

BUILDING A DIGITAL PLATFORM FOR TRACEABLE HISTORICAL RESEARCH

INTRODUCING KIARA

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Rigorous Historical Research in the Digital Age

DIGITAL HISTORICAL SOURCES

A critical analysis of the evolution of these digital sources and how we can safeguard data authenticity, transparency and reproducibility



BUILDING A DIGITAL PLATFORM

Intro to Kiara
Aims of Project
Team Overview
Development process



The DHARPA Project

The Digital History Advanced Research Projects Accelerator

An interdisciplinary team working to enable critical DH practice.

One of the main goals is pulling the lid off “black box” technologies, creating and fostering more transparent, traceable and reproducible research.

Our team advocates for the agency and role of the researcher in the research process, and part of understanding this role in knowledge production is also creating tools to assist in making this process easier and the standard for historical practice in the digital age.

AIMS OF DHARPA

SOFTWARE & METHODOLOGIES

USER-FRIENDLY TOOLS TO
OPERATIONALISE SELF-REFLEXIVE,
REPRODUCIBLE RESEARCH

COLLABORATION

A RESPONSIBLE LAB TO RAPIDLY
PROTOTYPE & LAUNCH APPLIED
RESEARCH SOLUTIONS

OUTREACH & INFRASTRUCTURE

TRAINING & PLATFORMS TO HELP
START, SUSTAIN AND MAINTAIN
DH RESEARCH PROJECTS

DHARPA TEAM

Sean Takats	Principal Investigator
Caitlin Burge	Co-Principal Investigator
Helena Jaskov	Co-Principal Investigator

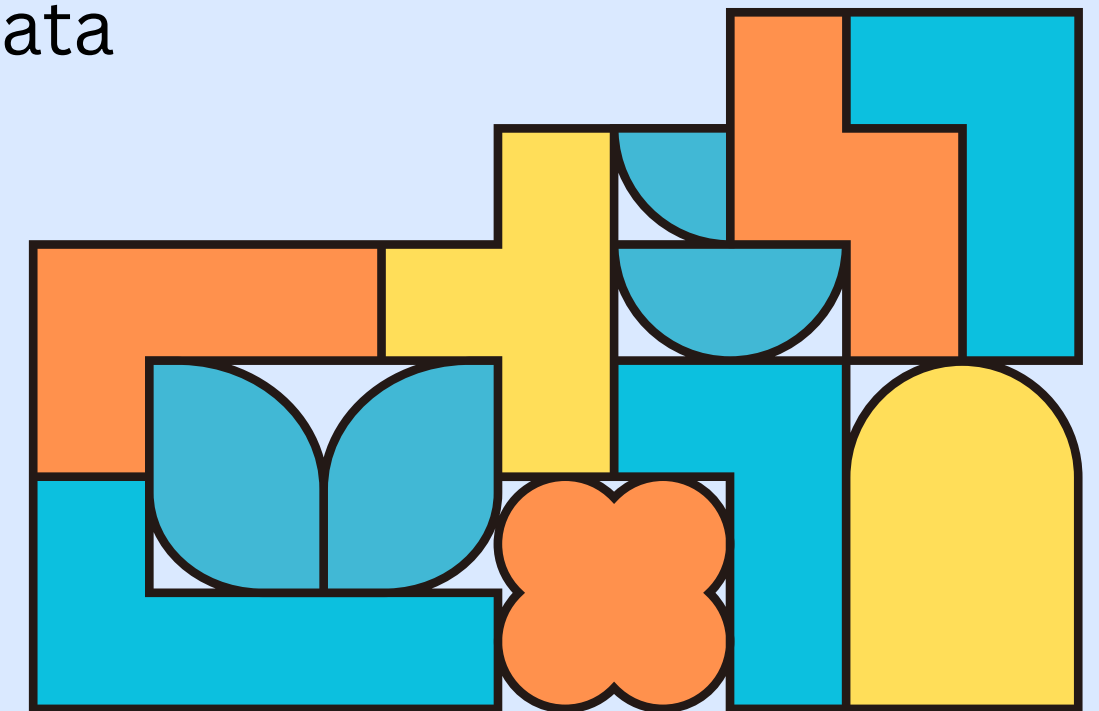
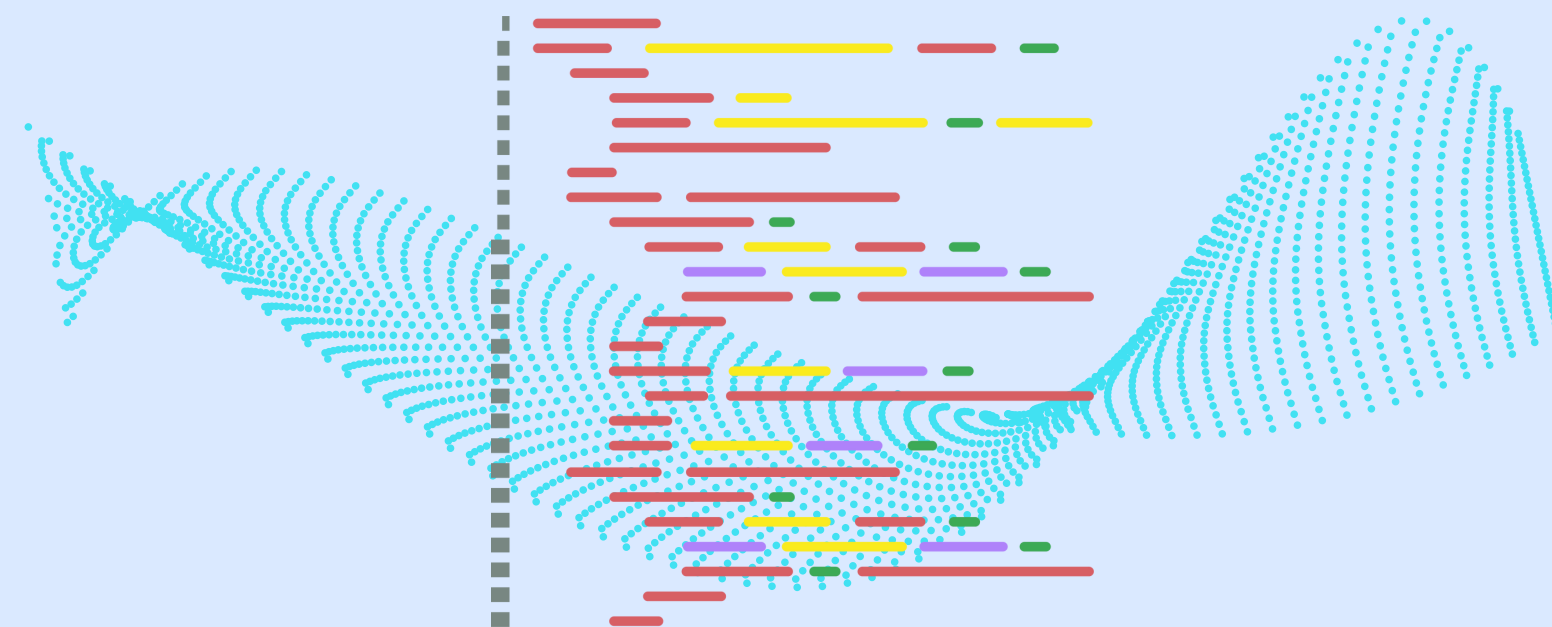
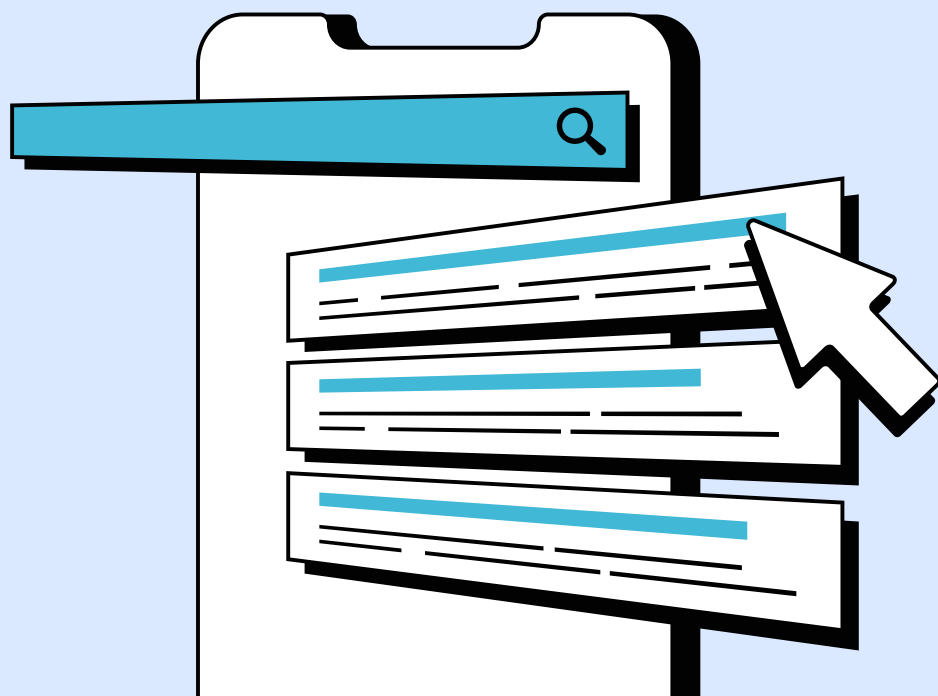
Sandra Sabelus	Administrative Assistant
Caroline Appleby	Developer
Markus Binsteiner	Developer
Mariella de Crouy Chanel	Developer
Finola Finn	Post-doctoral Researcher
Luca Federico Cerra	PhD Candidate
Eliane Schmid	PhD Candidate
Lauren Coetzee	PhD Candidate

HELLO KIARA

A DATA ORCHESTRATION ENGINE

Using a modular approach, kiara lets users re-use tried and tested data orchestration pipelines, as well as create new ones from existing building blocks.

It also helps you manage your research data, and augment it with automatically-, semi-automatically-, and manually- created metadata



Kiara is a data-orchestration framework; this is the command-line frontend for it.
For more information, visit the Kiara homepage:
<https://dharpa.org/kiara.documentation>.

Options

--config

-cnf

TEXT

A kiara config file (or folder containing one named 'kiara.config').

--context

-ctx,-c

TEXT

The name of the kiara context to use (or the path to a context file).

--pipelines

-p

TEXT

File(s) and extra pipeline(s) to load.

--plugin

-P

TEXT

Ensure the given package(s) is installed in the virtual environment.

--use-background-service

-b

TEXT

Always use the background service (start if not running).

--version

-v

TEXT

Show the version of kiara and installed plugins, then exit.

--runtime-info

-ri

TEXT

Show current environment information, then exit.

--help

-h

TEXT

Show this message and exit.

Commands

archive

Kiara archive related sub-commands.

context

Kiara context related sub-commands.

data

Data-related sub-commands.

data-type

Information about available data types.

info

Kiara config related sub-commands.

module

Module-related sub-commands.

operation

Operation-related sub-commands.

pipeline

Pipeline-related sub-commands.

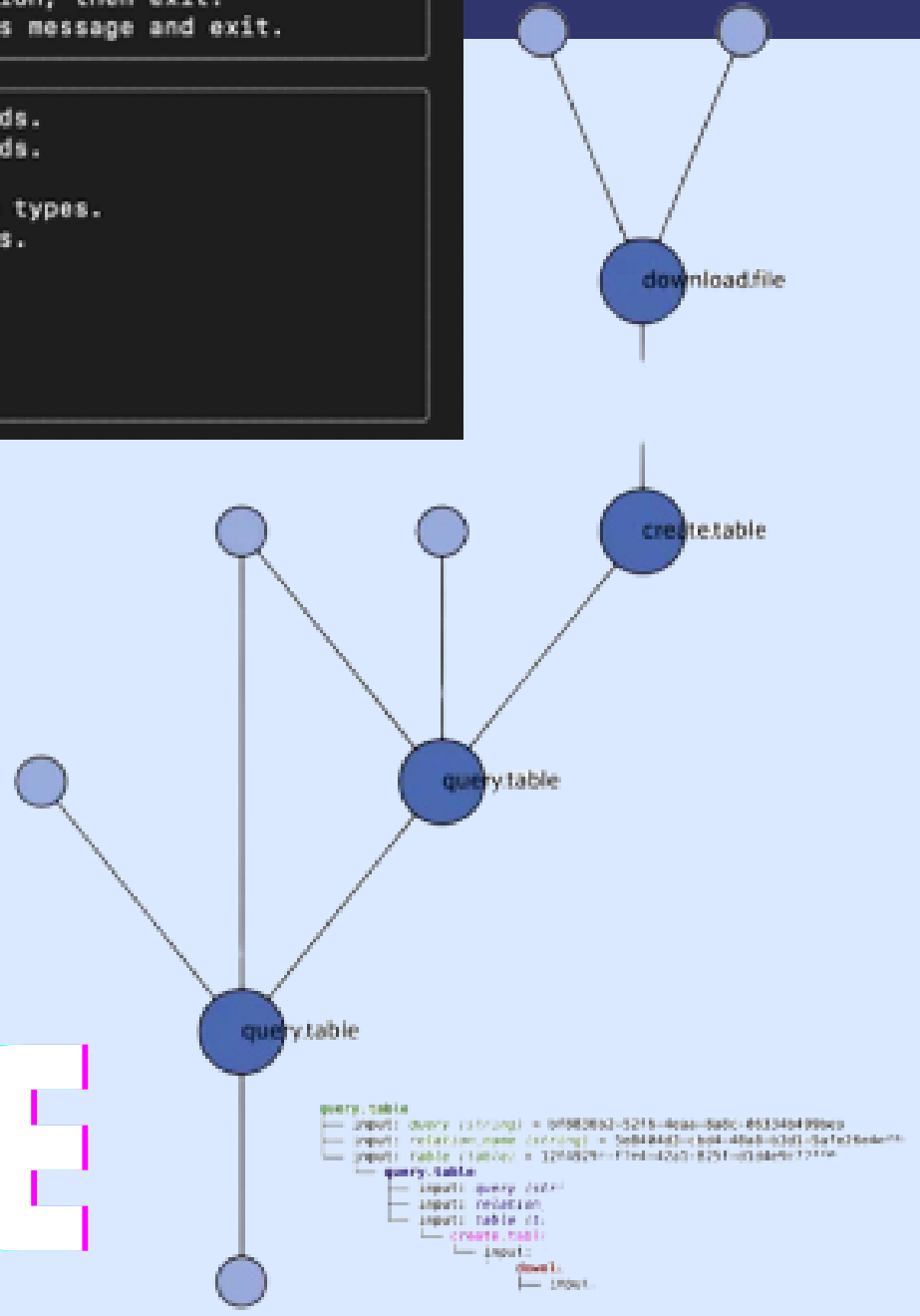
render

Render-related sub-commands.

run

Run a kiara operation.

MODULES



LINEAGE

[6]: kiara.retrieve_operation_info('create.table.from.file')

[6]:

Author(s)

Markus Binstener markus@frkl.io

Context

Tags

Labels

References

tabular
package: kiara_plugin.tabular
source_repo: https://github.com/DHARPA-Project/kiara_plugin.tabular
documentation: https://DHARPA-Project.github.io/kiara_plugin.tabular/

Module type

Module config

create.table
{"source_type": "file", "target_type": "table"}

Operation details

Documentation

Create a table from a file, trying to auto-determine the format of said file.
Currently supported input file types:

- csv
- parquet

Inputs

field name	type	description	Required	Default
file	file	The source value (of type 'file').	yes	-- no defau
first_row_is_header	boolean	Whether the first row of a (csv) file is a header row. If not provided, kiara will try to auto-determine. Ignored if not a csv file.	no	-- no defau

Outputs

field name	type	description
table	table	The result value (of type 'table').

[4]: GephiFile = kiara.run_job('import.local.file', inputs={'path': '/Users/eliane.schmid/Desktop/Gephi_Kiara.csv'}, comment = 'upload file')

[5]: GephiFile = GephiFile['file']

[5]: GephiFile

[5]:

value_id

8642cc8b-46c2-416d-a4db-3dd586cb5a18

kiara_id

7ebe6f6f-1d7c-4172-acb6-858d16db9b88

data_type_info

data_type_name

file

data_type_config

{ "content_type": null }

characteristics

{ "is_scalar": false, "is_json_serializable": false }

data_type_class

python_class_name

FileValueType

python_module_name

kiara.data_types.included_core_types.filesystem

full_name

kiara.data_types.included_core_types.filesystem.FileValueType

destiny_backlinks

{}

job_id

4140d43c-1886-492e-923c-4f93b1d7eb47

property_links

{ "metadata.file": "b751e472-aa31-4e85-8e3d-4ae97aa5a027", "metadata.python_class": "46031653-dbab-4492-88f3-566bb7eaeed4" }

value_created

2024-06-17 13:52:21.393082+02:00

value_hash

zdpAvM6pGa4fYHCUAqwtHtgstPLe5U8f80DhKqhg9FL6Sed

value_schema

type

file

type_config

{}

default

__not_set__

optional

False

is_constant

False

doc

The loaded files.

value_size

3.79 KB

value_status

-- set --

mini APPS

kiara

Q Search

Concepts

Kiara architecture and design

Terms

Reproducible research

Research Workflows

How kiara does versioning

Mini-app users

Module users

Welcome

Getting started - Hello kiara

Getting started - network analysis

Getting started - natural language processing

How to find out where a particular value came from

How to import data into kiara

How to install python

How to run a pipeline

How to go from manual commands to a kiara workflow

Module writers

Developing kiara itself

Internal

Plugins

Getting started - Hello kiara

Last updated: 2024-03-12

Digital History: The Story So Far

As the field of Digital History continues to grow, so too does the number of tools, software, and coding packages built to support and advance digital history in practice. The range of this is at times staggering: from applications suitable for the most novice of digital historians, to coding guides and tools for those working to more nuanced and specific end-goals, researchers have an ability to engage with their materials in digital, quantitative ways on a never before seen level. Often we focus primarily on the new findings that come of out this new way of approaching research - but what about the ways we get to those findings?

Regardless of the type of digital analysis being performed or even the software being used, the process is normally the same: input some data, click some buttons or run some code (perhaps a couple of times over to edit the code and adjust the outcomes), and get your end result.

You've got an outcome - but do you know how you've got from a to b? It's likely that variables have been written over several times along the way, and the data has changed from one type to another, been filtered or added to, and decision after decision has been made without necessarily knowing it. Each little adjustment or re-run of the code has contributed to the research process and is critical to the end output or findings.

But how do we keep track?

Hello kiara.

Introducing kiara, a new data orchestration tool.

On this page

Overview

Digital History: The Story So Far

Hello kiara.

Installation

Running kiara

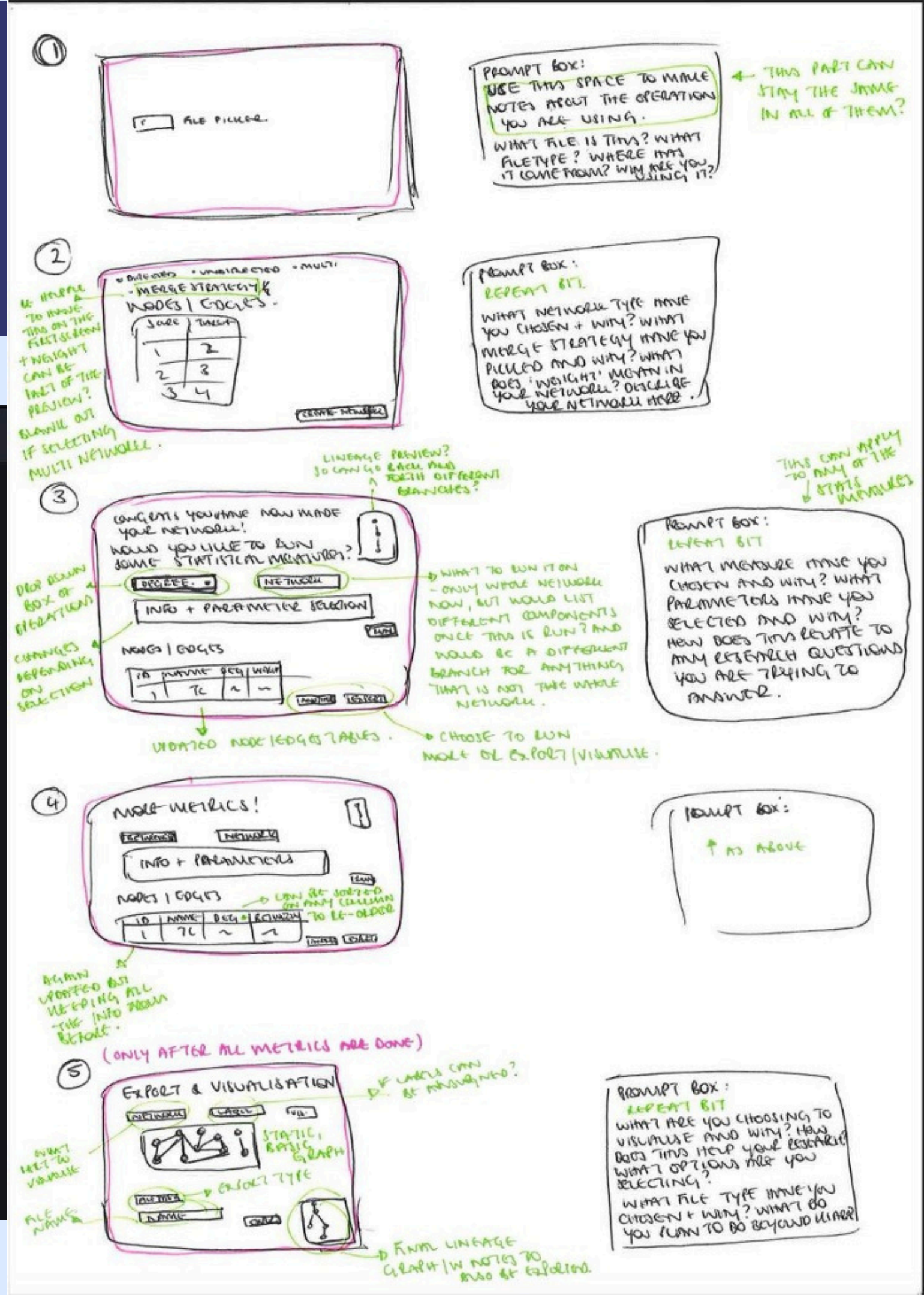
Downloading Files

New Formats: Creating and Converting

Querying our Data

Recording and Tracing our Data

What next...?



digital humanities



Benelux
Brussels
2023

Welcome!

We're pleased to announce that the 10th edition of the DH BENELUX Conference will take place in Belgium at the Royal Library of Belgium (KBR).



Royal Library of Belgium (KBR)

The annual DH BENELUX Conference serves as a platform for the community of interdisciplinary Digital Humanities researchers to meet, present and discuss their latest research findings or demonstrate tools and projects.

Date

21st of May – 2nd of June

Location

Royal Library of Belgium

SEARCH

Call for sponsors!

DH Benelux is still looking for generous sponsors to support this 10th edition.

digital HISTORY
24.-26.05.2023 - Humboldt-Universität zu Berlin

2023

DIGITAL HISTORY TAGUNG 2023

Digitale Methoden in der geschichtswissenschaftlichen Praxis
Fachliche Transformationen und ihre epistemologischen Konsequenzen

Dies ist die zweite Tagung einer Konferenzreihe, die künftig alle zwei Jahre von der AG Digitale Geschichtswissenschaft im VHD mit

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But how do we keep track?

Hello *kiara*.

Introducing *kiara*, a new data orchestration tool.

This new tool incorporates a number of different digital research approaches, but most importantly documents and encourages users to critically reflect on the process and use of DH tools. In doing so, the software opens up the black box of digital research, moving away from button-clicking software and making digital research more transparent and open to commentary, replicability, and criticism. It not only makes the research process itself more open, allowing users to visualise and examine the individual steps from start to finish, but also allows them to track changes to the data itself, something that is either imperceptible or, perhaps more importantly, forgotten about in traditional digital history methods and tools. *kiara* therefore acts as a 'wrapper' to this digital research process, tracking and documenting the steps and changes to the data, producing a veritable map of the journey that can be reflected upon and shared.

This tutorial will walk you through installation of *kiara* in Jupyter Notebooks, and some basic but essential functions that can be built on in further notebooks. At the end, it will showcase the **data lineage**, having tracked the research process and changes to the data from start to finish.

This tutorial requires you to know **python** and **SQL**.

Installation

Before running this notebook, you need to install *Kiara* and its dependencies in a virtual environment (such as Conda) by running the following command in your terminal:

DOCUMENTATION & WORKSHOPPING

REFLECTIONS AS A HISTORIAN

TRANSITION FROM TRADITIONAL TO DIGITAL HISTORICAL RESEARCH

WHAT TOOLS SO
WE NEED AS
DIGITAL
HISTORIANS?

CREATING AND
INVESTING IN
RESPONSIBLE
RESEARCH

MAKE DIGITAL
RESEARCH METHODS
EASY TO UNDERSTAND
AND SHARE

METHODS THAT
ADD VALUE IN THE
LONG RUN

ENCOURAGE THE
CHOICES AND
AGENCY OF
RESEARCHERS



REFERENCES
LIBRARY

GOING FORWARD

- Atomising research methods into reusable, stable components
- No more descriptivist analytical workflows with ever-smaller, discrete tasks
- Evade descriptive research in favour of reflective research
- Evoke chiaroscuro, the play of light and shadow, to shed light on the dark spaces of digital research