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From COVID data to recommendations: Examples of visualisation approaches

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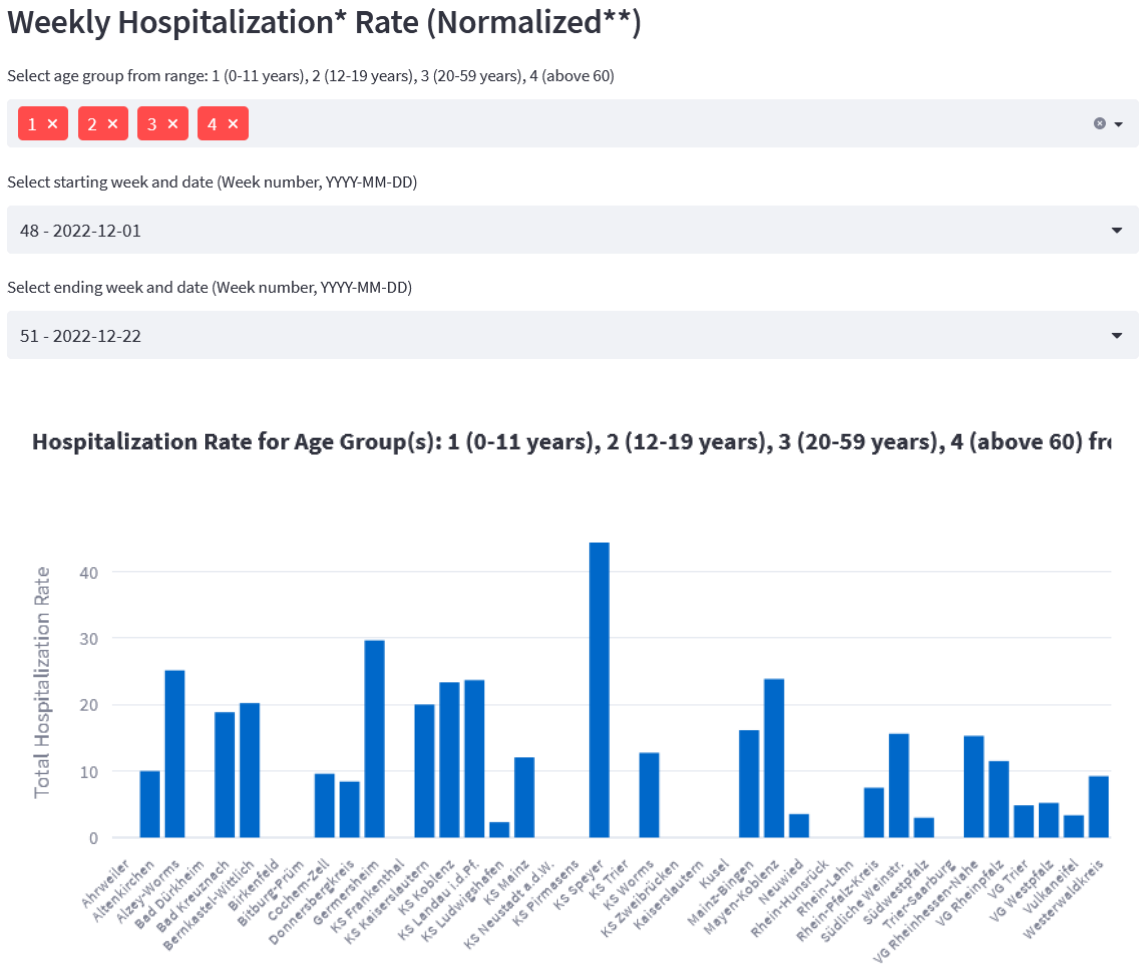
Motivation and Objectives

- **Motivation:** Public COVID-19 data available from various different sources, in different states of aggregation and in different formats
  - Difficult to find the right data representation (without analysis)
  - Hard to impossible to find hidden information about dependencies, e.g. with respect to effectiveness of Anti-COVID measures
- **Objective:** Provide means to make data better accessible and comprehensible, in order to inform stakeholders and to support decision makers
- **Solution:** Integrated, interactive and web-based visualisations of empirical data and result data generated by AI methods, applying appropriate means of presentation

Dashboard for Exploration of Public COVID-19 Data

- Selection of parameters to be displayed, e.g.
  - Age group
  - Time period
  - Location (city or administrative district)
- Display of diagrams for specified parameters, e.g.
  - Bar graphs for various numbers or rates for each city/district
  - Timeline diagram for number of COVID cases



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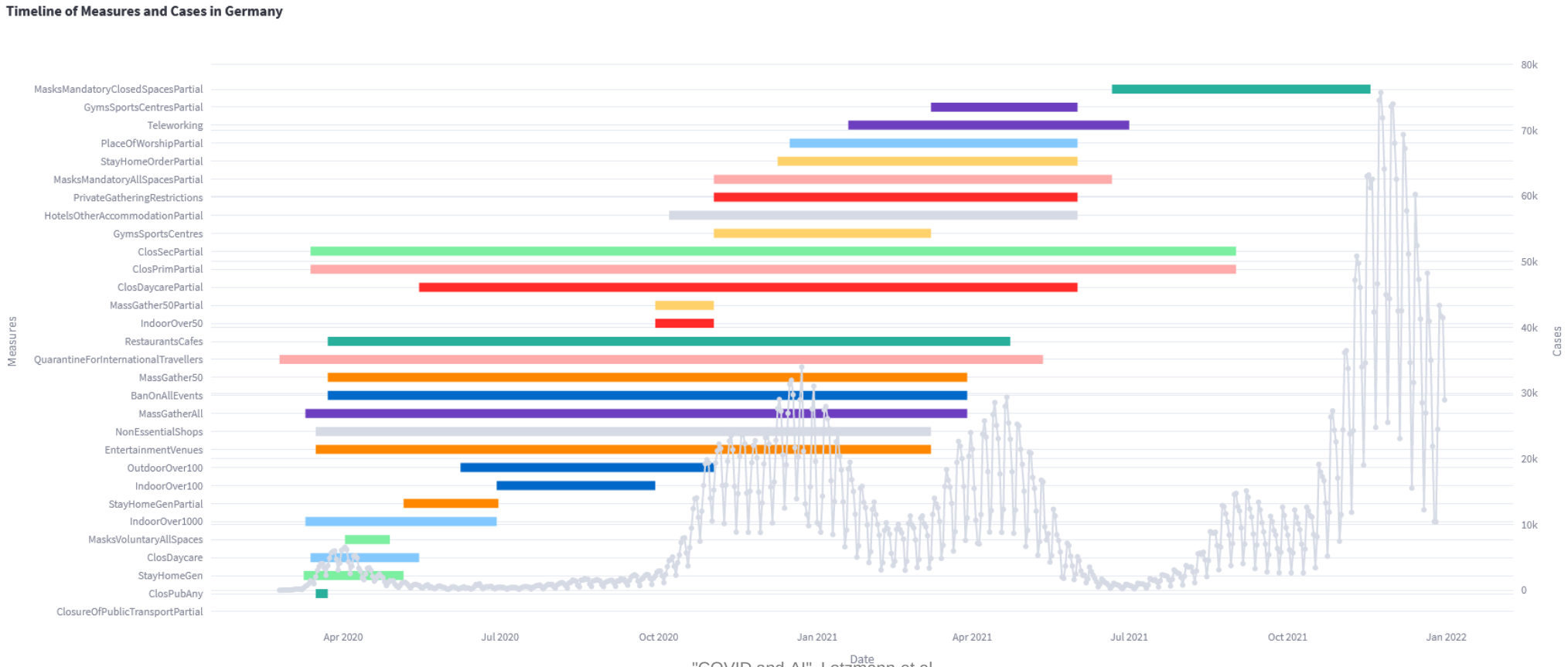
Integrated Visualisation of Data: Measures and Infection Numbers

Chart with absolute number of COVID cases in Germany for specified period of time (2020-2021), together with non-pharmacological anti-COVID measures in force during this time period



Conclusions and Further Activities

- Appropriate visualisations play a key role in making (even publically) available data accessible to decision makers and stakeholders
- Integrated visualisation approaches allow (at least) qualitative analyses for dependencies between various different aspects, thereby disclosing complex and/or hidden information
- Further activities within AI&COVID to be incorporated in the dashboard in future research
  - Various approaches of statistical and AI-based data analysis systems, generating outcomes that can be displayed e.g. in similar charts as shown
  - A prototype of a Case-based Reasoning (CBR) System can deliver recommendations for policies for given epidemic situations

Thank you for your attention!
Questions …

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