

# Breaking Bad ToS

## The DH-scholar as Villain

*Prof. Pelle Snickars, Umeå universitet*





**HEISENBERG**

# Biblioteks blad

SVENSK BIBLIOTEKFÖRENING  
TIDNING UTGIVEN SEDAN 1916

nr 01/2016

[s 14] Tema Danmark: Var finns framtidens bibliotek?

[s 33] Ny modell: Tilda byggs för forskningsdata

[s 28] Så gjorde vi: Skype till ensamkommande i Malmö



*Branschens*  
**BAD BOY**

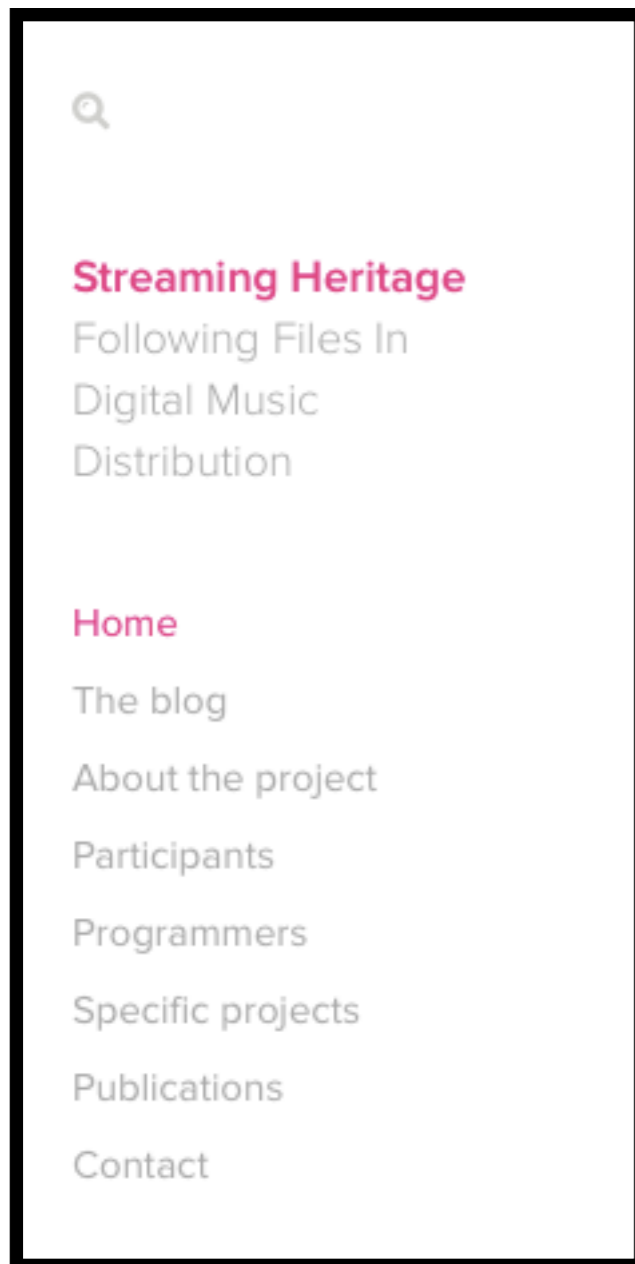
[s 10] Professor Pelle Snickars vill att biblioteken lär av Spotify



***"Pelle, vi kontakter dig angående projektet "Streaming heritage: 'Following files' in Digital Music Distribution" ("projektet").***

***Spotify welcomes the growing interest in streaming media but is concerned about information it received regarding methods used by the group of researchers responsible for this project. This information suggests that the research group systematically violated Spotify's Terms of Use by attempting to artificially increase plays, among other actions, and to manipulate Spotify's services with the help of scripts or other automated processes. Spotify determines that the group of researchers was aware that such actions explicitly violate its Terms of Use and aimed to mask this violation by technical means.***

*In light of the above you are hereby asked to confirm by 26<sup>th</sup> of May 2017, in written form, that you have received this note and that the group of researchers has ended such actions that are in violation of Spotify's Terms of Use, and that it does not intend to take up such actions again in the future. Note that in this context, violation against the Terms of Use may imply responsibility for possible damages resulting from this violation*



<http://streamingheritage.se>

Benjamin Helldén-Hegelund

(Ämne saknas)

Till: pelle.snickars@umu.se

Inkorg - Exchange 19 maj 2017 17:06



 Siri hittade ny kontaktinformation i det här brevet: Benjamin Helldén-Hegelund benjaminh@spotify.com

[lägg till i Kontakter...](#) 

Pelle

Vi kontaktar dig angående projektet "Streaming heritage: 'Following files' in Digital Music Distribution" ("projektet").

Spotify ser positivt på det ökade intresset kring strömmade media men är bekymrat över uppgifter som framkommit avseende de metoder den ansvariga forskningsgruppen använder sig av i projektet. Nämnda uppgifter ger vid handen att forskningsgruppen systematiskt brutit mot Spotifys användningsvillkor ("Användningsvillkoren") genom att bland annat söka att artificiellt öka antalet spelningar och manipulera Tjänsterna med hjälp av script eller andra automatiserade processer. Spotify noterar att forskningsgruppen varit medveten om att nämnda aktiviteter står i uttrycklig strid med Användningsvillkoren och sökt dölja villkorsbrotten medelst tekniska åtgärder.

I ljuset av det ovanstående ombeds du härmed att senast den 26 maj 2017 skriftligen bekräfta mottagande av detta brev samt att forskningsgruppen upphört med sådana aktiviteter som strider mot Användningsvillkoren och inte avser att framdeles vidta dylika åtgärder. Notera härvidlag att brott mot Användningsvillkoren kan medföra ansvar för skada som uppstår som en följd därav.

Med vänlig hälsning

Benjamin Helldén-Hegelund

Legal Counsel

[benjaminh@spotify.com](mailto:benjaminh@spotify.com) | T: +46 (0)730 719 091

Birger Jarlsgatan 61, 113 56 Stockholm



Pelle Snickars

Skickat - Exchange 19 maj 2017 19:13

PS

Re:

Till: Benjamin Helldén-Hegelund

hej benjamin

... tack för ditt mail.

det är sant att vi brutit mot spotifys användningsvillkor inom ramen för vårt forskningsprojekt – dock enbart i vetenskapligt syfte. vi har också gjort det i mycket ringa skala, därtill i vad man kunde kalla 'metodologisk anda' – dvs, hur kan vi som akademiker och medievetare studera strömmande medietjänster (som spotify) från utsidan. inom akademien är detta för närvarande en fråga av viss magnitud. vi har härvidlag dels manuellt registrerat "forskningsanvändare" av spotify free – exempelvis med olika kön för att se på vilket sätt som musikrekommendationer skiftar med genus – och delvis arbetat med botar som en form av virtuella användare och informanter. sedan spotify började använda captchas (sommaren 2016) har vi dock i princip helt upphört med automatiserade processer (av förklarliga skäl). nu under våren 2017 skriver vi på en bok som summerar våra resultat. boken handlar dels om ovan, dels om mycket annat i relation till spotify, som exempelvis #backaspotify-kampanjen, eventuell börsintroduktion, spotify och artister, "the swedishness of spotify", aggregeringsprocedurer av musik etc. etc.

projektet lider mot sitt slut – formellt slutdatum är 31/12 i år – och vi har helt slutat med och kommer inte att framöver använda några digitala metoder alls. vår bok kommer att publiceras av det akademiskt mycket ansedda förlaget MIT Press (som är non-profit och vi tjänar heller inga pengar på publikationen). vår tanke är att vi skulle skicka några exemplar av den färdiga boken till spotify (som kommer ut 2018) – möjligen finns här somligt som kan vara av intresse.

vi delar mer än gärna med oss av våra kunskaper.

jag hoppas att ovan ger dig de svar du efterfrågade.

vänligen,

pelle

**Pelle Snickars**  
Professor  
Department of Culture and Media / Humlab  
Umeå University

mobil: 0730473510  
<http://pellesnickars.se>

<http://digitalamodelleuse/>  
<http://streamingheritage.se/>  
<http://mediehistorisktarkiv.se/>





University Management / University Management / Vice-Chancellor

## University Management

University Management

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Research

Deputy Vice-Chancellor for  
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Deputy University Director

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### Vice-Chancellor Hans Adolfsson

**Vice-Chancellor Hans Adolfsson is the university's chief executive and leader. He reports to the University Board of Directors and has the duty to implement the policies of the board.**



*Vice-Chancellor Hans Adolfsson.  
Photo: Elin Berge.*

Hans Adolfsson, born 1964, studied chemistry at Stockholm University from 1985–89, and completed his doctoral studies at the Royal Institute of Technology in 1995. Thereafter, he held the position of postdoc at the Scripps Research Institute in La Jolla, USA, between 1996 and 1998. After his postdoc, he was employed as a postdoctoral research fellow at Stockholm University, and in 2007, he was installed as professor in organometallic chemistry at the same university.

Hans Adolfsson has been director of studies in organic chemistry, member of the Faculty of Science



Vetenskapsrådet

Datum

2017-07-09

Diarienummer

2013-01139

Handläggare

Maria Thuveson

Rektor Umeå Universitet

Rektor Umeå universitet.

Vetenskapsrådet har fått bifogat brev med frågor rörande ett forskningsprojekt för vilket Umeå universitet är medelsförvaltare. Ansökan är registrerad hos Vetenskapsrådet med diarienummer 2013-01139. I ansökan anges KB som medelsförvaltare men då Snickars tillträde en professur i media och kommunikationsvetenskaps vid Umeå universitet den 1 jan 2014 flyttades projektet dit.

Umeå universitet anmodas härmed att yttra sig över vad Spotify anför. Vetenskapsrådet ber er särskilt att beskriva hur forskningen uppfyller etiska riktlinjer samt utförs redligt och i enlighet med gällande rätt.

Vetenskapsrådet önskar få svar på denna anmodan senast den 26 juni, 2017.

Med vänliga hälsningar,

Maria Thuveson

*Avdelningschef, avdelningen för forskningsfinansiering*

Hej Kerstin,

Vi kontaktar dig angående projektet "Streaming Heritage: 'Following Files' in Digital Music Distribution" under ledning av Pelle Snickars vid Umeå Universitet ("projektet"). Såvitt Spotify förstår har projektet erhållit finansiellt stöd från Vetenskapsrådet.

Spotify är synnerligen bekymrat över uppgifter som framkommit avseende forskningsgruppens metoder i projektet. Nämnade uppgifter ger vid handen att forskningsgruppen uppsåtligen vidtagit åtgärder som står i uttrycklig strid med Spotifys Användningsvillkor och medelst tekniska metoder sökt dölja dessa villkorsbrott.\* Forskningsgruppen har vidgått att den bland annat sökt att artificiellt öka antalet spelningar och manipulera Spotifys tjänster med hjälp av script eller andra automatiserade processer.

Spotify förutsätter att nämnda systematiska villkorsbrott inte varit kända för Vetenskapsrådet och är övertygat om att Vetenskapsrådet vinnlägger sig om att den forskning som bedrivs med stöd från Vetenskapsrådet i alla avseenden uppfyller etiska riktlinjer samt utförs redligt och i enlighet med gällande rätt.

Spotify inbjuder Vetenskapsrådet att kontakta Spotify för en diskussion kring ovanstående ärende. Det är Spotifys förhoppning att Vetenskapsrådet agerar resolut i syfte att säkerställa att oredliga eller villkorsstridiga metoder upphör omedelbart.

Spotify emotser Vetenskapsrådets skyndsamma återkoppling.

Med vänliga hälsningar

Benjamin Helldén-Hegelund  
Legal Counsel  
[benjaminh@spotify.com](mailto:benjaminh@spotify.com) | T: +46 (0)730 719 091  
Birger Jarlsgatan 61, 113 56 Stockholm



\* Se bl.a. Pelle Snickars – SpotiBot: "In addition, since our bot experiments violated (some of) Spotify's user agreements, a VPN connection was used that hid the running clients behind a public proxy IP outside of the university network." [http://pellesnickars.se/wordpress/wp-content/uploads/2016/07/snickars\\_talk\\_DH16.pdf](http://pellesnickars.se/wordpress/wp-content/uploads/2016/07/snickars_talk_DH16.pdf).

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Forskningsgruppen har vidgått att den bland annat sökt att artificiellt öka antalet spelningar och manipulerat listor för att på så sätt hjälpa andra artister att nå ut till fler lyssnare.

Spotify förutsätter att nämnda systematiska villkorsbrott inte varit kända för Vetenskapsrådet och är övertygat om att Vetenskapsrådet visserligen är en myndighet som bedriver goda ärenden och stöd från Vetenskapsrådet skall alltid uppfyllas och inte utgör något hinder för att utföra forskning som är till nytta för samhället.

Spotify inbjuder Vetenskapsrådet att kontakta Spotify för en diskussion kring ovanstående ärende. Det är Spotifys förhoppning att forskningsgruppen kommer att upphöra med de tekniska metoderna som gör att villkorsbrotten uppträder.

Spotify emottar Vetenskapsrådets skyndsamma återkoppling.

Med vänliga hälsningar

[benjaminh@spotify.com](mailto:benjaminh@spotify.com) | T: +46 (0)730 719 091

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**"It is Spotify's hope that the Swedish Research Council acts resolutely in order to ensure that unruly or illegal practices cease immediately. Spotify anticipates the Swedish Research Council's immediate response."**



## Calls for proposals

Research Project Grant for international collaboration in GENDER-NET Plus Co-Fund

Last application date: 2018-03-06

Area of science: [HS](#) [MH](#) [NE](#) Development: Research

Research Project Grant for International Collaboration within Antimicrobial Resistance (PIAMR)

Last application date: 2018-03-12

Area of science: [MH](#)

Grants for NOS-HS workshops

Last application date: 2018-03-20

Area of science: [HS](#)

Grant for Employment as a half-time researcher in a clinical environment

Last application date: 2018-03-20

Area of science: [MH](#)

[→ All calls](#)

[→ Apply here – Prisma](#)

## Grant decisions

## News



[→ Grant decision on research collaboration with Italy \(2018-02-28\)](#)

[→ New call for proposals within Migration and Integration \(2018-02-20\)](#)

[→ Travel grants to attend ESCOF in Toulouse \(2018-02-12\)](#)

[→ Pre-announcement of ERA PerMed JTC2018 \(2018-01-24\)](#)

[→ Open call for future flagships in EU's program for Future and Emerging technologies \(2018-01-18\)](#)

[→ All news](#)



### Shortcuts

- [→ Research funding](#)
- [→ Research communication](#)
- [→ Research policy](#)
- [→ Pressroom](#)



### Areas of science

- [→ Artistic research](#)
- [→ Clinical therapy research](#)
- [→ Development research](#)
- [→ Educational sciences](#)
- [→ Humanities and social science](#)
- [→ Medicine and health](#)
- [→ National Coordination of Clinical Studies](#)
- [→ Natural and engineering sciences](#)



### Publications

**The Swedish Research Council allocates around 6,4 billion Swedish kronor (SEK) annually by way of grants for research, and is the largest state funding agency for basic research at Swedish universities, colleges and institutions.**



Anna Hörnlund, General Council of The Swedish Research Council (VR), in *Computer Sweden*:

**"It happens that we get input from the outside of things we need to investigate, but I have never experienced this before."**

**- That a company tries to get VR to withdraw funding?**

**- No. I can not say it has never happened, but I've never encountered it before."**


the project



Current Issue

**Volume 9, Issue 2, 2017**

Back Volume and  
Themes

 Complete issue

DOI: 10.3384/cu.2000.1525.1792

**Editorial**

Discovering Spotify – A Thematic Introduction

*Rasmus Fleischer and Pelle Snickars*

Culture Unbound: Journal of Current Cultural Research 2017 9(2): 130-146

 fulltext

**Discovering Spotify**

If the Song has No Price, is it Still a Commodity? : Rethinking the Commodification of Digital Music

*Rasmus Fleischer*

Culture Unbound: Journal of Current Cultural Research 2017 9(2): 146-162

 fulltext

**Tracking Gendered Streams**

*Marla Eriksson and Anna Johansson*

Culture Unbound: Journal of Current Cultural Research 2017 9(2): 163-183

 fulltext

**More of the Same – On Spotify Radio**

*Pelle Snickars*

Culture Unbound: Journal of Current Cultural Research 2017 9(2): 184-211

 fulltext

**Studying Ad Targeting with Digital Methods: The Case of Spotify**

*Roger Mähler and Patrick Vonderau*

Culture Unbound: Journal of Current Cultural Research 2017 9(2): 212-221

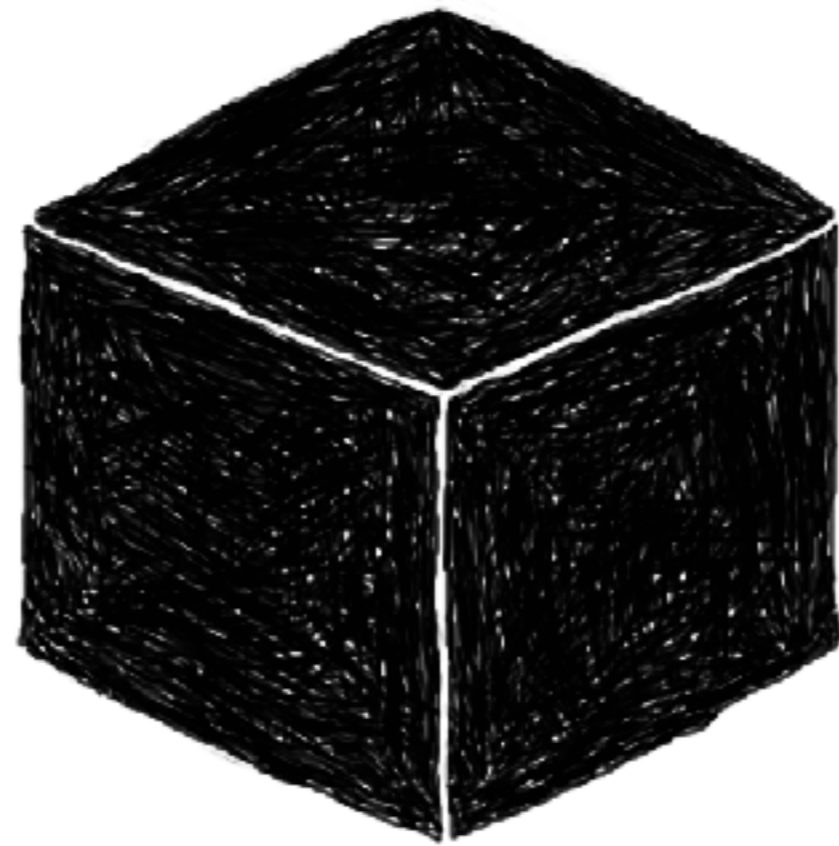
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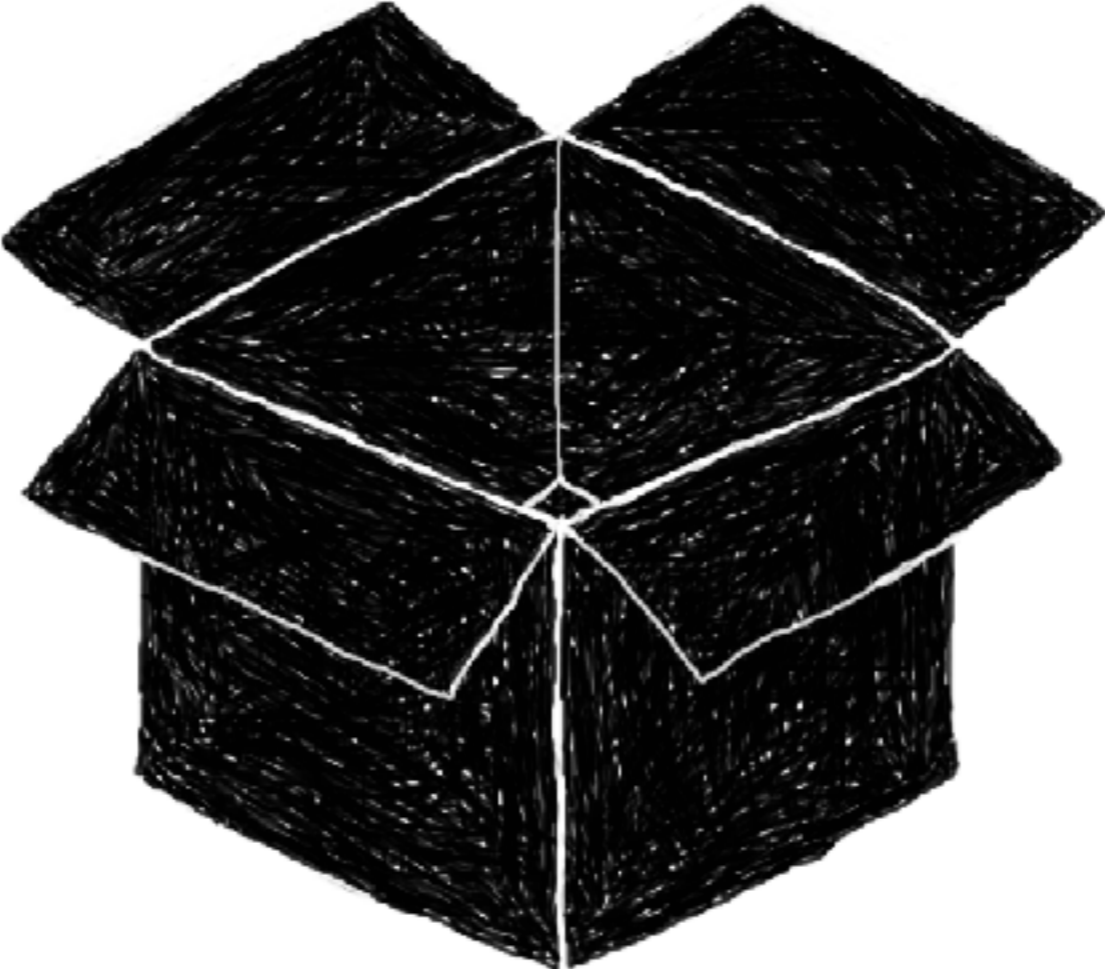




***Spotify Teardown***  
***Inside the Black Box of***  
***Streaming Music***  
**(MIT Press, 2018)**

interventions

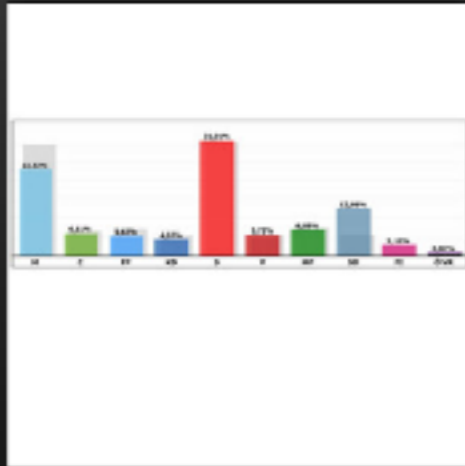






## Record Label Set Up

One intervention has been aimed at studying the back end of streaming services and different **music aggregation processes** by way of launching **a record label**—and **self-produced 'music'**—for research purposes.



ALBUM

# Election Music

By Heinz Duthel

2014 • 13 songs, 11 min

PLAY

SAVE

...

#	TITLE	🕒	👍
1	+ Riket	0:46	▬▬▬▬▬
2	+ Biskopsgården N	1:10	▬▬▬▬▬
3	+ Täby	0:44	▬▬▬▬▬
4	+ Spökparken	0:46	▬▬▬▬▬
5	+ Rinkeby	1:12	▬▬▬▬▬
6	+ Hörken	0:50	▬▬▬▬▬
7	+ Knäred	0:48	▬▬▬▬▬
8	+ Mullejö	0:44	▬▬▬▬▬



ARTIST

# Fru Kost

PLAY

FOLLOW



MONTHLY LISTENERS

2

OVERVIEW

ABOUT

CONCERTS

## Popular

	1	+	Kaffe	6,983
	2	+	Avplock	< 1,000

[HOME](#) [ABOUT](#) [PREMIUM](#) [FAQ](#) [DOWNLOAD](#) [CONTACT](#)



# Songblocker

DOWNLOAD NOW



<https://www.songblocker.com/>



ArtemGordinsky / Spotifree

Watch 23 Star 910 Fork 65

Code Issues 16 Pull requests 1 Projects 0 Insights

**Join GitHub today**

GitHub is home to over 20 million developers working together to host and review code, manage projects, and build software together.

[Sign up](#)

Dismiss

An OS X app that automatically mutes ads on Spotify. <http://spotifree.gordinskiy.com>

174 commits 3 branches 4 releases 10 contributors MIT

Branch: master New pull request Find file Clone or download

Enellis Merge branch 'pr/82'		Latest commit b955880 on 23 Jul 2017
Frameworks/Sparkle.framework	Completely rewritten with Swift	2 years ago
SVG icons	Added vector source icons in SVG and Illustrator formats.	4 years ago
Spotifree.xcodeproj	Merge branch 'pr/82'	7 months ago
Spotifree	Merge branch 'pr/82'	7 months ago
.gitignore	Several changes and bug fixes	3 years ago



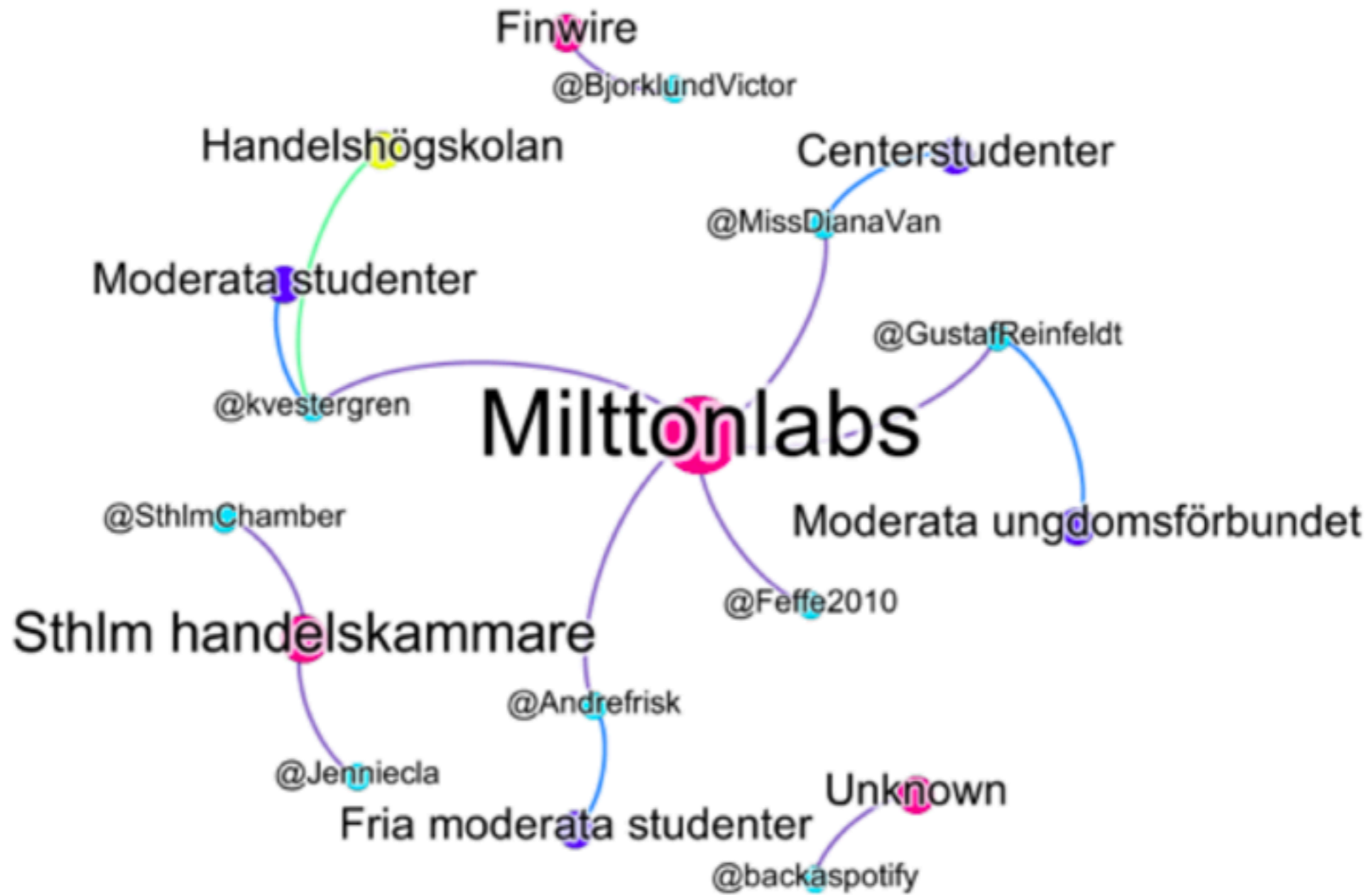
# **Songblocker**

More than just a blocker

<https://www.youtube.com/watch?v=BviZnSYNPL0>

#backspotify







bots as informants

# Bots as Informants—Gendered Music



Culture Unbound  
Journal of Current Cultural Research

## Tracking Gendered Streams<sup>i</sup>


By Maria Eriksson & Anna Johansson

### Abstract

One of the most prominent features of digital music services is the provision of personalized music recommendations that come about through the profiling of users and audiences. Based on a range of “bot experiments,” this article investigates if, and how, gendered patterns in music recommendations are provided by the streaming service Spotify. While our experiments did not give any strong indications that Spotify assigns different taste profiles to male and female users, the study showed that male artists were highly overrepresented in Spotify’s music recommendations: an issue which we argue prompts users to cite hegemonic masculine norms within the music industries. Although the results should be approached as historically and contextually contingent, we argue that they point to how gender and gendered tastes may be constituted through the interplay between users and algorithmic knowledge-making processes, and how digital content delivery may maintain and challenge gender relations and gendered power differentials within the music industries. Seen through the lens of critical research on software, music and gender performativity, the experiments thus provide insights into how gender is shaped and attributed meaning as it materializes in contemporary music streams.

# Bots as Informants—Spotify Radio

Artist Radio based on Boards of Canada



Fixx D


Boards of Canada

BURIAL UNTRUE.

Bonobo

★ If You Stayed Over  
Bonobo

Your Stations



THE KIN  
LIVE AT THE PHYSICAL CLUB

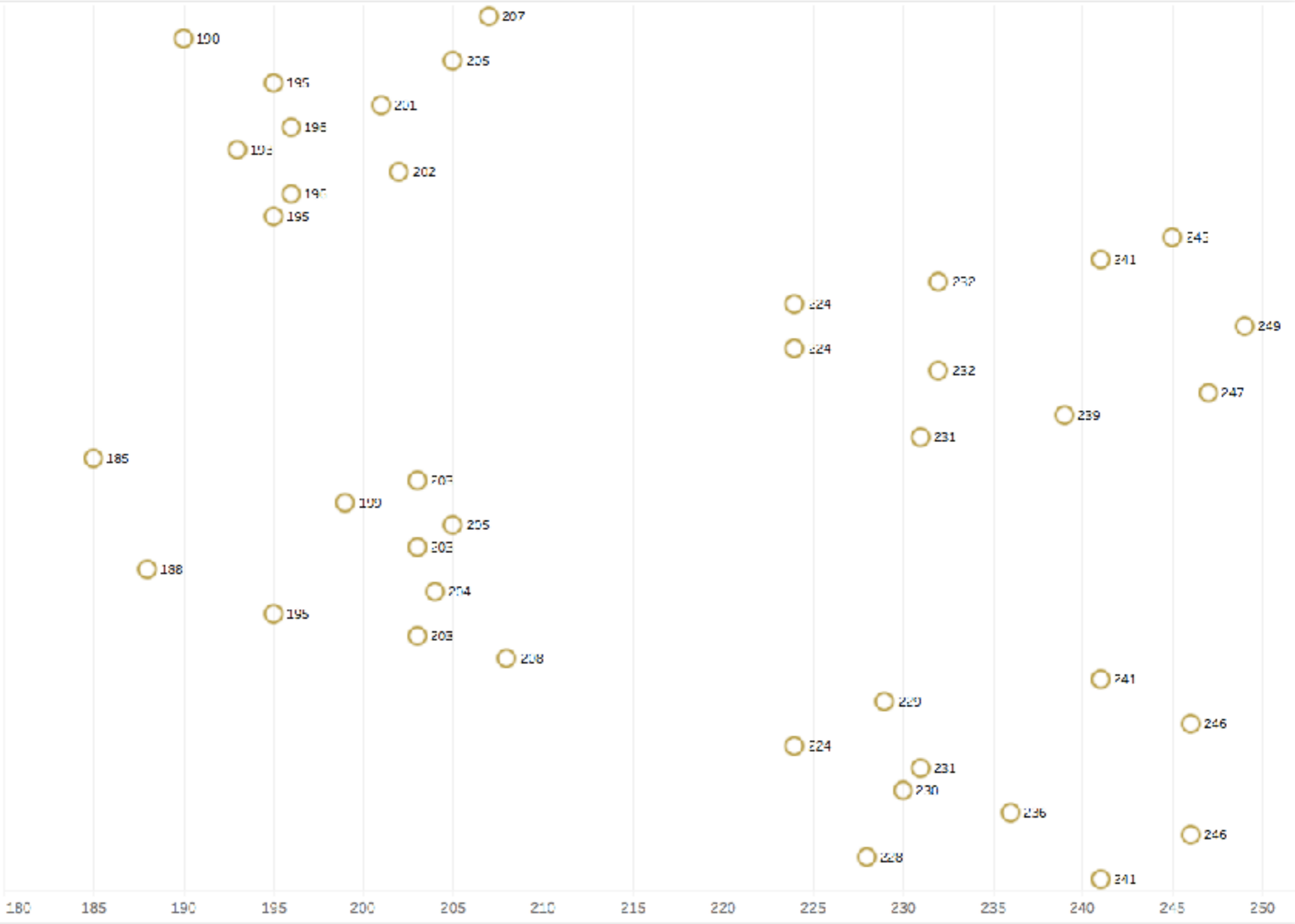
Incubus

Audioslave  
Audioslave

Lil Wayne

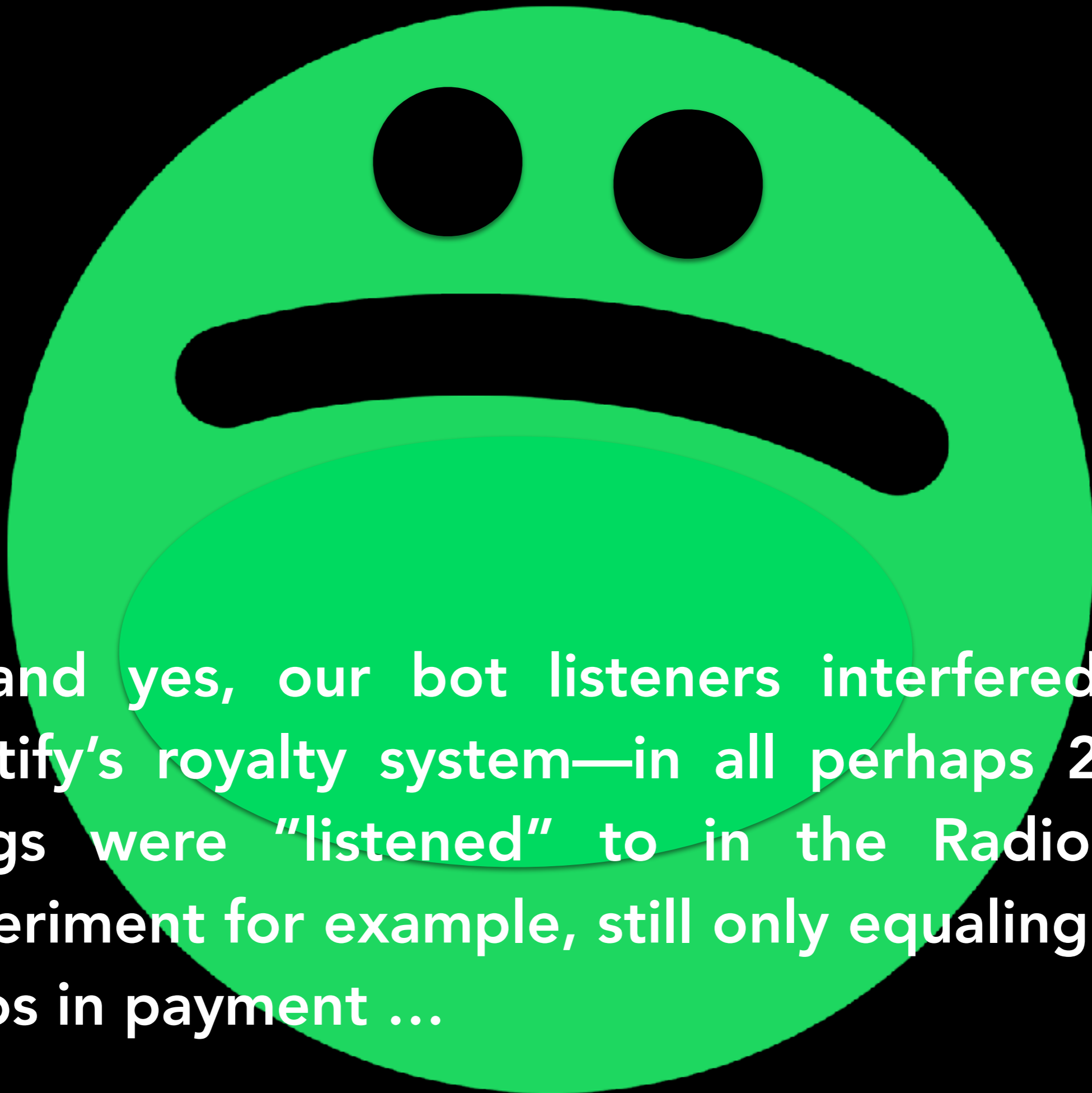


Jane.09.Lead.01  
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 Jane.12.Lead.03  
 Jane.12.Lead.04  
 Jane.12.Lead.05  
 Jane.12.Lead.06  
 Jane.12.Lead.07  
 Jane.12.Lead.08  
 Jane.12.Lead.09  
 Jane.12.Lead.10









... and yes, our bot listeners interfered with Spotify's royalty system—in all perhaps 25,000 songs were "listened" to in the Radio loop experiment for example, still only equaling a few euros in payment ...



I want to make clear that neither the aim, methods nor results of our project were in any way designed or used to cause harm to Spotify or any of its users—or to benefit commercially from non-authorized access to the service's proprietary data.

Our results do not reveal any detailed information about Spotify's proprietary algorithms or software, or disclose information that might be harmful if it ends up in the hands of Spotify's competitors. Our scientific research and its scholarly findings are not a competitive threat to Spotify as a company.



**We have never violated the integrity of any Spotify user, or collected any personal data related to Spotify users, or illegally shared copyrighted content via Spotify.**

ToS & digital methods

## ToS & digital methods

Digital humanities research is **embedded in 'the digital'**—and so are its **methods**, from scraping web content to the use of bots as research informants.

## ToS & digital methods

Digital humanities research is **embedded in 'the digital'**—and so are its **methods**, from scraping web content to the use of bots as research informants.

Within scholarly communities centered on the study of the web or social media there is a rising awareness of the ways in which **digital methods might be non-compliant with commercial Terms of Service**—a discussion, I would argue, which has not yet really filtered out and been taken serious within the digital humanities.

## ToS & digital methods

However, DH-researchers will in years to come increasingly have to ask themselves **if their scholarly methods need to abide by ToS—or not.**

As professor **Amy Bruckman** has stated, it might have **profound scholarly consequences**: “Some researchers choose not to do a particular piece of work because they believe they can’t violate ToS, and then another researcher goes and does that same study and gets it published with no objections from reviewers.”

# Amy Bruckman

**Professor and Interim Chair**  
School of Interactive Computing  
Georgia Institute of Technology

*Social Computing, Online Communities,  
and Collaborative Computing*

## HOME

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CV

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## CONTACT

*asb at cc.gatech.edu*

## FOLLOW

*Twitter : asbruckman*  
*Blog : <http://nextbison.wordpress.com>*



## ABOUT ME

I am Professor and Interim Chair in the School of Interactive Computing in the College of Computing at Georgia Tech, and a member of the Graphics, Visualization, and Usability (GVU) Center. I received my PhD from the Epistemology and Learning Group at the MIT Media Lab in 1997, and my BA in physics from Harvard University in 1987. I do research on collaborative computing, online moderation, and the use of social media in support of social movements..

## SERVICE

I have a few official roles with the ACM:


- \* Chair-elect of the ACM CSCW community, the steering committee for the CSCW conference
- \* Chair of the SIGCHI Research Ethics Committee
- \* Member of the Executive Committee of the ACM Committee on Professional Ethics (COPE)
- \* SIGCHI Representative to COPE
- \* Member of the ACM Plagiarisms Committee

I do expert witness work related to people's behavior on the internet.



## Do Researchers Need to Abide by Terms of Service (TOS)? An Answer.

 February 26, 2016  Amy Bruckman

 [Go to comments](#)  [Leave a comment](#)

The TL;DR: *Reviewers should reject research done by violating Terms of Service (TOS), unless the paper contains a clear ethical justification for why the importance of the work justifies breaking the law. No one should deliberately break the law without being aware of potential consequences.*

Do social computing researchers need to follow Terms of Service (TOS)? Confusion on this issue has created an ethical mess. Some researchers choose not to do a particular piece of work because they believe they can't violate TOS, and then another researcher goes and does that same study and gets it published with no objections from reviewers. Does this make sense?

It happened to me recently. The social app YikYak is based in Atlanta, so I'm pretty sure my students and I started exploring it before anyone else in the field. But we quickly realized that the Terms of Service prohibit scraping the site, so we didn't do it. We talked with YikYak and started negotiations about getting permission to scrape, and we might've gotten permission if we had been more persistent. But I felt like I was bothering extremely busy startup employees with something not on their critical path. So we quietly dropped our inquiries. Two years later, someone from another university published a paper about YikYak like what we wanted to write, using scraped data. This kind of thing happens all the time, and isn't fair.

There are sometimes good reasons why companies prohibit scraping. For example, YikYak users have a reasonable expectation that their postings are ephemeral. Having them show up in a research paper is not what they expect. Sometimes a company puts up research prohibitions because they're trying to protect their users. Can a University IRB ever allow research that is prohibited in a site's TOS?

Asking permission of a company to collect data is sometimes successful. Some companies have shared huge datasets with researchers, and learned great things from the results. It can be a win-win situation. If it's possible to request and obtain permission, that's a great option—if the corporation doesn't request control over what is said about their site in return. The tricky question is whether researchers will be less than honest in publishing findings in these situations, because they fear not getting more data access.

Members of the research community right now are confused about whether they need to abide by TOS. Reviewers are confused about whether this issue is in their purview—should they consider whether a paper abides by TOS in the review process? Beyond these confusions lurks an arguably more important issue: What happens when a risk-averse company prohibits reasonable research? This is of critical importance because *scholars cannot cede control of how we understand our world to corporate interests.*

## Do Researchers Need to Abide by Terms of Service (TOS)? An Answer.

February 26, 2016

Amy Bruckman

[Go to comments](#)

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The TL;DR: *Reviewers should reject research done by violating Terms of Service (TOS), unless the paper contains a clear ethical justification for why the importance of the work justifies breaking the law. No one should deliberately break the law without being aware of potential consequences.*

Do social computing researchers need to follow Terms of Service (TOS)? Confusion on this issue has created an ethical mess. Some researchers choose not to do a particular piece of work because they believe they can't violate TOS, and then another researcher goes and does that same study and gets it published with no objections from reviewers. Does this make sense?

It happened to me recently. The social app iK Yak is based in Atlanta, so I'm pretty sure my students and I started exploring it before anyone else in the field. But we quickly realized that the Terms of Service prohibit us from doing it. We already did it. YikYak and I started negotiations about getting permission to scrape, and we might've gotten permission if we had been more persistent. But I felt like I was bothering extremely busy startup employees with something not on their critical path. So I quietly dropped our investigation. I was also notified from another researcher that he had published a paper on iK Yak. He wanted to write, using scraped data. This kind of thing happens all the time, and isn't fair.

There are many companies that prohibit scraping. For example, Twitter says that users have a reasonable expectation that their postings are ephemeral. Having them show up in a research paper is not what they expect. Sometimes a company puts up research prohibitions because they're trying to protect their users. Google Drive's TOS even prohibits research that is prohibited in a site's TOS.

Asking permission of a company to collect data is sometimes successful. Some companies have made data sets available to researchers, and it's possible that things from the past can be a win-win situation. If it's possible to request and obtain permission, that's a great option—if the corporation doesn't request control over what is said about their site in return. The question is whether researchers will be less than honest in publishing findings in these situations, because they fear not getting more data access.

Members of the research community right now are confused about whether they need to abide by TOS. Reviewers are confused about whether this issue is in their purview—should they consider whether a paper abides by TOS in the review process? Beyond these confusions lurks an arguably more important issue: What happens when a risk-averse company prohibits reasonable research? This is of critical importance because *scholars cannot cede control of how we understand our world to corporate interests.*

**"In summary, I am proposing:**

**Reviewers should reject research done by violating Terms of Service (ToS), unless the paper contains a clear ethical justification for why the importance of the work justifies breaking the law. Reviewers' should proactively check a site's ToS if it is not discussed in the paper."**



**dhr. prof. dr. R.A. (Richard) Rogers**

Nieuwe media en digitale cultuur

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Capaciteitsgroep Media & Cultuur
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Fotograaf: Eduard Lampe

Digital Methods

- Summer School 2018
- About
- People
- FAQ
- Tools
- Projects by Theme
- Research Protocols
- Summer School
- Winter School
- Papers and Publications

Course

- The Link
- The Website
- The Engine
- The Spheres
- The Webs
- Post-demographics
- Networked Content

# The Social Lives of Digital Methods: Encounters, Experiments, Interventions

## Digital Methods Winter School, Data Sprint and Mini-Conference 2018



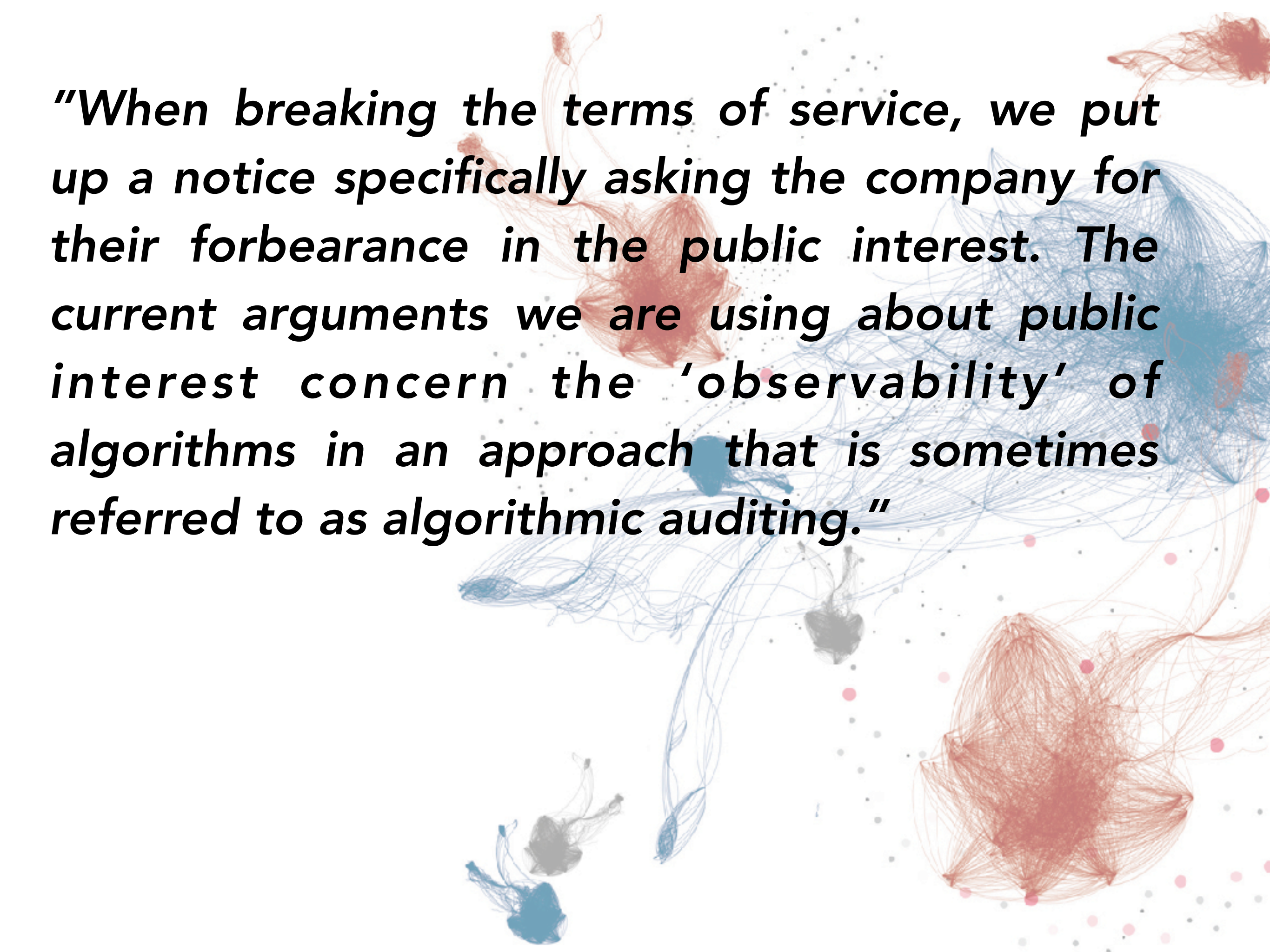
### Digital Methods Winter School, Data Sprint and Mini-Conference 2018 8–12 January 2018

**Everyday location**

Digital Methods Initiative  
University of Amsterdam  
Turfdraagsterpad 9, 1012 XT Amsterdam  
<https://wiki.digitalmethods.net/Dmi/WinterSchool2018>  
[bit.ly/dmi18-ws-call](https://bit.ly/dmi18-ws-call)

### Important Links

Shortlinks	Description
<a href="https://bit.ly/dmi18-ws-call">bit.ly/dmi18-ws-call</a>	Call for participation and general information.
<a href="https://bit.ly/dmi18-ws-welcome">bit.ly/dmi18-ws-welcome</a> <a href="https://bit.ly/dmi18-ws-welcome-folder">bit.ly/dmi18-ws-welcome-folder</a>	Main welcome package documents. This includes: a welcome note, general information, the day-to-day schedule, and a map of venue locations, coffee, and lunch places.
<a href="https://bit.ly/dmi18-ws-schedule">bit.ly/dmi18-ws-schedule</a>	Day-to-day schedule for the Winter School.
<a href="https://bit.ly/dmi18-ws-reader">bit.ly/dmi18-ws-reader</a> <a href="https://bit.ly/dmi18-ws-reader-folder">bit.ly/dmi18-ws-reader-folder</a>	Reader for the Winter School (for participants and students) and a folder with PDF files.
<a href="https://bit.ly/dmi18-ws-projects">bit.ly/dmi18-ws-projects</a>	Descriptions of projects to be pitched on the opening day.
<a href="https://bit.ly/dmi18-ws-facebook">bit.ly/dmi18-ws-facebook</a>	Face book of all participants.



***“When breaking the terms of service, we put up a notice specifically asking the company for their forbearance in the public interest. The current arguments we are using about public interest concern the ‘observability’ of algorithms in an approach that is sometimes referred to as algorithmic auditing.”***

# Algorithmic auditing

## Algorithmic auditing

An emerging area of scholarly research which investigates **algorithms 'from the outside'** testing them for problems and harms **without the co-operation** of online platform providers.

Researchers have, for example, investigated systems that handle recommendations, prices, news, commenting, search—while examining these for **individually and societally undesirable consequences** such as racism or fraud.

## Algorithmic auditing

Apart from regularly scraping and crawling platforms such as Facebook, Google, or Twitter, researchers have also engaged with critical issues such as **algorithmic bias** that require systematic approaches.

For example, platform audit research of hotel-rating platform Booking.com revealed an “**algorithmic system bias**” based on the confluence of inputs and users, resulting in good reviews for bad hotels (Eslami 2017).



## Algorithmic auditing

Other researchers have **established fake user profiles** as inputs to algorithms as a form of audit. One example of this work employed **simulated users** in order to detect **gender bias** in online advertising (Datta 2015). Another have conducted experiments to analyze the Uber surge pricing algorithm by **emulating Uber accounts** (Chen et. al. 2015)—and yet another created multiple Airbnb accounts in order to identify **racial discrimination** against Black users (Edelman et. al. 2017)

A. Datta, M.C. Tschantz, and A. Datta, "Automated Experiments on Ad Privacy Settings," *Proceedings on Privacy Enhancing Technologies* 1 (2015): 92–112; L. Chen, A. Mislove, and C. Wilson, "Peeking Beneath the Hood of Uber," *Proceedings of the 2015 ACM Conference on Internet Measurement Conference*; B.G. Edelman, M. Luca, and D. Svirsky, "Racial Discrimination in the Sharing Economy: Evidence from a Field Experiment," working paper 16-069, Harvard Business School (2016).

## Algorithmic auditing

The most consistent and prolific advocate of this kind of research is **Christian Sandvig**, who has repeatedly argued for what he calls a “consequentialist ethics of algorithms.”

Together with the American Civil Liberties Union and a few journalists, **Sandvig is currently suing the U.S. government** to challenge the constitutionality of the Computer Fraud and Abuse Act (CFAA), a law that criminalizes any user activity “exceeding authorized access.”

# Heading to the Courthouse for Sandvig v. Sessions

OCTOBER 19, 2017

by Christian Sandvig

tags: freedom of expression, information law, policy

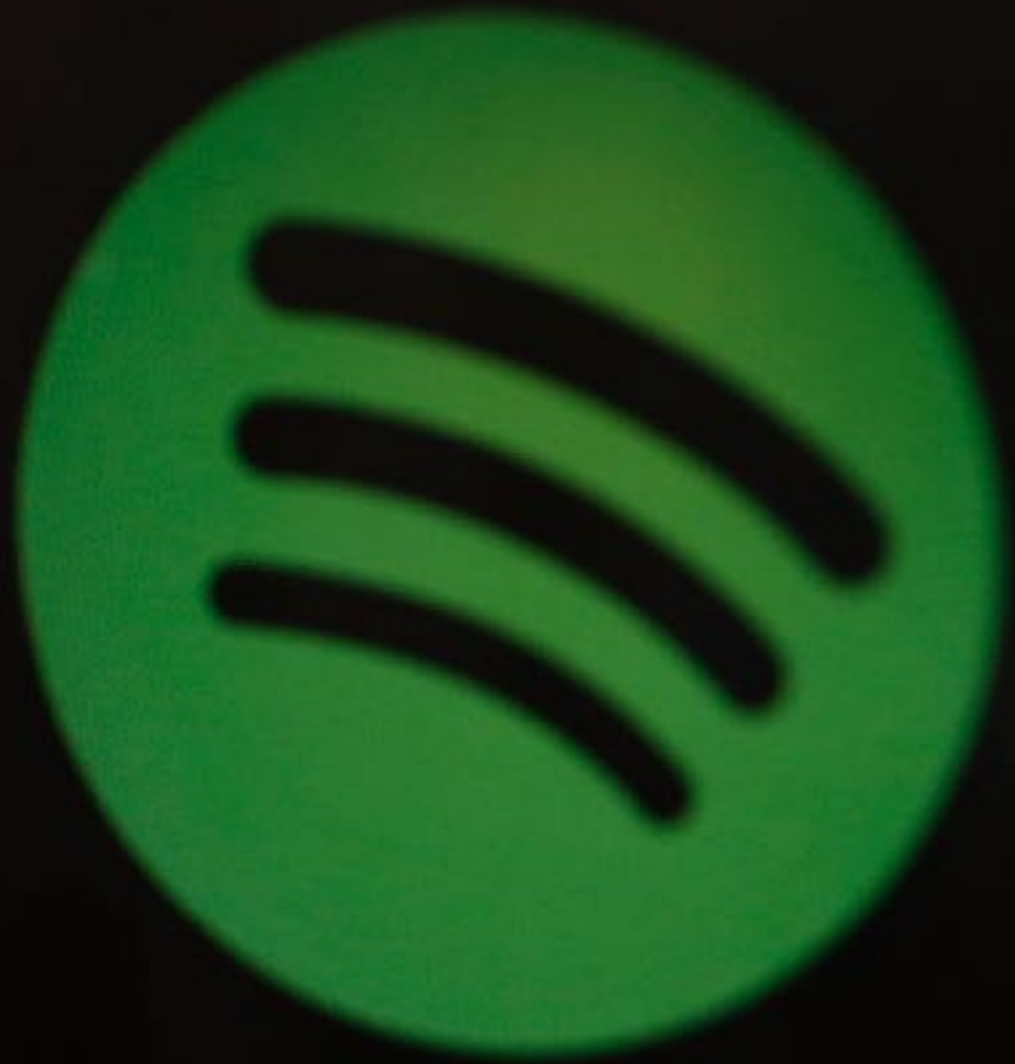


(or: *Research Online Should Not Be Illegal*)

I'm a college professor. But on Friday morning I won't be in the classroom, I'll be in courtroom 30 in the US District Courthouse on Constitution Avenue in Washington DC. The occasion? Oral arguments on the first motion in *Sandvig v. Sessions*.

## Algorithmic auditing

In short, since research and audit tests have regularly been conducted in the offline world, academics should be able to **perform them online—even if such research is non-compliant with ToS.**



Spotify

<https://www.spotify.com/us/legal/end-user-agreement/>

# “not permitted for any reason whatsoever”

## 8 User guidelines

Spotify respects intellectual property rights and expects you to do the same. We've established a few ground rules for you to follow when using the Service, to make sure Spotify stays enjoyable for everyone. Please follow these rules and encourage other users to do the same.

The following is not permitted for any reason whatsoever:

- copying, redistributing, reproducing, “ripping”, recording, transferring, performing or displaying to the public, broadcasting, or making available to the public any part of the Spotify Service or the Content, or otherwise making any use of the Spotify Service or the Content which is not expressly permitted under the Agreements or applicable law or which otherwise infringes the intellectual property rights (such as copyright) in the Spotify Service or the Content or any part of it;
- using the Spotify Service to import or copy any local files you do not have the legal right to import or copy in this way;
- transferring copies of cached Content from an authorized Device to any other Device via any means;
- reverse-engineering, decompiling, disassembling, modifying, or creating derivative works based on the Spotify Service, Content or any part thereof unless permitted by applicable law;
- circumventing any technology used by Spotify, its licensors, or any third party to protect the Content or the Service;
- selling, renting, sublicensing or leasing of any part of the Spotify Service or the Content;
- circumventing any territorial restrictions applied by Spotify or its licensors;
- artificially increasing play count or otherwise manipulating the Services by using a script or other automated process;
- removing or altering any copyright, trademark, or other intellectual property notices contained on or provided through the Spotify Service (including for the purpose of disguising or changing any indications of the ownership or source of any Content);
- providing your password to any other person or using any other person's username and password;
- “crawling” the Spotify Service or otherwise using any automated means (including bots, scrapers, and spiders) to collect information from Spotify; or
- selling a user account or playlist, or otherwise accepting any compensation, financial or otherwise, to influence the name of an account or playlist or the content included on an account or playlist.

# Three levels of jurisdiction

# Three levels of jurisdiction

> ToS

> Research ethics

> The law



# Three levels of jurisdiction

> ~~TDS~~

> Research ethics

> The law

# Three levels of jurisdiction

> ~~IRB~~

> Research ethics

> **The law**

## Three levels of jurisdiction

> ~~ToS~~

> Research ethics

> The law

The law and ToS are two entirely different things (at least in Europe). **ToS are not laws**, they are **corporate statements**. And they are often **altered** by corporations.

It should also be noted that the **legal status of ToS is often unclear**, and hence that a company's **ToS (as Spotify) does not at all constitute, or equal, (in our case) national Swedish law**.

# To Conclude—Research ethics

## Research ethics

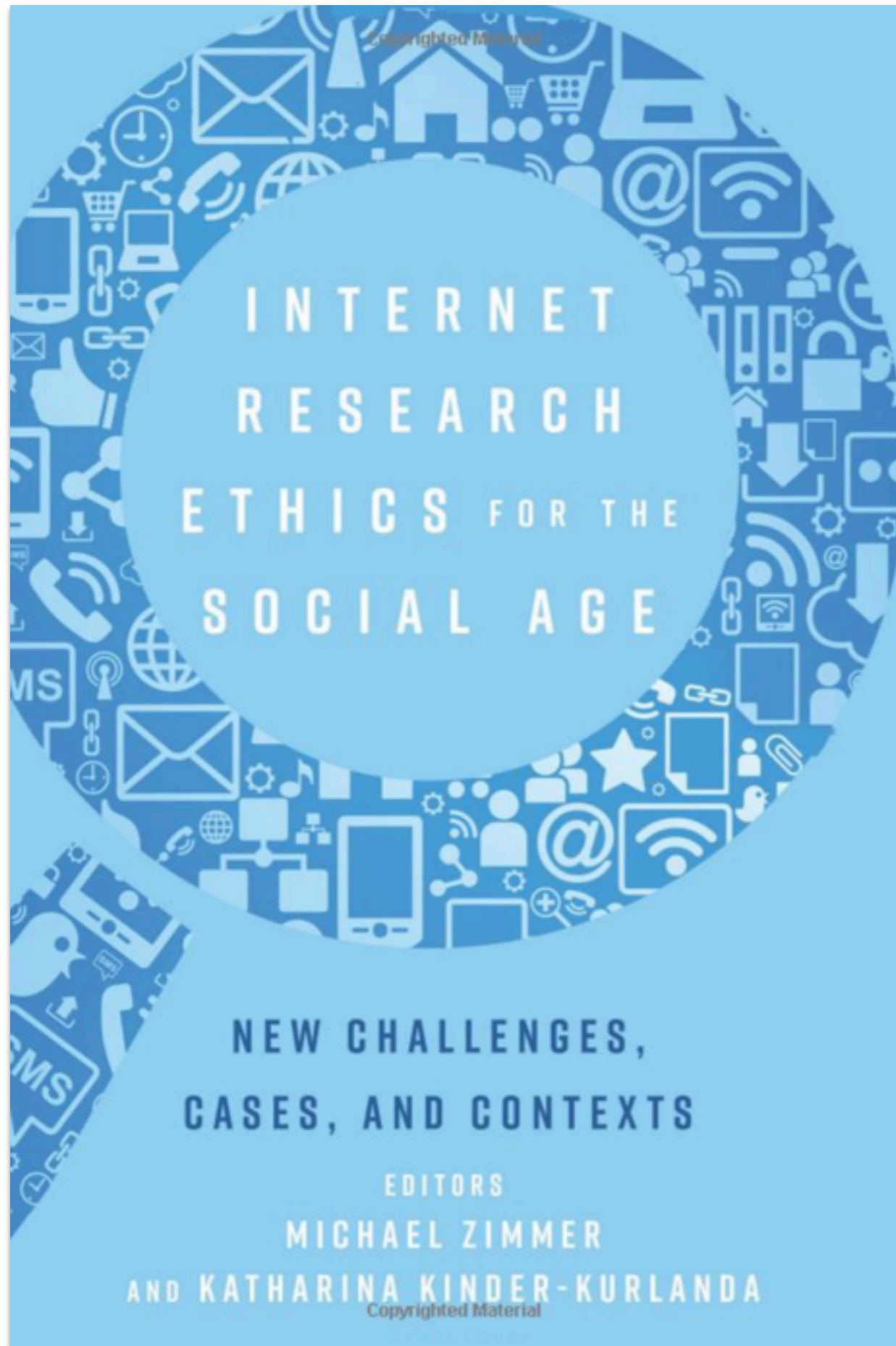
In terms of research ethics our Spotify project could hardly be accused of violating existing norms—**since such norms do not really exist.** As the disparity between **Rogers** and **Bruckman** makes clear, **contemporary scholarly opinions differ.**

## Research ethics

In terms of research ethics our Spotify project could hardly be accused of violating existing norms—**since such norms do not really exist**. As the disparity between **Rogers** and **Bruckman** makes clear, **contemporary scholarly opinions differ**.

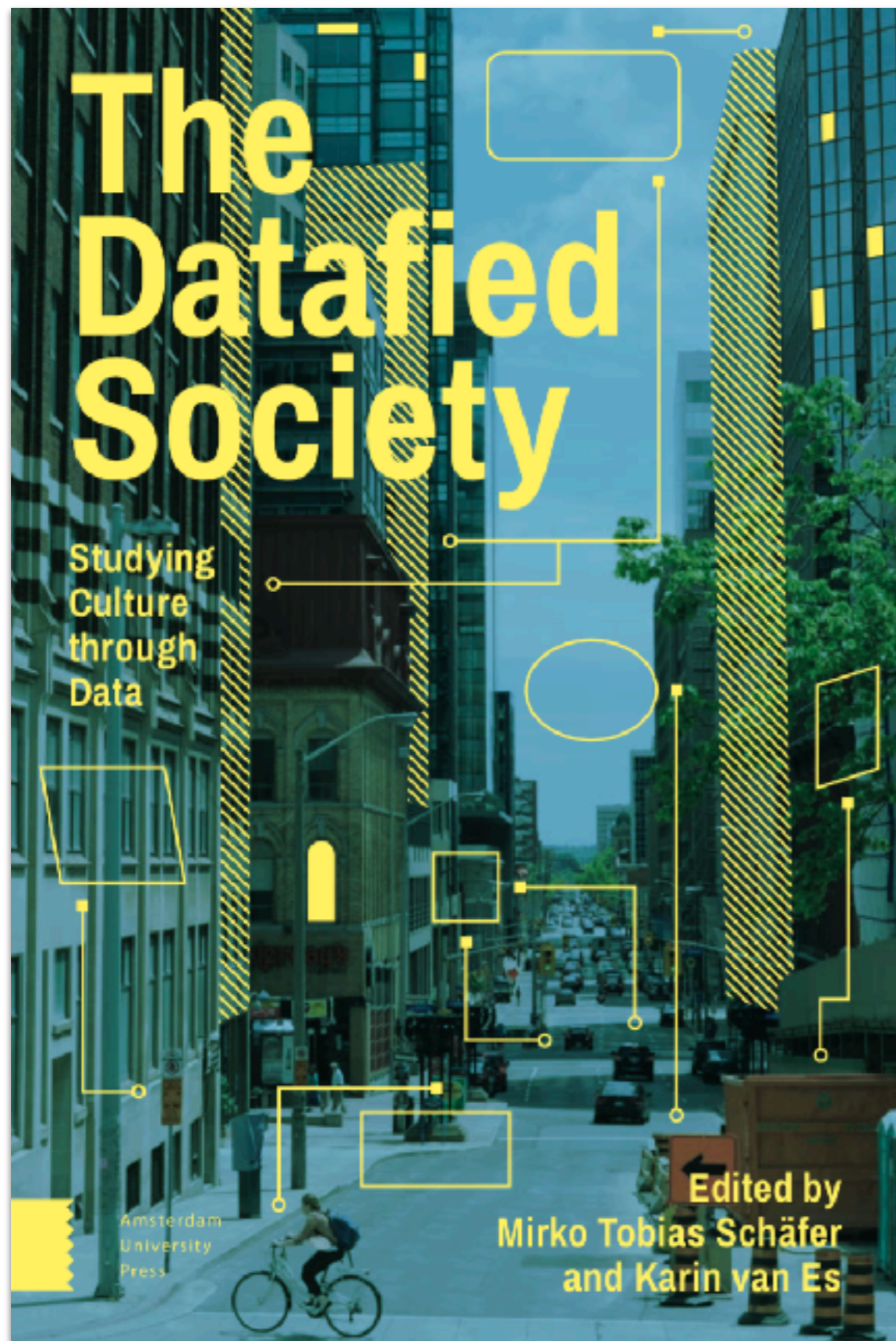
Internet research ethics and its guidelines are currently being **debated and negotiated**. Some **scholars argue that academics need to comply with ToS—others don't**.





With the growing control of platforms such as Facebook, Spotify, or Google over the infrastructure enabling the recording and analyzing of social and cultural life, however, the question has been raised “**how researchers are to maintain rigorous standards of scientific integrity**, objectivity, accuracy, and so on, vis-à-vis corporate and government agendas that **may run contrary** to these standards.”





“To ensure that future research with new tools can be carried out in an ethical way, **we need to experiment not only with methods but also with ethical frameworks.** In order for us to find practices to protect research integrity we need to get our hands dirty.”



SIGCHI Research Ethics [Follow](#)

SIGCHI Ethics Committee. Raising awareness of ethics in HCI research. Helping program committees, reviewers, and authors address ethical issues.

Nov 30, 2017 · 4 min read

## Do researchers need to follow TOS?





***Violating ToS is not only ethically possible, but might even be ethically required in some circumstances.***



*If we abide by overly restrictive ToS, are we giving up the ability to reflect on systems that are increasingly shaping society? If we only work with permission of Large Corporation, can we ever be critical of Large Corporation?*

*If the products and services of Large Corporation are having a profound impact, what is the obligation of the research community to understand that impact?*

**- thanks!**

