ELECTRONIC COMMERCE

Goethe-Universität Frankfurt am Main

Bachelorarbeiten

Vergabeverfahren und Themen

Lehrstuhl für Electronic Commerce

Prof. Dr. Bernd Skiera

Sommersemester 2022

Informationen

ELECTRONIC COMMERCE
Goethe-Universität Frankfurt am Main

Allgemeine Hinweise

Allgemeine Hinweise zu den Voraussetzungen zur Bearbeitung von Bachelorarbeiten finden Sie unter:

http://www.wiwi.uni-frankfurt.de/studium/studierende/pruefungsorganisation/allgemeine-informationen/bachelorarbeit.html

Bitte beachten Sie: Es findet keine Vergabe von Abschlussarbeitsplätzen außerhalb des zentralen QIS-Vergabeverfahrens statt!

Fristen

Aktuelle Fristen finden Sie unter:

http://www.wiwi.uni-frankfurt.de/studium/studierende/pruefungsorganisation/pruefungen/fristen.html

Bearbeitungshinweise

Hinweise zum Bearbeiten von Bachelorarbeiten sowie eine Musterdatei des Marketing Schwerpunkts finden Sie unter:

http://www.marketing.uni-frankfurt.de/studium/anleitung-zum-wissenschaftlichen-arbeiten.html

Bewertungsvorlage

Ein erster Anhaltspunkt für die Benotung der Bachelorarbeiten ergibt sich aus folgendem Bewertungsschlüssel:

https://www.marketing.uni-frankfurt.de/fileadmin/user_upload/dateien_abteilungen/abt_marketing/Dokumente/Bachelorarbeiten/Gutachten-Bachelorarbeit_Lehrstuhl_Skiera.pdf

Kontakt bei Fragen zur Vergabe der Bachelorarbeiten

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Bewerbung und Ablauf

ELECTRONIC COMMERCE
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1. Schritt: QIS Anmeldung

Melden Sie sich fristgerecht über das QIS-System für einen Bachelorarbeitsplatz an. Wählen Sie hier als Betreuer Prof. Dr. Bernd Skiera aus.

2. Schritt: Themenvergabe

Wenige Tage nach Anmeldeschluss erhalten wir vom Prüfungsamt die Liste aller erfolgreichen Anmeldungen. Wir werden Sie nun unter Ihrer Studenten-Email-Adresse (@stud.uni-frankfurt.de) kontaktieren um die Vergabe der Themen zu koordinieren. Per E-Mail werden wir Ihnen das genaue Vorgehen zur Vergabe der Themen detailliert erläutern. Die Details zur Vergabe der Themen finden Sie auch auf der nächsten Folie.

3. Schritt: Termin mit Betreuer

Vereinbaren Sie, zügig nachdem Ihnen Ihr Bachelorarbeitsthema mitgeteilt wurde, einen Termin mit Ihrem Betreuer.

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Themen für Ihre Bachelorarbeit

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Es gibt zwei Möglichkeiten für die Findung eines Bachelorarbeitsthemas:

1. Sie wählen ein vom Lehrstuhl vorgeschlagenes Bachelorarbeitsthema („Normalfall“)

Bitte treffen Sie in jedem Fall (auch wenn Sie ein eigenes Thema für Ihre Bachelorarbeit vorschlagen möchten) unter den nachfolgend ausgeschriebenen Themen ein Ranking Ihrer 5 Wunschthemen. Sie bekommen von uns, sofern möglich, ein Thema gemäß Ihrer Themenpräferenzen zugeteilt.

2. Sie schlagen ein eigenes Thema für Ihre Bachelorarbeit vor

Wenn Sie ein eigenes Thema bearbeiten möchten, schicken Sie uns eine Datei in der Sie kurz Ihren Themenvorschlag vorstellen. Erklären Sie auf dort (1) welches Problem Sie lösen möchten, (2) warum Ihr Problem interessant ist und (3) wie Sie das Problem lösen möchten (z.B. welche Daten Sie verwenden wollen). Ein guter Grund für die Verwendung eines eigenen Themas ist beispielsweise eine empirisch ausgerichtete Arbeit, die auf Daten aufbaut, die Ihnen zur Verfügung stehen. Wir sind grundsätzlich auch bereit Bachelorarbeiten zu betreuen, welche zum Ziel haben, die im Rahmen von Datamining-Wettbewerben ausgeschriebenen Problemstellungen zu lösen (Beispiel https://www.kaggle.com/c/avazu-ctr-prediction).

Ihren Themenvorschlag werden wir am Lehrstuhl diskutieren. Wenn wir Ihr vorgeschlagenes Thema für geeignet halten, können Sie es bearbeiten. Sollten wir Ihr vorgeschlagenes Thema für ungeeignet halten, bearbeiten Sie das Ihnen vom Lehrstuhl zugeteilte Thema.

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Toolkit / Voraussetzungen

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In ihrem Studium haben Sie in einer ganzen Reihe an Veranstaltungen Kenntnisse erhalten, die Ihnen das empirische Arbeiten ermöglichen.

Professor Skiera selbst unterrichtet seit vielen Jahren die Veranstaltung PMAR („Marketing Analytics“), die eine Pflichtveranstaltung für die Wahl des Schwerpunkts Management ist. In dieser Veranstaltung haben Sie das Arbeiten mit der Software R/RStudio sowie das Anwenden von Verfahren wie der linearen und der logistischen Regressionsanalyse kennengelernt. Wir erwarten, dass Sie über derartige Kenntnisse verfügen, wobei Sie auch gerne andere Software, z.B. Python oder Stata, einsetzen können.

Ohne ein gewisses empirisches Toolkit, wird Ihnen die Bearbeitung der meisten Themen schwer fallen.

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ELECTRONIC COMMERCE

Goethe-Universität Frankfurt am Main

Ausgeschriebene Themen

Bachelor Thesis

ELECTRONIC COMMERCE
Goethe-Universität Frankfurt am Main

Measuring User Data Protection on Websites

Overview

Tools like https://webbkoll.dataskydd.net/de/ enable users to analyze websites with respect to their data-protecting policies, but the results from these tools are very technical and therefore hard to understand for the majority of users. As a consequence, it is very difficult for users to understand how well their data is protected on a website. Knowledge about the level of data protection on a website is important for users, for instance, when users need to make the decision if they want to share their data with a website or not by registering at the website.

Thus, there is a need for a simple and transparent way of reporting the level of user data protection on a website. The aim of the thesis is to develop such a reporting standard and apply the reporting standard to some websites, e.g., the German Top 50 websites. The vision of the thesis is to provide a better understanding to users on well websites protect their data beyond the legal requirements.

Requirements

- High interest in Topic
- High interest in Information Systems Research

Language

German / English

Literature

Beke, F. T. / Eggers, F. / Verhoef, P. C. (2018), "Consumer Informational Privacy: Current Knowledge and Research Directions", Foundations and Trends® in Marketing, 11 (1), 1-71.

Maass M./ Wichmann P. / Pridöhl H. / Herrmann D. (2017) "PrivacyScore: Improving Privacy and Security via Crowd-Sourced Benchmarks of Websites". In: Schweighofer E., Leitold H., Mitrakas A., Rannenberg K. (eds) Privacy Technologies and Policy. Springer, Cham, 178-191.

Skiera, B./ Miller, K./ Jin, Y. / Kraft, L. / Laub, R. / Schmitt, J. (2022), "The Impact of the GDPR on the Online Advertising Market". www.gdpr-impact.com

Wieringa, J. / Kannan, P. K. / Ma, X. / Reutterer, T. / Risselada, H. / Skiera, B. (2021), "Data Analytics in a Privacy-Concerned World", Journal of Business Research, 122, 915-925.

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Bachelor's Thesis

ELECTRONIC COMMERCE
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Amazon's (Hidden) Private Label Products — An Empirical Comparison to Third-Party Private Label Products

Overview

Amazon and third-party sellers offer private label (PL) products on the Amazon Marketplace — seller-branded items such as "Amazon Basics Batteries." Besides Amazon Basics, Amazon offers other PL products without obvious affiliation to Amazon. Hence, there are three groups of PL products: those that are a) identifiable as Amazon's products, b) Amazon's PL products not identifiable as Amazon's, and c) competing third-party PL products. We will provide a rich dataset containing products from all three groups and their historical prices, sales ranks, reviews, and other data. This thesis aims to assess how the three product groups differ and how those differences matter for various stakeholders on the Amazon Marketplace. To that end, the thesis could address three points: 1) briefly summarize the literature on private label products and their strategic value for sellers, 2) empirically describe potential differences between the three product types, and 3) discuss how those differences affect consumers, Amazon, and third-party sellers.

Requirements

- Programming skills in a statistical language such as R (preferred), Python, Stata
- Basic econometric knowledge

Language

English (preferred) / German

Literature

Porter, J. (2021), "Amazon Basics ripped off accessories, now Amazon is coming for gadgets", The Verge, https://www.theverge.com/22701965/amazon-fitbit-ecobee-basics-design-halo-view-smart-thermostat-clone-ripoff-regulators, accessed February 16th, 2022

Yin, L. (2021), "Introducing Amazon Brand Detector", The Markup, https://themarkup.org/amazons-advantage/2021/11/29/introducing-amazon-brand-detector, accessed February 16th, 2022

Zhu, F. (2019), "Friends or foes? Examining Platform Owners' Entry Into Complementors' Spaces", Journal of Economics & Management Strategy, 28(1), 23–28. https://doi.org/10.1111/jems.12303

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Bachelor's Thesis

ELECTRONIC COMMERCE
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Pick a Problem and Solve It: Developing and Publishing an R Package

Overview

Science increasingly relies on open-source statistical software such as R. Scientists can easily share software in their specific domain through R packages. Tools such as `devtools` have made it comparatively easy to write your own software and distribute it as an R package.

This thesis aims to (a) pick a relevant problem in business and economics that would benefit from a collection of functions making this problem easier to solve. You then (b) write R code that solves this problem and (c) document it systematically in package documentation and vignettes. As the last step, if your package provides value to the scientific community, we encourage you to submit it to CRAN. You will write your thesis in the style of articles in "The R Journal," but we will assign considerable weight to the problem's technical solution. In that process, we encourage you to learn and apply software engineering best practices such as version control and unit tests.

Requirements

- Programming skills in R and the ambition to become an expert
- Motivation to learn R software development

Language

English

Literature

The R Journal (2021), https://journal.r-project.org/, accessed July 9th, 2021.

Wickham, H., Bryan, J. (2015), "R Packages: Organize, Test, and Share Your Code", https://r-pkgs.org/

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Bachelor's Thesis

ELECTRONIC COMMERCE
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Current State of Knowledge – Brand Activism

Overview

In the past, market managers traditionally avoided getting involved in any kind of political controversy. Whilst corporate social responsibility has played a key role for a long time, taking an activist stance on political topics is a rather recent phenomenon. (Korschun, 2021). At the same time, brand activism can have far-reaching impact on sales, brand perception, investors and the wider stakeholder ecosystem (Bhagwat et al. 2020, Moorman 2020, Korschun 2021).

In this thesis, a structured literature review of the current state of knowledge on brand activism shall be accomplished. More specifically, you shall synthesize the current streams of research on brand activism and report both findings from empirical studies, as well as theoretical research on the pros and cons of brand activism. Beyond that you shall identify do's and don'ts when engaging in brand activism. The goal is to create a "playbook"/"how to guide" for marketing managers that are thinking of pursuing brand activism.

Requirements

- Ability to structure and synthesize complex content
- Qualitative research skills
- Good English language skills (most literature is in English)

Language

German / English

Literature

Bhagwat, Y., Warren, N. L. , Beck, J. T. , Watson, G. F. 2020. "Corporate Sociopolitical Activism and Firm Value." Journal of Marketing 84 (5): 1–21. https://doi.org/10.1177/0022242920937000.

Moorman, C. 2020. "Commentary: Brand Activism in a Political World." Journal of Public Policy & Marketing 39 (4): 388–92. https://doi.org/10.1177/0743915620945260.

Mukherjee, S., Althuizen, N. . 2020. "Brand Activism: Does Courting Controversy Help or Hurt a Brand?" International Journal of Research in Marketing 37 (4): 772–88. https://doi.org/10.1016/j.ijresmar.2020.02.008.

The Writing Center - UNC. n.d. "Literature Reviews." The Writing Center • University of North Carolina at Chapel Hill (blog). https://writingcenter.unc.edu/tips-and-tools/literature-reviews/.

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Bachelor Thesis

ELECTRONIC COMMERCE
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The Cost of an Ad-Free Digital World

Overview

In today's digital environment, a vast share of the content and service is financed by advertising. Users see ads everywhere, for example when reading news articles online, searching the web, watching videos or using apps. Some websites already offer ad-free subscription models, but little is known about the total cost a user would need to compensate for in order to experience all digital content and service without any advertising.

The aim of the bachelor thesis is to estimate a compensation price that a user would need to pay for a completely ad-free digital experience. One way to reach this aim is to search for information about advertising revenues, identify the main components, make reasonable assumptions and break it down to an individual level. Moreover, it could be interesting to further distinguish between different user types by integrating information about demographics or different usage behavior by splitting the compensation price into components such as social media, video streaming and other browsing activities.

Requirements

- High interest in the topic
- Willingness to thoroughly search for information and sources
- Strong ability to structure a broad question and analysis

Language

German or English

Literature

Bandt (2020), "Revealed: The Cost of an 'Ad-Free' Internet", https://www.bandt.com.au/revealed-the-cost-of-an-ad-free-internet/ (retrieved 17/02/2022).

Statista (2021), "Digital Advertising Report 2021. Statista Digital Market Outlook - Market Report", https://de.statista.com/statistik/studie/id/42327/dokument/digital-advertising-report/ (retrieved 17/02/2022).

Tåg, J. (2009), "Paying to Remove Advertisements", Information Economics and Policy, 21(4), 245-252.

Vox (2019), "The Cost of an Ad-Free Internet: $35 more per Month", https://www.vox.com/recode/2019/6/24/18715421/internet-free-data-ads-cost (retrieved 17/02/2022).

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Bachelor Thesis

ELECTRONIC COMMERCE
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Exploring the Market of Chrome Browser Extensions

Overview

Millions of Chrome users worldwide use browser extensions – small pieces of software that enhance browser functionality (ChromeStats, 2021). Chrome users install browser extensions from a Chrome Web Store where developers publish such extensions. However, Google shut down paid browser extensions in February 2021 so that developers of those extensions no longer receive financial compensation for their extensions. It raises the question how developers can make money.

This thesis should describe how a market for Chrome browser extensions currently operates. The motivating questions are: Why should developers create free Chrome browser extensions for users? Did Google force Chrome users to trade their privacy for free browser extensions? A student can use CRXcavator, ChromeStats, or any other means for the data collection.

Requirements

- High interest in the topic
- Willingness to collect and analyse data (help with data collection will be provided)
- Experience with statistical software (preferably R or Python, STATA, Excel)

Language

English

Literature

Krebs, B. (2021), "Is Your Browser Extension a Botnet Backdoor?", KrebsonSecurity, https://krebsonsecurity.com/2021/03/is-your-browser-extension-a-botnet-backdoor/. (accessed 06/08/2021).

Peters, J. (2020), "Google is shutting down paid Chrome extensions", The Verge, https://www.theverge.com/2020/9/22/21451111/google-paid-chrome-extension-monetize-shut-down-end. (accessed 06/08/2021).

Martin, D. M., Smith, R. M., Brittain, M., Fetch, I., & Wu, H. (2001), "The Privacy Practices of Web Browser Extensions", Communications of the ACM, 44(2), 45-50. https://doi.org/10.1145/359205.359226.

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Bachelor Thesis

ELECTRONIC COMMERCE
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Tracking Your Food Delivery: Trackers in Food Delivery Apps

Overview

With the ongoing COVID-19 pandemic, food delivery apps (FDAs) like Lieferando, Uber Eats, and others are increasing in usage (eMarketer, 2021). Such mobile apps offer users the convenience of contactless food delivery and consumption. However, while the FDAs significantly benefit users during the ongoing pandemic, users often pay the hidden price of using such apps with the data that trackers in FDAs collect.

This thesis should explore what privacy implications arise for users of FDAs. Some of the motivating questions are: Can users trust that FDAs will not misuse their privacy? Which FDAs should users avoid if they are concerned about their privacy? How much data does the average FDA collects about users? A student can collect the data to answer those questions using Exodus Privacy, Apple's Privacy Nutrition Labels, or other means she deems fit for the topic..

Requirements

- High interest in the topic
- Willingness to collect and analyse data (help with data collection will be provided)
- Experience with statistical software (preferably R or Python, STATA, Excel)

Language

English

Literature

Curry, David (2022), "Food Delivery App Revenue and Usage Statistics (2022)", BusinessofApps, https://www.businessofapps.com/data/food-delivery-app-market/. (accessed 16/02/2022).

Kollnig, K., Binns, R., Van Kleek, M., Lyngs, U., Zhao, J., Tinsman, C., & Shadbolt, N. (2021), "Before and After GDPR: Tracking in Mobile Apps", Internet Policy Review, 10(4). https://policyreview.info/articles/analysis/and-after-gdpr-tracking-mobile-apps.

Privacy International (2021.), "Mobile App Monetisation - Covert Trackers in Your Pocket", www.privacyinternational.org, https://www.privacyinternational.org/case-study/4404/mobile-app-monetisation-covert-trackers-your-pocket. (accessed 16/02/2022).

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Bachelor's Thesis

ELECTRONIC COMMERCE
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Analyzing the Penalties of GDPR Violations

Overview

The General Data Protection Regulation (GDPR) is among the world's toughest privacy laws, with its upper bound of penalty up to millions of euros. Is the high penalty effective in preventing violations of the law? On the one hand, many firms have been fined an astonishing amount of money (e.g., Amazon €746 Mio, WhatsApp €225 Mio). On the other hand, 58% of firms completely ignored complaints of their unlawful behavior, betting on the low probability of getting sanctions.

What does the distribution of penalties look like? Which firms are more likely to pay penalties? How do the fines differ across countries? To answer the questions, the thesis aims to analyze the penalties of GDPR violations in more detail. The student could collect data on GDPR fines from open sources (e.g., enforcementtracker), describe the fines with statistical methods, or even develop measures to estimate the expected cost of the violation. The analysis provides firms with evidence for risk assessment and helps to understand firms' incentives for violations so that regulators can adjust penalty design accordingly.

Requirements

- High interest in the topic
- Knowledge of programming skills (Python or R)

Language

English

Literature

Kamps, M., Runte,C. (2021), "GDPR Enforcement Tracker Report- 2nd Edition 2021", https://cms.law/en/deu/publication/gdpr-enforcement-tracker-report

Noyb (2020), "Noyb Files 422 Formal GDPR Complaints on Nerve-wrecking "Cookie Banners"", https://noyb.eu/en/noyb-files-422-formal-gdpr-complaints-nerve-wrecking-cookie-banners

Wolff,J., Atallah,N. (2020), " Early GDPR Penalties: Analysis of Implementation and Fines Through May 2020", TPRC48: The 48th Research Conference on Communication, Information and Internet Policy, available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3748837

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Bachelor's Thesis

ELECTRONIC COMMERCE
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Collusion of Pricing Algorithms

Overview

More and more sellers use algorithms to manage their prices. There are concerns that algorithmic pricing can lead to collusion, where consumers are charged higher prices than the competitive market price. In the current literature, there are different findings of if algorithmic pricing can lead to collusion or not. For example, Calvano et al. (2020) used a simulation study to show how algorithms can learn to collude, while Miklós-Thal and Tucker (2019) states that a better demand forecasting of algorithms could lead to lower prices via a theoretical analysis. In this thesis, a structured literature review about current findings of collusion potentials with pricing algorithms should be accomplished. More specifically, an overview of the conditions where collusion with pricing algorithms can be expected or not with insights from the current literature should be provided.

Requirements

- High interest in this topic
- High interest in structured literature review

Language

German / English

Literature

Calvano, E. / Calzolari, G. / Denicolò, V. / Pastorello, S. (2019), "Algorithmic pricing what implications for competition policy?," Review of Industrial Organization, *55*(1), 155-171

Calvano, E. / Calzolari, G. / Denicolò, V. / Pastorello, S. (2020), "Artificial intelligence, algorithmic pricing, and collusion," American Economic Review, 110(10), 3267-97

Miklós-Thal, J. / Tucker, C. (2019), "Collusion by algorithm: Does better demand prediction facilitate coordination between sellers?," Management Science, 65(4),1552-1561

OECD (2017), "Algorithms and Collusion: Competition Policy in the Digital Age," https://www.oecd.org/competition/algorithms-collusion-competition-policy-in-the-digital-age.htm

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