

Rural eLearning: An Efficient Strategy to Educate Farmers or Villagers

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Abstract—In this era of advancement of technology and automation all the prominent areas like transportation, e-commerce, agriculture and education have drastic growth in implementation strategies. Many rural people are moving towards urban areas because of their unawareness of technological advancements in their vicinity. In this paper, presented with an efficient way of educating the rural people so that they can learn, implements the technology to understand and circulate among the rural people to support their deficiency of learning in their premises using Raspberry Pi thereby enabling villages or villagers to advance.

Index Terms— Advancement of technology, Raspberry Pi, enabling villagers, implementation strategies.

I. INTRODUCTION

In karnataka about 61.4 percent of people live in rural areas and day by day the number is getting declined. The people are attracted towards the cities for their livelihood. However, if the rural areas are equipped with modern technologies for the prominent areas like agriculture education, e-commerce business ideas, new start-up ideas at their premises definitely this trend that people shifting from rural to cities will significantly reduce. In order to accomplish this there is a requirement of an ICT enabled training center or a place which runs automatically to the rural people's requirements and fulfills at least with information and the way how it can be implemented. In this paper, presented one efficient way how best the rural people can be educated and enable for the futuristic India where the people can get access with all the current trends of the market, technologies being happening across all the domains in which the rural people are involved.

II. BACKGROUND WORK

Traditional learning involves fitting the infrastructures into action and a lot of trainers and technical people should come and train the villagers and/or students. Once you say rural, then there will be scope for two major things one of which is educating the students with advanced technologies to promote them to become torch bearers to the society later one is educating the farmers in the agricultural information like to know the soil or crops or fertilizers related information, price list of vegetables or grains, demands on products and subsidy schemes provided by the government towards agriculture and other related information.

As a part of the survey a case study has been carried out and the inferences are as follows:

About 226 taluks and 5963 Gram Panchayats are there in karnataka. Crore together budget will be sanctioned to

each Gram Panchayats to support the village people. But nowhere the education aids are utilized to the farmers, again they used to have gathering and meetings very rarely to address the farmers.

III. TECHNOLOGIES TO SUPPORT VILLAGERS AND FARMERS

In this section will highlight the ways through which rural children's, farmers and elder people can get benefitted towards the educational aids, market rates of vegetables and government schemes related information respectively.

- ICT based interactive Board to Students
- Touch Display to Guide Farmers
- Smart Alert systems to Elders
- Guided System to illiterates
- Employment Exchange to job seekers

IV. POSSIBLE IMPLEMENTATIONS

In this section will discuss how effectively smart assistance devices can be built to the said cases in section 3. As a part of Digital India everywhere Common Service Centres are functioning as data centers and service centers in many ways through which the villagers could be able to access the information. In the case of rural students, all of us know that rural area people always lag at the learning levels even though bright young minds are available. If technologies developed by engineers like us are available to them, they could grow better by competing with current trends and they can also be a part of the country's growth through valuable contributions. The following figure indicates how students can access the data through the Learning Management System.

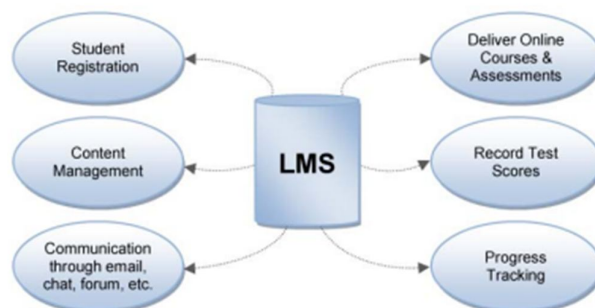


Figure: GUI to support Student community

Through the usage of LMS at the village level empowers the rural students to learn and grow faster and also helps them to compete globally.

Gadgets like computers, smartphones, and PDA have emerged as so important in our everyday lives, whether or not we're using them to work from home, or sincerely to live connected with our buddies and family. The capacity to access those devices is something many take with no consideration. However, for humans with disabilities, boundaries can make these devices difficult to use or absolutely inaccessible. If you are constrained to no need for your hands, having to apply a mouse and keyboard is a sizable barrier to the use of a laptop. you would possibly face similar problems the usage of a touchscreen on a smartphone or PDA.

Rural people may not have knowledge to interact with customer care in the intended language therefore a assistive device in the local language with key navigation technology may help the farmers to get the solution at their premises.

If the society sparks about the elder people, then the generation which is older now are not aware of the technology to use therefore alert systems which remind them of important notices like release of government funds or pension amounts or any schemes that are related to their crop insurance. If this kind of information is available in the hub of each and every village then it definitely saves the time of traveling to the neighbouring city thereby through the innovative hubs at every village could support this category of people. Of Course for this kind of alert system there might be some credentials required since government data is going to be announced. However, the centres can get some privileges regarding the access of information. By clicking on the icon on the screen people can get voice over data in their language.



Figure: Assistive Device which speaks in local language



List Of Government Schemes In India

Figure: Sample GUI of the screen which has the information in the front panel

Employment is a big challenge even today because of the skillset and eligibility to get the job. To address this issue there is a need for a technology hub at every village level. However, a lot of money is being spent by the government to make the rural people skilled and also a lot of subsidy schemes are available in which a rural job seeker can make use of the scheme for his growth and village growth as well. All such information is being provided in the tech hub so that employment issues will also be addressed. The following graphical user interface pictures shows how best the information can be conveyed to the rural people to enable them with intended information.

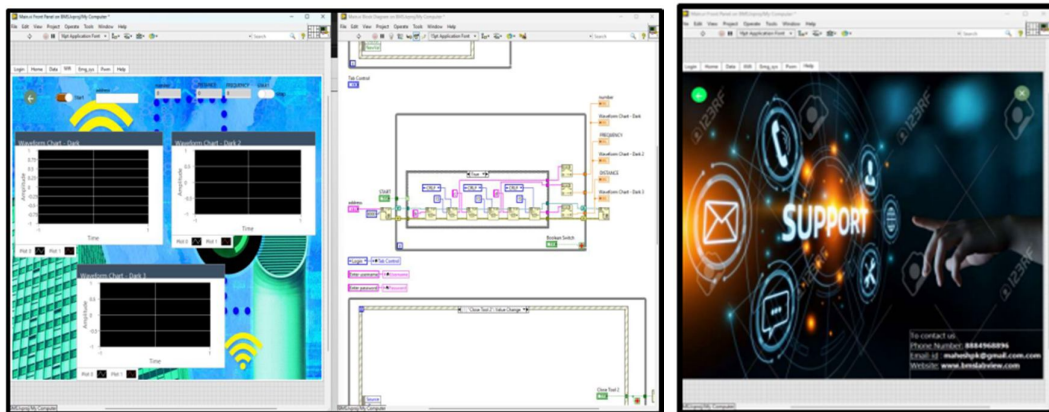


Figure: Graphical user interfaces that supports for rural people

The initiative is commendable and needs complete guidance and confidence from all stakeholders. But it has scope for upgrades concerning many important components like a legal framework, privacy and information safety legal guidelines, insecure Indian our on-line world, and many others. So those issues ought to be managed concurrently. but in spite of its shortcomings, the virtual India project is really worth exploring and implementing and will enhance India to newer heights on the international scene. The supply of high-speed internet to each citizen, easy access to authority's offerings thru CSCs and allocation of personal space on public

cloud are a few of the Data Integration capabilities as a way to revolutionize the lives of rural populations pan India.

V. CONCLUSION

Development of any society depends on its access to statistics and the same is applicable to rural India too. E learning can work wonders on this course and assist the socially marginalized network to obtain their entitlements. The release of the virtual India Programme is a welcome step in this route. It's expected that with committed leadership, self-discipline and manipulation and an integrated framework comprising the authorities, technology industry and society, E-learning interventions within the rural regions will undoubtedly pave the way towards a sustainable boom.

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