

Class: CSC540, **Group:** I5S, Inception Phase – Vision Statement

Version	Date	Description	Author
Inception Draft	02/19/2017	First Draft	I5S
Inception Final Draft	02/20/2017	Final Draft	I5S
Iteration 2 Final	04/02/2017	Corrected minor errors in: Licensing and Installation Summary of System Features	I5S

INTRODUCTION

We envision a next generation educational social network site for NKU students, NKUNet, which creates an intuitive and interactive site, allowing students and faculty to share knowledge and resources with each other. The intent is a very open platform that removes the limitations present in the current university's websites (Blackboard, MyNKU, etc.) which silo students and faculty into enrolled courses, sections and semesters. The new platform allows all students and faculty, regardless of major or currently enrolled classes or college, to participate and engage in the forums.

POSITIONING

Problem Statement

The existing sites available to NKU students and faculty are not all inclusive. While Blackboard allows students to communicate within their section of a course, it does not allow students to communicate across sections, nor within a major, college, etc. The university wants the education process to be as broad and inclusive as possible and wishes to remove constraints present in the current systems.

Product Positioning Statement

The system is for NKU students and faculty to create an opportunity to broaden educational dialogue across courses, sections and colleges – a true university-wide platform. NKUNet enables students and faculty to share knowledge and resources in a very open and functional platform. Users can view and post questions and answers regardless of enrolled courses or semester. To give students and faculty incentive to participate by answering questions, students and faculty can upvote or downvote answers which gives parties credibility and reputation on the forums. Activity in answering questions and the number of upvotes and downvotes will be used to determine the user's reputation. Each student and faculty user will have a page of their own, which will display their current schedule and information about their reputation.

Alternatives and Competition

Quora and Stack Exchange currently operate question and answer sites with reputation systems.

STAKEHOLDER DESCRIPTIONS***Stakeholder (Non-User) Summary***

Name	Description	Responsibilities
NKU IT Department	IT resources support hardware/platform for the university	Maintains hardware/platform for the system.
NKU Administrators	NKU regents who are tasked with system content oversight	Oversee the content within the system.

User Summary

Name	Description	Responsibilities
Students	Primary user of the system	Post questions. Post answers. Rate answers. Post educational resources.
Faculty	Primary user of the system	Post questions. Post answers. Rate answers. Post educational resources.
Registrars	Oversees student registrations and class enrollment	Create/update class information, including assigned faculty and enrolled students.
Administrators	Provides ID support and problem resolution support	Add/edit/delete Faculty, Registrar and other Admins. Edit/delete inappropriate questions/answers. Can also do anything a Student or Faculty can do.

Key High-Level Goals and Problems of the Stakeholders

High Level Goal	Priority	Problems and Concerns	Current Solutions
Fast, robust, integrated information sharing platform	High	Reduced speed as load increases. Loss of data if system fails. Incoherent, incorrect or inappropriate postings.	Blackboard is limited to the current students in a single section of a class.
Ease of use	High	Ability for users with little to no previous experience with system to navigate and use easily.	Blackboard navigation is not intuitive.

User-Level Goals

The users need a system to fulfill these goals:

- Student: post questions; post answers; rate answers; post educational resources
- Faculty: post questions; post answers; rate answers; post educational resources
- Registrars: create/update class information, including assigned faculty and enrolled students
- Administrators: add/edit/delete Students, Faculty, Registrar and other Administrators; edit/delete inappropriate questions/answers; can also do anything a Student or Faculty can do

User Environment

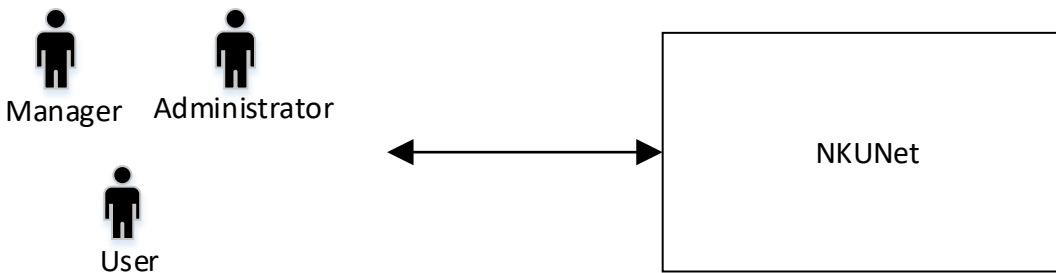
1. Each Student and Faculty will have their own page that will display:
 - a. Current Schedule (with links to their Class pages)
 - b. Reputation
 - c. recently asked questions
 - d. recently answered questions
 - e. Uploaded educational resources
 - f. If Student or Faculty is viewing their own page:
 - i. Ability to Add Resource
 - ii. Ability to Update Resource
 - iii. Ability to Remove Resource
2. Student and Faculty pages can be reached from:
 - a. Question that the user posted
 - b. Answer that the user posted
 - c. Class page where student is enrolled
 - d. Class page where faculty is teaching
3. Each Class will have its own page that will display:
 - a. Description
 - b. Faculty assigned to teach the class (with link to their Faculty pages)
 - c. Students enrolled in the class (with links to their Student pages)
4. Class pages can be reached from:
 - a. Student page where student is enrolled in the class
 - b. Faculty page where faculty is teaching the class
 - c. A search
5. Students and Faculty have the ability to:
 - a. View Forums
 - b. View Questions within a Forum
 - c. View Answers within a Question
 - d. Vote on (upvote or downvote) an Answer
 - e. Search for questions based on:
 - i. Subject
 - ii. User
 - iii. Post title
 - iv. Post keyword

- v. Some combination
 - f. Search for classes based on:
 - i. Name
 - ii. Instructor
- 6. Administrators have the ability to:
 - a. Add/edit/delete:
 - i. Students
 - ii. Faculty
 - iii. Registrars
 - iv. Administrators
 - b. Edit/delete:
 - i. Questions
 - ii. Answers
- 7. Registrars have the ability to:
 - a. Add classes, including assigned faculty and enrolled students
 - b. Use CSV file to upload class, faculty and student data

PRODUCT OVERVIEW

Product Perspective

NKUNet will reside on the cloud and users will be able to access the site as a sub-site of the NKU main site. It will provide services to systems users as detailed:



Summary of Benefits

Supporting Feature	Stakeholder Benefit
Provides users a platform to post and answer questions.	University community feels more engaged and connected with one another.
Users can up/down vote answers which allows users to find potentially more helpful information faster.	Users can quickly find answers/questions which other users have found more helpful and filter out least helpful answers/questions.
Posting of educational resources to site to allow sharing of information.	Users can quickly find documents and work on them.
Creating/Updating class/student/faculty information to the system via CSV upload.	Allows NKUNet to be decoupled from the main university system and allows NKUNet to be its own stand-alone application.

Users have their own page.	Allows users to connect further by allowing each other to view questions/answers, as well as schedule information to help users identify other users.
Peer reputation system for users.	Promotes user visibility by allowing them to accumulate/lose reputation.
Users have their schedules posted to the site.	Empowers users to find peers and connect with each other.

Assumptions and Dependencies

We assume that users will be open and honest on the platform and will be comfortable with not having the ability to edit question/answer submissions once they have been posted to the site. Similarly, we assume that there will be some mechanism that will allow users to flag inappropriate posting or otherwise alert Administrators to any potential abuse.

The system is heavily reliant on system user interaction instead of linking directly to any existing university system (registration, Blackboard, etc.) which requires managers to have a very active role in editing/maintaining information in more than one place (the existing NKU technology system as well as NKUNet). It is assumed that there is room for some automation, from a Manager perspective, to transfer data to NKUNet from the university's existing data, but that automation will be handled separately from this project.

Licensing and Installation

Our focus to use open-source technologies as the baseline for development positions NKUNet to have a light licensing/fair-use foot print. The project's open source software primarily utilizes the MIT License. If there comes a point in time when NKUNet could be sold to a third party, for profit, then those licenses should be carefully reviewed, prior to the sale, in order to prevent any potential misuse of the impacted license(s). It is recommended that the university seek expert counsel to provide any legal opinion regarding licensing.

This will be a web-based platform which eliminates the need to distribute the software to users directly for installation. Installation will occur only at the server level.

SUMMARY OF SYSTEM FEATURES

- Generation and upkeep of users and classes
- Support for posting of questions and answers
- Support for voting on answers
- Storage of educational resources
- User reputation calculations
- Search on question, search on class
- Administration of users

OTHER REQUIREMENTS AND CONSTRAINTS

The application must be written using the full stack Ruby on Rails framework and deployed via Heroku.

GLOSSARY

Administrator: Administrator

Manager: Administrator or Registrar

Participants: Student or Faculty

System User: Anyone with an account.

User: Student, Faculty or Administrator