Introduction to OpenSocial Apps & Containers
Making the web better by making it social

Why?
What does Social mean?

Eliette what do you do with your friends?
WE LOOK AT EACH OTHER.
TALKING
LAUGHING
WE HELP EACH OTHER!
WE READ TOGETHER!
WE DO PROJECTS TOGETHER.
Raoul: a social object for Charlotte (3 year old)
Jaiku’s Jyri Engeström's 5 rules for social networks: social objects

1. What is your object?
2. What are your verbs?
3. How can people share the objects?
4. What is the gift in the invitation?
5. Are you charging the publishers or the spectators?

http://tinyurl.com/yus8gw
How do we socialize objects online without having to create yet another social network?
OpenSocial

A common open set of APIs for building social applications across multiple sites
This is NOT GoogleSocial. It’s about making the Web more social, not just Google.
Standards-based

html+javascript
Why should you care about OpenSocial?

- Developers: Distribution >200 Million users
- Containers: Features
- Users: More applications
Gartner Technology Hype Cycle

- Peak of Inflated Expectations
- Plateau of Productivity
- Slope of Enlightenment
- Trough of Disillusionment
- Technology Trigger
- Time
OpenSocial Hype Cycle
Creating a Standard like OpenSocial is a Social endeavor

WE

LOOK

AT

EACH

OTHER.
Integrating Community Feedback
LAUGHING
WE HELP EACH OTHER!
We read together!
WE DO PROJECTS TOGETHER.
BUT
WHEN
WE ARE
MAD...
IT NEVER FINISH WELL...
So we stop fighting!
A standard for everyone

anyone can be friends!
How does it work?

10 minutes to an OpenSocial app
One API, Many Websites

One API
- client-side JavaScript - version 0.7 ready for production
  - standard Web development tools: HTML + Javascript
  - server optional
- server-side REST (initial proposal under review)
  - Google proposal based on Atom Publishing Protocol
  - AtomPub and JSON

Many Websites
- every OpenSocial website exposes the same API

===> more users for every app
===> more apps for every user
Core Services

- People ("who I am", "who are my friends")
- Activities ("what I'm doing")
- Persistence (state without a server)
Core Services - People

Getting info on you and your friends...

/**
 * Request for friend info when the page loads.
 */

function getData() {
    var req = opensocial.newDataRequest();
    req.add(req.newFetchRequestPersonRequest(VIEWER), 'viewer');
    req.add(req.newFetchRequestPeopleRequest(VIEWER_FRIENDS), 'viewerFriends');
    req.send(onLoadFriends);
}
Core Services - People

Getting info on you and your friends...

/**
 * Callback function for returned friend data.
 */

function onLoadFriends(response) {
    var viewer = response.get('viewer').getData();
    var html = 'Friends of ' + viewer.getDisplayName();
    html += ':<br><ul';
    var viewerFriends = response.get('viewerFriends').getData();
    viewerFriends.each(function(person) {
        html += '<li>' + person.getDisplayName() + '</li>';});
    html += '</ul';
    document.getElementById('message').innerHTML = html;
};
/**
 * Posting a simple activity
 */

function postActivity(text) {
    var params = {};
    params[opensesocial.Activity.Field.TITLE] = text;
    var activity = opensesocial.newActivity(params);
    opensesocial.requestCreateActivity(activity,
        opensesocial.CreateActivityPriority.HIGH, callback);
}
Core Services - Activities

Posting an **Activity**...

```javascript
/**
 * Displaying an activity
 */

function callback(data) {
    var title = data.getField(opensocial.Activity.Field.TITLE);
    title = gadgets.util.unescapeString(title);
    div.innerHTML = title;
}
```
Core Services - Persistence

**Requesting to persist data**

```javascript
/**
 * Storing data
 */

function populateMyAppData() {
  var req = opensocial.newDataRequest();
  var data1 = Math.random() * 5;
  var data2 = Math.random() * 100;

  req.add(req.newUpdatePersonAppDataRequest("VIEWER",
     "AppField1", data1));
  req.add(req.newUpdatePersonAppDataRequest("VIEWER",
     "AppField2", data2));
  req.send(requestMyData);
}
```
Core Services - Persistence

**Fetching the persisted data**

```javascript
/**
 * Fetching data
 */

function requestMyData() {
    var req = opensocial.newDataRequest();
    var fields = ["AppField1", "AppField2"];
    req.add(req.newFetchPersonRequest(
        opensocial.DataRequest.PersonId.VIEWER), "viewer");
    req.add(req.newFetchPersonAppDataRequest("VIEWER", fields),
             "viewer_data");
    req.send(handleReturnedData);
}
```
Displaying the fetched *(persisted)* data
/**
 * Displaying persisted data
 */
function handleReturnedData(data) {
    var mydata = data.get("viewer_data");
    var viewer = data.get("viewer");
    me = viewer.getData(); // me is global var
    var data = mydata[me.getId()];

    htmlout += "AppField1: " + data["AppField1"] + "<br/>";
    htmlout += "AppField2: " + data["AppField2"] + "<br/>";
    var div = document.getElementById('content_div');
    div.innerHTML = htmlout;
}
Demo

OpenSocial Online Resources
http://code.google.com/opensocial
http://code.google.com/p/opensocial-resources/

OpenSocial Applications
PixWall, by PixVerse on Orkut
Caja - when gadgets go bad

- Gadgets can be a new vector for phishing, spam, malware
- Social spread of gadgets can spread bad gadgets too
- Caja reduces threats with a JavaScript sanitizer as an additional "sandbox" on top of iFrames protection
Caja Javascript sanitizer

- Capability-based Javascript sanitizer
- Open Source project from Google
- Optional but recommended for OpenSocial containers
- Eventually will be secure enough to run gadgets inline instead of in iframes
Who should care about Caja?

- OpenSocial Containers can require Caja's extra security,
- Gadgets that cannot be Cajoled could show users an extra warning.
- Developers of OpenSocial gadgets should test as Cajoled gadgets, or face warnings.
- Users, containers and developers will gain from Cajoled gadgets without iFrames later
Shindig: What is it?

- Apache Software Foundation project
  - Brian McCallister from Ning championed

- Open source reference implementation of OpenSocial + Gadgets stack

- Goal:
  - Launch a new (simple) container in under an hour’s worth of work
Shindig: Components

- Gadget Container JavaScript
  - Core gadgets JavaScript environment
- Gadget Server
  - Renders gadget XML (i.e. gmodules.com)
- OpenSocial Container JavaScript
  - JavaScript environment for people, activities, persistence
- OpenSocial Gateway Server
  - RESTful API server
Code Status

• Java and Javascript running now
• Googlers have contributed:
  o Java Gadget Server
  o Gadget Container JavaScript
  o OpenSocial Container JavaScript
• PHP Gadget Server contributed by Ning
• PHP recently rewritten to match Java
• Looking for Ruby, Python, Perl, C#, etc.
Shindig Demo

Running Shindig in Eclipse
Conclusion: it's time to get coding!

OpenSocial is making the web more social

The current version 0.7 is in production

Developers can start creating social applications today
  ● Orkut sandbox, Hi5, Plaxo, Ning, and MySpace

Orkut, Myspace, Hi5 open to consumers soon

Social sites: implement OpenSocial
  ● get Shindig and start planning
hi5 Platform

OpenSocial Container Implementation
hi5 Platform

- About hi5
- Developer Console
- Integration Points
- Application Discovery
- hi5 OpenSocial Extensions
- Why Develop for hi5?
- Roadmap
- Demo
hi5 - Dominant Global Social Network

We are one of the largest web sites in the world (#8 on Alexa) and the most global of all the social networking sites.

- Over 80+ million registered members and ~40 million WW unique users
- Most popular Spanish-speaking social network in the world

Top 10 in Latin America
Mexico, Colombia, Bolivia, Guatemala, Peru, Costa Rica, Nicaragua, Honduras, Ecuador, El Salvador

Top 10 in Rest of the World
Portugal, Greece, Romania, Cyprus, Thailand, Jamaica, Sri Lanka, Kuwait, Jordan, Oman
Hi5’s Demographics

- Broad reach across major demos:
  - 18 to 34 primary
  - Roughly 50% split male/female
  - US traffic: significant percentage is Hispanic
- Diverse traffic from Europe (25%), North America (15%) and Central & South America (31%), Asia (21%)
- Offered in 15 languages
- Grew big in most international countries with English first and then translated
- Members use the site primarily to keep in touch with their friends. Users have limited self-expression tools - skins, widgets, etc.
Developer Console

- Add and manage applications
  - Refresh metadata from gadget prefs
  - Manage other developers
  - Manage API Keys
  - Submit applications to the hi5 directory
- hi5 Developer Blog feed
- Simple in-line application editor
- View analytics for live applications
**API Keys -- now available**
Paul Lindner

We've supported SOAP and REST calls via our API server at http://api.hi5.com for over 8 months. One of the biggest hurdles was obtaining and using an API key to validate requests to the server. OpenSocial applications have had the benefit of getting a pregenerated H15AuthToken, but that's little use...

February 29, 2008

**SAVE THE DATE: hi5 Hackathon, March 15**
David McQueen

To gear up for the platform launch, we'll be having a day-long hackathon at the Google campus in Mountain View, CA on Saturday, March 15. The event will bring together a mix of commercial and independent developers with unique ideas and the talents to bring those concepts to reality...

February 25, 2008

**Sample App For OpenSocial 0.7**
Lou Moore
Integration Points

- Homepage
  - My Applications
- Profile Module
  - Draggable, minimizable
  - Skins feature allows seamless UI integration
- Canvas Page
  - Dedicated page for applications
  - Monetization opportunity, allows embedded ad tags
Homepage
Profile Module

Skins feature allows seamless UI integration
Application Discovery

- Application Directory
  - Categories, sorting and filtering
- Application Homepage
  - My Friends' applications
  - Other recommendations
  - Manage your applications
- Viral Channels
  - Friend Updates
  - Notifications
  - Invites
  - Email (limited to 1 per user per app per day)
Application Directory

Applications Home
My Applications ▼
Browse Applications ▼
  All Categories
  Dating
  Events
  Food
  For Fun
  Games
  Health
  Messaging
  Movie & TV
  News & Media
  Photos
  Politics
  Shopping
  Sports
  Tools
  Travel
  Trivia

My Friends' Applications
Applications Homepage

Discover applications as filtered by your networks or manage our own applications
Friend Updates

- On both homepage and profile page
- Created using the OpenSocial Activity API (requestCreateActivity)
- Publication not guaranteed but typically high (> 80%)
Notifications

- Sent using the OpenSocial request* API. (requestSendMessage, type=NOTIFICATION)
- Limited to 5 per user per app per day
Invites

- All apps have built-in invite flow from profile and canvas pages
- We will offer limited or no ability to redirect users to invite
hi5 OpenSocial Extensions API

An optional feature that provides access to additional hi5-specific functionality

- New data requests
  - Photos (hi5.fetchAlbumsDataRequest)
  - Online Presence (hi5.fetchPresenceRequest)
  - Status (hi5.fetchStatusRequest)
- New fields
  - Link for friend update media (hi5.ActivityMediaItemField.LINK)
  - More image sizes (hi5.ProfileField.SMALL_IMG_URL, etc)
- Simple template/tag library
- More to come!!
More reasons to develop for hi5...

- A new audience via our unique footprint in Latin America, Europe and Asia
  - Of the more than 80 million individuals registered with hi5, less than a third are also active on the other leading social networks, incl. FB, MyS, Bebo, Friendster (comscore)
- OpenSocial!
  - Because hi5 is a founding adopter of OpenSocial, developers’ apps can be deeply embedded within hi5, as well as easily translated beyond hi5 to other OpenSocial-enabled websites as well – further increasing their reach potential by many millions!
  - 
More reasons to develop for hi5...

- $$$
  - A dedicated canvas page that can be monetized
  - Promotions on the hi5 blog (one developer post/mo – rotating among our registered developers with popular apps)
- Free Infrastructure from Joyent
  - hi5 Developers could win one year of Joyent’s Free Accelerator™ scalable, on-demand infrastructure for their hi5 app!
  - Limited number at launch, more to come
hi5 Platform Roadmap

- Several hundred apps in our sandbox that we are reviewing and working with developers to finalize.
- White-list style approach to ensure app quality and user-centric relevancy (guidelines to be published this week)

March 15th Hackathon
Hosted at the Google Campus in Mountain View, geared towards helping developers finalize their applications for launch.

March 31st Public Launch
Public rollout begins! We'll launch with as many applications that have met our guidelines and are ready to go live.
Demo

PixWall, by PixVerse on hi5
http://lou.sandbox.hi5.com/friend/apps/entry/gs1.rs.pixverse.com:15900/hi5pixwall/gadget
Resources For Container Developers

Specification
http://code.google.com/apis/opensocial/

For container developers
http://incubator.apache.org/shindig/
http://code.google.com/p/google-caja

Pat's delicious feed: http://del.icio.us/chanezon/opensocial
Resources For Application Developers

Specification
http://code.google.com/apis/opensocial/
REST API: http://groups.google.com/group/opensocial-and-gadgets-spec

Code Samples and Tools
http://code.google.com/p/opensocial-resources/

Sandboxes
http://developer.myspace.com/
http://www.hi5networks.com/developer/
http://opensocial.ning.com/
http://pulse.plaxo.com/pulse/gadgets/
http://code.google.com/apis/orkut/
Pats delicious feed: http://del.icio.us/chanezon/opensocial
Questions