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**The Datafied Ontology and the Cultural Techniques of Digital
Life**

Thesis booklet

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1: Research background, problem statement

After roughly half a millennium of print and written culture, we now produce culture and knowledge predominantly in digital form, by default, which leads to profound transformations. Sociologists Castells and Van Dijk introduced concepts such as network or information society to describe the shifts in social and economic structures brought about by digital transformation. Furthermore, N. Katherine Hayles demonstrated as early as the 1990s that the world dominated by digital objects can be described as an infinitely diverse networks of information. Following this logic, I argue that digitality (based on Hassan's definition) is not merely as an economic or social structure, but an ontological condition inherently encompassing cultural and epistemic consequences.

A major theme that I aimed to established early on is the challenge posed by neo-positivism or dataism and the "Big Data" approach, which promotes the idea that "the numbers speak for themselves" and attempts to render traditional humanistic interpretation obsolete. However, due to the extent, intermediality and the epistemic instability of these information networks, their interpretation is a complex and multifaceted task. I argue that it is particularly the humanities, as the study of relationships (Freise) that are inherently suited to this undertaking.

The dissertation therefore presents a comprehensive theoretical framework and applied analysis arguing that the processes of digitalization and datafication constitute the discourse network of

the 21st century. Drawing primarily on poststructuralist theory, German media theory, hermeneutics, and philosophy of technology, the work aims to construct and test a theory of this digital episteme, termed digitality, and insists that we redefine and reposition the possibilities of human interpretation in an information- and data-centered digital life.

2. Research Methodology

The dissertation is primarily theoretical in its orientation, with the last chapter providing a practical application in the form of case studies. Accordingly, the work is structured around four main parts: establishing the conceptual framework of digitality, analyzing digitality as a discourse network based on data ontology, framing data operations as cultural techniques, and applying these concepts in extensive case studies.

In order to construct this theoretical framework, I synthesized the results of German media theory, poststructuralist theories and the more English-speaking approach of cultural studies. Therefore, in outlining my framework I relied on a wide range of theorists such as McLuhan, Hayles, Manovich (media studies); Derrida, Stiegler, Hamacher (deconstruction); Kittler, Kramer, Siegert (German media theory); Floridi, Romele and Gerbaudo (philosophy of information).

The final section tests the theoretical framework by applying it to specific, inherently digital cultural phenomena that exemplifies the dated ontology explored in the first half of the dissertation.

First, *League of Legends* champion skins are analyzed as born-digital global commodities and transmedia building blocks. Second, I discuss a planned and work-in-progress semantic bibliographic database for Hungarian English Studies, designed as a knowledge graph using Linked Data and RDF. Third, I juxtapose the cultural techniques of print and digitality through the example of Shakespeare's First Folio and ChatGPT, that fundamentally altered knowledge production, culture and the notion of truth.

3. Results

I consider the novelty of my dissertation to be threefold:

1. Identifying data as the groundwork of digitality: in short, we can imagine data without computers, but not digital technology without data. Formats, schemas, and metadata decide what counts, connects, and persists—and data are material and processual, even relational; not just “immaterial information”.
2. Analyzing digital data operations as cultural techniques: everyday actions, such as capturing, encoding, storing, indexing, classifying, modeling, visualizing, deleting are becoming standardized, institutionalized digital practices. These data practices then become ontic operations which produce the

ontological distinctions necessary for a given culture. As these procedures solidify into standards and protocols, they are able capable of carrying knowledge, history and power.

3. Emphasizing the role of the humanities in interpreting and theorizing a datafied world: The cultural techniques of digital data means they also function as interpretive acts that decide what exists and how it relates, so they require ongoing interpretation and theory, not just engineering. The humanities can unpack these choices by tracing their histories and assumptions, testing their consequences, and naming the values built into categories, metrics, and models. Treating data operations as interpretation, we can propose better concepts, annotations, and standards making perspectives of knowledge more accountable and plural.

The first chapter of the dissertation focuses on Foucault's concept of the episteme to argue that digitality now defines what can be known and understood. The chapter continues by exploring the traditional dichotomy between technological determinism and social constructivism. I argue to resolve this tension using Stiegler's philosophy of technology, arguing that humans are fundamentally technical beings defined by the concept of "originary prostheticity". Technology (*techné*) and knowledge (*episteme*) are inseparable and mutually constitutive of human development. Situated in this framework I argue that digital data contributes to the process of

“epiphylogenesis”, the externalization of human memory and consciousness into technical media.

The later part of the chapter turns to Kittler’s concept of discourse networks, which is defined as a configuration of “technological and institutional networks that enable cultures to organize, store, and process data”. The dissertation asserts one of my key points here, that digitality’s most fundamental aspect is that it is built on discrete layers of digital data. Using complex systems theory (Barabási-Albert model) as an illustration, I argue that the discourse network of digitality is best imagined as a scale-free network, noting that language retains a privileged, central role as a preferential node due to its foundational, embodied nature.

The second chapter of the dissertation further establishes the ontological and epistemological primacy of data in the digital age. Kittler’s assertion that “software does not exist” implies that digital reality is reducible to the material operations of hardware and binary states. In short, what survives in the digital age is what technical media can store and transmit as data. Similarly, Floridi’s concept of the *infosphere* defines reality as increasingly understood in terms of information, where people exist as “inforgs”. The key ontological principle then is that anything that cannot be transformed into accessible information risks being considered non-existent.

Next, I turn to the concept and ontology of digital data. Data defined broadly (diaphoretic interpretation) as an elementary difference or distinction. Critically, drawing on Gitelman’s concept,

the dissertation argues that data is never “raw”, but always “cooked” by the methodology and context of its collection.

Following that I explore the concept of data through the lens of speech act theory, arguing that digital data shows remarkable similarities to language. Analogous to Austin’s performative utterances, declaring a sequence of bits as data is a speech act that establishes a normative framework for that object to circulate as evidence. Through reading Derrida’s concept of iterability, I argue that similarly to language, data is repeatable and can be detached from its original context, acquiring new meaning in new situations. In addition, I similarly attempt to apply Hamacher’s concept of the affirmative (which enables but is never fully realized) digital data. In this perspective, data can be viewed as a suspended open-ended “promise”, resisting complete consumption by any single application. It is a non-functional reserve that defers its meaning until the moment of use, retaining its essence for a future moment. In short, data “promises itself”.

Next, I turn to the concept of data hermeneutics, mostly through Romele’s work. Romele argues that digital data are traces or fragments of reality requiring active interpretation, not self-evident facts. Based on Ricoeur’s concept of distanciation, Romele argues that this requires a material hermeneutics, that accounts for the technical infrastructure (code, design, software) that structures meaning.

The last section of chapter 2 explores Critical Data Studies. This critical research perspective focuses on the power and politics of data through the concept defined as datafication, which is defined as the quantified transformation of human life. I explored critical perspectives, such as Couldry and Mejjas' data colonialism, and Zuboff's surveillance capitalism. Critical Data Studies stress that data reflects the values and biases embedded in the sociotechnical systems that create it.

The third chapter of my dissertation posits one of the novum of my research. I argue that the operations of digital data, such as encoding, measuring, sorting, storing, transmitting, can be considered as cultural techniques that actively shape cultural order and knowledge systems. Drawing on German media theorists like Sybille Krämer and Bernhard Siegert, I start by tracing the historical progression of converting continuous reality into discrete, operable units, noting that this process precedes electronic computers. I used Krajewski's work on card catalogues to demonstrate that modular, indexed data processing systems have an infrastructure genealogy dating back centuries.

Next, I continue my argument exploring how knowledge is increasingly organized through technical infrastructure (files, lists, databases) rather than continuous narratives. The structure of data, based on Manovich's work on databases rivals linear narrative, favoring modular, recombinable chunks of information. Similarly, digital humanities' focus shifts from deep textual analysis to

examining the surface and procedural interpretations, which is arguably a post-hermeneutic approach. With digital data operations as cultural techniques, I further argue that hermeneutics should be transformed into a hybrid practice that involves interpreting the results of computational tools. In short, the task is to interpret the data systems and algorithms themselves as part of the (digital) hermeneutic circle, which produce the epistemic horizon of the 21st century.

The final and longest section of my dissertation tests the theoretical framework by applying it to specific, inherently digital cultural phenomena. First, *League of Legends* champion skins are analyzed as born-digital global commodities and transmedia building blocks. I adopt Hui's concept to argue that skins function as digital object defined by metadata, networks, and temporal updates. Narratively, they are examples of Derridean trace, carrying echoes of stories that remind us of absence-in-presence across platforms. Through Stiegler's concept of the pharmakon, skins act as "medicine" by externalizing memory, fostering community, and enhancing engagement. However, they are also a "poison" used for the industrialization of attention, utilizing artificial scarcity and as fuel to compulsive spending and generate exploitative "digital labour" for the corporation. The transmedia narrative is commodified, sometimes "meta-paywalled" behind purchases. Player participation, though vibrant, is managed specifically to reinforce corporate branding and profitability.

The second case study introduces the Hungarian English Studies Database (HADES) project and the required interpretive decisions when working with large cultural datasets. This is a planned semantic bibliographic database for Hungarian English Studies, designed as a knowledge graph using Linked Data and RDF. While working on the concept of HADES, I attempt to address the challenge of datafying traditional philology, where rich interpretation meets quantitative logic. I further argue that the design of HADES is fundamentally a project of data hermeneutics, because the curatorial decisions (defining schemas, links, and categories) are inherently interpretive acts. The architecture of the database actively transforms and constructs the scientific categories of the field, meaning the platform itself becomes both a hermeneutic object and a tool.

The third and final case study interrogates the cultural techniques of print and digitality, by comparing the rise of two media systems that fundamentally altered knowledge production and culture. I outline this by analyzing two specific examples of the two discourse networks, Shakespeare's First Folio and ChatGPT. As an early cultural technique of print, the Folio canonized Shakespeare's plays by transforming ephemeral stage performances into stable, archivable, and single-authored literature, fostering the "cult of the artist". Generative AI on the other hand, operating through statistical prediction, reintroduces the instability of pre-print oral culture. Key characteristics of LLMs include the absence of a verifiable original, philological instability, and poor archival capability. LLMs are seen as returning knowledge to an unstable, contingent, and uncontrollable

state. The human task therefore remains to interpret and understand machine-generated outputs and the processes of generation as well. Lastly, I argue through Han's infocracy concept that these processes lead to the destabilization of the notion of truth and epistemic factuality itself.

Finally, the dissertation concludes that the cultural techniques of digital data are constitutive elements of our contemporary condition, functioning as invisible practices and epistemic scaffolding. I argue that the task of humanities in the 21st century is to engage critically with digital artifacts, recognizing that they require new analytical tools and a "renewed hermeneutic care" to read them not as neutral code, but as a different kind of cultural text. I advocate for an interdisciplinary approach that integrates technical analysis with interpretive depth, ensuring that human meaning and knowledge production are not lost in the digital environment.

4. Relevant Publications and Conference Presentations

Journal articles

HAYLES, N. Katherine. „Virtuális testek és villódzó jelölők”. ford. Patkós Gábor. *Filológiai Közöny* 2022/4 (2023): 79–103.

Book chapters

“Cultural Techniques of Print and the Digital: What Shakespeare’s First Folio and ChatGPT (Not) Have in Common.” In *Artificial Intelligence, Digital Literacy, Digital Pedagogy*, szerk. Mária Adorján, Réka Hajner és Gyula Kozma, 2–9. Budapest: Károli Gáspár Református Egyetem Anglisztika Intézet, 2024.

„A Knowledge Bank Approach to Efficient Graduate-Level Research Workflow”. In *Artificial Intelligence, Digital Literacy, Digital Pedagogy*, szerk. Mária Adorján, Réka Hajner és Gyula Kozma, 92–100. Budapest: Károli Gáspár Református Egyetem Anglisztika Intézet, 2024.

„Bevezetés a digitális bölcsészetbe: távolvasás a stilometria segítségével”. In *Idegen nyelvi alapismeretek*, szerk. Réka Sámson Réka és Anita Czeglédy, 36–43. Károli könyvek. Jegyzet, Budapest: L’Harmattan Kiadó, 2024.

Conference Presentations

The Datafied Ontology of Digital Life, ESSE Doctoral Symposium 2025, Malta, ESSE, 2025.09.01 – 02

Creating the Hungarian Database of English Studies, First International Workshop on Data Hermeneutics and Digital Culture, KRE, 2025.06.18

League of Legends and Digital Objects: Technoculture, Datafication and Transmedia Storytelling, Károli English Studies Conference 2025, KRE, 2025.05.08

Cultural Politics of Nostalgia: Heritage, Post-heritage and Foreverism, Cultural Texts and Contexts in the English Speaking World IX (online), University of Oradea, 2025.03.28

Cultural Techniques of Print and the Digital: What Shakespeare's First Folio and ChatGPT (Not) Have in Common, HUSSE 2025, SZTE, Hungarian Society for the Study of English, 2025.01.30 - 02.01

A könnyomtatás és a digitalitás kultúrtechnikái: Mi (nem) közös Shakespeare első főlőja és a ChatGPT-ben?, Humán tudományok és a mesterséges intelligencia 2, ELTE, 2024.11.15

A digitalizáció és az adatosodás jelenségének kulturális hatásai: digitális médiaműveltség, és adathermeneutika, XVII. Tudatosság a kommunikációban - Varga Gyula emlékkonferencia, EKKE - DE, Kommunikációs Nevelésért Egyesület, 2024.05.17 - 18

Possibilities of Public Discourse in a Hypermediated Society, North America Days: Current and Future Cultural Challenges, KRE, 2023.11.30

Shakespeare and ChatGPT: Lessons Learned from Elizabethan Theater and Medium Theory, European Shakespeare Research Association 2023, PPKE, 2023.07.06 – 09

A League of Legends hőskinézetei: born-digital globális árucikkek, mint transzmediális építőkövek KDFI 5: A műalkotás a digitális sokszorosíthatóság korszakában, ELTE – BME, 2023.04.27 – 28