NEED FOR MOBILE APPLICATION IN FISHING

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Abstract: Mobile phones by virtue of their role as carriers and conduct of Information, had reached great heights in Markets. Using Mobile Application, Sea Fishermen are able to make the job of fishing enjoyable, and easier. This paper deals with the significance of mobile application in fishing also explains the modern technology change of fishermen moving into mobiles for their well-being.
Keywords: Mobile phones; mobile application; fishermen; modern technology; fishing.

I.   Introduction

In our modern life, Mobile has become a sixth finger. Though man might be the creator of mobile phones, it has his control over him. Life without mobile phone is being handicapped. Mobile communication has changed drastically from a black white screen chunk to a delightful looking smart phone. Due to greatest development in technologies life become smarter and easier by using application in smart phones. According to flurry Analytics research 90% of time we spend on mobile devices are with mobile applications, only 10 % of time spend on internet browsing (Fig. 1). In our day to day activities usage of mobile application becoming a mandatory role. It includes online purchase, Budgeting, Entertainment and Sports, e.t.c. The usage of mobile applications in fisheries sector is becoming popular in developing countries but Indian context, it is still unexplored. Hence, the objective of this paper is to review the mobile applications in fisheries sector.

II.   Importance of mobile Application for fishermen

About 7 million people living along the Indian coastline, spanning over 8100 km, are depending on fishing for their livelihood. Fishermen needs to know about the weather information on ocean variables like surface temperature, wind direction, wind speed, wave movement, rainfall, e.t.c before onboard. Some mobile applications could help the fishermen for their safety precautions and effective fishing. The detection of potential Fishing zones in deep sea is vital for effective fish harvesting. In general fishermen strive harder in sea for effective fish harvesting. Fishermen jobs are made easier by the detection of potential fishing

zones using mobile applications. GPS Navigation is used to digitally mark specific locations. These devices are able to locate the fishing spots [1,2]. Fishermen needs to know about the retailer market information for buying and selling are needy for marketing the harvested fishes. Mobile Application helps the fishermen to know the seller and buyer requirements. In Indian scenario there are more developed   mobile application in English but these application have not yet reached the fishing community due to language issues. MSSRF have released a Fisher Friend Mobile Application in multilingual specialty which has reached the fish farmers world [15].
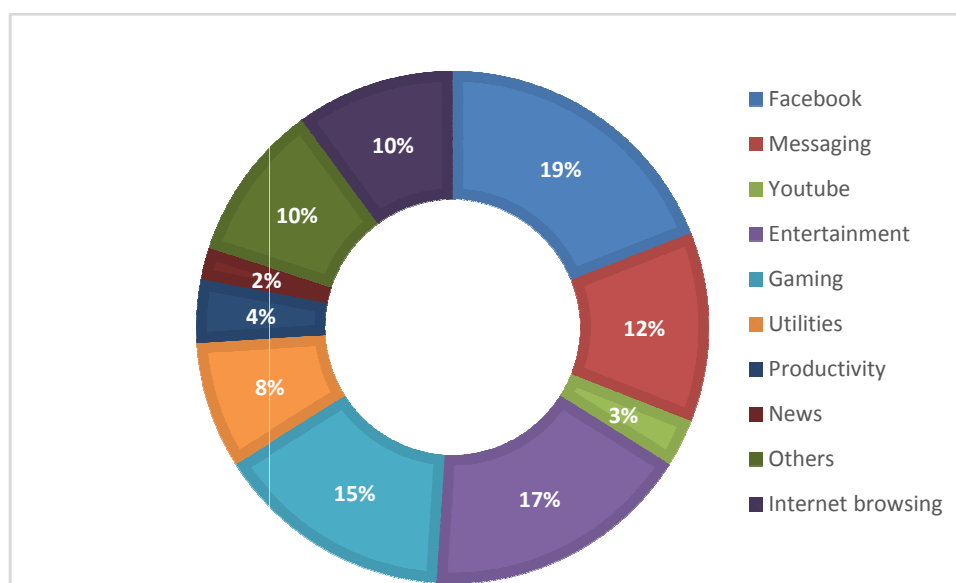

Fig. 1. Percentage of time spent on mobile apps in a day

III.   Essential features in Fishing

1.   *Weather Forecast*

The method used by Indian Meteorological Department (IMD) [3] of weather forecasting for common end users is based on observing weather conditions data of last few decades and its behavior pattern. Currently we have marine radios to forecast the weather and safety equipment. Weather channel INCOIS [4] broadcast the accurate weather condition presently and also for next few days. Mobile Application on weather condition helps us to find the standard features like daily, hourly forecast and additional information like safety weather for onboard fishing. It is easy to determine the feeding of all types of fishes. Fishing and Hunting Solunar Time helps to plan the best time for fishing. The following table specifies the weather forecast applications for the fishermen to predict the weather for onboard fishing [7].

2.   Detection of potential fishing zones

Potential fishing zones with reliable and timely advisory of fish aggregation will benefit the fishing community to reduce the time and effort spent in searching the fishes, thus improving the profitability and hence, the socio-economic status. Anciently potential fishing zones are found by the fishermen by their experience in onboard fishing. Now a days INCOIS is presenting current potential fishing zone Advisory information using interactive maps [4]. INCOIS uses WEBGIS to produce accurate online geo referenced data for this purpose. AWEBGIS system enables browsing and analyzing geo-referenced data through internet [6]. This helps the fishermen to catch the maximum yield of fishes and benefits the fishermen community. INCOIS have released an application potential Fishing zone advisory (PFZA) with version Android 4.0 to fishermen in coastal areas of India in Tamil language for finding PFZ [16].

3.   GPS Navigation

Global Positioning System was not available on ancient fishing. These devices are very useful for fishermen nowadays. These devices can boast comprehensive features that make identifying; recording and sharing important data about fishing areas and activities in a single click.GPS is used to digitally mark specific locations [5]. These devices are able to locate the fishermen spots of fish population. These data can be shared between people and devices. GPS makes navigating an area during night times. Map Data is loaded in GPS and to register the location of where a fisherman is and provide detailed information about it [8]. This technologies come in handy with mobile Application of fishing points. GPS Navigation helps the fishermen to have maximum catch.

IV.   Importance of Mobile Application in fishing

Mobile application is the premier resource for fishing enthusiasts. Whether an amateur or a professional, fishing with mobile application provides the ultimate combination of tools to enhance the fishing experience and expand the connection to the world of fishing. Anywhere in the world a person can logon to the mobile application for effective fishing. Mobile Application gives valuable angling tools such as solunar, tidel charts, Advanced weather reporting, including radar maps, forecast and incident reporting, GPS Advanced Tracking, Catches Log Book, Sea depth, potential fishing zones, e.t.c. The following mobile Application are combined with characteristics useful for fishing. All the essential characteristics are grouped into one as a unique mobile application helpful for fishermen. Due

to space consumption in mobile phones a single and customized application is beneficial for fishermen in effective fishing.

Table. 1. Mobile Application for fishermen with Combined features [9-14]

S. No	Name of the Application	Version	Required Specification	Size	Unique features
1.	Fishing Points GPS Navigation	2.2.8	Requires Android 4.0.3 and up	10 MB	Best fishing times, tide prediction, weather forecast. Mapping facility, finding fish location with GPS Navigation.
2.	Fishing& Hunting Solunar Time	2.4.1	Varies with device	Varies with device	Based on the Solunar Tables theory application, gives information about best fishing times
3.	Fish Brain	3.12.2	Requires Android 4.0.3 and up	12MB	fishing forecast news feed, Explore new fishing locations, Check exact catch position Follow your friends fishing
4.	Fish Hunter-Pro	1.0.29	Iphones and ipads	72.3 MB	Gps Advanced Tracking and Mapping, Catches Log Book, hardware device for finding fishes, Fishing Trip Crucial Planning Toolkit
5.	Deeper Smart Fish Finder (hardware device with mobile application)	5.0.5	Requires Android 4.0 and up	30MB	Find Fish, Sea depth, know Temperature, Reveal New spots and potential fishing zones, Catch and share
6.	SONA.rBall (hardware device with mobile application)	2.1.3	Requires Android 4.0.3 and up	13 MB	Fish View, Sonar View, Water Temperature, Water depth, Analyse the environment and increase the catches, detects the potential fishing zones.

V.   Summary

Fishing Mobile Application aims to close the gap between data deficiency and effective fisheries management. Mobile Application saves the fishermen's Time and helps in effective fish harvesting. Prediction of storms and weather conditions are helpful for the safety of fish farmers. This type of application reduces the overhead costs. This application motivates and helps the fish farmers to move along the technological growth. Efficient fishing application should be   developed after rigorous software testing in all marine environments and with input from hundreds of experts. Amateurs and professional anglers should be properly

reviewed   and their views and needs of fishing application   should be considered before building a mobile application. User friendly mobile application with all the combined need of fishing with multilingual language specialty is highly needed for fishing community.

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