The Global Virtual Museum of Information Science & Technology: Tacking up the Challenge

International Communities of Invention and Innovation

WG 9.7 – History of Computing Int. Conference
NYU Tandon School of Engineering
25-29 May 2016
HMR project

- An independent research project, since 2006
  - Detailed technical investigation, rebuilding
  - Teaching, exhibits and events
  - Linked to the Museum of Computing Machinery of the University of Pisa

- Some results
  - Rediscovering and rebuilding of the Macchina Ridotta
  - Set-up of “From Arithmometer to PC”, a permanent exhibition on personal computing machinery
  - Experiments with a Computer History KB
Software solutions for cultural heritage

- Descriptive models, analysis and consulting
- Integrated archive management systems
- Digitisation, indexing, cataloguing and search tools
- Online access to cultural heritage resources

Some customers

- Italian Ministry of Cultural Heritage
- Archives (Venice, Florence, Turin, Siena, Milan...)
- Museums (MART, MAXXI...)
the idea - shortly

- **Global Virtual Museum of IST**
  - Global, as it collects all (relevant) collections
  - Virtual, in nature, not a virtualization of a Museum

- **Does not substitute the real Museums**
  - Focused on information, all of it
  - Adds value for keepers, researchers and visitors

- **An international community effort**

- **As far as we know, to this extent, a novelty**
The Knowledge Base

- Manages all the information: pieces, models, scientists, inventors, investors, companies, versions, components, software, documentation, media, references...
- Virtually joins all collections

Completely different from usual cataloguing

- Still based on flat indexes of objects
- Suffering of separation, duplication, inconsistencies

As far as we know, to this extent, a novelty
the innovation perspective

- An IT solution for IST history
  - Actually, IST is just a case study
  - The idea is general, can be applied to other fields
  - But they are domains outside our expertise

- Besides the nice recursive application
  - It may be a relevant contribute to the whole cultural heritage management
  - And it will be nice to be “the first” :)
Once KB and consortium are up and running

Museums gain in efficiency
- The KB is their new cataloguing tool
- Keepers and researchers just do their job
- In an enhanced way, KB shared and peer reviewed

Services, to build virtual/enhanced exhibitions

Policies for IPR depending on use
technical feasibility

- Lot of work, but just will and effort

- Ontology definitions
  - Sort of an OO hierarchy of objects and relations
  - Science already did it for many natural domains

- Technical infrastructure
  - Not trivial, but much more complicated things exists

- Populating the KB
  - Mainly by controlled importations
a strong booting up group

- Ambitious challenge
  - But actually just a ignition problem

- Partners needed
  - Some leading scientific institutions
  - Some important collections
  - Technical ones are not a problem

- Once KB & authority are set up
  - The others will follow
EU funding opportunities

- CULT-COOP-09-2017, RIA
  - European Cultural Heritage, access and analysis for a richer interpretation of the past

- CULT-COOP-06-2017, RIA
  - Participatory approaches and social innovation in culture

- Opening October 4; deadline February 2 2017