What is the Time Machine?
Mass Digitization in a Moment?
Gaining meaningful knowledge from history?
Could you see how your street looked like 100 years ago?
Could we bring the past back as a common resource for our future?
Time Machine is ...

• An international collaboration to bring 5000 years of European history to life
• Digitising millions of historical documents, painting and monuments
• The largest computer simulation ever developed
• An open access, interactive resource
Large Scale Research in the EU?

- visionary, science-driven and large-scale
- Focus on grand scientific and technological challenges

In Horizon 2020 (2014-2020)
- budget of 1 billion Euro per initiative
- ten-year term

In Horizon Europe (2020-2026)
- under development...
**Time Machine Roadmap**

- **12/2016**: Consultation by EC: three topic areas are identified
  - ICT & connected society
  - Health & Life Sciences
  - Energy, Env. and Climate Change
- **2/2018**: Submission of preparatory phase application (1.Stage)
- **9/2018**: Submission of preparatory phase application (2.Stage)
- **3/2019**: Start of preparatory phase to further elaborate planning
- **3/2020**: Submission of main phase Application (subject of FP9 negotiations)
- **2020**: Intended start of Large Scale Research Initiatives

Time Machine at rank 1 out of 33 consortia
What will the impact be?

The importance of Time Machine
Time Machine will ...

• A through dialogue with our past; digitizing and improving access to historical data

• A strong boost on European competitiveness; Big Data, AI and ICT

• A transformational impact on creative industries, education and SSH

• Modernise the institutions that archive Europe’s history
How are we creating it?
The technology used to develop Time Machine
We are creating Time Machine through ...

- Machine learning coupled with massive digitisation infrastructures and high-performance computing
- Targeted breakthroughs in AI, robotics, and IT

... to boost Europe’s stake in these technologies
Who is part of the project?

A unique alliance of leading European institutions
Time Machine is formed by ...

- 500+ consortium members from 34 countries
- 200 of Europe’s top academic and research institutions
- Private sector around 100 partners from SMEs to international companies: Ubisoft, Flixbus, ICONEM

- Internationally-acclaimed galleries, libraries, archives and museums
- European institution bodies
- Civil society and industry associations
What are the Local Time Machines?

- Local, multi-stakeholder initiatives about city history research, education and valorization coupled with digital technologies
- Self financed and autonomous, but supported by the Time Machine and sharing it’s vision

Currently ~30 Local Time Machines in all over Europe and beyond: Paris, Amsterdam, Venice, Dresden, Sion, Thessaloniki, Nicosia, Leipzig, Nürnberg, Göttingen, Barcelona, Vienna, Regensburg, Iberia, Ghent, Budapest, Utrecht, Jerusalem,…
What is the Role of TU Dresden?

Time Machine Innovation and Outreach
Spotlight: Knowledge and IPR management
Managing information within and beyond the Time Machine
Knowledge and IPR Management

How many scientific articles are published per year?

2.5 million new scientific papers (2009) BTW: 50 million since 1665


The Time Machine concept

• Providing an agile framework and principles for the knowledge transfer and IPR

• Identifying TM IPR assets of societal and economic value, managing the process of IP identification, disclosure and IP ownership.

• Knowledge Management; investigating how to support network’s partnerships
Spotlight: Law, Policies and Ethics
Consultancy for the Time Machine Community and beyond
Law, Policies and Ethics

The legal challenges...

Various licensing issues for Cultural Heritage: The author? The digitizer? The owner? The national authorities? The publisher? How to keep track with national and European law across borders? Only few open data sets yet

The Time Machine concept

• Mapping and analysis of policy, legal and ethical issues and licencing mechanisms

• Identify and develop ways to address policy and legal and ethics, and licencing-related issues

• Providing recommendations and support for legal initiatives on digitization of CH
Spotlight: Disseminate innovation

Shaping an agile communication for the next decade
Did you know?

How many academic institutions, museums, galleries, libraries and archives are amongst the TOP 100 visited websites?

The Time Machine concept

• Raising awareness: Visibility of goals and achievements of TM, increase engagement of all stakeholders;

• Strengthening and presenting the TM ecosystem as a bottom up driven digital cultural heritage community

• Sustaining relations with stakeholders for strengthened and new research and exploitation avenues for TM and for a European digital cultural heritage research area

https://ahrefs.com/blog/most-visited-websites/
Spotlight: Fertilize entrepreneurship

Exploitation support instruments
Did you know?

What is the market value of Cultural Heritage?

Tourism: 419 Billion EUR in Europe (2014)


The Time Machine concept

• Enabling exploitation structures and services: for massive digitisation and processing of cultural heritage
• Proposing exploitation channels for targeted breakthroughs in AI, Robotics and ICT
• Leverage the use of results to address grand scientific and technological challenges
• Converting the research results into innovation platforms in promising application areas, sectors and markets

Further commercialization; research; projects; informed policy making; shaping markets, services and products; skills enhancement; societal challenges

Scholarship  
Education  
GLAMs  
Creative Industries  
Smart Tourism  
Smart Cities and Urban Planning  
Land Use & Terr. Policies
TIME MACHINE CONFERENCE 2019
10-11 October 2019 | Deutsches Hygiene-Museum Dresden (Germany)

THE MOST AMBITIOUS CULTURAL HERITAGE EVENT OF 2019
The Time Machine Conference 2019 will take place on October 10-11, 2019 at the Deutsches Hygiene-Museum in Dresden, Germany. This is the perfect opportunity to network with companies and academia from all over Europe that are aware of the resourceful potential of cultural heritage for education, scholarship, creative and cultural industries, entertainment and media business, urban planning, policy making and much more.

WORLD-CLASS TALKS
Seize the chance to experience first-class speakers from world-leading science, technology and cultural institutions discussing the potential of cultural heritage data and technology for various domains.

- Christer Gustafsson (UNESCO ICOMOS)
- Torsten Hartmann (Bitkom)
- Frédéric Kaplan (Ecole polytechnique fédérale de Lausanne)
- Harry Verwayen (Europeana)
- Deborah Papiernik (Ubisoft)
- Jens Ohlig (Wikimedia)

EXPAND YOUR NETWORK
The Time Machine Conference is co-located with the GeNeMe conference on Media&Education as well as the ICOMOS CIPA Workshop on Urban History in the Age of Digital Libraries. This is an excellent opportunity of building and expanding networks within the international community.

FOLLOW UP and MORE INFORMATION
conference.timemachine.eu

PARTNER
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