Operational Concept Description (OCD)

ThrdPlace Social Networking

Team #7

Team members	Role
Gaurav Doon	Project Manager
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04/47/2014

Version History

Date	Author	Version	Changes made	Rationale
09/22/13	Yixiang Liu	1.0	• Finished the instruction of OCD • Added the Shared Version • Finished the instruction of the current system	• To reorganize the operational concepts of the current system and give a clear understanding for Team #7.
09/26/13	Yixiang Liu	1.1	• Update the Shared Version after the win-win negotiation • Fix some mistakes in version1.0	• To update the information from the clients
10/09/13	Yixiang Liu	2.0	• Add the system objectives, constraints and priorities • Fix some mistakes in version 1.1	• To determine the objectives, constrains and priorities of the system.
10/13/13	Yixiang Liu	3.0	• Finish the whole part of the OCD	• To determine the new operation conceptions, organizational and operational implications
11/30/13	Yixiang Liu	3.1	• Update result chain and fix some and new workflows • Fix some mistakes in version 3.0	• To update the data from clients and operational concept analysis. And refine the document
11/30/13	Yixiang Liu	3.2	• Fix some mistakes in version 3.1	• To update the nouns and conception of the system after the team meeting and commitment.
11/30/13	Yixiang Liu	4.0	• Revise the shared vision, system boundary, workflow, OC, OG.	• To revise some parts of the OCD after the ARB session and update some information got from clients after meeting.
11/23/13	Yixiang Liu	4.1	• Revise the win-condition	• To update the change of win-conditions from clients.
04/27/14	Yixiang Liu	4.2	• Fix some mistakes	• Fix some mistakes in document.

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1.   Introduction

1.1 Purpose of the OCD

The OCD document is to identify the stakeholders' shared version and the information of the current system in details. In this project, the improvement of the ThrdPlace social Networking, we define the project contributors and project creators on ThrdPlace as users; members of team #7 as developers; the team of ThrdPlace as maintainers; and Michael Colomiso and Dekoven Ashley, the owner of ThrdPlace, as main clients of the project.

1.2 Status of the OCD

This is the OCD documents for the ThrdPlace Social Networking project at the version 4.1, which is also the final version of OCD. Previous versions have settled down the shared version, system objectives, constraints and priorities as well as the organizational and operational implications. In the version, we revise the shared vision and system boundary, refine some workflows and operational conceptions of the project, fix some mistakes and fill in some blank information from formal versions.

2. Shared Vision

Thrdplace.com ("thrdPlace") is a venue for fund-raising, resource sharing and commerce. thrdPlace allows certain users ("Project Creators") to list projects and raise funds, labor and supplies from other users ("Project Contributors")

Table 1: The Program Model

Assumptions:

1) Project contributors and project creators need a recommendation system to increase their reach.

2) Project contributors and project creators want to search information they need more easily and conveniently.

3) Project creators are willing to pay the transaction fees.

Stakeholders	Initiatives	Value Propositions	Beneficiaries
• Developers • Project contributors on ThrdPlace • Project creators on ThrdPlace • ThrdPlace	• Develop search system and recommendation system. • Provide recommended projects • Provide recommended contributors • Promote ThrdPlace platform.	• Increased reach of project creators and contributors. • Increased use of ThrdPlace platform • Increased revenue of ThrdPlace.	• Project contributors on ThrdPlace • Project creators on ThrdPlace • ThrdPlace

2.1 Benefits Chain

Assumptions:
1) Project contributors and project creators need a recommendation system to increase their reach.
2) Project contributors and project creators want to search information.
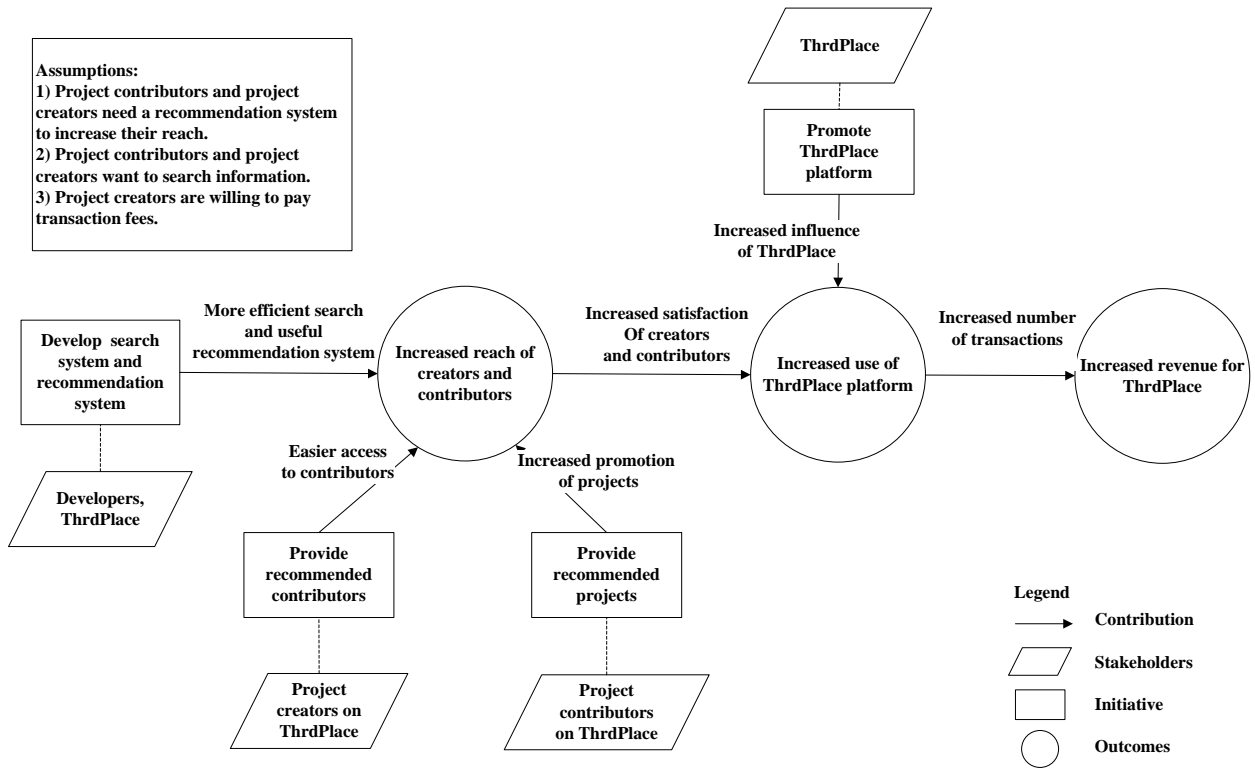3) Project creators are willing to pay transaction fees.
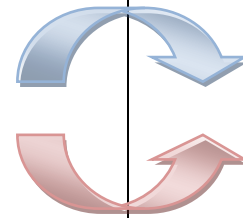
Figure 1: Benefits Chain Diagram of ThrdPlace Social Networking

2.2 System Capability Description

● The current website has already provided a map system to help project contributors to discover projects in local community or other places.
● The primary goal of the ThrdPlace is to add a new search engine with ranking and recommendation system to the current website.
● The search engine is used to search projects, creators or contributors.
● The aim of the recommendation system is to help project creators to find potential project contributors and help contributors to find potential projects.
● The aim of the ranking system is to sort the search results by influence.

2.3 System Boundary and Environment

Project contributors

Project creators

ThrdPlace

- Search for projects and project contributors with filters
- Rank the search results by influence
- Recommend potential projects and project contributors

Map API from ESRI

Support infrastructure

- PHP
- MySql
- Apache
- Javascript
- Solr the full text search engine
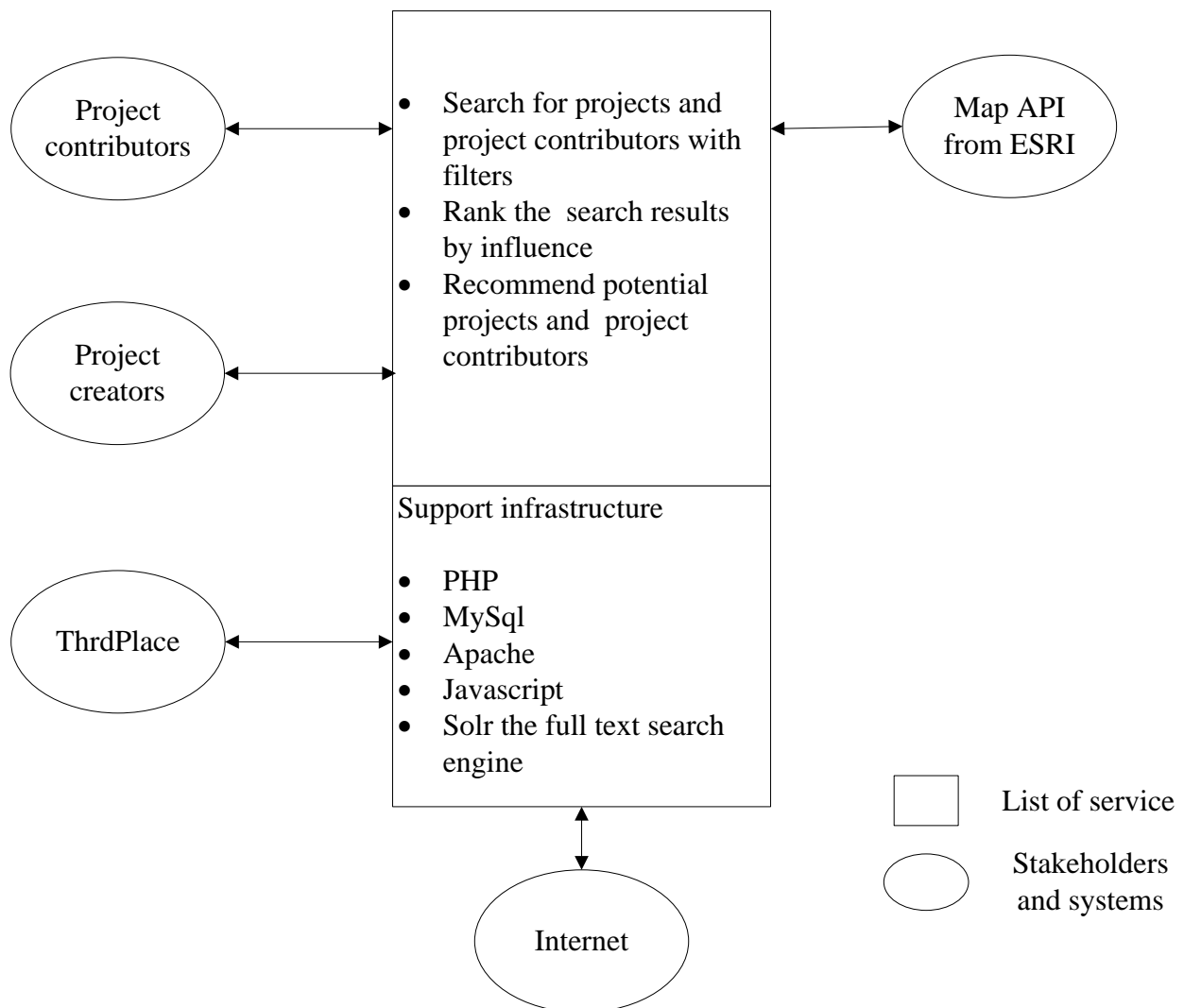
List of service

Stakeholders and systems

Internet

Figure 2: System Boundary and Environment Diagram of ThrdPlace Social Networking

3. System Transformation

3.1 Information on Current System

3.1.1 Infrastructure

The ThrdPlace has a website (URL:http://www.thrdplace.com) and the website has been put into use since fall 2012. The website has been deployed on a Linux server. The whole website is developed by PHP and HTML5 and the team use MySql to manage the database.

Table 2: The Infrastructure

Hardware	• Several personal computers for development. • A server runs in UNIX system.
Software	• PHP • MySQL database system • Apache • Microsoft office package • Javascript • Ajax • Map interface API from ESRI
Development Platform	• Microsoft Windows • Mac OS

3.1.2 Artifacts

- **Website Wireframes:** The wireframes of ThrdPlace are used as a visual guide that represents the skeletal framework of a website.
- **UserFlows:** The userflows document is used to specify the user stories and scenarios
- **Code Track:** The ThrdPlace has the track of the developed code files of the website.

3.1.3 Current Business Workflow
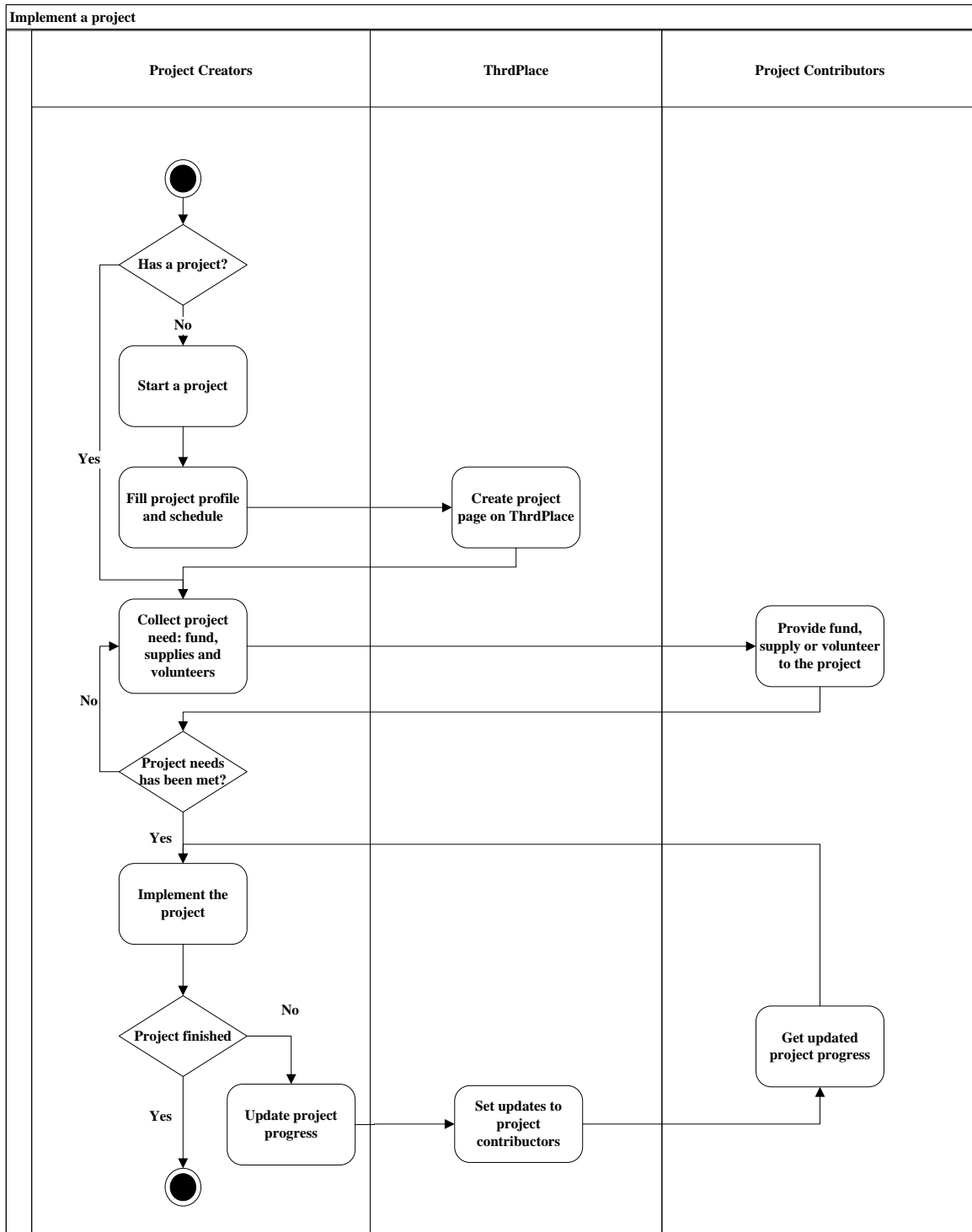

Figure 3: Business Workflow Diagram of ThrdPlace – Implement a project

Contribute a project
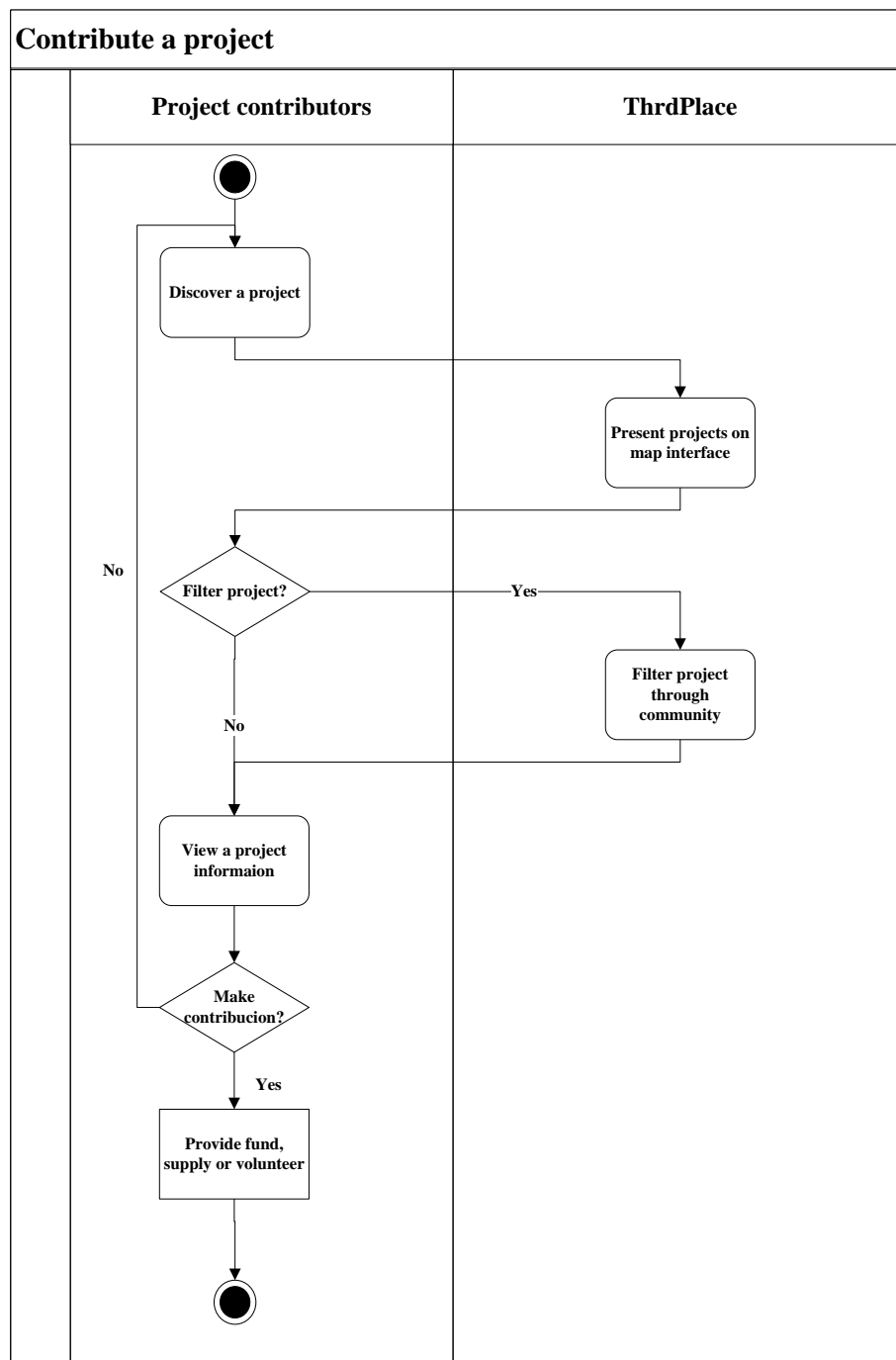
Project contributors	ThrdPlace

Figure 4 Business Workflow Diagram of ThrdPlace –contribute to a project

3.2 System Objectives, Constraints and Priorities

After the second win-win negotiation, the objectives, constraints and priorities has been a. The mainly capability goals contains a search engineer for projects and project contributors with a ranking system of influence and a recommendation system to recommend projects and contributors.

3.2.1 Capability Goals

Table 3: Capability Goals

Capability Goals	Priority Level
OC-1 Search projects and contributors: The system is capable of enabling project contributors to search projects and project creators to search contributors with filter. Besides, it's capable of displaying the search results in a list view. Also, it's capable of enabling project contributors and project creators to search the most influential projects and project contributors.	<<Must have>>
OC-2 Ranking search results: The system is capable of providing a ranking system to rank the search results by influence. The criterion of the influence includes promotion, the completion percentage of the project and the contribution of contributors.	<<Must have>>
OC-3 Recommend projects and contributors: The system is capable of providing useful suggestions about projects and contributors. For the project creators, it'll recommend contributors interested in the project; for the contributors, it'll recommend influential projects.	<<Must have>>

3.2.2 Level of Service Goals

Table 4: Level of Service Goals

Level of Service Goals	Priority Level	Referred WinWin Agreements
Max downtime is 3days in a month.	<<Must have>>	LOS-1

3.2.3 Organizational Goals

OG-1: Increase revenue of ThrdPlace.

OG-2: Increase reach of project creator and contributors.

OG-3: Increase use of ThrdPlace platform

3.2.4 Constraints

CO-1: Max downtime: The max downtime of the ThrdPlace is 3 days in a month.
CO-2: Max Budget: The max budget of the system is 10,000 dollars.
CO-3: Deployment: The new system will be deployed on ThrdPlace Server.

3.2.5 Relation to Current System

Table 5: Relation to Current System

Capabilities	Current System	New System
Roles and Responsibilities	Project creators can start new projects and project contributors can join active projects.	The roles and responsibilities will not change in the new system.
User Interactions	Creators have a homepage page for project and contributors can visit the page.	Creators and contributors can search, get recommendation and measure influence.
Infrastructure	Project homepage with project profile.	Includes search, ranking and recommendation system.
Stakeholder Essentials and Amenities	The system only provides limited information about projects.	The system greatly improves the management of projects and contributions.
Future Capabilities	Time-consuming for creators and contributors to find potential resources.	Provides efficient search, useful recommendation, and accurate measure of influence.

3.3 Proposed New Operational Concept
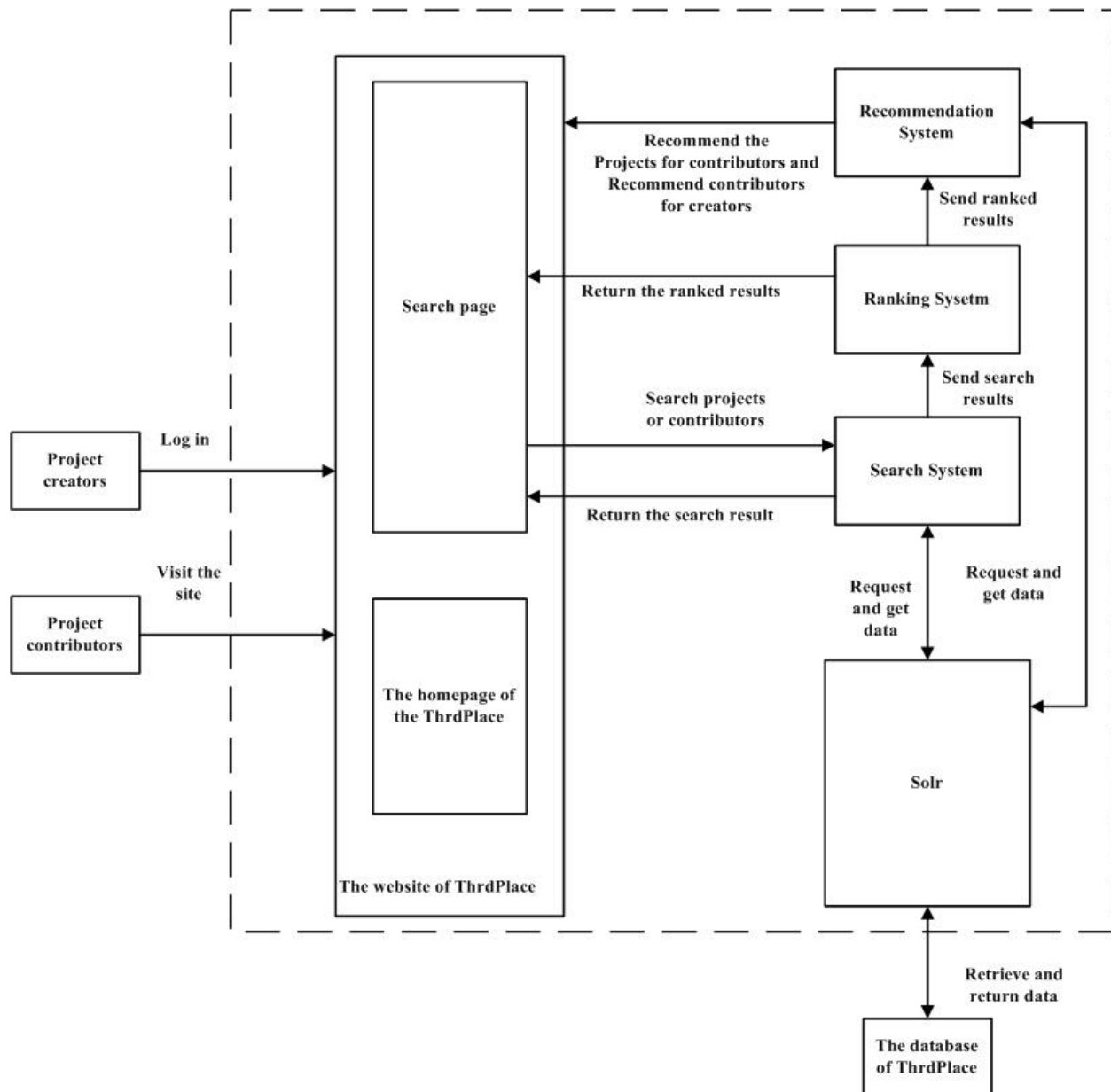
3.3.1 Element Relationship Diagram

Figure 5: Element Relationship Diagram of ThrdPlace

3.3.2 Business Workflows

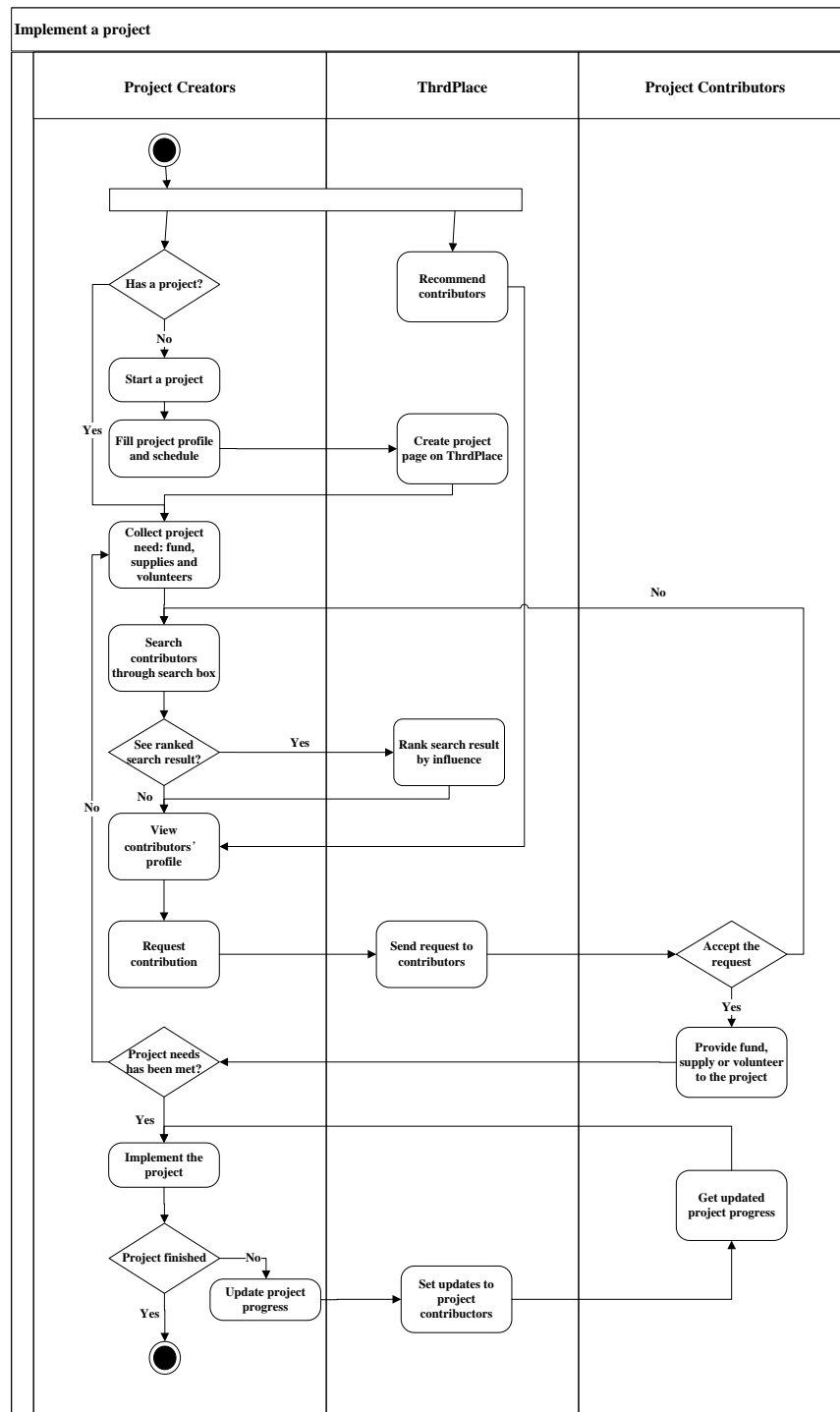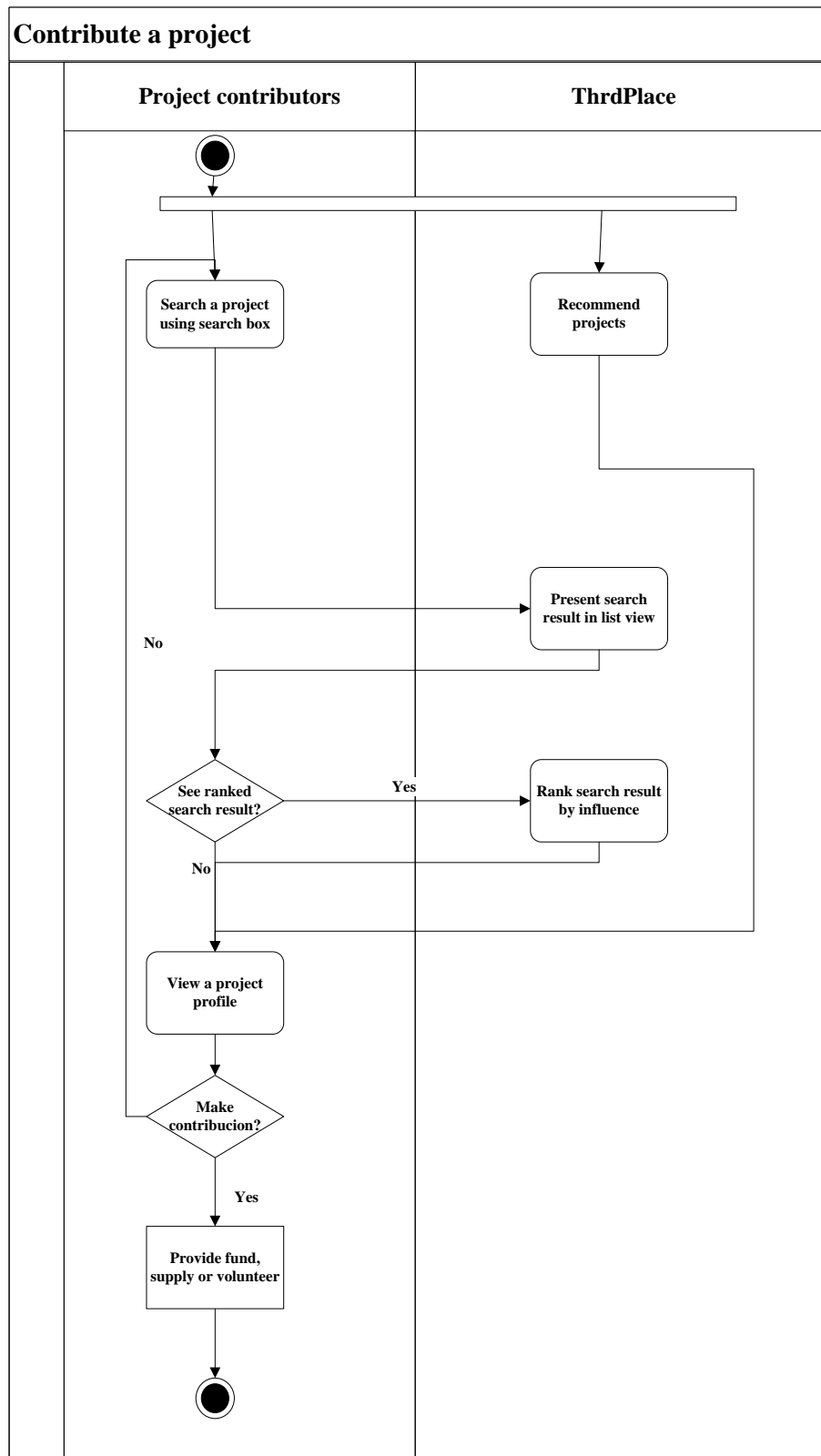**Figure 6: Business Workflow Diagram of ThrdPlace-Implement a project**

Figure 7: Business Workflow Diagram of ThrdPlace- Contribute to a project

3.4 Organizational and Operational Implications

3.4.1 Organizational Transformations

- The need for developers to pay more attention on protecting privacy of project contributors and project creators.
- The need to hire a high-level DBA(Database Administrator) to manage a more complex and large-scale database.

3.4.2 Operational Transformations

- Having the recommendation system rather than manually discovering resources to reduce management time of projects and contributions.
- The option for project creators and contributors to measure their influence through ranking system, or to use their own methods.