



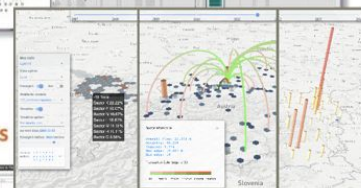
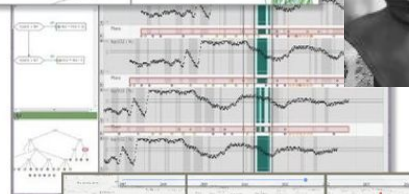
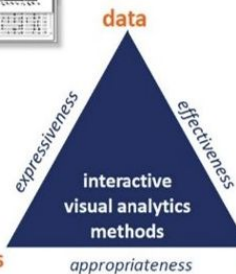
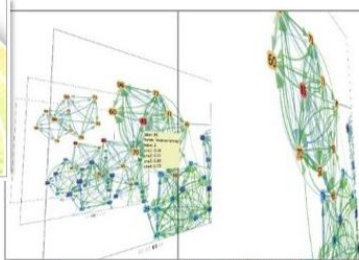
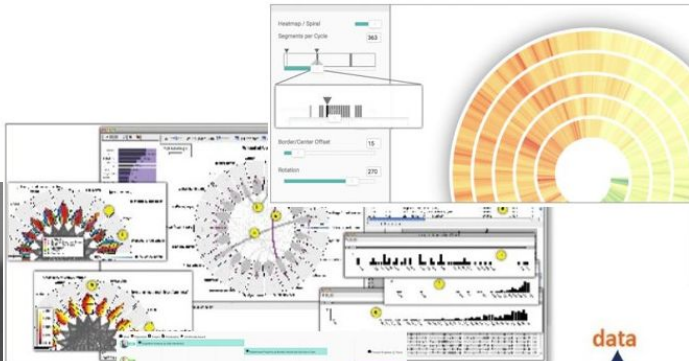
Laura Bassi Centre of Expertise
**Centre for Visual Analytics
Science & Technology**

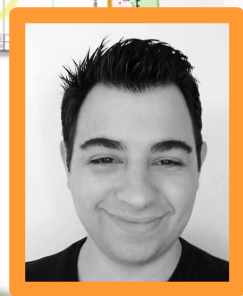
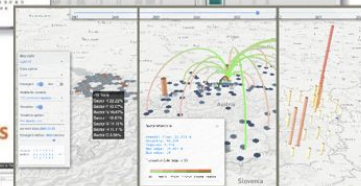
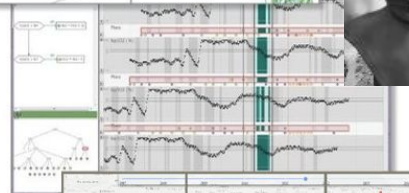
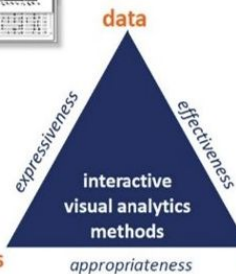
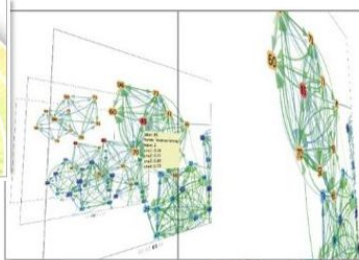
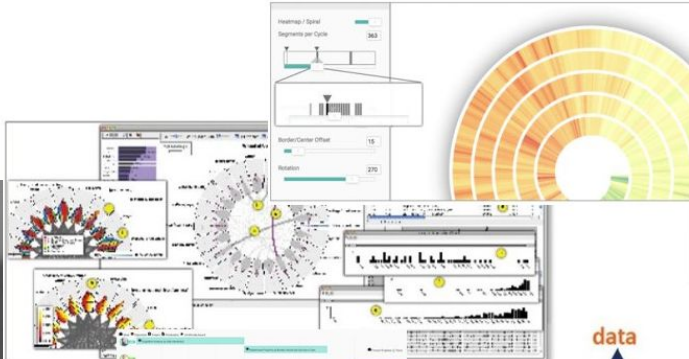
Visual Analytics E193-07

TU Wien, CVAST

Velitchko Filipov / Wintergraph 2024

www.cvast.tuwien.ac.at

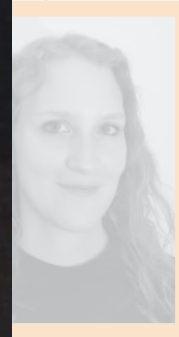
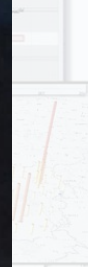
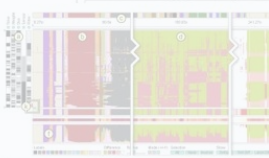
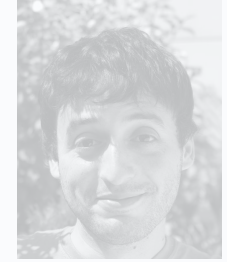
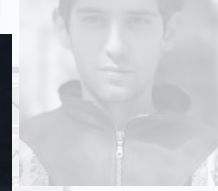




2023

CVAST
CONVENTION VISUALIZATION AWARD

★ IEEE VGTC Visualization Technical Achievement Award ★



Research Foci

Visualization & Visual Analytics (VA)

Knowledge-Assisted VA, Guidance, Data & Uncertainty Analysis

Graph Drawing & Network Visualization

Dynamic & Large Network Visualization

Spatial & Time-oriented Visualization

Blind Source Separation

Dimension Reduction, Parameter Space Analysis

Set & Ensemble Visualization



ArtVis Dynamic Network Perspectives on Digital Art History

FWF

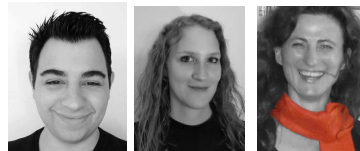
Transdisciplinary collaboration with University of Vienna

Support Art Historians with VA methods to understand interactions between components of the art system

Identifying patterns and temporal developments

Artists' social networks and exhibiting behaviors

<https://www.cvast.tuwien.ac.at/projects/artvis>



Der Wissenschaftsfonds.



universität
wien

Visual Heritage

VA and Computer Vision Meet Cultural Heritage

FWF doc.funds.connect

Collaboration with FH St. Pölten

Interdisciplinary approach between computer science
and the humanities

VA for automatic image analysis and visualization to
broaden access to historical media collections



<https://www.cvast.tuwien.ac.at/projects/visual-heritage-vacovicu>



FWF

Der Wissenschaftsfonds.
doc.funds.connect



SANE

SANE: VA for Event-based Diffusion on Networks FWF-WEAVE

Collaboration with University of Cologne & Newcastle University

VA for studying and communicating information
diffusion processes over networks

Tackling the dynamic and stochastic nature of
diffusion processes in real-world scenarios

<https://www.cvast.tuwien.ac.at/projects/sane>



FWF

Der Wissenschaftsfonds.



UNIVERSITY
OF COLOGNE

Newcastle
University

DoRIAH

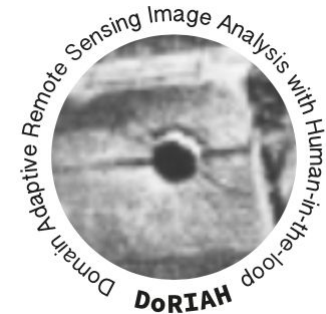
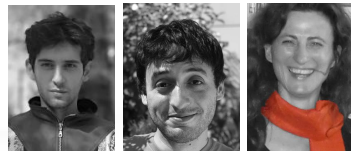
DoRIAH: Domain-adaptive Remote sensing Image Analysis with Human-in-the-loop FFG

Collaboration with Computer Vision Lab (TU Wien), Geodesy and Geoinformation department (TU Wien), and Luftbild Datenbank

Semi-automatic detection of bomb craters in historical aerial images

Bridge the gap between human analysts and fully automatic image analysis approaches

<https://www.cvast.tuwien.ac.at/projects/doriah>



GuidedVA

GuidedVA: Guidance-Enriched VA for Temporal Data WWTF-ICT

Incorporating guidance in VA processes to enhance analysts' decision-making

Improve reliability in data analysis, visualization,
and interpretation

A framework to assist with suitable VA methods for
unevenly spaced temporal data

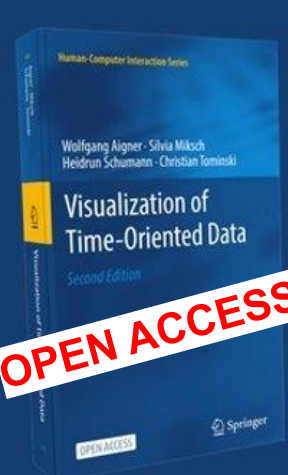
<https://www.cvast.tuwien.ac.at/projects/guidedva>



W|W|T|F

Vienna Science
and Technology Fund





Wolfgang Aigner • Silvia Miksch • Heidrun Schumann • Christian Tominski

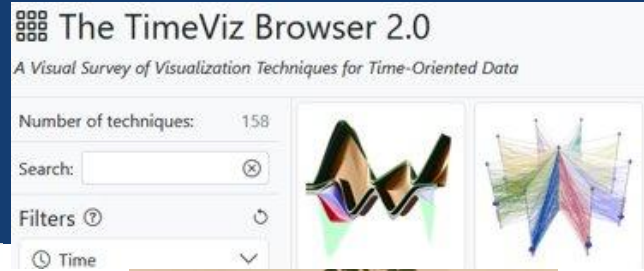
Visualization of Time-Oriented Data

Revised and Expanded Second Edition

Springer, 2023

With a foreword by Ben Shneiderman

OPEN ACCESS



Ch.2
Historical
Background

Ch.3
Time & Time-
Oriented Data

Ch.4
Crafting
Visualizations
of Time-Oriented Data

Ch.5
Involving the
Human via
Interaction

Ch.6
Computational
Analysis Support

User

Ch.7
Guiding the
Selection of
Visualization
Techniques

Ch.8
Conclusion

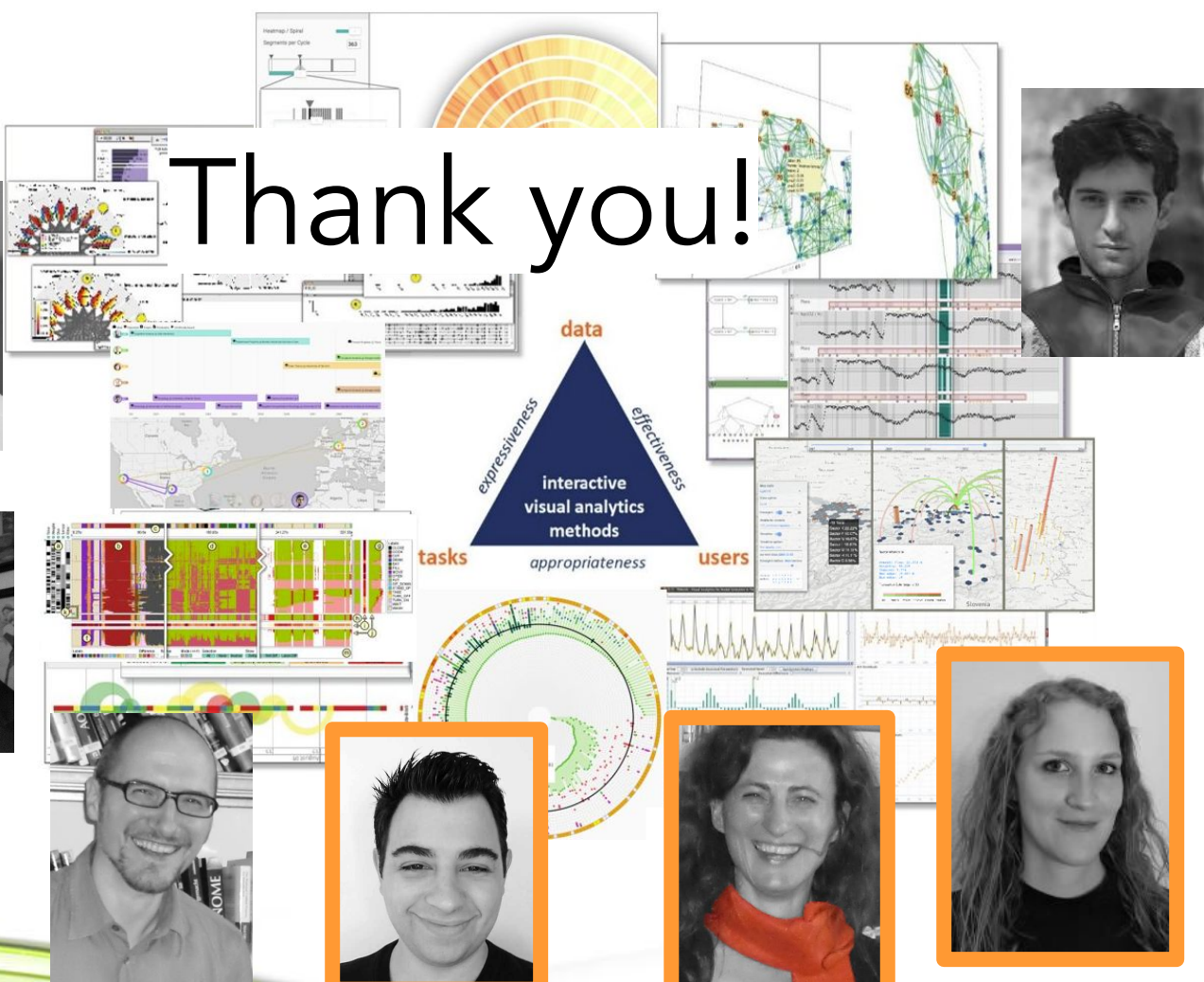
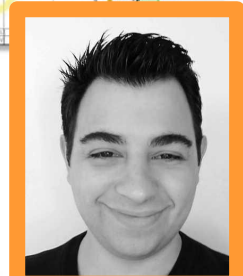
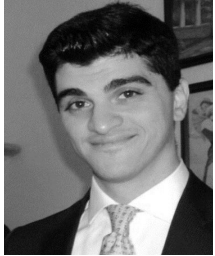
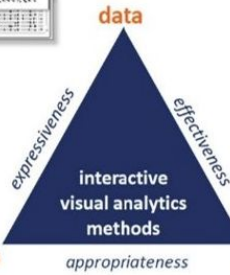
App.A
Survey of
Visualization
Techniques

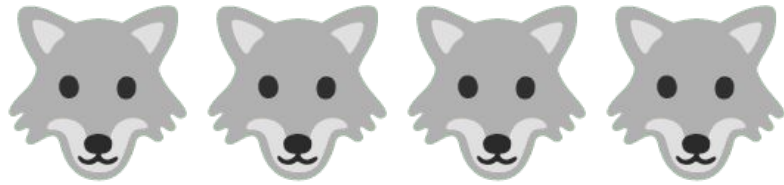
App.B
Examples of
Data Quality
Issues



NOW WITH ~50% MORE CONTENT!

Thank you!





Werewolf Game Tonight!

10pm in this seminar room.