VENICE TIME MACHINE

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In my lab, we develop tools to travel not only in space, but also through time.
Can we build “Google maps” of the past? Can we rebuild social networks of the past? How can we design time machines?
To construct a time machine we need large archives and excellent specialists of these archives.
The Venice Time Machine is a joint project between EPFL and University of Venice Ca’Foscari.
80 km of archives documenting every detail of Venetian history over a 1000 years.
A 10 year digitization program to transform this archive into an information system.

Our objective: 450 volumes / day.
Once documents are digitized, they must be transcribed and indexed.
Traditional optical character recognition methods have only limited success with handwritten documents.
The solution is to combine them with precise linguistic models of medieval Latin and other ancient languages.
We estimate that we can extract from the archive about 10 billion “events”.

This giant information system can be searched in many different ways.
Who lived in this palazzo in 1323?

How much cost a sea bream at the Rialto market in 1434?

What was the salary of a Murano glass worker in 1544?
The data can be mapped in space and time.
We can build a Mediterranean simulator based on the information we have about maritime routes.
If I am in Corfu in June 1323 and want to go to Constantinople, when can I take a boat?

How much will it cost?

What are the risks of encountering pirates?
The central scientific challenge of the project is qualifying, quantifying and representing uncertainty and inconsistency at each step of this process.
How can we detect and correct inconsistencies? How can we represent uncertainty?
How should we communicate this new research to a large audience? Venice with its 30 million visitors/year is one of the best place to imagine the museum of the future.
We can
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Il nous reste un mystère à résoudre.

POURQUOI LES TROYENS
PORTENT-ILS CES ÉTRANGES
COIFFES AROUÉES?
Research in the Humanities is about to undergo an evolution similar to what happened to life sciences 30 years ago.
This evolution is characterized by projects at a new scale, beyond what any single research team can do.
This is a **paradigm shift** for the Humanities.

We need to foster a new generation of “Digital Humanists” ready for this shift.