

A study on media and information and traffic convergence in the digital age on consumption

Zijing Zhang *

School of computer Engineering, Anhui Wenda University of Information Engineering, Hefei
230201, Anhui, China

* Corresponding Author Email: 1809030122@stu.hrbust.edu.cn

Abstract. The digital age is the age of productivity innovation. It is the era of industrial transformation and market development to satisfy the public's eyeball economy. Under traditional productivity, new products are often produced and introduced to the market and the public accepts and adapts to the new products, and those products that are not accepted by the public will be eliminated by the market. Now, in the emerging digital era, through data and its analysis, the product and market have begun to analyse the user and market pain points, according to user data to design and develop products for the needs of the user to enjoy at the same time for the data and traffic payment. This is "information consumption" and "data consumption". Poor information is the tool to make money in the current era. How to grasp the information and data of the user group and consumer demand becomes the key. Emerging media is the key to unlocking users' needs. The purpose of this study is to find the role of this key in the integration of information and traffic into consumption. The significance of this study is to deduce the relationship between media and the convergence of information and traffic to consumption in the digital age by analysing the case of the company. The result of this study is that the digital era has created advanced productivity, and the development of productivity has led to innovations in the means and tools of the media industry, which have contributed to the development of user needs. The media is the key to creating and capturing the needs of user groups. It is also the cornerstone for creating "information consumption" and "traffic consumption".

Keywords: Productivity innovation, information consumption, traffic consumption, poor information, user demand.

1. Introduction

Born of the times, but not stopping at the times. Productivity innovation is a product of the digital age, and the benefits of productivity innovation provide the context for the development and innovation of the media industry. The media is no longer bound by traditional methods of communication, and information and traffic have become the guiding force behind the transformation of the media industry.

Whether it is the innovation of media tools, or the change of media means in the digital era, it is inseparable from the data statistics brought by information and traffic. Data comes from demand and statistics are reflected in consumption. The process of media development is also the process of its integration with information and traffic in the process of consumption and development.

The media needs the public's vision and attention to develop its own market. The media needs to analyse the market, harvest the demand, master the demand and get closer to the user's demand, to grasp the market from the actual demand, and to promote the development of the media industry and the innovation of the media tools. The digital age provides an opportunity for this. The digital era is an era of statistics, digital analysis, information dominance and traffic orientation. The blockage of information is a major factor hindering the development of the emerging media industry, while the access to traffic again provides guidance for the integration of information and media.

Traffic is no longer the traditional statistics and analyses; it has become a major orientation data independent of information. The direction of traffic in today's digital age has become a major reference for the direction of development. It is the location of the public eyeballs; it is also the direction of the industrial wind direction. Traffic distinguishes itself from the traditional concept of

money-making tools by providing a special way of accessing information for the emerging media industry. Traffic through a more direct direction of the information in front of the media, uncovering the gap between the media and information, so that the media can more directly explore the direction of public demand.

In addition, while the media industry is developing in convergence with information and flows, with the innovation of media means and media tools, it is also contributing to the formation of popular demand while fulfilling the needs, and to a certain extent feeding back into the role of timeliness and updating of information and flows in the marketplace. Promote the development of media and information and flow convergence.

Seize the information, grasp the direction of traffic to analyse the consumer market, promote the media industry to grasp the emerging market, and create a new independent market of the media industry. The purpose of this study is to analyse the changes in media, information and traffic in the digital age regarding the integration of media with information and traffic in the consumer for the media, information and traffic in order to achieve the significance of exploring the potential of the media market. By analyzing the cases of companies in the market, we will first discuss the internal analysis of the development of the integration of media and traffic, then discuss the external influence of the public's consumption concept, and finally analyse the significance of the integration of media, information and traffic into consumption in the context of the digital era.

Whether it is the innovation of media tools or the change of media means in the digital era, it is inseparable from the data statistics brought by information and traffic. Data comes from demand and statistics is reflected in consumption. The process of media development is also the process of its integration with information and traffic in the process of consumption and development.

The media needs the public's vision and attention to develop its own market. The media needs to analyse the market, harvest the demand, master the demand and get closer to the user's demand, to grasp the market from the actual demand, and to promote the development of the media industry and the innovation of the media tools. The digital age provides an opportunity for this. The digital era is an era of statistics, digital analysis, information dominance and traffic orientation. The blockage of information is a major factor hindering the development of the emerging media industry, while the access to traffic again provides guidance for the integration of information and media.

Traffic is no longer the traditional statistics and analyses, it has become a major orientation data independent of information. The direction of traffic in today's digital age has become a major reference for the direction of development. It is the location of the public eyeballs, it is also the direction of the industrial wind direction. Traffic distinguishes itself from the traditional concept of money-making tools by providing a special way of accessing information for the emerging media industry. Traffic through a more direct direction of the information in front of the media, uncovering the gap between the media and information, so that the media can more directly explore the direction of public demand.

In addition, while the media industry is developing in convergence with information and flows, with the innovation of media means and media tools, it is also contributing to the formation of popular demand while fulfilling the needs, and to a certain extent feeding back into the role of timeliness and updating of information and flows in the marketplace. Promote the development of media and information and flow convergence.

2. Analysing the Shift in Users' Consumer Attitudes in the Digital Age

2.1. User Group Pain Point Analysis

Traditionally, users have made passive choices among existing products, and the public has been forced to accept new products into the market and push back to see if they need them. In today's digital age, however, initiative and demand dominate the market, with data and traffic analyses to capture user demand, design products to enter the market, and then promote them through the media.

Thus, "information consumption" and "data consumption" have officially replaced traditional consumption methods and entered new markets.

In the emerging digital era, enterprises begin to master data and use data, the birth of products began to analyse the user and market pain points, according to user data to design and develop products for the needs of users, while users enjoy targeted services while paying for information and traffic. This is "information consumption" and "data consumption". The consumption mode and pain points of the new market can be divided into "accessibility, comparison, information search and decision making". Specifically, the first step is to allow users to have access to the products they want, i.e., accessibility. Mainly by media means to promote, and publicity for the target audience through specific data and traffic analysis and screening concerns, to give a specific group of different product feedback. After the user receives the product, the user will begin to suffer from more similar products on the market began to have to make a choice, which is to make a comparison. Users will compare the advantages and disadvantages of similar products, and the advantages and disadvantages are not the product itself, but more for the users own psychological fitness of the product. In emerging markets, the nuances and specificities of similar products are magnified, and users will pay more attention to products with a high psychological fit based on media recommendations and traffic direction. At this point, users don't really consume, and lack the motivation to convince themselves to click the consumption button. At this point, because of the information and traffic statistics, the user will browse a variety of media product information, product recommendations and even product reviews. At this point, the user will increase interest and further search for information about the product, that is, to search for information. At this time, the new market will record the user's search information and further screening attention, repeated so that the user can contact the product, promote the user to make up their mind to consume, that is, to make a decision.

2.2. Changes in Consumer Attitudes of User Groups

With a wider reach and more options available to users, the consumer mindset of the user community is changing.

People are always willing to pay for new and emerging things that they encounter for the first time. When users enter a market where new media, information and traffic are fused into consumption, they are surprised to suddenly find products that are psychologically appropriate for them. This is where "impulse spending" is born. This is due to the fact that information analysis and traffic are fuelled by the convergence of the media to efficiently push products to the attention of specific users. Previous research has shown that experiential purchases have many advantages over material purchases when it comes to influencing an individual's emotions, and this "experiential advantage" may be even more pronounced in this consumer market environment [1].

With the improvement and development of the market, such "impulse spending" is mostly generated in the sudden discovery of the unintentional, but often the majority of users are with the need to enter the market to seek products. At this point, the screening attention will be particularly important. In today's product selection attention has been different from traditional consumption, consumption attention is no longer limited to the product itself, and the user's psychological fit has become the key. In addition, the impact of the user's final choice may depend on the user's mood or emotional changes, and this emotional control and keen sense of smell is the media and information and traffic fusion of the embodiment of the efficiency.

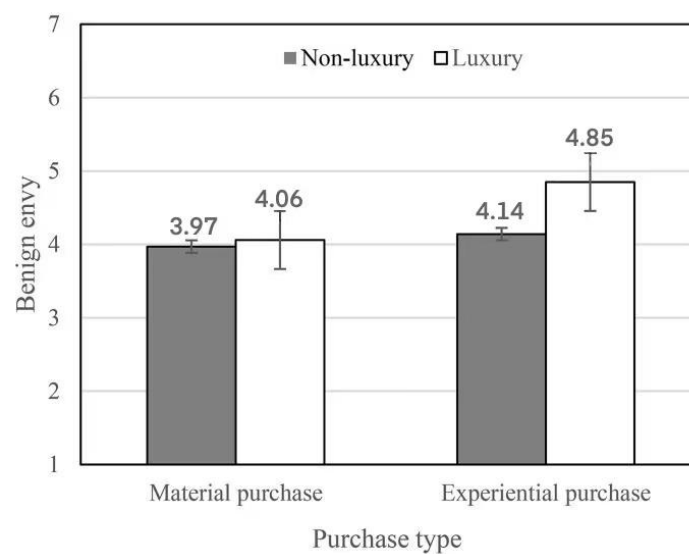


Fig 1. Interaction effects of user purchase type and luxury on benign social media envy.

The data were 611 participants who rated the lavishness of consumption shared on social media using a 7-point Likert-type scale ranging from "very unlavish (1)" to "very lavish (7)"

As Fig 1 shows, this kind of consumption guidance may trigger demand when users find that the product becomes less accessible. This is how the marketing of a particular business model in a new type of market leads to changes in users' purchasing perceptions [2].

3. Convergence of Media and Information and Traffic in Consumption in the Digital Age

When media and information and traffic converge on consumption, the information gap becomes key. The information gap has become a money-making tool in the emerging market. "Information consumption" and "traffic consumption" are also the products of the new market after the convergence. The timeliness of information is a growing concern for people, and thus traffic has been discovered in the public eye. Traffic compared to information is more focused on the timeliness, in the abandonment of a certain degree of authenticity and verifiability at the same time, it has a superb breadth and transmissibility, but if you want to be reflected in the consumption, it is essential that the transmission to the mass media of high efficiency, which is the significance of the fusion of the media and information and traffic in the consumption. In this convergent system, a complex information coexistence is established, the traditional media lose control of the information agenda, the unidirectionality of information is broken, and the user is able to join the dialogue as a producer, supervisor and distributor of content [3].

The convergence of media with information and traffic in consumption is in fact the realisation of the eyeball economy with media. The economy in the era of the public with the eye actively selectively dominated. And the media is to give the user to consume their own will to choose and their own psychological fit with the high degree of product ways and means. It allows users to truly realise "accessibility, choice, search and decision".

4. Exploring and Analysing Cases

The digital age is an era of opportunities and challenges, and the survival and development of a company in such an era is the primary issue that operators need to face. The traditional business model has been unable to adapt to the market passively under the dominance of media, information and traffic convergence, and the new business model born in this context has become more proactive.

Enterprises began to seek productivity innovation and business means of breakthroughs, the new business model of marketing began to take the initiative to pull the user to buy the concept of change.

4.1. NVIDIA

Founded in 1993, NVIDIA is an American multinational technology company. The company's early focus was on the graphics chip design business, and as the company's technology and business have evolved, it has grown to become an artificial intelligence company offering full-stack computing. In July 2020, for the first time, NVIDIA surpassed the market capitalisation of Intel to become the highest-capitalised chip maker in the U.S. In May 2023, it became the first chip company to reach a market capitalisation of \$1 trillion. In February 2024, NVIDIA's market capitalisation reached \$1.83 trillion, opening at \$732.02, surpassing Google parent company Alphabet. NVIDIA's market capitalisation reached \$1.83 trillion in February 2024, opening at \$732.02, surpassing Google's parent company Alphabet, and becoming the third largest company in the U.S. stock market by market capitalisation after Microsoft and Apple.

The progress of social productivity is accompanied by the increase of purchasing power of the society, and enterprises begin to seek to promote the transformation and upgrading of enterprises in order to adapt to the market again. In the age of digitisation, NVIDIA has in recent years seized on factors such as data, information and traffic to develop the market. It has boldly embraced AI while possessing a sense of technology, productivity, and conscious innovation. It has gone from clearly distinguishing between user and productivity needs to strongly promoting high-end productivity. A conscious change of direction has allowed NVIDIA to begin to seek development on its own.

NVIDIA is moving forward on many fronts. On the hardware side, it continues to sell GPUs for personal computers and some gaming consoles; provides computing accelerators for server makers, hyperscale enterprises, and supercomputer makers; and makes chips for self-driving cars. It is also in the services business, operating its own cloud infrastructure for pharmaceutical companies, manufacturing and others. In addition, it is a software provider that is developing a general-purpose code base that anyone can use to accelerate computation on Nvidia hardware, as well as more specific tools such as the CuliTho package for optimising the lithography stage of semiconductor manufacturing [4].

When information and traffic are in the hands, then marketing becomes self-directed. Recently, NVIDIA has almost officially achieved a monopoly on gaming graphics cards with AMD dropping out of the race for high-end graphics cards. On this basis, NVIDIA admits that its focus is no longer on gaming. Instead, its exaggerated data and traffic have made it so that most users won't care about the excess productivity and demand they need. What stands in the way of users is the consumer trust and desire given to them by information and traffic fusion media.

4.2. ByteDance

ByteDance is one of the Internet companies that recognised the importance of the integration of media and information and traffic at an early stage and took advantage of its rapid development to build two major product matrices with today's headlines and jitterbugs as the core, and to lay out a number of tracks, such as mobile information, short videos, community social networking, and so on. Grasp the user's information and traffic to adapt to market development.

In April 2024, ByteDance was ranked first in the 2024-Hurun Global Unicorn List with a corporate valuation of RMB 1,560 billion. ByteDance's growth process is broadly divided into three stages: first, the start-up period (platform embedding stage) (2012-2014), using technological advantages, mastering and accurately capturing user needs through data, building a digital platform, and committing to the product development of news and information apps such as Today's Headlines and providing platform services to attract market users; second, the expansion period (platform expansion stage) (2015-2018), began the globalisation layout, entered the short video industry, opened the emerging business, integrated multi-party resources to deeply accumulate platform traffic; third is the transition period (platform transformation stage) (2019 to the present), reshaped the distribution

channel, adjusted the organisational structure, integrated the business segments, and gave full play to the role of the social body [5].

ByteDance, Inc., ByteDance's business model is based on traffic and is profitable through diversified businesses such as advertising, e-commerce, content creation and incubation. Traffic brings data brings information, and ByteDance is very good at telling users how to use information and traffic to play a role in integrating with media. Media means media mastery is ByteDance Company in the era of great attempt and success.

ByteDance's culture is to keep drawing, keep developing, and keep using the existing conditions to fulfil the efforts of the good will for the future. Traffic and information is the cornerstone of development in the digital age, and ByteDance it has the user's data and traffic information after choosing the media. Fusion of media with information and traffic into consumption. Thus it has the following competitive advantages: 1) the audience of information consumption is huge; 2) the development of modern information and media technology; 3) the user group is huge, and the number of global monthly active users of ByteDance will be more than 2.5 billion in the autumn of 2022; 4) the company's development prospect is broad after owning the absolute data, and the company's available directions are no longer limited.

At the same time, it is also facing challenges: 1) a relatively homogeneous industrial structure, the difficulty of industrial transformation; 2) strong substitutability, the market is full of similar products; 3) how to attract and retain users, and form a perfect business closed loop.

How to convert traffic, data and information into practical benefits has become a difficult problem for ByteDance. The intervention of media has perfectly solved this problem. Own data and use data, byte jump to create the media fusion data road, for users to push the specified content, and traffic to the market, the traffic began to become visual, making users start to pursue traffic, and behind this, whether it is businessmen who want to information live bandwagon or the network of self-media wanting to flow to ByteDance to bring the direct benefits, making it in the digital age to eat under the information gap, the flow of the Dividends, but also to achieve the integration of media and information and traffic in consumption.

5. Review and Prospect of Development - The End of the Transformation of Emerging Industries

5.1. Review of the transformation and development of traditional industries

When the era into the digital, the traditional industrialisation of everything becomes clear and transparent. The traditional industry's preconceived idea of manufacturing products for users to passively accept has been gradually disapproved by consumers. The traditional industry is bound to transform and upgrade, and its transformation and upgrading needs to be based on information and traffic. The promotion and development of traffic and information to promote the generation of demand, and demand also promotes the continuous development of productivity, which is for the transformation of traditional industries to provide ways and means: media [6].

Media and information and traffic fusion and consumption, industrial transformation and upgrading needs the support of information and traffic orientation. The development of traditional industries is precisely the process of integrating media with information and flow, comprehensive means and theories, in order to truly realise the traditional industries to emerging industries, to avoid the backwardness and extinction of the industry under the times [7].

5.2. Transformation to a concept-orientated industry

The main body of consumption is the consumer himself, and the starting point of the emerging industry is to analyse and further understand the consumer group, and to provide services that are targeted, efficient and poorly informed to cater to the consumer as much as possible. But the group is not all, nor is it really each individual user. If we want to make further transformation of the emerging

industry to put forward the imagination: the real user concept-led industry. The user's concept through a large amount of data information and traffic collation and analysis, really grasp the user's concept, so as to launch the user's own concept-oriented psychological fit high degree of products, really understand the user to the real, and enhance the user experience.

When the market does grasp and dominate perceptions, it may be the end of the transformation of this information-driven, traffic-orientated market. Information and traffic will no longer be regarded as the main theme, and the information gap will not exist. This requires a high degree of integration of media and information and traffic, both media and information for the user service, from the user's actual feelings, the industry and the user become inseparable, the user's idea is the idea of the industry, and vice versa. There is no longer an active-passive distinction between consumption and product.

5.3. Innovation and Development of Interactive Products

How to realise the inseparability between users and industry is a major issue for the future of the digital age. In the media and information and flow of continuous integration and development, the user's experience will not be ignored, and the interactive experience with the user will be the most direct and relevant information and data. Interactive products in the digital age are the key to open the gap between the user and the industry, the innovation and development of interactive products is the media and information and the flow of a high degree of integration combined with the product of digital media technology feedback. The use of digital media technology, so that users really participate in the consumption and industry, real feedback data, promote industrial transformation, and build the future of media and information and traffic integration and development in the digital era [8].

6. Conclusion

The digital era is an era of all-round development. The information and productivity innovations brought about by the products of digitisation have created both opportunities and challenges for traditional industries. Traditional consumption is no longer satisfied by users with ever-increasing demands, and traditional industries need to find opportunities for this, and the information gap has begun to become the initial money-making tool. The industry had to start to pay attention to information and traffic, two important products in the digital era, "information consumption" and "traffic consumption" into the market. Information and traffic have become the important basis for development, but to truly realise the innovation and development of the industry, there is still a lack of specific means and ways. Media is no longer independent of information and traffic. In the era of the eyeball economy, the most important thing is to make the product visible to the user. And media is the key to putting the product in front of the user's eyes. Media is fused with information and traffic in consumption. As can be seen through the cases of NVIDIA and ByteDance, the digital age is the age that requires industry to take the initiative. Strengthen their own strength through data information and traffic, and then make the industry more influential by spreading media information. Through the digital age creates advanced productivity, drives the media industry means and tools of innovation to promote the development of user needs. Let the consumption become transparent, truly realise the user can "information consumption" and "traffic consumption".

At present, the content of this paper is still mostly confined to theory, deducing the significance of the integration of media, information and traffic in consumption and the outlook for the future through case studies, but it lacks the support of concrete experiments and the real proof of the future era. The current convergence is only at a preliminary stage, and the impact of the convergence of media, information and traffic on consumption in the digital age is far from that. Future consumption will be theory-based, information-guided and traffic-orientated consumption, starting from the real consumer's own sense of experience, and making consumption more meaningful while enhancing the user's sense of consumption experience.

References

- [1] Liu, D., He, B., Feng, R., Huang, X., & Liu, G. (2024). How social media sharing drives consumption intention: the role of social media envy and social comparison orientation. *BMC Psychology*, 12, 1-14. doi. <https://doi.org/10.1186/s40359-024-01627-7>.
- [2] Liang, S., Zhang, T., Li, J., Zhang, Y., Tang, Y., Bi, L., & Yuan, X. (2024). Negative emotions will be welcomed: The effect of upward comparison on counterhedonic consumption. *Behavioral Sciences*, 14(5), 374. doi: <https://doi.org/10.3390/bs14050374>.
- [3] Barrios-Rubio, A. (2024). The media and information in the content diet of colombian social media users. *Societies*, 14(1), 6. doi: <https://doi.org/10.3390/soc14010006>.
- [4] How nvidia became a trillion-dollar company. (2023/07/18/). Cio, Retrieved from <https://www.proquest.com/trade-journals/how-nvidia-became-trillion-dollar-company/docview/2838974321/se-2>.
- [5] JIAN Rui, LIAO Linjuan, XIE Xiaojia. Research on the Evolution Mechanism of Value Co-creation of Platform-based Enterprise Service Ecosystem in the Age of Digital Intelligence--Taking ByteDance as an Example [J]. *Fujian Forum (Humanities and Social Sciences Edition)*, 2023, (08): 97-111.
- [6] Digital transformation: Industries connected - 06 NOVEMBER 2023. (2023/11/06/)... London: Fitch Solutions Group Limited. Retrieved from ABI/INFORM Collection Retrieved from <https://www.proquest.com/reports/digital-transformation-industries-connected-06/docview/2886426048/se-2>.
- [7] Chai-Arayalert, S., Suttapong, K., & Chumkaew, S. (2023/12/). Design of digital environments to enhance handicraft co-learning experiences. *Cogent Business & Management*, 10(3) doi: <https://doi.org/10.1080/23311975.2023.2286687>.
- [8] Garg, A. (2024/03/30/, 2024 Mar 30). The evolution of digital signage: From static boards to interactive experiences. *Financial Express* Retrieved from <https://www.proquest.com/newspapers/evolution-digital-signage-static-boards/docview/3020231609/se-2>.