

Datascape. Speculative City for Data to Inhabit

Summary

KEYWORDS

Data, Data Center, Landscape, City, Speculative Design, Internet

The exponential rise in data is profoundly affecting the physical environment, and its uncontrolled proliferation will continue to reshape and alter the landscape. However, these impacts may not be immediately apparent. This project aims to explore and visually represent the impact of massive data production on the physical landscape by designing a speculative city for data to inhabit, illustrating the potential implications of this impact in the future. The objective is to study the current state of data production, understand its effects on the environment, and create a compelling visual representation that highlights the potential consequences of data growth.

Therefore, this document delves into the visualization of the consequences resulting from data growth, focusing on the exploration of the *Datascape*—a speculative city specifically designed to accommodate the ever-increasing presence of data. It examines the far-reaching implications of the increase of data and its tangible manifestations; explores the landscape of data centers; and envisions exaggerated future scenarios that integrate architecture, technology, and data.

Chapter 1 introduces the fundamental concepts of data and highlights the implications arising from the exponential increase in data volumes. It delves into the profound social, cultural, and technological transformations brought about by the abundance of data. However, its primary focus is highlighting the significant environmental considerations arising from the escalating data growth.

Chapter 2 focuses on the physical implications of data growth. It delves into the land and sea use, considering how the expansion of data infrastructure affects the environment. The chapter also explores the issue of electronic waste (e-waste) generated by the disposal of outdated data-related hardware and investigates the energy consumption associated with data centers. Furthermore, it investigates the impact of data on the landscape, both in terms of physical transformation and its influence on the perception and experience of space.

Chapter 3 delves into the landscape of data centers. It considers the historical trajectory of architecture as a monument, from prehistoric structures to contemporary data centers. By examining the architectural aspects and symbolism associated with data centers, the chapter sheds light on the emergence of data centers as monumental structures in the contemporary landscape.

Chapter 4 explores speculative scenarios that envision the future of cities in different contexts and temporalities. It examines notable projects like “Monumento Continuo” by Superstudio, “MetaCity DataTown” by MVRDV, and “New City” by Liam Young, which offer creative and provocative visions of how cities might shape our urban environments.

Chapter 5 investigates the relationship between hardware and the city. It explores the notion of data centers as suburban entities and examines the potential of hardware as a design tool. Additionally, it explores the role of Artificial Intelligence (AI) as a design tool in shaping the physical manifestations of the Datascape.

Chapter 6 examines the possibilities of working with existing data and repurposing it within the Datascape. It explores strategies for utilizing the wealth of existing data to visualize the functioning of the city.

Chapter 7 delves into the core concept of the Datascape, presenting a speculative city designed specifically for data to inhabit. It explores the unique characteristics and considerations of designing a city that caters to the needs and dynamics of data. The chapter also includes a video conveying the vision and experience of the Datascape.

Through research, analysis, and design, *Datascape. Speculative City for Data to Inhabit* aims to contribute to the discourse on the environmental implications of data production and offer insights into potential future scenarios that await our built environment. It calls for a critical examination of our digital practices and encourages responsible and sustainable approaches to data production and consumption.