

Exploring the Influence of Animated Medical Videos on Twitter: How Social Media Shapes Public Perception of Human Body Medical Procedures

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ABSTRACT

Aim of the Study: This study aims to evaluate the role of digital media in health communication to facilitate the public to educate about health-related procedures through animated videos that educate people about different operations and proper functions of the human body. This, on the one hand, gives the public a better understanding of health issues and makes it easier for doctors to guide patients through animated videos about surgical procedures or procedures involving the human body.

Methodology: To conduct this research, a method of quantitative analysis versus content analysis was used. Data were accessed from over 200 Twitter accounts, of which 3 were selected, and 5 tweets from each account were selected for analysis by measuring their reach in terms of views, likes, re-tweets, and comments.

Findings: The content analysis results indicate that animated videos of various surgical procedures, human body functions, and procedural systems of various human organs are attracting great public interest, and millions of people have viewed and shared these videos.

Conclusion: The study concludes that animated videos are useful for understanding human functions, processes, and body parts. Twitter's role in spreading health communications is remarkable and serves to educate the general public.

Keywords: Media, Twitter, Bots, Hashtags, General Knowledge, Tweets, Twitter Accounts.

Introduction

Background

Social media is now become an essential part of everyone's life in the world of the present age. It has changed the lifestyle of individuals and tools of communication. Now people connect, communicate with someone, and share information through social media Subramanian (2017). Social media has enabled the public to share his/her personal information like doctors and patient relationships based on transparency

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this intersection of social media and healthcare is of particular interest (Pershad, 2018). Twitter is also one of the platforms of social media, where people communicate and exchange information with one another. Over time, Twitter has become more than just a conversation and become a great source of information. Now people use Twitter for sharing various types of information.

Like otherwise information, Twitter has become a great source of medical information, especially the animated videos of different medical procedures of human beings notes Douglas, Scholz, Myers, Rae, Elmansouri, Hall, and Border, (2019), along with general information, is also a way of understanding for those who have to undergo surgery or want to know about the exercise for any pain or an information about any type of information regarding digestion, any human organ function Oltulu, Mannan, and Gardner, (2018). Generally, people also view these tweets, likes, comments and re-tweet this information from their accounts. Many individuals, organizations, and institutions have taken advantage and using Twitter to share useful and educational content, which basic aim is informing and educating the public at large. Currently, numerous institutions, experts, and researchers in the world share information on Twitter. These accounts are managed by individuals, organizations, and institutions, who are experts in their respective fields and are dedicated to sharing useful and educational content with their followers notes Low, Tan, and Joseph, (2021). These accounts provide general information to the public that may not be readily available through traditional sources, and tweets from these accounts often present the information in a concise and easy-to-understand format. The sophistication of the data set and the techniques developed to analyze it allow one to take a significant step beyond engaging in categorization-related videos to examine whether and how videos are disseminated on Twitter (Thorson et al., 2013).

Selection of Twitter Networks for animated videos of medical procedures of human being's information dissemination

Mentions of scholarly publications on social media may reflect public interest and attention rather than their impact (Tahamtan & Bornmann, 2020). In this study, we will select Twitter accounts using the information about surgery procedures through different animated videos for one year i.e. 1st April 2022 to 31 March 2023 and will collect data from their tweets and find out how many people views, like, re-tweet, and comment on these accounts and analyze the outreach of this information through networks of Twitter groups. We will evaluate how many numbers of Twitter accounts are following these tweets.

Twitters Accounts of Medical Information

Like other types of information on Twitter, there are many accounts of medical-related information, either run by an individual, an organization, or run by a medical university, which mainly focuses is to inform the public at large about the different, medical procedures through animated videos whose main purpose is to make videos about procedures that are usually understood by doctors either to the patient regarding their problem or the operation or surgery they perform. If they do, they inform the patient about the procedure of any operation, for example, if it is a bypass surgery of the heart, then what is the procedure, videos are made of all of them which can easily understand what the methods of bypass are so that one can relax mentally. Health information can be shared through social media sites (Scanfeld et al., 2010). Through animated videos, one can see where the pain is and how to fix it through surgery. There are many other matters which are to be understood through it like the digestive system, blood circulation, etc. these videos also inform us about that how instructions are sent from the brain, what is the connection between the heart and the brain, and how the hand moves and the legs move. How we move, how we speak, how we listen, how we see etc so different types of videos have been made in all these contexts, the main purpose of which is to provide information to people, so we have to know the mechanism through these videos and by watching them. Considering the importance of information flow through virtual environments, organizations may have to develop creative and rich content to communicate with their target audience more frequently than ever before. In today's world, social networks like Twitter, Facebook, and YouTube have become prominent platforms where organizations can reflect their business practices and values (BATU et al., 2020). When creating content, organizations should be more aware of

their target groups' use of social networks and work strategically within a detailed plan and program framework.

Our target is to select Twitter accounts from which these videos are being uploaded. It is also to review how many people follow the accounts, how many people like their tweets, how many comments on them, and how many want to re-tweet it.

Literature Review

Research study on social media has now gotten more trends because of the influx of information on social media. In Social media probably all the content is user generated. Social media especially Twitter is a major source of information for people nowadays. It has been seen that medical professionals, hospitals, and medical-based organizations are doing a very important role to educate people about health-related information about the human organ of the body and surgical, operational, and different systems of body procedures and it has a reliable source of information (Kreuter & McClure, 2004). Today all kind of medical information is available to everyone on Twitter and anyone can see it and make their life easier and develop their understanding of different types of information through these animated videos. Today, Twitter is providing a lot of information regarding health communication through animated videos and various public health agencies are using these animated videos for general public understanding (Thackeray et al., 2012). Twitter is being used to provide information and videos, which are animated videos that are made regarding the various operations and the function and procedures of human systems. All of this information is shared based on the framing theory that media is framing the human body information through animated videos so that one can come to understand the procedure of the human body's different functions. When creating visual health messages for Twitter, health and government agencies should consider the visual characteristics of the most retweeted tweets (Sleigh et al., 2021). Different medical professionals, hospitals, and medical information-based organizations are playing an important role and their main objective is to create awareness among the people so that they can understand and increase their knowledge about it that how one can benefit from it and how the formation of these animated videos are reaching people and they are communicating it to the rest of the people. How are they taking it and the way they understand it? The main goal that we have is to figure out what kind of information is needed to make an understanding of the common public. Global exchange of health information is now possible through the rapid evolution of the Internet and online social networks (Rus & Cameron, 2016).

By utilizing social media, information is conveyed to the general public so that the video content is clearer and more understandable, and many people watch, like, re-tweet, and comment on it.

The potential dualism between the message sender and receiver, in which receivers become receiver-sources who forward and amplify the content and reach of health messages, and the potential dualism between message and message impact, in which the act of forwarding and modifying messages by receiver-sources itself become the two main characteristics that set Social Networking Sites (SNSs) apart from more traditional health communication approaches of the past. Each of these dualisms has effects on how modern health communication efforts are developed and assessed (Shi et al., 2018). Developing a better understanding of re-tweeting behavior and its effects on the transmission of evidence-based public health information is a key path for future research (Harris et al., 2014). Using social media to share health information because social media's interactive characteristics encourage conversations, simplify communication, and spread information in real-time, healthcare organizations are adopting it more frequently to share information regarding disease outbreaks and responses. Because information may be shared and re-shared across numerous social media users globally, social media also helps the rapid transmission of knowledge to various people (Wang et al., 2019). Social media is used to spread health information Healthcare companies are using social media more regularly to convey information about disease outbreaks and reactions because its interactive features facilitate conversations, streamline communication, and spread information in real-time. Social media also aids in the quick spread of

knowledge to numerous people because the material can be shared and re-shared across a large global social media user base (Abd-Alrazaq et al., 2020). It has been observed that images communicate more effectively than words. The animated animation greatly facilitates comprehension, promotes learning, and increases knowledge of bodily processes and functions. Including images in the design of new health education materials can dramatically boost the effectiveness of health communications (Houts et al., 2006). Preoperative mixed-media health guidance is more effective than oral guidance in reducing postoperative discomfort and pain for patients. Furthermore, vitality recordings are superior to recording recordings in reducing postoperative discomfort (Y. Wang et al., 2022). The global spread of this health communication intervention and the high level of volunteerism among study participants highlight several innovative features that may aid in the design and dissemination of public health messages. Short, wordless animated videos shared by health authorities through social media can be powerful tools for rapid global medical communication during health crises (Vandormael et al., 2021). A short animated story-based (SAS) intervention video elicited no response from participants but increased short-term behavioral intention to reduce additional sugar consumption. Leveraging best practices from entertainment and educational media, communication theory, and the animation industry, SAS video can be a powerful strategy for delivering emotionally compelling narratives that inspire health behavior change (Vandormael et al., 2021)

Research Objectives

The primary aim of this research is to conduct an in-depth exploration into the patterns of utilization and gratification stemming from the consumption of medical and health-related short videos that are shared on the platform formerly known as Twitter, now referred to as X. This study seeks to elucidate the underlying motives and content preferences of individuals who engage with such short videos within the context of medical and health information.

To achieve this overarching objective, the following specific goals will be pursued:

Examine Content Themes and Diversity: This research aims to analyze the various themes and topics prevalent in medical and health-related short videos circulated on platform X. By categorizing and examining the content, the study intends to identify the range of subjects covered and their corresponding significance to users.

Explore User Behavior and Consumption Patterns: The research will delve into the behavioral patterns of users who engage with medical and health-related short videos on platform X. This exploration will encompass factors such as frequency of interaction, viewing duration, and recurrent patterns of engagement.

Uncover Motivations and Gratification Factors: One of the central objectives is to understand the motivations that drive individuals to seek out and consume medical and health-related short videos. By investigating the gratification factors users derive from these videos, the study aims to shed light on the psychological and informational rewards that contribute to user satisfaction.

Assess Credibility and Impact: This research seeks to assess users' perceptions of the credibility and reliability of medical and health information presented in short videos on platform X. By gauging the impact of these videos on users' knowledge and decision-making processes, the study aims to determine the extent to which these videos influence health-related choices.

Identify Potential Concerns and Ethical Considerations: The research aims to identify any potential concerns, misinformation, or ethical considerations associated with the dissemination of medical and health-related content through short videos on platform X. By highlighting these issues, the study aims to contribute to a broader understanding of the implications of such content sharing.

By addressing these specific objectives, this research endeavors to provide a comprehensive understanding of the uses and gratification derived from medical and health-related short videos shared on

platform X. Ultimately, the findings of this study can contribute to enhancing both scholarly and practical insights into the ways in which individuals engage with and benefit from this type of content in the digital age.

Research Question

Whether the health communication-related animation videos provide information to the common man about the medical procedure of any human organ or procedure?

Methodology

The first methodology is based on the narrative review. They learn about social media platforms for surgeons (SoMe), how to use them, how they impact, and what role they can take part in research communication. The basic objective of this task was to develop hashtags #SoMe4Surgery this has been made one of the most surgeon specific on Twitter and most widespread. At the start, they started the participatory and invite participants to join the hashtags. In the second phase, a lot of information has been disseminated in the form of text, images, videos, and animated videos. A dissemination phase was launched to help the spread (contagion) and the material going viral. In this phase, several tweet chats were designed, scheduled, and run. The third step was also the adherence phase (feedback). Twitonomy and NodeXL overviews were posted regularly on Twitter to measure and inform activity and reactions. Eventually came the impact phase when the results were intensively profitable. This was launched in August 2018, the #SoMe4Surgery network and Twitter account (@me4_so) have been a hit and have over 5,000 followers in 2 years and 4 months (Grossman et al., 2021).

The second Methodology was based on content analysis. In collaboration with the NIHR Global Health Study Group on Neurotrauma, Brainbook cases were developed and presented over 3 days (February 23-25, 2018). YouTube videos were created to illustrate the management of acute subdural hematoma using patient interviews, medical illustrations, conversations with consultants, and surgical footage. The content was shared across his Brainbook's social media platforms i.e. Twitter, Instagram, and YouTube, and analysis was collected across social media applications. They received 101,418 impressions (defined as individual media feed penetration and total content views) in a lively social media discussion across multiple social media accounts over 72 hours. Neurosurgery content published on multiple social media channels shows exciting and inspiring potential with global engagement from multiple audiences. This can be a powerful method of dissemination to the general public and medical professionals alike and can activate and engage medical professionals, medical students, and neurosurgeons. Twitter was used as the primary social media channel for discussing the incident. A total of 106 tweets generated 43,100 impressions on Twitter. Among the most popular tweets were links to medical illustrations on Instagram and YouTube videos. 54% of Twitter users were 13-17 years old (range 13-65) with a 54:46 male-to-female ratio. In just 72 hours, this content has been viewed by more than 100,000 people. This shows that visual elements play an effective role in attracting a general audience and social media is effective in disseminating science around the world (Alamri et al., 2019).

The third Methodology is based on social media critical analysis of the medical information on Twitter. According to them, the last decade has seen an increase in the use of social media platforms, often mobile devices. This has resulted in the organic and continued growth of the kidney disease community of individuals interested in using these platforms for education and professional development. The various social media educational resources and tools such as Twitter, videos, blogs, and visual summaries are used in nephrology education. This discussion was focused on specific examples of free open-access medical education (FOAMed) tools that provide education and professional development to users at minimal or no cost. It also discusses incorporating FOAMed resource development into promotion and tenure processes, as well as possible pitfalls and future directions. Twitter is a micro-blogging platform that allows users to post short pieces of content (usually 1-2 sentences) with links, images, and videos. Twitter is the premier platform for medical professionals to share, comment and discuss medical education. Almost all other social media resources (videos, blogs, online conference coverage) use

Twitter to promote, discuss and embellish their main content. Most of the research on Twitter use in medical education has been descriptive in nature. Most of the results focus on satisfaction and participation rather than goal achievement. As an exception to this rule, the targeted use of Twitter in a neuroanatomy course was considered. In one example, students were instructed to use specific hashtags. The researchers in this study found no association between Twitter participation and test results. However, students have found Twitter to be helpful in engaging in class. In another example, a medical residency program surveyed a resident's attitudes toward social media and implemented her Twitter feed for training. They tweeted conference beads, links to papers, and other medical information. In a follow-up study, he increased the percentage of residents using Twitter as a source of medical information from 9% to 54%. The benefits are generalizable, and students used the tool to obtain patient-related medical information. This suggests that Twitter may be an effective tool for sharing medical information. All available social media tools complement and build on each other, but they also serve as different teaching methods. Some content, such as podcasts and video interviews with experts, are designed to convey ideas, while others, such as Twitter chats and online games, are organic collaborations between participants. Learning and content creation opportunities continue to grow and remain available online for easy viewing and review at your convenience. This is witnessed that new medical education models focused on engaging more educators and learners to reach more perspectives at a minimal cost (Colbert et al., 2018).

The fourth Methodology is based on the systematic Research review of the literature. Medical journals use Twitter to engage and share research articles and implement a variety of strategies to maximize reach and impact. The purpose of this study was to systematically review the literature to summarize and describe different Twitter strategies used by medical journals and their effectiveness on journal influence and readership indicators. Before February 2020, a systematic literature search was performed on four electronic databases (PubMed, Web of Science, Scopus, and Science Direct). Articles were reviewed using PRISMA (Priority Reporting Items for Systematic Reviews and Meta-Analyses) guidelines. The study identified 44 unique research findings that evaluated Twitter strategies implemented by medical journals and analyzed the relationship between Twitter metrics and alternative and citation-based metrics. Key findings suggest that encouraging publishing on Twitter improves citation-based alternative metrics for academic medical journals. Additionally, maximize the attention on publication or magazine receives by implementing a variety of Twitter strategies. The four main Twitter strategies many medical journals are implementing are article titles and links, infographics, podcasts, and hosting monthly web-based journal clubs. Each strategy has been successful in promoting publication. However, different metrics are used to measure success. Medical journals implement four primary Twitter strategies: article titles and links, infographics, podcast tweets, and monthly web-based journal club hosting. In this review, each strategy was successful in promoting publication, but different metrics were used to measure success. Therefore, it is difficult to conclude which strategy is most effective. Furthermore, the four strategies have different costs and different impacts on distribution and readership. We encourage journals and researchers to employ a combination of Twitter strategies to maximize impact on their research and engage readers in different ways of learning (Erskine & Hendricks, 2021).

The fifth methodology is based on data analysis both quantitative as well as qualitative. They collected Facebook and Twitter communications from a comprehensive list of official Canadian government accounts that provided COVID-19-related information from January to May 2020. This dataset contains post content and various metadata fields available through the Twitter Application Program Interface (API) and the Facebook Crowd Tangle platform. They collected all tweets and Facebook posts from January 1, 2020, to May 24, 2020 (n = 50961 tweets, 9500 posts). Post attributes such as favorites and shares are recorded on May 25, 2020, and the performance of each post is pegged to its publication date. They removed all Re-tweets, Sponsored Tweets, and Facebook posts promoting them, and focused solely on organic engagement directly from government accounts. They then used a dictionary approach to limit the sample to content related to COVID-19. 2. The final dataset contains 14,674 tweets and 4,510 of his Facebook posts. They found that while Twitter is more likely to post from government accounts related to COVID-19, each post on Facebook gets far more engagement on average. Facebook posts in the dataset

received a total of about 4.9 million likes and shares, while Twitter received about 2.9 million likes and re-tweets. As a result, they found that while there were significantly fewer posts posted on Facebook, more citizens were engaging with the platform overall across government accounts. The majority of social media posts in our dataset (85.3 percent) contained some kind of attached non-text media e.g. links, images, or videos (Teichmann et al., 2020).

The methodology for this research will be based on data collection. The main purpose of our study is to collect data from animated videos of medical procedures on Twitter. We track various Twitter accounts that post animated videos related to health communications, we will analyze how many re-tweets, likes, and comments these account has received, how many followers it follows, and from these accounts over a period of time, analyze the number of Tweets tweeted.

Data Collection Tools

The population of this research is the 350 viewed Twitter accounts of organizations, hospitals, and individuals, disseminating animated videos of health communication about the systems, functions, and operation procedures of different parts of the Human Body.

Sampling Frame

A sampling has been developed from 350 accounts from the Twitter population of the accounts of different organizations, hospitals, and individuals have been selected out of which equal numbers of accounts have been selected which are disseminating animated videos of human body systems, functions, and operation procedures.

Sample

For this research, 3 Twitter accounts have been selected which disseminate animated videos from their account based on human body systems, functions, and operation procedures. We have selected 5 tweets from each Twitter account of our sample and we have analyzed what type of content these are disseminating.

The basic objective of this sample selection is to come to know about the animated videos of the human body systems, functions, and operation procedures through at least two of the same type of information disseminating Twitter accounts. It will help us to understand whether the responses are equal for both types or if there is any difference and the feedback is equal or different.

Data Collection Tools

The tools for data collection for the content analysis of the tweets of the selected Twitter account are the number of re-tweets of the selected animated videos for research, the likes, comments, and the number of views on these selected tweets. Though these are technical videos and are mostly viewed by those people who are either patients of such diseases and are undergone surgeries or view them for their interest. The tweet selected for the research is based on the highest interest of the public and gets more views, re-tweets, likes, and comments. There are three types of animated videos. Every tweet is examined under the above four parts. There are hundreds of tweets from the selected three Twitter accounts upon different types of animated videos of different functions of the human body. There was difficult to select the Twitter account and then the tweets of the selected account because everyone is more important than the previous. The data set for the animated videos was based on categories of three main areas i.e. system, function, and operation of the human body. The selection of the tweets was also very critical because every procedure, function, and operation of the human body is important.

Results

Medical and educational institutions can benefit from animated videos on human body functions and surgical procedures. Students, patients, and healthcare professionals can better understand complex anatomical structures, physiological functions, and surgical techniques through animated videos that

simplify complex concepts and processes into easy-to-understand visual representations. It is possible to accurately represent anatomical structures and medical processes through animation without the limitations of real images. This precision is particularly important in medical education and research. It engages viewers with dynamic images and interactive elements to enhance their learning experience through animated videos. Viewers can pause, rewind and replay sections to reinforce their understanding, which is not possible with live surgical video. Animations can simplify complex concepts by focusing on key points and eliminating irrelevant details. This is especially helpful when explaining complicated physiological processes or surgical steps to patients who may not have a medical background. These videos can show internal processes and structures that are difficult to visualize in traditional teaching methods or real operations. This can help understand complex spatial relationships within the body. For patients preparing for surgery or medical procedures, animated videos can provide a clear overview of what to expect, alleviate anxiety, and facilitate informed decision-making. Patients can better understand the benefits, risks, and potential outcomes. The use of animated videos in medical education avoids the ethical concerns and potential sensitivities associated with the use of real patient recordings. It also eliminates the risk of accidental exposure to graphical content. It can be customized to focus on specific areas of interest or to emphasize specific steps in a procedure. This flexibility allows educators and medical professionals to tailor content to the needs of their audiences. Animated videos are easily accessible online, making them an invaluable tool for distance learning, especially in situations where access to physical classrooms or medical facilities may be limited. Animations can manipulate time, allowing viewers to see processes unfold in time-lapse or slow motion. This can help highlight critical steps, highlight changes over time, or demonstrate the effects of interventions. Animated videos provide a standardized representation of medical procedures and ensure consistent learning experiences for students and healthcare professionals across all educational institutions and settings. Animated videos can transcend language and cultural barriers by relying on visual communication, making them suitable for international audiences and regions with different languages. Animated videos in health communication can significantly increase understanding, retention, and engagement, ultimately contributing to better-informed medical professionals and patients. Social media especially Twitter provide easy access to health communication and provide understanding about health-related issues. The role of social media is vibrant to facilitate the common people to get access to precious content which was not early available to the common man.

Discussion

It was quite interesting that the highly viewed animated video of the human body function was how cocaine impacts your brain, probably 453.1 K people have viewed this video, and this one account which has such views while these types of videos are disseminated through hundreds and thousands of accounts. Just from this one account, this video is re-tweeted 500 times which means 600 hundred people have re-tweeted this video and used it on their timelines. In the same way, this video has got 2345 likes just from this Twitter account. 453.1 K views is a very high figure for such type of technical animated videos which means people want to know the information and procedure of such type of drugs impact on the brain and human body.

One another such animated videos are of the human nervous system inside an animated view which also has got very viewership. Around 335K people have viewed this video and 1481 people have re-tweeted this video meaning these 1481 people have shared this video through their timeline and through their timeline hundreds and thousands of people have viewed these animated videos. The animated video of 600 muscles in the human body has also got very high viewership. 177 K have viewed this animated video and 540 people have re-tweeted this video. The human skull and its multiple bones animated video informs about the bones of the human skull. Around 375 K people like this animated video which tells about the multiple bones and their positioning in the skull. More than a thousand people have re-tweeted and more than 5K people have liked this video which means these animated videos got attention and make interesting information for the Twitter account holders. The animated video of the function of the

human eye has also a good viewership and has generated a big audience for information sharing. The surgeries' animated videos also have very high viewership especially the cardiac surgery and knee surgery many people have viewed and re-tweeted such animated videos. In the same way, the procedure of heart function, the breastfeeding mechanism, the fetal development, and the procedure of the digestive system are one such videos that are highly liked by people and they re-tweeted and liked such videos.

Animated video making is very costly because it needed heavy equipment and highly skilled team and very thorough information about the subject. It is also a very costly project and required handsome money. Though animation is commonly used in entertainment media still in health communications it is a very good addition. It has made easy the work of the experts that how to inform patients about their ongoing any type of surgery or function or procedure of the human body. Such type of animated videos has made understanding people easy in case of any human body problem, what will be the reason, and how it will tackle surgically or diagnostically.

Conclusion

In conclusion, this research has delved into the burgeoning realm of animated videos as a potent tool within the realm of health communication. The findings of this study underscore the transformative potential that animated videos hold in alleviating fear and confusion among individuals, revolutionizing the landscape of patient education, and empowering practitioners in their efforts to convey complex medical concepts.

The exploration of animated videos as an educational medium has unveiled its capacity to demystify intricate medical procedures and human body functions. By presenting information in a visually engaging and comprehensible manner, animated videos have demonstrated their efficacy in bridging the knowledge gap between healthcare professionals and patients. This not only empowers patients to better comprehend their own health conditions and treatment options but also equips healthcare practitioners with a dynamic tool to elucidate intricate medical procedures and surgeries.

The prominence of animated videos in health communication is underscored by the proactive efforts of various individuals, organizations, and healthcare institutions. Recognizing the transformative impact of these videos, these entities are dedicatedly leveraging this medium to educate and inform diverse audiences. From students aspiring to enter the medical field to patients seeking a deeper understanding of their ailments, animated videos have emerged as an invaluable educational resource that transcends conventional barriers.

As the boundaries of health communication expand, the integration of animated videos into this landscape signals a dynamic evolution in the dissemination of medical knowledge. However, the broader implementation of this technique also invites considerations surrounding accuracy, inclusivity, and ethical responsibilities. The potential for misinformation and the need for ensuring the accessibility of these resources to a wide spectrum of audiences merit ongoing examination.

In essence, animated videos have illuminated a promising path for enhancing health education and communication. Their ability to simplify complex information, dispel misconceptions, and promote informed decision-making in healthcare signifies a transformative leap in the realm of medical education. With the collaborative efforts of healthcare practitioners, educators, and creators, the animated video stands poised to foster a more informed, empowered, and health-conscious society. As technology continues to advance and the thirst for accessible information persists, animated videos are poised to play an increasingly pivotal role in shaping the future of health communication.

Animated video is an emerging technique in health communication. It is clearing the minds of people from any type of fear and confusion. It is a good educational tool for the patient and an easy step for practitioners to educate and inform patients about their human body function failure, and procedural issues tackling any type of surgery done for healthy recovery. Different individuals, organizations, and

hospitals are focusing on health communication and educating and informing students, patients, and the common public about human body functions, procedures, and operations.

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Conflict of Interest


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References

- Abd-Alrazaq, A., Alhuwail, D., Househ, M., Hai, M., & Shah, Z. (2020). Top concerns of tweeters during the COVID-19 pandemic: A surveillance study. *Journal of Medical Internet Research*, 22(4), <https://doi.org/10.2196/19016>
- Alamri, A., Rogers, P., Kearns, C., Doke, T., Al-Habib, A., Servadei, F., Hutchinson, P. J., Koliass, A. G., & Uff, C. (2019). Social media for dissemination and public engagement in neurosurgery—the example of Brainbook. *Acta Neurochirurgica*, 161(1). <https://doi.org/10.1007/s00701-018-3757-8>
- Areia, N. P., Intrigliolo, D., Tavares, A., Mendes, J. M., & Sequeira, M. D. (2019). The role of media between expert and lay knowledge: A study of Iberian media coverage on climate change. *Science of the Total Environment*, 682, 291–300. <https://doi.org/10.1016/j.scitotenv.2019.05.191>
- Batu, M., Acar Şentürk, Z., & Tos, O. (2020). Health communication on social media: an analysis on the twitter use of the ministry of health in terms of public relations models. *Gümüşhane Üniversitesi İletişim Fakültesi Elektronik Dergisi*, 8(2). <https://doi.org/10.19145/e-gifder.716760>
- Colbert, G. B., Topf, J., Jhaveri, K. D., Oates, T., Rheault, M. N., Shah, S., Hiremath, S., & Sparks, M. A. (2018). The Social Media Revolution in Nephrology Education. In *Kidney International Reports* 3(3). <https://doi.org/10.1016/j.ekir.2018.02.003>
- Douglas, N. K. M., Scholz, M., Myers, M. A., Rae, S. M., Elmansouri, A., Hall, S., & Border, S. (2019). Reviewing the role of Instagram in education: can a photo sharing application deliver benefits to medical and dental anatomy education?. *Medical Science Educator*, 29, 1117-1128.
- Erskine, N., & Hendricks, S. (2021). The use of twitter by medical journals: Systematic review of the literature. In *Journal of Medical Internet Research*, 23(7). <https://doi.org/10.2196/26378>
- Grossman, R., Sgarbura, O., Hallet, J., & Søreide, K. (2021). Social media in surgery: evolving role in research communication and beyond. In *Langenbeck's Archives of Surgery*, 406(3). <https://doi.org/10.1007/s00423-021-02135-7>
- Houts, P. S., Doak, C. C., Doak, L. G., & Loscalzo, M. J. (2006). The role of pictures in improving health

- communication: A review of research on attention, comprehension, recall, and adherence. In *Patient Education and Counseling*, 61(2). <https://doi.org/10.1016/j.pec.2005.05.004>
- Kreuter, M. W., & McClure, S. M. (2004). The role of culture in health communication. In *Annual Review of Public Health*, 25. <https://doi.org/10.1146/annurev.publhealth.25.101802.123000>
- Low, J. M., Tan, M. Y., & Joseph, R. (2021). Doctors and social media: knowledge gaps and unsafe practices. *Singapore medical journal*, 62(11), 604.
- Oltulu, P., Mannan, A. A. S. R., & Gardner, J. M. (2018). Effective use of Twitter and Facebook in pathology practice. *Human pathology*, 73, 128-143.
- Pershad, Y., Hangge, P. T., Albadawi, H., & Oklu, R. (2018). Social medicine: Twitter in healthcare. In *Journal of Clinical Medicine*, 7(6). <https://doi.org/10.3390/jcm7060121>
- Rus, H. M., & Cameron, L. D. (2016). Health Communication in Social Media: Message Features Predicting User Engagement on Diabetes-Related Facebook Pages. *Annals of Behavioral Medicine*, 50(5). <https://doi.org/10.1007/s12160-016-9793-9>
- Scanfled, D., Scanfled, V., & Larson, E. L. (2010). Dissemination of health information through social networks: Twitter and antibiotics. *American Journal of Infection Control*, 38(3). <https://doi.org/10.1016/j.ajic.2009.11.004>
- Shi, J., Poorisat, T., & Salmon, C. T. (2018). The Use of Social Networking Sites (SNSs) in Health Communication Campaigns: Review and Recommendations. *Health Communication*, 33(1). <https://doi.org/10.1080/10410236.2016.1242035>
- Sleigh, J., Amann, J., Schneider, M., & Vayena, E. (2021). Qualitative analysis of visual risk communication on twitter during the Covid-19 pandemic. *BMC Public Health*, 21(1). <https://doi.org/10.1186/s12889-021-10851-4>
- Subramanian, K. R. (2017). Influence of social media in interpersonal communication. *International Journal of Scientific Progress and Research*, 38(2), 70-75.
- Tahamtan, I., & Bornmann, L. (2020). Altmetrics and societal impact measurements: Match or mismatch? a literature review. In *Profesional de la Informacion*, 29(1). <https://doi.org/10.3145/epi.2020.ene.02>
- Teichmann, L., Bridgman, A., Nossek, S., Loewen, P. J., Owen, T., Ruths, D., & Zhilin, O. (2020). Public health communication and engagement on social media during the COVID-19 pandemic [Preprint]. *OSF Preprints*, July.
- Thackeray, R., Neiger, B. L., Smith, A. K., & Van Wagenen, S. B. (2012). Adoption and use of social media among public health departments. *BMC Public Health*, 12(1). <https://doi.org/10.1186/1471-2458-12-242>
- Thorson, K., Driscoll, K., Ekdale, B., Edgerly, S., Thompson, L. G., Schrock, A., Swartz, L., Vraga, E. K., & Wells, C. (2013). YOUTUBE, TWITTER AND THE OCCUPY MOVEMENT: Connecting content and circulation practices. *Information Communication and Society*, 16(3). <https://doi.org/10.1080/1369118X.2012.756051>
- Vandormael, A., Adam, M., Greuel, M., Gates, J., Favaretti, C., Hachaturyan, V., & Bärnighausen, T. (2021). The effect of a wordless, animated, social media video intervention on COVID-19 prevention: Online randomized controlled trial. *JMIR Public Health and Surveillance*, 7(7). <https://doi.org/10.2196/29060>
- Vandormael, A., Hachaturyan, V., Adam, M., Favaretti, C., Gates, J., & Bärnighausen, T. (2021). Effect of a story-based, animated video to reduce added sugar consumption: A web-based randomized controlled trial. *Journal of Global Health*, 11. <https://doi.org/10.7189/jogh.11.04064>

- Wang, H., Xu, W., Saxton, G. D., & Singhal, A. (2019). Social media fandom for health promotion? Insights from east los high, a transmedia edutainment initiative. *SEARCH Journal of Media and Communication Research*, 11(1).
- Wang, Y., Huang, X., & Liu, Z. (2022). The Effect of Preoperative Health Education, Delivered as Animation Videos, on Postoperative Anxiety and Pain in Femoral Fractures. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.881799>
- Zuluaga, R., Putaux, J. L., Restrepo, A., Mondragon, I., Gañán, P., Zorrilla-Fontanesi, Y., Rouard, M., Cenci, A., Kissel, E., Do, H., Dubois, E., Nidelet, S., Roux, N., Swennen, R. L., Carpentier, S. C., Science, P., Asif, M. H., Lakhwani, D., Pathak, S., ... (IPGRI), I. P. G. R. I. (2011). Advancing banana and plantain R & D in Asia and the Pacific. *Nature*, 6(1), 1–10.