## Master Thesis Topics

## Chair of Marketing & Customer Insight

## **Integration of Visual Generative AI in Targeted Marketing Campaigns**

The emergence and popularity of visual generative AI models, such as Stable Diffusion and DALL·E, are leading to more and more applications in the field of marketing. These models offer countless opportunities for creativity and customization, enabling marketers to revolutionize content creation, enhance brand messaging, and engage customers. Marketers can now generate high-quality, customized images in a matter of seconds, accelerating content creation and reducing production costs. However, there is limited research on the real-world effectiveness of utilizing these generative models for marketing campaigns. Customers can often be grouped into segments with different interests and needs, receiving visual information differently. The question remains whether visual generative AI can effectively target specific customer segments based on their interests.

This master thesis topic focuses on utilizing generative models to create visual marketing images tailored to specific customer segments. Your thesis will involve identifying key attributes of different customer segments and utilizing this information to train and adjust the generative model for optimal results in marketing campaigns. The use of open-source generative models allows for cutting-edge technology to be applied in empirical research on customer targeting.

During your thesis, you will be guided in creating good empirical research and supported in understanding the technologies and models you will work with.

The master's thesis is preferably written in English.

If exploring landscape of generative AI in marketing campaigns is exited for you, please get in touch with

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- Jansen, T., Heitmann, M., Reisenbichler, M. & Scheidel, D. A. (2023). Automated Alignment: Guiding Visual Generative AI for Brand Building and Customer Engagement. https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=4656622
- Rosbergen, E. Pieters, R. & Wedel, M. (1997). Visual Attention to Advertising: A Segment-Level Analysis. *Journal of Consumer Research*, 24(3), 305-314.
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## **Exploring the Potential of Video Generation in Marketing Campaigns**

The advent of visual generative AI models such as Stable Diffusion and DALL·E is revolutionizing the marketing industry by unlocking new creative possibilities. These technologies are changing the game for content creation, empowering marketers to innovate in how they communicate their brand and engage with consumers. With the ability to produce high-quality images and videos rapidly, these AI tools are expediting the content creation process and cutting down on production costs. Despite this technological leap, there remains a gap in research concerning the actual effectiveness of these generative models within marketing campaigns. This gap presents an opportunity for valuable insights, especially as the technology advances to encompass video generation.

In your master thesis you explore the potential of using generative AI to create effective video campaigns, an area that has not been extensively researched. By combining Machine Learning methods with survey-based research, you will investigate the key factors that contribute to successful video advertising. Through the use of cutting-edge Image-to-Video and Text-to-Video models, you will be able to generate impactful video campaigns quickly and efficiently by the end of your thesis.

During your thesis, we guide you in creating good empirical research and support you in understanding the technologies and models you will work with.

The master's thesis is preferably written in English.

If your excitement is sparked by exploring the potential of video generation in marketing campaigns, please get in touch with

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- Baumgartner, H., Sujan, M., & Padgett, D. (1997). Patterns of Affective Reactions to Advertisements: The Integration of Moment-to-Moment Responses into Overall Judgments. *Journal of Marketing Research*, 34(2), 219-232.
- Teixeira, T., Wedel, M., & Pieters, R. (2012). Emotion-Induced Engagement in Internet Video Advertisements. *Journal of Marketing Research*, 49(2), 144-159.

### **Effective Online Customer Communication**

Customer communication can be challenging in the fast-paced digital landscape of today. Public outrages on social media, known as "Shitstorms" and controversial marketing campaigns can quickly escalate, leading to significant damage to a brand's reputation and customer relationships. In this context, how can brands effectively communicate with consumers online?

This master's thesis aims to delve deeper into effective customer communication. You have the opportunity to conduct your own empirical research to investigate the features that result in positive (and negative) marketing consumer responses. We can support you in designing robust empirical research and assist with technologies such as the supportive use of state-of-the-art machine learning.

The master's thesis can be written in either English or German.

If you are excited about how effective customer communication should look like, message

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- Berger, J., Humphreys, A., Ludwig, S., Moe, W. W., Netzer, O., & Schweidel, D. A. (2020). Uniting the Tribes: Using Text for Marketing Insight. *Journal of Marketing*, 84(1), 1–25.
- Herhausen, D., Grewal, L., Cummings, K. H., Roggeveen, A. L., Villarroel Ordenes, F., & Grewal, D. (2023). Complaint De-Escalation Strategies on Social Media. *Journal of Marketing*, 87(2), 210–231.
- Packard, G., Moore, S. G., & McFerran, B. (2018). (I'm) Happy to Help (You): The Impact of Personal Pronoun Use in Customer–Firm Interactions. *Journal of Marketing Research*, 55(4), 541–555.

# Relevant Applications of Machine Learning and Artificial Intelligence in Marketing

As the scope of marketing research diversifies, it becomes increasingly challenging for practitioners, researchers, and students to keep pace with the plethora of artificial intelligence applications in marketing. This thesis aims to bridge this gap by focusing on the development of an automated process that identifies and categorizes the various machine learning applications that have been reported in academic publications. It identifies specific tasks in marketing, such as object detection, emotion classification, and ad generation to derives future potential.

This project offers a practical exploration of machine learning with tangible implications for modern marketing research. You will have the opportunity to program your project, utilizing state-of-the-art machine learning models to make a significant impact in the field. Our team will support you in building your extraction process and provide guidance on writing your thesis.

The master's thesis can be written in either English or German.

If you are excited about how effective Marketing communication should look like, message

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- Berger, J., Humphreys, A., Ludwig, S., Moe, W. W., Netzer, O., & Schweidel, D. A. (2020). Uniting the Tribes: Using Text for Marketing Insight. *Journal of Marketing*, 84(1), 1–25.
- Haman, M., & Školník, M. (2023). Using ChatGPT to conduct a literature review. *Accountability in Research*, 0(0), 1–3.
- Stremersch, S. (2023). How can academics generate great research ideas? Inspiration from ideation practice. *International Journal of Research in Marketing*.

## **Leveraging Consumer Reviews to Create Insights with Impact**

Customer reviews are more than just star ratings; they tell a story about consumer wants, needs and desires. The key for companies and researchers is to identify relevant review structures and extract only the useful insights from them. By doing this, we aim to uncover the hidden messages and feelings that customers share, which can provide much more insight than a simple rating alone.

This thesis aims to systematically identify and analyze the specific components of customer reviews that contain the most insightful information. It explores how these elements can be effectively identified and extracted for further analysis using Large Language Models (LLMs), addressing the challenges and potential biases inherent in this process. Several publications on the topic exist. We aim to conduct a comprehensive literature review to synthesize existing theories, methodologies and findings on how to leverage consumer reviews.

The master's thesis can be written in either English or German.

If you're interested in exploring the world of consumer reviews and want to contribute to a deeper understanding of what makes feedback valuable, this thesis offers a unique opportunity. To get involved and learn more, please reach out to

Claus Hegmann-Napp Claus.hegmann@uni-hamburg.de

- Lee, T. Y., & Bradlow, E. T. (2011). Automated Marketing Research Using Online Customer Reviews. *Journal of Marketing Research*, *48*(5), 881–894.
- Mafael, A. (2019). How Regulatory Orientation and Feelings of Gratitude Shape Online Review Helpfulness. *Journal of Consumer Psychology*, 29(4), 601–622.
- McColl-Kennedy, J. R., Zaki, M., Lemon, K. N., Urmetzer, F., & Neely, A. (2019). Gaining Customer Experience Insights That Matter. *Journal of Service Research*, 22(1), 8–26.
- Park, S. K., Song, T., & Sela, A. (2023). The effect of subjectivity and objectivity in online reviews: A convolutional neural network approach. *Journal of Consumer Psychology*, 33(4), 701–713.

## Tailoring Customer Service: Exploring (Automated) Support Customized for Different Customer Segments

In the realm of customer service, a generalized approach may not suit all customers. This master's thesis aims to explore the potential of creating 'tailor-made' (automated) customer support systems capable of distinguishing and adapting to various customer segments. The focus is on how these systems can vary their communication styles and strategies to accommodate the unique needs and preferences of diverse customer groups. An empirical study to identify the distinct needs of different customer segments could also be included in this thesis.

This research aims to assess the feasibility and effectiveness of developing automated customer support systems that possess dynamic adaptability, adjusting their approach based on the specific customer segment they interact with. Responses to this inquiry can address the following aspects:

- The diverse expectations different customer segments have from customer support services, focusing on factors such as speed, personalization, communication style, and problem-solving efficiency.
- How these varying expectations influence the perception and satisfaction with the customer service provided.
- The impact of meeting or failing to meet these expectations on overall customer experience and loyalty.

The master's thesis can be written in either English or German.

If you are intrigued by the idea of potentially improving customer service through technology and are interested in enhancing customer experience, this thesis topic presents an exciting opportunity. For further details and to participate in this pioneering research, please contact

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- Anderson, E. W., Fornell, C., & Mazvancheryl, S. K. (2004). Customer Satisfaction and Shareholder Value. *Journal of Marketing*, 68(4), 172–185.
- Braun, M., & Bonfrer, A. (2011). Scalable Inference of Customer Similarities from Interactions Data Using Dirichlet Processes. *Marketing Science*, 30(3), 513–531.
- Sergeant, A., & Frenkel, S. (2000). When Do Customer Contact Employees Satisfy Customers? *Journal of Service Research*, 3(1), 18–34.

## AI for Marketing Scholars: Understanding and Enhancing Marketing Research Using Artificial Intelligence

In the fast-paced realm of marketing research, scholars must stay abreast of both the substantive and methodological advancements in their field. However, amidst the deluge of newly published articles each year, coupled with the expanding array of research methodologies and the rapid integration of artificial intelligence (AI), keeping track of their field has become an imposing challenge for marketing researchers. While scholars have their individual approaches to develop novel or innovative research ideas, and to utilize tools (e.g., literature reviews, conferences, etc.) to get an insight on what is currently going on in the scholarly marketplace of ideas, the marketing field lacks a comprehensive approach and overview of its ongoing development. We developed an AI-based literature analysis tool that extracts critical information like applied methods, intended contributions, and topics from the entirety of the marketing literature as found within high-tier outlets during the past 13 years.

In their master thesis students might either:

- (1) develop an empirical analysis of the marketing field by analyzing data from our tool, including what methods and topics are used and where golden opportunities for scholarly publishing might be hidden in the field,
- (2) or a literature review of relevant perspectives on evolving marketing topics and methods including the process of ideation (i.e., idea generation), scholarly innovation, scholarly impact, success criteria for publishing in high-tier outlets, or similar related fields of inquiry and how these factors might be enhanced using AI methods.

The master's thesis can be written in either English or German. For further details please contact

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- Grewal, R., Gupta, S., & Hamilton, R. (2020). The Journal of Marketing Research Today: Spanning the Domains of Marketing Scholarship. *Journal of Marketing Research*, 57(6), 985-998.
- Eisend, M. (2015). Have We Progressed Marketing Knowledge? A Meta-Meta-Analysis of Effect Sizes in Marketing Research. *Journal of Marketing*, 79(3), 23-40.
- Stefan Stremersch (2023). How can academics generate great research ideas? Inspiration from ideation practice. *International Journal of Research in Marketing*,
- Stremersch, S., Verniers, I., & Verhoef, P. C. (2007). The Quest for Citations: Drivers of Article Impact. *Journal of Marketing*, 71(3), 171-193.
- Berger, J., Humphreys, A., Ludwig, S., Moe, W. W., Netzer, O., & Schweidel, D. A. (2020). Uniting the Tribes: Using Text for Marketing Insight. *Journal of Marketing*, 84(1), 1-25.

## **Effective Influencer Marketing**

Influencer marketing has become a popular marketing strategy on social media. Among other things, through influencer collaborations, brands attempt to reach more specific target groups and enhance their marketing communication's authenticity. As most of this sponsored content is shared on visual platforms such as Instagram and TikTok, visual brand content that features both the influencer and the brand plays an important role. Typically, influencers create this brand imagery themselves based on instructions from brands. This creates a natural tension about the relative salience of the influencer and the brand on these images, as influencers seek to drive engagement, which may be undermined by excessively salient sponsored products, while firms seek to drive awareness and sales.

This master thesis aims to investigate the visual presentation of effective influencer content. For this purpose, characteristics for a successful visual presentation of the brand need to be identified based on literature and then transferred to the concept of influencer marketing. Subsequently, these findings can be validated experimentally or survey-based.

The thesis can be written in German or English. For more information, please contact

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- Breves, P. L., Liebers, N., Abt, M., and Kunze, A. (2019). The perceived fit between Instagram influencers and the endorsed brand: How influencer-brand fit affects source credibility and persuasive effectiveness. *Journal of Advertising Research*, 59(4), 440-454.
- Hartmann, J., Heitmann, M., Schamp, C., and Netzer, O. (2021). The power of brand selfies. *Journal of Marketing Research*, 58 (6), 1159–1177.
- Klostermann, J., Plumeyer, A., Böger, D., and Decker, R. (2018). Extracting Brand Information from Social Networks: Integrating Image, Text, and Social Tagging Data. *International Journal of Research in Marketing*, 35 (4), 538–556.
- Liu, L., Dzyabura, D., and Mizik, N. (2020). Visual Listening In: Extracting Brand Image Portrayed on Social Media. *Marketing Science*, 39 (4), 669–686
- Torres, P., Augusto, M., and Matos, M. (2019). Antecedents and outcomes of digital influencer endorsements: An exploratory study. *Psychology & Marketing*, 36(12), 1267-1276.

## **Decoding Success: An Empirical Journey into** the Effectiveness of Radio Advertising

Unlike their visual counterparts, audio ads capture the listener's attention through sound alone, offering a unique challenge to marketers and a fascinating subject for academic study. The rise of digital platforms such as podcasts, streaming services, and smart speakers has revolutionized the audio advertising landscape. The relevance of audio ads lies in their ability to engage audiences in a variety of contexts, whether they are driving, working out, or simply relaxing at home. Collectively, this makes audio advertising a potent tool for targeting and engaging diverse audiences. However, without visual elements, advertisers must craft compelling narratives and use soundscapes effectively to evoke emotions and create lasting impressions. The psychological and emotional impact of these ads is a rich area for exploration, particularly in understanding how audio influences consumer behavior and brand perception.

For students interested in advertising, psychology, media studies, or data analytics, we offer a unique dataset for exploration, focusing on what makes audio advertising successful. This dataset, comprising information on approximately 250 radio ads and consumer responses to them, presents a rare opportunity to delve into a relatively under-explored area of study. It offers the chance to investigate the nuances of audio ad effectiveness and audience engagement. Additionally, there is potential for leveraging machine learning techniques to gain a deeper understanding of specific ads and the interplay between ad content and consumer response.

This thesis can be written in German or English. If you are interested, please get in touch with

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- Kang J-A, Hong S, Hubbard GT. The role of storytelling in advertising: Consumer emotion, narrative engagement level, and word-of-mouth intention. *Journal of Consumer Behavior*. 2020; 19: 47–56.
- Sewall, M. A., & Sarel, D. (1986). Characteristics of Radio Commercials and Their Recall Effectiveness. *Journal of Marketing*, 50(1), 52-60.
- Shani-Feinstein, Y., Kyung, E. J., & Goldenberg, J. (2022). Moving, Fast or Slow: How Perceived Speed Influences Mental Representation and Decision Making. *Journal of Consumer Research*, 49(3), 520–542.

# Mastering Customer Contact: Analyzing Communication on Social Networks and the Role of AI-based Language Models

In the digital age, customer service on social media platforms like Instagram and Twitter has become a vital channel for companies to engage with their audience. This master's thesis aims to dissect the critical features of this communication channel, focusing on how companies can successfully interact with customers in these digital environments. Special attention will be given to the nuances of communication on social networks, exploring what constitutes effective and satisfactory communication from the consumers' perspective.

The main goal is to identify key aspects of successful consumer communication on social media platforms and understand consumer expectations in these digital interactions. Additionally, the thesis will explore how AI-based language models could be trained and applied to enhance this communication, potentially enhancing brand communication methods on social media.

If you are interested in the field of brand communication with a bigger focus on social media channels, this thesis may present an interesting challenge. For further details and to participate in this research, please contact:

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- Appel, G., Grewal, L., Hadi, R., & Stephen, A. T. (2020). The future of social media in marketing. *Journal of the Academy of Marketing Science*, 48(1), 79–95.
- Batra, R., & Keller, K. L. (2016). Integrating Marketing Communications: New Findings, New Lessons, and New Ideas. *Journal of Marketing*, 80(6), 122–145
- Hewett, K., Rand, W., Rust, R. T., & Van Heerde, H. J. (2016). Brand Buzz in the Echoverse. *Journal of Marketing*, 80(3), 1–24
- Kumar, A., Bezawada, R., Rishika, R., Janakiraman, R., & Kannan, P. K. (2016). From Social to Sale: The Effects of Firm-Generated Content in Social Media on Customer Behavior. *Journal of Marketing*, 80(1), 7–25.