



Casual Learning within TikTok

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	ABSTRACT
2022 Research Leap/Inovatus Services Ltd. All rights reserved. DOI: 10.18775/jibrm.1849-8558.2015.73.3001 URL: https://doi.org/10.18775/jibrm.1849-8558.2015.73.3001	The field of social networks on the Internet is subject to a now slower, but still constant change. In the current market, TikTok has become a serious medium in the field of social networks. Like any social network, TikTok can work as a learning platform. This paper first briefly introduces the development and functions of TikTok to provide a basis for understanding the network. Within this paper, the focus in the content of TikTok is set on the field of Learning Nuggets and Casual Learning. TikTok itself is very suitable for short learning videos, as the network focuses on video content on the one hand and only allows short videos on the other. In the area of Learning Nuggets, practical examples are briefly present with which learning content can be successful conveyed in German-speaking countries. The article concludes with a recommendation on how companies can use TikTok for corporate communications in the context of Learning Nuggets, as well as a conclusion that briefly reflects on the article.
Keywords: <i>TikTok, Social Media Marketing, Casual Learning, Learning Nuggets</i>	

1. Introduction

In the field of social media, the digital environment is constantly changing, as can be seen from the huge number of applications and networks in this area on the Internet. However, it is rare for them to achieve large reaches quickly. On the one hand, this may be due to the general increase in regulation of social networks on the Internet and the Internet itself, and on the other hand, it has become more difficult to reach Internet users from a marketing perspective in view of the existing extensive range of content on the Net. Having long been a serious candidate for new global product placement, SnapChat is now overtaken by the network TikTok and it seems that TikTok might become a new social network star or leading social network platform.

Social networks are suited for learning or better casual learning because people can come together here and pursue their interests. With this, Social Networks are a learning medium itself. In casual learning, a person learns by chance or because he or she is interested in a topic. It happens in passing. Short texts or short videos are usable as learning content. In this article, we will focus on the area of video learning nuggets (short learning videos), since this content is predestined for TikTok.

In the first step of this paper, we turn to the basics of the social network TikTok and analyze its reach, past and current development, and the technical features that make TikTok the network it is. In the context of learning nuggets and e-learning, we

will then analyze some practical examples and e-learning areas of TikTok. Next it will be displayed how TikTok can be used for enterprises in the context of e-learning. The paper will conclude with a conclusion.

2. TikTok – A Social Network with History

Social networks are constantly evolving (Boyd and Ellison 2007; Linke 2011). This trend continues with the social network TikTok. Some readers TikTok might be a social network that they do not yet know in detail. This subchapter will therefore first briefly touch on the company's development and market position, and then go into the network's interaction options and technical functions.

2.1 A Social Network with History

TikTok grew out of the app musical.ly by Chinese company Bytedance. musical.ly was launched as an app for lip-syncing dubbing and offered (and offers as TikTok) its users the ability to move to or play along with music, vocals, or sound snippets. In addition to TikTok, Bytedance currently offers platforms such as BuzzVideo and Vigo Video. TikTok itself is ad-supported and thus profitable since 2019 (Digitaltrends 2020). In China, TikTok is marketed under the brand name Douyin (抖音短视频) and 抖音 (2022), respectively. At this point, it seems important to note that the Bytedance company has strategic partnerships with state intelligence organs in China as well as the Ministry of Public

Security. Bytedance has its own Internet Committee, which works closely with the Chinese Communist Party (The Economist 2019) and describes itself as a manufacturer of AI-driven content management applications.

The users of TikTok itself correspond to the normal 20/80 distribution (Apple/Android) on the cell phone market in terms of the operating system of the mobile device (Statista September 2021). For marketers, TikTok, like other networks, e.g. from Meta, offers the possibility of individually playing advertising and global advertising formats. The advertising is shown on TikTok or on partner sites from the Bytedance network. TikTok itself has had higher barriers to advertising in the past than providers such as Meta or Google. Unlike Meta, TikTok has so far focused on global providers, similar to SnapChat. Local marketers are only supported secondarily (Doyle 2021). As of late, only a budget of \$50 has to be spent to place advertisements. Otherwise, no approval as an advertiser is possible (as of December 2021).

For marketing, the reach of TikTok is interesting. The network is targeting 1.5 billion users in 2022. As early as mid-2020, 100 million active users of TikTok were reported in Europe and 1 billion worldwide (Firsching 2021; Bursztynsky 2021). TikTok itself describes an active user as a person who is active on the network once a month (Doyle 2021). However, it can be assumed that TikTok users now tend to log on to TikTok more frequently than once a month. Currently (Firsching 2022), active users of TikTok use this network roughly three times more frequently than the meta-network Instagram, which also focuses on image media (Table 1).

Year/Network	2018	2019	2020	2021
WhatsApp	11 ¼	11 ¼	11 ¾	11 ½
Facebook	10	10 ½	11 ¾	11 ¼
Instagram	7	7 ¾	7 ¾	8 ½
TikTok	6 ¾	9 ½	18 ½	23 ¾

Table 1: Monthly usage time in hours of social networks based aggregated from (App Annie 2022)

TikTok itself has a strong focus on young users and Generation Z. In the U.S., 25% of users are younger than 20; overall, almost 50% of users are under 30 (Statista April 2021). In Germany it is estimated that 80% of users under 30 years old (Statista November 2021).

2.2 General Interaction in TikTok and Technical Functions

This paragraph describes the application usage basics. When a user starts the application, they have the option to view content from the people they follow or they can have videos and content suggested to them. The focus here is on the suggestions. By default, this area is the active area, which is displayed to the user at the start of the application. The content in this area is suggested to the user based on the TikTok algorithm, which will be presented later. This also leads to the fact that users with only a few contents or few followers can also be displayed with above-average

frequency, if the video they have posted is recognized by TikTok's algorithm as being useful for other users. Here, there may be accounts on the network that have a four-digit average number of views from their videos, for example, but have a video on their profile that may have a view count in the six- or seven-digit range.

TikTok itself provides for their users different usage scenarios. In the area of user interactions for the content area in TikTok, there are two areas. First, there is the content area that users can upload on their profiles, and second, there is the live broadcast area. Users can upload pictures or videos in their profile area. The former, photos or pictures, is hardly used by active users anymore. Compared to Instagram, TikTok is now a completely motion picture-focused application. For the creation of videos, TikTok offers various filters that change the video image (e.g. make it warmer, darker, etc.).

For the length of videos, TikTok differentiates (as of February 2022) between videos that are filmed with the app and videos that are pre-produced and uploaded. Videos with a length of 15 and 60 seconds can be produced with the app itself. If pre-produced videos are uploaded, then the length of videos can be up to 180 seconds (3 minutes). Unlike YouTube, the focus of TikTok's video format is not on the normal landscape format of a monitor, but on the portrait format of a cell phone.

In terms of the content, that is recorded directly via the app, the lip-syncing of movie quotes or TV quotes as well as current songs mostly predominate. Particularly in the case of songs, associated Dance Challenges (challenges), as predicted by Instagram's Trend Report (2021) for 2022 again on Instagram, prevail in terms of content. In this area of dance challenges, an independent content market has developed for younger target groups, in which there are best of, copy cats and tutorial producers. The videos that are prepared outside of TikTok and then uploaded are mostly fun videos (e.g., of recordings from TV or YouTube), videos of events, or explanatory videos.

Another option on TikTok for creating videos is the option of a duet with another video. This involves splitting the screen in the app or in the video to be recorded. On the split screen a video shared by another creator for a duet produced is shown and converted into an users own video. However, only a live video can be recorded here. This makes it possible to react to or interact with an existing video. What is possible here is shown by duets published on TikTok, in which a video produced by the Aldi retail chain showing a dancing cashier is supplemented by videos with a dancing cashier or cashiers from other retail chains. A picture received via WhatsApp can also be used instead of a video of your own.

2.3 Dedicated Interactions in the Network

The content in TikTok can be liked (or "Like"), shared or commented on. It should be noted here that the comment length is 150 characters and is thus quite limited. Since an update in January 2022, TikTok offers the possibility to comment on videos via

video. Like the posts, comments can also be liked. Comments that are liked particularly often are weighted more heavily and displayed higher up in the comment overview, as is the case with other social networks. In addition, there is the possibility, similar to Instagram or Twitter, to follow other TikTok users and to write messages to them.

In addition to the ability to upload media content, TikTok also offers the ability to start a live broadcast and interact live with other users of the app. Even though the live broadcast feature is not suitable for Learning Nuggets use, we will still briefly introduce this feature here, as it provides a good insight into the application.

The livestreams are not categorized or organized with hashtags. A targeted search for livestreams is very difficult to impossible. When a user starts a livestream, those who follow the user receive a message. Tangentially, livestreams are meant to be shared via the algorithm. Livestreams, like video content, are displayed to TikTok users in the general data stream when the app is launched. The user also has the option to press a "Live" button to view and swipe through only current livestreams. The user is shown new live broadcasts by swiping. The selection of broadcasts seems to be arbitrary and based on who is online. The broadcasts themselves showed a low number of viewers (under 100 viewers, mostly under 25 viewers) in several attempts. TikTok does not require a minimum reach for streaming. Anyone can go online at any time and get confirmation or interaction from participants. Basically, micro-influencing takes place here. So every participant can become active as an influencer here.

The livestream itself has three other main functions. First, several streamers can connect to a stream to increase their reach. Live battles are also possible within this framework. In this case, the aim is to gain approval from participants in the livestream through interaction or gifts. The participant of the stream who has reached a certain score first has won the battle. As a further function, the stream offers the possibility to make comments. However, these comments, like all comments, are very limited in length. Here, too, a maximum of 150 characters is possible.

However, from TikTok's point of view, the most important function in the live broadcasting area is likely to be tips, or gifts. Participants in live broadcasts can give tips to the organizers in the form of gifts. From the tips, the organizers receive 50% (Agarwal 2020). Likewise, content creators can earn money through virtual gifts (ibid.). These gifts cost between 1 and 20000 Coins. The virtual coins are acquired by making deposits in the respective local currency (Table 2). It should be noted that TikTok currently makes little use of the usual discounting of coins as the currency used increases.

Amount	35	70	350	700	1400	3500	7000
€-Price	0.79	1.09	5.49	9.49	20.99	54.99	104.99

Table 2: Prices of TikTok Coins in Euro

The gifts themselves correspond to emotions, items, animals, or environments that can be used to reward, support, or respond back to the content creator. Most of the gifts correspond to a value of under 100 coins. For ByteDance, selling virtual goods is definitely a profitable business. In the last quarter of 2021, revenue within the app was estimated at over \$824 million. Overall, TikTok reported total revenue of over \$2 billion for 2021 (Table 3).

Quarter/Year	2020	2021
1. Quarter	188	385
2. Quarter	343	535
3. Quarter	380	532
4. Quarter	382	824
Overall	1.293	2.276

Table 3: TikTok in app revenue in million \$ (Chan 2022)

2.4 The TikTok Algorithm

Now, of course, the question arises as to how the generated content gets from the creator to the user of the app. Here, it seems important to note that the search function is available in TikTok, but it is not the focus of the application. There is also the option to search for friends and existing contacts, but this is also an option that the app itself only focuses on secondarily. The focus is on creating a taste and preference profile of the user based on his interaction in the app. The already mentioned TikTok algorithm does this.

Jechorek (2021) states that, ostensibly, the TikTok algorithm primarily evaluates user interactions, suggests new content, and distributes advertisements based on them. User interactions include sharing videos, posting comments, choosing whom you follow or who follows you, whether or not you create content, and the number of likes posted and the type of likes. In the content, one interacts with or posts, the description, the sounds and video filters used, and hashtags are analysed. In addition, TikTok is said to use device data, such as location and device type, as well as user settings, such as language and technical settings in the application, to better select content for the user. On this basis, the algorithm creates categories based on which users are provided with further content.

Users on TikTok additionally point out that the spoken word is also analysed and selected terms are censored and posts with these terms are only displayed poorly or not at all in the general overview. This is the case, for example, when product names of competitors are pronounced or when the Uyghur people are mentioned. It is then exemplarily only spoken of the network with I or Insta. Censorship takes place in the form that these videos tend to be ignored by the algorithm and are not displayed in the suggestions or when swiping.

Additionally, according to prevailing social media influencers, TikTok ignores certain hashtags that reference advertising,

country based banned content or generally socially undesirable content. Additionally, TikTok is committed to preventing psychologically problematic content, such as suicidal thoughts or suicide attempts, from being shared. TikTok refers users in German-speaking countries in these cases to psychological help.

With regard to the previously mentioned speech analysis by TikTok, it is still worth mentioning that it can be assumed that TikTok also analyses the image content, similar to YouTube. This image analysis, which runs in addition to the speech analysis, can include text, representation, image content, and meaningfully, motion patterns. Especially motion patterns should be useful because of Dance Challenges and similar events. To ensure security for users and to prevent unauthorized use of names, TikTok now offers account verification, similar to Twitter (Jechorek 2022). This aim at professional users in particular.

3. Usage of TikTok for Casual Learning

In the area of e-learning, we want to look at the area of TikTok in the context of use of Learning Nuggets (Loviscach 2012; Handke 2013; Langer, Linke and Schimanke 2014). Learning Nuggets are small learning units that can be learned by the learner as they pass by. They can be short text passages, a short podcast on a topic, and especially a short video. Those are mostly used for casual learning.

In terms of recommended length, video learning units should not be longer than 15 minutes and cover one topic (Langer, Linke and Schimanke 2014). A length of five minutes or shorter is optimal. The content of the posts should be concise and, if it is video content, use graphic elements. In addition, learners should have the opportunity to interact. For the TikTok area, it should be noted that filming is done in portrait format, making it difficult to work with PowerPoint slides. In terms of length and environment, TikTok is therefore very well suited for this form of video content, as it is limited in time to up to three minutes. In addition, the network provides the basic functions that are necessary for interaction with users. The following section presents practical examples of how TikTok is used for learning content. First, corporate learning nuggets are presented, followed by learning nuggets that are or were created by private individuals or scientific institutions.

3.1 Corporate Learning Nuggets

TikTok is, as expected, already actively used by companies to reach their users. Due to the focus on video content, the form of interaction with users has also shifted. For most company accounts, the content is used to create a direct interaction with the user. This is done, for example, by explaining the use of the company's products or by discussing and explaining customer questions. In most cases, there is no presentation at all, and the focus is on the person and the product.

As an example of a product-related learning nugget, the explanation of the Distelhäuser Brauhaus is shown in Figure 1. In the video, the question of which hops are used for the brewery's

beer is clarified and, more importantly, reasons are given as to why these hops are used. The video explains how different types of hops differ and how the different types of hops each influence the taste of the beer and the quality of the beer. The video itself is realized as a corporate video, as well as the other videos in the channel of the brewery, which have e.g. the production process, the production quantity or also the transport of the finished product as a topic. Here, the focus is on information about the company and the customer can learn more about the company.



Figure 1: Product explanations by the Distelhäuser Brauhaus (@distelhaeuser) and by an influencer (@varion)

However, customer interaction can also be used to train the customer in dealing with the company or to communicate expectations in advance in order to minimize problems. At discounters, for example, employees show how an exchange can be realized and what a customer (exchange only with receipt) should do for this and in what condition the goods to be exchanged should be. Other Aldi employees show in their videos, for example, how trainees can properly stack pallets or quickly and easily put away goods (work hacks). In addition to the employees, the official channel of Aldi Nord is also active and shows, for example, in Muesli-Lifehacks how you can easily and quickly upgrade and improve your normal muesli with Aldi products. Here, of course, the transition to advertising is fluid.

The smooth transition to advertising and learning videos with products can also be seen in Figure 1 with the influencer Varion. In his videos, this influencer mostly recounts the experiences of trainees in skilled trades and uses very direct language. He himself takes on all the roles in his videos and is usually an apprentice, customer and master craftsman at the same time. In the contribution from Figure 1, which is also marked as an advertisement, the short story is told that the apprentice should properly prepare the tools and properly insert and check batteries. Here, the apprentice shows the master how fast it is with his new machine and that he will save time. Here the advertising is clear,

however the product is not mentioned by any other references than in the hashtag.

3.2 Unofficial Corporate Accounts

Compared to official accounts of a brand or a company, there are also accounts which are operated by employees or fans of a brand. Even though TikTok offers blue hooks for checking accounts as already mentioned, this feature is not yet very widespread. There is still a somewhat rule-free environment here. This also leads to the development of TikTok accounts that mimic an organization's or company's appearance and publish content that makes sense for the company's target group. As an example, the account @bundeswehrgerman will be briefly presented here. It represents the German army (Bundeswehr). This account communicates in part with a large number of users and distributes content to which normally only people from the organization have access.

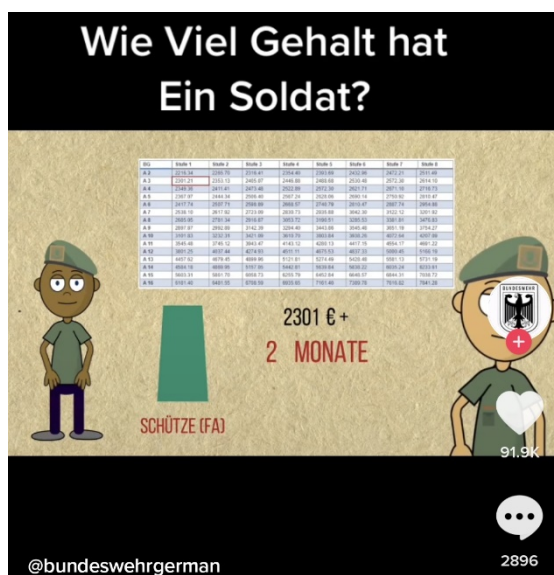


Figure 2: Earnings overview of the German army (@bundeswehrgerman)

For example, the account uses edited learning videos to provide information about how much a soldier earns in the German armed forces (Figure 2). Here, animation and language are simple. Interestingly, the account cares about diversity, as seen in the selected soldiers. Likewise, a hashtag calls for no bullying.



Figure 3: Handling of Bundeswehr equipment (@bundeswehrgerman)

In addition to explanatory videos from the field of personnel development, the account simultaneously offers practical tips for

Bundeswehr soldiers (Figure 3). For example, educational videos are shared on the proper use of a hand grenade to lever out enemy positions with the aid of a shooter. These feature a mix of real scenes and drawn content and attempt to convey basic knowledge.

The near future will show to what extent such accounts will remain on TikTok, which are oriented towards companies, but are not officially managed by them. In addition to company-created or company-oriented posts, there are also scientific or purely user-created posts.

3.3 User-generated content

In addition to Learning Nuggets produced by companies or oriented to companies, Learning Nuggets are also produced by scientific institutions or by topic-specific accounts and distributed on TikTok.

3.3.1 Scientific Learning Nuggets

Scientific institutions do not focus primarily on the distribution of e-learning content, but rather on the area of normal corporate communication. This includes the presentation of the institution, news or even recruitment. Here, learning nuggets are used to expand the existing social media content. In terms of content, scientists here provide education on topics and produce TikTok content for younger users.

One example is the University Hospital of Freiburg (Figure 4). This shares via Learning Nugget experiences from the research project "Spice and synthetic cannabinoids" of the University Medical Center Freiburg (2022). In the Learning Nugget, the focus is on the dangers arising from chemically modified marijuana. It is explained in the video what the dangers are, how the danger arises from the addition of the chemical cannabinoid ADB-CHMINACA, developed by Pfizer, and points out that this chemical can cause a strengthening effect and can be fatal if the dosage is too high. This makes harmless CBD cannabis life-threatening. So far, the post reached over 1.2 million users and was able to warn them of the dangers in this way were.

That science-based learning nuggets are useful and necessary on social networks like TikTok is demonstrated by the research of (Basch et al. 2021). The research team examined posted media content about Covid-19 in the context of exposure to and experiences with Covid-19 testing. In the study, TikTok videos were evaluated, which I dealt with the implementation of COVID-19 tests. The hashtag #covidtesting was used as the search mechanism. From the results for the hashtag, the first 100 videos that were displayed were examined. At the time of study, these 100 videos represented more than 50% of all videos on this topic, or videos that were displayed to researchers on the network. The 100 videos had 103 million views and were liked by 12.8 million users and commented on by over 111,000. Approximately 40% of the 100 videos studied were critical of COVID-19 testing or shared misinformation about COVID testing, if applicable.

Moderation or edited information was not mentioned by the researchers, or does not give TikTok as a social network. This shows that also a scientific foundation is necessary also in daily current topics and that it can be meaningful for scientific institutions to concern themselves with current topic and to make explanation and clearing-up contents available. This is where, for example, the TikTok user @Medizin_Professor comes in (Figure 4), which looks at and processes individual medical aspects. These can be e.g. COVID topics, how masks work or how MRNA vaccinations work or what MRNA is or basic medical topics and questions.

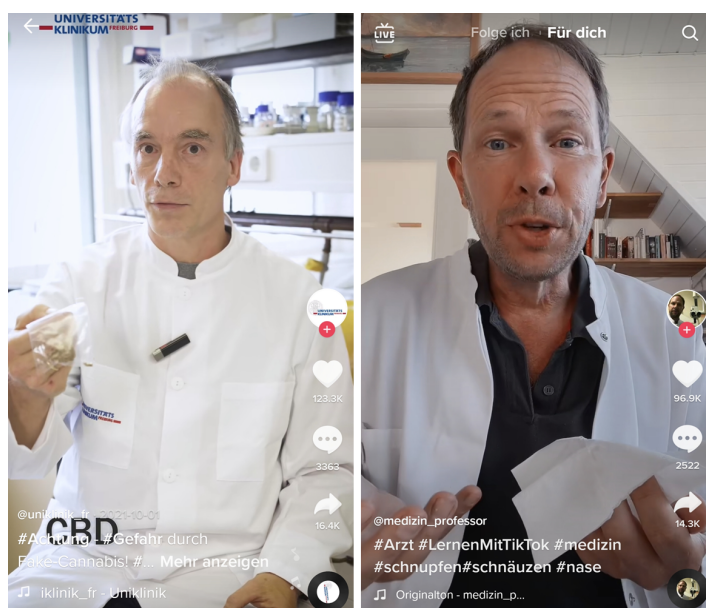


Figure 4: TikTok usage by the University Medical Center Freiburg (@uniklinik_fr) as well as @medizin_professor.

For topic-specific learning content outside of scientific institutions, there are different approaches to learning content. On the one hand, there is self-produced content and, on the other hand, there are accounts that produce short learning content by using third-party content.

3.3.2 Individual Produced Learning Nuggets

Self-produced content can be divided into two types. On the one hand, there are accounts that deal with TikTok itself and offer tutorial and learning videos, how to use video filters, how to learn new dances for new Dance Challenges or how to use products to produce new content for TikTok. In theme-specific accounts, the account is based on a theme. These topics can be, for example, from the field of social media or from the field of law. Here, questions from users are mostly answered and prepared. In the area of law in particular, various accounts have developed that focus on traffic or tenancy law, for example. These focus in one post on a short question (Is XY punishable, How can I solve problem XY) and offer a short, expert answer.

In addition, there are accounts that rehash content from television or older video and use it for their accounts. In the U.S., this content

would be called fair use. Unfortunately, since the area of fair use does not exist in Germany, or the EU, a legal classification is difficult here. These accounts share, for example, shortened instructional videos or product explanations. These videos definitely meet with interest among users of the network. For example, old product videos from the chainsaw brand Stihl had significantly more views than current posts from the Stihl brand's corporate account on TikTok.

4. Recommendations for the Use of TikTok for Businesses

Within this paragraph, the potentials of TikTok for companies is discussed. For companies, TikTok offers good potential for e-learning in the context of product promotions or product uses or corporate information, if the user group of TikTok matches the company's customer group. If a company wants to integrate e-learning content in terms of corporate communication, marketing or press relations and especially wants to reach a target group that is younger and may not have an academic education level, TikTok is a reasonable choice.

On the one hand, companies can use TikTok to explain the use of products succinctly or to provide information about problems that can arise from incorrect use. Companies can also use TikTok to shape users in terms of which behavior patterns are desired or make sense in the context of the company. This includes not only interaction as a customer, but also the communication of necessary skills when it comes to personnel selection, for example. Here, TikTok can be used to communicate how best to behave in the company or what expectations the company has of applicants or also and in particular trainees.

In addition, companies can use existing company materials for TikTok. During the content analysis, TikTok users showed a pronounced interest in further information on companies and also on older materials. While these materials were described as old or retro, on the other hand, the educational nature of the content was also praised. Here, companies can easily reach out and create content by digitizing old learning materials, for example. It is also apparent that the TikTok algorithm is not designed to generate contacts directly. Therefore, similar to what has become common with YouTube videos; there should be a reference to a subscription. In addition, companies can buy existing TikTok users as influencers to produce learning videos for their products.

5. Resume

As described in the article, TikTok is a social network that has experienced strong growth, especially in the past year. Especially the young target group cannot be imagined without it. The analysis in terms of learning nuggets shows that TikTok is already being used heavily for learning and informing. The algorithm also ensures that certain content is shared and displayed more frequently or appropriately for the user. Also worth noting is the effort with which content is created for TikTok, or how content has shifted from images to quickly produced moving images. For content creators, there has to be a willingness to make his content

more sophisticated and, on the other hand, to make sophisticated content more entertaining or on the cutting edge and offer valuable input to a problem.

In order to reach a young target group with learning content, it can also make sense to consider the Twitch platform in addition to TikTok. With this platform, however, it should be noted that the community aspect is higher there and the community must be constantly and actively supported as well as significantly longer content is required. This platform could, however, be suitable for a deeper examination of a job profile, e.g. in the context of a car repair.

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