

PSYCHOLOGY BASED DE-ADDICTION - APP FOR SMARTPHONE USERS

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Abstract

This project helps the smartphone users to control the over usage of social media networks and game applications. It uses the psychological concept to De-addict the users from those things by diverted the users interest from those things to the environmental based things. It creates curiosity about other interested things of an user environmental based things. So, the user automatically stop their mind to use the social media and games. because the environment have much many interesting things to know in basis of someone interest. It suggest user's interested contents in the real time based on where the user is now and the things that what present in the surrounding of the user. It uses image processing and GPS co-ordinates to get the get the current location and surrounding things. Then it get the content of that things based on the user's interest. So the user live combined with the environment and control the usage of social media and games. And it helps the user to get more knowledge and basic things for life.

Keywords: *De-addiction, environment, social media and games, current location, Image processing.*

Introduction

In this smart phone world the app for games and social media networks is increased and the addiction of it also increasing proportionally. The number of smartphone users worldwide is projected to amount to nearly 2.7 billion by 2019. And in India there are 400 million users are here. In this there are most peoples are addicted to the games and social media network apps.

Addiction usually refers to compulsive behavior that leads to negative effects. In most addictions, people feel compelled to do certain a harmful habit, which then interferes with other important activities such as work or college or school or relationship.

Because social media is most frequently accessed via smartphones, their usage is intimately intertwined and their mobile nature contributes to excessive checking habits, which often derives from what is commonly labeled as the 'Fear of Missing Out' (FOMO).

The addiction to mobile games is a big problem to a large number of people across the globe and the number is only increasing by the day. Many times it happens that we sit down to play a mobile game for a few minutes and we end up wasting hours. It is a clear sign of mobile game addiction. This addictions will very danger for us in every fact of our live.

So here is the solution for this psychological problem of addiction. The use of same psychology about addict on interesting things to escape from this dangerous one. So, we can De-addict the user from those things by diverting the interest of user to environmental based things. The development stage is described in detail in this paper.

Literature Survey

The Results from exploratory factor analysis identified five smartphone addiction symptoms: disregard of harmful consequences, preoccupation, inability to control craving, productivity loss, and feeling anxious and lost, which formed the smartphone addiction scale [4].

Many websites and papers are referred for the solution for the addiction but got only the app that block the social media network and game apps. So this app to decide to developed with the help of suggesting things that related to the interesting things of user in the real time. For that the app going to use the two major parameters that have the real time things. They are location and surrounding objects. This two things are referred with the idea from the following.

The Location Collection Service component performs location collection to get a latitude and longitude for a specific user. Depending on the technology, this component may be accessed via the LBS Middleware (e.g., mobile network triangulation via a service provider) or directly (e.g., via GPS receiver in the Smartphone)[3].

Every real-world image can be annotated with multiple labels, because an image normally abounds with rich semantic information, such as objects, parts, scenes, actions, and their interactions or attributes. Modeling the rich semantic information and their dependencies is essential for image understanding [1].

Proposed Model

The following is the model of the proposed work. The interesting things that get from users is stored. Then the location of the user is always get by GPS co-ordinates and the live image of the environment is get from camera of the mobile phone. And then the two things are processed by the object identification / finding current location blocks to identify the place / object. And the identified object /place is make as a sentence with interesting things that stored in mobile. Then the web scraping block is get the contents about the interesting things from websites and filter the contents. Then that contents displayed to the user to read and converted to audio by Text-to-speech block to hear by user if the user want.

The fig 3.1 shows the proposed work of this app.

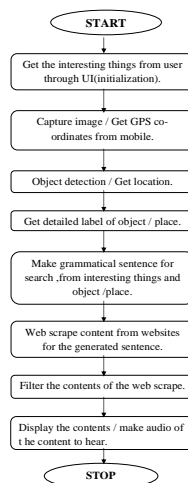


Fig 3.1: Proposed Work

Approaches

This app have two different approaches to process the work. they are,

a) Location based: In this method the location is consider to get the interesting of the user. The current location of the user is every minute get from the mobile. Then the contents will shown to the user dynamically. The location based interesting things is mostly like famous place, famous food, history of that place and so on.

b) Live object based: In this method the interesting things is get from the live objects that present in the environment. It use the camera to capture the objects that present in the surrounding of the user. Then it will use the image processing to identify the objects that present in the captured image. Then it choose the interesting objects of user then send that to API to get the exact identification of the classified object. Then get content from websites about the object's interesting factors of user. Then the content will shown to user. The object based interesting things is mostly like bike, car, bird, animal and so on.

Implementation

The app have several functional blocks. That each blocks have major operations to perform.

Getting interesting things: It is the ever first function of this app. It is the initialization activity of this app. In this block the things that the user have very interest is collect and stored. This collection can change after anytime through the app setting. For this process the "checkbox widget" is used and the data stored in the "Shared Preference". So the data can accessed anytime and doesn't volatile.

Getting location: This process have several steps and implementation to follow,

1. At first the app will get the GPS co-ordinates of the users current location by the "Location Manager" manager for the user permission is get from user. The location is get in the form of GPS co-ordinates like longitude and latitude values.
2. For convert the GPS co-ordinates to exact location detail the "Geocoder" class is used. In this step the longitude and latitude value is converted in to location name by the "Reverse geocode" method.

Getting objects: This process is also have several steps and implementation to follow,

1. The app will capture the live image of the user surrounding through the mobile camera and save it for find the objects that surround in the user.
2. Then the image is processed by "Deep Convolutional Neural Network" to object labeling. The objects is classified and identified in offline process within this app using this functional block. The interesting objects of user will find out in the image using this.
3. Blur the surrounding then the object in image using "image blurring" method to search detailed about the object.
4. The blurred images will send to the "Google Cloud Vision API" to get the detailed labeling of the object. This API will give easy methods to use.

Sentence formation: In this block the meaningful and grammatical sentence is formed using interesting things that got from user and the place/object that get from previous process. The

sentence is formed using grammar rules to avoid unrelated web scrape contents. For example, if a user interest in history and animal is not possible to get meaningful content for history for any animal. For this reason the block will use.

Web Scraping: after the searching sentence got the sentence is searched in “google” through the “jsoup” package. Then the result of the search will got and the link and the heading will stored in a variable. Then the link will again opened through the web scraping then the contents get from that link websites and stored in variable. It will repeat for each sentence that got from previous block.

Displaying content: After collected the contents the contents will displayed to the user for read in a new activity. In this activity there are available options like next, previous buttons to move to the next/previous contents that displayed.

Speech module: In this block the displaying contents will changed to hearable audio with the “text-to-speech” module. This is optional the user can on or off this depend on user need. It helps the user while they are in driving or traveling. So the user can always interacted with this app and the environment.

This is all about the implementation and functions of the blocks that processing in this app.

Conclusion & Future Scope

This application will very useful to smart phone users to avoid the addiction on games and social media networks. And it will help the user to develop their knowledge. It will create more curiosity about the interesting things so the user will start living oriented with the environment. This will give different and dynamic content about different things at a time so the user not get bored. The voice content help the user to stay focused on the environment while driving or traveling. This app will give the feel of living with the ancestors.

Future enhancements to add offline usage for this app to save the content when the user is online and walk or travel through the environment.

Going to add a future that will help to find the users bored things to avoid show the content of that things and to show the most interesting things to the user.

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