the idea

#### what

**homm** is an initiative to develop, deepen and distribute knowledge of artifacts, technologies, crafts and social relationships, using Information Communication Technology (ICT) to support hands-on multi-media activities in museums

#### who

The present promoters are: **Crafts Museum** 

(National Handicrafts & Handlooms Museum) of New Delhi, India Officina Emilia

(Museolaboratorio of the University of Modena and Reggio Emilia, Italy)

CM has recently embarked on radical restructuring programme aimed at enhancing the learning opportunities offered by a large collection of handcrafted products and by a vast endowment of traditional Indian crafts skills

OE offers hands-on laboratories - for students, teachers, all visitors - on science, technology, history and society, to improve the understanding of the social context in which we live.

#### why

The two museums share a number of similar objectives:

> supporting scientific and technological culture and the special knowledge of handicrafts > celebrating the power of human hands through an understanding of strong traditions in manufacturing technology and handmade

techniques > promoting lifelong learning and regeneration of competence networks

> strengthening education through building communities of practices

> encouraging social cohesion through involving a wide range of communities and reducing gender differences

#### issues

# informal learning and teaching in museums

**Hands-on activities** 

are regarded now as a constituent part of museum activities Information Communication Technology (ICT) based tools can be used repeatedly,

in different and personalized ways, in:

> interactive games > 'edutainment'

> sharing resources

> building communities of users

#### unexplored ICT dimensions in museums

**homm** aims at providing social content, updated and enriched with the engagement of users, by:

> keeping interactive track of visits > evaluating efficacy of individual activities and hands-on programmes > sharing resources (modularity and scalability)

> involving communities in a multi-dimensional way, within museums' hands-on labs and outside the museum



#### innovation in museum learning

> homm to foster attention, creativity and critical knowledge

> multidisciplinary informal learning approaches > developing solutions appropriate for widest segment of population

> creating knowledge systems suitable from 'cradle to maturity'

#### building links between learning contexts

Deepening and widening knowledge, through

> interaction and collaboration

> focus on critical knowledge

> exposure to variety of media > encouragement of comparative perspective

#### learning by networking

From CM and OE to a network of museums across the world Pathways to spread **homm** through a network of museums that promote learning through hands-on activities on technology, culture, society

## software architecture what does homm ask ICT for users, in terms of content?

> to expand, through snowball effect, multi-media content and connections for user browsing (on-site and from the web) > to suggest associations and "mind maps"

for semantic navigation > to support a collaborative environment for teachers, schools and museum operators > to create a repository of communities of practices

#### what does homm ask ICT for users, in terms of software design?

> a web system to create and manage web communities

> ICT information points in the museum to complement experience with multi-media activities > a web site with personal workspaces for each user to 'continue visit after the visit'

> group management and collaborative tools to expand the content repository

#### what does homm ask ICT for users, in terms of experience?

before the visit > creation of personal workspace

> preliminary self-evaluation during the visit

> a limited time for ICT interaction > storing info on personal workspace > multi-channel extensions

after the visit

> personal workspace 'memory' > no time limit in using ICT

> tools for coordination of group work > submission of group work for publication in the

museum content repository



applications

#### in the context of the visit

**Extended memory of the experience** in the museum

Selected information embedded in ICT tools, photos and videos taken during the visit, can be memorised. Voice comments can also be recorded. Information can then be retrieved and used in further activities.

#### setting for a user

A network of contents and applications, at different levels for different users and specific needs

**homm** will allow the creation of a personal web repository of contents and connections that will be > shared with classmates, families, friends and other selected groups

> published and shared with other users, if approved by administrator

#### evaluation

homm will allow evaluation of > student activities (through self-tests as well

as teacher evaluation) > efficacy of **homm** by software designers

> efficacy of hands-on laboratories > impact in changing attitudes and opportunities





National Handicrafts & Handlooms Museum New Delhi, India http://nationalcraftsmuseum.nic.in

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www.homm-museums.org

#### outcomes

#### creating a multidisciplinary project team with experts in

mechanical and computer engineering, complex systems, multimedia, communication design systems, education planning, design, textiles, crafts

#### creating a network of museums

Widening the constituency using homm in order to take advantage of

> economies of scale, so an increasing number of museums could benefit from its use > economies of scope, so a large variety of effective practices across museums, including those in informal education, could be compared, assessed and implemented

#### fostering a new identity for museums

**homm** aims to > enhance informal training in museums > intermingle informal and formal training > collaborate with decision-making bodies to expand the concept to the public, in particular to those citizens and communities who are not traditional users of museums

### seeking partners for shaping the future

**homm** requires

> seed capital to develop and implement the prototype and its multi-media contents

> private investors in social innovation > public funds supporting multi-disciplinary projects