

Akash Tablet: A Scope for Virtual Service in College Libraries

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Abstract

The library service is more technology based as times goes. In today's context mobile based service is very demanding for the libraries. The use of Tablet PC's application can fulfill the changing demand of the patron of the libraries. This service is already adopted by the some libraries of Western World. The Akash Tablet computer helps the Indian libraries for serving the patron in modern way. The Akash is very cheap and marketed by the Govt. of India gives the ample opportunity to the college libraries to adopt modern service of library. This article highlights the various features and function of Akash Tablet and its scope in the libraries. The e-resource and institutional repository can be handled very easy and cost effective way through Akash tablet.

. **Keywords:** Akash Tablet, UBI SLATE 7+, Virtual Reference, Library Services

1. Introduction

Technological developments have affected not only the format and sources of the information, libraries used for providing various services, but also the place for providing user oriented service. Libraries and their resources have partially moved to the virtual world of the Internet. As a result, library patrons can access our resources from outside the physical library. In an effort to reach patrons accessing the library via their computers, many libraries and library consortia are extending their service to include virtual reference. Technology now allows users to submit their queries to the library at any time from any place in the world. Virtual reference is responsive to the patrons' need for convenient access to reference service. Library services are becoming more mobile as technology allows librarians to expand service points and outreach opportunities. Like many techno-saturated librarians, the authors looked forward to Govt. of India's release of the Akash in October 2011.

Virtual reference is reference service initiated electronically where patrons employ computers or other technology to communicate with public services staff without being physically present. Communication channels used frequently in virtual reference include chat, videoconferencing, Voice-over-IP, co-browsing, e-mail, and instant messaging.

The present generation of students is comfortable with the modern technologies. They prefer the latest trends in aids and tools of teaching and learning. The tablet computer used in libraries will be a well come step for the changing trends of the library. The technological revolution occurring in libraries and we can easily see a natural progression to using tablet Pc in college libraries as well as other electronic digital reading gadget transforming in to a normal part of the library experience. In the present scenario drastic change in education curricula and the global demand of user oriented services Indian college libraries should also go for the change in their services. The UGC-INFLIBNET and MHRD has taken various steps for providing



digital and virtual service enabled infrastructure in their XI plan and hope for more development in next five year plan. The AKASH tablet PC launched by MHRD can be used as a the very bold steps for providing virtual service for educational institutions.

2. Aakash Tablet

The Aakash is an Android tablet computer jointly developed by the London-based company Data Wind with the Indian Institute of Technology Rajasthan. It is manufactured by the India-based company Quad, at a new production centre in Hyderabad — under a trial run of 100,000 units. The tablet was officially launched as the Aakash in New Delhi on Oct 5, 2011. A substantially upgraded second generation model called UbiSlate 7+ is projected for manufacture beginning in early 2012.

The 7-inch touch screen tablet features 256 MB RAM memory, uses an ARM 11 processor with the Android 2.2 operating system, has two universal serial bus (USB) ports and delivers high definition (HD) quality video. For applications, the Aakash will have access to Getjar, an independent market, rather than the Android Market.

As a multi-media platform, the Aakash project was beset by delays and setbacks. The device was developed as part of the country's aim to link 25,000 colleges and 400 universities in an e-learning program. Originally projected as a "\$35 laptop", the device will be sold to the Government of India at \$50 and will be distributed at a government subsidized price of \$35. A commercial version of Aakash is currently marketed as **UbiSlate 7+** at a price of \$60

3. Full Specification for Aakash/UBI SLATE⁷⁺ Tablet

3.1 High Quality Web Anytime & Anywhere

- ❖ Connect via GPRS or WiFi
- ❖ GPRS: Embedded modem eliminates the need for external dongles and allows Internet access everywhere
- ❖ WiFi: Allows fast Youtube videos at hotspots
- ❖ Fast web access even on GPRS networks, across the country using DataWind's patented acceleration technology
- ❖ Web, Email, Facebook, Twitter and much much more!

3.2 Multimedia Powerhouse

- ❖ HD Quality Video
- ❖ Watching movies in the palm of your hand on a 7" screen
- ❖ Audio library software helps manage your full collection of songs

3.3 Applications Galore with Android 2.2

- ❖ Games
- ❖ Productivity software: Office suite
- ❖ Educational software
- ❖ Over 150,000 apps!

3.4 Full Sized-USB Port & Micro-SD Slot

- ❖ Expand memory to 32GB
- ❖ Use any ordinary pen-drive
- ❖ Even plug-in a 3G dongle

3.5 Hardware

- ❖ Processor: 366 MhZ atom/Cortex 8 700Mhz with Graphics accelerator and HD Video processor
- ❖ Memory (RAM): 256MB RAM / Storage (Internal): 2GB Flash
- ❖ Storage (External): 2GB to 32GB Supported
- ❖ Peripherals (USB2.0 ports, number): 1/2 Standard USB port
- ❖ Audio out: 3.5mm jack / Audio in: 3.5mm jack
- ❖ Display and Resolution: 7" display with 800x480 pixel resolution
- ❖ Input Devices: Resistive touch screen
- ❖ Connectivity and Networking: GPRS and WiFi IEEE 802.11 a/b/g
- ❖ Power and Battery: Up to 180 minutes on battery. AC adapter 200-240 volt range.

3.6 Software

- ❖ OS: Android 2.2 for Akash/ Android 2.3 for UBI slate⁷⁺
- ❖ Document Rendering
- ❖ Supported Document formats: DOC, DOCX, PPT, PPTX, XLS, XLSX, ODT, ODP
- ❖ PDF viewer, Text editor

3.7 Multimedia and Image Display

- ❖ Image viewer supported formats: PNG, JPG, BMP and GIF
- ❖ Supported audio formats: MP3, AAC, AC3, WAV, WMA

- ❖ Supported video formats: MPEG2, MPEG4, AVI, FLV

3.8 Communication and Internet

- ❖ Web browser - Standards Compliance: xHTML 1.1 compliant, JavaScript 1.8 compliant
- ❖ Separate application for online YouTube video
- ❖ Safety and other standards compliance
- ❖ Use as a normal voice phone available only in UBI Slate⁷⁺

3.9 CE certification/RoHS Certification

Other: Additional Web Browser: UbiSurfer-Browser with compression/acceleration and IE8 rendering.

4. Status of Akash Tablet

At this moment, tablets are distributed only to the students of IIT Rajasthan, gradually roll on to other IIT's, NIT's and other colleges. If someone want to get one on these institutes, they approach college authorities about it. Authority would contact the ministry/Datawind, mentioning the requirement. Demand must be large, say 500-1000 pieces and can't ask for 1-2 tablets. The next version UBI SLAT⁺

5. Infrastructure Issues

To set up a tablet service in the library the following things should be taken under consideration

1. The wi-fi enabled campus or the library building.
2. Enrichment of digital collections and institutional repository.
3. The manpower training for the library professionals as well as non professionals to cop up with the new environment.

4. The customization of the tablet computer and its software for proper utilization and minimize the misuse of the tablet pc.
5. In-service training for some library staff for fixing the error regarding the tablet and the software.
6. Tie up with the other digital library, online book and journal provider and Library consortia.
7. Make the library for cloud environment in disseminating the information.
8. The Saas, Paas, Iaas should be used by the library and the library should become cloud host.

6. Scope for Akash in Libraries

- ❖ In library literacy sessions in classes. You can use one for each group of 4-5 students and ask students to complete a project on it. This would be particularly useful when presenting in a non-computer lab classroom.
- ❖ We can go into the student commons or anywhere else where students or your library patrons hang out and ask if you can give them a brief demonstration on something such as how to locate ebooks, how to find articles in a certain database or how to search the library catalog.
- ❖ We can have a limited number available for in library use only for a limited time period.
- ❖ We can use them to teach a library mini-course in a group study room or other library room that does not have computers.
- ❖ We can have one of the members of your library staff stand in a high traffic area away from your reference desk carrying an Akash and offer to help patrons as they wonder through the stacks.

- ❖ We can load some ebooks on them and check them out since unlike the kindle this is probably allowed. Although you would need to have the patrons sign their life away, in order to be able to use one.
- ❖ We can consider having your staff use Akashes instead of your regular computers. This may or may not work but if you could make it work, you may be able to say a lot of money.
- ❖ Finding some library related websites, ebooks or other content and upload them onto a few Akashes and leave these out on your library displays for patrons to use inside the library.
- ❖ Get rid of all or some of your library computers and replace them with Akashes for your patrons to use instead.
- ❖ Most large libraries now offering digital content to patrons, having an application that makes it easy to download an ebook or audiobook directly to a smartphone or Tablet just makes sense. Overdrive is one such tool letting libraries and borrowers do just that, hooking them up with over 13,000 institutions around the world, from which they can download a wealth of material totally gratis — so long as they have a library card, of course. Reviews of the app have been glowing, and if your library isn't already in on the game, you probably should.
- ❖ Many patrons might not be able to afford an Tablet of their own, but that doesn't mean they can't get access to one. A number of libraries are offering the devices for loan, some of which can only be used within the library and some that can actually be taken home. While there are always concerns about theft with such a big-ticket item,

libraries trying out the lending system have reported good results so far. With high late fees and replacement fines, most patrons are more than willing to bring back the tablets on time.

❖ Need to look up a book on the fly? With an Tablet , librarians can access their institution's database from anywhere in the building, making it easier than ever to help patrons with any questions they might have. With email, web access and a variety of apps, there's little that a savvy librarian can't do on the Tablet , and that just might make it their preferred tool in the future.

❖ Libraries with impressive research collections can make those materials even easier to access with the Tablet 's help. One pioneer in the field has been the New York Public Library, whose **Biblion** app lets users explore research materials (including those most commonly consulted) from anywhere with an Internet connection. This could not only save researchers time hunting through stacks of materials, but might make it easier for libraries to share their resources with a much wider audience.

❖ Does your library have a great collection of rare and historical books? Loads of digital content? Why not share those materials with patrons without even making them leave the house? The British Library is one such public institution doing just that, with an app and subscription service that lets users access 60,000 texts in its 19th Century Historical Collection for just a few dollars a month. While the initial costs of a project like this might be high, monthly revenue is something any library can use more of — whether it's for access to historical tomes or just the latest bestseller

❖ Rare book rooms are hallowed places, but they can take a lot of security and effort to maintain. While there will always be a certain cachet to seeing books in person, many people don't have the time or money to see the collections in every library. While many already share their rare materials online, a dedicated app for the Tablet could make it even easier to expose audiences to these amazing artifacts. Whether your library is home to rare manuscripts, ancient books or just an impressive art collection, the Tablet can be a great tool for letting the larger public know just what they can access at the facility.

❖ Teaching a literacy course? There are loads of apps on the Tablet that can help adults and children learn to read. Helping people retool their resumes? The Tablet has apps that can help with that too. No matter what kind of classes your library offers, there are a myriad of different ways the tool can be integrated to help patrons get more out of the information you're sharing. With tablets enjoying popularity in schools and colleges, the range of educational applications to choose from is bound to increase over the next few years.

❖ Whether we use our own library's collection or the tens of thousands of free books offered through the internet, pre-loading an Tablet with ebooks and loaning it out can be a great strategy encouraging patrons to embrace the phenomenon. That way, they can enjoy reading a wide range of books, but won't have to make any changes to the apps, which most libraries have to block for security reasons when the tablets are loaned.

❖ Each library already got desktop stations for patrons to use, why not switch it up and create Tablet equivalent instead? Some libraries are

already giving it a whirl, like the North Shore Library in Shoreham, NY. Rather than replacing the gaming computers it had with new ones, the library opted instead for Tablets, which they felt were easier for and more familiar to kids. As the digital generation grows older, this may be increasingly true for the majority of library patrons. Many institutions may want to consider the tablets as an alternative to desktop computers for at least some workstations.

❖ While bookmobiles take materials on the road, Tablets can make it easier to bring web access as well. Not only can the devices be used by patrons, but they can make it easier for librarians to sign them up for library cards and reading programs and also check out materials on the go. The Omaha Public Library recently applied for, and received, a grant that let them purchase six Tablets. The library used the devices at their Summer Reading Program kick-off event in July to sign up over 500 kids, teens and adults.

❖ Many older adults aren't really as familiar with mobile technology as their younger counterparts. While they might find the devices intimidating, many are also very interested to learn more about them. Offering classes teaching these individuals about Tablets, smartphones and other mobile technologies can be a great way to get them engaged and learning a new skill. Better yet, there are tons of videos and training programs out there – which can be downloaded right onto the Tablet – that can also be great learning tools.

❖ It's always tough to get the hang of new systems and processes when you start a new job. Tablets could help streamline the process by making it easy to show new employees training videos and

tutorials that will help them more easily grasp how things are done. With many businesses already using the Tablet for training purposes, there's no reason it can't also work for libraries.

❖ Many patrons call into the library to ask for help, either because they're looking for something or want help with a research problem. With the Tablet, they could use the device to remotely ask a librarian for help, either through Skype or Facetime if they're not on location at all, or through information stations that could function like high-tech walkie talkies.

❖ A few Tablet stations around the library could make it easy for patrons to look up reference information, find a book or locate what floor a particular section is on. Additional information about the institution, such as maps or Dewey Decimal system references, could be uploaded as PDFs and put on the device as well. An Tablet is simple to mount on a podium or other stand, making it the perfect tool for quick look-ups.

7. Software Thing

The special and customize software can be installed in the tablet pc for better use of library resources. The libraries are now days known as a knowledge resource centre in higher education. Now a days there is a thousand of application for Android tablet. Especially for education there are huge numbers of software and e-books for free. It is a time for open source software and can be customized at per user need. The following software is very helpful for library services through Tablet PC which are almost free of cost. There demand of the software may be varied according to the particular libraries.

❖ Kindle for online/offline e-book collection from Amazon.com

- ❖ Fb reader for online e-book reader
- ❖ Nook is world largest e-book store
- ❖ Adobe reader for PDF document viewing.
- ❖ Aldiko for online/offline PDF e-book reader
- ❖ Kingston office for document, PPT, XLS viewer and editor
- ❖ Photos — default app; can do slideshows
- ❖ Video — default app; watch videos
- ❖ Document to go for .doc, docx, xls, xlsx, ppt, pptx file
- ❖ Face book
- ❖ Library Websites
- ❖ Library Online Catalog
- ❖ Any other important Library Reference websites

8. Conclusion and Scope for Further Studies

The tablet computer especially the Akash brings new hope for library professionals to give the up to date service to their patron. The Akash tablet is very cheap and can be afforded by many higher educational institutes for pilot study. In India the e-resource collection is increasing very rapidly for eg. INFLIBNET NLIST program, UGC INFONET etc. There is an exponential grow of number of internet users. The Govt. of India's NME ICT project for college libraries during XI five year plan also helping the college libraries to introduce the new concept in their libraries.

There is a very good scope for change from traditional to cutting edge service for the college libraries. The patron also has to change their traditional view about the libraries. Technological

revolution has changed the whole concept of library service and environment. Exchange of information is fastening and user community today want pinpointed and accurate information with no waste of time. Librarians are the personals and experts, On the part of document and information delivery librarians are experts and occupy a central role in that revolution. Along with traditional methods of reference, virtual reference opens up new avenues of communication and enables us to connect with a new generation of Web 2.0 patrons. IM and embedded chat Facilitate quick, effective communication and can he improve customer service. Technological developments have affected not only the format and sources of the information libraries use to provide reference service, but also where we provide reference service. Libraries and their resources have thy partially moved to the virtual world of the Internet. As a result, library patrons can access the resources from outside the physical library also. In an effort to provide patrons access to a library via their computers, many libraries and library consortia are extending their reference service to include virtual reference. Technology now allows users to submit their questions the library at any time from any place in the world. Virtual reference is responsive to patrons' need for convenient access to reference service. IM is definitely the way forward for online reference service, the positive aspects of IM are that it is relatively easy, cheap to setup, flexible, and so can respond to changes in technology and the user's habits.

More over the tablet service in libraries need more pilot study for implementation in India universally. There are thousands of colleges in India in various geographical locations. The socio-economic factors

are also very important issue for the project's success. But the Akash brings a new hope for college libraries of India to setup a new virtual reference service at affordable cost.

Beside Akash there are other brand also in the market at an affordable price such as UBI slate 7+, Kindle e-book reader, Bettel Mazique etc which can also be used for the library service.

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