

A Case  
Study

## Designing and evaluation of touch screen information Kiosk on various livestock rearing practices

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### ABSTRACT

The livestock owners were satisfied to get information in their own language at an easily accessible place in their locality. They felt that the Kiosk saves time and money other wise they would have to spend to gather the same information on a topic compared to the bits of information they usually get from the veterinary professionals. Seeing the pictures, animations and short movies on different aspects of livestock farming has made the livestock owners to be more satisfied. Kiosks also helped in stimulating further dialogues/discussions with the personnel at the place of installation and / or neighbours and friends. The ability of the information Kiosk to add value to their waiting time was note worthy.

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Information is an important input in development, where livestock sector is not exceptional. This is especially so when the people are more disadvantaged with other resources like land and capital such like recourse poor livestock farmers. Information plays an important role in decreasing the poverty among farmers by increasing their ability to use human and social capital through making good and useful decisions, which requires added efforts from development personnel involved in this field like more deliberations and effective delivery methods of information dissemination. In this era of information society, Information and Communication Technologies (ICTs) has the power to cut across social and geographical distance and help people by finding new ways of facilitating the flow of information and knowledge rather than the intensive use of resources is now the key to success in the developing world. Keeping this in view, an effort was made to get familiar with the initiation and existence of ICT under Indian conditions, which could help the vulnerable groups to move out of information-exclusion (Haffernan, 2003). This potential of ICTs has been shown in several experimental projects in India and these information technology pilot projects need to be driven, not by technical concerns, but by information and communication.

Although, information on all aspects of livestock farming exists in all the farmer-related institutions, but its transfer and uptake by the livestock owners needs appropriate value additions or radical revision at all levels of information transfer. The prevailing conditions have stimulated the investigator to work out with the Touch screen information Kiosk project.

### Designing of touch screen information Kiosk :

The Information Kiosk designed for livestock farming information dissemination was thus considered an important information kit. The Information Kiosk has two parts in its synthesis.

- The machine *i.e.* hardware part (computer with interactive screen).
- The matter *i.e.* software part (programme which has text and pictures with audio back-up).

### The machine :

Technical specification of the computer : Intel Pentium IV with 1 GB DDR RAM 800 MHz, 120 GB HDD, DVD R and R/W Combo Drive, Mechanical Keyboard, Optical Scroll Mouse, 100 kbps internal modem and with 19 inch TFT Touch Screen monitor, windows

XP operation system, rust free cabinet with wheels (Fig. 1).



**Fig. 1: Touch Screen Information Kiosk**

### **The Matter :**

The text prepared in consultation of selected livestock owners, field veterinarians and its correctness verified by the faculty of college of veterinary science, Tirupati. Appropriate pictures, photographs and animations were added to the text, later these were translated into local language (Telugu). The voice back-up was added in both English and Telugu languages for the benefit of those livestock owners who can not read (Table 1).

### **Information at Kiosk :**

At the beginning giving emphasis to the evolution and role of livestock farming in rural livelihood and later, it lead to Main screen, which contains twelve categories related to different livestock farming and waits for the user to interact for instant access to the latest information on every aspect of livestock production and management. The user interface multimedia content, displays the information on an attractive screen along with the voice interface (for those who cannot read) in both the languages such as English and local. The main screen contains Twelve major categories such as about us, cattle and buffalo production, sheep and goat production, pig production, development and welfare activities, success stories, related links and contact us, which in turn includes many more multimedia screens along with text and voice interface in both English and local languages.

### **Deciding the site for the Kiosk installation :**

Place of installation of Information Kiosk is one of the important factors that will decide the effectiveness of the information dissemination. A workshop was organized with the livestock owners and field veterinarians to discuss on the site of installation of Kiosk. Although various alternatives like local leader's house, public library and local primary school were in the list, all were of the opinion to have it in the veterinary dispensaries of the Government. They felt that the people could access the Kiosk from this venue without any inhibition, since all of them come to the veterinary dispensaries for artificial inseminations and first and treatment of their livestock.

### **Formative evaluation of Information Kiosk :**

An important stage in the process of establishing the use of the designed 'Information Kiosk' is its evaluation. A framework for evaluation of the Information Kiosk was sought out through interaction between the Kiosk and users. The knowledge change was assessed based on the remarks given by the livestock owners on the information they received through the Kiosk. The Information Kiosks were evaluated for their use and content over a period of four months. The evaluation process was carried out by three methods like :

- Kiosk facilitator's or service provider's observation.
- Critical group reflections (CGR) of livestock owners to know the group's perception about the Information Kiosk
- Reflections of individual users *i.e.* livestock owners and field Veterinarians.

### **Attractiveness of the Kiosk :**

Livestock owners feel that it was a privilege to have Information Kiosk for the first time in their area for the benefit of the resource poor farmers. Many were attracted by its touch sensitivity of the screen and TV like appearance with audio back up, which enable them to operate without much effort and technical skill, that too with little help, illiterate people feel happy to have the touch were facility installed in the machine. Individuals with technophobia demonstrated reluctance and hesitance to use the technology were made confident of using the machine by taking their fingers and touching the screen to eliminate the feeling of fear of shock and technophobia.

### **Usefulness of the Kiosk :**

It was observed that, the Kiosk has stimulated discussion (or) thinking among the livestock owners and other stakeholders thus helps in information dissemination

**Table 1 : Important activities in the preparation of information material for the disk**

Sr. No.	Activity	Methodology
1.	Identification and prioritization of need based information on livestock farming	<ul style="list-style-type: none"> <li>- Personal interviews with the livestock owners               <ul style="list-style-type: none"> <li>- Livestock owners</li> <li>- Milk producers</li> <li>- Farmwomen</li> <li>- Field veterinarians</li> </ul> </li> <li>- Workshops with stakeholders               <ul style="list-style-type: none"> <li>- Livesotck owners</li> <li>- Milk producers</li> <li>- Farmwomen</li> <li>- Field Veterinarians</li> </ul> </li> </ul>
2.	Preparation of relevant text for livestock owners to be incorporated in the information kiosk	<ul style="list-style-type: none"> <li>- Printed texts from text books, farmers training manuals and other references collected by projects leader and Research Workers-Draft text in English prepared</li> <li>- Text got finalized through a series of meetings with faculty of Department of Veterinary Extension and research workers of the project.</li> <li>- Comments from the subject experts <i>i.e.</i> faculty of Livestock Production and Management, Poultry Science, Animal Reproduction and Gynaecology, Clinical medicine, Preventive Medicine and Veterinary Public Health were duly considered.</li> <li>- Translated into local language (Telugu) with appropriate words as suggested by the livestock owners.</li> <li>- Initially the conversion of available information from author format to multimedia format in both the languages was carried out, later touch sensitive and user interface format <i>i.e.</i> 'Kiosk-tailored' versions was designed in both English and Telugu languages.</li> </ul>
3.	'Text-as-in-Kiosk' prepared for all screens	<ul style="list-style-type: none"> <li>- Pictures / photographs / animations were selected from different literatures, internet and work of artist.</li> <li>- Scope for graphics / animations analyzed for each screen.</li> <li>- Text was finalized for each screen based on the discussion with the stakeholders.</li> </ul>
4.	Designing the Information Kiosk	<ul style="list-style-type: none"> <li>- Finding the right programmer</li> <li>- Hand-over the screen-wise texts and graphics designed, to be installed in the touch screen mode of information work.</li> <li>- Working with the team of programmers to edit texts, pictures, graphics and animations.</li> <li>- Relevant sound recording and voiceover was incorporated in the Information Kiosk on all the aspects of livestock farming both in English and Local languages.</li> <li>- Relevant movies on certain important aspects of livestock farming, fodder production, success stories were prepared</li> <li>- Touch sensitive and user interface Multimedia software was designed in both English and Telugu languages.</li> <li>- Newly developed multimedia software was calibrated and tested for the compatibility and suitability with the available speed / processor of the Kiosk / computer.</li> </ul>
5.	Information Kiosk on "Virtual world of information on livestock production and management" for the peri-urban landless livestock owner in Tirupati, Andhra Pradesh installed on a trial basis	<ul style="list-style-type: none"> <li>- Selection of places of installation of information Kiosks at peri-urban area of Tirupati was in consultation with selected livestock owners, field veterinarians and faculty of the veterinary college.</li> </ul>
6.	Modification of the programme based on formative evaluation	<ul style="list-style-type: none"> <li>- Formative evaluation of the Information Kiosk</li> <li>- Observation</li> <li>- Critical group reflection and</li> <li>- Individual evaluation on the Kiosk and contents of the Kiosk</li> </ul>

of 'value added waiting time' to the livestock owners who bring their animals to veterinary dispensaries for various purposes and the presence of the Kiosk has converted the places of installation into better information centres.

#### **Ideal conditions for effective working of Information Kiosk :**

- The information in the Kiosk should be need-based or demand driven and in understandable form at farmer's level.
- Up gradation and communication variability to be ensured based on user's feedback, but with a caution not to create 'information explosion'.
- Livestock owners must always find the Kiosk in functional condition.
- Close co-operation from the personnel working at the place of Kiosk installation.

#### **Advantages of Information Kiosk :**

- It saves money and time.
- User friendly *i.e.* less assistance to operate, easy to operate and interesting to operate.
- Able to get information in their own language in a multimedia format.
- Livestock owners can get 'whole information' or 'sequence of information' on a topic, compared to the 'bits of information' they get from other sources.
- It helps in information dissemination by 'value added waiting time' to the livestock owners who bring their animals to the veterinary dispensaries for services.

#### **Draw backs of Information Kiosk :**

- Kiosk needs continuous power supply.
- It is operational only during the working hours of the Veterinary Dispensaries.
- It cannot get immediate answers for specific questions of the livestock owners.
- Kiosk needs up-gradation at frequent intervals to avoid disinterest among the livestock owners.

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