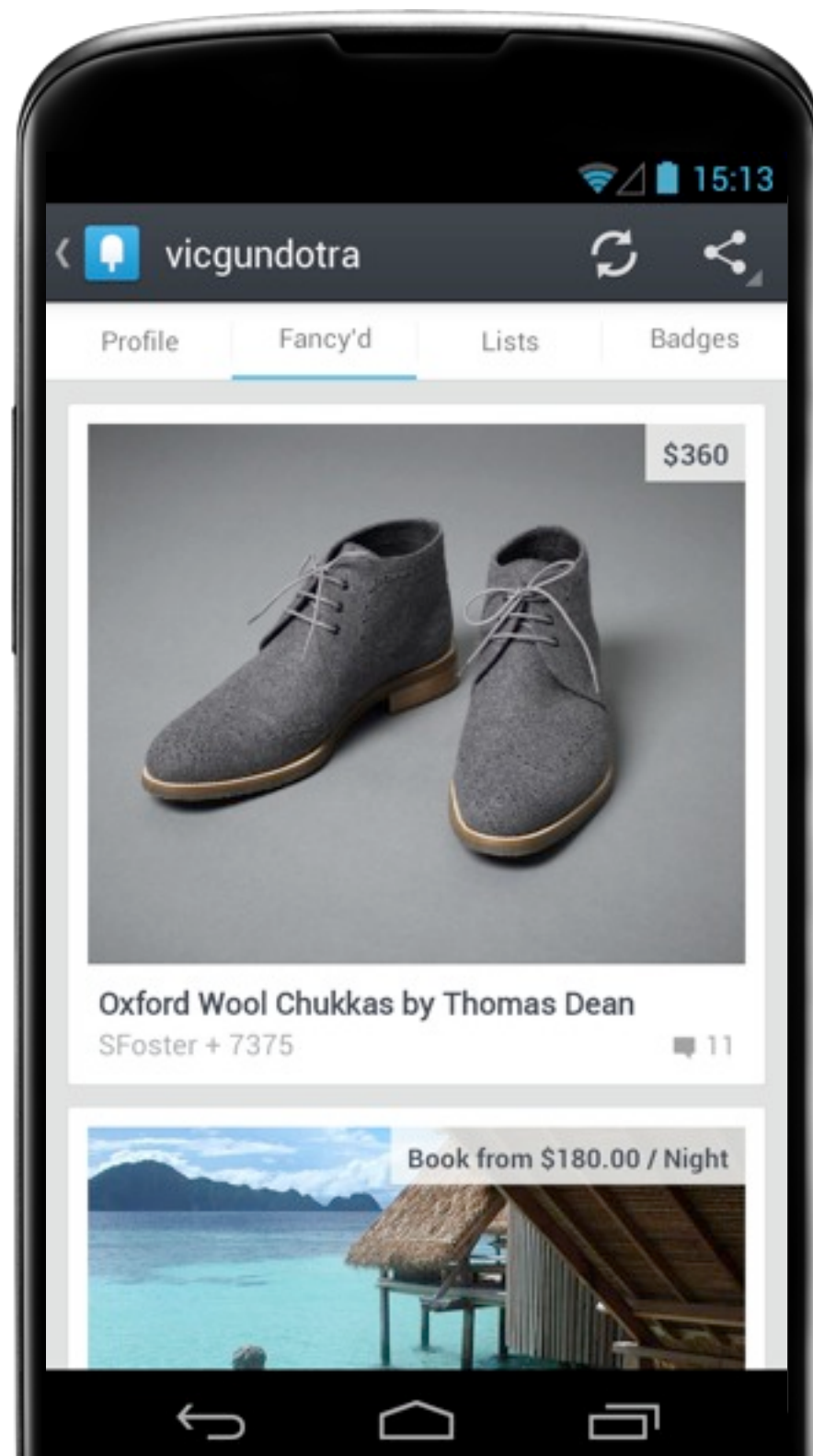
Java

```
public void onClick(View view) {
    if (view.getId() == R.id.sign_in_button && !mPlusClient.isConnected() && mConnectionResult != null) {
        try {
            mConnectionResult.startResolutionForResult(this, REQUEST_CODE_RESOLVE_ERR);
        } catch (SendIntentException e) {
            mConnectionResult = null;
            mPlusClient.connect();
        }
    }
}

protected void onActivityResult(int requestCode, int resultCode, Intent intent) {
    if (requestCode == REQUEST_CODE_RESOLVE_ERR && resultCode == RESULT_OK) {
        mConnectionResult = null;
        mPlusClient.connect();
    }
}
```



App Personalisation







App Personalisation

Implementation

Social Graph

Implementation

Java

```
public class MyActivity extends Activity implements
    ConnectionCallbacks, OnConnectionFailedListener, PlusClient.OnPeopleLoadedListener {

    public void onConnected() {
        mPlusClient.loadPeople(this, Person.Collection.VISIBLE);
    }

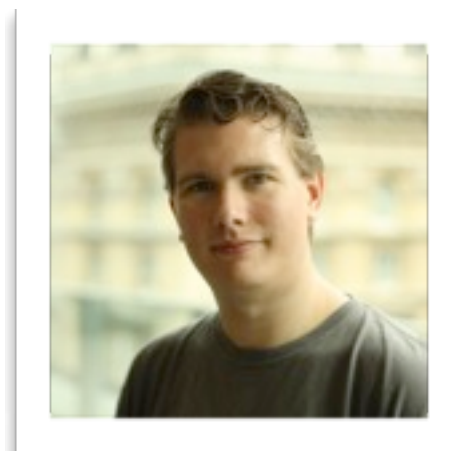
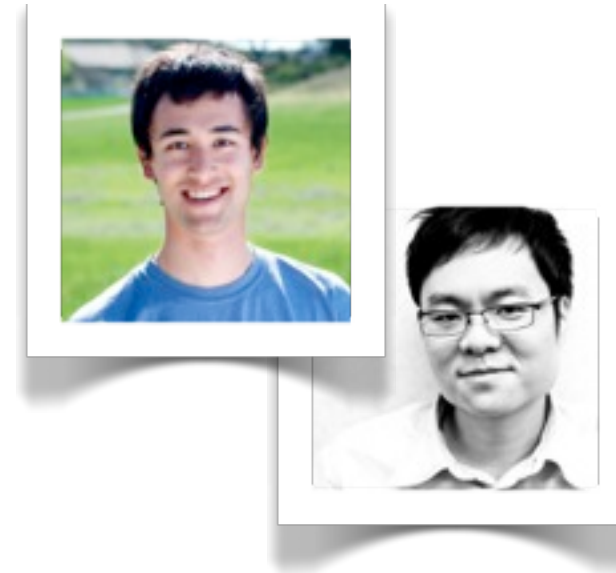
    public void onPeopleLoaded(ConnectionResult status, PersonBuffer personBuffer, String nextPageToken) {
        if (status.isSuccessful()) {
            try {
                int count = personBuffer.getCount();
                for (int i = 0; i < count; i++) {
                    Log.d(TAG, "Display Name: " + personBuffer.get(i).getDisplayName());
                }
            } finally {
                personBuffer.close();
            }
        }
    }
}
```



Authentication Models

Find out more...

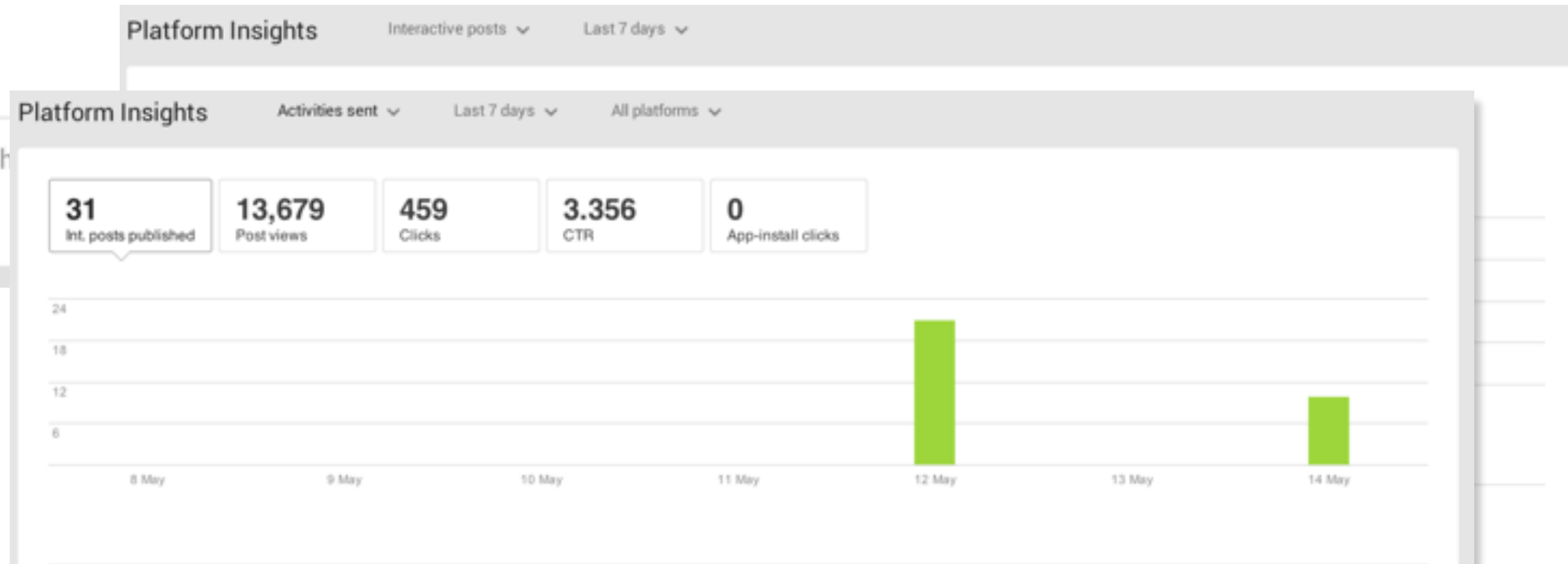
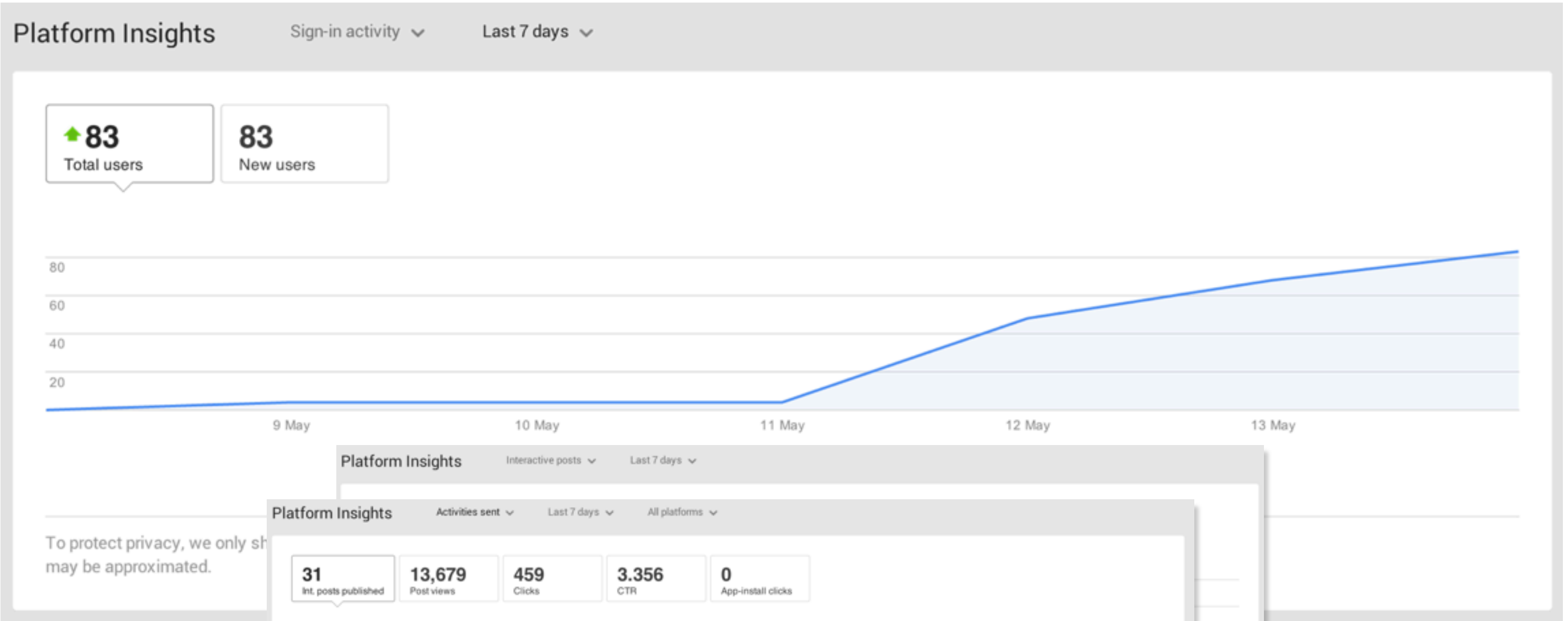
**Cross-Platform Authentication
with Google+ Sign-In**



**How to offer Google+ Sign-In
alongside other social sign in
services**



Google+ Sign-In Insights

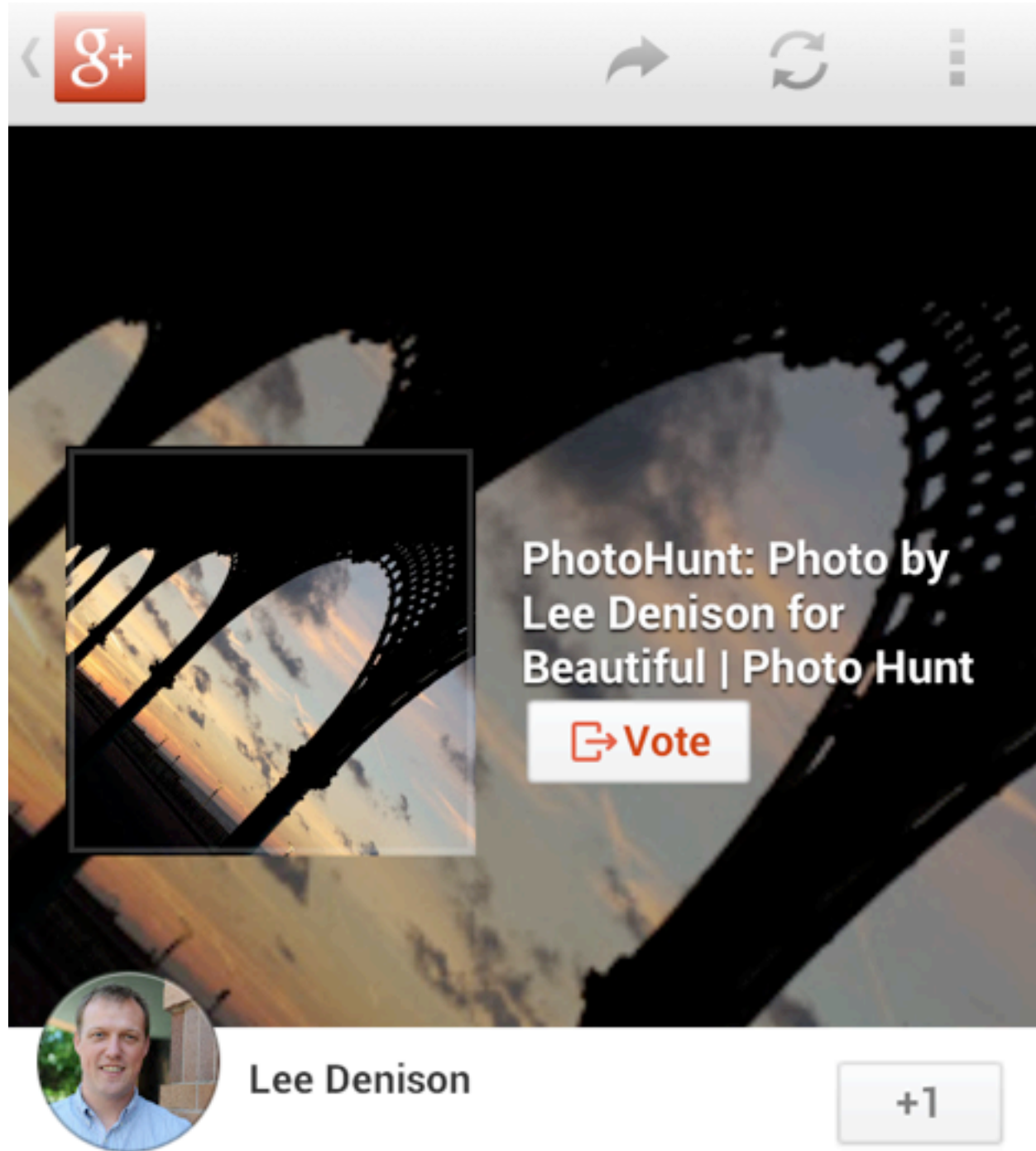




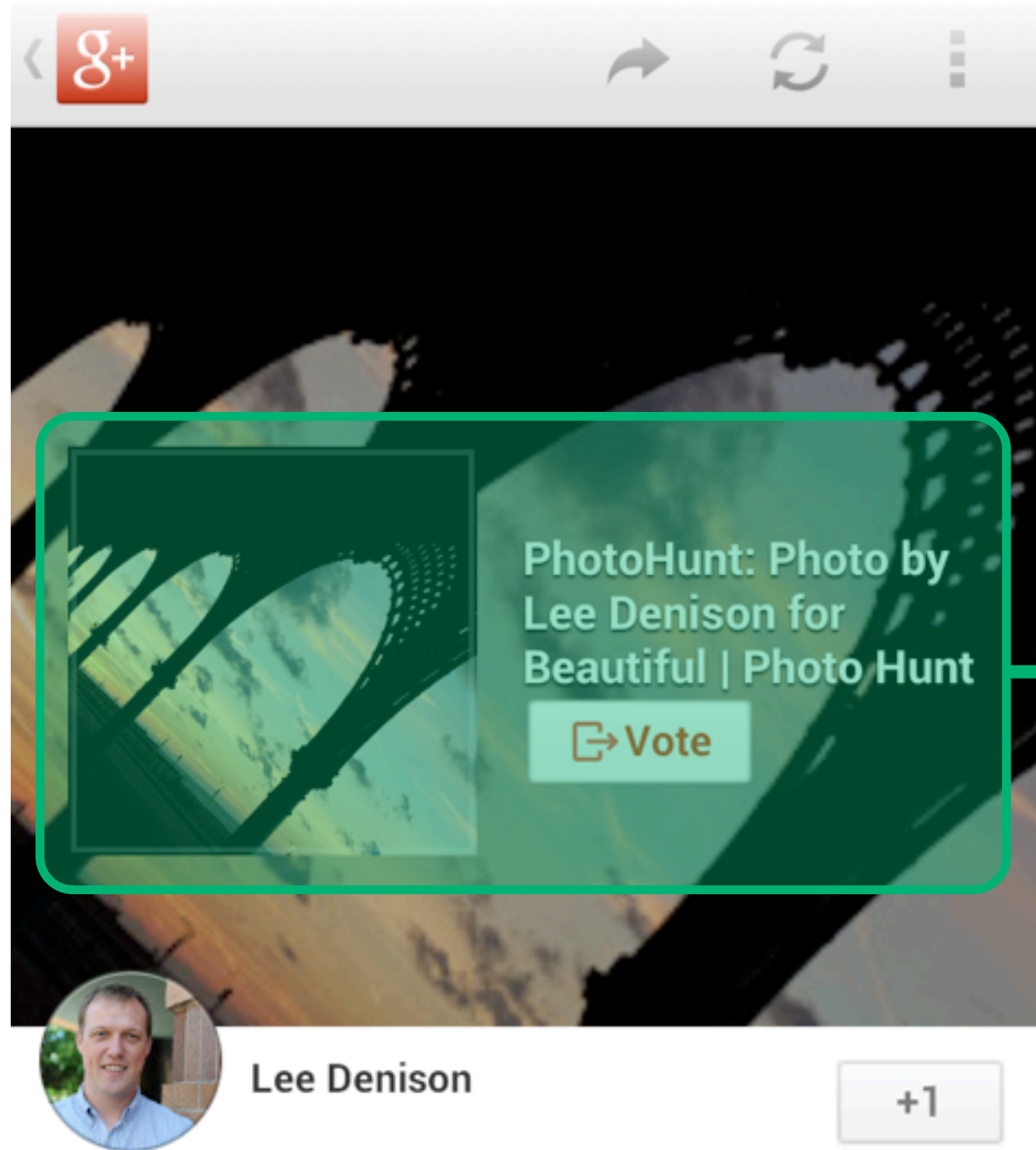


Interactive Posts

Interactive Posts



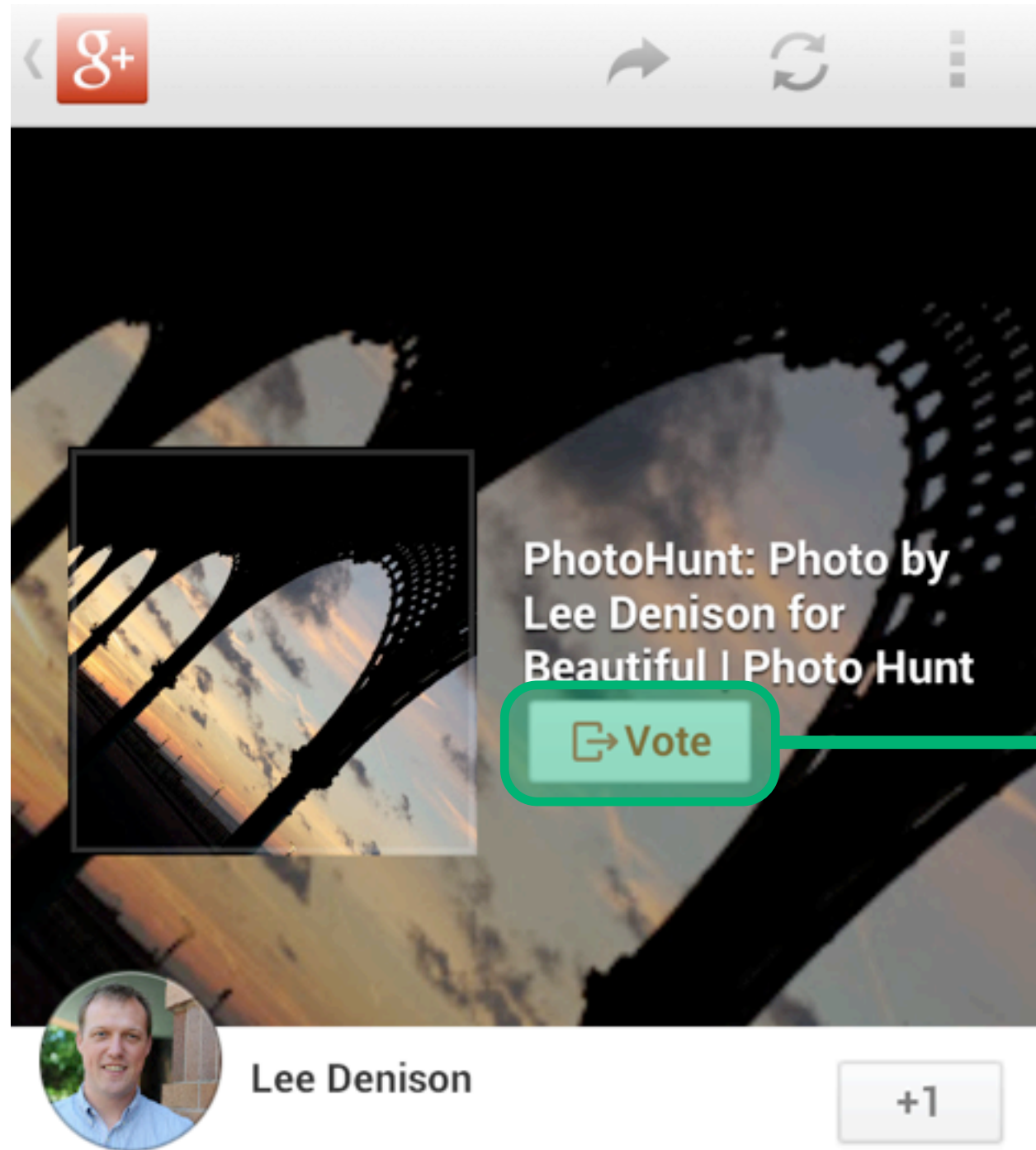
Interactive Posts



1. Content Target



Interactive Posts



1. Content Target

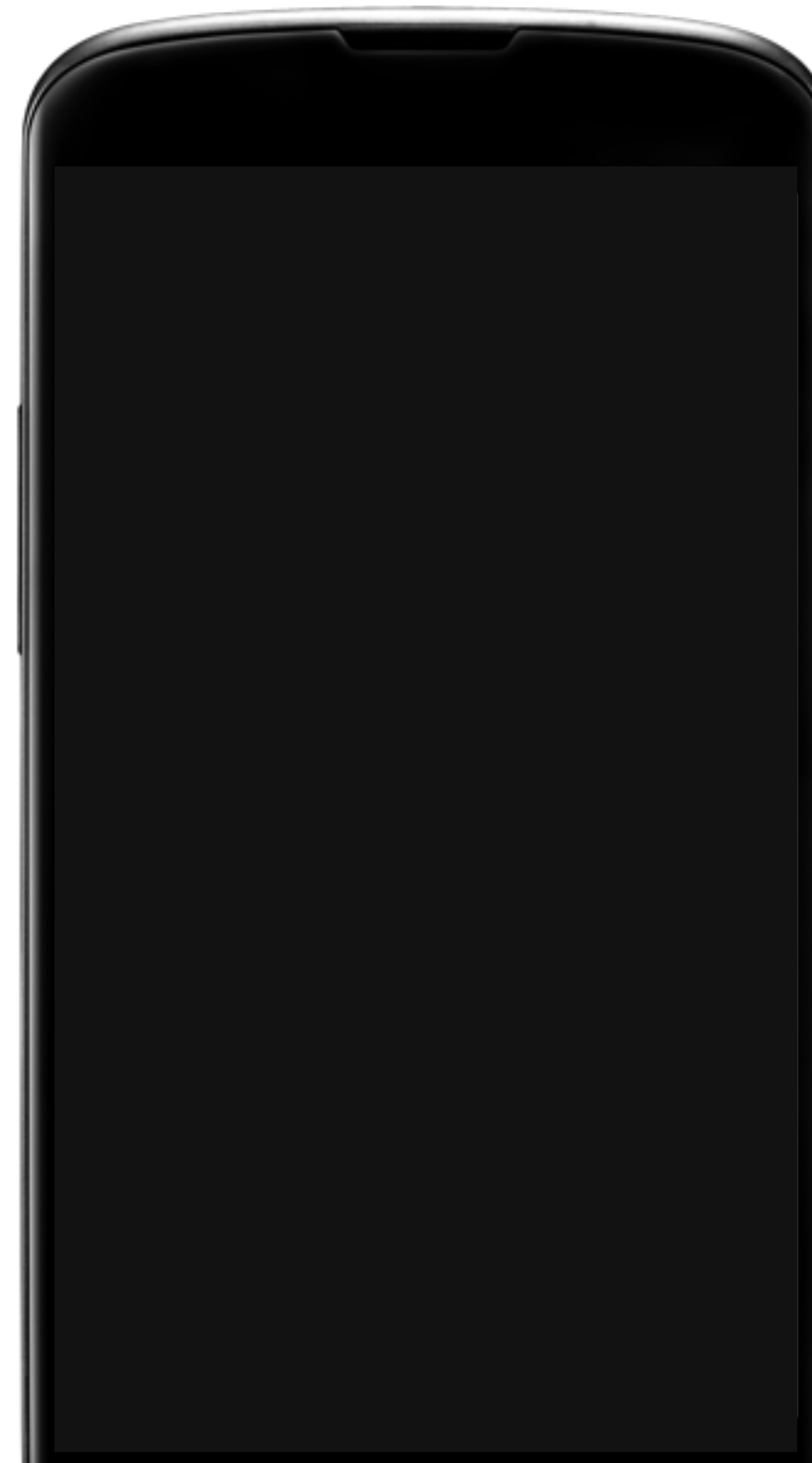
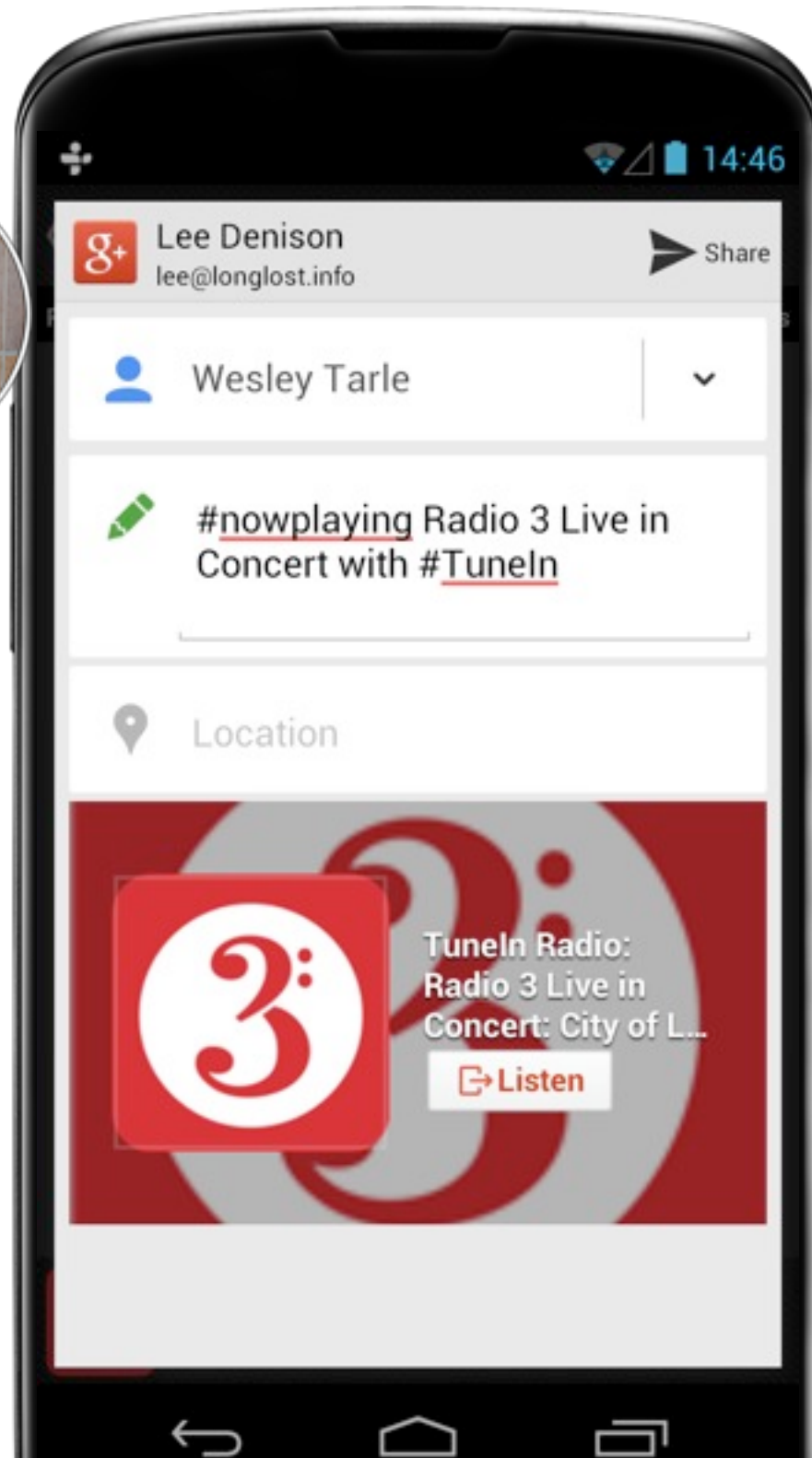
2. Action Target



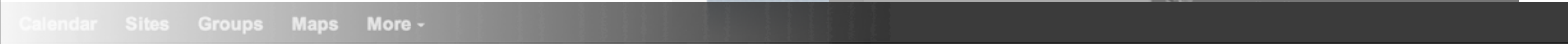
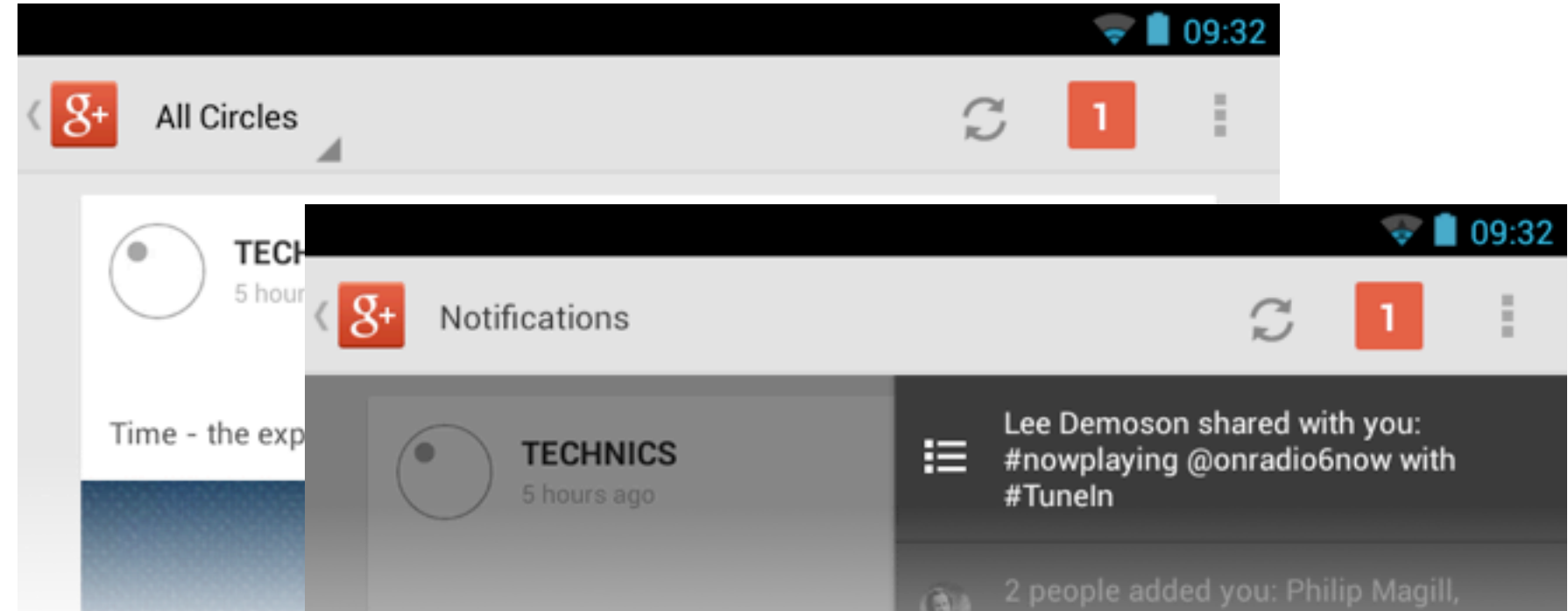
Interactive Posts



Interactive Posts



Interactive Posts



Wes Tarle 1 + Share

[View all notifications](#) Google+

Lee Demoson shared a post directly with you

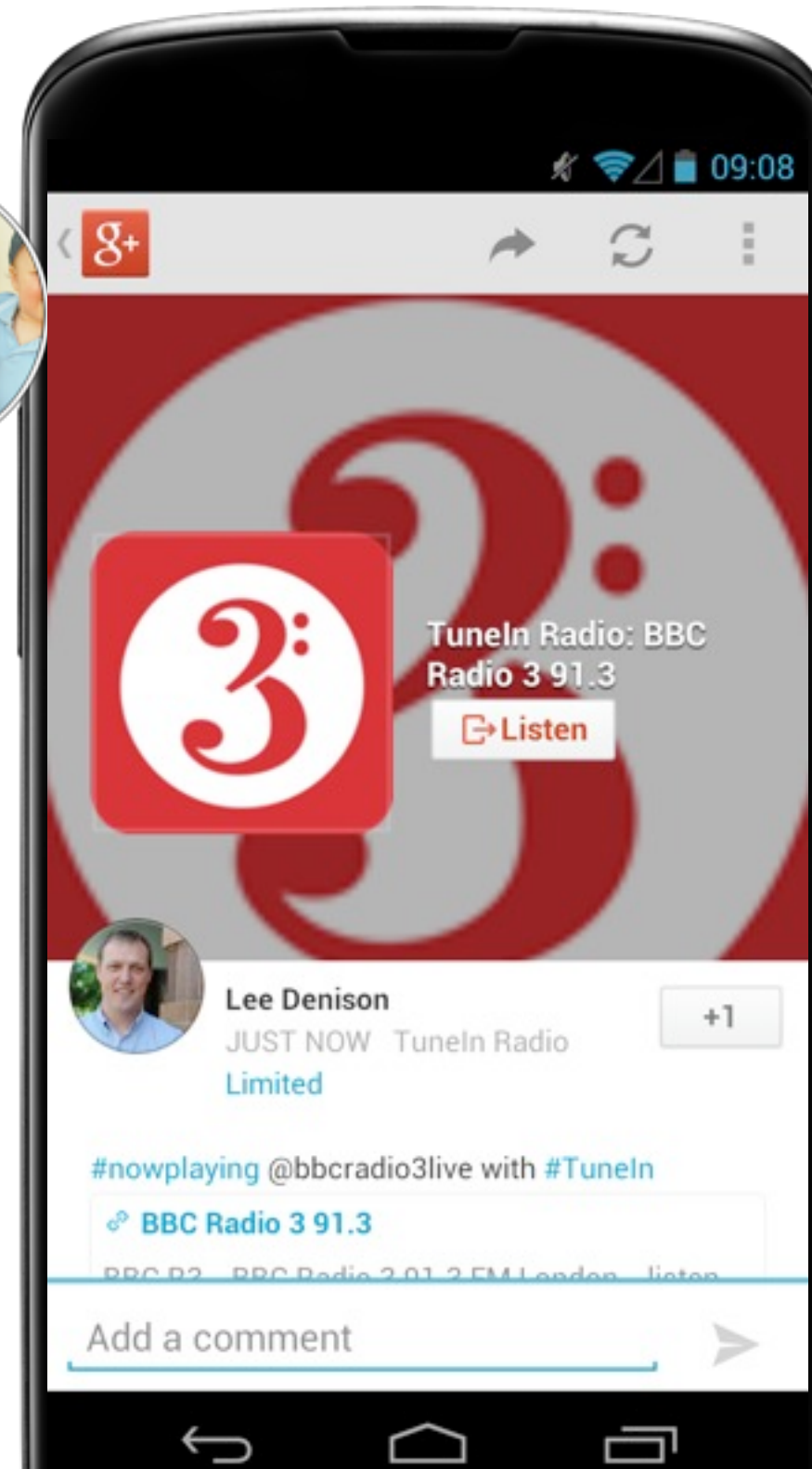
Lee Demoson - #nowplaying @BBCRadio4 with #TuneIn >

Lee Demoson shared a post directly with you

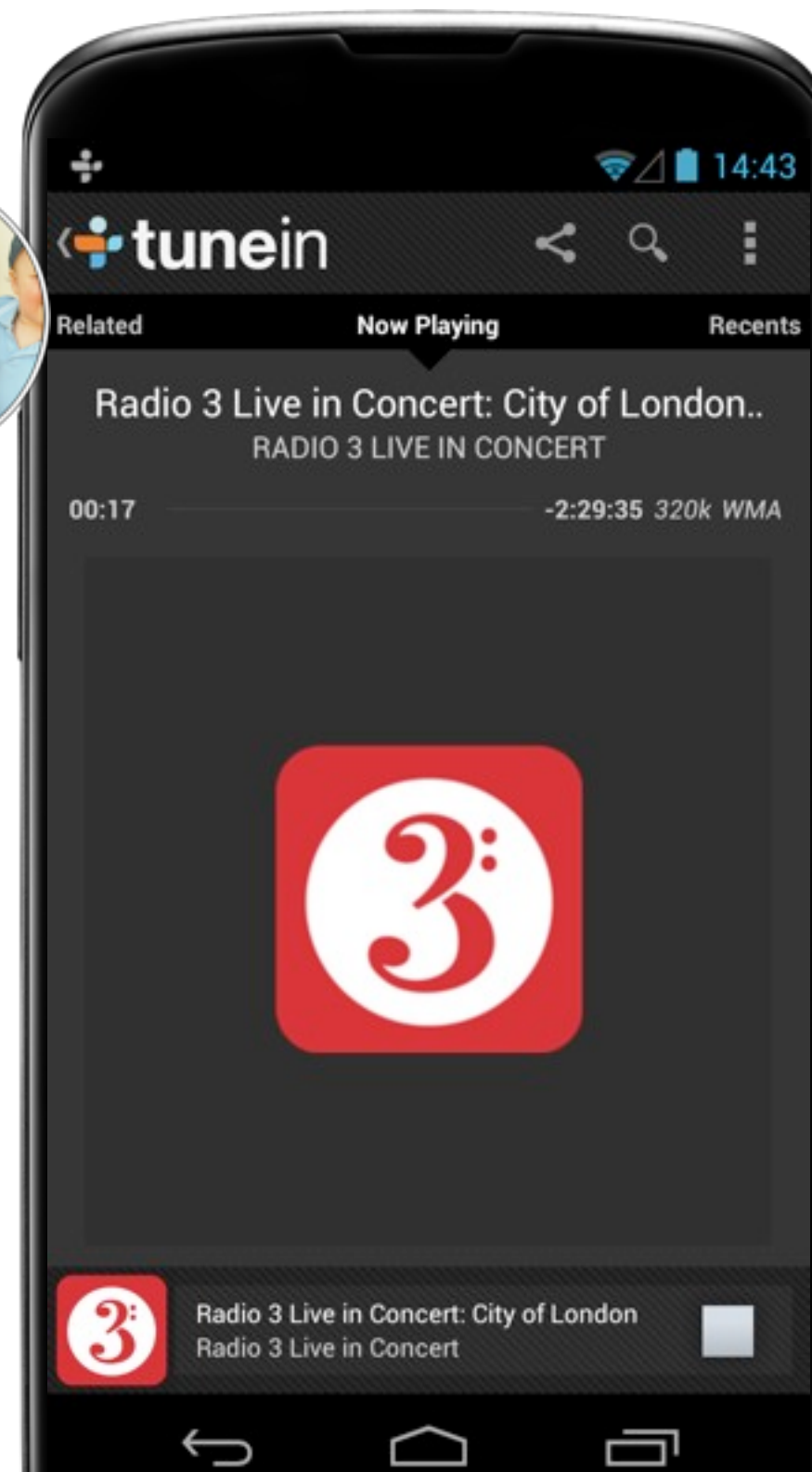
Lee Demoson - I just used Shazam to discover Feeling Good by 4leks Feat. Nina Simone. >



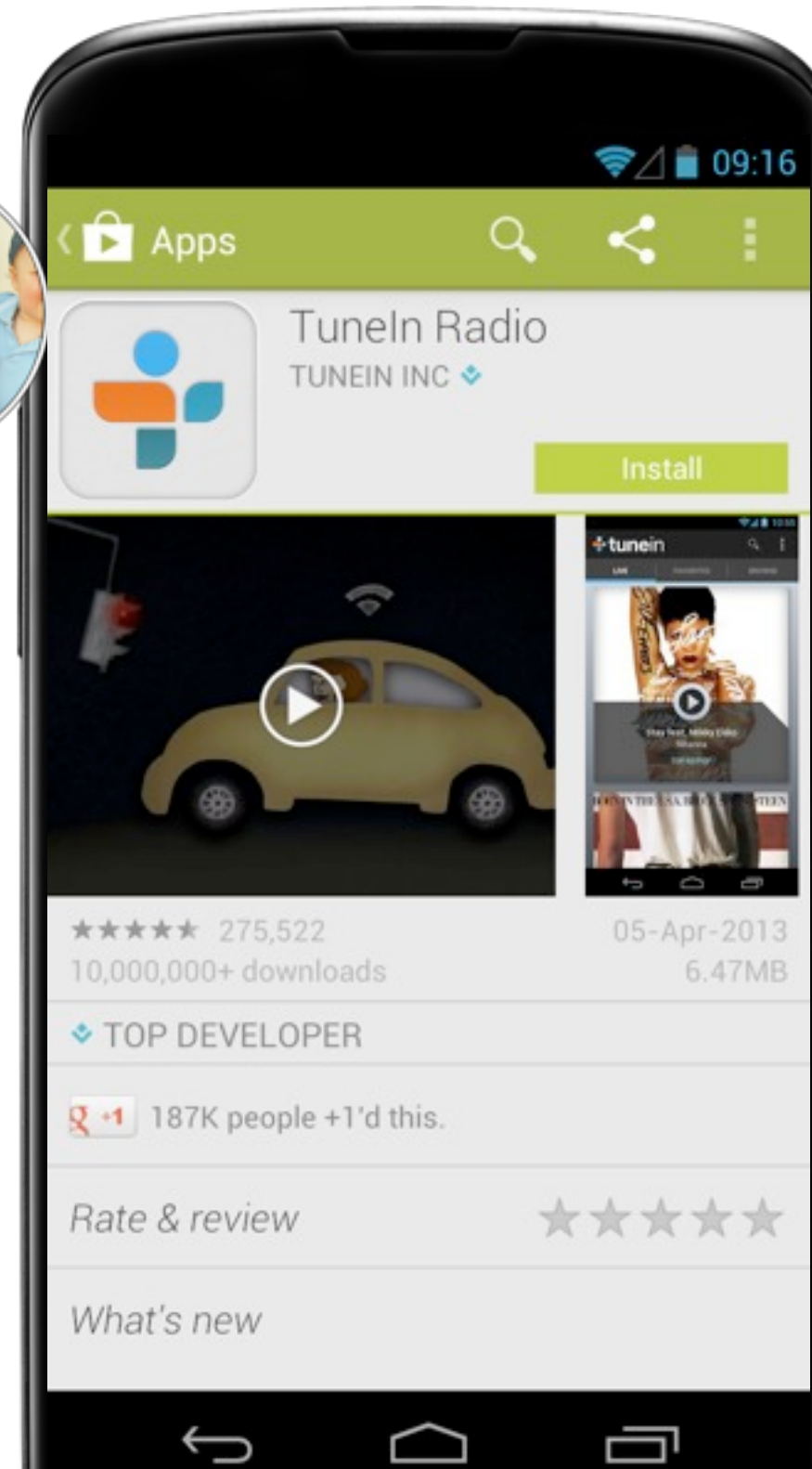
Interactive Posts



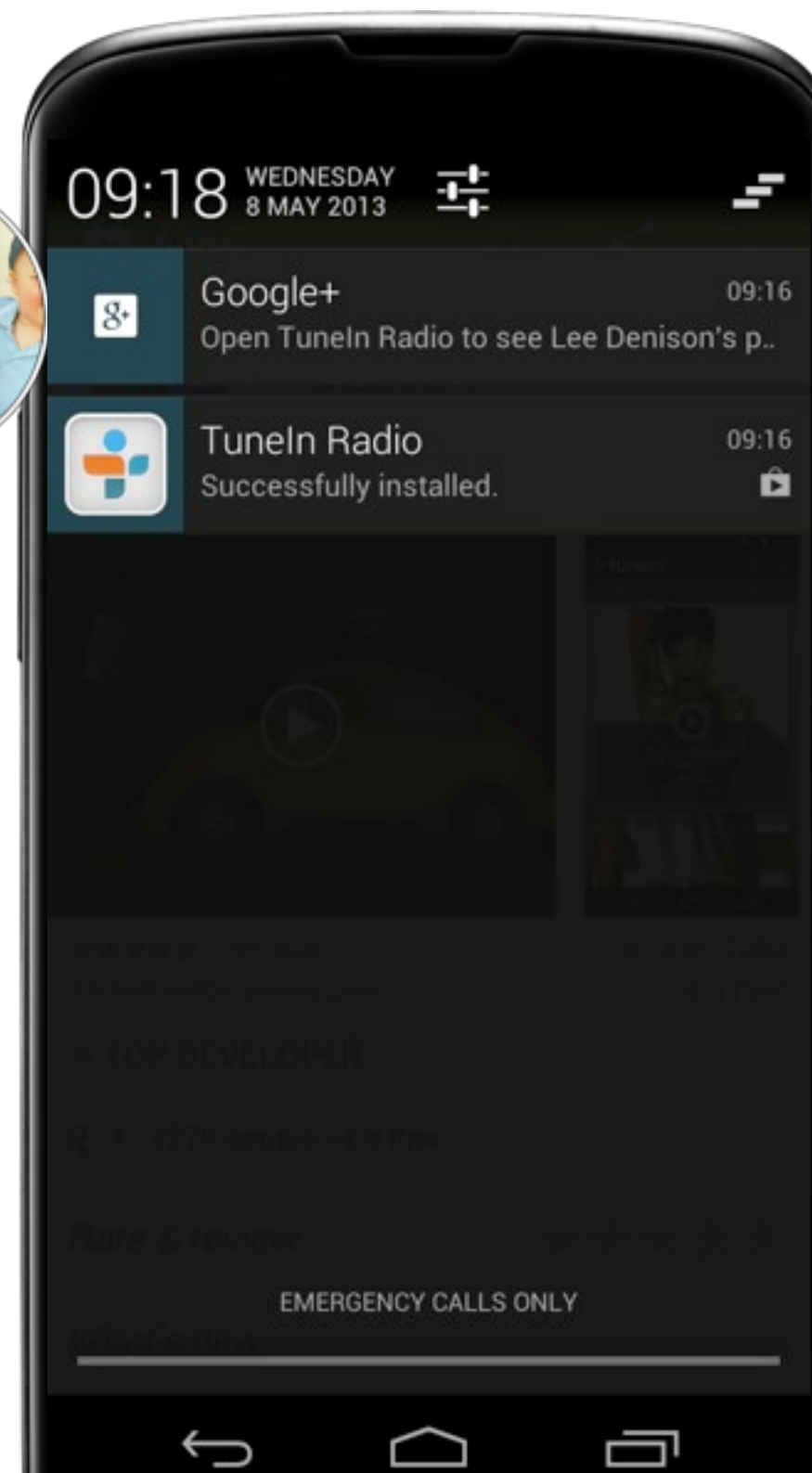
Interactive Posts



Interactive Posts



Interactive Posts



Interactive Posts







Interactive Posts

Implementation

Sending Interactive Posts

Implementation

Java

```
PlusShare.Builder builder = new PlusShare.Builder(this, mPlusClient);

builder.setMessage("Listen to this song!"); // Set the share text.

builder.setContentUrl(Uri.parse("https://example.com/song/mysongid/")); // Content URL.
builder.setContentDeepLinkId("/song/mysongid/", null, null, null); // Content Deep-Link ID.

builder.addAction("LISTEN", // Call-to-action button label.
    Uri.parse("http://example.com/song/mysongid/?action=play"), // Call-to-action button URL.
    "/song/mysongid/?action=play"); // Call-to-action Deep-Link ID.

startActivityForResult(builder.getIntent(), 0);
```



Handling Interactive Posts

Implementation

XML

```
<activity android:name=".ParseDeepLinkActivity"
    android:exported="true">
    <intent-filter>
        <action android:name="com.google.android.apps.plus.VIEW_DEEP_LINK" />
        <data android:scheme="vnd.google.deeplink" />
        <category android:name="android.intent.category.DEFAULT" />
        <category android:name="android.intent.category.BROWSABLE" />
    </intent-filter>
</activity>
```



Handling Interactive Posts

Implementation

Java

```
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    Uri deepLink = Uri.parse(PlusShare.getDeepLinkId(this.getIntent()));
    Intent target = new Intent();

    // Parse /song/mysongid/?action=play
    if (deepLink.isHierarchical() && deepLink.getPath().startsWith("/song/")) {
        target.putExtra("songId", deepLink.getLastPathSegment());

        if (deepLink.getQueryParameters("action").contains("play")) {
            target.putExtra("action", "play");
        }

        target.setClass(getApplicationContext(), SongActivity.class);
    } else {
        target.setClass(getApplicationContext(), MainActivity.class);
    }
    startActivity(target);
    finish();
}
```

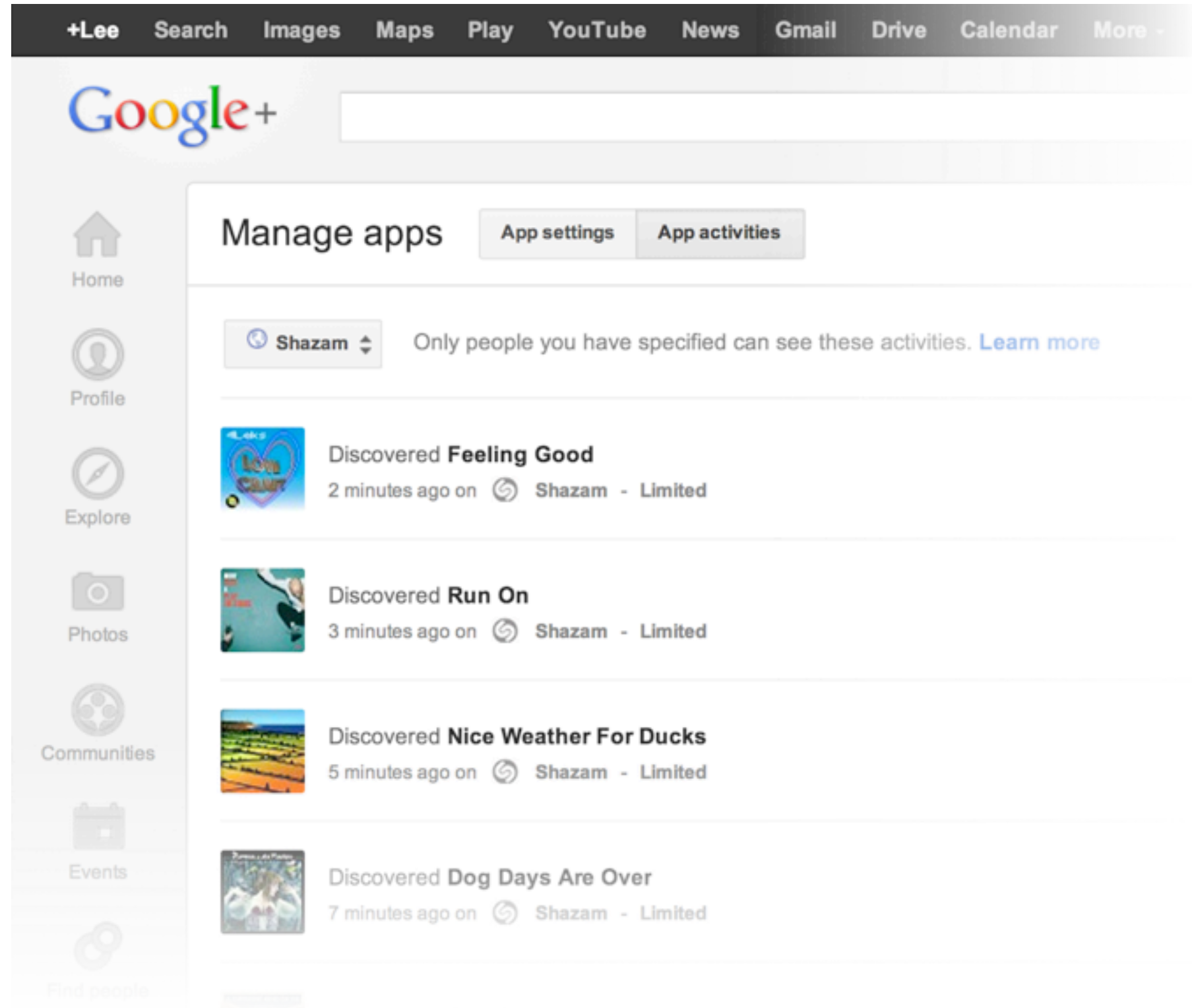
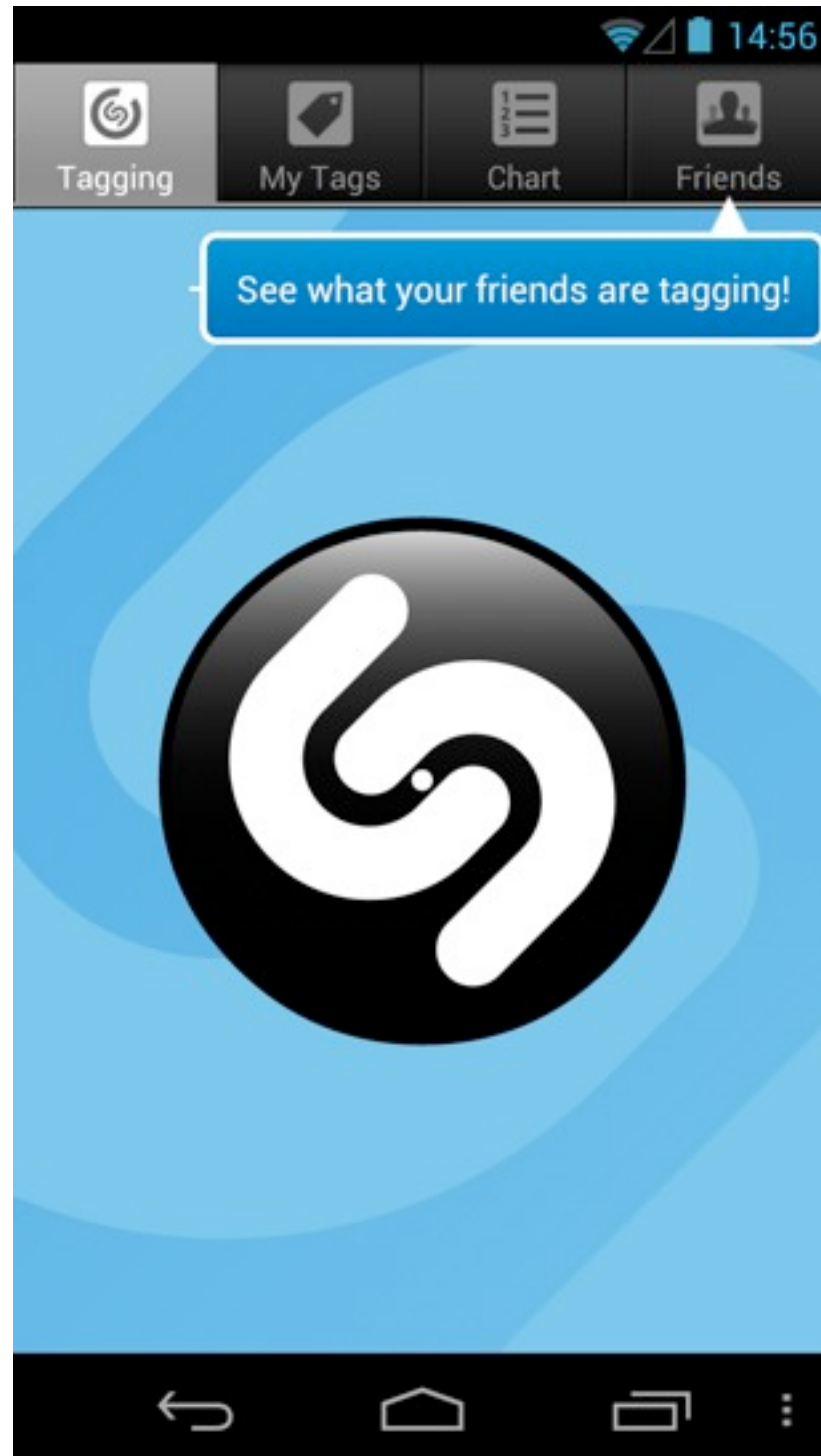






App Activities

App Activities



App Activities

+Ardan Search Images Mail Drive Calendar Sites Groups Contacts More -

Google fandango

Ardan Arac 3 + Share

Web Images Maps Shopping News More - Search tools

40 personal results. 24,700,000 other results.

Fandango.com: Movie Tickets & Movie Times

www.fandango.com/

Buy movie tickets in advance, find movie times, watch trailers, read movie reviews, and more at **Fandango**.

Showtimes

Find local movie times. ... code or city to find local movie theaters ...

Movies in Theaters

Find movies in theaters and details about new movies now playing ...

Movies Coming Soon

See movies coming soon listed by movie release date. Watch ...

[More results from fandango.com »](#)

Mobile Apps

... showtimes, watch trailers + more with these free Fandango ...

Fandango Gift Cards

Fandango Gift Cards - give the gift of movies. Redeemable online ...

Sign In

Sign-in with our new favorite co-star: Facebook. Connect with ...

Fandango Movies – Times & Tickets for iPhone, iPod touch, and ...

<https://itunes.apple.com/us/app/fandango-movies.../id307906541?mt=8>

★★★★★ 846 votes - Free - iOS

4 days ago – Read reviews, get customer ratings, see screenshots, and learn more about **Fandango Movies – Times & Tickets** on the App Store. Download ...



News for fandango

What Happened After Raw Tonight?, John Cena and Fandango Appear

Wrestlezone - by Nick Paglino - 1 hour ago


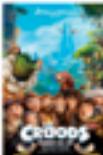


Thanks to Clarke Ianello for sending in the following: After Raw went off the air tonight, there was no dark match, but John Cena addressed the ...

Universal, Fandango, & MovieTickets Announce Advance Ticket Offers for F...


 **Fandango**  [Follow](#)

7,912 followers on Google+

Popular with Google+ users

| | |
|--|---|
|  Oblivion PG-13, 2 hr 5 min 2,044 watched the trailer |  The Croods PG, 1 hr 31 min 1,968 watched the trailer |
|  42 PG-13, 2 hr 8 min 1,903 watched the trailer |  Scary Movie V PG-13, 1 hr 25 min 1,761 watched the trailer |

Recent post

 Joss Whedon Talks Thanos, 'Avengers 2 & 3' and RDJ in 'Iron Man 3' on our movie blog. 3 hours ago



App Activities

The image shows a Google search for 'fandango'. The search results include a link to 'Fandango.com: Movie Tickets & Movie Times' with a description: 'Buy movie tickets in advance, find movie times, watch trailers, read movie reviews, and more at Fandango.' Below this are several links: 'Showtimes', 'Mobile Apps', 'Movies in Theaters', 'Fandango Gift Cards', 'Movies Coming Soon', and 'Sign In'. There is also a link to 'Fandango Movies – Times & Tickets for iPhone, iPod touch, and...' with a 5-star rating and 846 votes. A news article snippet is visible at the bottom: 'What Happened After Raw Tonight?, John Cena and Fandango Appear Wrestlezone - by Nick Paglino - 1 hour ago'. An inset on the right shows the Fandango Google+ profile, which has 7,912 followers. The profile lists 'Popular with Google+ users' including 'Oblivion' (2,044 watched the trailer), 'The Croods' (1,968 watched the trailer), '42' (1,903 watched the trailer), and 'Scary Movie V' (1,761 watched the trailer). A 'Recent post' from 3 hours ago features a photo of Joss Whedon and RDJ, with the text: 'Joss Whedon Talks Thanos, 'Avengers 2 & 3' and RDJ in 'Iron Man 3' on our movie blog. 3 hours ago'.







App Activities

Implementation

Writing App Activities

Implementation

Java

```
if (mPlusClient.isConnected()) {
    ItemScope target = new ItemScope.Builder()
        .setId("myuniqueidforthissong")
        .setText("When Johnny Comes Marching Home")
        .setDescription("A song about missing one's family members fighting in the American Civil War")
        .setThumbnailUrl("http://example.com/images/albumThumb.png")
        .setType("http://schema.org/MusicRecording")
        .build();

    Moment moment = new Moment.Builder()
        .setType("http://schemas.google.com/ListenActivity")
        .setTarget(target)
        .build();

    mPlusClient.writeMoment(moment);
}
```







Android installs
via web-to-mobile
delivery




User growth via
targeted social
sharing




Personalisation
and audience
growth via Google
social graph data




Sign-in from a trusted provider



Make your app more social with G+

Panel Discussion

Google Play Office Hours Booth

Where: 3rd Floor

When: 12:15 pm





<Thank You!>

<https://developers.google.com/+>
<https://developer.android.com/google/play-services/>

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westarle@google.com

