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**Introduction**

We all know that video games play an important part in our daily life. They took in about US$9.5 billion in the US in 2007, 11.7 billion in 2008, and 25.1 billion in 2010 (ESA annual report). From this large number, we can see the value in this field and the promising future in this area.

Following the Web 2.0 and Web 3.0, social gaming and mobile gaming become popular in these days. For examples, people not just play games with other people, they also compare game scores and experience. We are to create a platform for gamers to enhance their social gaming experience.

**System objective**

Currently there is no one stop portal for small as well as big games. We plan to tap into that market and offer reviews, videos, game goodies, price and purchase location, distance from where we currently are, to the game shop where we can buy etc. We plan to segregate games based on genres/categories/age groups. We would also try to offer small games on our website that people can play.

We also trying to review games use dynamic user data, so gamers will know what other gamer is thinking about particular games, not just by professional game reviewers. By collecting thousands of gamer reviews, we want to provide more balanced game information and reduced the bias of professional gaming review, which are usually done by a single or few game professions.

**Market landscape**

*Competitors:*
The major players in gaming websites include: IGN.com, GameSpot, Yahoo! Games, Pogo. IGN.com and GameSpot are comprehensive game review sites, they provide detail game reviews and other game related information. They mainly focus on big scale games like PC or Console games. They also have game strategies and tutorials that promote your game play experience. The user group are mostly hardcore gamers. Yahoo! Games and Pogo are web-based or flash game sites that user can actually choose and play the game. They do more like a social game website for small games. Most people using these sites are casual gamers.
Opportunities:
When people are trying to make decision whether to spend money on a game, they want to know as much details about the game as possible to help the decision making. IGN.com and Gamespot are good source for famous and big name games. However, when it comes to small games, they don’t have too much information available (Not their focus). Yahoo! Games and Pogo only allow you to play games on their website, but don’t have much information (e.g. Reviews, Suggestions) about the games.

Our website will have the information for all kinds of games, like reviews, game footage and other information to help you decide which game you can choose to buy or play. For example, we have information for big PC/Console games, mobile games, as well as web or flash games. We are a one-stop portal for games in all scales and gamers for all age groups. Beside game reviews, we also provide other game/gamer related features like: Shopping guide for big games. For examples, we have Amazon price and Physical location near you where the game is available.

<table>
<thead>
<tr>
<th></th>
<th>Gamespot</th>
<th>IGN.com</th>
<th>GameSmart</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gaming Info</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Strong Social Component</td>
<td>✔️</td>
<td>❌</td>
<td>✔️</td>
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<tr>
<td>Direct Review from Users</td>
<td>❌</td>
<td>❌</td>
<td>✔️</td>
</tr>
<tr>
<td>ChatBox</td>
<td>❌</td>
<td>❌</td>
<td>✔️</td>
</tr>
<tr>
<td>Game Reviews</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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</tbody>
</table>
We also have more social functionalities than the big game review sites (e.g. IGN) like Facebook, twitter, and Google plus account login/interaction. Users can simply login using their accounts and like/follow the content they like and interact with their friends.

**System Design/Architecture**

**Architecture**
- **Add This**: An integrating service that allow users to manage their social content/functionally (e.g. Facebook, Twitter, Blog, etc.) at the same place.

- **Smart Chat box**: Online services that allow users to communicate in real time. User can also use it to talk with site administrators if they have any questions. The administrators can manage the chat in real time (e.g. Delete inappropriate content) through Smart Chat box management console.

- **YouTube**: Gathering videos of the game including official videos and game review videos to let users have an overview of the game.

- **Facebook Like and share**: Users can like and share the website, as well as any games/reviews they found interesting.

- **Twitter Follow**: Similar to Facebook like, user can follow popular gaming tweets on our site.

- **Twitter Timeline**: We use this to extract recent tweets about games and use R to do sentimental analysis to get information about how users are thinking about the game (e.g. Good, Amazing, Boring, etc.)

- **Google Maps**: Find local game stores if the user wants to purchase the game copy.

- **Amazon**: We choose recommend games using Twitter sentiment analysis and display the game using Amazon API so the user can purchase the game on Amazon.com directly from our site. User can also search particular game in Amazon on our site.
Google Real-time Search: If a user wants to find out information (news, image, webpages) about a game but are not sure about the full name of the game, they can use this search engine to type partial name of the game and it will give results as the user types into the search box.

Google Custom Search: We have the search range limited to 3 major gaming websites: IGN.com, Gameinformer and Gamespot. Because many game names also have other meanings (e.g. Heavy Rain, Godfather, etc.) This search engine will help users get more accurate results if they only want something about video games.

Google Translate: Simple translate functionality that allows users to view our site by different languages.
Analytics

As is known to us all that it is very important to rank the popular games. So we decide to use R software to do the sentiment analysis. Based on the sentiment score, we can do the games ranking. First, we use R to gather the information from Twitter by using twitter API.

Then we use the R to score the games. The Score= Positive-Negative which means the numbers of positive words appear in the twitter minus the numbers of negative words appear in the twitter.
If the score do not stand the emotion well, we also do the emotion analysis.
So we calculate the scores of each game.

![Sentiment Analysis of Tweets about Rangers](chart.png)

After these steps, we use the sentiment analysis to generate a ranking list for games.

<table>
<thead>
<tr>
<th>Name</th>
<th>Positive</th>
<th>Neutral</th>
<th>Negative</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Halo 4</td>
<td>156</td>
<td>349</td>
<td>12</td>
<td>144</td>
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<tr>
<td>Resogun</td>
<td>118</td>
<td>233</td>
<td>7</td>
<td>111</td>
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<td>Pokemon X</td>
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<td>304</td>
<td>8</td>
<td>96</td>
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<tr>
<td>Titanfall</td>
<td>117</td>
<td>296</td>
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<td>Warframe</td>
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<td>267</td>
<td>11</td>
<td>51</td>
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<td>Borderlands 2</td>
<td>46</td>
<td>356</td>
<td>9</td>
<td>37</td>
</tr>
<tr>
<td>Bioshock Infinite</td>
<td>60</td>
<td>328</td>
<td>24</td>
<td>36</td>
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<tr>
<td>Killzone: Shadow Fall</td>
<td>35</td>
<td>281</td>
<td>2</td>
<td>33</td>
</tr>
<tr>
<td>Dark Souls II</td>
<td>40</td>
<td>258</td>
<td>12</td>
<td>28</td>
</tr>
<tr>
<td>Gears of War: Judgment</td>
<td>19</td>
<td>255</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>Battlefield 4</td>
<td>60</td>
<td>70</td>
<td>240</td>
<td>-180</td>
</tr>
</tbody>
</table>
Novelty

1. Using sentiment analysis to generate a more valuable game ranking. Other Game website always use download numbers to rank and recommend games to gamers, but we use sentiment analysis to find out the most popular games weekly and recommend them to gamers. Also, as we cooperate with Amazon, so gamers can easily buy our recommendation games in Amazon.

2. Use Chat Box to let gamers easily communicate with other gamers and our administrator.

The chat box can allow multiple users chatting at the same time. They can find partners to play games together, talking about the new released games, talking about game reviews and their opinions and when they meet some problems or have any questions, they can easily communicate with our administrator.
Besides, it can also let users to talk privately to each other in a separate chat box.

3. Providing free Demo version for gamers to download and play.
As we all know, video games are always very expensive. Sometimes, reading game reviews still can’t let the gamer decide whether it’s worth the money for himself. So we not only provide game reviews, pictures and videos. We also provide a free Demo version of the game for gamers to try themselves and decide whether the game can meet their taste.
**Revenue Models**

1. In order to achieve our business success, we will use ads to make money. The more people use our website, the more money we will make.
2. Year 1 will be free subscription for the user. Year 2 onwards, we would charge the user a nominal fee to continue accessing the website.
3. We earn 5-8% commission from Amazon for every game sold through our website.

**Future Directions**

1. Increase the database functionality so we will be able to do game reviews and twitter sentiment analysis on complete game list instead of only popular games.
2. Create different user group: Guest, Free user, Premium user. High level user will have more privileges. For example: Free demos of latest game as soon as the game released.
3. Enhance social functionality: For example, gaming calendar: allow user to review big gaming events and add to their own calendar.
4. Professional gaming review site APIs if available. Therefore, users can have reviews from different perspective: professional gamers and
Roles/Contributions of Members

**Meiqi Yang**
-Front End Design and Development
-API: Smart Chat Box
-API: Google Map
-API Test and integration

**Hang Liu**
-Sentiment Analysis
-API: Twitter Follow, Twitter Timeline
-API: YouTube
-API Research and Test

**Yinchen Li**
-API: Add This
-API: Facebook Like and Share
-API: Google Real-time Search/Custom Search
-API Test and integration

**Aditya Agrawal**
-API: Amazon Widget
-API: Google translator
-Revenue/Business model

REFERENCES (paper+urls)

[7] https://www.youtube.com/watch?v=adIvt_luO1o