LiveRiot ARB FCR
Operational Concept Description
System Purpose

The system is aimed at providing a community for music lovers (fans), musicians and venues.

Our team focus on its social enhancement, which means utilizing famous social websites to share videos and increase communications among fans, musicians and venues, which a part of this large system.
System Overview

- Fans would like to upload, edit videos on LiveRiot,
- Musicians would like to communicate on LiveRiot,
- Venues and musicians would use LiveRiot to improve their business

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Initiatives</th>
<th>Value Propositions</th>
<th>Beneficiaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developers</td>
<td>Develop an online live music shows editing and sharing system</td>
<td>Create a platform for high quality videos</td>
<td>Musicians</td>
</tr>
<tr>
<td>LiveRiot</td>
<td>Manage high user traffic</td>
<td>Increase exposure of unsigned artists</td>
<td>Venues</td>
</tr>
<tr>
<td>Venues</td>
<td>Provide assistance to monetize live shows</td>
<td>Decrease piracy</td>
<td>Fans</td>
</tr>
<tr>
<td>Fans</td>
<td>Create working campaign</td>
<td>Maintain musicians’ control over their art</td>
<td>Record labels</td>
</tr>
<tr>
<td>Musicians</td>
<td>Pattern musicians with venues and record labels</td>
<td>Enhance communications between musicians and fans</td>
<td></td>
</tr>
<tr>
<td>Record labels</td>
<td>Develop websites and apps with social functions</td>
<td>Increase attendance to venues</td>
<td></td>
</tr>
<tr>
<td>Third-party E-commerce Service Providers</td>
<td></td>
<td>More cooperation between venues and record labels</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Costs</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development costs</td>
<td>Decreased:</td>
</tr>
<tr>
<td>Maintenance costs</td>
<td>• Piracy</td>
</tr>
<tr>
<td>Hardware costs (recode devices)</td>
<td>Increased:</td>
</tr>
<tr>
<td>Web services costs</td>
<td>• Attendance at venues</td>
</tr>
<tr>
<td>Marketing campaign costs</td>
<td>• Musicians’ control over their art</td>
</tr>
<tr>
<td></td>
<td>• Exposure of unsigned artists</td>
</tr>
<tr>
<td></td>
<td>• Quality of live show videos</td>
</tr>
</tbody>
</table>
Benefit Chain Diagram

Team4, LiveRiot

Develop websites and apps with social functions

Develop a video online editing and storing system

Enhance communications between musicians and fans

Create a platform for high quality videos

Assumptions:
1. Fans would like to upload, edit videos on LiveRiot.
2. Musicians would like to communicate on LiveRiot and social websites.
3. Venues and musicians would use LiveRiot to improve their business.

Create marketing campaigns

Increase exposure of unsigned artists

Maintain musicians' control over their art

Decrease piracy

Provide assistance to monetize live shows

LiveRiot

Pattern musicians with venues and record labels

More cooperation between venues and record labels

Increase attendance to venues

Manage high user traffic

Musicians, venues
System Boundary Diagram

- Audio/Video Record Service
- Audio and Video Synchronization Service
- Video Editing Service
- Social Media Service
- Musician/Venue Dashboard Service
- Video Purchase Service

Internal infrastructure:
- Ruby on Rails 3.0
- iOS 7 framework
- PostgreSQL
- Amazon EC2
- Heroku
Element Relationship Diagram
New Business Workflow
New Business Workflow
## Capability Goals

<table>
<thead>
<tr>
<th>Capability Goals</th>
<th>Priority Level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OC-1 Social function:</strong> The system is capable of sharing videos to famous social media, such as Facebook and Twitter.</td>
<td>Must have</td>
</tr>
<tr>
<td><strong>OC-2 Featured videos lists:</strong> The app is capable of providing a list of videos, which are tagged with features like “Top 10”.</td>
<td>Must have</td>
</tr>
<tr>
<td><strong>OC-3 Fans’ information:</strong> The system is capable of storing fans’ settings and account information, including Facebook account and videos shot.</td>
<td>Must have</td>
</tr>
<tr>
<td><strong>OC-4 Video tagging:</strong> The app and the website are capable of tagging videos captured by fans and venues for effective searching.</td>
<td>Must have</td>
</tr>
<tr>
<td><strong>OC-5 Venues’ video streaming:</strong> The website is capable of editing and streaming videos to build a show for venues.</td>
<td>Should have</td>
</tr>
<tr>
<td><strong>OC-6 Users’ video editing:</strong> The system is capable of providing users with various functions, such as filtering and different camera angles from other fans and the venue, to edit their videos.</td>
<td>Should have</td>
</tr>
<tr>
<td><strong>OC-7 Venues’ gifts:</strong> The system is capable of helping venues send their shows’ video links to concert-goers.</td>
<td>Should have</td>
</tr>
<tr>
<td><strong>OC-8 Traffic monitoring:</strong> The system is capable of monitoring traffic of concerts to present statistics to venues and musicians.</td>
<td>Should have</td>
</tr>
<tr>
<td><strong>OC-9 Video searching:</strong> The system is capable of searching for bands by genre, location, keywords and band name.</td>
<td>Should have</td>
</tr>
</tbody>
</table>
Organizational Goals

**OG-1:** Provide a platform for concert videos with high quality audio

**OG-2:** Increase venues’ attendance

**OG-3:** Decrease piracy of musician works
Prototype
Navigation Flow
Prototype
Facebook Sharing

Amazing live show! Maybe the best I've ever watched. 😎😝
Twitter Sharing
Requirements
Requirements

3 Roles

**Fan** – Who attends live shows

**Musician** – Who gives the live shows

**Venue** – Who offer the place and facilities
Agreed Win Conditions for Fan

WC_2564 – As a fan, I can tag videos so that I can search effectively.

WC_2504 – As a fan, I can see the top10 of videos.

WC_2365 – As a fan, I can edit my videos on LiveRiot so that more people could enjoy the video.

WC_2798 – As a user, I can share video with text message to my friends.

WC_2799 – As a fan, I can share videos I like on Facebook and Twitter.
Agreed Win Conditions for Musician

WC_2511 – As a musician/venue, I can promote my shows and tours by streaming and sharing videos so that I can expose the live experience I offer and sell more tickets. Videos will be host on liveRiot, and initially will be posted on FB and Twitter.

WC_2507 – As a musician, I can monitor geo-locations of streaming and sharing traffic so that I can efficiently and effectively schedule shows and tours and know what songs are popular.

WC_2364 – As a musician, I can record videos to sell on LiveRiot.
Agreed Win Conditions for Venue

WC_2511 – As a musician/venue, I can promote my shows and tours by streaming and sharing videos so that I can expose the live experience I offer and sell more tickets. Videos will be host on liveRiot, and initially will be posted on FB and Twitter.

WC_2509 – As a venue, I can search for bands by genre, location, keyword, band name so that I can improve the quality of events on any given night.

WC_2508 – As a venue, I can stream videos of bands so that I can appropriately build a show.

WC_2503 – As a venue, I can record videos so that I can give concert-goer a going away gift (link to a song video sent via email).
### Prioritized Conditions

<table>
<thead>
<tr>
<th>Score</th>
<th>User</th>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.831</td>
<td>Zichuan Wang</td>
<td>Win Condition (WC_2799): recommend video share video</td>
<td>As a fan, I can share videos I like on Facebook and Twitter. Agree • Comment • Raise Issue/Concern/Risk</td>
</tr>
<tr>
<td>0.831</td>
<td>Zichuan Wang</td>
<td>Win Condition (WC_2798): share video recommend video</td>
<td>As a user, I can share video with a text message to my friends. Agree • Comment • Raise Issue/Concern/Risk</td>
</tr>
<tr>
<td>0.801</td>
<td>Robert</td>
<td>Win Condition (WC_2511): share video</td>
<td>As a musician/venue, I can promote my shows and tours by streaming and sharing videos so that I can expose the live experience I offer and sell more tickets. Videos will be hosted on liveRiot, and initially will be posted on FB and Twitter. Agree • Comment • Raise Issue/Concern/Risk Haoyu Huang, tianyeblack agree to this</td>
</tr>
<tr>
<td>0.722</td>
<td>Haoyu Huang</td>
<td>Win Condition (WC_2564): search for videos</td>
<td>As a user, I can tag videos so that I can search effectively. Agree • Comment • Raise Issue/Concern/Risk</td>
</tr>
<tr>
<td></td>
<td>Haoyu Huang</td>
<td>Issue (Iss_1344):</td>
<td>We do research on the Music Brainz or other schemas or tagging library, schema.org Comment • Suggest Option/Alternative(s)</td>
</tr>
</tbody>
</table>

13年10月21日星期一
Prioritized Conditions

Win Condition (WC_2508): stream videos
As a venue, I can stream videos of bands so that I can appropriately build a show.
Agree · Comment · Raise Issue/Concern/Risk
Haoyu Huang agree to this

Win Condition (WC_2365): online editing videos
As a fan, I can edit my videos on LiveRiot so that more people could enjoy the video.
Agree · Comment · Raise Issue/Concern/Risk

Issue (Iss_1348): includes filtering, editing different camera angles from other fans and use the Popcorn maker api. We can put the ticket information with the video so fans can be easily find the angles.
· Comment · Suggest Option/Alternative(s)

Win Condition (WC_2504): recommend video share video
As a fan, I can see the top10 of videos.
Agree · Comment · Raise Issue/Concern/Risk
Haoyu Huang agree to this

Issue (Iss_1345): Define criteria: Streaming, sharing, recording,
· Comment · Suggest Option/Alternative(s)
Prioritized Conditions

Win Condition (WC_2503): record video
As a venue, I can record videos so that I can give concert-goer a going away gift (link to a song video sent via email).

Agree · Comment · Raise Issue/Concern/Risk

Issue (ISS_1346):
How to get the emails is not clear.
· Comment · Suggest Option/Alternative(s)

Haoyu Huang

0.483

Win Condition (WC_2507): analytics dashboard for artist
As a musician, I can monitor geo-locations of streaming and sharing traffic so that I can efficiently and effectively schedule shows and tours and know what songs are popular.

Agree · Comment · Raise Issue/Concern/Risk

Issue (ISS_1343):
The dashboard is already existed, but the geo-location is not considered in the data analysis. And the sharing traffic should also be integrated into account.
· Comment · Suggest Option/Alternative(s)

Haoyu Huang

0.445

Win Condition (WC_2366): analytics dashboard for artist
As a venue, I can monitor traffic at LiveRiot so that I can increase the attendance.

Agree · Comment · Raise Issue/Concern/Risk

Issue (ISS_1347):
Venues has a specific pages to view the traffic.
· Comment · Suggest Option/Alternative(s)

Haoyu Huang

0.445
Prioritized Conditions

Win Condition (WC_2364): sell videos
As a musician, I can record videos to sell on LiveRiot.
Agree · Comment · Raise Issue/Concern/Risk
Haoyu Huang

Issue (Iss_1349):
Research on adding videos to iTunes via api and PayPal.
· Comment · Suggest Option/Alternative(s)
Haoyu Huang

Win Condition (WC_2509): search for videos
As a venue, I can search for bands by genre, location, keyword, band name so that I can improve the quality of events on any given night.
Agree · Comment · Raise Issue/Concern/Risk
Haoyu Huang, joycelee agree to this

Issue (Iss_1342):
Videos are not stored with genre or location.
· Comment · Suggest Option/Alternative(s)
Haoyu Huang

Option (Opt_542):
LiveRiot will update the object schema.
Agree · Comment
Haoyu Huang agree to this
Architecture
System Context

- **Musician**
  - Stream, search, edit video, view analyst dashboard

- **Venue**
  - Record audio, view analyst dashboard

- **Live Riot System**
  - Share videos, Friends
  - Record, stream, search edit videos

- **Twitter**

- **Facebook**

- **Fans**
## NDI Status – Facebook

<table>
<thead>
<tr>
<th>NDI</th>
<th>Usages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook iOS SDK</td>
<td>Integrate sharing to Facebook with rich information like images and tags</td>
</tr>
<tr>
<td>Twitter iOS SDK</td>
<td>Integrate sharing to Twitter with customized structure</td>
</tr>
</tbody>
</table>
Use Facebook OpenGraph Api to share video links so that other facebook users can watch videos on Facebook page.
NDI Status – Twitter

Share video links as a twitter player card so that other twitter users can watch videos on Twitter page.
Life Cycle Plan
Life Cycle Plan

**Purpose**
Tasks and Timelines
Skills of developers
Roles and responsibilities
Milestone

**Assumption**
Duration: 12 weeks (Fall 2013)
Team members: 6 on-campus students and a DEN student
Weekly team meeting
Weekly meeting with clients
ICSM is being used to guide this project
Overall Strategy – Architected Agile Process Pattern
Overall Strategy – Use single NDI Process Pattern
Overall Strategy – NDI–Intensive Process Pattern
Overall Strategy – Net centric service Internet Process Pattern
Project Deliveries
Foundation Phase (10/17/13–10/31/13)

- Development Commitment Package:
  - Operational Concept Description (OCD)
  - Feasibility Evidence Description (FED)
  - Life Cycle Plan (LCP)
  - System and Software Architecture Description (SSAD)
  - Prototype report (PRO)
  - Quality Management Plan (QMP)
  - Test Plan (TP)
  - Iteration Plan (IP)
- Evaluation of Development Commitment Package
- Response to Evaluation of Development Commitment Package
- Bugzilla report
- Project Plan
- Progress Report
## Roles of the project

<table>
<thead>
<tr>
<th>LiveRiot</th>
<th>Client</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yang Li</td>
<td>Project Manager, Life Cycle Planner</td>
</tr>
<tr>
<td>Haoyu Huang</td>
<td>Feasibility Engineer, System Architect</td>
</tr>
<tr>
<td>Ye Tian</td>
<td>Operational Concept Engineer, Prototyper</td>
</tr>
<tr>
<td>Zichuan Wang</td>
<td>Operational Concept Engineer, Prototyper</td>
</tr>
<tr>
<td>Haishan Ye</td>
<td>Requirement Engineer, Life Cycle Planner</td>
</tr>
<tr>
<td>Kaiqi Zhang</td>
<td>Feasibility Engineer, System Architect</td>
</tr>
</tbody>
</table>
# Responsibility by Phase – Example

<table>
<thead>
<tr>
<th>Name/Role</th>
<th>Exploration</th>
<th>Valuation</th>
<th>Foundations</th>
<th>Development-Construction Iteration</th>
<th>Development-Transition Iteration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Role:</strong> Client</td>
<td><strong>Primary Responsibility</strong> - Explain scope and primary requirement - Contribute to the win conditions - Clarify the problems from development team</td>
<td><strong>Primary Responsibility</strong> - Assess work artifacts and provide feedback - Identify shared vision, goal, and concepts</td>
<td><strong>Primary Responsibility</strong> - Provide feedback for prototypes</td>
<td><strong>Primary Responsibility</strong> - Test system development modules - Provide feedback of system features</td>
<td><strong>Primary Responsibility</strong> - Accept the training - Prepare for system transition</td>
</tr>
<tr>
<td><strong>Name:</strong> LiveRiot</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Role:</strong> Project manager Life cycle planner</td>
<td><strong>Primary Responsibility</strong> - Plan the project - Plan the schedule - Contact clients - Manage client interaction</td>
<td><strong>Primary Responsibility</strong> - Create detail project plan - Record project individual effort - Record project progress - Create and follow action items - Manage client interaction</td>
<td><strong>Primary Responsibility</strong> - Manage client interaction</td>
<td><strong>Primary Responsibility</strong> - Manage client interaction - Deliver final project artifacts</td>
<td></td>
</tr>
</tbody>
</table>
Monitoring and Control

- Bi-weekly Progress Report
- Bi-weekly Project Plan
- Weekly team meeting
- Weekly meeting with clients
- Bugzilla
- Commitment Review
- Git to manage the version of our project

Methods, Tools and Facilities

<table>
<thead>
<tr>
<th>Tools</th>
<th>Usage</th>
<th>Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xcode</td>
<td>Provides the platform to develop the project</td>
<td>Apple</td>
</tr>
<tr>
<td>iPhone</td>
<td>The platform to test the app</td>
<td>Team members</td>
</tr>
<tr>
<td>GitHub</td>
<td>Help in manage versions of the project</td>
<td>Open Source</td>
</tr>
<tr>
<td>Heroku</td>
<td>A server program testing service provider</td>
<td>Heroku</td>
</tr>
<tr>
<td>OmniPlan</td>
<td>The tool to make project plan</td>
<td>The Omni Group</td>
</tr>
<tr>
<td>MS World</td>
<td>Used to write documents</td>
<td>MS</td>
</tr>
</tbody>
</table>
Resources

Estimated Effort: 7 team members at 12 hrs/week for 12 weeks

Total estimated effort – 1008 hrs

Budget information – $2000

Project duration – 12 weeks

Component modules in your development project – App for iPhone

Programming language used – Objective-C, html, Ruby
## Module lists and SLOC of each module

<table>
<thead>
<tr>
<th>No.</th>
<th>Module Name</th>
<th>Brief Description</th>
<th>SLOC</th>
<th>REVL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>iOS 7 Adaptation</td>
<td>Provide adaptation for LiveRiot app on iOS7</td>
<td>4000</td>
<td>5%</td>
</tr>
<tr>
<td>2</td>
<td>Facebook Share Module</td>
<td>Provide function to share videos on Facebook</td>
<td>2000</td>
<td>2%</td>
</tr>
<tr>
<td>3</td>
<td>Twitter Share Module</td>
<td>Provide function to share videos on Twitter</td>
<td>1000</td>
<td>1%</td>
</tr>
<tr>
<td>4</td>
<td>Friendship Module</td>
<td>To record relationship of users on LiveRiot</td>
<td>1000</td>
<td>1.5%</td>
</tr>
<tr>
<td>5</td>
<td>Account Module</td>
<td>The module of login, create account and so on</td>
<td>1000</td>
<td>0%</td>
</tr>
<tr>
<td>6</td>
<td>Featured videos lists</td>
<td>Providing a list of videos, which are tagged with features like “Top 10”</td>
<td>1000</td>
<td>2%</td>
</tr>
<tr>
<td>7</td>
<td>Video Tagging</td>
<td>Records users’ tag of videos</td>
<td>1000</td>
<td>1%</td>
</tr>
</tbody>
</table>
### Summary Report

**System LiveRiot's Overview:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Size SLOC</th>
<th>Cost</th>
<th>Staff</th>
<th>Effort</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>iOS7 Adaptation</td>
<td>4.200</td>
<td>$0.00</td>
<td>1.6</td>
<td>13.34</td>
<td>8.39</td>
</tr>
<tr>
<td>Social Function</td>
<td>3.050</td>
<td>$0.00</td>
<td>1.2</td>
<td>6.62</td>
<td>10.67</td>
</tr>
<tr>
<td>Fans' customization</td>
<td>2.015</td>
<td>$0.00</td>
<td>1.0</td>
<td>4.85</td>
<td>9.74</td>
</tr>
<tr>
<td>Featured videos lists</td>
<td>1.020</td>
<td>$0.00</td>
<td>0.6</td>
<td>2.89</td>
<td>5.15</td>
</tr>
<tr>
<td>Video tagging</td>
<td>1.010</td>
<td>$0.00</td>
<td>0.6</td>
<td>3.18</td>
<td>5.31</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>11.295</strong></td>
<td><strong>$0.00</strong></td>
<td><strong>3.18</strong></td>
<td><strong>30.87</strong></td>
<td><strong>8.39</strong></td>
</tr>
</tbody>
</table>
Feasibility Evidence
# Personnel Costs

<table>
<thead>
<tr>
<th>Activities</th>
<th>Time Spent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development Period (12 weeks)</td>
<td></td>
</tr>
<tr>
<td>Valuation and Foundations Phases: Time Invested (1&lt;sup&gt;st&lt;/sup&gt; half of CS577a, 6 weeks)</td>
<td></td>
</tr>
<tr>
<td>Client: Meeting via email, phone, and other channels [3 hrs/week * 6 weeks * 2 people]</td>
<td>36</td>
</tr>
<tr>
<td>Client Representatives: Meeting via email, phone, and other channels [2 hrs/week * 6 weeks * 4 people]</td>
<td>48</td>
</tr>
<tr>
<td>Architecture Review Boards [1.5 hrs * 1 times * 4 people]</td>
<td>6</td>
</tr>
<tr>
<td>Development and Operation Phases: Time Invested (2&lt;sup&gt;nd&lt;/sup&gt; half of CS577a, 6 weeks)</td>
<td></td>
</tr>
<tr>
<td>Client: Meeting via email, phone, and other channels [3 hrs/week * 6 weeks * 2 people]</td>
<td>36</td>
</tr>
<tr>
<td>Client Representatives: Meeting via email, phone, and other channels [2 hrs/week * 6 weeks * 4 people]</td>
<td>48</td>
</tr>
<tr>
<td>Architecture Review Boards [1.5 hrs * 1 times * 4 people]</td>
<td>6</td>
</tr>
<tr>
<td>Integration new features to existing system [8 hrs * 3 times * 2 people]</td>
<td>48</td>
</tr>
<tr>
<td>Deployment of system in operation phase and training</td>
<td>50</td>
</tr>
<tr>
<td>- Installation &amp; Deployment [5 hrs * 3 times * 2 people]</td>
<td></td>
</tr>
<tr>
<td>- Training &amp; Support [5 hrs * 2 times * 2 people]</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>278</td>
</tr>
</tbody>
</table>
# Hardware and Software Costs

<table>
<thead>
<tr>
<th>Type</th>
<th>Cost</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware – Web Server</td>
<td>$0</td>
<td>CSCI 577a provides the server for development</td>
</tr>
<tr>
<td>Hardware – Web Hosting</td>
<td>$0</td>
<td>Team website is hosted on greenbay.usc.edu</td>
</tr>
<tr>
<td>Software – Socioville (code skeleton)</td>
<td>$69</td>
<td>Used as a kick starter to implement social networking functions</td>
</tr>
</tbody>
</table>

**Development**

<table>
<thead>
<tr>
<th>Type</th>
<th>Cost</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware – Web Server</td>
<td>$3000</td>
<td>Need more servers to support social networking features</td>
</tr>
<tr>
<td>Hardware – Web Hosting</td>
<td>$0</td>
<td>Use existing web hosting</td>
</tr>
</tbody>
</table>

**Operation**
## Benefit Analysis

<table>
<thead>
<tr>
<th>Current activities &amp; resources used</th>
<th>% Reduce</th>
<th>Money Saved (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertisement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment on media advertisement</td>
<td>90%</td>
<td>$9000</td>
</tr>
<tr>
<td>($5000 * 2 times)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment on venue advertisement</td>
<td>50%</td>
<td>$10000</td>
</tr>
<tr>
<td>($200 * 100 venues)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$19000</strong></td>
</tr>
</tbody>
</table>

Benefits of Social Networking features

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost</th>
<th>Benefit (Effort Saved)</th>
<th>Cumulative Cost</th>
<th>Cumulative Benefit</th>
<th>ROI</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>3069</td>
<td>0</td>
<td>3069</td>
<td>0</td>
<td>-1.00</td>
</tr>
<tr>
<td>2014</td>
<td>3000</td>
<td>19000</td>
<td>6069</td>
<td>19000</td>
<td>2.13</td>
</tr>
<tr>
<td>2015</td>
<td>3000</td>
<td>19000</td>
<td>9069</td>
<td>38000</td>
<td>3.19</td>
</tr>
</tbody>
</table>

Return On Investment Analysis
ROI Analysis Graph

Year

-1 0 0.5 1 1.5 2 2.5 3 3.5
2013 2014 2015

ROI
## NDI Analysis

<table>
<thead>
<tr>
<th>NDI</th>
<th>Usages</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook iOS SDK</td>
<td>Integrate sharing to Facebook with rich information like images and tags</td>
<td>Positive points</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Free</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Well documented</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Fine-grained customization</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Negative points</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- No negative points</td>
</tr>
<tr>
<td>Twitter iOS SDK</td>
<td>Integrate sharing to Twitter with customized structure</td>
<td>Positive points</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Free</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Well documented</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Negative points</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- No negative points</td>
</tr>
</tbody>
</table>
Major Risks

Facebook API does not support video preview.

Open tagging library does not have what we want.

Fail to provide top 10 videos for users’ exploration.
Indie Musician – Robert

Basic Demographic
Age: 30
Occupation: Musician
Hometown: Los Angeles, CA
Marital Status: Single

Description
Steve plays guitar and keyboard in bands during college. After graduation, he choose to follow his heart in music. He wants to make great music and share his opinion to the world.

User Scenario
Steve performs three times a week with his band. He want to know how many people has followed him, and how much them like his shows. Also, he wants more exposure to fans.

Information Sources
Venue
Facebook
Magazines

Goals & Aspirations
Want feedbacks from fans
Have more fans
High school music fan – Tommy

Basic Demographic
Age: 18
Occupation: High school student
Hometown: Los Angeles, CA
Marital Status: Single

Description
Tommy a high school student who likes pop music and movies. Besides course work, He have one hours everyday on surfing Internet

User Scenario
Tommy has a smart phone with him 24 hours a day. He usually use Facebook and other apps during after lunch for half an hour. He follows some music bands on LiveRiot, so that he could use mobile App to view want’s new on their feeds.

Information Sources
Facebook
Schoolmates

Attributes
Curious
Limited budget
Young

Goals & Aspirations
Explore good bands and shows
Share liked shows to friends
Venue owner – David

Basic Demographic
Age: 40
Occupation: Manager
Hometown: San Francisco
Marital Status: Married

Description
David owns a venue near center of downtown in Los Angeles. He devote a lot of his time to the business, so that he has little time for his family.

User Scenario
After using LiveRiot to take care of the shows, David have a lot more spare time because the business become easier. LiveRiot provide a dashboard for venue to monitor customer attendance. By fans’ sharing on social networks, people get known of the venue without extra advertisement.

Information Sources
- Business meeting
- Newspaper

Attributes
Busy
Greedy

Goals & Aspirations
- Easy management
- Increase attendance
- Increase profits
Amateur fan – John

Basic Demographic
Age: 28
Occupation: Bank clerk
Hometown: Los Angeles
Marital Status: Married

Description
John is busy during work days, but he loves to watch live shows on weekends. After five days of work, he just want to have some fun.

User Scenario
He opens the App on Thursday night to see what shows are there around him, and pick one or two to attend. He looks the venue profile which is near his place, and see which show is the most popular one.

Information Sources Attributes Goals & Aspirations
Colleagues Busy Have fun
Facebook Stressful Enjoy live shows
Enthusiastic photographer – Peter

Basic Demographic
Age: 25
Occupation: Editor
Hometown: Los Angeles
Marital Status: Single

Description
Peter loves to record everything exciting in his life, and he is talented in camera shooting. He take photos and videos of shows and share them to Facebook. He also like live shows and want to make his own live videos.

User Scenario
On a live show, Peter use the Camera App to record the performance in his view. After the show, he upload the video to LiveRiot, edit the video and combine it with ones from other attendants. Finally, Peter share his own version of the live show on Facebook.

Information Sources
Facebook
Google
Newspaper

Attributes
Sensitive to video quality
Creative

Goals & Aspirations
Shoot nice shows
Make his own video
QFP
## Traceability Matrix

<table>
<thead>
<tr>
<th>OCD</th>
<th>Requirements</th>
<th>SSAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>OC-1 Social function</td>
<td>WC_2799, WC_2511, WC_2798</td>
<td>UC-1, UC-2, UC-3, UC-4, UC-5, UC-11</td>
</tr>
<tr>
<td>OC-2 Featured videos lists:</td>
<td>WC_2504, WC_2504</td>
<td>UC-8, UC-9</td>
</tr>
<tr>
<td>OC-3 Fans’ customization</td>
<td>WC_2511, WC_2799</td>
<td>UC-10</td>
</tr>
<tr>
<td>OC-4 Video tagging</td>
<td>WC_2564</td>
<td>UC-7</td>
</tr>
<tr>
<td>OC-5 Venues’ video streaming</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OC-6 Users’ video editing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OC-7 Venues’ gifts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OC-8 Traffic monitoring</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OC-9 Video searching</td>
<td>WC_2564, WC_2509</td>
<td>UC-6</td>
</tr>
</tbody>
</table>
Traceability Matrix

Defect identification review type summary by document section or UML.
1. Facebook action keyword: watch is system keyword,
2. Requirement about how to share videos to Facebook and Twitter
3. Some team members aren’t familiar with OC.

Current defect injection & removal matrix
1. Change the keywords to review
2. We can use Spotify as sample to share live videos
3. Team members who are familiar with iOS development focus on developing prototype and other members focus on NDI analysis and documents.
Thank you!