The Ethical Implications of the 2018 Facebook-Cambridge Analytica Data Scandal

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Abstract

This paper evaluates the ethics behind the actions of Facebook leading up to and after the joint Facebook-Cambridge Analytica data scandal that involved the 2016 Presidential Candidate Donald Trump. Facebook, Inc. is a massive tech conglomerate, most commonly known for its social media platform Facebook, as well as its ownership of Instagram, Messenger, and Whatsapp. Cambridge Analytica was a political consulting firm that specialized in leveraging data mining techniques in order to help their clients expand potential voter bases. The scandal involved Cambridge Analytica's exploitation of the raw data of over 87 million Facebook profiles that Facebook negligently protected. The scandal occurred privately from 2013 to 2016, with news finally breaking to the public in March of 2018 when a former Cambridge Analytica employee, Christopher Wylie, blew the whistle to the Guardian and the New York Times. This paper shows where the ethical breakdowns occured within Facebook and explores the company's responsibility in relation to the scandal. Facebook repeatedly violated their own Code of Conduct and their own Data Policies when they became lax with the handling of user data in respect to 3rd parties. This scandal began a global discussion on protecting the public from the weaponization of private consumer data as well as exploring the need for potential regulations on Big Tech.

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Introduction

On March 17, 2018, The Guardian and The New York Times initially reported that the raw data of around 50 million Facebook profiles was improperly utilized by Cambridge Analytica, a political consulting firm that was hired to bolster the 2016 Presidential Trump Campaign. At the time, Facebook permitted select third party companies to utilize its user data for academic research. Cambridge Analytica told Facebook that they were using the data for academic research, when instead they were using data to aid the Trump Campaign. Facebook never verified the legitimacy of this claim. Cambridge Analytica's improper use of Facebook's data for political purposes presented a massive contemporary ethical dilemma as Facebook users were not aware of what their data was used for.

Facebook, Inc. is currently one of the largest tech conglomerates in the contemporary social media landscape as they are also the parent company of Instagram, Messenger, and WhatsApp. As of December 2018, Facebook alone has an estimated 2.38 billion users (Dance, LaForgia, and Confessore, 2018, para. 3). To put this in perspective, knowing that Facebook harvests data from all of its users across all of its platforms, the company has accumulated the data of nearly a third of the world's population.

Cambridge Analytica was a political consulting firm that specialized in data mining and data analysis. In the fall of 2013, Steve Bannon, then editor-in-chief of Breitbart, met Christopher Wylie, a British data scientist who specialized in fashion trend forecasting. Bannon came up with the idea of applying Wylie's concept of predicting social media trends to politics

(Cadwalladr, 2018, p . 54). Along with billionaire Robert Mercer, Bannon founded Cambridge Analytica to aid the Trump campaign by utilizing Wylie's idea and pairing it with harvested Facebook user profile data (Cadwalladr, 2018, p . 55). In March of 2018, Wylie, who had left Cambridge Analytica in 2014, revealed to the media the extent to which Cambridge Analytica had used private user data and how little Facebook did to intervene. This whistleblowing came at a time in which public trust of Facebook was at an all time low after multiple reports came out discussing potential foreign involvement in the 2016 presidential election.

The 2016 presidential election was one of the most important elections in U.S. history, not only for its outcome, but because of the strategies that were used in campaigning. Donald Trump, the eventual winner of the election, took advantage of targeted advertising to best influence potential swing voters into voting for him. The Trump campaign was able to achieve this by hiring Cambridge Analytica. Cambridge Analytica was able to receive access to Facebook user data of around 87 million Facebook users (initially reported as 50 million) in order to best develop advertisements for each person. Because Facebook has such a wealth of data, when the company fails to properly control and protect the data the impact of potential misuse is magnified. This mishandling of Facebook user data became a massive data scandal as Facebook took little regulatory action while Cambridge Analytica repeatedly broke Facebook's data guidelines. Facebook has had numerous scandals in the previous decade related to what they did with their user data ultimately culminating in the Cambridge Analytica data scandal, the working of nearly a decade of Facebook's lax enforcement of its privacy policy. This case is important because if the monopoly that Facebook has over online user data is left unregulated, it will continue to influence the U.S. government and other external parties.

As this is a complex scandal involving multiple parties, we will focus specifically on how Facebook acted prior to and throughout the scandal. We will begin by examining Facebook's history with user data and potential factors that led to them working with Cambridge Analytica. Then we will detail the events of the scandal, and explain how Cambridge Analytica was able to generate psychological profiles from the Facebook data they were using. Next, we will show examples of how throughout the time Facebook was working with Cambridge Analytica, Facebook was negligent and unethical in enforcing their data privacy guidelines. Then, we will examine the events that have transpired since the scandal was brought to public light in March 2018. Finally, we will ethically analyze Facebook and propose a solution for how Facebook should be ran moving forward to prevent a future data scandal.

Background of Facebook's Data Issues

Facebook's History of Privacy Issues

Facebook has repeatedly demonstrated a failure to protect their users' privacy and keeping their data secure. In 2007, Facebook was hit with a class action suit regarding the "Beacon" scandal, a feature the site had rolled out that tracked user's activities on the internet, one of the company's early attempts to monetize user data (Sanders, 2019, para. 9). Approximately four years later, Facebook was subject to a Federal Trade Commission (FTC) investigation with regards to how the company was sharing private user data with 3rd party companies. This investigation was in response to Facebook changing their User Terms of Service in 2009, allowing the company to use any content its user's post to the site, regardless of what Facebook's intended purpose is with the data or if the users have deactivated their Facebook

account ("Facebook's 2011 FTC Consent Order", n.d., para. 7). In 2013, Facebook reported a bug in their software that exposed the personal details of six million accounts. The bug in question was triggered by users attempting to download their own Facebook history, which would lead to the user having access to their address books as well as the address books of the user's friend network.

Pre-Crisis

It is evident that from its inception until 2013, Facebook had repeatedly allowed the misuse and mishandling of its consumer data. By 2013, Facebook's negligence had resulted in relatively low-impact consequences, in which the company reached minor monetary settlements and received mild reprimands from the FTC and other government authorities. However, the company's data vulnerabilities were bound to be exploited on a much larger and more harmful scale at some point. These vulnerabilities ultimately led to the root of this paper's focus, the Cambridge Analytica data scandal. In 2013, University of Cambridge researchers published a paper detailing how they could predict people's personalities and other sensitive characteristics from their Facebook data, such as their likes and interests. The researchers warned that their findings could potentially "pose a threat to an individual's well-being, freedom, or even life" (Naughton, 2019, para. 5). These warnings largely went unnoticed.

The Crisis

Cambridge Analytica's Role

Cambridge Analytica was founded in 2013 by Steve Bannon, former editor-in-chief of Brietbart, and Robert Mercer, Co-CEO of Renaissance Technologies. Their goal was to influence how people viewed the political landscape, using data from social media (Cadwalladr & Graham-Harrison, 2018, para. 50). Using tools acquired via a research relationship with Facebook, Cambridge Analytica developed and shared an app called *thisisyourdigitallife* in order to harvest data from users who downloaded the app (Cadwalladr & Graham-Harrison, 2018, para. 6). Around 250,000 people consented for Cambridge Analytica to acquire and analyze their data. However, the app, *thisisyourdigitallife*, took advantage of the users to scrape non-consented private data about the user and the user's friend network. Cambridge Analytica leveraged this data to create psychological profiles from acquired user data. These profiles were used to aid the Trump Presidential Campaign by creating personalized political ads that were robust enough to exploit unexplored voter demographics.

Technical Background: Psychological Profiles

Cambridge Analytica developed targeted ads through a combination of behavioral science, data analytics, and innovative advertisement technology (Rathi, 2019, para. 1). In order to aid the Trump Campaign in running an effective ad-targeting campaign, Cambridge Analytica needed to build user profiles that would reflect each individual's personality. Cambridge Analytica achieved this through the help of Aleksandr Kogan, a psychologist at Cambridge University. Kogan created a subsidiary company of Cambridge Analytica named Global Science Research (GSR) (Rathi, 2019, para. 5). Under GSR, Kogan created a Qualtrics survey that paid

the participants for consent to access to their Facebook data (Rathi, 2019, para. 5). Initially, 270,000 people consented for GSR to have access to their data. However, by exploiting certain privacy settings, GSR accessed the data of the participant's Facebook entire friend network. This led to GSR having access to the data of 87 million users (Rathi, 2019, para. 6). This marked a calamitous mishap by Facebook, as they noticed the enormous amount of data access by Cambridge Analytica but failed to properly investigate the need for such data as well as choosing not to explicitly inform users that their personal data was being accessed.

Once the data was acquired, psychological profiles were formed using the OCEAN personality model which ranks individuals on five personality traits: openness, conscientiousness, extraversion, agreeability, and neuroticism (Rathi, 2019, para. 6). For example, GSR used the pages people liked to score them in each of the five categories and then implemented a regression model in order to discover non-obvious relationships that could potentially be exploited (Rathi, 2019, para. 8). Depending on how people ranked in these traits, messages with certain key phrases, whether factual or not, would have a greater effect on the target. As shown in Fig. 1, the Trump Campaign utilized Cambridge Analytica's psychological profiling technique to more effectively spread the message of their campaign. The advertisement on the left targets people who ranked highly in neuroticism, while the advertisement on the right targets people who ranked highly in agreeableness. Neurotic people are highly anxious, making the idea of an insurance policy appealing. Agreeable people tend to be selfless and compassionate, therefore the idea of passing tradition to their children is appealing. In conclusion, Facebook's data, in the hands of Cambridge Analytica, proved particularly effective when weaponized as "psychological warfare tools" (Lapowsky, para. 4, 2018).

Figure 1: Examples of targeted ads created by Cambridge Analytica (Rathi, 2019, para. 9)

Facebook's Negligence

In the previous section, we demonstrated exactly how Cambridge Analytica harvested and exploited Facebook user data. However, we did not dive into how Facebook's negligence, now a recurring theme in this paper, allowed for Cambridge Analytica to have historically unbounded access to such a large quantity of raw data. In December of 2015, The Guardian published an article revealing that Cambridge Analytica used Facebook data to aid Senator Ted Cruz's campaign to become the Republican candidate for presidency (Cadwalladr, 2018, p . 84). Kogan informed Facebook that data was being used for academic purposes, and Facebook accepted this claim without verifying its authenticity (Cadwalladr & Graham-Harrison, 2018, para. 4). In 2019, however, The Guardian revealed that Facebook actually was aware (back in 2015) of Cambridge Analytica's intent behind harvesting such an excessive amount of data as well as Cambridge Analytica's involvement with the Cruz Campaign.

Internal Facebook communication revealed that on September 22, 2015, an anonymous Facebook employee, henceforth referred to as EmployeeX, raised concerns about the "sketchy" nature of external companies scraping Facebook data and wanted to learn more about

Facebook's policies in regards to third party's and data access . EmployeeX stated "We suspect many of these companies are doing similar types of scraping, the largest and most aggressive on the conservative side being Cambridge Analytica… a sketchy (to say the least) data modeling company that has penetrated our market deeply" (Wong, 2019, para. 8). Furthermore, EmployeeX, now joined by a small coalition of other Facebook employees, requested an investigation into what Cambridge Analytica was doing with the user data they were provided (Wong, 2019, para. 9). However, a senior Facebook staffer shut down this inquiry by replying "To set expectations, we can't certify/approve apps for compliance, and it's very likely these companies are not in violation of any of our terms… if we had more resources we could discuss a call with the companies to get a better understanding, but we should only explore that path if we do see red flags" (Wong, 2019, para. 14).

Even with all the red flags present, Facebook proactively chose not to investigate Cambridge Analytica's activities. Furthermore, Facebook did not take action against Cambridge Analytica until August 2016, where their lawyers simply wrote a letter to Cambridge Analytica asking them to delete all the data they had harvested. Cambridge Analytica informed Facebook that they would delete all harvested data. However, Facebook failed to verify the validity of this claim by not actively following up with Cambridge Analytica to see if they actually deleted the data that they harvested. In conclusion, Facebook's actions towards Cambridge Analytica show repeated instances of negligence and passiveness.

Repercussions

Facebook's Initial Response

In March17, 2018, Christopher Wylie, a data scientist who formerly worked for Cambridge Analytica, revealed to the public that Cambridge Analytica harvested the data of over 87 million Facebook users (Mark Zuckerberg Testimony, 2018, para. 1). After this announcement, Facebook was silent until March 21st, when Mark Zuckerberg finally made an official post on Facebook about how Facebook has a responsibility to protect its users' data which they failed in their relationship with Cambridge Analytica. As a result of the news of the scandal coming out, Mark Zuckerberg, the CEO of Facebook, was called before the Senate's Commerce committee as well as the Senate's Judiciary committee in order to explain how the data breach occurred and the potential implications of Facebook's data policy, in order to determine if regulatory policies must be enacted as Facebook failed to keep user data private. Throughout this ordeal, Facebook's stocks plummeted from $218 per share to $160 per share after news of the data breach came out (Kramer, 2018, para.1). After a one year investigation of the Cambridge Analytica Scandal, on July 24th, 2019 Facebook was fined $5 Billion, the largest fine ever given for a data scandal, along with requirements that give oversight to the FTC (Snider and Baig, 2019, para. 6). These requirements include quarterly compliance reports and the formation of a privacy committee with multiple independent members (Snider and Baig, 2019, para. 7). Facebook was also forced to pay a $100 million fine to the Security Exchange Commission (SEC) as a result of them not revealing information they had about Cambridge Analytica's actions to their investors (Wong, 2019, para. 3)

Facebook's Long Term Response: A Privacy Focused Vision

Since the hearing took place, Facebook has been making steps to reduce the importance of sharing user data with third parties for their business model and to reduce the likelihood of another data scandal happening. Prior to the whistleblower, Mark Zuckerberg dismissed the impact of "fake news" as a "pretty crazy idea" (Feiner, 2019, para. 11). However, when called before the Senate and being asked by legislators about the idea of increased regulation on private user data, Zuckerberg agreed stating "I think the real question, as the internet becomes more important in people's lives, is what is the right regulation, not whether there should be or not" (Feiner 2019, para. 2). He also suggested that U.S. should implement a stricter internet regulatory policy similar to Europe's General Data Protection Regulation, which has strict fines for tech companies who violate data privacy policies (Schulze, 2019, para. 2). On March 6, 2019, Zuckerberg wrote a post on Facebook called A Privacy-Focused Vision for Social Media, where he expresses the importance of data privacy and outlines his vision of Facebook focusing more on privacy and data encryption. As a result of these changes, Facebook's stock prices have recovered rising approximately 11% over the last year (Feiner, 2019, para. 5).

Ethical Implications

Facebook has repeatedly demonstrated negligent practices when it comes to the protection of their most valuable asset - user data. The company has accumulated a wealth of data and has not properly and responsibly enforced their third party rules or informed their users of potential data breaches. The reason for the carelessness is because Facebook's business model is focused on having a platform that is free to use and paid for by advertisements. In order to

maximize the effectiveness of their advertising, the company does a lot of work involving data science which allows them to find trends and make effective predictions about what type of content their consumers find intriguing. In general, data science work can largely be improved by the amount of data you have to work with. Therefore, Facebook's business model encourages them to collect as much data as possible in order to maximize the effectiveness of advertisements. This is why the company has agreements with third parties (i.e. Cambridge Analytica) in relation to academic research. Third parties work on refining techniques regarding data science and analysis, something that Facebook ultimately benefits from. When proprietary Facebook data is given to third parties, Facebook needs to be responsible by protecting their users and ensuring their data is in safe hands. In the case of this Cambridge Analytica scandal, however, Facebook had multiple lapses in judgement and we are going to analyze and hold the company accountable to their own Code of Conduct and Data Security agreement.

Facebook's Responsibilities

We chose to evaluate the ethicality of Facebook's actions using Facebook's own Code of Conduct and Facebook's Data Policy because we believe that the most applicable set of rules are the rules that Facebook set for themselves.

Section 8 of Facebook's Code of Conduct pertains to the "Protection of User Data and Personnel Data." This section discusses the responsibility Facebook and its engineers have to protect sensitive user data that needs to be kept confidential because it is subject to various privacy protections. Facebook's Code of Conduct states for its employees and companies that they partner with that "You (employee) are only authorized to access this data to the extent it is

required for you to do your job"(Code of Conduct, 2019, para. 8). Section 8 also discusses the sensitivity and confidentiality of Facebook user data and the importance of protecting user data. In our section about Facebook's negligence, we showed that back in 2015, higher-ups at Facebook shot down internal employee concerns about Cambridge Analytica's data use. Facebook's negligence in the Cambridge Analytica scandal clearly violates this tenant of their Code of Conduct, as they were aware that Cambridge Analytica was using user data outside its intended purpose, yet they did nothing to stop them.

In Section 3 of Facebook's Data Policy, specifically the subsection titled "Sharing with Third-Party Partners", Facebook promises to their users that researchers and academics are given access to Facebook data and are allowed to conduct research that "enhances discovery and innovation on topics of general social welfare, technological advancement, public interest, health and well-being." Cambridge Analytica's work with the President Trump Campaign was proven to have negatively affected the 2016 United States general election instead of "enhancing public interest". Facebook clearly violated their own Data Policy in regards to their negligent handling of Cambridge Analytica's research.

Proposed Solution

After Christopher Wylie came forward about the extent of data misuse by Cambridge Analytica in 2018, Facebook's stocks initially plummeted 8 percent. Despite news of the scandal, Facebook's earnings per share by the end of 2018 increased drastically, up 40 percent compared with the year before. Facebook has control of about two-thirds of the 70 percent of American adults who use social media. This extreme dominance of social media can be attributed to the

fact that Facebook also owns Instagram, Messenger, and WhatsApp. The company governs the majority of social media and online communications. It is obvious that despite the privacy issues faced by Facebook, the company is not going to go anywhere in the near future.

With the amount of active users that Facebook has across all of its platforms and the vast amount of raw user data that the company has under its control, our proposal going forward is that the Facebook conglomerate needs to be split up. Facebook should either realize its responsibility to the public and divide its assets voluntarily or Congress needs to hold the company accountable with antitrust laws.

This proposal might seem absurd but there is adequate justification. First of all (and most importantly), breaking up Facebook would drastically improve the issue of data privacy. Each of Facebook, Inc.'s platforms (Facebook, Instagram, Messenger, and WhatsApp) have over 1 billion monthly active users. Facebook collects data on their users across all of these platforms. Decentralizing this data would decrease the potential impact that another data scandal could have down the road. Another impact of breaking up Facebook is the potential positive impact on the American economy. During the company's rise there was competition in the free market (Instagram, Twitter, WhatsApp) for other social media companies to develop and challenge each other, which lead to overall improvement for the consumer. If a startup (such as Instagram back in 2012) appears as a challenger to Facebook's tight grip on social communications, Facebook is wealthy and mature enough as a company that they can simply purchase the startup and absorb them into their platform. Clearly, Facebook has positioned itself at the top of all social media platforms as a monopoly. Chris Hughes, Co-founder of Facebook and former executive, described Mark Zuckerberg's vision for Facebook as "domination … with no hint of irony or

humility" (Hughes, 2019, para. 18). Hughes left Facebook because he did not agree with Facebook's goals to destroy all competition and completely dominate the social media landscape. It is clear that as long as Facebook's monopoly is left unregulated, the massive amount of data Facebook owns has the potential to be weaponized.

Conclusion

The Facebook-Cambridge Analytica data scandal showed the implications of inadequate regulation of private user data. At the time of the scandal, it was Facebook's responsibility to make sure its data was not being misused. Since there was no government oversight, Facebook had little incentive to be proactive in their relationship with Cambridge Analytica. This allowed Cambridge to exploit the private user data of over 87 million Facebook users. Without Christopher Wylie whistleblowing the scandal in 2018, the public would have never found out about the exploitation and abuse of their own data and both Facebook and Cambridge Analytica would have been left unscathed.

Throughout the scandal, Facebook violated policies that they laid out in both their Code of Conduct and Data Policy. Facebook's policies outline how Facebook and the third party's the company associates itself with are allowed to operate how data should be handled. If Facebook properly enforced their own policies, millions of raw user profiles and other sensitive information would not have been weaponized in the 2016 U.S. General Election. It is clear that Facebook's negligence in following their own policies was a primary factor amongst the many unethical actions that led to the scandal.

After Facebook's Senate hearing, the Government began to work on regulations to curb the power of Facebook and other large companies. While these actions are a positive sign, we believe that more must be done to prevent another data scandal from occurring. Thus, we believe that Facebook's 'monopoly' must be broken up, as their stockpile of data must be decentralized and the lack of competition reduces motivation for Facebook to improve its policies and treatment of user data.

While Facebook has begun to make small changes in their treatment of user data, our analysis has raised some questions about what the future of Big Tech in general will look like. Will the U.S. government draw inspiration from Europe in regards to creating and adopting a data regulation system? Will Facebook continue to overhaul their data-driven, advertising based business model in order to respond to increased scrutiny from both the public and regulators? While it seems as if Facebook is attempted to change their view regarding the security of user data, Mark Zuckerberg's vision for the company may continue to evolve as he continues to ambitiously guide Facebook on the road to the domination of the social media landscape.

Word Count: 3920

Annotated References

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This source provides an interview and a biography of the whistleblower, Christopher Wylie. It provides a detailed account of what Facebook was doing during the data scandal from a source outside of Facebook.

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We will use this code of conduct as our main document to conduct the ethical analysis.

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This website talks about the scope of Facebook as a company, by talking about the companies that Facebook owns. It also details Facebook's relationship with the FTC.

Data Policy. (2018, April 19). Retrieved December 6, 2019, from https://www.facebook.com/full_data_use_policy.

We will use this to aid our ethical analysis.

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This website explains how Cambridge Analytica was able to acquire the Facebook data of around 87 million people. It mentions the app thisisyourdigitallife, and how Cambridge Analytica was able to access the data of the friends of people who used the app. The source also mentions the subsidiary companies of Cambridge Analytica.

Hughes, C. (2019, May 9). It's Time to Break Up Facebook. Retrieved November 6, 2019, from https://www.nytimes.com/2019/05/09/opinion/sunday/chris-hughes-facebook-zuckerberg.html.

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This website explains how Cambridge Analytica created the psychological profiles from Facebook data. We will use this to write our tech section on how the profiles were created.

Sanders, J. (2019, July 24). Facebook data privacy scandal: A cheat sheet. Retrieved November 6, 2019, from https://www.techrepublic.com/article/facebook-data-privacy-scandal-a-cheat-sheet/.

This website provides of timeline of Facebook's data privacy scandals prior to the Cambridge Analytica scandal. We will use this to provide background information for Facebook.

Schulze, Elizabeth. (2019, April 1). Mark Zuckerberg says he wants stricter European-style privacy laws - but some experts are questioning his motives. Retrieved November 1, 2019, from https://www.cnbc.com/2019/04/01/facebook-ceo-zuckerbergs-call-for-gdpr-privacy-laws-raises-questions.html.

This website includes a summary of Mark Zuckerberg's statements since the hearing. We used this to provide insight into the potential direction of Facebook as a company.

Snider, M., & Baig, E. C. (2019, July 24). Facebook fined $5 billion by FTC, must update and adopt new privacy, security measures. Retrieved November 1, 2019, from https://www.usatoday.com/story/tech/news/2019/07/24/facebook-pay-record-5-billion-fine-u-s-privacy-violations/1812499001/.

This website talks about the FTC investigation of Facebook. It states the value of the fine and the requirements that the FTC laid out for Facebook.

The New York Times. (2018, April 10). Mark Zuckerberg Testimony: Senators Question Facebook's Commitment to Privacy. Retrieved November 1, 2019, from https://www.nytimes.com/2018/04/10/us/politics/mark-zuckerberg-testimony.html.

This website provides a summary of the events that transpired at the senate hearing. It explains why the hearing took place and what issues it attempted to resolve.

Wong, J. C. (2019, August 23). Document reveals how Facebook downplayed early Cambridge Analytica concerns. Retrieved November 1, 2019, from https://www.theguardian.com/technology/2019/aug/23/cambridge-analytica-facebook-response-internal-document.

This website provides examples of Facebook's negligence. We will use this to provide examples of how Facebook failed to maintain their ethical principles while working with Cambridge Analytica.