

Europäische Suche? Vom Datenkapitalismus zur Suchmaschinen-Diversität

Dr. Astrid Mager

Plattform Privatheit 2023
Data Sharing – Datenkapitalismus
by Default?

5. Oktober 2023



Google's dominante Position in Europa



Google's Datenkapitalismus

“service-for-profile” business model (Elmer 2004)

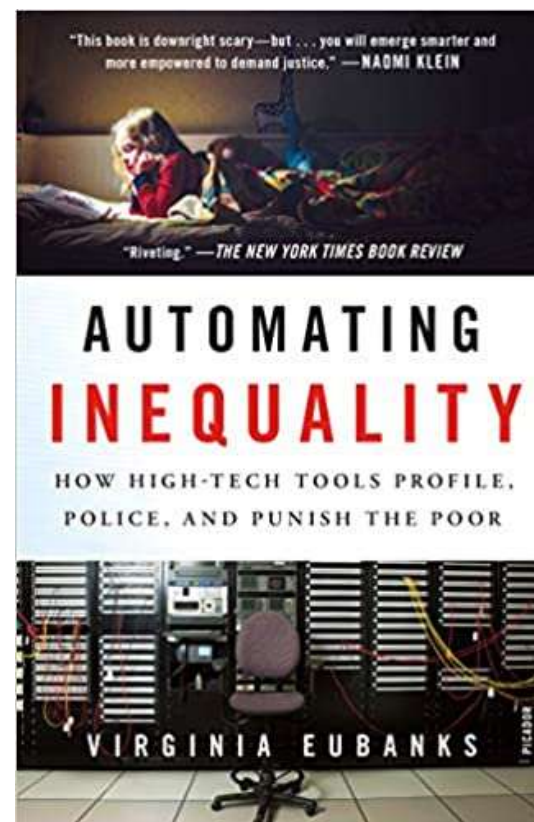
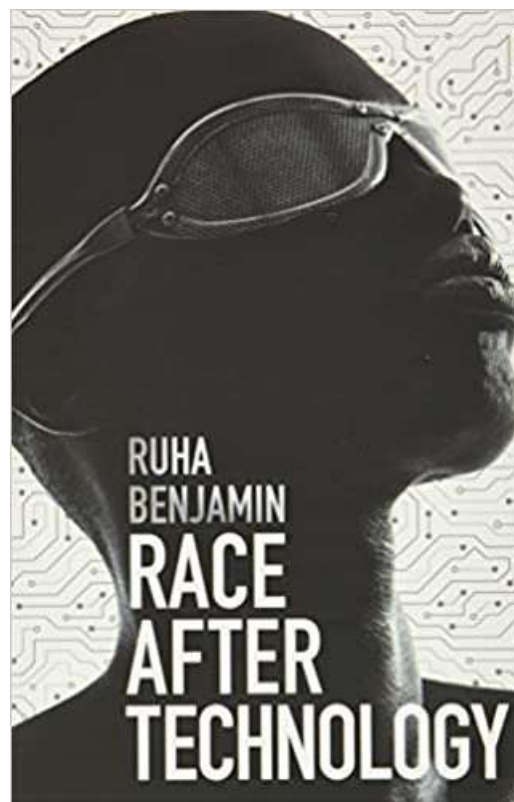
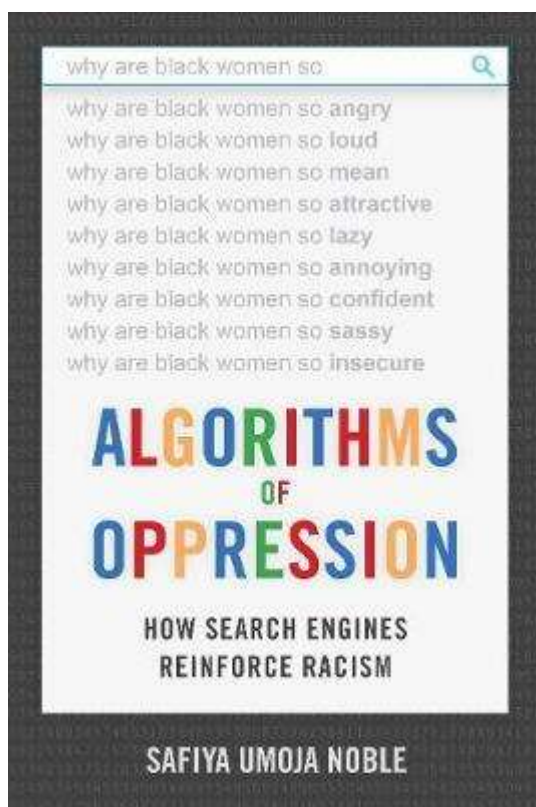
“traffic commodity” (Van Couvering 2008)



„ultimate economic surveillance machine“ (Fuchs 2011)



Gender & Race Bias in Algorithmen

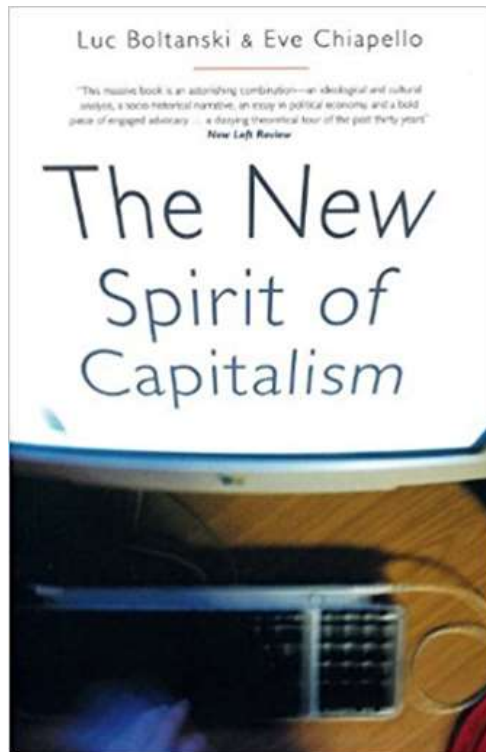


What is driving search engines in society?

Entwicklung von Suchmaschinen an der Schnittstelle von Diskurs/
Ideologie & soziotechnischen Praktiken



Ideologie des Datenkapitalismus?



“,Ideology is ‘a set of shared beliefs, inscribed in institutions, bound up with actions, and hence anchored in reality.’”

‘A form of exploitation that develops in a connexionist world – that is to say, a world where the realization of profit occurs through organizing economic operations in networks’

Soziotechnische Praktiken & Machtverhältnisse

- “Neuer Geist des Kapitalismus“ wird durch soziale Praktiken in Suchmaschinen eingeschrieben & über Technik weiter verfestigt
- Suchmaschinen, und deren Geschäftsmodelle, werden in einem Netzwerk aus Akteuren und Interessen stabilisiert
- Von ges. Auswirkungen hin zu Praktiken/ Machtverhältnissen, die in die Entwicklung von Suchmaschinen involviert sind

Astrid Mager

ALGORITHMIC IDEOLOGY

How capitalist society shapes search engines

This article investigates how the new spirit of capitalism gets inscribed in the fabric of search algorithms by way of social practices. Drawing on the tradition of the social construction of technology (SCOT) and 17 qualitative expert interviews it discusses how search engines and their revenue models are negotiated and stabilized in a network of actors and interests, website providers and users first and foremost. It further shows how corporate search engines and their capitalist ideology are solidified in a socio-political context characterized by a techno-euphoric climate of innovation and a politics of privatization. This analysis provides a valuable contribution to contemporary search engine critique mainly focusing on search engines' business models and societal implications. It shows that a shift of perspective is needed from impacts search engines have on society towards social practices and power relations involved in the construction of search engines to renegotiate search engines and their algorithmic ideology in the future.

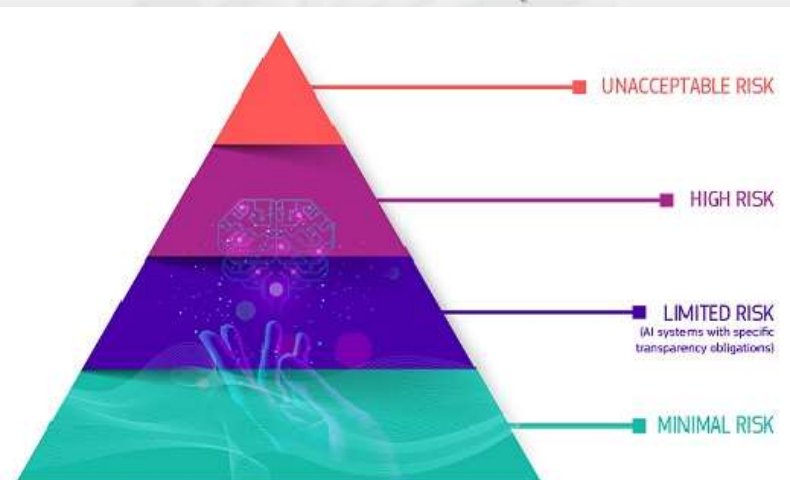
Keywords search engine; social construction of technology; new spirit of capitalism; Google; information economy; ideology

(Received 12 September 2011; final version received 12 March 2012)

Introduction

Yesterday I did an online search on the controversy around biofuels for a project I am currently working on in Sweden. Like the majority of users, I employed the search engine Google. I put keywords such as 'biofuel' or 'biofuel debate' in the search box and browsed through a couple of websites, mostly going back and forth to Google. Besides links to research institutions working on biofuels, informative Wikipedia articles and newspaper debates on societal implications of biofuels, a range of commercial links were presented to me in the sponsored search results (the links appearing in the right column or on top of the main,

Was passiert in Europa?



“GOOGLE HAS COME UP WITH MANY INNOVATIVE PRODUCTS AND SERVICES THAT HAVE MADE A DIFFERENCE TO OUR LIVES.
THAT’S A GOOD THING.
 BUT GOOGLE’S STRATEGY FOR ITS **COMPARISON SHOPPING SERVICE** WASN’T JUST ABOUT ATTRACTING CUSTOMERS BY MAKING ITS PRODUCT **BETTER** THAN THOSE OF ITS RIVALS.
 INSTEAD, GOOGLE **ABUSED** ITS **MARKET DOMINANCE** AS A SEARCH ENGINE BY PROMOTING ITS OWN COMPARISON SHOPPING SERVICE IN ITS SEARCH RESULTS, AND **DEMOTING THOSE OF COMPETITORS.**

-COMMISSIONER OF COMPETITION
 MARGRETHE VESTAGER

Starke Rhetorik - brüchige Praxis

- EU zählt auf „politics of control“, um Grundrechte durchsetzbar zu machen
- Rhetorik der „europäischen Wert“ zentral in EU Policy, aber brüchig in der Praxis durch starke Diversität innerhalb der EU
- Nationale Spezifika tragen zur Gestaltung von Suchmaschinen, aber auch zur Nicht-/Gestaltung von Europa bei

Article

SSS

Search engine imaginary: Visions and values in the co-production of search technology and Europe

Social Studies of Science
2017, Vol. 47(2) 240-262
© The Author(s) 2016
Reprints and permissions:
sagepub.com/journalsPermissions.nav
DOI: 10.1177/0306312716671431
journals.sagepub.com/home/ss
SAGE

Astrid Mager

Institute of Technology Assessment (ITA), Austrian Academy of Sciences (ÖAW), Wien, Austria

Abstract

This article discusses the co-production of search technology and a European identity in the context of the EU data protection reform. The negotiations of the EU data protection legislation ran from 2012 until 2015 and resulted in a unified data protection legislation directly binding for all European member states. I employ a discourse analysis to examine EU policy documents and Austrian media materials related to the reform process. Using the concept 'sociotechnical imaginary', I show how a European imaginary of search engines is forming in the EU policy domain, how a European identity is constructed in the envisioned politics of control, and how national specificities contribute to the making and unmaking of a European identity. I discuss the roles that national technopolitical identities play in shaping both search technology and Europe, taking as an example Austria, a small country with a long history in data protection and a tradition of restrained technology politics.

Keywords

Austrian media, co-production, European identity, European policy, Google, privacy, search engine, sociotechnical imaginary

Introduction

Information and communication technologies (ICTs) are described as transcending and transforming national borders, political regimes and power relations. They are envisioned as creating a global 'network society' (Castells, 2000) that has hubs and links

Correspondence:

Astrid Mager, Institute of Technology Assessment (ITA), Austrian Academy of Sciences (ÖAW), Ströhgasse 45/5, 1030 Wien, Austria.
Email: astrid.mager@oew.ac.at

Europäische Diversität

- Harte Verhandlungen & Kompromisse
- Historische, kulturelle, ökonomische, sozio-politische Diversität verkomplizieren Verhandlungen der DSGVO
- Europa als „*multiply imagined community*“



„Europe in particular is a multiply imagined community in the minds of the many actors who are struggling to institutionalize their particular versions of Europe, and how far national specificities should become submerged in a single European nationhood – economically, politically, ethically – remains far from settled“ (Jasanoff 2005)

Europäische Suche?

Original Research Article



European Search? How to counter-imagine and counteract hegemonic search with European search engine projects

Big Data & Society
January–June 1–13
© The Author(s) 2023
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/20539517231163173
journals.sagepub.com/home/bds

Astrid Mager

Abstract

This article investigates how developers of alternative search engines challenge increasingly corporate imaginaries of digital futures by building out counter-imaginaries of search engines devoted to social values instead of mere profit maximization. Drawing on three in-depth case studies of European search engines, it analyzes how search engine developers counter-imagine hegemonic search, what social values support their imaginaries, and how they are intertwined with their sociotechnical practices. This analysis shows that notions like privacy, independence, and openness appear to be fluid, context-dependent, and changing over time, leading to a certain “value pragmatics” that allows the projects to scale beyond their own communities of practice. It further shows how European values, and broader notions of Europe as “unified or pluralistic,” are constructed and co-produced with developers’ attempts to counter-imagine and counteract hegemonic search. To conclude, I suggest three points of intervention that may help alternative search engine projects, and digital technologies more generally, to not only make their counter-imaginaries more powerful, but also acquire the necessary resources to build their technologies and infrastructures accordingly. I finally discuss how “European values,” in all their richness and diversity, can contribute to this undertaking.

Keywords

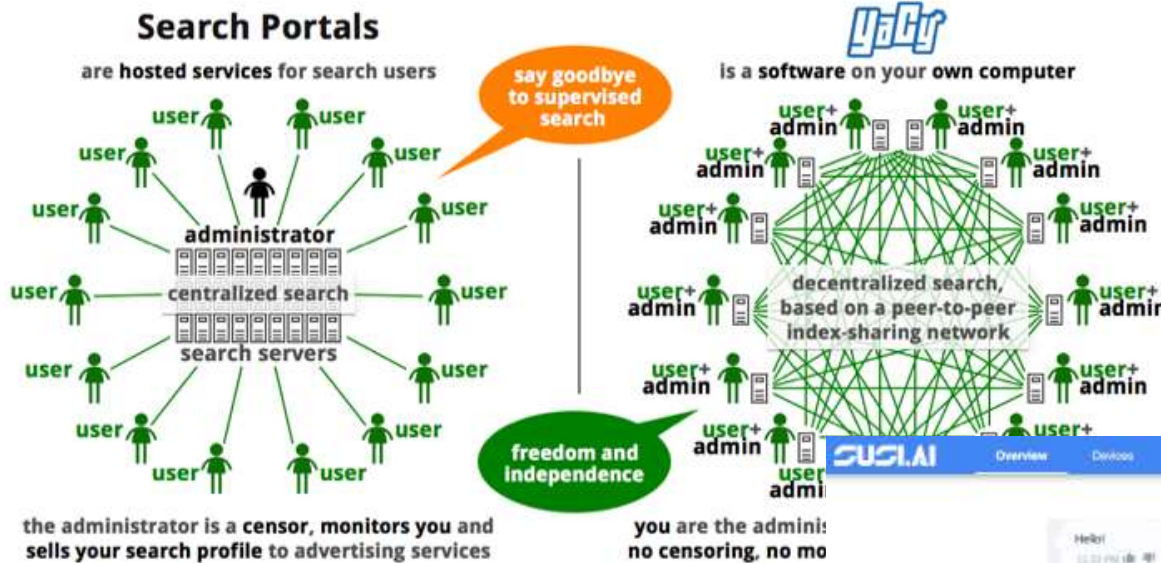
Counter-imaginaries, sociotechnical practices, communities of practice, alternative search engines, European values

Startpage



YaCy/ Susi.AI

Comparison: Search Portals vs. YaCy



Meet SUSI.AI, Your Artificial Intelligence for Personal Assistants, Robots, Help Desks and Chatbots.

Open Web Index/ Open Web Search



[Welcome](#) [EU Project](#) [Partners](#) [Community](#) [Media Room](#) [News](#) [Contact](#)

»Free, open and unbiased access to information – we have lost these core principles in web search and urgently need to restore them. This is why openwebsearch.eu will create an open European infrastructure for internet search, based on European values and jurisdiction.«

Michael Granitzer
University Passau and Open Search Foundation,
Coordinator of OpenWebSearch.EU

Promoting Europe's Independence in Web Search

14 renowned European research and computing centers have joined forces to develop an open European infrastructure for web search. The initiative will be contributing to Europe's digital sovereignty as well as promoting an open human-centered search engine market.

News

Roslyn23 – Submit your papers and save the date for 5th International Symposium on Open Search
May 12, 2023

"OpenWebSearch.EU is an open project where others can contribute" – Interview about the third anniversary of openwebsearch.eu

„Counter-imaginaries“

“These counter-imaginaries make apparent how civil society seeks to respond to the ever-complex technological change and the risks it conceals.” (Kazansky & Milan 2021)

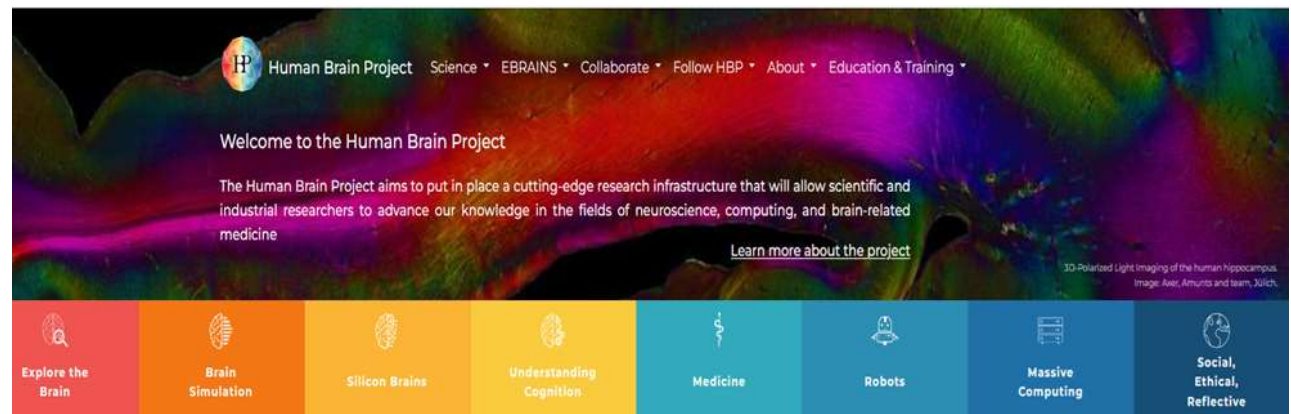
SI “Future imaginaries in the making and governing of digital technology:
Multiple, contested, commodified”
(Mager & Katzenbach 2021)



Spannungen in Europa

European Human Brain Project (HBP): *“through these narratives Europe itself is posited as a problem – the tension between unification and pluralism is serving as both metaphor for and backdrop to contestations over how scientific communities should be bringing data together in European ‘big science’ projects”* (Mahfoud, 2021)

=> Europa als *“unified or pluralistic”* zentral für Suchmaschinen-Diversität



Visionen, Werte & “counter-imaginaries”

Startpage: “privacy first”

Ziel: profitables Business mit Privatsphäre-freundlicher Technologie, um mit „privacy as anti-innovation“ (Cohen 2014) Rhetorik aufzuräumen

YaCy/ SUSI.AI: “hacker morals” (Coleman 2013)

Ziel: De-zentraler Web Index nach peer-to-peer Prinzipien, stark in der Free & Open Source Software (FOSS) Szene verortet

OWI/ OWS: “basic infrastructure”

Ziel: Aufbau eines offenen Web Indexes, um Zugang zu Wissen zu diversifizieren (europ. Tradition öffentlich-finanzierter Medien/ Bibliotheken)

Infrastrukturelle Herausforderungen



Google



Summer
of
Code

Pluralistisches Europa – technologische Diversität?

Open Web Index: Neben Aufgabe des Crawlings & Indexierens enorme Governance Aufgabe!!

Globales Standard-Setting vs lokale Bedürfnisse “situatedness”

⇒ *“How to unify while retaining diversity?”* (Mahfoud, 2021)

- Open Web Index als *“kind of computational movement in Europe”*
- Europa als kulturell divers, föderalistisch, und kooperativ: *“This is why we need a special spirit here to benefit from the federated, rather cooperative structures in Europe.”* (OWI contributor)

Pluralistisches Europa besser mit technologischer Vielfalt & Diversität vereinbar als vermeintliches “catching up” mit den USA (und China)?

3 Interventionen



Finanzierung: Langzeitfinanzierung & “slow scaling”

Mutigeres “cherry picking” näher an Developer Culture als EU Bürokratie – *“should the state act like Google?”* (YaCy contributor)

Beratung: Fortlaufende Beratung zu rechtlichen, ethischen, sozio-politischen Herausforderungen - Neue Institutionen zur “observability” (Rieder & Hofmann 2020) – ABER AUCH zur Entwicklung von Tech/ Infrastruktur

Open data? *“European platform tree without a trunk fed by proprietary data flows, but with a federated, decentralized shape”* (Van Dijck 2021)

Open data, data commons, data solidarity statt Individualkonzepten (notify & consent)

Vielen Dank!

Kontakt:

<https://www.astridmager.net/>
astrid.mager@oeaw.ac.at

@astridmager & @astridmager@chaos.social

Mager A., Norocel C. & Rogers R. (2023) Advancing search engine studies: The evolution of Google critique and intervention, in: *Big Data & Society* 10(2).

Mager A. (2023) European Search? How to counter-imagine and counter-act hegemonic search with European search engine projects in: *Big Data & Society* 10(2).

Mager A. & Katzenbach C. (2021) Future imaginaries in the making and governing of digital technology: Multiple, Contested, Commodified, in: *New Media & Society* 23(2).