



UvA-DARE (Digital Academic Repository)

Brand content diffusion on Social Networking Sites: Exploring the triadic relationship between the brand, the individual, and the community

Trostli de Araújo Costa, T.B.

Publication date

2015

Document Version

Final published version

[Link to publication](#)

Citation for published version (APA):

Trostli de Araújo Costa, T. B. (2015). *Brand content diffusion on Social Networking Sites: Exploring the triadic relationship between the brand, the individual, and the community.*

General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

The background features a large, bold, white letter 'A' on a black background. The 'A' is composed of two thick, black diagonal strokes meeting at a point at the top right. The negative space of the 'A' is white. The text 'Author contributions' is positioned on the left side of the image, within the black area, in a white, sans-serif font.

**Author
contributions**

Author contributions

This dissertation is based on four articles submitted for publication. The co-authors of each article are Theo Araujo (TA), Peter Neijens (PN) and Rens Vliegenthart (RV), and their contributions are listed below.

CHAPTER 1 – THE INFLUENCE OF THE MESSAGE (AUTHORS: TA, PN AND RV)

TA designed the study and was responsible for the data collection process, as well as the manual and automated content analysis, including the coordination of coders, and the data analysis. PN provided valuable insights on the research design and theoretical framework. RV provided guidance to the data analysis. Both PN and RV reviewed several versions of the manuscript throughout the peer review process, contributing to its development and to the final text.

CHAPTER 2 – THE INFLUENCE OF THE NETWORK (AUTHORS: TA, PN AND RV)

TA designed the study and was responsible for the data collection process, as well as the automated content analysis, network analysis and data analysis. PN and RV provided valuable insights on the research design, theoretical framework and data analysis. PN and

RV reviewed several versions of the manuscript throughout the peer review process, contributing to its overall development and the final text.

CHAPTER 3 – THE INFLUENCE OF PERSONALITY

(AUTHORS: TA, PN AND RV)

TA designed the study and was responsible for the data collection, working together with a panel research company. PN and RV provided valuable insights on the survey development, theoretical framework and data analysis. PN and RV reviewed several versions of the manuscript prior to submission, contributing to its overall development and the final text.

CHAPTER 4 – CONSEQUENCES OF THE PROCESS

(AUTHOR: TA)

TA was responsible for the data collection and overall manuscript development. PN and RV provided high-level feedback on the final version of the manuscript.

The image features a high-contrast, abstract graphic design. It consists of large, organic, flowing shapes in black and white. A prominent white shape on the right side resembles a stylized letter 'S' or a similar curve, set against a black background. Another white shape is visible at the bottom left, also curving upwards. The overall composition is minimalist and modern.

Summary

Brand content diffusion on Social Networking Sites

This dissertation explores the antecedents and consequences of brand content diffusion on Social Networking Sites (SNSs), by investigating what influences SNS users to pass along messages created by brands via retweeting on Twitter, and sharing on Facebook. The dissertation is organized in four chapters. The first three chapters explore the antecedents of this process, namely how (1) message, (2) network and (3) personality characteristics influence SNS users to retweet or share brand messages. The concluding chapter (4) investigates the consequences of this behavior, particularly how it influences attitudes towards the brand, and towards the message. The *Dissertation Overview* summarizes the theoretical and practical implications from the overall findings of this dissertation.

CHAPTER 1 – THE INFLUENCE OF THE MESSAGE

The study included in Chapter 1 investigates how message characteristics influence pass-along behavior of content from top global brands on Twitter. Employing automated data extraction and natural language processing procedures, the study categorizes 19,343 brand messages, and evaluates how message characteristics such as informational, emotional and traceability cues influence pass-along behavior via retweets. The results indicate that informational cues are predictors of higher levels of retweeting. This particularly is the case when the information cues provided specific details about products, or has links to the brand website, to SNSs, and to photos or videos. And, although emotional cues do not influence retweeting on their

own, they reinforce the effects of informational cues and hashtags when combined in the same message. These results indicate, therefore, that Twitter users are especially interested in messages that are rich in informational content, and are more likely to pass such messages along. These findings are particularly important to practice, considering that the way in which a message is written and the information that it contains are arguably the characteristics that are most under the brand's control.

CHAPTER 2 – THE INFLUENCE OF THE NETWORK

Chapter 2 investigates the influence of specific types of users on brand content diffusion, by following the diffusion cascade of brand messages on Twitter and identifying which users influenced others to retweet brand content. In total, the study analyzed data from 30 top global brand profiles and from over 46,000 users who retweeted brand content, identifying which users they followed and which users followed them in order to investigate network characteristics. Based on these network characteristics, the study categorized users as (a) influentials – individuals who have above average influence, including celebrities and public figures -, (b) information brokers – individuals that connect groups that otherwise would have weak or no ties, and (c) strong ties – individuals that have of a strong personal connection. The results indicate that influentials and information brokers are associated with higher levels of retweeting for brand content. In addition, although information brokers have a larger overall influence on retweeting, they are more prone to do so when influentials are mentioned on the brand tweet.

This provides support to the strategy of connecting the brand with influential users, such as celebrities or public figures.

CHAPTER 3 – THE INFLUENCE OF PERSONALITY

The study included in Chapter 3 investigates how personality characteristics are associated with the decision to pass along brand messages on SNSs, drawing from earlier research on self-disclosure and self-presentation. Using a survey with active SNS users, this study explores the association between passing along brand messages and personality characteristics such as the Big Five Personality Traits and Need for Popularity. The results show that passing along brand content on SNSs is more prevalent among people that are more friendly and warm towards others (Agreeableness) and who enjoy social exchange (Extraversion). The people who have a strong desire to be popular (Need for Popularity), however, are the ones most likely to pass along brand content. When it comes to differences between Facebook and Twitter, extroverts prefer to share brand messages on Facebook, while people who are more self-disciplined and results-oriented (Conscientiousness) are more likely to prefer to retweet brand messages on Twitter.

CHAPTER 4 – CONSEQUENCES OF BRAND CONTENT DIFFUSION

The study presented in Chapter 4, using a survey with active social media users, evaluates the influence over brand attitudes and willingness to pass along brand messages from three aspects of the communication process: the message, the sender and the receiver. The results indicate that message evaluation, the relationship with the

sender and the receiver's own opinion leadership and opinion-seeking levels influence both willingness to pass along the message further and brand attitudes. More specifically, the more informative and entertaining that the receiver finds the message to be, the more he or she will be willing to pass it along, and the better his or her attitudes towards the brand. Moreover, opinion leaders, who engage regularly in consumer-to-consumer electronic Word-of-Mouth, are more willing to pass along messages created by brands. Opinion seekers, who regularly seek advice from others online, are more likely to have more positive attitudes towards the brand. Finally, receiving a message from a close friend has a positive influence on attitudes towards the brand when compared to receiving it from other sources.



Samenvatting

De verspreiding van merkcontent op Sociale Netwerksites

In deze dissertatie wordt onderzocht welke factoren van invloed zijn op de verspreiding van merkcontent op sociale netwerksites (SNS's) en welke effecten deze berichten hebben op de ontvangers. Het onderzoek richt zich op de verspreiding van merkberichten -berichten die een merk verspreidt- door middel van 'retweets' op Twitter en 'delen' op Facebook. De dissertatie bestaat uit vier hoofdstukken. De eerste drie hoofdstukken behandelen de antecedenten van dit proces, namelijk in hoeverre (1) het bericht, (2) het netwerk en (3) persoonlijkheidskenmerken van invloed zijn op de keuze van SNS-gebruikers om merkberichten te retweeten of te delen. In het afsluitende hoofdstuk (4) worden de gevolgen van dit gedrag onderzocht en dan met name in hoeverre de houding ten opzichte van zowel het merk (de merkattitude) als ten opzichte van het bericht wordt beïnvloed. In de *Dissertation Overview* zijn de theoretische en praktische implicaties van de bevindingen van het proefschrift samengevat.

HOOFDSTUK 1 – DE INVLOED VAN HET BERICHT

In het onderzoek van hoofdstuk 1 wordt onderzocht in hoeverre de kenmerken van een bericht van invloed zijn op het retweeten van berichten van wereldwijde topmerken. Aan de hand van geautomatiseerde gegevensverzameling en middels computergestuurde inhoudsanalyse ("natural language processing") werden 19.343

merkberichten gecategoriseerd. Vervolgens werd onderzocht in hoeverre berichtkenmerken, zoals de aanwezigheid van informatieve, emotionele en traceerbaarheids cues van invloed zijn op het retweeten van de berichten. De resultaten laten zien dat berichten die feitelijke informatie bevatten vaker worden geretweet. Dit is met name het geval als die informatie over producten gaat of er koppelingen gemaakt worden naar de website van het merk, naar SNS's en naar foto's of video's. Hoewel emotionele kenmerken op zichzelf niet van invloed zijn op retweet-gedrag, versterken ze wel de effecten van informatieve signalen en hashtags in hetzelfde bericht. Deze resultaten duiden er op dat Twitter-gebruikers vooral geïnteresseerd zijn in berichten die informatieve content bevatten en dat ze eerder geneigd zijn om dergelijke berichten door te sturen. Deze bevindingen zijn van belang voor de praktijk, omdat de wijze waarop een bericht is geschreven en de informatie die het bevat kenmerken zijn waarover het merk daadwerkelijk controle heeft.

HOOFDSTUK 2 – DE INVLOED VAN HET NETWERK

In hoofdstuk 2 wordt de invloed van de Twitter-gebruikers op de verspreiding van merkcontent behandeld. De verspreiding van merkberichten op Twitter wordt gevolgd waarbij gekeken wordt welke gebruikers anderen beïnvloeden om merkcontent te retweeten. In totaal zijn in het onderzoek de gegevens geanalyseerd van dertig internationale topmerken en van meer dan 46.000 gebruikers die merkcontent hebben geretweet. Voor het onderzoek werd de positie van de gebruiker in het netwerk van Twitter-gebruikers vastgesteld: welke gebruikers zij volgden en door welke gebruikers zij zelf werden gevolgd. Op basis van deze netwerkeigenschappen zijn drie typen

gebruikers geïdentificeerd: (a) invloedrijke personen – personen die een bovengemiddelde invloed hebben op het retweeten van berichten door hun volgers, zoals beroemdheden en publieke figuren; (b) informatiemakelaars – personen die groepen met elkaar verbinden die anders niet of nauwelijks met elkaar in aanraking zouden komen; en (c) hechte contacten – personen die een sterke onderlinge band hebben. De resultaten duiden erop dat invloedrijke personen en informatiemakelaars sterke invloed hebben op het retweeten van merkcontent: als zij een merkbericht retweeten is de kans groot dat ook hun volgers het bericht verder retweeten. Bovendien bleek uit het onderzoek dat als invloedrijke personen worden genoemd in de tweet van een merk de kans nog groter is dat informatiemakelaars het merk retweeten. Dit bevestigt de effectiviteit van een strategie waarbij merken invloedrijke personen, zoals beroemdheden en publieke figuren, aan zich binden.

HOOFDSTUK 3 – DE INVLOED VAN DE PERSOONLIJKHEID

In hoofdstuk 3 wordt onderzocht in hoeverre persoonlijkheidskenmerken van invloed zijn op het besluit om merkberichten door te sturen, waarbij gebruik wordt gemaakt van resultaten uit eerder onderzoek naar ‘self-disclosure’ en ‘self-presentation’. Aan de hand van een survey onder actieve SNS-gebruikers is onderzocht wat het verband is tussen het doorgeven van merkberichten en persoonlijkheidskenmerken, zoals de Big Five van persoonlijkheidsdimensies en de behoefte aan populariteit. De resultaten laten zien dat het doorgeven van merkcontent op SNS's

vaker voorkomt bij mensen die vriendelijker en warmer naar anderen zijn (mildheid) en die het leuk vinden om informatie uit te wisselen op sociale media (extraversie). Bij mensen die heel graag populair willen zijn (behoefte aan populariteit) is de kans echter het grootst dat ze merkberichten doorgeven. Wat betreft de verschillen tussen Facebook en Twitter delen extraverte mensen merkberichten liever op Facebook, terwijl mensen met meer zelfdiscipline en resultaatgerichtheid (ordelijkheid) eerder geneigd zijn om merkberichten op Twitter te retweeten.

HOOFDSTUK 4 – GEVOLGEN VAN DE VERSPREIDING VAN MERKCONTENT

In hoofdstuk 4 wordt onderzocht wat de invloed is van merkberichten op de merkattitude en de bereidheid om merkberichten door te sturen is, aan de hand van een survey onder actieve gebruikers van sociale media. Hierbij wordt gekeken naar drie aspecten van het communicatieproces: het bericht, de zender en de ontvanger. De resultaten duiden erop dat de beoordeling van het bericht, de relatie met de zender en het opinieleiderschap en mate van opiniezoekgedrag van de ontvanger van invloed zijn op de bereidheid om een bericht door te sturen en tevens de merkattitude te veranderen. Meer specifiek betekent dit dat hoe informatiever en onderhoudender de ontvanger het bericht vindt, des te meer hij of zij bereid is om dit door te sturen en des te positiever zijn of haar merkattitude is na het lezen van het merkbericht. Bovendien zijn opinieleiders, personen die regelmatig deelnemen aan elektronische ‘Word-of-Mouth’ met andere

BRAND CONTENT DIFFUSION ON SNSs

consumenten, meer bereid om berichten van merken door te geven. De merkattitude van opinievollers, personen die regelmatig online advies vragen aan anderen, wordt vaker positief beïnvloed door merkberichten die ze ontvangen. Ten slotte heeft een bericht dat is ontvangen van een goede vriend een sterker effect op de merkattitude dan een bericht dat van andere bronnen afkomstig is.

References

References

- Ajzen, I. (1987). Attitudes, traits and actions: Dispositional prediction of behavior in personality and social psychology. *Advances in Experimental Social Psychology*, 20, 1–63.
- Algesheimer, R., Dholakia, U. M., & Herrmann, A. (2005). The Social Influence of Brand Community: Evidence from European Car Clubs. *Journal of Marketing*, 69(3), 19–34.
- Aman, S., & Szpakowicz, S. (2007). Identifying expressions of emotion in text. In *Text, Speech and Dialogue* (pp. 196–205).
- Amichai-Hamburger, Y. (2002). Internet and personality. *Computers in Human Behavior*, 18(1), 1–10.
- Amichai-Hamburger, Y., & Ben-Artzi, E. (2003). Loneliness and Internet use. *Computers in Human Behavior*, 19(1), 71–80.
- Amichai-Hamburger, Y., & Vinitzky, G. (2010). Social network use and personality. *Computers in Human Behavior*, 26(6), 1289–1295.
<http://doi.org/10.1016/j.chb.2010.03.018>
- Amos, C., Holmes, G., & Strutton, D. (2008). Exploring the relationship between celebrity endorser effects and advertising effectiveness: A quantitative synthesis of effect size. *International Journal of Advertising*, 27(2), 209–234.

- Araujo, T., & Neijens, P. (2012). Friend me: which factors influence top global brands participation in social network sites. *Internet Research*, 22(5), 626–640.
<http://doi.org/10.1108/10662241211271581>
- Araujo, T., Neijens, P. C., & Vliegenthart, R. (forthcoming). Brand Content Diffusion on Twitter: The Role of Influentials, Information Brokers and Strong Ties in Retweeting.
- Araujo, T., Neijens, P. C., & Vliegenthart, R. (2015). What motivates consumers to re-Tweet brand content? The impact of information, emotion, and traceability on pass-along behavior. *Journal of Advertising Research*.
- Arndt, J. (1967). Role of product-related conversations in the diffusion of a new product. *Journal of Marketing Research*, 291–295.
- Asendorpf, J. B., & Wilpers, S. (1998). Personality effects on social relationships. *Journal of Personality and Social Psychology*, 74(6), 1531.
- Babin, B. J., Darden, W. R., & Griffin, M. (1994). Work and/or fun: measuring hedonic and utilitarian shopping value. *Journal of Consumer Research*, 644–656.
- Bakshy, E., Hofman, J. M., Mason, W. A., & Watts, D. J. (2011). Everyone's an influencer: quantifying influence on twitter. In *Proceedings of the fourth ACM international conference on Web search*

and data mining (pp. 65–74). Retrieved from
<http://dl.acm.org/citation.cfm?id=1935845>

Bakshy, E., Karrer, B., & Adamic, L. A. (2009). Social influence and the diffusion of user-created content. In *Proceedings of the tenth ACM conference on Electronic commerce* (pp. 325–334). Retrieved from
<http://www.stolaf.edu/events/sciencesymposium/images/AdamicRec.pdf>

Bakshy, E., Rosenn, I., Marlow, C., & Adamic, L. A. (2012). The role of social networks in information diffusion. In *Proceedings of the 21st international conference on World Wide Web* (pp. 519–528). Retrieved from <http://dl.acm.org/citation.cfm?id=2187907>

Berger, J., & Milkman, K. L. (2012). What makes online content viral? *Journal of Marketing Research*, *49*(2), 192–205.

Bird, S., Klein, E., & Loper, E. (2009). *Natural Language Processing with Python* (1st ed.). O'Reilly Media.

Block, J. (2010). The Five-Factor Framing of Personality and Beyond: Some Ruminations. *Psychological Inquiry*, *21*(1), 2–25.
<http://doi.org/10.1080/10478401003596626>

Boyd, D., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, *13*(1), 210–230.

- Boyd, D., Golder, G., Scott, & Lotan, G. (2010). Tweet, tweet, retweet: Conversational aspects of retweeting on twitter. In *System Sciences (HICSS), 2010 43rd Hawaii International Conference on* (pp. 1–10).
- Bronner, F., & de Hoog, R. (2010). Vacationers and eWOM: Who Posts, and Why, Where, and What? *Journal of Travel Research*, 50(1), 15–26. <http://doi.org/10.1177/0047287509355324>
- Brooks, R. C. (1957). “Word-of-Mouth” Advertising in Selling New Products. *The Journal of Marketing*, 22(2), 154–161.
- Brown, J., Broderick, A. J., & Lee, N. (2007). Word of mouth communication within online communities: Conceptualizing the online social network. *Journal of Interactive Marketing*, 21(3), 2–20. <http://doi.org/10.1002/dir.20082>
- Brown, J. J., & Reingen, P. H. (1987). Social ties and word-of-mouth referral behavior. *Journal of Consumer Research*, 350–362.
- Bruggeman, J. (2008). *Social Networks: An introduction*. Routledge.
- Bughin, J., Doogan, J., & Vetvik, O. J. (2010). A new way to measure word-of-mouth marketing. *McKinsey Quarterly*, 3(2). Retrieved from https://www.mckinseyquarterly.com/A_new_way_to_measure_word-of-mouth_marketing_2567

BRAND CONTENT DIFFUSION ON SNSs

- Burt, R. S. (1999). The social capital of opinion leaders. *The Annals of the American Academy of Political and Social Science*, 566(1), 37–54.
- Burt, R. S. (2000). The network structure of social capital. *Research in Organizational Behavior*, 22, 345–423.
- Bush, A. J., Martin, C. A., & Bush, V. D. (2004). Sports Celebrity Influence on the Behavioral Intentions of Generation Y. *Journal of Advertising Research*, 44(1), 108–118.
<http://doi.org/10.1017/S0021849904040206>
- Cha, M., Haddadi, H., Benevenuto, F., & Gummadi, K. P. (2010). Measuring User Influence in Twitter: The Million Follower Fallacy. In *Proceedings of the Fourth International AAAI Conference on Weblogs and Social Media* (pp. 10–17). Washington, DC.
- Chen, Y., Fay, S., & Wang, Q. (2011). The Role of Marketing in Social Media: How Online Consumer Reviews Evolve. *Journal of Interactive Marketing*, 25(2), 85–94.
- Chiu, H. C., Hsieh, Y. C., Kao, Y. H., & Lee, M. (2007). The determinants of email receivers' disseminating behaviors on the Internet. *Journal of Advertising Research*, 47(4), 524–534.
- Christofides, E., Muise, A., & Desmarais, S. (2009). Information Disclosure and Control on Facebook: Are They Two Sides of the Same Coin or Two Different Processes? *CyberPsychology &*

- Behavior*, 12(3), 341–345.
<http://doi.org/10.1089/cpb.2008.0226>
- comScore. (2011). *The Power of Like*. Retrieved from
http://www.comscore.com/Press_Events/Presentations_Whitepapers/2011/The_Power_of_Like_How_Brands_Reach_and_Influence_Fans_Through_Social_Media_Marketing
- Costa, P. T., & McCrae, R. R. (1992). Four ways five factors are basic. *Personality and Individual Differences*, 13(6), 653–665.
- Davenport, S. W., Bergman, S. M., Bergman, J. Z., & Fearington, M. E. (2014). Twitter versus Facebook: Exploring the role of narcissism in the motives and usage of different social media platforms. *Computers in Human Behavior*, 32, 212–220.
<http://doi.org/10.1016/j.chb.2013.12.011>
- De Bruyn, A., & Lilien, G. L. (2008). A multi-stage model of word-of-mouth influence through viral marketing. *International Journal of Research in Marketing*, 25(3), 151–163.
<http://doi.org/10.1016/j.ijresmar.2008.03.004>
- De Vries, L., Gensler, S., & Leeflang, P. S. H. (2012). Popularity of Brand Posts on Brand Fan Pages: An Investigation of the Effects of Social Media Marketing. *Journal of Interactive Marketing*, 26(2), 83–91.
<http://doi.org/10.1016/j.intmar.2012.01.003>

- Dobele, A., Lindgreen, A., Beverland, M., Vanhamme, J., & van Wijk, R. (2007). Why pass on viral messages? Because they connect emotionally. *Business Horizons*, *50*, 291–304.
- Donnellan, M. B., Oswald, F. L., Baird, B. M., & Lucas, R. E. (2006). The Mini-IPIP Scales: Tiny-yet-effective measures of the Big Five Factors of Personality. *Psychological Assessment*, *18*(2), 192–203. <http://doi.org/10.1037/1040-3590.18.2.192>
- Duggan, M., & Smith, A. (2014). Social media update 2013. *Pew Internet and American Life Project*. Retrieved from <http://pewinternet.org/Reports/2013/Social-Media-Update.aspx>
- Eckler, P., & Bolls, P. (2011). Spreading the virus: Emotional tone of viral advertising and its effect on forwarding intentions and attitudes. *Journal of Interactive Advertising*, *11*(2), 1–11.
- Erdogan, B. Z. (1999). Celebrity Endorsement: A Literature Review. *Journal of Marketing Management*, *15*(4), 291–314. <http://doi.org/10.1362/026725799784870379>
- Fielding, A., & Goldstein, H. (2006). Cross-classified and multiple membership structures in multilevel models: an introduction and review. Retrieved from <http://dera.ioe.ac.uk/6469/1/RR791.pdf>

- Fleiss, J. L., Levin, B., & Paik, M. C. (2003). *Statistical methods for rates and proportions* (3. ed). Hoboken, NJ: Wiley-Interscience.
- Flynn, L. R., Goldsmith, R. E., & Eastman, J. K. (1996). Opinion leaders and opinion seekers: Two new measurement scales. *Journal of the Academy of Marketing Science*, 24(2), 137–147.
- Gelman, A. (2008). Scaling regression inputs by dividing by two standard deviations. *Statistics in Medicine*, 27(15), 2865–2873.
<http://doi.org/10.1002/sim.3107>
- Gensler, S., Völckner, F., Liu-Thompkins, Y., & Wiertz, C. (2013). Managing Brands in the Social Media Environment. *Journal of Interactive Marketing*, 27(4), 242–256.
<http://doi.org/10.1016/j.intmar.2013.09.004>
- Golan, G. J., & Zaidner, L. (2008). Creative Strategies in Viral Advertising: An Application of Taylor's Six-Segment Message Strategy Wheel. *Journal of Computer-Mediated Communication*, 13(4), 959–972.
- Goldenberg, J., Libai, B., & Muller, E. (2001). Talk of the Network: A Complex Systems Look at the Underlying Process of Word-of-Mouth. *Marketing Letters*, 12(3), 211–223.
- Goldsmith, R. E., & Horowitz, D. (2006). Measuring Motivations for Online Opinion Seeking. *Journal of Interactive Advertising*, 6(2), 3–14.

BRAND CONTENT DIFFUSION ON SNSs

- Goldstein, H. (1994). Multilevel Cross-Classified Models. *Sociological Methods & Research*, 22(3), 364–375.
- Gosling, S. D., Augustine, A. A., Vazire, S., Holtzman, N., & Gaddis, S. (2011). Manifestations of Personality in Online Social Networks: Self-Reported Facebook-Related Behaviors and Observable Profile Information. *Cyberpsychology, Behavior, and Social Networking*, 14(9), 483–488.
<http://doi.org/10.1089/cyber.2010.0087>
- Granovetter, M. S. (1973). The strength of weak ties. *American Journal of Sociology*, 1360–1380.
- Hagberg, A. A., Schult, D. A., & Swart, P. J. (2008). Exploring network structure, dynamics, and function using NetworkX. In *Proceedings of the 7th Python in Science Conference (SciPy2008)* (pp. 11–15). Pasadena, CA USA: Gäel Varoquaux, Travis Vaught, and Jarrod Millman (Eds).
- Harrysson, M., Metayer, E., & Sarrazin, H. (2012). How “social intelligence” can guide decisions. *McKinsey Quarterly*, November. Retrieved from https://www.mckinseyquarterly.com/How_social_intelligence_can_guide_decisions_3031
- Hennig-Thurau, T., Gwinner, K. P., Walsh, G., & Gremler, D. D. (2004). Electronic word-of-mouth via consumer-opinion

- platforms: What motivates consumers to articulate themselves on the Internet? *Journal of Interactive Marketing*, 18(1), 38–52.
<http://doi.org/10.1002/dir.10073>
- Hollenbaugh, E. E., & Ferris, A. L. (2014). Facebook self-disclosure: Examining the role of traits, social cohesion, and motives. *Computers in Human Behavior*, 30, 50–58.
<http://doi.org/10.1016/j.chb.2013.07.055>
- Hollenbeck, C. R., & Kaikati, A. M. (2012). Consumers' use of brands to reflect their actual and ideal selves on Facebook. *International Journal of Research in Marketing*.
<http://doi.org/10.1016/j.ijresmar.2012.06.002>
- Huang, C.-C., Lin, T.-C., & Lin, K.-J. (2009). Factors affecting pass-along email intentions (PAEIs): Integrating the social capital and social cognition theories. *Electronic Commerce Research and Applications*, 8, 160–169.
- Huffaker, D. (2010). Dimensions of Leadership and Social Influence in Online Communities. *Human Communication Research*, 36(4), 593–617. <http://doi.org/10.1111/j.1468-2958.2010.01390.x>
- Hughes, D. J., Rowe, M., Batey, M., & Lee, A. (2012). A tale of two sites: Twitter vs. Facebook and the personality predictors of social media usage. *Computers in Human Behavior*, 28(2), 561–569. <http://doi.org/10.1016/j.chb.2011.11.001>

BRAND CONTENT DIFFUSION ON SNSs

Hutton, G., & Fosdick, M. (2011). The Globalization of Social Media:

Consumer Relationships with Brands Evolve in the Digital

Space. *Journal of Advertising Research*, 51(4).

Interbrand. (2011). 2011 Ranking of the Top 100 Brands. Retrieved

April 5, 2012, from [http://www.interbrand.com/en/best-](http://www.interbrand.com/en/best-global-brands/previous-years/Best-Global-Brands-2011.aspx)

[global-brands/previous-years/Best-Global-Brands-2011.aspx](http://www.interbrand.com/en/best-global-brands/previous-years/Best-Global-Brands-2011.aspx)

Iribarren, J. L., & Moro, E. (2011). Affinity Paths and information

diffusion in social networks. *Social Networks*, 33(2), 134–142.

<http://doi.org/10.1016/j.socnet.2010.11.003>

Jansen, B. J., Zhang, M., Sobel, K., & Chowdury, A. (2009). Twitter

power: Tweets as electronic word of mouth. *Journal of the*

American Society for Information Science and Technology, 60(11),

2169–2188. <http://doi.org/10.1002/asi.21149>

Jin, S.-A. A., & Phua, J. (2014). Following Celebrities' Tweets About

Brands: The Impact of Twitter-Based Electronic Word-of-

Mouth on Consumers' Source Credibility Perception, Buying

Intention, and Social Identification With Celebrities. *Journal of*

Advertising, 43(2), 181–195.

<http://doi.org/10.1080/00913367.2013.827606>

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The

challenges and opportunities of Social Media. *Business Horizons*,

53(1), 59–68. <http://doi.org/10.1016/j.bushor.2009.09.003>

REFERENCES

- Katz, E. (1957). The Two-Step Flow of Communication: An Up-To-Date Report on an Hypothesis. *The Public Opinion Quarterly*, 21(1), 61–78.
- Katz, E., & Lazarsfeld, P. F. (2006). *Personal influence: The part played by people in the flow of mass communications* (2nd ed.). New Brunswick: Transaction Pub.
- Keller, K. L. (1993). Conceptualizing, Measuring, and Managing Customer-Based Brand Equity. *Journal of Marketing*, 57(1), 1–22.
- Keller, K. L. (2009). Building strong brands in a modern marketing communications environment. *Journal of Marketing Communications*, 15(2-3), 139–155.
<http://doi.org/10.1080/13527260902757530>
- Kempe, D., Kleinberg, J., & Tardos, E. (2003). Maximizing the Spread of Influence through a Social Network (pp. 137–146). Presented at the SIGKDD '03 Washington, DC, USA.
- Kim, E., Sung, Y., & Kang, H. (2014). Brand followers' retweeting behavior on Twitter: How brand relationships influence brand electronic word-of-mouth. *Computers in Human Behavior*, 37, 18–25. <http://doi.org/10.1016/j.chb.2014.04.020>
- Kimmel, A. J., & Kitchen, P. J. (2014). WOM and social media: Presaging future directions for research and practice. *Journal of*

BRAND CONTENT DIFFUSION ON SNSs

Marketing Communications, 20(1-2), 5–20.

<http://doi.org/10.1080/13527266.2013.797730>

Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). New York, NY: Guilford Press.

Kozinets, R. V., De Valck, K., Wojnicki, A. C., & Wilner, S. J. (2010). Networked narratives: Understanding word-of-mouth marketing in online communities. *Journal of Marketing*, 74(2), 71–89.

Kwak, H., Lee, C., Park, H., & Moon, S. (2010). What is Twitter, a Social Network or a News Media? Presented at the WWW 2010, Raleigh, North Carolina, USA.

Kwon, E. S., Kim, E., Sung, Y., & Yoo, C. Y. (2015). Brand followers: Consumer motivation and attitude towards brand communications on Twitter. *International Journal of Advertising*, 33(4), 657. <http://doi.org/10.2501/IJA-33-4-657-680>

Kwon, E. S., & Sung, Y. (2011). Follow Me! Global Marketers' Twitter Use. *Journal of Interactive Advertising*, 12(1), 4–16.

Leskovec, J., Adamic, L. A., & Huberman, B. A. (2007). The Dynamics of Viral Marketing. *ACM Trans. Web*, 1(1), 1–39.

Liu, H. (2007). Social network profiles as taste performances. *Journal of Computer-Mediated Communication*, 13(1), 252–275.

- Liu-Thompkins, Y., & Rogerson, M. (2012). Rising to Stardom: An Empirical Investigation of the Diffusion of User-generated Content. *Journal of Interactive Marketing, 26*(2), 71–82.
<http://doi.org/10.1016/j.intmar.2011.11.003>
- Liu, Z., Liu, L., & Li, H. (2012). Determinants of information retweeting in microblogging. *Internet Research, 22*(4), 443–466.
- Lyons, B., & Henderson, K. (2005). Opinion leadership in a computer-mediated environment. *Journal of Consumer Behaviour, 4*(5), 319–329.
- MacKenzie, S. B., Lutz, R. J., & Belch, G. E. (1986). The Role of Attitude toward the Ad as a Mediator of Advertising Effectiveness: A Test of Competing Explanations. *Journal of Marketing Research, 23*(2), 130.
<http://doi.org/10.2307/3151660>
- MacInnis, D. J., & Jaworski, B. J. (1989). Information Processing from Advertisements: Toward an Integrative Framework. *Journal of Marketing, 53*(4), 1. <http://doi.org/10.2307/1251376>
- Mark, G., & Ganzach, Y. (2014). Personality and Internet usage: A large-scale representative study of young adults. *Computers in Human Behavior, 36*, 274–281.
<http://doi.org/10.1016/j.chb.2014.03.060>

BRAND CONTENT DIFFUSION ON SNSs

- Marwick, A., & Boyd, D. (2011a). I tweet honestly, I tweet passionately: Twitter users, context collapse, and the imagined audience. *New Media & Society*, *13*(1), 114–133.
<http://doi.org/10.1177/1461444810365313>
- Marwick, A., & Boyd, D. (2011b). To See and Be Seen: Celebrity Practice on Twitter. *Convergence: The International Journal of Research into New Media Technologies*, *17*(2), 139–158.
<http://doi.org/10.1177/1354856510394539>
- McCracken, G. (1989). Who is the celebrity endorser? Cultural foundations of the endorsement process. *Journal of Consumer Research*, 310–321.
- Mikalef, P., Pateli, A., & Giannakos, M. (2013). Why are users of Social Media inclined to Word-of-Mouth? In *Collaborative, Trusted and Privacy-Aware e/m-Services* (pp. 112–123). Springer.
Retrieved from
http://link.springer.com/chapter/10.1007/978-3-642-37437-1_10
- Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. *Psychological Review*, *102*(2), 246–268.

REFERENCES

- Mitchel, A., & Page, D. (2013). *The Role of News on Facebook*. Pew Research Center. Retrieved from http://www.journalism.org/files/2013/10/facebook_news_10-24-2013.pdf
- Muntinga, D. G., Moorman, M., & Smit, E. G. (2011). Introducing COBRAs: Exploring motivations for brand-related social media use. *International Journal of Advertising*, 30(1), 13. <http://doi.org/10.2501/IJA-30-1-013-046>
- Myers, J. H., & Robertson, T. S. (1972). Dimensions of opinion leadership. *Journal of Marketing Research*, 41–46.
- Nagy, J., & Midha, A. (2014). The Value of Earned Audiences: How Social Interactions Amplify TV Impact: What Programmers and Advertisers Can Gain from Earned Social Impressions. *Journal of Advertising Research*, 54(4), 448–453.
- Nielsen. (2012). *State of Media: The Social Media Report 2012*. Retrieved from <http://www.nielsen.com/us/en/insights/reports-downloads/2012/state-of-the-media-the-social-media-report-2012.html>
- Okazaki, S. (2008). Determinant factors of mobile-based word-of-mouth campaign referral among Japanese adolescents.

BRAND CONTENT DIFFUSION ON SNSs

Psychology and Marketing, 25(8), 714–731.

<http://doi.org/10.1002/mar.20235>

Okazaki, S. (2009). Social influence model and electronic word of mouth: PC versus mobile internet. *International Journal of Advertising*, 28(3), 439.

<http://doi.org/10.2501/S0265048709200692>

Okazaki, S., Rubio, N., & Campo, S. (2013). Do Online Gossipers Promote Brands? *Cyberpsychology, Behavior, and Social Networking*, 16(2), 100–107. <http://doi.org/10.1089/cyber.2012.0283>

Okazaki, S., & Yagüe, M. J. (2012). Responses to an advergame campaign on a mobile social networking site: An initial research report. *Computers in Human Behavior*, 28(1), 78–86.

<http://doi.org/10.1016/j.chb.2011.08.013>

Palmer, A., & Koenig-Lewis, N. (2009). An experiential, social network-based approach to direct marketing. *Direct Marketing: An International Journal*, 3(3), 162–176.

<http://doi.org/10.1108/17505930910985116>

Panek, E. T., Nardis, Y., & Konrath, S. (2013). Mirror or Megaphone?: How relationships between narcissism and social networking site use differ on Facebook and Twitter. *Computers in Human Behavior*, 29(5), 2004–2012.

<http://doi.org/10.1016/j.chb.2013.04.012>

- Park, J., Song, Y., & Teng, C.-I. (2011). Exploring the Links Between Personality Traits and Motivations to Play Online Games. *Cyberpsychology, Behavior, and Social Networking*, *14*(12), 747–751. <http://doi.org/10.1089/cyber.2010.0502>
- Petrescu, M., & Korgaonkar, P. (2011). Viral Advertising: Definitional Review and Synthesis. *Journal of Internet Commerce*, *10*(3), 208–226. <http://doi.org/10.1080/15332861.2011.596007>
- Petrocchi, N., Asnaani, A., Martinez, A. P., Nadkarni, A., & Hofmann, S. G. (2014). Differences Between People Who Use Only Facebook And Those Who Use Facebook Plus Twitter. *International Journal of Human-Computer Interaction*, *14*1202081514002. <http://doi.org/10.1080/10447318.2014.986640>
- Petrovic, S., Osborne, M., & Lavrenko, V. (2011). RT to Win! Predicting Message Propagation in Twitter. *Artificial Intelligence*, *58*6–589.
- Pew Research Center. (2015). *Social Media Update 2014*. Pew Research Center. Retrieved from <http://www.pewinternet.org/2015/01/09/social-media-update-2014/>
- Phelps, J., Lewis, R., Mobilio, L., Perry, D., & Raman, N. (2004). Viral Marketing or Electronic Word of Mouth Advertising:

- Examining Consumer Responses and Motivations to Pass Along Email. *Journal of Advertising Research*, 44(4), 333–348.
- Porter, L., & Golan, G. J. (2006). From subservient chickens to brawny men: A comparison of viral advertising to television advertising. *Journal of Interactive Advertising*, 6(2), 30–38.
- Rabe-Hesketh, S., & Skrondal, A. (2008). *Multilevel and longitudinal modeling using Stata* (2nd ed.). Stata Press.
- Rogers, E. M. (2003). *Diffusion of innovations* (5. ed.). New York, NY: Free Press.
- Ross, C., Orr, E. S., Sasic, M., Arseneault, J. M., Simmering, M. G., & Orr, R. R. (2009). Personality and motivations associated with Facebook use. *Computers in Human Behavior*, 25(2), 578–586. <http://doi.org/10.1016/j.chb.2008.12.024>
- Ryan, T., & Xenos, S. (2011). Who uses Facebook? An investigation into the relationship between the Big Five, shyness, narcissism, loneliness, and Facebook usage. *Computers in Human Behavior*, 27(5), 1658–1664. <http://doi.org/10.1016/j.chb.2011.02.004>
- Rybalko, S., & Seltzer, T. (2010). Dialogic communication in 140 characters or less: How Fortune 500 companies engage stakeholders using Twitter. *Public Relations Review*, 36(4), 336–341.

- Santor, D. A., Messervey, D., & Kusumakar, V. (2000). Measuring peer pressure, popularity, and conformity in adolescent boys and girls: Predicting school performance, sexual attitudes, and substance abuse. *Journal of Youth and Adolescence*, 29(2), 163–182.
- Schreiner, T. (2013). New Compete study: Primary mobile users on Twitter [Twitter Advertising Blog]. Retrieved from <https://blog.twitter.com/2013/new-compete-study-primary-mobile-users-on-twitter>
- Sengupta, J., & Johar, G. V. (2002). Effects of Inconsistent Attribute Information on the Predictive Value of Product Attitudes: Toward a Resolution of Opposing Perspectives. *Journal of Consumer Research*, 29(1), 39–56.
<http://doi.org/10.1086/339920>
- Smith, A. N., Fischer, E., & Yongjian, C. (2012). How Does Brand-related User-generated Content Differ across YouTube, Facebook, and Twitter? *Journal of Interactive Marketing*.
<http://doi.org/10.1016/j.intmar.2012.01.002>
- Strapparava, C., & Valitutti, A. (2004). WordNet-Affect: an affective extension of WordNet. In *Proceedings of LREC* (Vol. 4, pp. 1083–1086).

- Suh, B., Hong, L., Pirolli, P., & Chi, E. H. (2010). Want to be Retweeted? Large Scale Analytics on Factors Impacting Retweet in Twitter Network. In *Proceedings of the International Conference on Social Computing*.
- Sun, T., Youn, S., Wu, G., & Kuntaraporn, M. (2006). Online Word-of-Mouth (or Mouse): An Exploration of Its Antecedents and Consequences. *Journal of Computer-Mediated Communication*, 11(4), 1104–1127.
- Utz, S., Tanis, M., & Vermeulen, I. (2012). It Is All About Being Popular: The Effects of Need for Popularity on Social Network Site Use. *Cyberpsychology, Behavior, and Social Networking*, 15(1), 37–42.
<http://doi.org/10.1089/cyber.2010.0651>
- Van Liere, D. (2010). How far does a tweet travel?: Information brokers in the twitterverse. In *Proceedings of the International Workshop on Modeling Social Media* (p. 6).
- Van Noort, G., Antheunis, M. L., & van Reijmersdal, E. A. (2012). Social connections and the persuasiveness of viral campaigns in social network sites: Persuasive intent as the underlying mechanism. *Journal of Marketing Communications*, 18(1), 39–53.
<http://doi.org/10.1080/13527266.2011.620764>

- Van Noort, G., & Willemsen, L. M. (2012). Online Damage Control: The Effects of Proactive Versus Reactive Webcare Interventions in Consumer-generated and Brand-generated Platforms. *Journal of Interactive Marketing, 26*(3), 131–140. <http://doi.org/10.1016/j.intmar.2011.07.001>
- Voss, K. E., Spangenberg, E. R., & Grohmann, B. (2003). Measuring the Hedonic and Utilitarian Dimensions of Consumer Attitude. *Journal of Marketing Research, 40*(3), 310–320.
- Wang, J.-L., Jackson, L. A., Zhang, D.-J., & Su, Z.-Q. (2012). The relationships among the Big Five Personality factors, self-esteem, narcissism, and sensation-seeking to Chinese University students' uses of social networking sites (SNSs). *Computers in Human Behavior, 28*(6), 2313–2319. <http://doi.org/10.1016/j.chb.2012.07.001>
- Wang, S. S. (2013). “I Share, Therefore I Am”: Personality Traits, Life Satisfaction, and Facebook Check-Ins. *Cyberpsychology, Behavior, and Social Networking, 16*(12), 870–877. <http://doi.org/10.1089/cyber.2012.0395>
- Watts, D. J., & Dodds, P. S. (2007). Influentials, Networks, and Public Opinion Formation. *Journal of Consumer Research, 34*(4), 441–458. <http://doi.org/10.1086/518527>

Weng, J., Lim, E.-P., Jiang, J., & He, Q. (2010). Twitterank: finding topic-sensitive influential twitterers. In *Proceedings of the third ACM international conference on Web search and data mining* (pp. 261–270). Retrieved from <http://dl.acm.org/citation.cfm?id=1718520>

Willemsen, L. M., Neijens, P. C., Bronner, F., & de Ridder, J. A. (2011). “Highly Recommended!” The Content Characteristics and Perceived Usefulness of Online Consumer Reviews. *Journal of Computer-Mediated Communication*, 17(1), 19–38.

Acknowledgements

The background features a large, bold, white letter 'A' on a black background. The 'A' is composed of two thick, black diagonal strokes that meet at a point at the top right. The negative space of the 'A' is white. There are also several solid black geometric shapes: a triangle on the right side, a trapezoid at the bottom right, and a small triangle at the top right.

Acknowledgements

This dissertation would have never been possible without the continuous advice and inspiration provided by my supervisors, Peter and Rens. Peter, I am extremely grateful not only for all your insightful feedback but also for how your kindness and your talent to always find the positive aspects of things have inspired me to reach further, often helping me see beyond the challenges or limitations. And thank you for all the times you sent your “minor” suggestions and comments, which always brought major improvements to the work at hand. Rens, I very much would like to thank you for our collaboration throughout these years, and for all our fast-paced and very inspiring talks, which often helped me find new directions and see things in different ways. I am also humbled by the fact that Hans, Noelle, Shintaro, Piet and Guda accepted to take part in my dissertation committee, and would like to thank them for the time they dedicated to this.

I would also like to express my gratitude to Sandra for inspiring, stimulating and supporting me in my desire to pursue an academic career, and for helping me find my way during the Research Master, together with Peter. Also special thanks to my PhD-club conveners, Eva and Hilde, and all my PhD-club colleagues who always went above and beyond to give feedback, suggestions and help me not only work through the dissertation, but also learn from seeing how they managed their own research. Lotte, Fred, Alexandra, Bert, thank you so much for the feedback and advice you provided during critical stages of this dissertation, and also many thanks to my paranymphs,

ACKNOWLEDGEMENTS

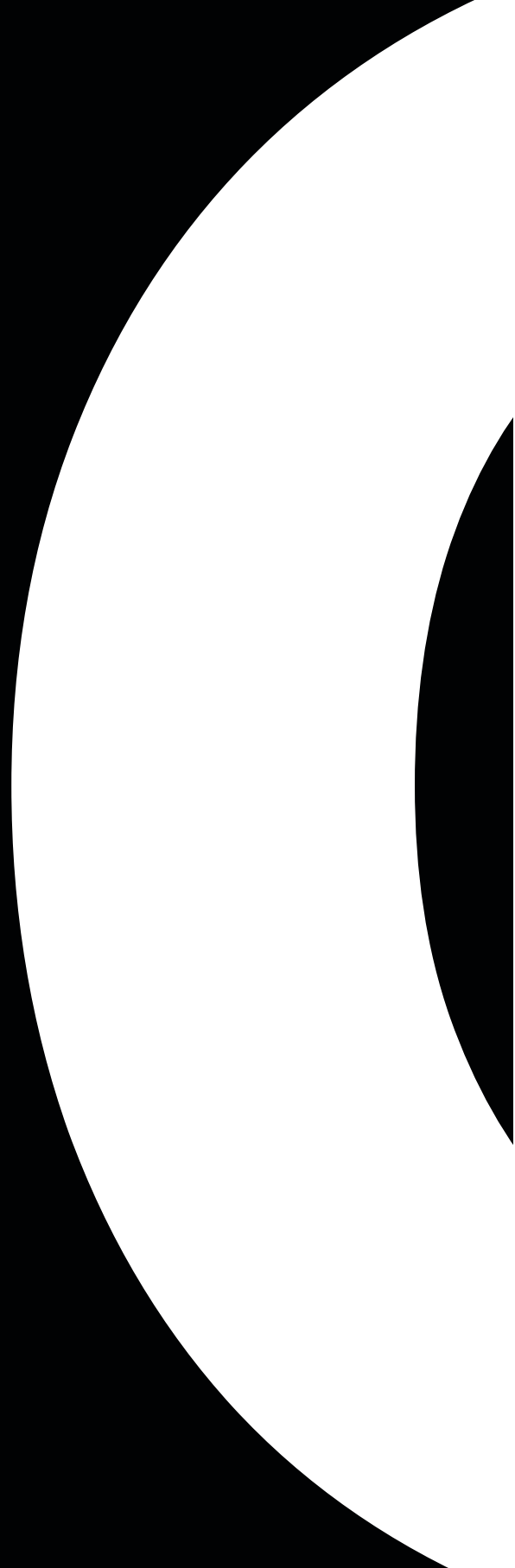
Nadine and Toni, as well as to my new CorpCom colleagues, for helping me through the final stages.

This dissertation was not the only full-time job I had for a few years, and would have never been possible without the support and encouragement from two great managers, Corinne and Olga, or the inspiration and help from great colleagues and friends such as Ben, Claudio, Divya, Fulvio, Håkan, Ina, Jamie, Nazia, Rupa, Sue, Susanne, Steffie, Swan, Vanika, Wendy and Zhen-Ling, as well as from everyone I had the pleasure of working with in Amstelveen, Austin, Bangalore, Barcelona, Barueri, Bay Area, Boise, Dalian, Grenoble, Hong Kong, Houston, São Paulo, Seoul, Singapore, Shanghai, Portland, Taipei, Vancouver and so many other places around the world.

Embora este doutorado tenha sido feito na Holanda, o Brasil nunca deixou de estar presente. Nada poderia ter me preparado melhor para uma carreira acadêmica do que ter começado na ECA USP, em especial com professores como Beth, Coelho, Mayra e Jair. E o caminho teria sido muito mais difícil – se não impossível – sem a amizade, as longas conversas e o apoio de pessoas como Bianca, Daguito, Helena, Julia, Katia, Kelly, Leo, e tantos outros.

Finalmente, o meu muito mais do que muito obrigado à minha família. Mãe, Pai, Marco, obrigado pelo apoio e inspiração que vocês sempre me deram. E Alexandre, você sabe.

Curriculum vitae



Curriculum Vitae

Theo Araujo was born on August 5, 1980 in São Paulo. He completed a Research Master in Communication Science (cum laude) at the University of Amsterdam, and has worked at the Amsterdam School of Communication Research (ASCoR) to finish his dissertation on brand content diffusion on Social Networking Sites. Before coming to the Netherlands, he received a bachelor's degree in Social Communication with major in Journalism from the Universidade de São Paulo (USP), and an Executive MBA with major in Marketing from the Escola Superior de Propaganda e Marketing (ESPM) in Brazil. He has worked for about five years at the online portal Terra Networks Brazil in several roles, including reporter, editor and manager, and for about ten years for Hewlett-Packard in Brazil and in the Netherlands. At Hewlett-Packard, he held a variety of regional and global program management functions, and his last role was of senior manager of the Localisation Services Team for PPS Support. He now works as Assistant Professor in Corporate Communication at the University of Amsterdam.