## TABLE OF CONTENT

st of Tables	9
List of Figures	11
INTRODUCTION	17
I. BIG DATA IN SOCIAL SCIENCES AND HUMANITIES	21
• I.1. Big Data in social science research	21
• I.2. Big Data in Digital Humanities	26
• I.3. Methodological frame	29
• I.3.1. Review of the relevant literature	29
<ul> <li>I.3.2. Google Analytics in social sciences</li> </ul>	34
• I.3.3. Social media as a source of research data in	
social sciences	36
• I.3.4. Analysing cultural trends with Google NGram in	
Digital Humanities	38
II. BIG (CRISIS) DATA IN REFUGEE STUDIES:	
CRISIS RESPONSE	43
• II.1. Predicting refugee flows with an approach to	
Big (Crisis) Data	43
• II.1.1. Real-world examples: Predicting refugee flows from	
Ukraine	47
• II.1.2. Limitations of the methodological concept	
(Google Trends)	58
<ul> <li>II.2. Migrant and refugee integration and flow analysis</li> </ul>	
with an approach to Big Data: Social media insights	61
• II.2.1. Methodological approach for extracting insights	
from social media	64



<ul> <li>II.2.2. Real-world examples: Social media as a source</li> </ul>	
of migration data from Ukraine	68
• II.2.3. Facebook and Instagram as a source of	
integration dynamics	76
• II.2.4. YouTube as a source of migration and	
integration insights	82
III. DIGITAL DEMOGRAPHY: EU MIGRATION AND	
IMMIGRATION	89
• III.1. Crisis in the healthcare system across Europe:	
Forecasting migration of healthcare professionals	91
• III.1.1. Unravelling brain drain: Analysing mobility factors	
of health workers within the EU	94
• III.1.2. Google Trends as a method for predicting	
the migration of healthcare workers	101
• III.2. Forecasting migration and integration trends	
by big data: Real-world example Croatia	108
• III.2.1. Measuring and forecasting the "EU migration wave"	
of Croatian citizens: Big data approach	109
<ul> <li>III.2.2. Google Trends and Facebook as tools for</li> </ul>	
migration forecasting: Case study Croatia	116
<ul> <li>III.2.3. Using Facebook to gauge integration,</li> </ul>	
cultural assimilation and migration	130
• III.3. Mapping immigration and illegal migration to the EU	
with a Big (Migration) Data approach: Croatian perspective	134
• III.3.1. Immigration to the EU: Case study Croatia	135
• III.3.2. Google Analytics as a source of immigration insights	140
III.3.3. Illegal migration	149
• III.3.4. Social media as a source of immigration data	152
• III.4. Demographic challenges and the future of the EU	161

IV. BIG (CRISIS) DATA AND PUBLIC HEALTH	165
• IV.1. How Google search analysis can support COVID-19 research	165
<ul> <li>IV.1.1. Google Trends as a method to predict new COVID-19 cases: Case study Croatia</li> <li>IV.1.2. Socio-Psychological Consequences of the Pandemic – Screening with big data approach</li> </ul>	169 178
• IV.1.3. Effect of the COVID-19 pandemic on future birth rates	183
<ul> <li>IV.2. Big data in tourism crisis management</li> <li>IV.2.1. Integrating big data into tourism crisis management</li> </ul>	<b>187</b> 189
<ul> <li>IV.2.1. Integrating big data into tourism crisis management</li> <li>IV.2.2. Forecasting tourist season in Croatia (in time of crisis)</li> <li>IV.2.3. Limitations of Google Trends analysis</li> </ul>	191 201
V. BIG DATA IN (DIGITAL) HUMANITIES	203
<ul> <li>V.1. Using Digital Humanities for Understanding COVID-19</li> <li>V.2. Real-world examples: Coronavirus Pandemics</li> </ul>	203
(Insights from Google NGram)	205
<ul><li>V.3. Limitations of the Google NGram method</li><li>V.4. Future lessons from the intersection of big data</li></ul>	218
and Humanities	222
CONCLUSION	225
BIBLIOGRAPHY	231