UNIVERSITY OF TARTU
Institute of Philosophy
and Semiotics

Apotheosis, apocalypse, and the epistemic collapse: technology and the semiotics of fear

Signs and Realities:
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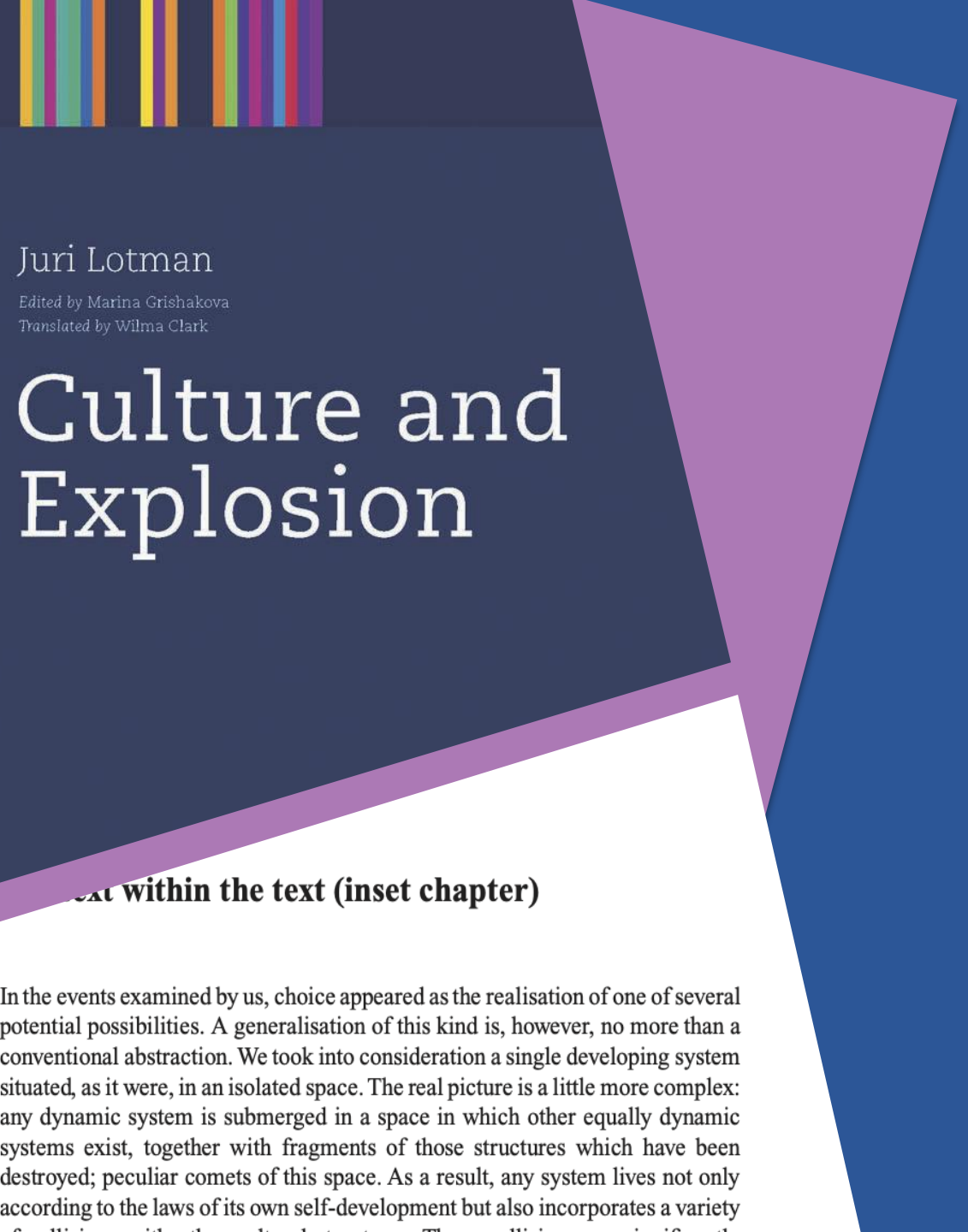


Problem: the future is unpredictable

"any intersection of systems sharply increases the unpredictability of future movements"

Lotman, Juri. 2009. Culture and Explosion, p. 65

Historical attempts at „solving“ the unpredictability problem

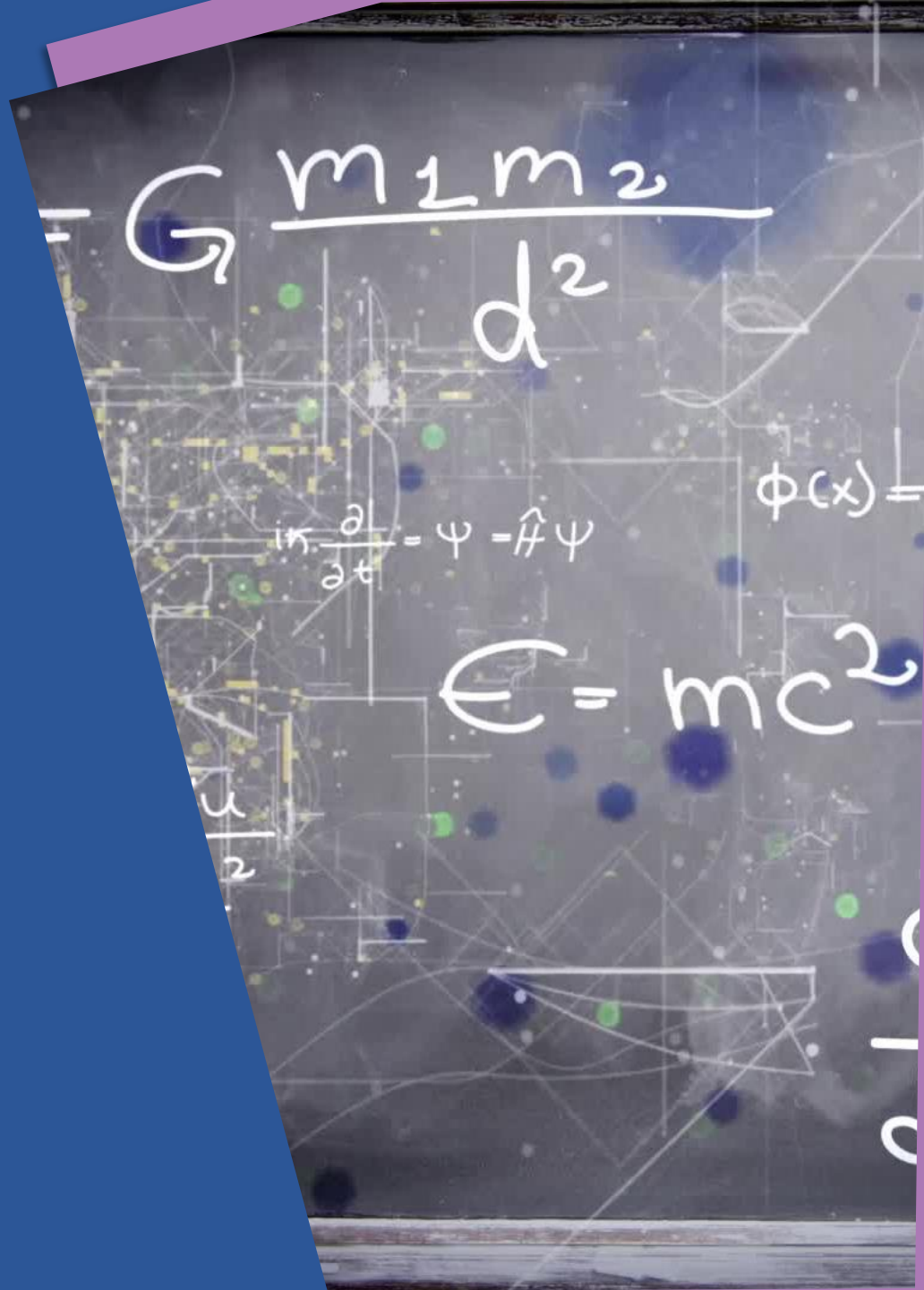
mechanistic philosophy,

automata,

scientific instruments,

Industrial Revolution,

and today, in the applications of “artificial intelligence” (AI).



#1
Introduction: on the semiotic mechanism of fear

#1 On the semiotic mechanism of fear

Fear as an after-reaction to a dangerous situation

Fear (semiotic) as the anticipative (discursive) construction of threats

Fear constitutes a specific and powerful type of semiosis, creating "new associations between things and signs, as well as between the signs themselves, and substantially alters existing meanings and structures" (M. Lotman 2009b: 1219). As a result, in a situation of fear, societies and discourses can be more susceptible to associations, actions and conclusions based on logic and values differing from the ordinary.

Lotman, Mihhail 2009b. 'Hirmusemiootika ja vene kultuuri tüpoloogia. V: Kokkuvõtte asemel. [Semiotics of Fear and the Typology of Russian Culture. V: Instead of a Conclusion]'. Akadeemia 6: 1217–48.

#2
Code texts as integrations of discrete and non-discrete meaning-making

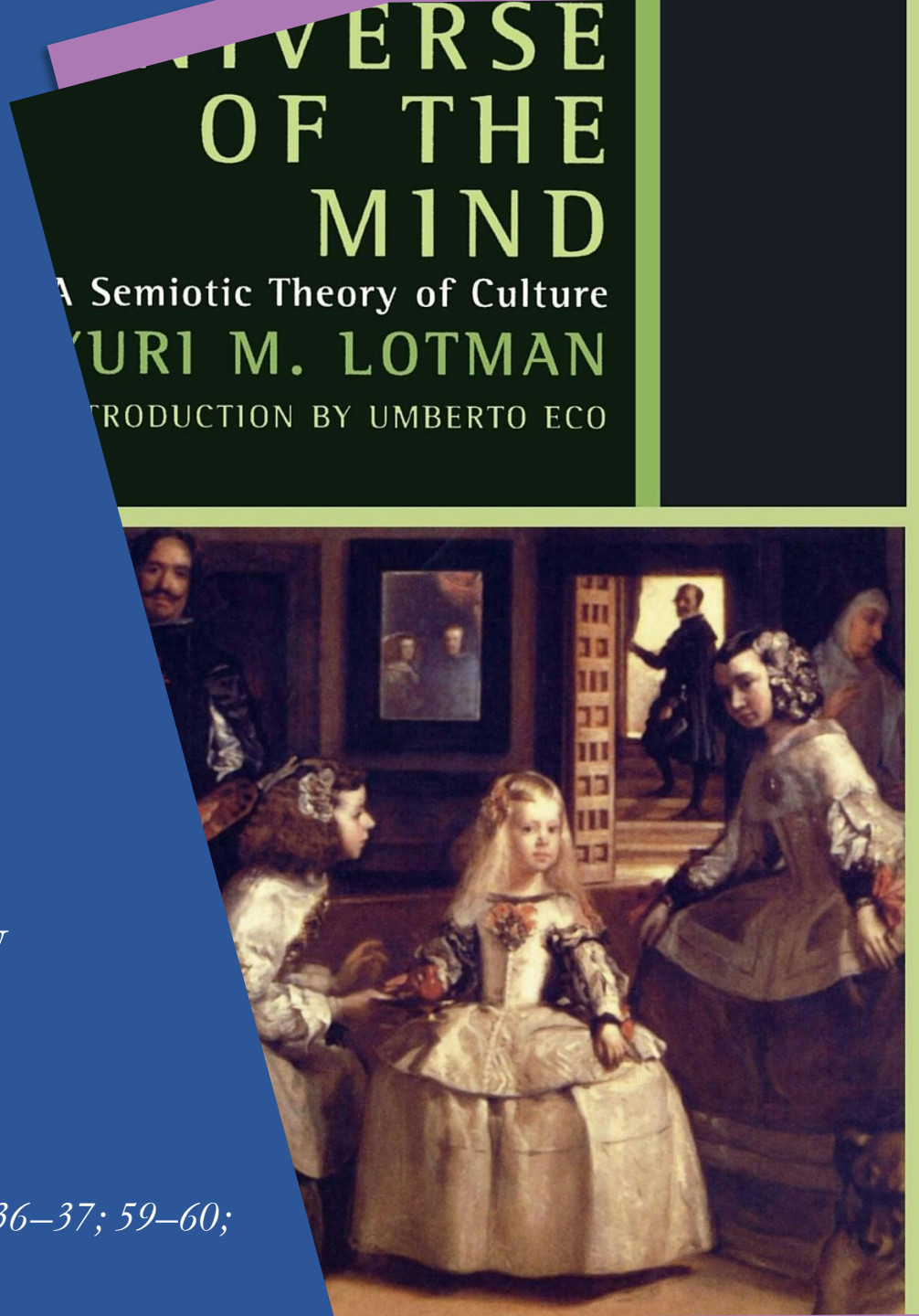
Discrete vs continuous (non-discrete)

Discrete system of coding: meaning relies on signs, text is secondary (rational, scientific, lineaar, verbal)

Continuous system of coding: the text in its entirety provides basis for meaning (mythological, iconic, non-linear, spatial)

The creativity in culture relies in the mutual dialogue between these two modes of thinking; and on their mutual untranslatability

Non-discrete real world vs discrete representational structures



Lotman, Juri. 1990. Universe of the Mind: A Semiotic Theory of Culture, pp. 36–37; 59–60; 77.

#2 Integrations of discrete and non-discrete meaning-making

"A **code-text** represents a mediating link between the mythological and the descriptive logic of signification. [---] The code-text of conspiracy theory narrates a story about evil lurking behind events (**mythological type of signification**), whereas its parts, such as outlining the specificity of the enemy, the connections of a particular event with other events, the particular group of victims, etc., can encompass very different paradigms (**descriptive type of signification**)." .

Madisson, Mari-Liis. 2014. 'The Semiotic Logic of Signification of Conspiracy Theories'. Semiotica 2014 (202): 273–300. doi:10.1515/sem-2014-0059

Semiotica 2014; 202: 273–300

Mari-Liis Madisson

The semiotic logic of signification of conspiracy theories

Abstract: The aim the following the paper is to provide a theoretical backing to the semiotic logic of signification of conspiracy theories. The logic of mythological thinking operates within conspiracy theories, with their organizing principle of homomorphic resemblance. Conspiracy theories do not interpret events as a coincidence, but rather as being motivated by one originary cause – evil. The non-mythological type of signification also functions in the logic of conspiracy theories. This leads to the perception of the conspirers as a strictly organized group, divided into complex sub-systems. The main goal of this article is to explain the interaction between these two contradictory signification-tendencies, for that the concept of code-text is used. I will illustrate my arguments with examples derived from the commentary posted at the Para-Web forum under the topic of "The death of the Polish president and the rest of the elite."

Keywords: conspiracy theory, semiotics of culture of the Tartu-Moscow School, mythological consciousness, non-mythological consciousness, code-text, 2010 Polish Air Force Tu-154 crash

DOI: 10.1515/sem-2014-0059

Introduction

In the following paper I will examine the semiotic signification of conspiracy theories, the logic of signification on which the creation of conspiracy theories in culture is based. I will focus on conspiracy theories in general, and I will not use these to say anything about the truthfulness of particular conspiracy theories. There are two main reasons for considering this particular topic. First, the semiotic logic of signification of conspiracy theories provides an opportunity to widen the application of the concepts used by Yuri Lotman and cultural semioticians of the Tartu-Moscow school outside the

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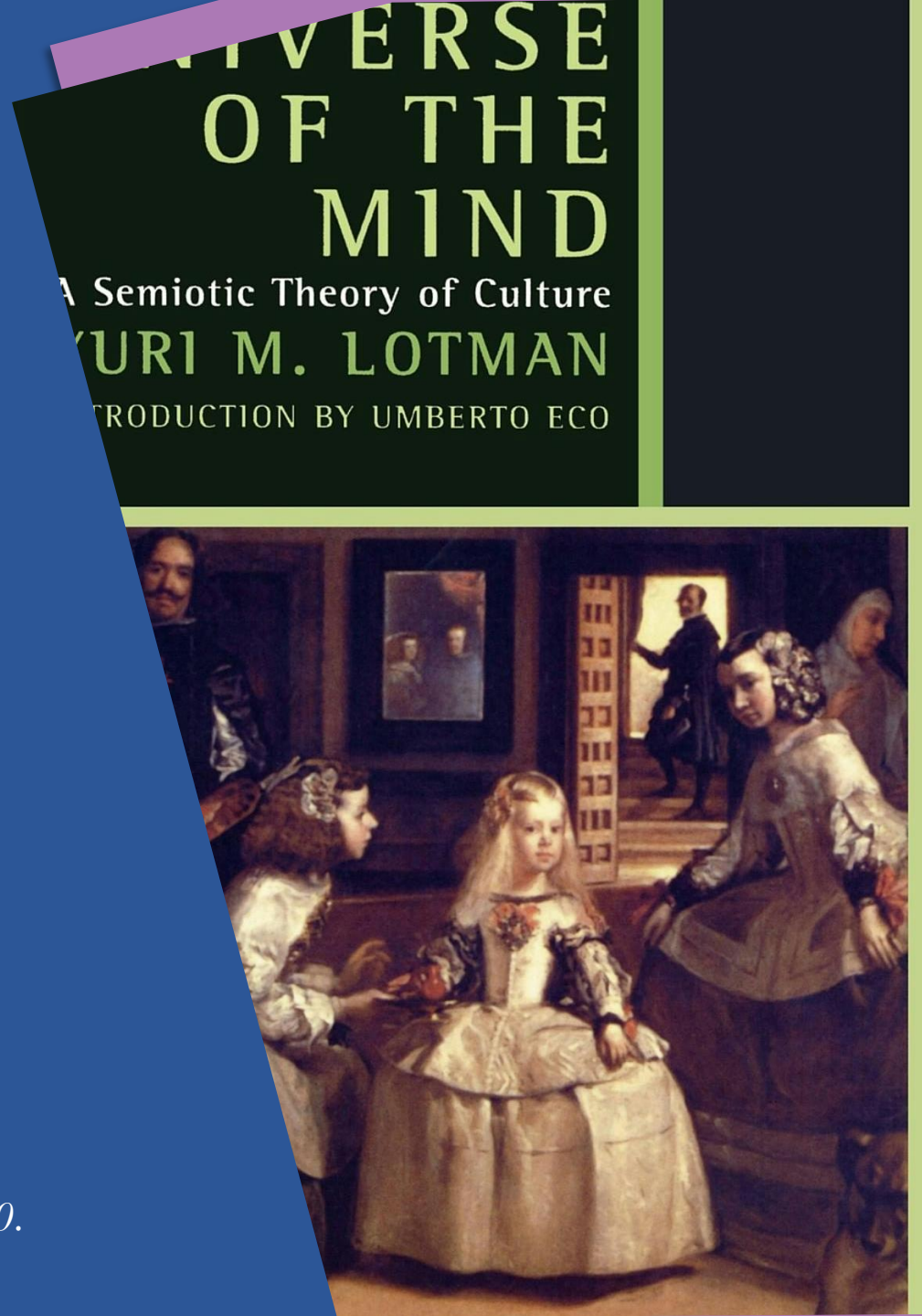
code-text

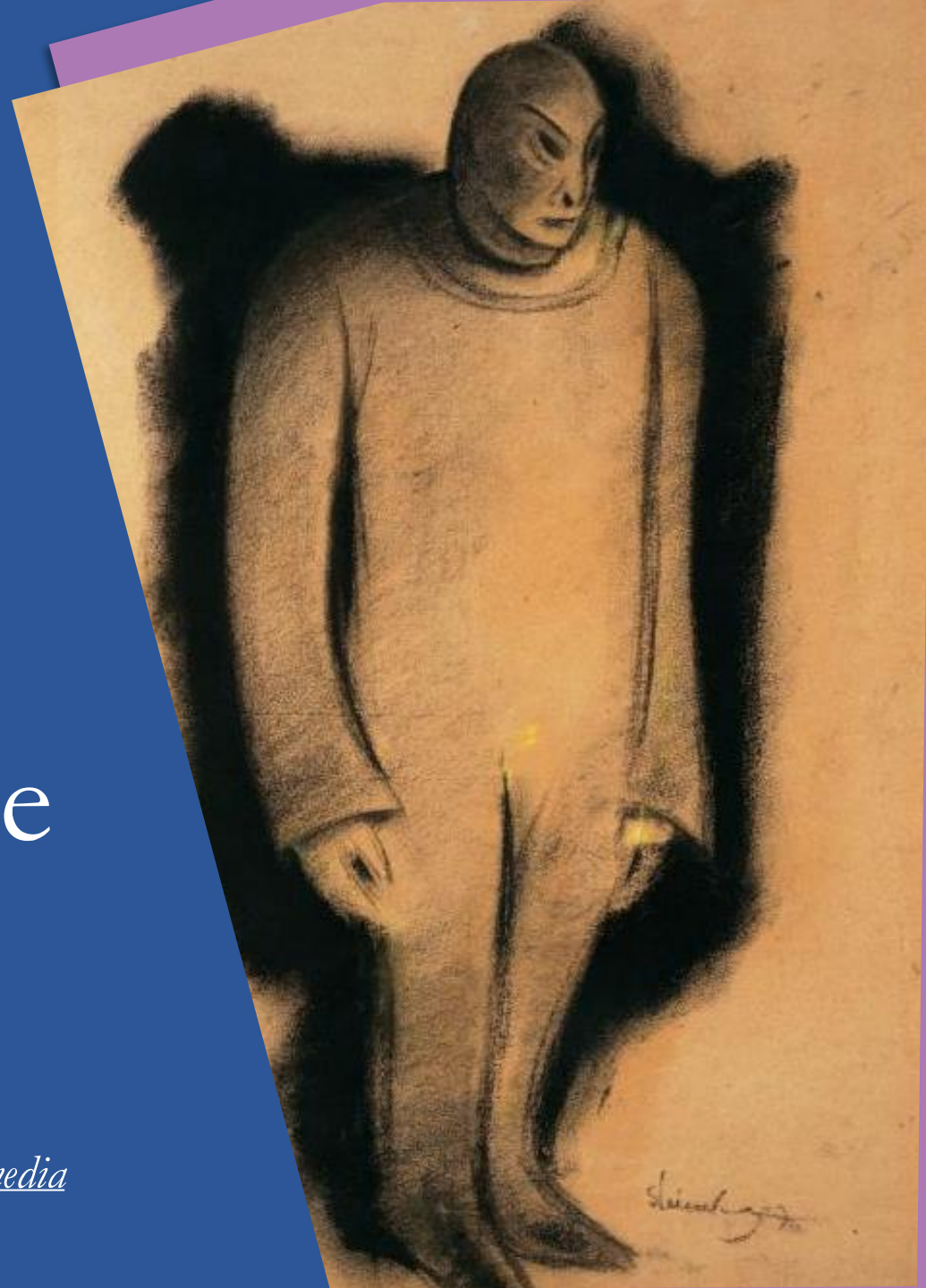
Code-text as a form of (cultural) autocommunication:

"Functionally speaking, a text is used as code and not message when it does not add to the information we already have, but when it transforms the self-understanding of the person who has engendered the text and when it transfers already existing messages into a new system of meanings."

Lotman, Juri. 1990. Universe of the Mind: A Semiotic Theory of Culture, p. 30.



#3
From intertext to code text: the narrative of the golem

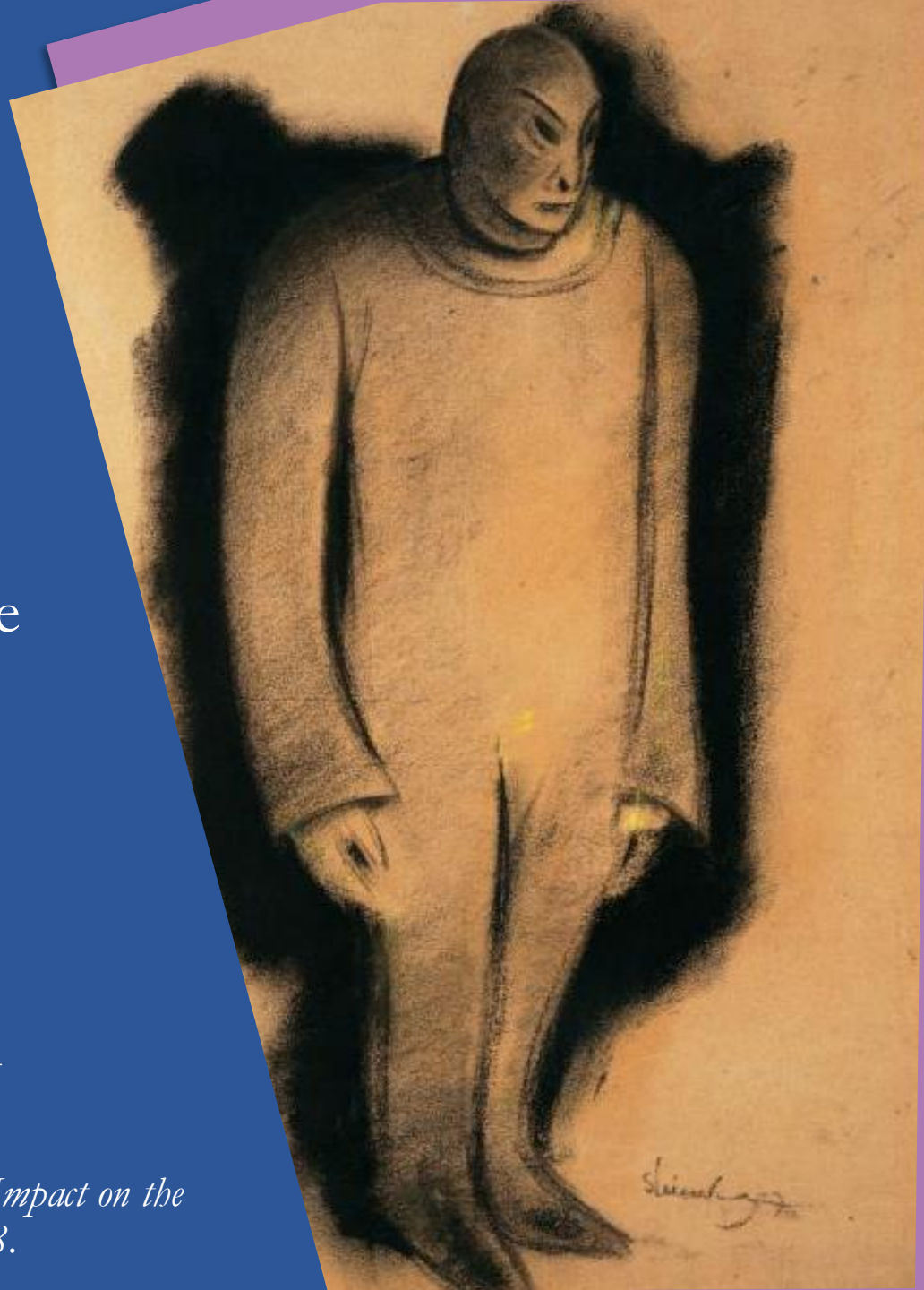


Golem by Hugo Steiner-Prag - 50 Watts Books, Public Domain, Wikimedia

The golem

"The story of the "Great Rabbi Loew", incidentally, is literary fiction from the 20th century (Scholem 1969: 189, 1978: 354). The golem as the magical helper only emerges in the writings of the 16th century German Hasidim. Only after that, combined with Paracelsus' homunculus and making its way through the annals of history, the golem seems to morph into the contemporary character of the demonic servant who becomes dangerous and "destroys the world, or in any case does a good deal of damage" (Scholem 1969: 197–202)."

Viidalepp, Auli. 2023. 'The Expected AI as a Sociocultural Construct and Its Impact on the Discourse on Technology'. Dissertationes semioticae Universitatis Tartuensis, p. 48.



#4
Metaphor, or not really? How the concept of AGI activates mythical connotations

#4
What is „AGI“?

“AGI stopped being a dirty word in the field of machine learning,” he says. “That was a big change. […] “We have people now talking about how far AI will go—people who talk about AGI, or superintelligence.” And it’s not just researchers. “Governments are talking about it,” says Sutskever. “It’s crazy.”

Heaven, Will Douglas. ‘Rogue Superintelligence and Merging with Machines: Inside the Mind of OpenAI’s Chief Scientist’. MIT Technology Review, 26 October 2023.

Apocalyptic AI

"Technology promises us a life of leisure, perhaps even immortality; at the same time, intelligent machines are always on the verge of revolting and taking over the planet. In such eschatological scenarios, robots attack their human masters and possibly enslave them."

Geraci, Robert M. 2007. 'Robots and the Sacred in Science and Science Fiction: Theological Implications of Artificial Intelligence'. Zygon® 42 (4): 961–80.

ROBOTS AND THE SACRED IN SCIENCE AND SCIENCE FICTION: THEOLOGICAL IMPLICATIONS OF ARTIFICIAL INTELLIGENCE

by Robert M. Geraci

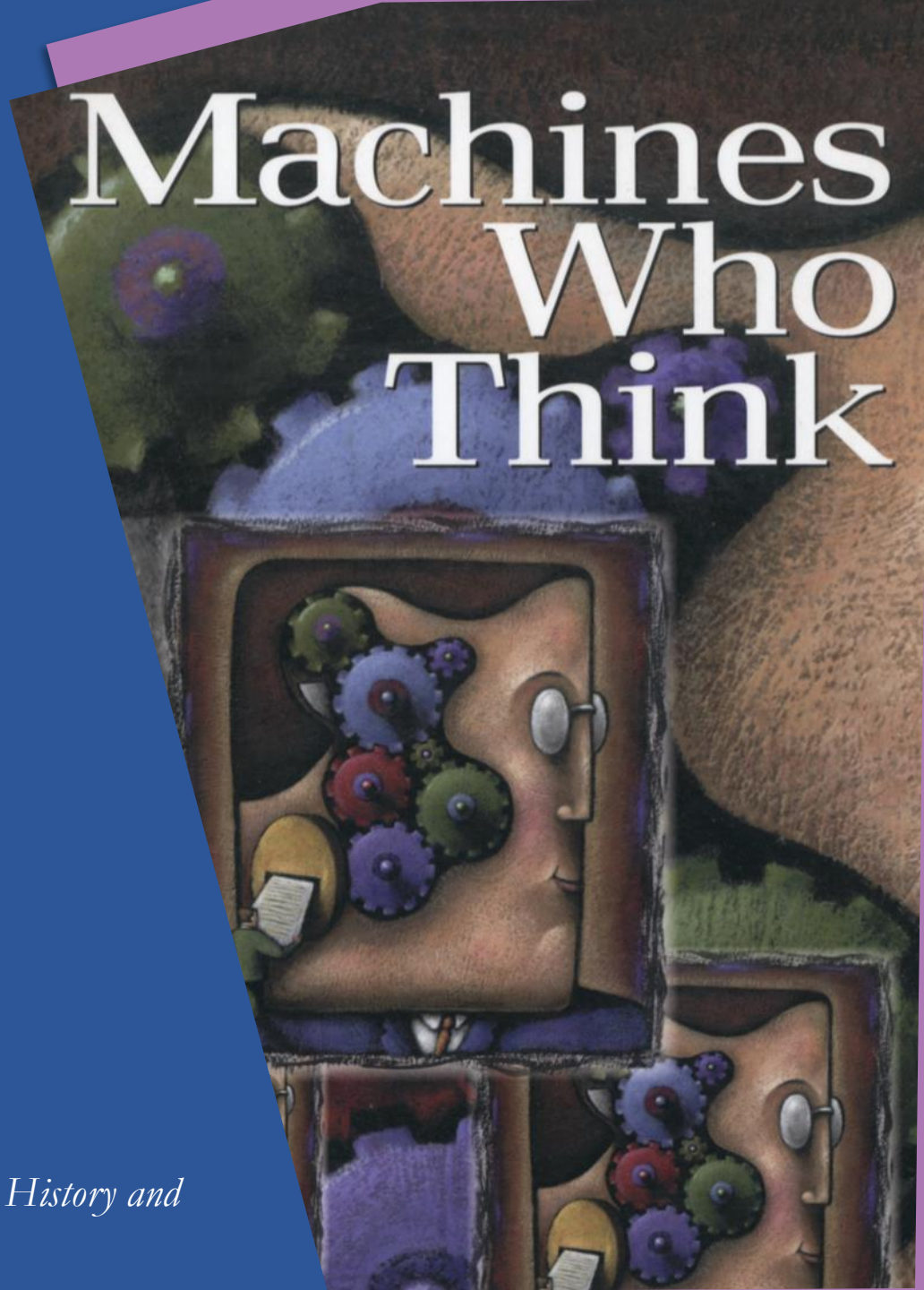
Abstract. In science-fiction literature and film, human beings simultaneously feel fear and allure in the presence of intelligent machines, an experience that approximates the numinous experience as described in 1917 by Rudolph Otto. Otto believed that two chief elements characterize the numinous experience: the *mysterium tremendum* and the *fascinans*. Briefly, the *mysterium tremendum* is the fear of God's wholly other nature and the *fascinans* is the allure of God's saving grace. Science-fiction representations of robots and artificially intelligent computers follow this logic of threatening otherness and soteriological promise. Science fiction offers empirical support for Anne Foerst's claim that human beings experience fear and fascination in the presence of advanced robots from the Massachusetts Institute of Technology AI Lab. The human reaction to intelligent machines shows that human beings in many respects have elevated those machines to divine status. This machine apotheosis, an interesting cultural event for the history of religions, may—despite Foerst's rosy interpretation—threaten traditional Christian theologies.

Keywords: artificial intelligence; Isaac Asimov; Philip K. Dick; lm; Anne Foerst; William Gibson; literature; movies; religion; ro- tics; science fiction; theology

ding much of the 1990s as resident theologian at the Massac te of Technology Artificial Intelligence Laboratory, Anne Fo n a *Zygon* article (1998a) that human beings experience b ination when they interact with intelligent machines. Cri decried the way this dynamic echoes Rudolph Otto's desc man encounter with the divine (Gerhart and Russell 19

Rabbi Loew & the golem

In her history of AI, Pamela McCorduck describes how **several AI researchers** she interviewed **consider themselves as descendants of Rabbi Loew**: among others, Marvin Minsky, John von Neumann and Norbert Wiener.



McCorduck, Pamela. 2004. Machines Who Think: A Personal Inquiry into the History and Prospects of Artificial Intelligence, pp. 15–16.

#5
Adding fear to the mix: from Apocalyptic AI to the epistemic collapse

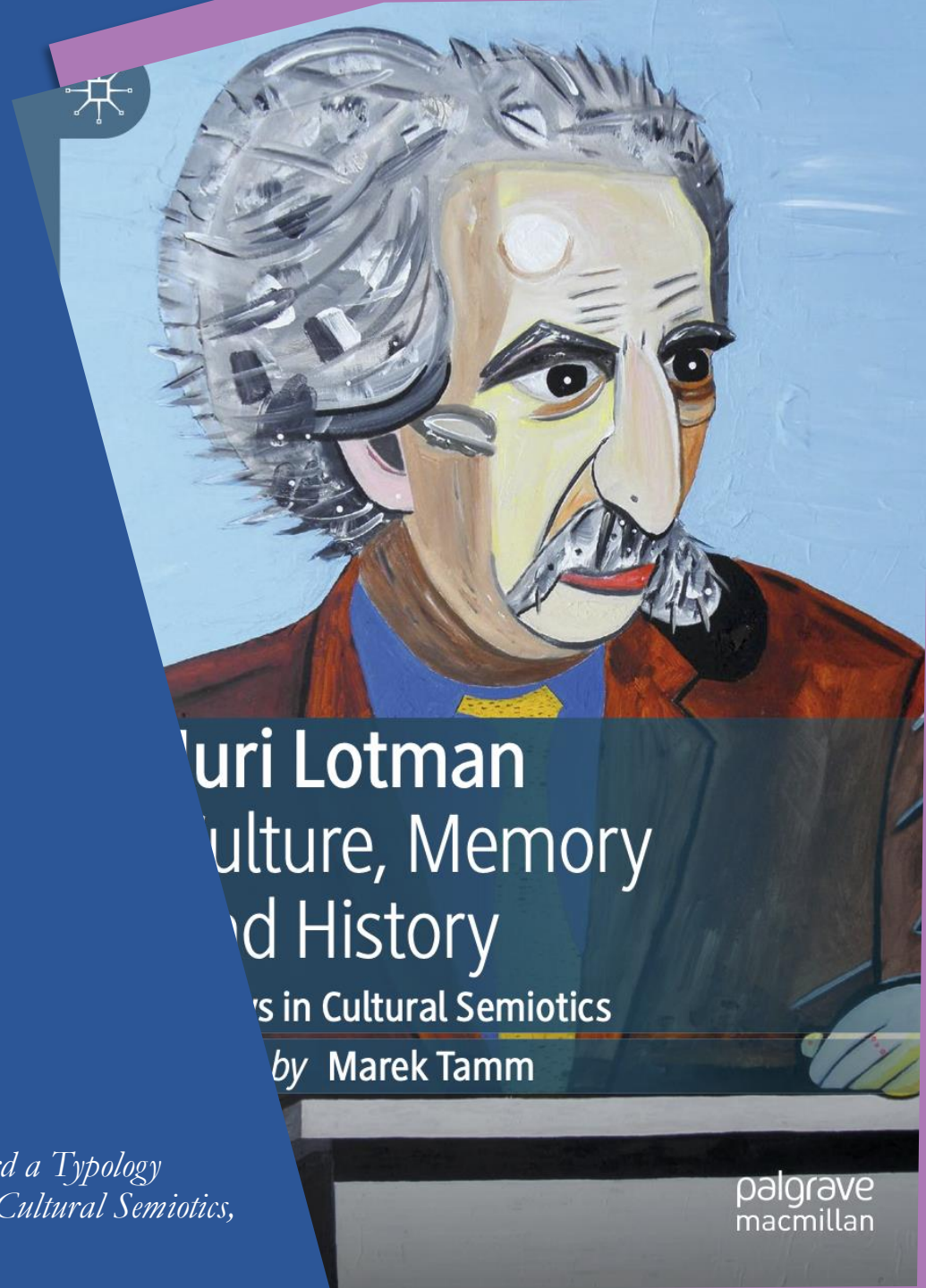
#5 Fear of AI apocalypse & epistemic collapse

The advances in generative AI have led to discourses warning about the possible sociocultural overload with computer-generated information on the Internet. This dreadful vision of the future is frequently described as “infocalypse” (Schick 2020), the proliferation of “semantic garbage” (Floridi, Chiriatti 2020), general erosion of trust (EPRS 2021), or epistemic anarchy (Kalpokas, Kalpokiene 2021; 2022).

Cultural explosion

"A **binary structure** is organically associated with the concept of explosion. Within that structure, an explosion will assume a global and all-encompassing character. Everything that preceded it is subject to destruction, while that which is created in its place is imagined not as a continuation but as the negation of everything preceding it." (p. 232)

Lotman, Juri. 2019. 'Chapter 16. The Time of Troubles as a Cultural Mechanism: Toward a Typology of Russian Cultural History'. In Juri Lotman - Culture, Memory and History: Essays in Cultural Semiotics, edited by Marek Tamm, translated by Brian James Baer, 225–43.



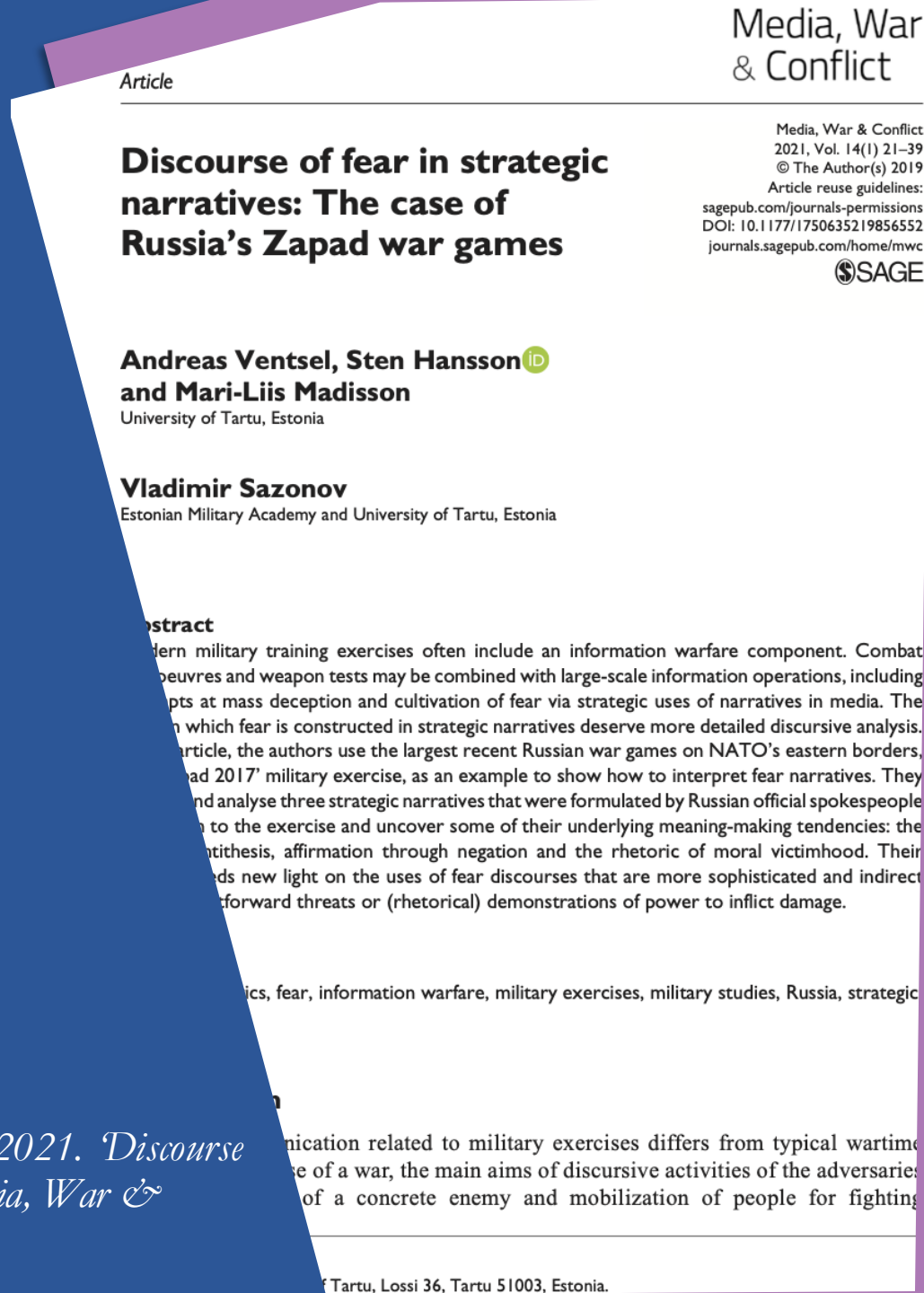
Cultural explosion

"In **ternary systems**, explosive processes rarely penetrate all layers of culture. As a rule, what occurs in this instance is the **simultaneous combination of explosion in some cultural spheres and gradual development in others**." (p. 172)

Lotman, Juri. 2009. Culture and Explosion. Semiotics, Communication and Cognition 1. Berlin; New York: Mouton de Gruyter.

Ambiguity → fear

"fear can be discursively fuelled by the use of highly ambiguous language"



Media, War & Conflict

Article

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Discourse of fear in strategic narratives: The case of Russia's Zapad war games

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University of Tartu, Estonia

Vladimir Sazonov
Estonian Military Academy and University of Tartu, Estonia

stract
dern military training exercises often include an information warfare component. Combat
euvres and weapon tests may be combined with large-scale information operations, including
pts at mass deception and cultivation of fear via strategic uses of narratives in media. The
which fear is constructed in strategic narratives deserve more detailed discursive analysis.
rticle, the authors use the largest recent Russian war games on NATO's eastern borders,
ad 2017' military exercise, as an example to show how to interpret fear narratives. They
nd analyse three strategic narratives that were formulated by Russian official spokespeople
to the exercise and uncover some of their underlying meaning-making tendencies: the
ntithesis, affirmation through negation and the rhetoric of moral victimhood. Their
ds new light on the uses of fear discourses that are more sophisticated and indirect
tforward threats or (rhetorical) demonstrations of power to inflict damage.

ics, fear, information warfare, military exercises, military studies, Russia, strategic

nication related to military exercises differs from typical wartime
e of a war, the main aims of discursive activities of the adversaries
of a concrete enemy and mobilization of people for fighting

f Tartu, Lossi 36, Tartu 51003, Estonia.

Ventsel, Andreas, Sten Hansson, Mari-Liis Madisson, and Vladimir Sazonov. 2021. 'Discourse of Fear in Strategic Narratives: The Case of Russia's Zapad War Games'. Media, War & Conflict 14 (1): 21–39. https://doi.org/10.1177/1750635219856552.

#6
Rationality returns with vengeance: on the epistemic culture of utilitarian longtermism

#6 Rationality & the epistemic culture of utilitarian longtermism

The group of ideologies underlying the Apocalyptic AI mindset […] rely on a specific breed of neoliberalist value maximisation theories. Arguably, longtermism "is not directly concerned with the objective value of options and their actual effects" but the potential value calculations related to the "expected future beings" (which entails the specimens of Homo sapiens alongside uploaded, merged, and any other fathomable kinds of digital or semi-digital creatures, possibly dispersed all over the known Universe).

Greaves, Hilary, and William MacAskill. 2021. 'The Case for Strong Longtermism. GPI Working Paper No. 5-2021'. Global Priorities Institute, p. 4.

Epistemic culture

"The notion of epistemic culture is designed to capture these interiorised processes of knowledge creation. It refers to those sets of practices, arrangements and mechanisms bound together by necessity, affinity and historical coincidence which, in a given area of professional expertise, make up how we know what we know."

Knorr-Cetina, Karin. 2007. 'Culture in Global Knowledge Societies: Knowledge Cultures and Epistemic Cultures'. Interdisciplinary Science Reviews 32 (4): 361–75.

Culture in global knowledge societies: knowledge cultures and epistemic cultures

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This paper explores the concepts of knowledge culture and epistemic culture against the background of contemporary transformations in global society. Studies of knowledge culture came to prominence in the 1970s, with the trend towards laboratory fieldwork and direct observation in the new sociology of science. If the focus in such early studies was on knowledge construction, the focus in an epistemic culture approach by contrast is on the construction of the *machineries* of knowledge construction, relocating culture in the micropractices of laboratories and other bounded habitats of knowledge practice. Not all places of knowledge, however, are bounded spaces, and there is a case to be made for including in the empirical agenda more distributed locations. This is done here by introducing the concept of 'macro-epistemics', to describe wider networks of knowledge generation such as what is often known as 'the global financial architecture'. The discussion concludes by moving out from macro-epistemic circuits to questions of the cultural environment of epistemic settings, and of the more general knowledge culture in which specific knowledge processes are embedded.

CULTURE IN RELATION TO KNOWLEDGE

of a cultural conception of knowledge is rooted in contemporary existence, in the ransition to a knowledge society. Today, at the start of the twenty-first century, it by many that we are well on the way to an era beyond modernity and the sort of economy and nation state societies that came with it; the terms suggested to e transformations and the new type of system involved include post-industrial stmodernity, information society, risk society, globalisation and knowledge ough knowledge and information appear only in some of these terms, nearly all gest that issues of knowledge and information are central to the transfor- whatever else the new era brings – the decline of the nation state, the f risks or individualisation – we are also entering a period focused upon information (and these are entangled with the other processes). The temic culture and knowledge culture belong to this transformation. The ion of a knowledge society is economic; it states that knowledge has ive force that increasingly replaces capital, labour and natural resources nd wealth-creating factors.[2] Analysts may also emphasise the presence ation infrastructures and the changes in economic and social orga- rom them.[3] But a knowledge society is not simply a society of more ology and of the economic and social consequences of these factors. rmeated with knowledge settings, the whole sets of arrangements,

erals and Mining. Published by Maney on behalf of the Institute

Epistemic community

"The dispersal of this epistemic community's members throughout the tech industry, academia, and policy organizations ensures their continued input into global discourse about AI. […] The impact of this epistemic community, which we hereafter refer to as the 'AI safety epistemic community', extends beyond the community's bounds: non-profit and for-profit organizations, as well as academic research groups, have begun attracting sizable donations to fund their work."

Ahmed, Shazeda, Klaudia Jaźwińska, Archana Ahlawat, Amy Winecoff, and Mona Wang. 2023. 'Building the Epistemic Community of AI Safety'. SSRN Scholarly Paper. Rochester, NY. https://doi.org/10.2139/ssrn.4641526

Building the Epistemic Community of AI Safety

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TRACT

nerging field of "AI safety" has attracted public attention
ge infusions of capital to support its implied promise: the
deploy advanced artificial intelligence (AI) while reducing
t risks. Ideas from effective altruism, longtermism, and
of existential risk are foundational to this new field. In
we contend that overlapping communities interested
as have merged into what we refer to as the broader
istemic community," which is sustained through its
forcing community-building and knowledge produc-
We support this assertion through an analysis of
in this community's epistemic culture: 1) online
lding through web forums and career advising; 2)
AI safety research; and 4) prize competitions. The
pistemic community's members throughout the
demia, and policy organizations ensures their
o global discourse about AI. Understanding the
at fuses their moral convictions and knowledge
valuating these claims, which are gaining in-
idly changing debates about the harms of AI
hem.

re, existential risk, effective altruism

N

raduate computer science student at a
rested in the ethical consequences of
ing to build. Seeking a like-minded
organization where you read books
nline forums debating how artificial
future of humanity. Motivated by
bout how to do the most good in
career where you work towards
in a tech company where you
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alize the community that has
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nology industry, academia,
I.

This hypothetical scenario approximates a very real personal and professional path for individuals interested in minimizing what they view as the negative long-term consequences of AI—especially those they characterize as existential threats to humanity. Starting in the early 2000s, a robust community has arisen around these issues, attracting individuals interested in applying the interconnected ideas behind effective altruism (EA), longtermism, artificial general intelligence (AGI), and existential risk ("x-risk") to making AI systems safer.

Importantly, these ideas have recently entered the mainstream. In 2022, this shift was propelled in part by the large-scale infusion of capital then-billionaire Sam Bankman-Fried committed to EA and longtermist causes through FTX Foundation's Future Fund, a grant-making body which was associated with his cryptocurrency exchange's philanthropic arm [67]. Many of the organizations, research, media, individuals, and projects selected for FTX Future Fund grants strengthened and expanded the EA and longtermist communities and their influence on how broad swaths of people outside of the community think about AI. In under a year, these ideas have come to take on global significance: discourse about AI posing an existential risk regularly appears in news media coverage and has spurred policymakers on both sides of the Atlantic to turn to this epistemic community for solutions. While the Future Fund dissolved [148] after FTX went bankrupt [87], the community is still going strong and merits closer study.

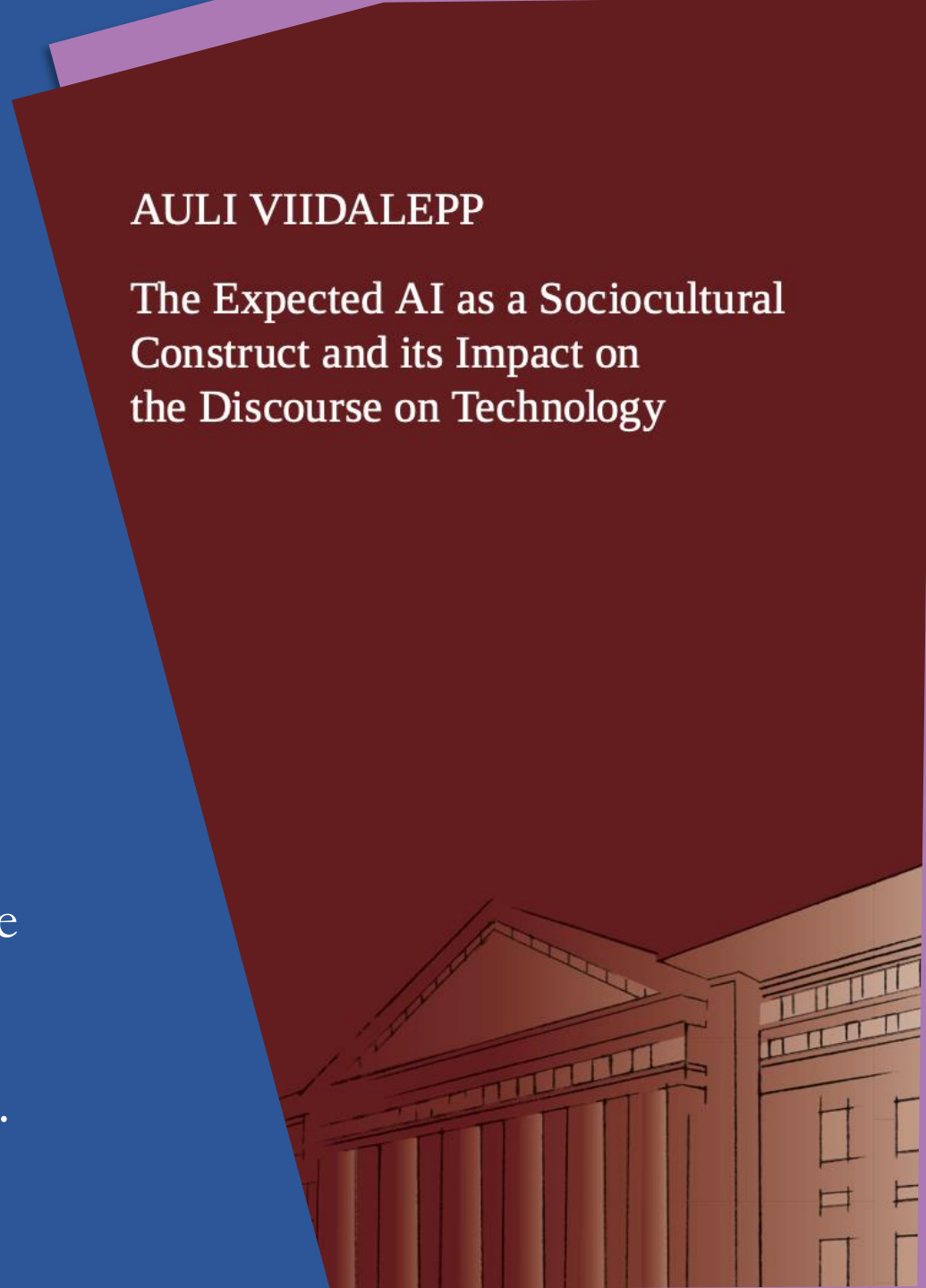
We contend that the overlapping communities drawn together by these ideas form one coherent "epistemic community": a community with clearly-defined shared values and methods of knowledge production [153]. The impact of this epistemic community, which we hereafter refer to as the "AI safety epistemic community", extends beyond the community's bounds: non-profit and for-profit organizations, as well as academic research groups, have begun attracting sizable donations to fund their work. Furthermore, the AI safety epistemic community has also developed a variety of methods for expanding the reach of their ideas including online forums, career development programs, and policy advocacy. Through an analysis of the landscape of this community, we sought to answer the following research question: **How is the AI safety epistemic community developed and maintained through social, intellectual, and organizational practices?**

#7
Concluding remarks

#7 Concluding remarks

While the prevention of apocalypse makes for an intriguing fundraising argument, the proponents of Apocalpytic AI seem not to understand that the overall situation of the world is far from the explosive changes in the segment that they observe and envision.

Because they continuously employ the mythological meaning-making — amplified by binary thinking — to fill the gaps with dread about the future, it is very difficult, if not impossible, to bring this mindset into a constructive dialogue with the slower, gradual developments taking place in the spheres of policymaking and legislation.



Thank you!

https://auli.viidalepp.org

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