Selda Ulutas Aydogan

Time Machine @Conference AKM

What is the Time Machine?
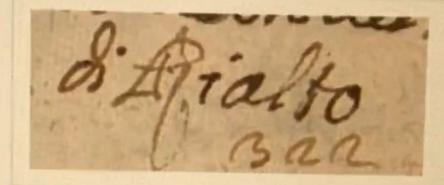
Mass Digitization in a Moment?
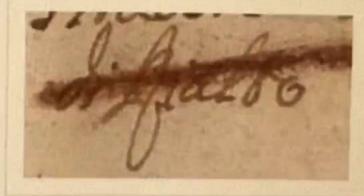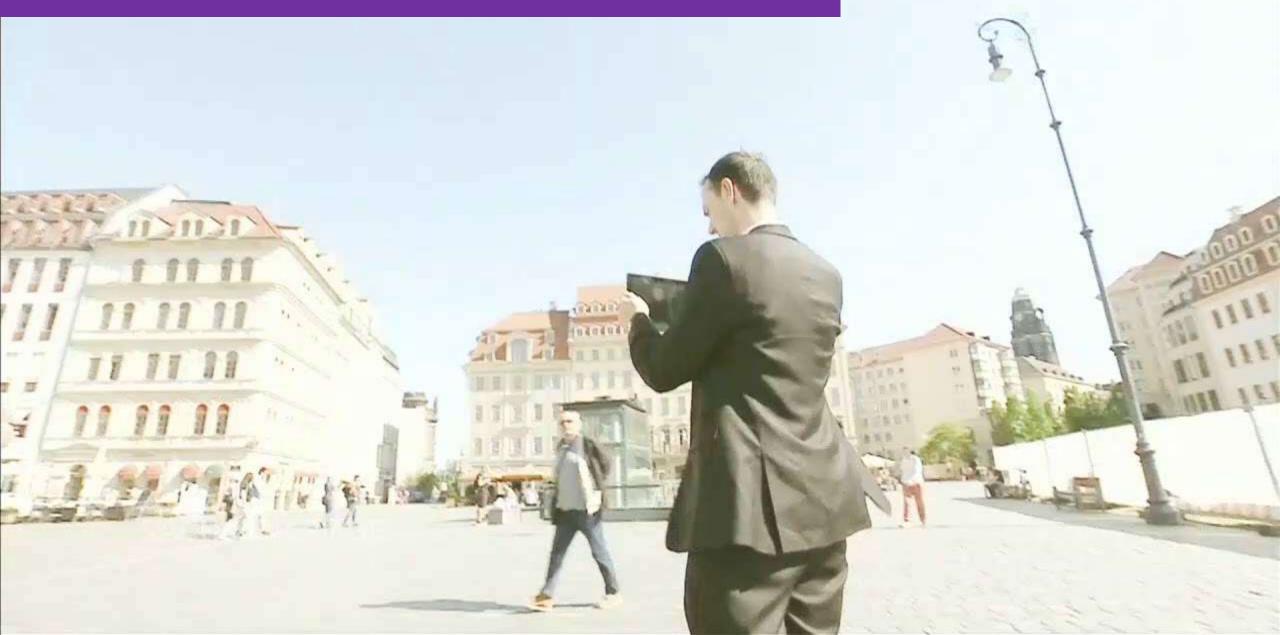
Could you see how your street looked like 100 years ago?

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- Digitising millions of **historical documents**, painting and monuments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
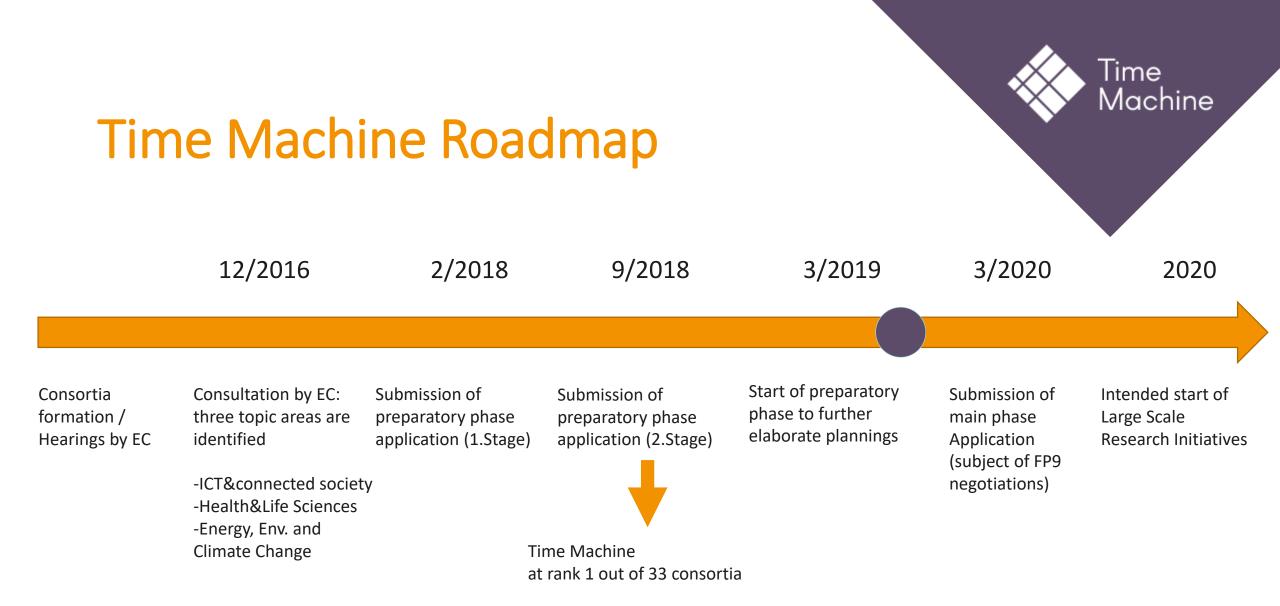- Focus on grand scientific and technological challenges

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	2/2018	9/2018	3/2019	3/2020	2020

Consortia formation / Hearings by EC

Consultation by EC: three topic areas are identified

-ICT&connected society
-Health&Life Sciences
-Energy, Env. and Climate Change

Submission of preparatory phase application (1.Stage)

Submission of preparatory phase application (2.Stage)

Time Machine
at rank 1 out of 33 consortia

Start of preparatory phase to further elaborate plannings

Submission of main phase Application (subject of FP9 negotiations)

Intended start of Large Scale Research Initiatives

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

Time Machine

Time
Machine

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
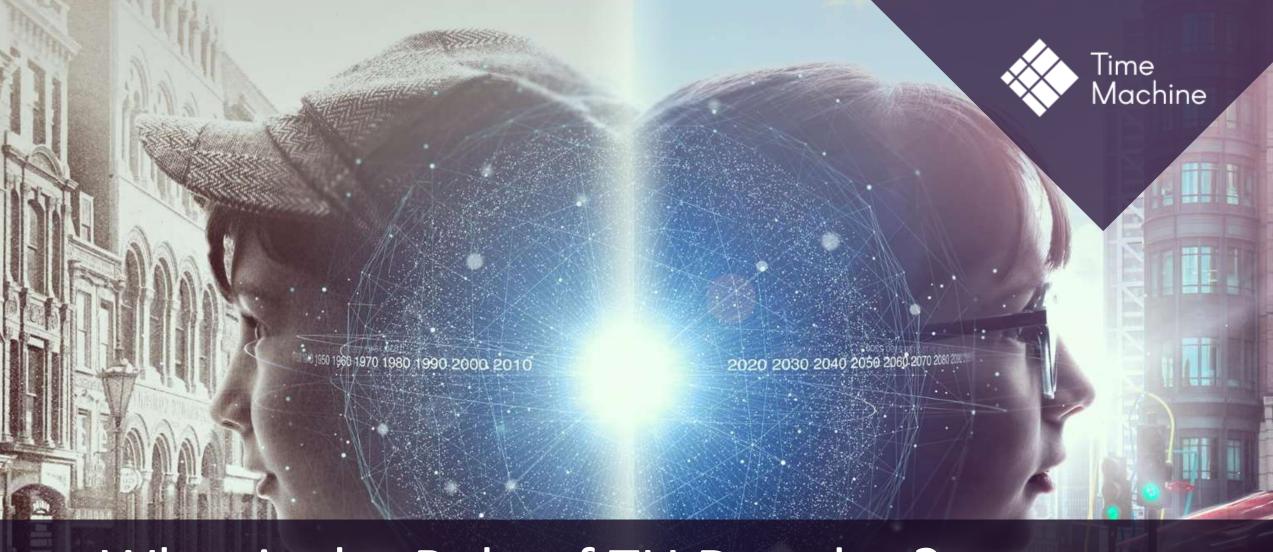- Civil society and industry associations

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,…

Time Machine

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

How many scientific articles are published per year?

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

→ http://blog.cdnsciencepub.com/21st-century-science-overload/

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

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?

https://ahrefs.com/blog/most-visited-websites/

0

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 stregthened and new research and exploitation avenues for TM and for a European digital cultural heritage research area

Time Machine

Spotlight: Fertilize entrepreneurship

Exploitation support instruments

Did you know?

What is the market value of Cultural Heritage?

?

Tourism: 419 Billion EUR in Europe (2014)

Repair and maintenance: 150.000-200.000 jobs in UK (2010) → Horizon 2020 Expert Group on CH (2015)

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	Smart Tourism
Education	Smart Cities and Urban Planning
GLAMs	
Creative Industries	Land Use & Terr. Policies

Time Machine

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.

KEYTALKS

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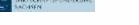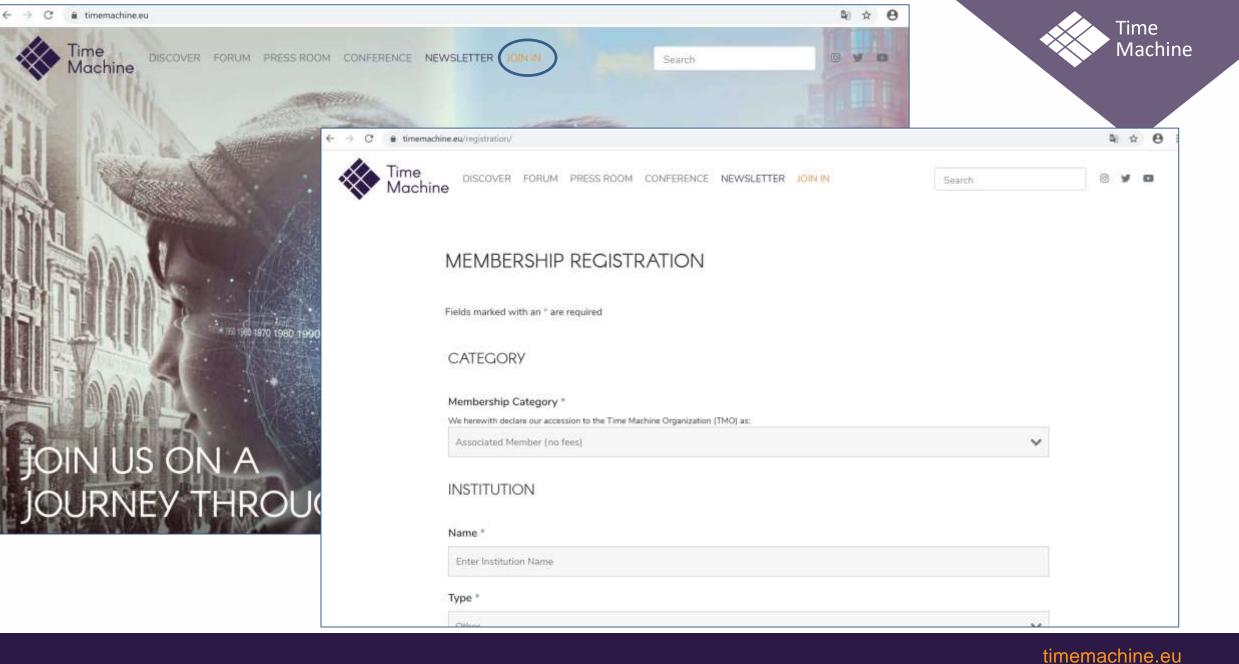- **Deborah Papiernik (Ubisoft)**
- **Jens Ohlig (Wikimedia)**

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

TECHNISCHE UNIVERSITÄT DRESDEN | STAATSMINISTERIUM FÜR WISSENSCHAFT UND KUNST | Freistaat SACHSEN | DRESDEN concept | Landeshauptstadt Dresden | de:hub DRESDEN | SILICON SAXONY | WISSENSCHAFTSHOCHSCHULING SACHSEN

timemachine.eu

@TimeMachineEU   @TimeMachineEU   timemachine.eu/trailer

timemachine.eu

@TimeMachineEU   @TimeMachineEU   timemachine.eu/trailer

Time
Machine

selda.ulutas@tu-dresden.de

timemachine.eu

@TimeMachineEU   ▶ timemachine.eu/trailer