

Background Report on the “Chikankari” Computer-Aided Design (CAD) software deployed in partnership with the Media Lab Asia and the Indian Institute of Technology, Kanpur for the Chikankari Embroidery weavers of Central Uttar Pradesh artisan cluster.

Submitted by:

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I. Project Background:

Datamation Foundation actively champions deployment of innovative Computer Aided Design (CAD) tools and capacity building solutions for the vocational skills enhancement of the socially and economically disadvantaged women and youth most vulnerable to poverty and exploitation.

The Foundation actively works towards creating livelihoods for the artisan women engaged in the vast and complex unregulated Crafts sector of the Indian economy. Most Design tools are controlled by the middle men; consequently the artisan women are left to do low value added jobs in the value chain viz. hand embroidery, tailoring. The artisans never get exposed to the markets. Entire marketing efforts are spearheaded by the middle men. The middle men take away most profits, leaving the women with very meager earnings. As part of this organizational philosophy; the Foundation has been successful in putting ICTs in the hands of the women of few predominantly artisan clusters.

The infoDev, World Bank and Microsoft supported project has intended to help the “chikan” embroidery weavers of Lucknow located in the Uttar Pradesh state of Northern India. The project deploys hand held computers, computer-aided design (CAD) based embroidery technology, multi-media CDs over the cable network, narrow-cast transmission of content and local community cable internet. The market linkages between the producers and the buyers are facilitated extensively by the Datamation Foundation by holding buyer-producer meets, exhibitions, sampling, cataloging, ICT enabled internet marketing, fulfillment and quality control.

II. Design Tools Deployed:

The Project deploys ‘ChikanCad’ a Design tool for the artisans. The tool was conceptualized and designed by Media Lab few years ago by a team led by Indian and

US Technologists. Dr. Michael Best was part of the team and one of the key champions of development and deployment of the 'Chikancad' for the artisans.

The Tool has following features:

- *The application has been designed and developed in JAVA. It is 2D based.
- * The application has large no. of inbuilt tools and a database of large no. of motifs.
- * The motifs are designed in basic shapes like leaves of(peepal,guavas etc)
- * The software is very easy to draw these shapes, and needs only click and drag.
- * The tools support drawing of figure, shaping it, resizing, copying and moving in (x y axis), also in mirror display in (x y axis). color(internal & lining), outlining(in smooth as well as in stitching look).
- * The software tools also enables use of multi type of threaded/stitches designs.
- * The application enables drawing of a figure with free hand drawing of mouse. but in very attractive smooth lines.
- * The power to create complex design is in-built in the application.
- * The software can also break a complex design in different shapes.
- * The software can also store any design(thousands) in library for further use.
- * The application enables retrieval of any design from library.
- * The application can alter design that is called from the library to give new as well as store it.
- * The application enables making of a block within 30 minutes cutting short the time in process. Other wise making of this block requires more than 2-3 hour with hand.
- * After the block has been made; the design can be dumped on cloth with the help of engraver machine.

III. Experiences so far on “chikancad” deployment:

Whereas the tool has proven to be immensely valuable and useful for over 1000 artisans so far from 8 different Datamation Foundation sites in Central Uttar Pradesh; however there is a great need to further conceptualize and localize similar tools . This necessity arises so that the artisans can meaningfully benefit in all round improvement of their conditions in terms of reduction in drudgery and effort in making designs.

Local language interface is essential in the Design tools to be adopted. Besides existing UCD practices of the 'chikancad' can be adapted and modified, and new practices need to be developed, to deal with the unique challenges posed by the context of international community and economic development. A full background note on the 'chikankari' supply-chain management and design is attached.