

Artificial Intelligence and Big Data in Affiliate Marketing:

A deep dive into the tools, techniques, and opportunities

By

Fabian Laurenz Maile

A thesis submitted in partial fulfillment of the requirements for the degree of

B.A., International Business

University of Applied Sciences Aalen

September 2018

Abstract

This research looks into the question of where and how Artificial Intelligence and Big Data can be usefully implemented into Affiliate Marketing. By consulting relevant literature and qualified experts, this work identifies 6 areas, where Artificial Intelligence can be beneficial. These areas were found to be Affiliate Recruitment, Affiliate Management, Product Data Feed Optimization, Tracking, Attribution and Forecasting. The implementation of Artificial Intelligence in these areas revealed 3 advantages to the Affiliate Marketing channel: Saving of time, support of decision-making, and incentivizing of publishers. While a more detailed study of this research topic would be necessary for validating the results, the findings show that the implementation of Artificial Intelligence technology can help a business gain competitive advantage.



Hochschule Aalen

List of Figures

Fig. 1	Affiliate Marketing Process
Fig. 2	The 4 V's of Big Data
Fig. 3	Internet Users per 100 Inhabitants
Fig. 4	Annual Size of the Global Datasphere
Fig. 5	Data Mining Steps
Fig. 6	Comparison of tasks
Fig. 7	Affiliate Matchmaker
Fig. 8	Example Product Data Feed
Fig. 9	Various Attribution Models
Fig. 10	Real Attribution - Attribution Models
Fig. 11	Real Attribution - Elements
Fig. 12	Real Attribution - Impact
Fig. 13	Forecasting Methods
Fig. 14	AI Forecasting
Fig. 15	Prototype GDPR Aligned Consent Request

List of Contents

Abstract	0
List of Figures	1
List of Contents	2
1. Introduction	4
2. Theoretical Basis	6
2.1. Affiliate Marketing	6
2.1.1. Definition & Terminology	6
2.1.2. The participants	6
2.1.2.1. The Publisher	6
2.1.2.2. The Advertiser	7
2.1.2.3. The Network	7
2.1.2.4. The Customer	7
2.1.3. The product	8
2.1.4. Payments	8
2.1.5. Tracking	9
2.1.6. Types of Affiliates	9
2.1.6.1. Content	9
2.1.6.2. Voucher	10
2.1.6.3. Cashback	10
2.1.6.4. Email	10
2.1.6.5. Comparison	11
2.1.6.6. Social/Influencer	11
2.2. Big Data	12
2.2.1. Definition	12
2.2.2. Dimensions	12
2.2.3. Big Data as foundation for AI	13
2.2.3.1. IT-Infrastructures	14
2.2.3.2. Algorithms and methods	14
2.2.3.3. Trainingdata	14
2.3. AI and Algorithms	14
2.3.1. Definition attempt	15
2.3.2. The driving factors for AI	16
2.3.2.1. Internet Technologies	16
2.3.2.2. Higher processing speeds	18
2.3.2.3. Upcoming Technologies	19
2.3.3. Methods and Technologies	19

2.3.3.1. Symbolic AI	20
2.3.3.1.1. Natural Language Processing (NLP)	20
2.3.3.1.2. Rule-Based Expert Systems	21
2.3.3.1.3. Data Mining	21
2.3.3.2. Subsymbolic AI	23
2.3.3.3. Machine Learning	23
3. Methodology	25
3.1. Research motivation	25
3.2. Research purpose	26
3.3. Research question	26
3.4. Strategy of research	26
3.5. Data acquisition	28
3.5.1. Participants	28
3.5.2. Data collection	29
3.5.2.1. Literature review	29
3.5.2.2. The expert interview	30
4. Analysis of acquired data	32
4.1. Advantages of AI and Big Data in Affiliate Marketing	32
4.2. Main tasks to look at	33
5. Practical Use of Big Data and AI in Affiliate Marketing	37
5.1. Affiliate Recruitment	37
5.2. Affiliate Management	41
5.2.1. Affiliate Communication	41
5.2.2. Performance Analysis	42
5.3. Product Data Feed Optimization	42
5.4. Tracking	44
5.5. Attribution	45
4.5.1. Mini Case Study: TradeTracker's Real Attribution	49
5.6. Forecasting	52
6. GDPR in Affiliate Marketing	56
7. Conclusions	59
8. Discussion & Criticism	61
Bibliography	63
Internet Links (IL)	67
Appendix	68

1. Introduction

The one thing that sets us humans apart from all other living things on this planet and enabled us to become the dominant species, is the ability to learn, to understand and apply knowledge, to adapt to complex environments, and to solve problems more efficiently than all other life on earth. In short: Human intelligence.

Nonetheless, recent advancements in technology show that intelligent behaviour is not exclusive to the human race anymore. Modern technologies enable artificial entities to imitate - and in the future might even surpass - human intelligence.

As a result thereof, Artificial Intelligence (AI) has become one of the most used lingo in the tech world, as well as in the marketing industry. The ability to automate complex tasks with the possibility of a better outcome, than what a human could do, is a highly desirable opportunity for marketers to leverage performance. It is therefore not surprising that a lot of applications and software have already entered the market to simplify the work of many marketers and enhance their work in ways that were not thought possible. From chatbots and voicebots, to intelligent customer targeting, AI has improved marketing processes rapidly and therefore undoubtedly has become the center of attention in the world of marketing.

However, marketing does not equal marketing. Especially with the sudden rise of the internet and the fact that virtually everyone is connected at all times, the possibilities of promoting a product to an audience have become more vast and more complex. One of the areas of marketing that have recently emerged with the rise of the internet, is Affiliate Marketing.

“Affiliate marketing is an Internet-based marketing practice in which a business rewards one or more affiliates for each visitor or customer brought about by the affiliate's marketing efforts.” - definition.net

In other words, brands found a way to use the internet to penetrate new markets and access a wider audience, by latching onto another websites traffic and sell the products there, in return for commission. The classic example for Affiliate Marketing, and also the origin of its popularity, is the e-commerce giant Amazon, that lets brands advertise products on their website in return for a share of the generated revenue.

Affiliate Marketing is still considered a niche subcategory of online and performance marketing and has therefore not received the same attention of AI applications, as many other aspects of marketing. Regardless, the abilities of Artificial Intelligence are advanced enough that it can also be applied to Affiliate Marketing and enhance an affiliate marketers performance.

This is the theory, this paper seeks to validate by the means of academic research practices. In the following chapters, it is this works focus to explore and analyze the current technological possibilities of Artificial Intelligence and connect them with Affiliate Marketing tasks, in ways that are advantageous.

Therefore, the research question forms as follows:

Where and how can Artificial Intelligence benefit the performance of the Affiliate Marketing Channel?

2. Theoretical Basis

2.1. Affiliate Marketing

2.1.1. Definition & Terminology

Affiliate marketing is a subdiscipline of the online marketing channel. The Interactive Advertising Bureau (IAB) defines Affiliate Marketing as follows:

“Affiliate Marketing is the practice whereby a digital publisher or website promotes an online retailer and earns a commission based on the sales or leads that the advertising generates for that online retailer.” (Lee et al., 2016)

The central idea behind the marketing channel is to efficiently form and maintain partnerships in big quantities. The goal of said partnerships is to create sales and acquire customers (so-called *leads*). Hence, personal relations and working together between the parties involved, is more essential than compared to other marketing channels (von der Burg et al., 2015).

2.1.2. The participants

Affiliate marketing consists of 4 main players: the publisher, the advertiser, the network and the customer, which are going to be explained and defined in the following. Added to this is the product itself, which will shortly be explained, as well.

2.1.2.1. The Publisher

As part of this paper, we use the terms “*Publisher*” and “*Affiliate*” to describe the website or digital publisher that is promoting a brand or a product.

The publisher commonly owns a website and/or app, used as a platform to advertise products of a wide range of different brands. It is the goal of the publisher to firstly acquire a wide user base and resulting thereof, generate income through commission. The commission is based on connecting the customer with a brands product. The

reason why customers turn to an affiliates' website, instead of the brand directly can have various reasons, depending on the type of affiliate. Generally, the affiliate provides an added-value for the customer, such as comparing similar products, based on price (see more in chapter 2.1.6.5.).

2.1.2.2. The Advertiser

This paper will use the terms “Advertiser”, “Brand”, “Retailer” or “Merchant” to describe the institution that is being promoted.

The advertiser offers a product and therefore commonly uses marketing as a way to increase sales. Affiliate marketing is consequently a way for the advertiser to latch onto a broader market, by connecting with audiences of various publishers. As an incentive for the publisher to give the advertiser access to their audience, the partnership is based on commission in return for a certain performance.

In order to make these commissions reliable, the publisher needs to be able to retrace the performance that is measured. For this performance tracking, an impartial third party needs to be involved: the affiliate network.

2.1.2.3. The Network

The affiliate network offers services to both, the advertiser, as well as the publisher. It typically handles the tracking and the payments between the two parties, while also taking a consulting role. To add on this, affiliate networks can also provide the advertiser and the publisher with a broad network of the opposite party, allowing either of the parties to extend their current portfolio of affiliate partners (Heinzel, n.a.).

2.1.2.4. The Customer

Lastly, the customer is the user of the internet, that performs the desired action, which results in payment of the publisher. Such actions are typically sales, but can also be signing up for a newsletter or leaving contact information (leads), which can later turn into generated revenue for the advertiser.

2.1.3. The product

The promoted product can be whatever someone is willing to pay money for. This can either be a tangible product (such as clothing), a virtual product (such as ebooks or software), or information/services (Porter, 2014). This product is embedded in the publishers' website and upon clicking on the product, the user gets redirected to the advertisers' website to potentially complete the purchase.

2.1.4. Payments

The payment that the advertiser pays the publisher (commission) is set by the metric CPA (Cost per Action). An action in this context can be whatever the two parties define it to be, but is most commonly a sale (CPS - Cost per Sale), a lead (CPL - Cost per Lead), an impression (CPM - Cost per Mille) or a click (CPC - Cost per Click). The payment can either be set out as a fixed price per action, or as a revenue share, where the publisher gets a certain percentage of the revenue for each action that they cause (Heinzel, n.a.).

As is in the nature of CPA based payment models, Affiliate Marketing is therefore part of performance marketing, meaning there are no (significant) costs for the advertiser, unless there is a certain outcome performed. This gives advertisers an advantage of risk minimization and puts publishers in a position, where they need to perform in order to be rewarded (Mazurek & Kucia, 2011).



Fig. 1 Affiliate Marketing Process

2.1.5. Tracking

In order for the publisher to be paid accordingly, each sale that arrives at the advertiser has to be tracked. The traditional method to do so, is to provide the publisher with a deep-link, that adds another layer to a given URL of a product. This deep-link includes certain parameters, including the partner ID, which identifies exactly the sale source for the advertiser. Besides URL-Tracking, there is also Cookie-Tracking, Session-Tracking and, in case of an affiliate network, Pixel-Tracking. Knowing about these different tracking methods is only relevant, when working directly with the publisher or advertiser. If the parties are using an affiliate network, which is now the industry standard, the tracking method is decided and set up by the affiliate network (Lammenett, 2017).

2.1.6. Types of Affiliates

There are various types of publishers that all interact with the customer on different stages of the customer journey. Whether it be by getting the first attention towards a product, or being the factor that drives the customer into a converting lead. With the right mix of publishers, an advertiser can influence the entire customer journey of their product. In the following, the reader will find a short explanation of the most common types of affiliates and the stage in which they interact with the customer.

2.1.6.1. Content

The content publisher is one of the only publisher types that is part of the whole customer journey and therefore very valuable to advertisers. They typically specialize in a certain topic or niche, such as travel, sporting clothes, et cetera. As the name suggests, they are publishers that create content around the product, by, for example, telling an engaging story or providing background information for the customer. The content publisher aims for becoming an expert in their respective field. By doing that, they create an added value and increased trust between affiliate and customer. The users that frequent on these websites are generally looking for higher quality products and are of high value to the advertiser, as they are already specifically looking for a product like theirs (von der Burg et al., 2015).

2.1.6.2. Voucher

Voucher publishers offer various discounts for a wide range of products for its users. Although they are a well-regarded way to increase conversion, especially for short-term promotions, a lot of controversy orbits voucher websites, as well. There are 3 main concerns observed by advertisers (von der Burg et al., 2015).

1. Voucher publishers only create value at the last-click position
2. Voucher publishers only convert those, that would have converted nonetheless
3. Voucher publishers create a low-quality image of a brand and are therefore not suitable for luxury or quality-focused advertisers

Voucher publishers can be considered to be part of the end stage of the customer journey.

2.1.6.3. Cashback

Cashback publishers offer their customers some money, points, or coupons back after they purchased something through their website, as a reward to get them to keep coming back (Bystrova, 2015). The money they offer is part of the commission they receive from the advertiser for each sale. Therefore, the business idea is to renounce some of their own profits in order to offer each customer a discount (in form of cashback), which drives a lot of traffic and high-conversion rates. While this is a great deal for the customer, the same concerns as with voucher publishers apply.

Cashback publisher are also considered to be part of the end stage of the customer journey.

2.1.6.4. Email

The email publisher owns a database of their own email-subscribers, which they use to send newsletters to, filled with offers from various brands. Even though, this may seem outdated in times of social media and the internet, according to a survey from Disqus.com, around 70% of participants still subscribe to newsletters. Reasons for this are firstly to stay up-to-date on topics and content, and thereafter, the hope to get special deals and discounts. In times, where most people are fed up with spammy

emails, it is important that the email publisher has formed a high level of trust with the subscribers, in order to guarantee high opening- and click-through rates. Considering that email publishers work with special offers and discounts, they are part of the converting stage of the customer journey.

2.1.6.5. Comparison

A comparison publisher, as the name suggests, compares offers from a wide-variety of retailers, usually in a certain segment (such as hotels), using an algorithm automatically determine the cheapest offer for a certain product of desire. The users of such comparison websites are in general very price-sensitive, so luxury brands rarely do well (von der Burg, et al., 2015).

Price comparison publishers are not the typical converting machines, but are also not the one to grab a customers attention. Therefore one would place this publisher in the midfield of the customer journey, that is responsible for interest, desire and intention.

2.1.6.6. Social/Influencer

With the rise of social media, social publishers, or so-called influencers have been gaining immense momentum in the past few years, by connecting with their audience on a more direct and personal level, through engagement and other means. This level of trust is something that became highly desirable by brands, trying to promote their product. While so far, any tracking of KPI's besides reach (so mainly brand awareness campaigns) has been difficult, new advertisement features from Instagram and Facebook (besides others) are now making it easier to get direct clicks from an influencers post to the desired website.

Gladwell (2000) describes the phenomenon of influencers as the "law of the few", where a small amount of highly-influential people can turn any local trend into a viral trend.

He separated these highly-influential people into 3 categories:

1. *Connectors* are the ones with a big social network, with effective means of communication to quickly transmit their ideas.
2. *Mavens* are the ones that are highly-respected for their knowledge in a certain field of expertise and therefore established an authority to transmit their ideas.

3. *Salespeople* are the people that are best at persuading and convincing others to follow their viewpoints.

Considering that social influencers are the ones attracting a person's interest, they can be viewed as being part of the beginning of the customer journey.

2.2. Big Data

2.2.1. Definition

The term "Big Data" has become increasingly common in most everyday business language. It seems that every company, in every industry, is focusing on implementing some sort of big data strategy into their business model. However, diving into literature about big data it becomes clear that there are varying understandings of what the term actually means.

Firstly, a look at what lies behind the meaning of "data" will be had. According to Schroeder (2018), data shows 3 characteristics in terms of science knowledge: "First, data belongs (in the ontological, not legal sense) to the object or phenomenon under investigation; it is material collected about the research object. Second, data exists prior to analysis. [...] And third, data is the most divisible or atomized useful unit of analysis." To summarize, data can be defined as any information being collected about something of interest, that later on builds the foundation for any ongoing analysis.

2.2.2. Dimensions

Therefore, the term Big Data would suggest that there is data in big amounts. To define what is meant by big amounts, we will use the approach by IBM. According to their view, they measure the size of big data along four parameters (Fig. 2):

- *Volume of data*

Volume describes the amount of the data that's being stored and evaluated for analysis. In big data, this volume is enormous and extends the ability to be processed by standard database software tools. The challenge here is to find methods/technologies to store and analyse the data effectively and efficiently.

- *Variety of formats, sources and types*

As the internet grows more and more complex, so is the variety of data. New technologies make it possible to mine data from all kinds of different sources, such as social media, audio, video, emails, etc., in form of structured and unstructured data.

- *Velocity of searches and data retrieval*

Velocity describes the speed in which data is coming in and being utilized. By quickly getting answer from fresh data, a company can dynamically adjust to current trends and identify threats and opportunities as soon as they establish.

- *Veracity of conclusions based on data*

The most difficult parameter that big data is facing is the veracity. Veracity refers to the difficulty of relying on data's accuracy and to trust the meaning of it. Not only does one have to neatly organise acquired data, but also make sure that the data acquired comes from trustful sources, which becomes increasingly difficult, in times of "Fake News" and other kinds of manipulating behaviour on the internet.

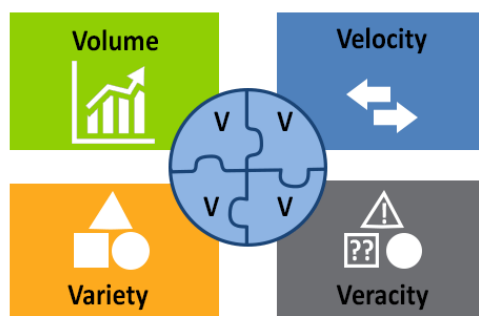


Fig. 2 The 4 V's of Big Data

Source: Zarantech

2.2.3. Big Data as foundation for AI

In order for Artificial Intelligence to effectively learn and be intelligent, it needs access to a vast pool of information. Artificial Intelligence can not exist without a strong data foundation, to mine needed information. The bigger the database, the AI has access to, is, the more successful and reliable it is going to be. Gentsch (2018) groups the synergies between AI and Big Data in 3 areas:

2.2.3.1. IT-Infrastructures

With the rapid uprise of big data, a lot of companies were confronted with the challenge of storing the massive and unheard of amount of data coming in. Still realizing the necessity of those big data streams to stay competitive, many businesses were heavily investing in hardware and cloud services for storage options. Those investments in new IT-infrastructures are what eventually enable companies to implement new complex technologies and methods.

2.2.3.2. Algorithms and methods

A big goal of big data and AI is to transform raw data into useful knowledge. Without the use of Machine Learning, Natural Language Processing and Computervision, the big amounts of (semi-)unstructured data wouldn't be able to be processed and turned into valuable information. Unused data does not add any value to the processor. Therefore, businesses have realized the potential of big data, but also the threat that comes with it.

2.2.3.3. Trainingdata

The biggest synergetic effect of Big Data and Artificial Intelligence lies, according to Gentsch (2018), in helping Artificial Intelligence to train and model their system, by using big amounts of data. The biggest success of these training methods is the so called deep learning method, which is a subfield of machine-learning, inspired by imitating the structures and functions of brain cells. This is also called artificial neural networks. With this learning method, results have been made in a relatively short amount of time, where before one would need lots of expert knowledge and high expenditure to get less reliable results.

2.3. AI and Algorithms

In order to give an adequate understanding of Artificial Intelligence that is needed for this paper, the following chapter will give a framework to what AI actually means, what factors drive its success and evolution, as well the current technologies and uses. On the basis of the acquired knowledge, the topics described later in this paper are more comprehensible.

2.3.1. Definition attempt

In modern literature many have attempted to define the term of Artificial Intelligence. A general definition may be, that AI is a “branch of computer science, that is concerned with intelligent behavior” (Luger, G.F., 2009). When using this definition, it is helpful to look at what intelligence by itself is. The issue that arises when looking into this, is that intelligence is hard to define, as it is not very well understood. “Viewed narrowly, there seem to be almost as many definitions of intelligence, as there were experts asked to define it”, says R.J. Sternberg (Gregory & Zangwill, 1998). Some even believe that intelligence can merely be described, but not defined (Hutter & Legg, 2007). As this is a topic that is far too broad to be discussed in detail, this paper will pick one definition, that is considered to be simplistic, general and easy to understand:

“Intelligence is a very general mental capability that, among other things, involves the ability to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly and learn from experience.”

- Common statement with 52 expert signatories (Gottfredson, L.S., 1997)

AI researchers and developers therefore attempt to translate these traits of general intelligence into binary code and creating an algorithm that can satisfy the above mentioned definition of intelligence. In the practical sense an Artificial Intelligence should become a learner and adapter in new and changing environments, while achieving goals (Hutter & Legg, 2006). The long-term goal of AI research is to achieve Artificial General Intelligence (AGI), which means that a machine is not restricted to task-domains (Ramamoorthy & Yampolskiy, 2018) and is intellectually indistinguishable from the intellectual capabilities of the human mind. AGI could even surpass this stage and become far-above-human level intelligent, as machines are not restricted by emotions and cognitive mistakes (Yampolskiy & Fox, 2012). As experts agree, this sort of intelligence still lies far in the future and will therefore not be part of this research.

It is apparent that the term of AI, as it is becoming more mainstream, it is also forming more and more subcategories, to describe different forms of AI and different levels of intelligence. A subcategory, referred to as “narrow AI”, is one that is currently the most available and common form of AI and will be what this thesis refers to, when talking

about “AI”. Narrow AI means, that the software is programmed to solely focus on solving a specific problem (Kurzweil, 2005). It does not need to understand itself, or what it is doing. For example, a narrow AI software, programmed to diagnose kidney cancer, will not need to be able to diagnose gallbladder cancer (Goertzel, 2007). The main characteristic making narrow AI “intelligent” is the ability to learn, adapt and improve on its intended task, while using an available data set to solve problems in an efficient way. What may sound like a weak, stripped down potential of what AI could be capable of, hides a powerful and possibly dangerous potential. The main risk here would be the “Foreseeability Problem” (Scherer, 2016), which indicates that the AI can be autonomous in its task and operate in ways unforeseeable by the ones that created it and outside the control of human beings. These risks have already become reality as we saw with the 2010 and 2015 stock market crashes, where a narrow AI application showed, how such a program can have real-life impacts. George Dvorsky describes the dangers of narrow AI eventually being able to knock out electrical grids, damage nuclear power plants or cause global-scale economic collapse, as a result of our world being more and more interconnected (Dvorsky, 2013).

To make the terminology used in this paper clear, two subsets of AI that are commonly used, will have to be explained: Automation and machine-learning. While automation is generally used to control a process “by highly automatic means, as by electronic devices, reducing human intervention to a minimum” (Dictionary definition) and is commonly used for repetitive routine tasks, machine-learning generally does the same, but acquires data points on the way to improve the way it performs its task autonomously (Swamy, 2014) (see 4.2.3.)

2.3.2. The driving factors for AI

It has only been in recent years, that AI has gained the immense hype and euphoria around it. Now, it is of interest to look at the factors, that have been driving the success and popularity of AI in such a rapid way.

2.3.2.1. Internet Technologies

As mentioned before, neither big data nor AI could exist in its current form, if it weren’t for the rise of the internet and the possibilities it comes with. Since its commercial introduction in the early 1990’s, the internet has found its way into virtually every aspect

of our lives, whether it be professional or personal. According to the International Telecommunications Union (ITU), as of 2017, over 51% of the world's population (about 3.2 billion people) have access to internet. When solely looking at developed countries the numbers go up to 81% (Fig. 3).

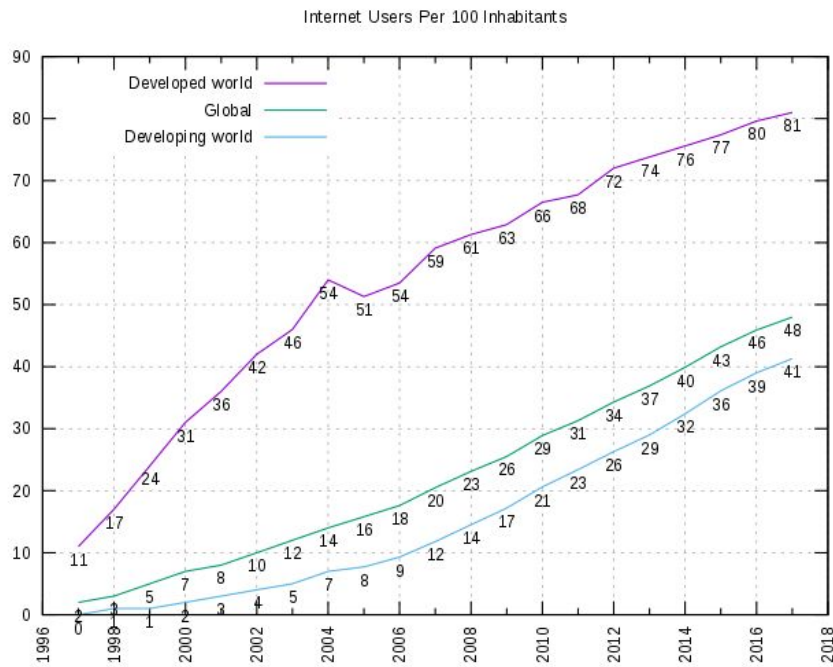


Fig. 3 Internet Users per 100 Inhabitants
Source: ITU

By mostly being constantly connected and the introduction of the Internet of Things (IoT), a modern life without the internet is barely imaginable or possible. Virtually every business has some kind of online presence and many heavily rely on being connected at all times.

Through the fast rise of the internet and ubiquitously used websites, such as Google, Facebook and Amazon, immense amounts of data were generated. Between 2016 and 2018 as much data has been generated as in the entire history of the human race up to 2016 and is expected to keep growing exponentially (Fig. 4).

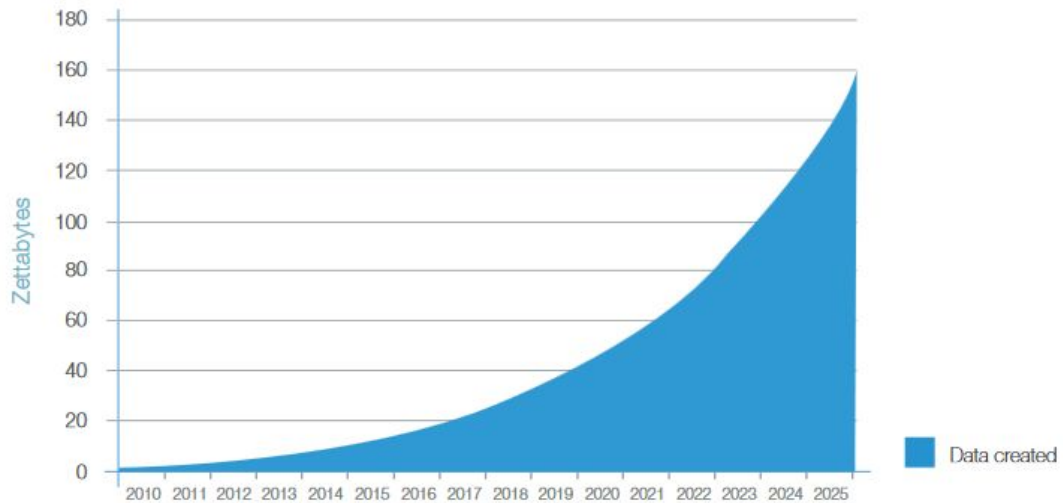


Fig. 4 Annual Size of the Global Datasphere

Source: IDC's Data Age 2025 study, sponsored by Seagate, April 2017

As long as the internet keeps evolving, growing and generating more data, AI will have more means to get better, smarter and faster.

2.3.2.2. Higher processing speeds

Another factor that is driving the development of Artificial Intelligence is the increasing power of computers, to handle the incoming flood of data and the capabilities to transform them into useful information. Since the mid 20th century, the computer has replaced traditional accounting and record-keeping methods by new data processing standards. The element within the computer that determines the speed in which instructions are performed and data is processed, is called the Central Processing Unit (CPU). While early CPUs only had a low amount of transistors, CPU technology has seen an immense evolution since. In 1965 Gordon Moore predicted that the transistors (switches in order to structure logical gates) on chips would roughly double each year, which he later revised to every 2 years. This phenomenon is now commonly referred to as *Moore's Law*. A growing demand for faster processing, drove the development of faster and smarter chips. This goal was firstly achieved by increasing the chip's clock rate (Cass, 2010) (frequency in which a transistor can switch from on to off), but eventually this clock rate plateaued at around 3.2 GHz. This led to manufacturers introducing multi-core processors to increase performance and computing capacities. The current record for highest clock rate lies at almost 8.8 GHz (IL1).

In addition to this, Graphic Processing Units (GPUs) represent another technology that can bring AI-applications to the next level. While initially being developed for visual purposes, the high power, achieved by a much higher amount of processing cores (parallel computing), working at a lower clock rate, is very desirable for the AI industry. With this technology an immense amount of operations can be fulfilled in a relatively short amount of time.

2.3.2.3. Upcoming Technologies

Lastly, even though some technologies may not be there, or be fully developed yet, it is still vital to also examine future drivers of AI technology. As mentioned earlier in this chapter, AI has a goal of attaining human-like intellectual capabilities. It therefore seems obvious, to construct processors and computers that work similarly to the human brain - on a theoretical level. This type of approach is called neurocomputing, or the more common term neural networking. An idea that has been around for a while, but has only recently reached maturity. In contrary to the Von Neumann Model, neural networks do not separate processing from memory and use neuron- and synapse-like components to imitate the human brain (Churchland & Sejnowski, 1990), instead of using binary codes. This kind of computing allows AI applications to recognize patterns in a set of data more easily.

Another technology that could soon revolutionize the AI world, is Quantum Computing. The idea behind quantum computing is to use qubits, instead of regular computing bits (0 and 1) to process information. Qubits can represent the value of a 0 and 1 at the same time, the so-called "Superposition". With this possibility, a sequence of qubits can hold the information of any possible combination of 0's and 1's within this sequence, making it possible to run multiple calculations at the same time, increasing computing speeds exponentially with the amounts of qubits in operation (Gudder, 2003). Through quantum computers, complex simulations can be made in a very short amount of time, while regular computers would take significantly longer.

2.3.3. Methods and Technologies

On the basis of the enablers of AI, mentioned in the previous chapter, a detailed look at the concrete methods and technologies is the logical next step. As much as the topic of

AI is too broad and too complex, to have an elaborated and clear classification of AI components, the scientific community generally distinguishes between 3 elements: symbolic, subsymbolic and statistical AI (Miller, 2018). In modern times statistical methods have mostly become machine learning methods. Those 3 components will be described and discussed in the following.

2.3.3.1. Symbolic AI

Symbolic Artificial Intelligence, or GOF AI (“Good Old-Fashioned Artificial Intelligence”) was the dominating industry paradigm for AI technology until the late 1980’s (IL2). This symbolic system is based on rules and knowledge that are being fed to the application. The rules and knowledge come in the form of humanly-readable symbols. Symbolic AI’s are typically designed for a specific purpose or performing a determined task, hence it is only fed with knowledge that the AI needs to know in order to fulfill this task. So, for example, an AI application has the task to translate any sentence from any language to another. The application gets the database with all existing dictionaries to substantially take any phrase being entered, and detect and translate these with the help of the knowledge available to the AI. Therefore, intelligent behaviour is merely pretended and simulated, not having any actual cognitive abilities (Gentsch, 2018). Based on this approach many different sub disciplines have evolved, of which 3 important ones will be looked at in more detail.

2.3.3.1.1. Natural Language Processing (NLP)

NLP, or computational linguistics, is the way in which computers can analyse, comprehend and derive meaning from spoken or written language in a useful way. Through rules and algorithms, NLP can process natural language. The difficulty with processing natural language is the subtlety in which it is used. For proper NLP, it is not satisfactory to simply understand the words within a sentence, but to grasp a concept, which ultimately creates meaning (IL3). With the usage of NLP, developers are able to perform various tasks, such as *automatic summarization*, *translation*, *named entity recognition*, *relationship extraction*, *sentiment analysis*, *speech recognition*, and *topic segmentation* (IL4). The goal of NLP is to achieve human-like understanding of natural languages. The most commonly known application of NLP is Amazon’s Echo, which is based entirely off of speech recognition.

2.3.3.1.2. Rule-Based Expert Systems

Rule-based expert systems use information in the form of expert knowledge, in order to solve real-life problems that would usually require human intelligence (Abraham, 2005). The most common types of how expert knowledge is represented, are rules and data. The rules can generally be defined to have an IF-THEN structure, that connects available information or facts in the IF section to a certain action in the THEN part, if a requirement is fulfilled (IL5). Rules always consists of the IF part to begin with, that can have other antecedents added to it (such as AND and OR), followed by the consequence THEN, that can also have an addition like AND or ELSE.

Although this way of problem-solving is relatively old, the usage of this system is still highly applicable in a lot of modern technology, such as medicine. Additionally, whereas in the past the knowledge had to be implemented with a lot of effort and the help of actual experts, nowadays these rules can be automatically applied through NLP and machine learning (Gentsch 2018).

2.3.3.1.3. Data Mining

In the modern age of information, it is substantial to organize the flood of data the society of computerization has created and filter out the relevant and useful knowledge. Data mining, also commonly referred to as *Knowledge Discovery from Data* (KDD), is the automated or convenient extraction of certain patterns that represent knowledge stored in large databases, data warehouses, the internet, other massive repositories, or data streams (Han et al. 2012). It is important to note that some use the term data mining synonymously for KDD, while others only see it as a part of KDD. As part of this paper, it will be used synonymously for simplification.

Han et al. (2012) subdivide the process of data mining in 7 steps as visualized in Fig. 5.

1. Data cleaning (removing inconsistent data)
2. Data integration (combination of multiple data sources)
3. Data selection (retrievement of relevant data for the analysis task)
4. Data transformation (transformation into forms of data suitable for mining)
5. Data mining (extraction of data patterns)
6. Pattern evaluation (identify patterns of interest representing knowledge)

7. Knowledge presentation (presentation of mined knowledge)

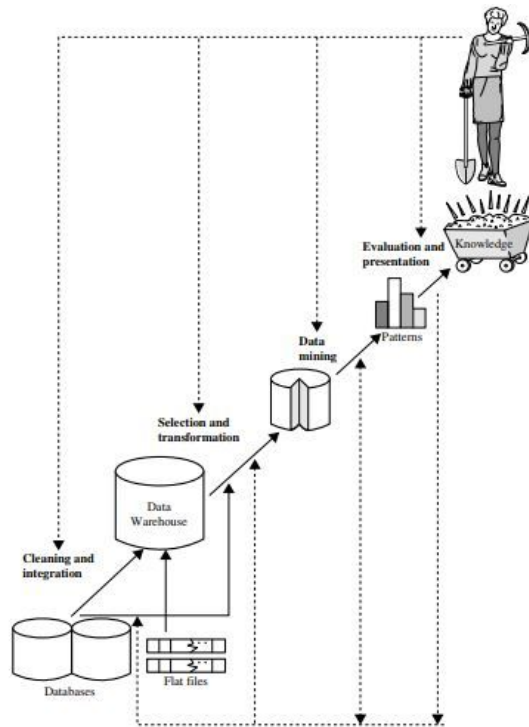


Fig. 5 Data Mining Steps

Source: Han et al., 2012

The high-level goals of data mining are mainly prediction and description. These goals can be achieved by using any of the following 6 methods or a combination of those (Fayyad et al., 1996):

1. *Classification* is the method of applying known structures to new data, by putting it into one of several predefined classes.
2. *Regression* is the attempt to find a function with the least error to a certain attribute to estimate relationships among data.
3. *Clustering* is the method of discovering structures in data and group them according to similar attributes
4. *Summarization* is the method of finding a compact description for a subset of data.
5. *Dependency Modeling* is the method of finding a model that depict certain dependencies between variables (eg. market basket analysis).
6. *Change and Deviation Detection* is the method of discovering a change in data compared to a previously set of normative values.

2.3.3.2. Subsymbolic AI

Contrary to the symbolic AI that uses rules, based on human knowledge to achieve a learning ability, the subsymbolic approach uses neurobiology as inspiration on how the system can learn autonomously. This approach in the field of cognitive science is also widely referred to as *connectionism* (Thorndike, 1898). Connectionism has been around since the 1950's, but in recent times, the term *connectionist revolution* is appearing regularly. The connectionist revolution aims at overthrowing the idea that cognition is governed by rules (Dreyfus, 1988). Connectionist models are attempting to show how approximating rule-based behaviour can be achieved without involving rules as agents in the process (Bereiter, 1991). The notion is that knowledge derives from connections between elements and that the knowledge lies solely in these connections (Rumelhart, 1989). These connected elements are, based on this approach, subsymbolic entities, as they operate below the level of symbols (Smolensky, 1988). This concept is based on neurons in the human brain connecting and communicating with each other, hence why *neural networking* has become a well-adapted term for systems using connectionism.

A more detailed description on the mechanisms behind neural networking lies beyond the scope of this paper, and a more in depth explanation can be found in the provided sources.

Through modern high-performance hardware and processors, neural networking has seen some rapid development in recent years, one being so-called *Deep Learning*. Deep learning is gathering knowledge from experience, which is made possible by the hierarchy of concepts, allowing for the system to learn complicated concepts by building them out of simpler ones (Goodfellow et al., 2016). Deep learning now experiences adaptations in various fields, such as computer vision, natural language processing, speech recognition, bioinformatics, amongst many others.

2.3.3.3. Machine Learning

In its most basic terms, machine learning refers to the ability of a system to automatically detect meaningful patterns in a large data set (Shalev-Shwartz & Ben-David, 2014). In recent years, machine learning has become a common tool in nearly every task requiring extraction of information from large data sets. Its applications range from webpage

ranking, collaborative filtering, automated translation, face recognition, speech recognition to named entity recognition (Smola & Vishwanathan, 2008). On the example of face recognition algorithms, there are no hard-wired rules to scan for a certain combination of pixels, which are based on what a human understanding of a face are. The algorithm would rather use a large data set of pictures that are labeled to contain a face, comparing them to pictures without faces, and then approximating a function $f(x)$ that predicts the presence of a face y from pixels x (Mullainathan & Spiess, 2017). Through these approximating functions, the algorithm achieves the ability to “learn”, without being explicitly programmed to do so. This way of learning is called *supervised learning*, meaning the algorithm is presented with inputs and a desired output. Contrary to this, *unsupervised learning* has no desired output and no labels whatsoever, leaving the algorithm on its own to find patterns and structures.

3. Methodology

Where and how can the use of Artificial Intelligence improve the performance of the Affiliate Marketing channel?

In this chapter, I, the researcher, will explain and discuss my research methodology, including the research motivation, research purpose, research question, strategy of research, collection of data, and the approach of analysis.

3.1. Research motivation

The motivation behind this research lies in a combination of personal and professional interests of the researcher.

Having worked in the Affiliate Marketing industry for an extended period of time, a desire to continue in this field of work and to pursue a career within, has evolved. The researcher believes that Affiliate Marketing can evolve into one of the key drivers of growth for e-commerce retailers.

The researcher furthermore has a deep interest in the progression of modern technology and its possibilities for the development of the human race, and more specifically, the business world.

Resulting of these two factors, the researcher found a growing interest in the combination of the two fields and the exploration of the possibilities that modern technology holds for the Affiliate Marketing channel. Especially, in regard to the novelty of Affiliate Marketing, the researcher has found that there is no sufficient and satisfying academic research, or technology designed specifically for this online marketing subdivision, yet.

Therefore, the motivation behind this research lies in taking a pioneering position in this niche area of online marketing and being part of the advancement of this online marketing channel.

3.2. Research purpose

As this research is of pioneering nature, the exploratory and descriptive research purpose was applied. This paper seeks to determine and explain the different uses of Artificial Intelligence and Big Data in within Affiliate Marketing and provide new information on the advantages it brings with it.

3.3. Research question

“Where and how can Artificial Intelligence benefit the performance of the Affiliate Marketing Channel?”

As one of the main purpose of Artificial Intelligence is to improve certain aspects and areas of the human world, the goal of this research is to discover and explore how these improvements can be applied to Affiliate Marketing.

In order for this to be discovered and explored, this work needs to subdivide and group Affiliate Marketing as a channel into the most basic tasks to see if, where and how the use of Artificial Intelligence could be applied. Furthermore, this work seeks to determine, whether the use of Artificial Intelligence will be beneficial for the specific tasks and in what way. Thus, this research will find a specific and measurable indicator of what determines to be beneficial for a task.

3.4. Strategy of research

There are many strategies that could be used for research in the business and marketing area. “The notion that research must follow a particular methodology is false because every problem scenario requires a combination of solutions to address it” (Kakulu, 2014). When looking for an adequate research design, there are various things to take into consideration, such as existing knowledge on the matter, desired outcome of the researcher, philosophical stance and available methods (Crotty, 1998). Especially considering that this work is of exploratory nature, the researcher has a greater flexibility

in choosing a method. Having an exploratory research purpose, according to Manerikar & Manerikar (2004), leaves the researcher generally with 4 categories of research:

- Experience surveys
- Secondary Data Analysis
- Case Studies
- Pilot Surveys

For this research, only experience surveys and secondary data analysis could be taken into consideration, as the other categories were not perceived to enable collecting the appropriate data needed for answering the research question.

In order to find out where and how AI and Big Data can improve Affiliate Marketing, different questions have to be asked to isolate an appropriate and sufficient answer:

Firstly, this paper intends to find out what AI and Big Data can do/achieve and will be able to do/achieve in the near future. For answering this question, the researcher has decided retrieve available information from the vast amount of literature available on the topic of AI and Big Data.

Secondly, this paper needs to find out what parts of Affiliate Marketing can be improved. To achieve this, the paper needs to find a definition of what can be considered an improvement in relation to the tasks of an affiliate marketer. In order to get a feel for this, from the perspective of an individual that works in this field, the research requires to include an open conversation.

For this to be achieved and in order to get a deeper insight into the day-to-day responsibilities of an affiliate marketer, an expert interview with selected participants is conducted. The goal is to figure out, from the perspective of an expert, what areas can be improved by the use of AI technology.

In the last section of this paper, the goal is to combine the precedingly attained knowledge and insights, to furthermore explore and analyze the possibilities in combining AI and Affiliate Marketing, and see what technologies have already been made available. For this, the researcher will scour the internet with all its contents, to filter out the newest software and technologies available. Furthermore, in some cases,

original ideas and solutions are going to be proposed. Lastly, for completeness sake, the researcher finds it important to include a section to explore and discuss the possible effects of the GDPR on Affiliate Marketing, as the GDPR will undoubtedly influence the findings and solutions presented in this paper.

3.5. Data acquisition

3.5.1. Participants

As explained in chapter 2.1., the whole cycle of Affiliate Marketing consists of four entities: the advertiser, the publisher, the affiliate network, and lastly the consumer. Because this research wants to focus on the marketing aspect of the affiliate industry only, a selection of participants has to be made.

Here, without further analysis, the consumer and the affiliate network can be excluded from the study, as the former is not operating in any marketing activities and the latter is more so managing the different accounts and less participating in the marketing aspect, although often taking in a consulting position.

Therefore, the potential participants are narrowed down to the publisher and the advertiser. While both parties do participate in direct marketing activities, the publisher is moreover focusing on other traditional online marketing techniques, such as social media marketing, Email and SEA. So a marketer on the publisher side would not be considered an affiliate marketer, merely a marketer being active in the Affiliate Marketing field. As this study is seeking to observe and analyze Affiliate Marketing as specific as possible, with a dedicated affiliate marketer in mind, the participants were limited to be from the side of the advertiser.

Here, it was important to the research to consult a company that had a dedicated Affiliate Marketing team, in order to guarantee a representative display of task distribution. Ideally, the participant company is online-based, in order to ensure a certain level of proficiency in computer-technology and possibly an in-house IT and software development department. With this, the likelihood of the participant being more knowledgeable and insightful with the current trends of Affiliate Marketing can be increased. In an ideal case, the participants are able to provide information about

top-of-the-market Artificial Intelligence technologies already in the use. Therefore, the size of the selected company plays a significant role in the quality of acquired data, as well.

In the role of the advertiser, the researcher chose an online traveling agency (OTA) based in Amsterdam to take part in this study. The participant company that was founded in 2010, offers a wide variety of offers, such as city trips, wellness and long haul trips. The online booking platform has since established itself in the market and has inspired over 5 million travellers since and is active in 12 European countries.

The company is selling a significant margin of their product via affiliate websites. Because of the significance and impact, the company decided to build its own dedicated Affiliate Marketing team, as a subdivision of the online marketing team. Therefore we can have a secluded look at what an affiliate marketer does on a day-to-day basis.

The team consists of 6 team members, one person responsible for one market that TravelBird operates in, including one team leader. For the expert interview, two team members were chosen to partake, one being responsible for the german market, the other being responsible for the austrian and swiss market. For both participants it is their first position as an affiliate marketer and as such, they spend their entire work day dealing with Affiliate Marketing related matter.

3.5.2. Data collection

3.5.2.1. Literature review

A theoretical framework and compact understanding of the basics and concepts of Affiliate Marketing are given to the reader in the form of a literature review. The goal with this is to give the reader an overview of why Affiliate Marketing exists and what the pillars of its existence represent. This knowledge is necessary, in order to understand the dynamics explained later in this research.

Following this, there will also be a literary research part on Big Data and Artificial Intelligence. This gives this paper the necessary knowledge basis for the following main research. The literature research on this topic is meant to explore the various

technologies and possibilities that have already been developed, additionally including an outlook on the prospective future of the industry.

Affiliate Marketing, as well as Big Data and Artificial Intelligence, are topics that have only recently developed into popularity. Therefore, relevant information and academic research is mostly of recent nature, resulting in many of the sources provided for this literature review being digital.

As previous knowledge on any of the topics can not be assumed or used, this research is taking a step back. To acquire a general overview, sources that look at the topics fairly broadly were consulted first, to then deepen the research in relevant categories, by consulting more targeted sources. The execution of the literature review is to be viewed in the form of an upside down triangle, starting as general as possible moving down to get more specific and detailed on topics relevant for the research.

3.5.2.2. The expert interview

This part of the research faces a few difficulties that the researcher had to overcome. Firstly, the issue of time restriction was an obstacle. One of the selected participants has a tight work schedule and can only agree on an interview via email that would not take up much time and can be done whenever it is convenient for the interviewee. With an email interview, the participant was able to split answering the questions into chunks, instead of having to answer them all at once. Resulting from this, the authenticity and completeness of the participants answer can be challenged, as the researcher is not at the interviewees location and can not guarantee the participants full attention during the time of answering. Furthermore, the environment of an open conversation with spontaneous follow-up questions from the researchers side can not be given.

Therefore, this interview has to consist of predefined questions, that the researcher thinks will provide the most detailed and appropriate answers for this studies purpose.

When constructing the questions for the interview, it was important to keep in mind the goal of the interview. Through targeted questioning, the researcher aspires to get knowledge on (1) what the tasks of their work include, (2) what tasks consume most of the time and (3) what tasks have the most impact on KPIs. Furthermore, with this interview, this work wants to tap onto what the opinion of affiliate marketeers on AI is (although the researcher does not know what their level of expertise on AI is).

The questions used for the interview are the following:

1. Where do you see the main advantage(s) in AI and other data-driven technology for the affiliate industry?
2. What are the tasks you fulfill as an affiliate marketer that take up the most time?
3. What are the tasks you fulfill as an affiliate marketer, that you would like to spend more time on?
4. What are the tasks you fulfill as an affiliate marketer that have the most impact on KPIs?
5. What tasks that you fulfill as an affiliate marketer, do you think could/should be automated? Why?
6. What are tasks that you think could not be fulfilled by an AI, but only by a human?
7. Where could AI support you in your decision-making?
8. In what other parts could AI or other data-driven technology support your work? (not necessarily task-related)
9. How do you think AI could improve the consumer experience from an advertiser's perspective?
10. As an advertiser, what characteristics of a publisher do you look at, when deciding who to accept in your affiliate program?

The entire interview document, including instructions for the interviewee, as well as the raw data, can be found in the appendix.

The second participant of the expert interview was able to find time to meet in person and partake in the research. Hence, it was possible to go in-depth of topics of interest and let the interview happen naturally. The same questions as with the other email interview were consulted in a directory purpose, with the possibility of continuing the interview off-script. This interview was, by agreement, held in a public space. The interview location was chosen to be a lively bar in the center of Amsterdam, where both participants felt comfortable and at ease. For clarification, both participants were sober during the entire interview. The transcription of the interview can be found in the appendix.

4. Analysis of acquired data

In this section, the paper presents the data acquired via the methods prescribed in chapter 3 in a compromised form. Therefore, the researcher formally distances himself from any previous knowledge prior to this research and tries to look at the acquired data as objectively and unprejudiced as possible.

4.1. Advantages of AI and Big Data in Affiliate Marketing

With the two interviews that were held as part of this research, this work was capable of singling out three main points of how Artificial Intelligence and Big Data can be of advantage to Affiliate Marketing.

Firstly, the use of automation. As described in the literature review, automation is a process being performed without any human assistance, delivering a desired output. In its simplest form, the algorithm is working on a rule-based expert system, meaning that a so-called expert is setting up the rules, that the algorithm is comparing the current status of an observed matter and acting as programmed. In a more complex way, the algorithm is able to learn with time and acquired data, to optimize the work they are performing. Considering this, automation in its basic idea is a simple way to let an algorithm run tasks, of which the complexity is not very high. While the time of a human marketer is highly valuable, an algorithm can run at all times, while only having to be programmed once.

Both interviewees pointed out that automation can be a powerful tool to take over repetitive and simple tasks. Tasks that could or should be automated, according to the interviewees opinions, include validation of sales, approval of new partner requests, the active search of new affiliates, basic communication, offer suggestions, and automated commissioning on an offer level.

Secondly, the use of Big Data to leverage optimal decision-making processes. The consensus seems to be that the human capability of accessing and making sense of a big amount of information is limited in quality and quantity for a set amount of time. This is not the case with algorithms that can access the knowledge of big data warehouses

at a faster pace. The right and reliable data at the right time can make the difference between a good and a bad decision. By combining big data and deep-learning, companies could now run multiple complex simulations and accounting for various scenarios in the business world, delivering a vast amount of outcomes. Therefore, making it more convenient for a person in an executive position to make a well-considered decision. Especially in Affiliate Marketing there are countless forces that are contributing to a successful outcome. Not only does one have to account for customer's desires and needs, but also for the satisfaction of the partners. As explained in previous chapters, AI technologies can enable a valuable insight into consumer personas, resulting in data-based forecasting of consumer behaviour.

The tasks, suggested by the interviewees, that would require AI assistance in form of relevant data selection and presentation, are commission negotiations, offer selection, partner portfolio analysis, and trend analysis.

Thirdly, the research can single out an advantage that can be described as incentivizing of affiliate partners. The interviews showed that there were a few impactful tasks, which could be improved by the use of AI technology, however could not be grouped into either of the previously mentioned advantages. Those tasks were managing the attribution model (managing the commissioning), optimizing data feeds, and reliable tracking methods. Both of those tasks are described to mainly smoothen out the processes, increase trust between all parties involved and effectively incentivize publishers to post more offers from advertisers that can perform those tasks optimally.

4.2. Main tasks to look at

In the two interviews, held as part of this research, both participants were asked to provide a listing of the tasks they spend the most time on. As expected, the two lists that were received, showed a lot of similarities, albeit not being entirely identical. The tasks that were mentioned included:

- Performance Analysis (ranked most time consuming by both participants)
- Reporting (ranked second most time consuming by both participants)
- Affiliate Communication
- Strategic Planning
- Campaign Planning

- Approving Sales
- Affiliate Recruitment
- Offer search and selection
- Product Data Feed Optimization

In the further proceedings of the interviews, the participants were asked, which tasks they would like to spend more time on and which tasks have the most impact on KPIs in order to find out, which tasks could potentially be automated and/or speed up and which tasks should be put into focus for maximizing an affiliate marketers time and the advantages of the use of AI technology.

Tasks to spend more time on	Tasks with most impact on KPIs
Strategic Planning	Affiliate Communication
Affiliate Communication	Attribution
Trend & Performance Analysis	Offer selection
	Campaign Planning
	Trend & Performance Analysis
	Strategic Planning
	Publisher selection

Fig. 6 Comparison of tasks

As can be inferred from Figure 6, there are 3 tasks that the participants would like to spend more time on, *because* they have a high impact on important KPIs, such as number of sessions, net revenue and number of orders.

In the next step, the researcher combined the knowledge from the literature review and the interviews, to compose a list of selected tasks, that would be looked into further in this paper. To create a compressed list of tasks, the vast amount of tasks provided by the interviewees were grouped into logical categories. Some tasks had to be left out of this research, as this was the only way to keep this paper at a reasonable extent.

First, this paper will look into affiliate recruitment. This includes the approval of applications and the search for new potential publishers. It was mentioned by both of the participants that these are tasks, they believe, if support by AI, would be beneficial for them.

Second, this paper will look into affiliate management. This includes affiliate communication and performance analysis. The interviews held for this research showed clearly, that these tasks are the most impactful ones in terms of KPI's, while affiliate marketers can not spend as much time on the task as they would like to. Therefore, it is important for this research to look deeply into how AI technology can support, improve and automate these tasks in an effective manner.

Third, this paper will look into product data feed optimization. Specifically pointed out by one of the participants, but mentioned by both, product data feeds are one of the tools that help publishers immensely to get the specific offers they desire and require. One of the interviewees stated that product data feeds are what keeps them afloat, by automating a steady stream of information to the publishers. For this reason, it is important for this research to look into this task, as well.

Fourth, this paper will look into the sphere of attribution. This task was perceived to be a rather controversial issue amongst Affiliate Marketing, but can still have big impact on the performance and especially the motivation of different publishers. For this reason, this paper will look into the possibilities and compare the advantages and disadvantages of various attribution models.

Fifth, this paper will look into various tracking methods. As mentioned in the interviews, the reliable tracking of the customer journey across platforms and devices is vital for the trust and motivation of the publishers, while giving opportunities for the advertiser to expand on their advertisement positioning.

Sixth, this paper will look into forecasting. One of the many tasks that was mentioned by both participants several times over the course of the interviews is the task of strategic planning. While strategic planning consists of multiple smaller tasks, this research found that the one part where AI could support it the most, would be with specific and reliable forecasting methods, to leverage optimal decision-making.

For this reason, the main part of this paper will include the deeper exploration of the following tasks:

- Affiliate Recruitment
- Affiliate Management
- Product Data Feed Optimization
- Attribution
- Tracking
- Forecasting

5. Practical Use of Big Data and AI in Affiliate Marketing

5.1. Affiliate Recruitment

Having the right affiliates to promote a product is a vital part of Affiliate Marketing, according to the interviewees. The right partners that bring the right customers, at the right time, can be the crucial difference between a successful affiliate program and a failing one. Often, the advertiser has certain internal criteria on choosing a partner to work with. This criteria can be translated into parameters, that for example a network can automatically detect for any publisher that is signed up on their website. Such parameters can be easily accessible information such as website language, type of website (eg. exclude voucher websites), no adult content, no pop-up ads, etc., but also more subsurface data, such as structural and administrative metadata.

As the most important characteristics in within a publisher, the research participants state the following elements:

- Publisher type
- Customer base
- Demanded Commission
- Language(s) of website
- Design
- Professionalism
- Competition of other advertisers on website
- Traffic Volume
- Brand Identity
- Campaign Potential

Now, some of those formulated characteristics are straightforward and can easily be implemented as a filter into an algorithm, such as language(s) of the website, demanded commission and traffic volume. Others are more complex characteristics that need to be

split up into easily measurable variables, in order for the algorithm to draw the data from an applicants website.

When looking at the first point of *customer base*, the classic market segmentation comes to mind, where the customer base gets defined by certain segmentations that typically include *geographic, demographic, psychographic, and behavioural* (Camilleri, 2018). Just like customers, also publishers can be grouped by certain parameters, such as the ones expressed by the interviewees above. Based on the idea of classic market segmentations mentioned by Camilleri (2018), the parameters that were discovered during the research were grouped into the following segmentations (some segmentations will explain the classic market segmentation first, as customer base is also a part of the discovered parameters):

- *Demographic* segmentation can be further divided into parameters that are factual and physical, such as age, gender, ethnicity, wealth/income, education, of the publishers customer base. For the researched part, this segmentation includes language(s) of the publisher's website and the traffic volume.
- *Psychographic segmentation* is a segmentation that is a lot less tangible and measurable than the former segmentation.

Characteristics for customers typically include values, interests, lifestyle and personality. Each of those characteristics is hard to measure and has to be broken down into more elementary parameters, that can be measured as data points on user behaviour and then be combined and translated into a personality trait. So for example, a quality sensitive user is typically opting for a relatively long conversion path, has low bounce rates on websites (researching) and visits many of them before converting for a low-price option. With the help of these measurable parameters, an algorithm can therefore create a complex psychographic profile of a customer base.

Psychographic elements for a publisher, based on the research results, are brand positioning and campaign potential, which go hand in hand. The brand positioning of a company or website are the "personality" of a publisher, directly concluding to a campaign correlating with the values, interests and personality traits of the brand. On the downside, personality traits of a website are a lot harder to capture via variables than it is with personality traits of a customer. The brand positioning is mostly a conscious decision by the company itself and then

transferred into elements like customer communication, B2B communication, et cetera. For this reason, brand positioning and campaign potential are the hardest parameters to implement in an affiliate recruitment algorithm.

- *Visual* segmentation is the approach of splitting the appearance into elements with the goal of determining the style, feel, and professionalism of a website. An algorithm can analyze the colour palette, brightness, shapes, direction of visuals, amount and quality of pictures, et cetera. Combining those, the programmer of the algorithm can define what determines a professional website and how the website feels for a user.

Based on the above mentioned segmentations, an algorithm can be created, in which the advertiser can construct a desirable publisher by adjusting various filters. An example of the program could look as below:

Affiliate Matchmaker:

What should your Publisher be like?

Customer Base

Age	18	-	35
Gender	male		female
Location	Type location...	Range	20 km
Income	From	€ - To	€
Personality	Price sensitive	Quality sensitive	Influencing
	Daring & Curious	Loyal	Prestigious

Website

Type	Content	Price Comparison	Voucher
	Voucher	Email	Social
Category	Travel	Software	Lifestyle
	Food	Fashion	Other ...
Language	Type...		

Select Preferences

Fast Loading Time	Optimized for Mobile
Tracking Enabled	SEO Ready
CMS supported	Banner Options
Social Media Integration	Website Security

Fig. 7 Affiliate Matchmaker

Source: Fabian Maile

The visual segmentation was left out of this proposed solution intentionally, as professionalism of the design and setup of a website can be determined universally and therefore the criteria can be set by the developer. Such criteria could be the correct use of complementary colours, colour palettes that are easy on the eye, no explicit content, et cetera.

This sort of publisher profiling is already starting to get realised to some degree by various networks, such as ShareASale (IL6), where the parameters are used with a filter-function, not allowing publishers to apply, if they don't meet the necessary criteria to be accepted into this network. This way, the more time an advertiser puts into setting specific criterias for their program, the volume of publisher applications to go through can be minimized.

As AWIN states in their *Travel 2020* whitepaper, the shift to an automation concerning publisher applications is well-needed. In the first half year of 2017 the network reports over 6.000 pending applications to over 800 different affiliate programs. Many of those publishers are simultaneously working with other affiliate programs, all the while there are 100's of new publishers signing up to the network each week. An average partnership on the AWIN platform is supposedly generating over 1500€ in commission and over 400 sales per month. These numbers show the potential of quicker and more effective affiliate recruitment through automating the application process.

For actively picking and recruiting publishers a similar, albeit more complicated process can be applied. By setting a certain set of values (e.g. Fig 7) a merchant is looking for in their publishers, an automated tool can be developed to actively give suggestions for fitting publishers. An example for such a tool is the *Match Master* by Affilinet. According

to their website the tool uses an intelligent algorithm, that even weighs in the chance for growth in the nearby future, using performance-based data. This tool delivers the base for a full-on automated application and recruitment possibility, where the tool doesn't only give data-based suggestions, but also learns the preferences of the advertiser with time and automatically reaches out to a partner, creating a personalized invitation.

5.2. Affiliate Management

Affiliate Management is the term being used to describe various tasks, which were discovered during the interviews conducted with the participants. These tasks mainly include affiliate communication (such as relationship building, incentivizing to get more product placements, and negotiations), as well as performance analysis. In the following, this work will look at each of those tasks individually.

5.2.1. Affiliate Communication

According to the participants explanation in the interviews that was conducted as part of this research, affiliate communication is a task that the participants (1) want to spend more time on, and (2) can only be handled properly by a human being. If those requirements can be fulfilled, it gives the marketer the possibility to get a better understanding of the affiliate partners, their needs and desires. In return, this can lead to positively impacting KPIs by being able to align products with a publishers product performances. Furthermore, the affiliate marketer can analyse which publishers to focus their efforts on, to cover a wide portfolio of affiliate partners, which also cover as many specific target audiences as possible.

Even though, the interviewees state that the communication with publishers should primarily be handled by real humans, they also point out that Artificial Intelligence could potentially help with some communication. Especially, when an advertiser has to organise a large pool of affiliate partners, it becomes difficult to maintain a close relationship with all of them. With automated and personalized messages, the advertiser can stay a top-of-mind brand with the publishers, that might have lost track of the advertisers they are connected with. Artificial Intelligence offers the possibility to know which messages have been sent to the affiliate partner previously, analyze how the responds were, if an offer was posted after the message, and then adapt the new message accordingly. Natural Language Processing (NLP) systems can help to

determine what incentivizes a publisher to post an offer, in combination with determining what offers perform well with a publishers audience. Neural networks can then continuously analyze, learn, adapt and optimize a partners performance.

Having these automated, personalized messages, would save a significant amount of time for the affiliate marketer, in return allowing more time for the marketer to focus on top-performing partners (key accounts) that require the nurture and care of a real human being.

5.2.2. Performance Analysis

The participants further elaborate that communication can be supported in a suggestive nature by data-driven technology. This especially refers to appropriate and relevant performance analysis and suggesting the marketer on which publishers to focus their effort on. In this context, the interviewee proposes alarms that an advertisers gets, to announce that an affiliate partner is recently performing out of the ordinary. Out of the ordinary could be irregularities in amount of posts, amount of traffic, conversion rates or amount of sales. Whether irregularities mean, that the aforementioned metrics are higher or lower than usual, the alarms give the advertiser the possibility to look into the matter in more detail. At last, this makes the marketers work more effective, as it ensures that the marketers spends time on the things that likely have the most impact on performance and KPIs.

Next to the possibility of alarming the marketer for publishers to focus on, AI is furthermore needed in the sense of finding the reasons behind the irregular performances. As one of the interviewer states, it is very important for affiliate marketers to figure out what hinders or boosts a performance to meet or not meet set KPIs. It is explained, that the reasons for this could be cheaper competition, net revenue (or order) drivers of a compared time period are not online (or are more expensive than last period). These are all factors that can be detected by AI and directly reported to the affiliate marketer, to then take appropriate action.

5.3. Product Data Feed Optimization

Repeatedly, it was pointed out in the interviews that product data feeds are the tool, most valuable for the publishers to select offers, while its optimization is a task that is very time consuming for the advertiser. It was stated that the inclusion of AI to optimize the product data feed, would give affiliate marketers more time to source and select offers specifically for high-impact key accounts.

A product data feed is a tool that provides publishers with a feed of an advertisers product portfolio. The feed typically comes in the form of an excel, .xml or .txt file. The purpose of the product data feed is to send structured and up-to-date information about the products that the advertiser is offering, including all relevant attributes that belong to this product. Attributes included in a data product feed typically include things, such as title, category, price, availability, ID, image, short description etc., but can be anything that is relevant for the publisher (Van der Wilt, 2017).

A	B	C	D	E	F	G	H	I	J	K	L	M	N
id	title	link	condition	price	availability	image_link	brand	google_pr	gtin	mpn	product_type	shipping	description
1	Bambo Na	https://ca new		5.9	in stock	https://cairr Bambo		551 5 703538 1		310131	Babies Nappie	GB:::3.00	(Bambo Natu
2	Bambo Na	https://ca new		5.99	in stock	https://cairr Bambo		551 5 703538 1		310132	Babies Nappie	GB:::3.00	(Bambo Natu
3	Bambo Na	https://ca new		7.1	in stock	https://cairr Bambo		551 5 703538 1		310143	Babies Nappie	GB:::3.00	(Bambo Natu
4	Bambo Na	https://ca new		6.99	in stock	https://cairr Bambo		551 5 703538 1		310144	Babies Nappie	GB:::3.00	(Bambo Natu
5	Bambo Na	https://ca new		6.99	in stock	https://cairr Bambo		551 5 703538 1		310135	Babies Nappie	GB:::3.00	(Bambo Natu
6	Bambo Na	https://ca new		6.1	in stock	https://cairr Bambo		551 5 703538 1		310136	Babies Nappie	GB:::3.00	(Bambo Natu

Fig. 8 Example Product Data Feed

Source: Hallaminternet.com (IL7)

Considering this, every publisher has different needs concerning products they want to advertise. For example, while an advertiser might offer products that cover the entire price range, one publisher is a price comparison website and therefore needing the cheapest products to present on their website, while another publisher is a content website, therefore looking for quality products, where price is only secondary. Resulting thereof, one can come to the conclusion, that the more data an advertiser can provide to the publisher, the more they can pick out more precisely the exact product, they want to advertise and think will bring the most conversions according to their needs.

So far, product data feeds have to be manually programmed by the advertiser, requiring them to add each field of an attribution, they think would be of interest to the publisher, according to the participants. Firstly, this requires a significant amount of time to set up for each publisher individually and secondly this can result in cognitive mistakes and logical gaps. Additionally, the product feeds have to be manually updated every day, as

certain parameter and attributes continually change, such as price and availability. This is where the use of Big Data and Artificial Intelligence can come into play.

In order for an algorithm to find out, what products and what attributes are of value to a publisher, it needs access to its customer data. Reason for this, is that customers determine what products the publisher is interested in. With access to behavioural data about the customer, the algorithm can detect meaningful patterns (see chapter about machine learning) and resulting from this, create a data-based customer profile, with meaningful predictions about its future behaviour. With this ability, the algorithm can determine, what attributes of a product are of value to the customer and therefore the publisher, resulting in a customized product data feed, displaying only the relevant products and dispose of the irrelevant clutter. At the same time, the algorithm is capable to update all the feeds it provides in real-time simultaneously.

5.4. Tracking

As explained in the literature review section, tracking is used to retrace a transaction to a publisher, so they can be rewarded accordingly. With the rise of the Internet of Things (IoT) and people being connected at all times with a growing amount of devices, tracking an individual rather than one device becomes an increasingly difficult task to fulfill.

For example, someone might be first hearing about a product while reading through a blog on their tablet, soon after they click on a Facebook advertisement with their mobile phone, and finally make the purchase on their laptop, by entering the product website directly into the browser. When using the web, individuals are typically anonymous and the majority of traffic comes from unauthenticated users. Now, with Affiliate Marketing, this one product that was shown three different times, could have been advertised by three different publishers. With regular tracking, none of them would get paid, as the system recognizes the sale as a direct purchase (URL was directly entered into the browser). Besides that, if a user can be traced across all devices, one can personalize offers and messages more precisely. The fundamental question to this issue, expressed by the interviewee, is how it is possible to track an individual's footprints in cyberspace across all devices, over an extended period of time. This would have many advantages for all parties involved, such as fair remuneration of publishers, resulting in increased

effort to advertise and the ability to personalize offers and messages more precisely. The answer to this problem of cross-device tracking is, as usual, the use of Artificial Intelligence.

Although this so-called cross-device tracking has not yet been researched extensively, there are some pioneering studies and experiments that have been released recently. Cross-device tracking is a task related to recognizing patterns in a big set of data with unknown distributions and properties, making it a fitting target for machine learning algorithms (Volkova, 2017). As per the result of Volkova's research, cross-device tracking has been found to work more reliable for practical uses with a supervised machine learning algorithm, compared to an unsupervised or semi-supervised one. Despite this, none of the approaches tested by the researcher have been found to be precise enough for reliable implication in the real-world. Volkova therefore suggests, besides other things, to further expand the data available to the algorithm. For example, identifiers were limited to one website, which is a restriction that is leaving a user's timeline incomplete.

As per the findings of Zimmeck et al. (2017), cross-device tracking is mainly seeking to resolve the task of uniquely identifying a users' device and then correlating those devices that belong to the same user. Zimmeck et al. conclude, that a machine learning algorithm can increase the matching rate significantly by comparing IP addresses and a users' devices browser history.

Simultaneously, uniquely identifying users across multiple devices and creating an entire picture of an individual's online behaviour, correlates with the concerning question invasion of privacy. Especially in Europe, with the aforementioned GDPR, cross-device tracking is likely going to be a challenging issue. So is the opinion of Zimmeck et al.'s paper, stating that companies developing cross-device technologies should remain transparent about their practices, in order to guarantee trust and responsible use of acquired, personal data.

5.5. Attribution

Since the beginning of Affiliate Marketing as a subcategory of online marketing, it has been the industry standard to compensate the very publisher that converts the customer to commit to the sale. This way of rewarding affiliates is referred to as last-click

attribution. This model of remuneration quickly created a highly competitive environment for publishers to fight over the last-click sale, leading to tactics such as cookie stuffing, forced clicks and others. These tactics typically discouraged upper funnel affiliates (Glazer, 2017), such as blogs and other social influencers. Although this attribution model is what the affiliate channel is originally premised on, the model doesn't satisfy the complexity of the various digital touchpoints the average customer can record before deciding to purchase anymore. In the age of digital information and users being overloaded with wide selections of virtually every desired product, it takes noticeably longer for an individual to commit to the purchase of a product.

The last-click attribution model has not only been the standard in the Affiliate Marketing channel, but across the online marketing industry as a whole. There, one can already notice a shift from the classic "last-click-wins" approach, to looking more deeply into the various touch points of the customer journey, by measuring and tracking the various impacts of marketing activities (Sakly, 2016). The realization here was that even if a certain marketing channel was not converting the customer, the touch point was still valuable in the decision making process and influence on the later-on conversion. With modern tracking capabilities, it is now possible to see exactly where a customer interacted with the business and at what point the customer converted to buying a product. This insight is vital to understanding a customers behaviour and adjusting marketing efforts at those crucial touch points. With this data a company can decide, which channel should be attributed what percentage of the total sale.

TYPE	NAME	DESCRIPTION	What touchpoints would get credit			
			#1	#2	#3	#4
Single touch-point	Last click	Last click gets all the credit	0%	0%	0%	100%
	First click	First click gets all the credit	0%	100%	0%	0%
	First touchpoint	First touchpoint (click or ad impression) gets all the credit	100%	0%	0%	0%
Multi touch-point	Linear	All touchpoints get equal credit	25%	25%	25%	25%
	U-shaped	Touchpoints at the beginning and the end get more credit	40%	10%	10%	40%
	Time decay	Touchpoints at the end get more credit	10%	20%	30%	40%
	Raw	All touchpoints get all the credit	100%	100%	100%	100%

Fig. 9 Various Attribution Models
Source: Criteo White Paper (via Sakly, 2016)

Besides the customer having multiple touch points with a business across different marketing channels (such as social, email, paid or organic), a similar issue arises when looking at the affiliate channel on its own. A customer can interact with multiple affiliate websites that all influence the respective decision making, before eventually converting to a sale. In the upper sales funnel one can find a lot of bloggers and other social influencers, whose work has been left unrewarded until now, while the high conversion publishers in the lower funnel area (often coupon and cashback websites) get the entire commission for themselves. For reasons explained in previous chapters, coupon and cashback sites hold various disadvantages, such as lowering the quality image of a brand and “stealing” conversions that would have converted either way. Therefore, there is an opportunity and advantage to give the reward back to the publishers that impacted the decision to convert the most.

With modern tracking methods, partly mentioned in the previous chapter, the status-quo can be challenged and will eventually alter the way the channel looks at the contribution of a sale and can decide where marketing efforts are going to be made. Multiple tracking methods, like the one described by Ji (2016) or Shao & Li (2011), can not only show which ads were clicked by a user, but also when, in which order, and for how

long. By combining all these elements, one can acquire a probabilistic picture of impact per impression. Studies even suggest, that the mere exposure to digital advertising, meaning no interactions with the ad (impressions), increases a customer's engagement in both active and passive searches. Interestingly, the data also shows that the longer a user is exposed to the display advertisement, the more likely he is to engage in direct searches for the brand (Ghose, Todri-Adamopoulos, 2016).

By giving upper funnel publishers the ability to be rewarded for their work, they can be (re)activated and incentivised to increase effort in advertising for a brand. So far, according to TradeTracker's numbers, less than 20% of publishers in a program are actively promoting an advertisers product, as a lot of publishers can't compete in the battle for last-click and therefore put their marketing efforts in non-last-click campaigns, such as CPC or CPM (IL8). By introducing a new attribution model to a program, these publishers can be reactivated, opening up access to a much wider audience.

The question and worry that arises from the interviewees, is how the publishers will react to the possibility of moving away from the traditional last-click reward. Concerns were raised about high-volume converting publishers being at risk of losing interest in actively promoting the advertisers products, as they will be rewarded less than before. With new attribution models, they will be sharing the commission for a conversion with other contributors involved in the customer journey. Resulting thereof, in order to not lose on any commission, lower funnel publishers will have to start to additionally involve themselves in the upper funnel segment.

For example cashback websites' entire business model is based on acquiring the entire commission per sale in order to return a share of that money to their customers (see 2.1.2.3.). With the change of the attribution model, going from last-click to multi touch attribution, there is no more guarantee for cashback publishers to be able to pay their customers the promised reward for a purchase through their website. According to a report by TradeTracker, new attribution models might give cashback websites a new possibility to actually increase the cashback they can offer their users, by changing their strategy from a fight for last-click, to adding value across the entire customer journey. By focusing and expanding on other channels, such as social media and email, they can interact with users at an earlier stage of the conversion path, which they would additionally get rewarded for. Therefore, getting the chance to increase their

commission, increasing their cashback and resulting thereof, becoming an even more effective converter (IL9).

On the other hand, advertisers often tend to be fairly dependant on high-volume publishers, when following the pareto principle. When 20% of an advertiser's publishers are responsible for 80% of the sales volume, the significance of a single key account cannot be ignored. A publisher that is aware of this situation could have the possibility of threatening to withhold from promoting the advertisers product altogether.

4.5.1. Mini Case Study: TradeTracker's Real Attribution

On the 30th of May 2017, the affiliate network launched their own in-house developed so-called "Real Attribution" technology for their advertisers to use. The network claims to be the first network in the world, to offer a variety and customizable attribution models to its customers. "Real Attribution is designed to give advertisers full control in optimising campaigns, which rewards all publishers involved in the customer journey. Whether they're initiating, assisting or converting." Tradetracker is offering 5 different attribution models plus an entirely customizable model, depending on what kind of campaign the advertiser wants to run and which publishers the advertiser wants to engage and therefore reward accordingly.



Fig. 10 Real Attribution - Attribution Models

Source: real-attribution.com

For the custom model, the network offers different components a brand can put their focus on. They divide these components into 3 different groups (“Elements”):

1. *The Position Element*, where Publishers are getting assigned a commission reward, depending on their position in the purchase, whether them being a first touch point or the converter.
2. *The Type Element*, where the advertiser can prioritize certain publisher types over others, giving the opportunity to reward low-effort coupon sites less than for example high-value content websites.
3. *The Category Element*, where different weighting can be assigned to a publishers operating category, such as travel, fashion, etc.

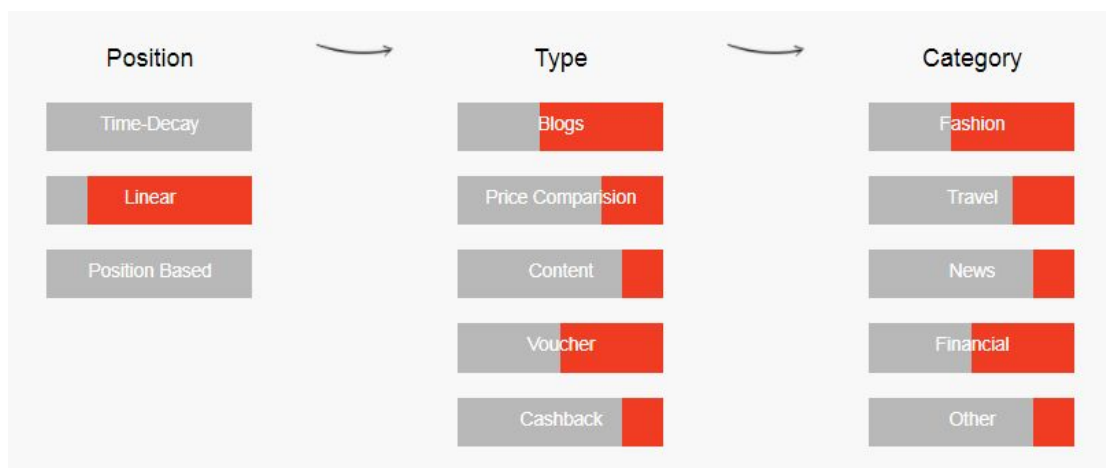


Fig. 11 Real Attribution - Elements

Source: real-attribution.com

This is where Real Attribution stands out from previous multi touch attribution models, adding Artificial Intelligence to their technology. The algorithm learns preferences of the advertiser, by asking the advertiser for certain information and in return adjusting marketing attribution and efforts according to the customized preferences. This ensures that the focus of attribution lies on those parameters that are important for the advertiser.

Furthermore there is the possibility for advertisers to blacklist certain publishers to be excluded from a reward within the conversion path. This is especially a useful possibility

when an advertiser has CPM and CPC partners that he wants to integrate into the attribution model. By firstly excluding them from the reward system, the advertiser can observe the publisher's role in the conversion path and from there on move them to a performance based payment model, as well (IL10).

Since the launch of Real Attribution, TradeTracker has reported a mind shift in the publisher's approach to handling a customer interacting with their website. According to them, a lot of affiliates changed from fighting for a last click conversion to actually cooperating with one another, to ensure a pleasant and successful customer journey. So, for example, a certain content publisher can link to a voucher site, knowing that this increases the probability of the customer converting (IL11).

This new approach also reflects in the first official numbers TradeTracker released after 3 months of launching, regarding the effects of Real Attribution. For campaigns that have adopted this model, the path lengths have increased by 34%, from an average path length of 18.74 days to 25.05 days. This growth can be attributed to an increased number of touchpoints (+30%) and also an increased path diversity (+42%). The average amount of touchpoints leading to transaction went from 2.43 to 3.16, while the average number of publishers involved changed from 1.9 to 2.7 and the average number of site types from 1.4 to 2.1. (IL12-IL16)

Real Attribution Impact

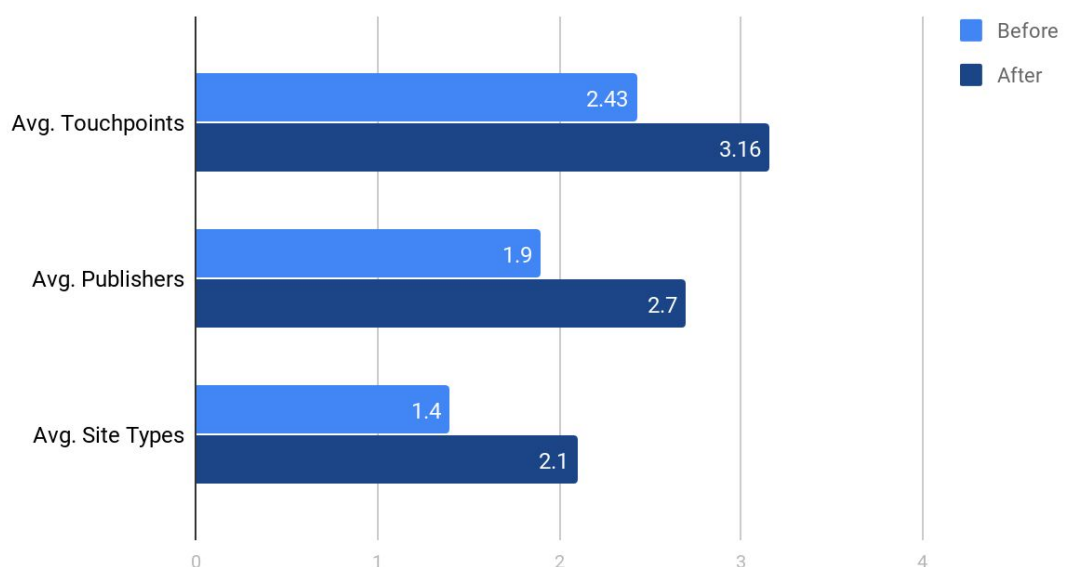


Fig. 12 Real Attribution - Impact

Source: Fabian Maile, using figures from real-attribution.com

5.6. Forecasting

Forecasting is a vital part of business. This is not exclusive to Affiliate Marketing, but moreover a tool for most departments in within an organisation, in order to grow. Especially, in order to develop long term strategies, it is indispensable to have a clear idea of likely future happenings. Therefore, businesses must rely on how precise they can predict future outcomes. Precise forecasting can help a business in their decision-making process, leveraging on substantial competitive advantages and avoid damages by external forces (Quasim, 2015). The same idea applies within the Affiliate Marketing sector.

The interviews clearly showed that strategic planning is one of the most important and influential tasks, an affiliate marketer has to complete. The research has also shown that strategic planning as a whole is on the one hand a task that should only be completed by humans, but can be effectively supported by delivery of relevant data and information.

In its basic concept, business forecasting is broadly categorized into qualitative and quantitative forecasting. The former is appropriate for short-term predicting, using expert judgement, while the latter is good for long-term outlooks, as it can base the forecasts on factual data. In many situations a combination of both forecasting types is applied.

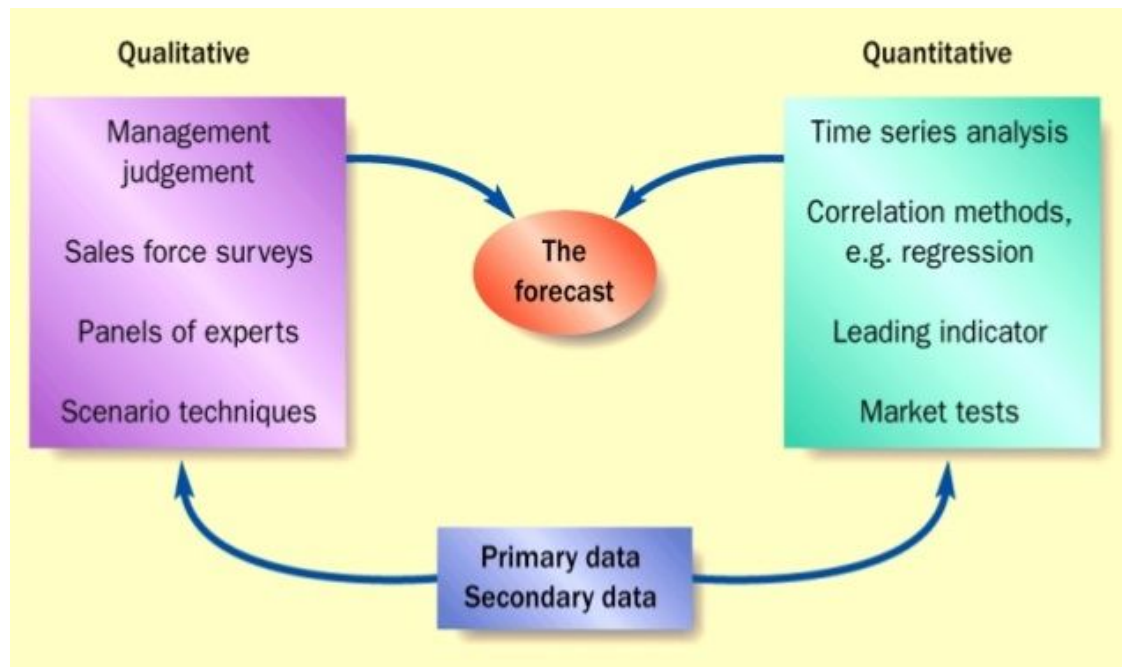


Fig. 13 Forecasting Methods
Source: Paschal Marandu

Looking at the forecasting methods that can be seen in Fig. 13, one can find several connecting points with methods this paper has explained in chapter 2.3.3..

Looking at the qualitative methods, management judgement and panels of experts (in combination with the Delhi-method), the Expert System, explained in chapter 2.3.3.1.2. comes to mind. As Expert Systems are designed to use information in the form of expert knowledge, to solve real-life problems that would usually require human intelligence (Abraham, 2005), they can very well be applied to forecasting methods, as well. This expert knowledge could furthermore be planted into the system automatically by other Artificial Intelligence methods, such as Natural Language Processing (NLP) and Machine Learning (Gentsch, 2018).

As forecasting often is a combination of qualitative and quantitative methods, and AI has the capabilities to combine its own respective methods, as well, quantitative forecasting can be handled by AI simultaneously. Especially important for business forecasting is the detection of correlation. For this, neural networks can use Regression Analysis to find patterns in a set of historical data.

Together with all available methods of AI that are relevant for forecasting, a reliable system can be designed to predict the future of the Affiliate Marketing channel.

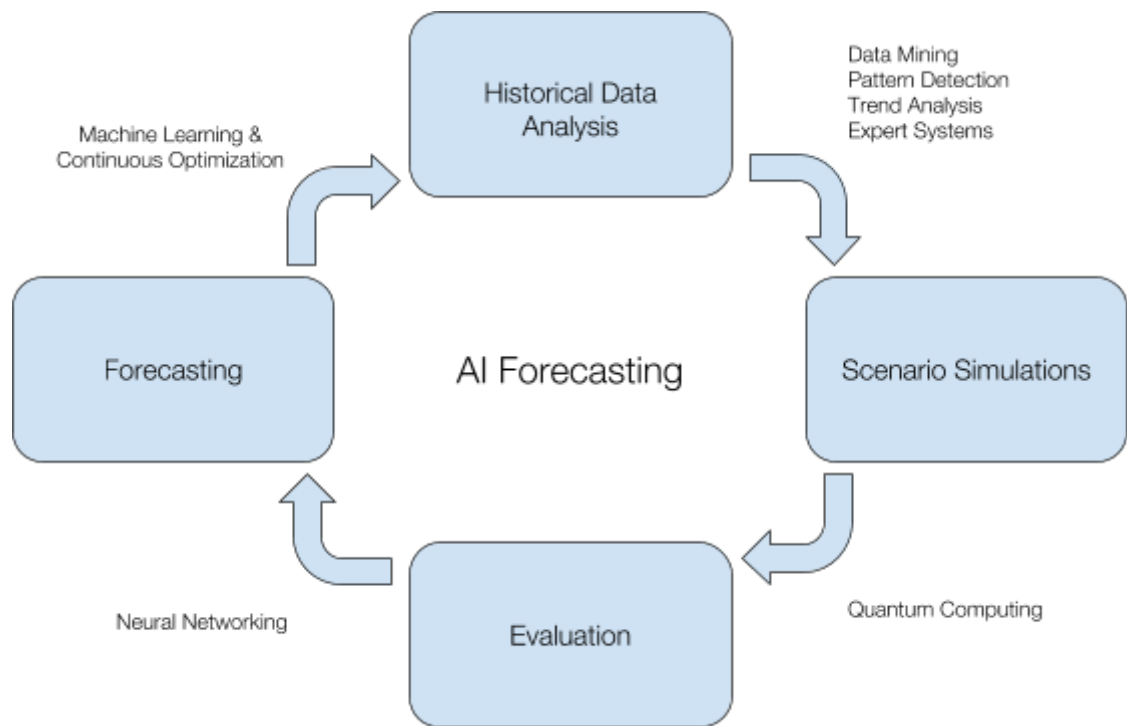


Fig. 14 AI Forecasting
Source: Fabian Maile

In this system, available data is analyzed to detect certain patterns and trends, while simultaneously using qualitative data inputs with the help of expert systems. After the analysis, the system takes into consideration various uncertainty factors and uses them in multiple scenario simulations. This can be done with the aforementioned quantum computing technology, which is capable of running highly complex simulations simultaneously, resulting in various outcomes. These outcomes are then evaluated in a way a human-brain would, by using the power of neural networking. The weighted likelihood of outcomes, can then result in a reliable prediction, even with the possibility to show precisely which actions would result in which outcomes, giving the marketer a sharpened sense of correlation.

Looking at Affiliate Marketing exclusively, such forecasting tools can be immensely helpful to the issues addressed by the interviewee. Forecasting is a powerful support in decision-making processes and strategic planning. Both are tasks, the participant mentioned would have a big influence on KPIs. Having a reliable system that can predict product demand, personalized for each affiliate partner is powerful knowledge that can help to align product offers internally weeks and months in advance. Resulting thereof,

the advertiser will become a lot more relevant to a publisher, being able to offer the right product at the right time in the right quantity for the right price.

Furthermore, intelligent forecasting systems could be a driving factor in the affiliate recruitment process. By being able to predict future behaviour of potential audiences, one could determine the overall potential regarding the possibility of a partnership and cannibalization with already existing partners.

6. GDPR in Affiliate Marketing

The EU's General Data Protection Regulation (GDPR) is considerably the most impactful change in the way companies will handle personal data since the Data Protection Act (DPA) of 1998. The regulation that came into effect on May 25th 2018, is replacing all existing laws and is designed to harmonize the regulatory change across the continent. It will affect how companies ask for the consent and legitimate interest of their customers to handle their personal data and with whom to share it. Accordingly, this gives the user more control of what personal information is being shared and who has access to this data, however also brings a lot of difficulties for marketers, who largely relied on their customer's data.

Since one of this paper's main points are the various uses of big data sets in order to optimize affiliate performance, it is particularly important to look at the effects and possible impacts on the industry. Resulting thereof, one can make a satisfactory and realistic consideration of the use of big data in Affiliate Marketing.

The impact the law will have on the industry is continuously being debated. Important to note is that a few specifics on the GDPR will still have to be confirmed by the EU, such as what particular parameters will be considered to be personal identifiers. Nonetheless, one can assume that these will include device IDs, customer numbers, cookie IDs, IP addresses, etc.

One aspect of impact will be the imminent change of distribution and dynamics of power between the parties involved. The question that will arise more than before is who is going to be the controller and who the processor of user data. Article 4 of the GDPR defines these two terms as followed:

(7) 'controller' means the natural or legal person, public authority, agency or other body which, alone or jointly with others, determines the purposes and means of the processing of personal data; where the purposes and means of such processing are determined by Union or Member State law, the controller or

the specific criteria for its nomination may be provided for by Union or Member State law;

(8) 'processor' means a natural or legal person, public authority, agency or other body which processes personal data on behalf of the controller;

This is specifically important in case of data breaches, where the data controller is the principal party to be held responsible. The affiliate networks will have to decide which role they take, publishers will need to choose what they define as consent obligations and how to secure these. Consecutively the advertisers will have to make sure that their publishers operate in compliance with the GDPR according to Article 28(1), in order to avoid risking penalties themselves. (IL17)

Adding to this, the change to GDPR will likely shift the balance of power towards the publishers, as they are the ones struggling for user consent, which sits at the main focus of the new law. First-party data is therefore becoming more valuable. Herewith, the publishers have the advantageous ability to develop trust and authority with their customers and therefore attain the much desired consent and data. With this advantage and the risk of heavy fines, publishers will inevitably be looking to limit their potential liability for the mishandling of data somewhere in the supply chain. Coupled with the fact that when asking for the consent of a user, a publisher will have to display exactly with whom this newly obtained data will be shared (Art. 13 GDPR (1)e), a reduction of advertisers could be something a lot of publishers will be keen to consider. On that same note, being part of a "trusted partners" page, could be something of desire for advertisers, eventually benefitting the publisher through creating a competitive environment. This can give publishers leverage to renegotiate commission models, as well as reviewing the industry default of last-click-payments, giving so far unrewarded pre-purchase touchpoints in the customer journey a way to get compensated for their influence. (IL18)

As to what a consent request might look like on a publisher's website, the ad blocking software company PageFair designed a prototype, including all the necessary information complying to the GDPR guidelines.

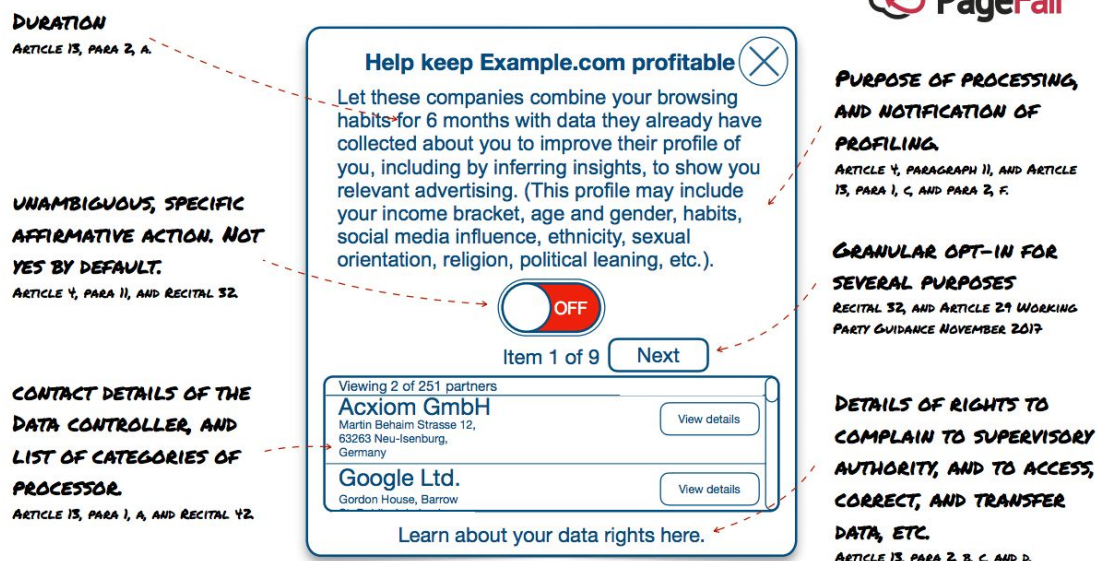


Fig. 15 Prototype GDPR Aligned Consent Request

Source: PageFair

PageFair and various other European organizations have conducted studies, researching the likelihood of a user to give consent to a request as shown above. These studies suggest that a vast majority of people will not give their consent and decline to allow the tracking of their behavior. Considering this, the industry might struggle with the way ad targeting is done. A deficient data set, resulting from less users giving consent, makes personal data no longer viable for ad targeting. Johnny Ryan from PageFair suggests to not use personal data for ad targeting anymore and instead “use targeting segments that group users in ways that can’t be employed to find an individual.” (IL19).

7. Conclusions

The main findings of this work suggest that Big Data and Artificial Intelligence can and will support the Affiliate Marketing channel in more than one way. It was discovered that Artificial Intelligence has developed a great bit since the first algorithms were created and have opened up the path way to new possibilities and opportunities in virtually every aspect of a human's modern life. Also in the world of marketing, Artificial Intelligence has entered in full force and has helped to improve many aspects of the industry. Nonetheless, it was found that not every part of marketing has gotten equal amounts of attention to be improved by Artificial Intelligence technologies. As a subcategory of online marketing, Affiliate Marketing has been chosen to be the center of this research, as there was no satisfying amount of academic research on the topic of Affiliate Marketing in combination with Artificial Intelligence. Therefore, the research question formed as following: ***Where and how can Artificial Intelligence benefit the performance of the Affiliate Marketing Channel?***

Through examination of the current and upcoming technologies in AI, as well as extraction of information from affiliate marketers themselves, this research was able to find an answer to this question. This work has discovered 6 areas of Affiliate Marketing that the study suggests to have the most impact on the performance of the entire channel with the support of Artificial Intelligence. The factors that have determined these 6 areas to be considered most impactful were work time-saving, support for decision-making, and incentivizing publishers.

The 6 areas are:

- Affiliate Recruitment
- Affiliate Management
- Product Data Feed Optimization
- Tracking
- Attribution
- Forecasting

Following the determination of areas to be supported by the use of AI technologies, each of these points were elaborately analyzed, by using a combination of information gathered from the interviews, as well as consulting further literature and internet sources, to achieve detailed insight. Derived from these insights, the researcher proposed opportunities and solutions of *how* Artificial Intelligence, in a practical sense, could drive maximum advantage to the affiliate marketer. In the cases of *Affiliate Recruitment* and *Tracking*, it was additionally possible to introduce the reader to recently developed AI software already on the market, such as the *Real Attribution* by TradeTracker.

The research results suggest that a mix of automation and intelligent algorithms can in fact (1) save the affiliate marketer a significant amount of work time, (2) support decisions to be made, by providing relevant data, as well as (3) incentivizing publishers to post more offers. Resulting thereof, the affiliate marketer can spend more of the valuable work time for tasks that require full attention by a human being, such as strategic planning and relationship building with the affiliate partners. Those significant tasks, can in return be backed by AI with relevant data and help make a more well-considered decision, than with mere humanly possible analysis would be possible.

8. Discussion & Criticism

If we go back to the basic idea that lies behind Artificial Intelligence, we find that the purpose emerges from humankind's desire to save work that could, in one way or another, be completed by themselves. Artificial Intelligence does not only offer to save work, but additionally gives the possibility to do it better than humans could, by eradicating human errors and relying solely on facts and data. The results of my research could confirm, from a limited perspective, that in Affiliate Marketing, too, AI could save work for the marketer. This happens in the form of saving work time by automation and aiding the decision-making process, by delivering relevant information. For this reason, the most findings of this research were, in its basic outcome, expected. An unexpected outcome of this research is the third advantage, which was discovered through the interviews. It was found that AI could furthermore be beneficial for the Affiliate Marketing channel, by incentivizing publishers to post more offers, which in return results in increased exposure.

Overall, I was able to detect a pattern in the findings of my research that included the use of AI, but was not limited to it. Each of the tasks discovered and examined in this work, appeared to have the general goal of either (1) getting more offers online, or (2) getting the right offers online, to appeal to the desired target audience.

However, my research could only provide a limited perspective on the research problem, due to time-restriction, superficial knowledge/understanding on the technical side of AI, and a relatively small sample size. Due to these weaknesses, I propose the following recommendations on improving any future research on the topic, whether confirming the results of this study or advancing on the findings thereof.

For improvements in this area of research, I propose to consult a deeper and more fundamental knowledge and understanding of the basics of Artificial Intelligence, in terms of practical applications, such as programming algorithms. In this research, this knowledge would have certainly been beneficial to the study, but was not necessary to gather the findings and solutions that were proposed. With practical knowledge on the technologies that were examined, I believe the proposals of this research could be implemented and tested in a real-life setting. In a proper test setting, the advantages that my results suggested, could be approved or denied.

In addition, I believe the sample size of the 2 participants that were being consulted, is not sufficient to provide a clear and complete picture of an affiliate marketers work. I would recommend to validate and confirm this researches findings with participants originating from different and diverse industries to reduce likelihood of company or industry bias.

Nonetheless, this research offers an interesting first insight into the world of Affiliate Marketing being combined with the world of AI and Big Data. Especially in regard to possibilities for the industry in the current or near future, the research shows how basic AI technologies can be applied to benefit affiliate marketers. Although not all of the right tools for the proposed solutions have been developed yet, the research showed that a lot of the technologies required do already exist and just need to be translated from similar applications to Affiliate Marketing purposes.

With further advancements on this research topic, as well as the technology that lies behind it, I undoubtedly see AI as being the main driver for a truly successful Affiliate Marketing channel. I believe, a business that implements the discussed technologies into their affiliate marketing strategy, can gain competitive advantage and reach their maximum potential.

Bibliography

- Abraham, A. (2005). *Handbook of Measuring System Design*. Chapter 130: Rule-based Expert Systems John Wiley & Sons, Ltd.
- Bereiter, C. (1991). *Implications of Connectionism for Thinking about Rules*. Educational Researcher, Vol. 20, No. 3 (Apr., 1991), pp. 10-16.
- Bystrova, E. (2015). *Affiliate Marketing Plan*. University of Helsinki.
- Camilleri, M.A. (2018). *Market Segmentation, Targeting and Positioning*. In Travel Marketing, Tourism Economics and the Airline Product (Chapter 4, pp. 69-83). Springer, Cham, Switzerland.
- Cass, S. (2010). *Multicore Processors Create Software Headache*. MIT Technology Review.
- Churchland, P., Sejnowski, T. (1990). *Neural Representation and Neural Computing*. Philosophical Perspectives, Vol. 4, Action Theory and Philosophy of Mind (1990).
- Crotty, M. (1998). *The Foundations of Social Research: Meaning and Perspectives in the Research Process*. London, Sage.
- Dreyfus, H. L. (1988). *The Socratic and Platonic basis of cognitivism*. AI and Society, 2, 99-11.
- Dvorsky, G. (2013). *How much longer before our first AI catastrophe?* Published on io9.com:
<https://io9.gizmodo.com/how-much-longer-before-our-first-ai-catastrophe-464043243>
- Fayyad, U., Piatetsky-Shapiro, G., Smyth, P. (1996). *From Data Mining to Knowledge Discovery in Databases*. AI Magazine Volume 17 Number 3 (1996).
- Gentsch, P. (2018). *Künstliche Intelligenz für Sales, Marketing und Service*. Springer Verlag.
- Gladwell, M. (2000). *The Tipping Point* Little Brown.
- Glazer, R. (2017). *Performance Partnerships: The Checkered Past, Changing Present and Exciting Future of Affiliate Marketing*. Lioncrest Publishing.
- Goertzel, B. (2007). *Human-Level Artificial General Intelligence and the Possibility of a Technological Singularity*.

- Gottfredson, L. S. (1997). *Mainstream science on intelligence: An editorial with 52 signatories, history, and bibliography*. Intelligence.
- Goodfellow, I., Bengio, Y., Courville, A. (2016). *Deep Learning*. The MIT Press.
- Gregory, R. L. and Zangwill, O. L. (1998). *The Oxford companion to the mind*. Oxford University Press.
- Gudder, S. (2003). *Quantum Computation*. The American Mathematical Monthly, Vol. 110, No. 3 (Mar., 2003).
- Han, J., Kamber, M., Pei, J. (2012). *Data Mining: Concept and Techniques*. (3rd Edition). The Morgan Kaufmann Series in Data Management Systems (Selected Titles).
- Heinzel, K. (not available). *Affiliate Marketing*. Skript Hochschule Ludwigshafen.
- Hutter, M., Legg, S. (2006). *A formal measure of machine intelligence*. In Proc. 15th Annual Machine Learning Conference of Belgium and The Netherlands.
- Hutter, M., Legg, S. (2007). *A Collection of Definitions of Intelligence*. IDSIA.
- Ji, W., Wang, X., Zhang, D. (2016). *A Probabilistic Multi-Touch Attribution Model for Online Advertising*. Proceedings of the 25th ACM International on Conference on Information and Knowledge Management. Pages 1373-1382.
- Kakulu, I.I. (2014). *Qualitative Research Strategies and Data Analysis Methods in Real Estate Research - An innovative approach using the BB Model*. Conference Paper.
- Kurzweil, R. (2005). *Singularity is near*. Viking.
- Lammenett, E. (2017). *Praxiswissen Online-Marketing*. Springer.
- Lee, R., Capano, A., Garner, C., Schneider, I., Sheppard, M., Dani, R., Beard, V., McIntyre, Z. (2016). *Affiliate Marketing Handbook*. iab. October 2016.
- Luger, G. F. (2009). *Artificial Intelligence: Structures and strategies for complex problem solving*. Pearson Education Inc.
- Manerikar, V., Manerikar, S. (2014). *A Note on Exploratory Research*. aWeshkar Vol. XVII Issue 1 March 2014 WeSchool.
- Mazurek, G., Kucia, M. (2011). *Potential of Affiliate Marketing*.
- Miller, M. (2018). *Building Minds with Patterns*.

- Petersen, D. in Theobald, E.'s (2017). *Brand Evolution: Moderne Markenführung im Digitalen Zeitalter*. Springer p. 331.
- Porche, I., Wilson, B., Johnson, E.-E., Tierney, S., Saltzman, E. (2014). *Data Flood. Chapter title: Big Data: Challenges and Opportunities*. RAND Corporation.
- Porter, W. & K., (2014). *Affiliate Marketing 101: A Start-Up Guide for the Serious Netpreneur*. Intellectua.com.
- Quasim, T. (2015). *Artificial Intelligence as a Business Forecasting and Error Handling Tool*. COMPUSOFT, An international journal of advanced computer technology, 4 (2), February-2015 (Volume-IV, Issue-II).
- Ramamoorthy, A. & Yampolskiy, R. (2018). *Beyond mad?: The race for artificial general intelligence*. ITU Journal: ICT Discoveries, Special Issue No. 1, 2 Feb. 2018
- Rumelhart, D. E. (1989). *The architecture of mind: A connectionist approach*. In M. I. Posner (Ed.), *Foundations of cognitive science* (pp. 133-159). Cambridge, MA: MIT Press.
- Sakly, S. (2016). *Toward a Dynamique Multitouch Attribution Model for Marketing*. Stage de Master 2 Informatique Apprentissage Information et Contenu. Universite Paris-Saclay.
- Scherer, M. (2016). *Regulating Artificial Intelligence Systems: Risks, Challenges, Competencies, and Strategies*. Harvard Journal of Law & Technology, Vol. 29, No. 2.
- Schroeder, R. (2018). *Social Theory after the Internet*. Chapter title: *Big Data: Shaping Knowledge, Shaping Everyday Life*. UCL Press.
- Shalev-Shwartz, S., Ben-David, S. (2014). *Understanding Machine Learning: From Theory to Algorithms*. Cambridge University Press.
- Shao, X., Li, L. (2011). *Data-driven Multi-touch Attribution Models*. San Diego, California, USA.
- Smola, A., Vishwanathan, S.V.N. (2008). *Introduction to Machine Learning*. Cambridge University Press.
- Smolensky, P. (1988). *On the Proper Treatment of Connectionism*. The Behavioural and Brain Sciences, 11, pp. 1-74.
- Swamy, K.-L. (2014). *Neural networks and statistical learning*. Springer.
- Van der Wilt, J. (2017). *Guide to Data Feed Optimization*. DataFeedWatch.

- Volkova, E. (2017). *Cross-device tracking with machine learning*. University of Oslo, Department of Informatics.
- Von der Burg, K., Schalling, D., Richter, H., Fries, J., Fischer, L., Kärner, S. (2015). *Affiliate Marketing: Ein Leitfaden für Affiliates und Merchants*. Version 2.0 Projecter Online Marketing.
- Yampolskiy, R., Fox, J. (2012). *Artificial General Intelligence and the Human Mental Model*. MIRI.
- Zimmeck, S., Li, J.S., Kim, H., Bellovin, S.M., Jebara, T., (2017). *A Privacy Analysis of Cross-device Tracking*. School of Computer Science, Carnegie Mellon University.

Internet Links (IL)

- IL1 http://hwbot.org/benchmark/cpu_frequency/halloffame (accessed 13.05.2018)
- IL2 <https://deeplearning4j.org/symbolicreasoning> (accessed 15.05.2018)
- IL3 <https://mashable.com/2011/11/08/natural-language-processing-social-media/?europe=true#VbWC8PySNqqy> (accessed 15.05.2018)
- IL4 <https://blog.algorithmia.com/introduction-natural-language-processing-nlp/> (accessed 15.05.2018)
- IL5 http://ftp.it.murdoch.edu.au/units/ICT219/Lectures/03B219Lect_Week05.pdf (accessed 15.05.2018)
- IL6 <http://blog.shareasale.com/2016/12/16/affiliate-application-rules/> (accessed 22.04.2018)
- IL7 <https://www.hallaminternet.com/which-file-format-should-you-use-for-your-google-shopping-data-feed/> (accessed 15.05.2018)
- IL8 <https://tradetracker.com/real-attribution-insights-more-than-simply-splitting-commission/> (accessed 02.07.2018)
- IL9 <https://tradetracker.com/real-attribution-insights-renewed-approach-cashback/> (accessed 02.07.2018)
- IL10 https://cdn.tradetracker.net/gb/mailling_content/InsightsCustomModel.pdf (accessed 02.07.2018)
- IL11 <https://tradetracker.com/insights-real-attribution-competition-cooperation/> (accessed 02.07.2018)
- IL12 <https://tradetracker.com/real-attribution-insights-changing-consumer-behavior/> (accessed 02.07.2018)
- IL13 <https://performancein.com/news/2018/04/17/why-consumer-propensity-should-be-focus-attribution/> (accessed 02.07.2018)
- IL14 <https://www.adroll.com/assets/pdfs/guides-and-reports/AdRoll-State-of-Marketing-Attribution-2017.pdf> (accessed 02.07.2018)
- IL15 <https://tradetracker.com/real-attribution-insights-real-attribution-vs-assisted-commissions/> (accessed 02.07.2018)
- IL16 <http://www.leadsrx.com/blogsite/marketing-attribution-going-2019-beyond/> (accessed 02.07.2018)
- IL17 <https://www.awin.com/ie/the-awin-report> (accessed 22.04.2018)
- IL18 <https://performancein.com/news/2018/05/02/gdpr-lawyers-making-case-affiliate-networks-controllers/> (accessed 02.05.2018)
- IL19 <https://martechtoday.com/consent-unworkable-programmatic-ads-era-gdpr-209358> (accessed 22.04.2018)

Appendix

Expert Interview: The Advertiser

Thank you very much for partaking in this online expert interview to qualitatively support my research in the field of Big Data and Artificial Intelligence (AI) in Affiliate Marketing. This research is targeted towards the progression and development of new technologies, tools, and opportunities, to enhance the performance of the affiliate channel by using algorithms and data extraction techniques. You were chosen as an expert in this field of research, as you are sought out to have valuable knowledge relevant to this study, representing the *advertiser*.

Please feel free to answer the questions as openly, honestly, and as extensive as possible; the more information is provided, the more quality this research will hold. If you feel uncomfortable answering a question, or do not know a sufficient answer to a question, you can leave the question blank. Subsequent to this online interview, there may be some follow-up questions for clarification purposes.

The personal information provided via this online interview will be handled discreetly and will not be forwarded to any third parties. With the aim to help the advancement of the industry, the finished version of this research will be publicly available with no traceable personal information disclosed.

For any further question regarding privacy or other issues, please feel free to email me at fabian.l.malle@gmail.com.

Question 1: *Where do you see the main advantage(s) in AI and other data-driven technology for the affiliate industry?*

- With the advancement of AI, more businesses are integrating automation into their daily operations so they can speedup repetitive tasks
- Creating and keeping good long term partnerships: automating regular contact with publishers with individualized message to increase commitment. With a lot of publisher it becomes difficult to keep a close relation with all of them, so it would be nice to motivate and reactivate them via automated messages that are

almost indistinguishable from a self-written message. Many publisher also work with a lot of advertisers, so they sometimes tend to forget who their advertisers that they are connected with are. Automated personalized messages would help to stay a top-of-mind brand with publishers.

- Leverage data to generate maximum ROI: I strongly believe that AI could offer advertiser and publishers (in a affiliate network or in a direct partnership) a deeper understanding of their current performance by supplying relevant products on a daily basis. Also offering more insights on products that have being increasing in sales throughout the networks and also trends that can be seen in the industry.
- Creating more individual messages to increase CR (this is maybe more further in the future): creating personalized messages/offers on the website of publishers, that adapt depending on which target segment is on the website.
- Alarms for publishers that perform out of the ordinary (so for example if traffic, CR or sales suddenly show a spike or a drop), so we can know who to contact and find out the causes of the irregularities

Question 2: *What are the tasks you fulfill as an affiliate marketer that take up the most time?*

(from top - most time consuming to down least time consuming)

1. Performance Analysis
2. Reporting
3. Affiliate Communication (Incentivizing publishers to post more offers)
4. Campaign planning/implementing
5. Strategic planning
6. Accounting
7. Validating sales
8. Optimizing and personalizing product feeds
9. Affiliate Recruitment (checking applicants websites for criteria)
- 10.

Question 3: *What are the tasks you fulfill as an affiliate marketer, that you would like to spend more time on?*

- Communicating with partners and strategic planning/negotiating

- Analysing current trends that can be seen among our publishers to act faster on internal action points such as creating more relevant offers
-

Question 4: *What are the tasks you fulfill as an affiliate marketer that have the most impact on KPIs?*

-
- The tasks that has the most influence on the performance of the affiliate channel is analyzing current product performances and aligning them with our publishers. Secondly I would argue is to set up relevant short term campaigns such as voucher or temporary incentives such as higher commissions or CPO agreements.
- I think finding a strategy that works for each partner specifically is on the one hand very time consuming, but on the other hand has in the bigger picture the highest impact on overall KPIs
- Last but not least, the right selection of publishers that can promote the current product range to a matching target audience.
-

Question 5: *What tasks that you fulfill as an affiliate marketer, do you think could/should be automated? Why?*

- Validating sales,,: there should an automated way for affiliate networks to identify cancellations made on the advertisers site to minimize the work effort of monthly validating manually sales
 - Analyzing data : enable publishers access to an automated analysis of the performance of certain links/offers that has been implemented on their site to increase overall the eCpC by posting only relevant offers for their community and to learn from detailed analysis of the history of sales.
 - Approving new partners: auto-approve publishers from the same industry
 - Optimizing: affiliate networks should be able to automatically adjust commissions of single links/offers connected to performance to a) encourage a publisher to promote the product at its best but also b)

minimizing the risk for advertisers. Example: a deal sells over expectations, automatically the commission increases, a deal is not selling only a few times, the commission gets automatically lowered.

Question 6: *What are tasks that you think could not be fulfilled by an AI, but only by a human?*

- Communication, strategy (but AI could give suggestions to evaluate)
- Complex contract negotiations should be done face to face to avoid miscommunication
- Complaints should always be taken seriously and handled by a real person
-

Question 7: *Where could AI support you in your decision-making?*

-
- Concrete analysis of partner portfolio and their advantages on performance especially in terms of seasonality and categories
- Taking overall trends also of competitors in account of and implement solutions directly into the communication with the publishers
- AI could help setting a relevant focus for affiliate marketers to maximize their time spent with the affiliates

Question 8: *In what other parts could AI or other data-driven technology support your work? (not necessarily task-related)*

- Dynamic Attribution (e.g. TradeTracker's real attribution), we are now just starting to see from various networks trying to go from last click payments to dynamic attribution models, which I think is the right way to go to get a more complete influence on the customer journey by incentivizing all publishers to increase their effort, especially influential bloggers (although typical high-volume last click converters like voucher sites might lose a lot of their revenue and because of that the motivation to promote our products actively)
- A lot still is lost in the cyberspace when it comes to tracking customers. We need a way to really retrace a single customer's entire touchpoints, even across devices to ensure a complete customer life cycle observation and a fair compensation for publishers

- Forecasting, since a lot of the forecasting is done by individual people, which leaves room for emotional error, often being too optimistic or too pessimistic. With a reliable algorithm the forecasting could become more realistic and targets can be set with reachable expectations

Question 9: *How do you think AI could improve the consumer experience from an advertiser's perspective?*

-
- So far with the technology we are working today in the field of affiliates, the impact of AI on customers is not clear yet. I see a lot of improvements in the relationship between advertiser and publisher. Internally processes can be speed up with AI and publishers are able to be supplied with more relevant products for their target group, which can lead to a better selection of products. The only way I see it now, is that we can provide more relevant products in a faster and more efficient way that influences the customer happiness due to more relevancy.

Question 10: *As an advertiser, what characteristics of a publisher do you look at, when deciding who to accept in your affiliate program?*

- Customer base, language(s), design, professionalism, competition of other advertisers on the website, traffic, brand positioning, campaign potential

Anything you want to add on the topic?

Any recommendations?

Expert Interview Transcription:

Q1:

The advantages I see... Definitely in pushing a bunch of offers to the affiliate network via feeds. Because based on our internal data, the API is set so you can basically ... auf deutsch? Man kann einfach die Daten extrahieren die der Partner haben will. Das heisst, man hat ein lebendiges Sheet, in dem man sieht... man kann Filtern mit Bestsellern, man kann filtern nach Angeboten unter 200€, man kann filtern nach "welche Angebote sind neu?". Dementsprechend hat der Affiliate Partner praktisch viel mehr Möglichkeiten selbst gezielt nach Angeboten zu suchen. Er sieht das ganze Spektrum, er kann aber auch selber extrahieren, was für den Publisher wichtig ist. Gerade durch API wird auch das ganze Tracking gesteuert, dass man sieht was TB für den Publisher zu bieten hat. Für uns als Affiliate Marketeer ist AI natürlich wichtig, um die Daten zu bekommen, die für unsere Target Group wichtig ist, aber auch die unser publisher haben will. Aufgrund von AI kann man zielgenau schauen was ist die Conversion Rate, was ist der AOV, an welchen Punkten sollten wir vielleicht zusammen kommen, was kann ich jetzt nicht pushen. Man kann durch AI mit mehreren Publishern direkt in Kontakt treten, man muss nicht den manuellen und persönlichen Kontakt suchen, nur wenn man etwas highlighten will #00:02:43-7#

Ja das man halt einfach Dinge, die basierend auf unterschiedlichen KPIs sind vor Ort hat. Ich gehe sehr stark auf Feeds ein, weil das bei unserem Day-to-Day Business das Tool ist, das uns gerade so ein bisschen über Wasser hält. Dadurch, dass wir vielleicht gerade auch nicht so viele Affiliate marketeers haben die täglich Angebote pushen, ist das eine Möglichkeit um den Informationsfluss einfach zu garantieren. Wenn man weitere Details braucht kann man einfach mit AI filtern. #00:03:29-5#

Interviewer: Werden die Feeds denn personalisiert für jeden Publisher einzeln erstellt, oder gibt es einen Feed für alle? #00:03:45-3#

Nein, wir haben einen Feed für alle Publisher erstellt, in dem wir die KPIs gesetzt haben, z.B. Bestseller, basierend auf Net Rev der letzten 2 Wochen, dann kann man den Startpreis filtern, also ab 200€ ab, 100€, oder unter 100€, aber auch mit oder ohne Flug, also dass wir mit nur einem Feed möglichst viele Fragen des Publishers

beantworten oder die gezielte Suche vereinfachen können. Natürlich könnten wir für jeden Publisher einen anderen Feed machen, aber dadurch, dass wir nur ein Portfolio haben, dass auf diesen KPIs basiert, das sind halt die Metrics, die man in Betracht zieht. Wenn man etwas für das Portfolio, für den Push sucht, dann sehe ich auch keine Notwendigkeit mehrere Feeds zu erstellen. #00:04:58-8#

Interviewer: Gibt es einen Wunsch von dir, was man an den Feeds noch verbessern könnte? #00:05:00-0#

Ja, die Feeds sind sehr zahlenorientiert. D.h. wenn ich ein Angebot habe, welches Extraleistungen inkludiert, wie ein 3-Gänge-Menü im Restaurant nebenan, dann kann der Feed das nicht transportieren. Man sieht dann nur den Startpreis. Man sieht wie lange es online ist, wie gut es konvertiert ist, aber die Details oder USPs highlighted ein Feed noch nicht.

Q2:

What are the tasks you fulfill as an affiliate marketer that take up the most time? #00:00:08-6#

Das zeitaufwendigste ist die Performance Analyse. Zu sehen, welcher Publisher ist gerade am performen oder under-performen, welche Angebote werden über welche Publisher gebucht und was fehlt vielleicht noch im portfolio, also wirklich Mikroanalyse zu machen. #00:00:37-4#

Das Zweite ist das interne Problem, dass man reporten muss. D.h. wir haben intern in TB die PPPs bspw., die sehr zeitaufwendig sind. Dann kommen Fragen von anderen Departments, warum performt die Sourcing Cell unter, dann muss man auf Analyse gehen. #00:00:55-5#

Das Dritte ist die Deals zu suchen, weil nicht nur die Feeds reichen aus, sondern man muss auch schauen, welcher Deal für welchen Publisher geeignet ist. Das finde ich persönlich sehr sehr zeitaufwendig. #00:01:15-5#

Dann operationelle Dinge, wie Sales approven, finde ich sehr zeitaufwendig.

#00:01:24-5#

pause #00:01:25-9#

Man müsste eigentlich über das Netzwerk etwas geben, was die Sales approved, die bei uns im CMS drin sind, da besteht noch keine Connection. #00:01:47-7#

Und ein weiterer Punkt ist die Suche nach neuen Publishern, also die die passend sind. Man muss schauen, "ist das die Target Group?", "ist das die Reichweite?", was praktisch hinter einem Affiliate Partner steht. Wir wollen neue Möglichkeiten entdecken. #00:02:12-5#

Dann natürlich - das würde ich glaube ich noch vor die Suche stellen, sorry - die Fragen des Publisher. Dadurch, dass wir gerade im DACH-Bereich eine 1-on-1 Kommunikation pflegen, kommen sehr viele Rückfragen. "Habt ihr das?", "Was ist mit dem und dem?" ... Die Highlights, die USPs highlighten, die wir von den CM einfach nicht bekommen. #00:02:38-5#

Interviewer: Also nehmen die Feeds euch doch nicht ganz die Arbeit ab Deals zu suchen? #00:03:04-1#

Also, sie fragen nicht direkt nach Deals. Das kommt sehr selten vor, sondern eher dass wir von TB Seite aktiv Offers highlighten, die im Feed zu sehen sind, die man aber nicht als solche sehen kann, dass das potentielle Bestseller wären. Natürlich kennt der Publisher sich aus in seinem Bereich, aber nicht so genau, wo wir aber sehen, das ist ein Bestseller von letztem Jahr, das performt, oder das ist vergleichsweise mit dem Bestseller von letztem Jahr, das hat eine super Location, zentral. USPs werden nicht von einem Feed getragen, deshalb suchen wir als Marketeer die Kommunikation. Zu unseren Partnern zu sagen "Hey, das ist wichtig für euch, super Hotel, super Bewertung, wir haben gerade nochmal einen Discount bekommen bis zum 31.10.", dass wir für unseren Partner auch direkt noch einmal filtern können, was am Wichtigsten ist.

Q3:

What are the tasks as an Affiliate marketer that you would like to spend more time on?

#00:00:07-5#

Ich persönlich würde mehr Zeit in strategische Planung investieren. Dadurch, dass man sehr viel Zeit damit verbringt, die Offer, die wir intern highlighten, versuchen an den Mann zu bringen, geht das Strategische ein wenig verloren. Wir haben zwar Kampagnen die wir aufsetzen, aber das gilt dann nicht für den Affiliate Channel. Wenn wir von TB eine Kampagne haben, Citytrips beispielsweise, dann kann ich das einmal kommunizieren, einen Banner machen, aber die Execution fehlt. Was ich gerne machen würde als Affiliate Marketeer, "ok, wo sehe ich Potential?", ich verhandle mit meinem Publisher, "wenn ich euch einen Commission-Increase von 2% gebe, was bekomme ich dafür eigentlich?", "Macht das sinn?", "was braucht ihr dafür?". Dass man halt tatsächlich auf den Publisher eingeht, aber auch auf das Portfolio von TB. Dass einfach mehr strategisch und Longterm geplant wird. Da würde ich gerne mehr Zeit investieren, habe aber keine Zeit dafür. #00:01:17-6#

Ein anderer Teil ist die persönliche Kommunikation. Ich denke gerade im partnership wo wir sehr viele Key Accounts haben, ist die persönliche Vorstellung, dass man einfach vor Ort ist, dass man einmal nach Dutschland fliegt, man alle Publisher einmal abklappert, sagt das bin ich, das sind meine Vorstellungen. Abcheckt, was lief gut, was lief schlecht, habt ihr irgendwelche Präferenzen, dass man auch eine persönliche Präferenz von dem Publisher bekommt. Am Ende sind es auch Menschen die Angebote pushen und wenn dort schon anfangs keine Connection besteht, also ich rede jetzt nur von Key Accounts, man kann natürlich nicht mit jedem Piubliusher ein Bierchen trinken - aber ja, dass man halt die Empathie der Partner sucht. #00:02:20-2#

Also du würdest gern auch mehr Zeit für Relationship Management verwenden?

#00:02:27-6#

Also teils, teils. Der dritte Punkt, den ich anführen würde, ist der Target Match. Wenn ich jetzt tatsächlich einen potentiellen Partner habe, fragen, "Hey was verkauft sich bei euch gut? Wo seht ihr euch in der Zukunft? Wo können wir noch eine Kampagne zusammen planen?" Dass man einen Kampagnen Kalender mit einem Partner hat, der eigentlich genau die gleiche Zielgruppe hat, aber unter performt. Was kann man da noch dran setzen? Dass man die Daten nimmt vom Publisher, das is A) schwierig zu bekommen

und B) braucht man dafür auch eine Relation, weil keiner gibt gerne Daten heraus und C) ist das auch sehr zeitaufwendig. Um sich gut zu platzieren auf dem Markt, sehe ich da auch großes Potential, wenn man einen kleinen Match macht, einen Business Case aufstellt, "Wo sind wir? Wo stehen wir? In welche Richtung können wir gehen?"

Q4:

What are the tasks you fulfill as an affiliate marketer that have the most impact on KPIs? #00:00:07-5#

KPIs können unterschiedliche Dinge sein. Das können Sessions sein, Net Rev, Average Arder Session, Offer, New Users.

Wenn ich da bspw. von New Sessions oder von Sessions generell spreche, dann hat es das meiste an Impact, wenn ich so viele Publisher wie möglich erreiche. Also wenn ich einen Newsletter mache, wenn ich alle Publisher die most impactful sind persönlich anschreibe: "Könnt ihr bitte 5 weitere deals mit aufnehmen, weil die so und so performen?". Also most impactful ist die Kommunikation zu Allen zu suchen.

#00:00:54-7#

Ein anderer Impact auf Sessions kann aber auch sein, dass man die Commission "upraised". D.h. jeder bekommt 2% mehr, die Publisher finden dadurch TB attraktiver, highlighten uns eher höher, weil sie die hoehere Kommission haben wollen und dadurch bekommen wir mehr Sessions. Es ist also ein Zusammenspiel von dem Portfolio, Kommunikation und Commission, die daraus basiert. #00:01:22-1#

Wenn ich jetzt bspw auf Net Rev gehe, dann schaue ich mir Deals an. Net Rev generiere ich am meisten über Long Haul Deals. Dann schaue ich mir an, wer kann am besten Long Haul spielen und bin hinterher, dass sie diesen Deal dann auch aufnehmen, also Negotiation. "Hey, habt ihr Lust unsere 3 Thailand Deals zu spielen, da haben wir eine Commission von 10%, unsere Marge ist 15% und die AOV ist bei 2500€. Natuerlich ist das dann der Net Rev Driver. #00:02:00-9#

Wenn ich jetzt auf Orders gehe, schaue ich, dass ich auf Publisher gehe, die einen AOV von so 100€ haben und dann schaue ich, dass ich das Portfolio von unseren Wellness Deals ausspiele, weil ich weiss, die haben eine hohe Conversion. #00:02:33-0#

Wenn ich jetzt sage "Ich will New Users", dann muss ich schauen, "Woher kommen unsere Sessions?", "Wo können wir uns verbessern?". Wenn ich sehe, über die Urlaubshamster kommt nicht so viel rein, dann gehe ich zu ihnen und suche das Gespräch. "Hey, habt ihr Lust eine Kampagne zu machen?", "Sollen wir noch einen Voucher einstellen für neue User?". Man kann intern auch recht Vieles machen. Man kann schauen, dass man neue Partnerships findet, die Travel-related sind, aber auch out-of-the-box, die einfach nur kultur-interessiert sind oder buecher-interessiert sind, so dass wir auf die Suche nach neuen Publishern gehen. #00:03:16-3#

Wenn ich sage, "Ich will die Average Order Session erweitern", so dass die Duration länger ist, dann suche ich diejenigen Angebote aus, die A) komplex sind, B) vielleicht auch noch ein Video implementiert haben und keine Couponseiten mit einspielt, weil Couponseiten sind meistens diejenigen, die den Last Click klauen und sagen "Ok, bei TB habe ich das schon gesehen, es gibt mega gute, attraktive Angebote. Ich will aber noch ein bisschen was sparen und gehe über Couponation und hole mir noch einen 100€ Voucher." Damit erweitere ich aber nicht meine Average Order Duration, weil der Kunde schon den Deal kennt, den er eigentlich kaufen möchte.

Q5

What tasks that you fulfill as an Affiliate marketer do you think should be automated and why? #00:00:09-1#

Als Erstes, die Sales Approvals. Weil wir über die netzwerke sehr viele Sales reinbekommen und das approven davon ist ein Task, der A) sehr stupide ist und B) leicht automatisiert werden kann, weil man ja auch die Stornos einfach in unserem CMS sehen kann. #00:00:31-5#

Ein weiterer Punkt, der automatisiert werden könnte ist für mich, dass man eine Email aussendet an alle Publisher. Wenn man nur den Link hat, eine Message sendet, dass man ein neues Template hat. Wir arbeiten jetzt mit Awin und Affilinet zusammen und beide haben keinen Newsletter-Standard der einfach easy peasy ausgefüllt werden kann und der an alle weitergeleitet werden kann. Das ist einfach eine Möglichkeit für die Publisher, um die richtigen Angebote zu finden. #00:01:15-9#

Dann, automatisieren koennte man auch die Suche nach Affiliates. Es gibt bisher noch kein Tool, von dem ich wuesste, bei dem ich die Target Group eingeben kann und das mir dann ausspuckt, "Dieser partner koennte eigentlich für dich passen." Jede Company hat ja ein Profil, jeder hat demographische Daten und jeder hat eine Praeferenz. Ich meine, man muss ja nicht alles preisgeben, aber wenn es tatsaechlich ein Tool geben wuerde, zu sagen: "Ich will Frauen, Anfang 30, die gerne kulturelle Dinge haben und bereit sind ein bisschen mehr dafür auszugeben. Ich haette gerne die Publisher dafuer." Das kann in jedem Bereich sein, das muss ja nicht im Reisesektor sein, sondern einfach dass man dadurch die Suche vereinfacht. #00:02:22-1#

(Pause)

Es fällt mir jetzt nichts zum Internal Reporting ein, ich wünschte da gäbe es etwas.
(lacht) #00:02:33-3#

Automatisiert werden koennte noch ein Alternativangebot, also beispielsweise sieht man "Hey, das waren die Bestseller des letzten Jahres, aber wenn davon 90% nicht mehr online sind, haben wir denn andere, ähnliche Angebote?" D.h., dass man irgendwie tagged "Das gehört in die Kategorie XYZ und ist vergleichbar mit einem anderen Angebot." Das würde mir die Suche stark vereinfachen.

Q6

What are the tasks that you think could not be fulfilled by AI, but only by humans
#00:00:10-3#

Der personliche Kontakt. Die Empathie, die von einer Person zu einer anderen Person ausgeht bei einem Gespräch, bei der ersten Introduction, die kann man tatsaechlich nicht durch Feeds ersetzen. Wenn ich ein gutes Portfolio habe, dann möchte ich das gerne persönlich an den Mann bringen, sagen "Das ist unsere Vision. Da wollen wir hin. Das haben wir schon online. Dafür steht TB." Diese Introduction kann AI einfach nicht übernehmen, da fehlt die Empathie, die Emotion, aber auch die Energie, die von mir ausgeht. Eine Salesperson kann auch nichts mit einer Roboterstimme erreichen, man braucht einfach den Austausch. #00:01:02-2#

Gerade im Akquirieren von neuen Partnern, aber auch zu bestehenden Publishern muss die Frage gegeben sein, "Hey, kannst du mir die Angebote, die bei euch letztes Jahr gut funktioniert haben einfach nochmal schicken?" und dann setze ich als Account Manager nochmal die USP's, was ist daran gut, damit ich sichergehen kann, dass mein Publisher das auch aufnimmt. Ich meine, eine einfache Datenweiterleitung bringt auch meinem Publisher nichts, sondern ich kann sagen, "Hey, letztes Jahr hatten wir eine Promotion, bis zu 30% auf den Deal, das Hotel wurde gut angenommen, der NPS Score ist super hoch.", oder einfach highlighten von unterschiedlichen Angeboten, die man allein aus einem Feed nicht herauslesen kann. #00:02:03-3#

Dann die Nachfrage von dem Deal selbst, weil manchmal erschließt sich nicht alles aus unserem Kontext, so dass man wieder nachfragen muss, so "Hey, eigentlich verstehe ich gerade nicht wie man dieses Ticket bekommt." und dann kann ich zu der zuständigen Person gehen und einfach sagen, "Hey, wie sieht das aus?". Wenn ein Bug ist oder wenn der Partner sagt der Preis ist zu hoch, vielleicht können wir da noch irgendetwas angleichen. Dann liegt es an mir, ob ich das mache oder nicht. Ein Computer kann nicht das erreichen, was ich als Person, mit meiner Intention machen würde. #00:02:55-4#

Dann kann ein AI nicht ersetzen, was ich im Zuge auf Intuition mache. D.h. ich sehe ein Angebot, nicht alles wird kommuniziert durch den Category Manager, sondern ich filter selber, schaue ok, das ist das Portfolio von meinem Publisher, sehe er hat noch nicht Marokko für 400€ online, dann suche ich spezifisch nach einem Angebot, dass zu diesem Partner passt. Ich kenne einfach alle meine Partner, oder zumindest die Key Accounts, kenne deren Portfolio und ich kenne unser Portfolio, d.h. ich gleiche ab und argumentiere auch, "Hey, ich habe gesehen ihr habt keinen Abu Dhabi Deal. Das verkauft sich gerade gut bei uns, zu dem-und-dem Preis", oder "Könnt ihr nochmal den Harry Potter Deal spielen? Das habt ihr seit 3 Wochen nicht gemacht". Ein AI würde einfach nur einen Reminder setzen, aber es kommt ja auch auf das Timing an, es kommt auf die Beziehung an, die man mit dem Publisher pflegt. #00:04:00-9#

Dann kann AI auch nicht ersetzen, das interne Reporting. Also d.h. wo sind die Blocker, warum erreiche ich mein Target nicht. AI würde sehen, ok, Bestseller sind nicht online, hier sind wir vielleicht 30€ teurer als im letzten Jahr. Aber woran hängt es denn im Endeffekt? Ist es weil Sourcing nicht stattgefunden hat? Hat der Publisher schon andere

Angebote? Gibt es eine andere Online Travel Agency, die schneller waren? Haben die gerade eine andere Promotion offen? Es sind viele Aspekte, bei denen ich nicht sehe, dass man das mit AI lösen könnte. #00:04:50-6#

Ein weiterer Aspekt ist die interne Kommunikation, der Kampagnenfokus, der Fokus von TB. D.h. wenn wir sagen, wir kürzen das Portfolio um 60% bei Wellnessangeboten, dann muss ich sagen, "Ok, ich muss das ausgleichen mit Long Haul beispielsweise. Welche Long Haul Produkte klappen denn. Das ist halt dieses Feingefühl, dass man einfach nicht durch ein paar Zahlen rausziehen kann.

Ganz entscheidend ist auch das Verhandeln mit dem Partner. Warum, wieso, weshalb, oder auf welche Commission Basis einigen wir uns ganz am Anfang? Das ist ganz entscheidend. Das kann auf jeden Fall ein Affiliate Partner, der sich nicht mit unserem Standard zufrieden gibt, den ich aber trotzdem an Bord haben will, den muss ich dann anders überzeugen. TB steht dafür dass man die gleiche Target Group hat. Wir haben eine hohe Conversion Rate. Wir haben die Möglichkeit andere Channels zu akquirieren, und so weiter und so fort. Was auf Commission basiert, klar, am Ende schaut jeder auf das Geld, aber am Ende geht es darum welche Extraleistungen kann man anbieten und das kann man nicht automatisieren.

Q7:

Where could AI support you in your decision making? #00:00:06-2#

Also als Affiliate marketer, gerade wenn es um die Fragen geht wie viel Commission wir bezahlen, basieren wir alles auf einen Business Case. In der Business Case sind konkrete Daten, also wie groß ist die Reichweite, wie hoch ist der AOV, was können wir generieren, wenn wir uns mit dem-und-dem platzieren, d.h. die Entscheidung ist definitiv Daten basiert, weil wir natürlich auch keinen negativen Impact haben wollen. Wir wollen immer ROAS positiv bleiben. Um das zu bewerkstelligen, müssen wir definitiv auf Filter oder AI Daten zurückgreifen die sagen, "Ok, das ist die Target Group. Das ist die Reichweite. Wir gehen davon aus, dass die Conversion Rate aufgrund der Metrics so-und-so aussieht." Wir wollen halt keinen Verlust machen. #00:01:02-1#

Unterstützen tut mich AI auch in meiner Auswahl von Bestsellern. Unsere ganze Arbeit ist Performance basiert und wenn ich mich nicht auf die Daten stützen kann, die mir

gegeben werden - also, bekomme ich genug Sessions, bekomme ich genug Net Rev - entscheide ich auch was priorisiert wird. Wenn ich ein Angebot habe und weiss ,ok, ich habe jetzt einen Shot um das Angebot noch einmal besser zu verkaufen, dann gehe ich zu meinem best-performing Partner. Den best-performing Partner bekomme ich nur heraus, wenn ich die Informationen bekomme von AI. Oder auch, wie deren Analyse aussieht über Similarweb, et cetera. Ich muss mehrere Indikatoren hinzuziehen um zu sehen, was ist das für ein Publisher, wo geht es hin? Und darauf basierend entscheide ich welches Angebot kommt, welche Commission ich zahlen kann, ob wir eine Kampagne starten können, kann ich denen einen Voucher geben, oder ist die AOV so niedrig, dass ich bei einem 20€ voucher keine Net Rev mehr bekomme.

Q8

Attribution Model, wie halt AI Affiliate Marketing vereinfacht oder erschwert... Was ich von Attribution Models halte ist, dass wir zu sehr auf Last Click fokussiert sind. Man muss tatsächlich, wie es in der Customer Journey erwiesen ist, alle Channels, alle Touchpoints, mit einbeziehen. Aber aufgrund unseres Trackings, dadurch dass wir nur utm Tracking basiert arbeiten, sind wir Last Click fokussiert. Was natürlich unseren Anteil erschwert. Affiliate Marketing kann der erste Touchpoint sein, weil Kunden, die reisen möchten, gehen natürlich auf Webseiten die die meisten Angebote haben. Das sind dann unsere Affiliate Partner, wie Urlaubsguru, Urlaubspiraten, et cetera. Die (Kunden) sehen auch, "Das gefällt mir eigentlich. Passt ganz gut. Schicke ich meinem Freund.", und der nächste Touchpoint ist, dass man Travelbird, Malta beispielsweise eingibt. Dann wird schon SEA belohnt. Und da geht ja quasi mein Anteil, indem ich versucht habe meinem Publisher davon zu überzeugen "Das ist ein Malta Deal der gut passt", geht verloren. Und ich finde jedes Unternehmen sollte nach einem gewissen DDA Modell handeln, weil man auf der anderen Seite auch die Downside davon sieht von den ganzen Couponseiten, die den Last Click klauen. Die haben beispielsweise über TB, über den Newsletter gesehen, es gibt eine coole Reise nach Marrakesch, wissen aber dass wir mit Couponation zusammenarbeiten und aufgrund dessen wird der Last Click über Affiliates angerechnet, was ja quasi negative Impact ist für die eigentliche Retention Rate oder den Impact auf die Zukunftsstrategie der ganzen Company. Also man kann es in einem guten und in einem negativen Aspekt sehen. #00:02:29-4#

DDA Modell sollte auch in den Netzwerken stattfinden. Awin hat das neu ausgearbeitet, aber wenn man tatsächlich auf Last Click Basis zusammengearbeitet hat, ist der

Publisher wahrscheinlich nicht bereit einen Anteil, von dem was er eigentlich vorher verdient hat, an einen anderen Publisher abzutreten. Im Gegenzug könnte aber auch der eine Publisher dem anderen Publisher zuschreiben. Allerdings geht es im Endeffekt immer um die Kommission, es geht immer darum wieviel man verdient und dementsprechend ist natürlich eine Änderung im Last Click Bereich, und man tatsächlich 100% nachweisen kann, der Cookie kam von dem-und-dem Publisher.

#00:03:16-3#

Glaubst du Publisher würden tatsächlich weniger Commission bekommen? Selbst Last Click starke Publisher sind ja dennoch Teil der gesamten Customer Journey und könnten sich durch Multi-Touch-Models motiviert fühlen mehr zu inspirieren, um auch bei Assists Commission zu bekommen. #00:04:07-1#

Ja, du hast schon Recht. Im einen, dass man auf jeden fall bei der Inspirationsentscheidung eine grosse Rolle spielt, aber man muss das so sehen wie die Gesellschaft an sich. Änderungen sind schwierig, man weiß nicht was der Impact ist, man müsste also eine Testphase machen und zeigen, wie viele Partner sind eigentlich an einer Kaufentscheidung beteiligt. Dann ist die Frage entscheidend, stimmt das Tracking? Man muss wirklich Vertrauen haben in dem was das Netzwerk macht, was wir von TB machen. Ich glaube da liegt ein großer Knackpunkt. Dann muss man das richtige DDA Modell berechnen. Ich glaube, solange der Publisher nicht weiss, wie viele Klicks, oder was die Möglichkeiten sind, wird es eher eine negative Haltung dazu sein. Generell, intern von TB, halte ich sehr viel von einem DDA Modell. Aber im Bezug auf meine Publisher kann es auch sein, dass sich TB dann in das eigene Fleisch schneidet, weil auch wir nicht wissen wieviel wir eigentlich abgeben. Wenn es sich jetzt um 0,05% Commission handelt, ist das ja vertretbar. Klar, es geht auch um Geld, aber wenn wir auf die 5% Basis eingehen bei einem Holidayguru Partner, sagen wir mal, dann kann es bei einem Long Haul Deal schon so um die 200-300€ sein, die ich on-top ausbe und das wird halt, nur Channel-fokussiert, mich nicht als Marketeer vorantreiben.

Q9

Wie selektiere ich meine Publisher? #00:00:04-2#

Ich schaue A) auf die Webseite an sich. Wenn das ein creepy Shop ist von 2000, kann ich im Sinne von Branding, von TB, nicht gewährleisten, dass wir uns als Partner mit solchen Publishern zufrieden geben, dass wir dort präsent sind. #00:00:31-8#

Dann, welche Angebote gibt es generell auf der Webseite? Wenn nur Kuechengeräte verkauft werden, sehe ich keinen Mehrwert darin uns dort zu platzieren. Wir sind einfach fehl am Platz und es würde nicht unserem Image zu spielen. #00:00:48-2#

Dann, wenn es eine Familien-gebundene Webseite ist, passt das nicht in unsere Target Group, weil wir uns auf 2 Personen, also Paare, spezialisiert haben. #00:01:02-6#

Wenn der Partner zu viel Kommission haben will, dann passt das auch nicht in unser Portfolio, weil ich sehen will, dass ich wachse und mindestens ROAS positiv sein muss. #00:01:15-9#

Ein anderes Ausschlusskriterium ist die Vermarktung. Wenn ich sehe der Publisher macht keine GDPR-aligned Kampagnen, oder Inhalte, die sexuell anrühend sind. Alles was nicht in unsere Brand mit reinspielt sehe ich nicht als potentiellen Partner. Es muss halt ein Fit da sein, von der Zielgruppe hin, bis zum Produkt selbst, das man anbietet. #00:01:50-4#

Interviewer: Ich würde das nochmal kurz recappen. So dass ich das auch richtig verstanden habe, würde ich das nochmal gerne in anderen Worten wiedergeben. Also zum Einen schaust du auf die Professionalität der Webseite. Dann schaust du auf das Portfolio, was auf der Webseite angeboten wird, was auf der Webseite vorhanden ist, was für ein Segment sie spielen. Dann die Target Group, die Customer Base, ob sie vereinbar ist mit eurer Target Group. Dann zum anderen noch, Commission. Wieviel bleibt für euch am Ende übrig. Wieviel müsst ihr dafür zahlen, dass die Publisher das Produkt für euch vermarkten. Dann noch die Brand an sich. Du hast von der Vermarktung gesprochen. Verstehe ich das richtig, dass du hier von der Brand redes? Dass die Brand Image der Webseite mit eurem Brand Image matched? #00:02:49-4#

Ja, genau. Tatsächlich haben wir gewisse Vorgaben von unserem Brand Department. Aber auch wofür wir stehen, wie ich vorher schon angesprochen habe, wenn man eine Kampagne sieht, die mit sexuell anrühenden Worten Leute akquiriert, die Wörter nutzen

oder Visuals benutzen, die wir als authentisches Reiseunternehmen einfach nicht unterstützen können, würde ich das ablehnen. Brand Alignment ist auch, keine Seniorenreisen anzubieten, oder dass man auf coole Partnerships eingeht. Also nicht mit dem Dönerladen um die Ecke, von dem wir A) kein Target Group Fit sehen, kein AOV, kein gar nichts. Aber auch, dass die Marke, mit der wir in Verbindung stehen, jeder Auftritt online ist ja quasi auch ein Statement, dass wir sagen koennen "Wir stehen hinter unserem Partner." #00:04:08-5#

Also schaut ihr euch auch Reviews von anderen Webseiten an? Ob sie als "cool" angesehen werden? #00:04:22-0#

Ja, in den meisten Fällen kennt man die Brand. Was wird verkauft, was wird gemacht, grosse oder kleine Brand. Mit Sicherheit spielt da die Bewertung eine Rolle. Aber auch wenn wir sehen dass beispielsweise nur 2 Sessions am Tag reinkommen, dann kann die Webseite noch so schön sein, man muss sich dann denken, wer steckt im Endeffekt dahinter. Also das ganze Konzept muss halt stimmen.