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Leveraging the Twitter Platform for Mass Communication and Collection of Opinions

Communication platforms such as Twitter and Facebook provide an unique and populist avenue for the broadcast and aggregation of both the opinion and status of millions of people. This project focuses on the development of a web application and user interface that enables Twitter users to quickly and conveniently construct questionnaires to broadcast to their readers, or “followers,” manage constructed surveys, and view results and responses as they are received in real time. The massive popular usage of the Twitter service means that feedback can be received virtually instantaneously. This is extensively applicable in many types of market research, whether political, commercial, or not-for-profit, but also has strong potential in accelerating disaster response by aid organizations. By broadcasting short mobile-accessible questionnaires via their Twitter feed, the aid organization can receive feedback from many people across the afflicted region with status on health, the condition of infrastructure, and the general availability of supplies such as food and potable water. In this way, the responding organization can plot a well-informed response strategy that enables the quickest and most effective way to prevent further suffering. The development of the questionnaire building application incorporates various web technologies and languages to produce a secure and rich interface for the user. The Twitter API and the Google implementation of the Open Authorization Protocol (OAuth) were interfaced to access and update the Twitter user's account without requiring their password. PHP and MySQL are used to manage collection and storage of responses to questionnaires, create and edit questionnaires, and retrieve results. A rich, intuitive GUI for the application is enhanced with the jQuery JavaScript libraries and the incorporated AJAX technologies.