

Project 3.1

Problem Analysis

Stephen Freiberg

Overview

The system that is being built, Red-Dot, is a comment feature that can be used on sites such as Reddit, New York Times, Quora, and Stackoverflow. This feature allows authenticated users to comment on existing posts, and vote up or down other comments. Votes cause comments to become more or less prominent to users so that the most popular comments are the most visible to users. When users' comments are voted up or down, their "karma", or popularity, is affected (more upvotes means more karma).

This is a very similar model to that of Reddit, where each user has a "link karma" and a "comment karma" that are each affected by votes on submitted links and comments, respectively. The difference between Reddit and this system is that comments will become visible as they are submitted without the user being required to refresh the page.

Object, Event Models, Wireframes, and Context Diagram are attached as separate documents

Behavior

Users of this site, Red-Dotters, are able to submit posts and links to the site. Other authenticated users are able to comment on posts and other comments (creating subcomments) as well as upvote and downvote existing comments. Based on the net number of upvotes (upvotes – downvotes), highest rated posts and comments will be presented at the top of the site. Unauthenticated users are able to view comments and posts, but not contribute to the Red-Dot community.

Votes on content submitted by a user contribute to that user's "karma". Each user has two types of karma: link karma and comment karma. The link karma score is affected by the up and down votes on the posts that a user makes. The comment karma score is affected by the up and down votes on the comments that a user makes. These can eventually be used to reward members of the community with "comment influence" that factors in to a more complicated rating formula for posts and comments.

Security Concerns

Since Red-Dot is not handling personal information other than the email address of users that is required for registration, the security of the application is not paramount. Users should be able to specify the privacy level for their contact information, which is facilitated by each user having a public username that is attached to each posting. This means that users can be effectively anonymous, but with a history of postings attached to them. The posts and comments are all publicly viewable, so there is no security model associated with them.

Users will be limited to only one vote per piece of content (post or comment). This prevents comments and posts from having an unreasonable number of votes from the same members of the community.

Operations

- *Add Post*: Allows authenticated users to add posts to the main website, which each consist of a title and some content.
- *Add Comment*: Allows authenticated users to add comments to any post. These are viewable by every user, both authenticated and non-authenticated.
- *Upvote / Downvote Post*: Allows authenticated users to vote on posts (approve or disapprove). These aggregate votes are viewable by all users of the site.
- *Upvote / Downvote Comment*: Allows authenticated users to vote on comments (approve or disapprove). These aggregate votes are viewable by all users of the site.