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SMART SECURE ANDROID APP FOR WOMEN'S SAFETY

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ABSTRACT

Women safety is challenging issue in India as well as in other countries. It is not safe for women to travel lonely at mid night or at unknown place. There should be helping hand for women. There are many android applications for woman's safety but they are less efficient or user-friendly. So in order to solve issue of a woman's safety we develop an android application which is easy to use and efficient to provide help to a victim. Our application will collect user's information for future use and continuous tracking using LBS. When there is a dangerous situations like rape or domestic abuse, the system will get activated. It is difficult to make a call, to send a message or to press alert button in this situation, so we are using void recognition system. The Voice of Victim will get recognize by the system and its current location will be send to each and every App user in that area. In addition, if the victim will press a button on screen then notification will be send to people in the respective area.

KEYWORDS: Efficient, tracking, LBS, victim.

INTRODUCTION

The rapid urbanization taking place the world over has opened up a whole new chapter of research, drawing linkages between political economy, social relations, safety and communities. Alongside this wave of modernization that is sweeping the cities, there is an undercurrent of a deepening sense of isolation and increasing vulnerability of sections of society that have traditionally been at a disadvantage because of their gender, class, migrant status, age or sexual orientation. This vulnerability is manifest, most importantly, in the manner in which these groups are denied or are unable to access what the city has to offer, thereby affecting their quality of life in ways that compel them to negotiate their movements across the city even as they face pressures of all kinds. Among the many axes of discrimination and exclusion, gender occupies a central position. There are many factors that play a role in determining women's access to the city. The safety of women and gender inclusive cities are broad concepts, but for this study the focus will be on the ability of women to participate in the life in the city, to study, to work and move around, and more specifically to address the violence that women and girls face in the process of carrying out their daily activities.

The broad approach of the present research is to locate issues of safety and inclusion in a wider context of urban growth and governance and a broad understanding of violence against women. This approach allows us to analyze and understand comprehensively the multiple dimensions of safety and to engage with them. While gender is the entry point to understanding exclusion in the city, the research builds on the intersection of gender with other vulnerabilities based on class, migration, age, disability, ethnicity, etc.

MOTIVATION

Gender-based violence is present at various levels, beginning with discrimination at birth, further perpetuated through discrimination in education, nutrition, employment, wages and direct/indirect acts of sexual aggression. There have been several approaches to countering gender-based violence including campaigns, legislation and institutional mechanisms. In the 70s and 80s, women's movements were at the forefront of a vibrant 'second wave of feminism', unleashing strident women's agitations against issues such as dowry related violence and death, rape and sexual assault.⁴ This phase was significant as it signaled breaking the silence around violence against women (VAW) which led to several legal reforms including a comprehensive Prevention of Domestic Violence Act and one on Sexual Assault. A Bill on the Prevention of Sexual Harassment at the Workplace is also pending, though there is a Supreme Court judgment on the issue since 1992. There are also several sections of the Indian Penal Code that deal with sexual harassment.

LITERATURE SURVEY

Gender-based violence is present at various levels, beginning with discrimination at birth, further perpetuated through discrimination in education, nutrition, employment, wages and direct/indirect acts of sexual aggression. There have been several approaches to countering gender-based violence including campaigns, legislation and institutional mechanisms. In the 70s and 80s, women's movements were at the forefront of a vibrant 'second wave of feminism', unleashing strident women's agitations against issues such as dowry related violence and death, rape and sexual assault.⁴ This phase was significant as it signaled breaking the silence around violence against women (VAW) which led to several legal reforms including a comprehensive Prevention of Domestic Violence Act and one on Sexual Assault. A Bill on the Prevention of Sexual Harassment at the Workplace is also pending, though there is a Supreme Court judgment on the issue since 1992. There are also several sections of the Indian Penal Code that deal with sexual harassment.

BACKGROUND

Global Positioning System (GPS):

Global Positioning System is composed of satellites and GPS receivers. GPS receivers receive signals from the satellites orbiting in space in 6 different planes 20 kilometers away from Earth. There are 24 satellites orbiting in space at present originally owned by United States government for military purposes and are now opened for commercial use. Illustrates the satellites orbiting in space. The GPS receiver installed in the mobile handsets will receive radio signals from satellites and compare with the local duplication of geo data to calculate its actual location on Earth. To increase the accuracy, data received from three satellites can perform the calculation of two dimensional locations, including the longitude and latitude. For three dimensional location information, consisting longitude, latitude and altitude, data from at least 4 satellites are required.



Fig 1. GPS

Trilateration:

In geometry, trilateration is the process of determining absolute or relative locations of points by measurement of distances, using the geometry of circles, spheres or triangles.

In addition to its interest as a geometric problem, trilateration does have practical applications in surveying and navigation, including global positioning systems (GPS). In contrast to triangulation, it does not involve the measurement of angles.

In two-dimensional geometry, it is known that if a point lies on two circles, then the circle centers and the two radii provide sufficient information to narrow the possible locations down to two. Additional information may narrow the possibilities down to one unique location.

In three-dimensional geometry, when it is known that a point lies on the surfaces of three spheres, then the center's of the three spheres along with their radii provide sufficient information to narrow the possible locations down to no more than two (unless the center's lie on a straight line)



Fig 2. Trilateration

SYSTEM ARCHITECTURE



Fig 3: Work of the application

Here we are going to apply several number of techniques. Finally to produce output the combination of all the result is generalized. As input is girl's location and then the synchronization of police and nearby passers is required and then the location is sent to all the app users in that area for voluntary help. The trilateration algorithm is used to find the location on the earth and by using Have sine Formula we can calculate the distance of nearest ones.

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