Trends and consequences of e-commerce

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ABSTRACT

The agility of technological advances in the 20th century brought with it changes in social habits. Digital media awakens the interest of people who seek agility in information, entertainment, interaction and social communication and the great advantage of the internet is that online information is easily available every day. The objective of this study is to identify weaknesses in the current management model of companies with regard to the potential for using and sharing images on social networks. This is a documentary study, based on secondary data collected from the scientific literature among the publications available up to May 2023. Later, official data from the Brazilian government were collected with reference to the number of companies created and closed over the years. The main results indicate that the digital environment favors the creation of malicious user profiles, the possibility of copying in the digital domain threatens intellectual property rights and their copyright creators, thus becoming their greatest weakness.

Keywords: Intellectual Property, Design, Copyright.

RESUMO

A agilidade dos avanços tecnológicos no século XX trouxe consigo mudanças nos hábitos sociais. As mídias digitais despertam o interesse de pessoas que buscam agilidade em informação, entretenimento, interação e comunicação social e a grande vantagem da internet é que as informações online estão
facilmente disponíveis todos os dias. O objetivo deste estudo é identificar fragilidades no atual modelo de gestão das empresas no que diz respeito ao potencial de uso e compartilhamento de imagens nas redes sociais. Trata-se de um estudo documental, baseado em dados secundários coletados na literatura científica entre as publicações disponíveis até maio de 2023. Posteriormente, foram coletados dados oficiais do governo brasileiro referentes ao número de empresas criadas e encerradas ao longo dos anos recente. Os principais resultados indicam que o ambiente digital favorece a criação de perfis de usuários maliciosos, a possibilidade de cópia no domínio digital ameaça os direitos de propriedade intelectual e seus criadores autorais, tornando-se assim sua maior fragilidade.

**Palavras-chave:** Propriedade Intelectual, Design, Direitos Autorais.

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**INTRODUÇÃO**

The agility of technological advances in the 20th century brought with it changes in social habits (ASSUNÇÃO et al., 2018). With this new electronic age making a direct connection with the means of communication, determining new customs and facilitating the understanding and disposal of information, at a time when digital culture is gaining ground, it strengthens its bond with an increasingly wider and more public modern (SAVAZONI, 2018).

Digital media awakens the interest of people who seek agility in information, entertainment, interaction and social communication and the great advantage of the internet is that online information is easily available every day. (OLIVEIRA; LUCENA, 2020) This ease of media in transfusing and propagating among other technological means, makes them an incredibly present vehicle in social habits. Because today there is not just one electronic medium, but several other means and facilities that were existentially unimaginable before (MACHADO, 2010).

In the digital world, design is made to facilitate reading and understanding encouraged by the language that the designer helps to build. (MEMÓRIA, 2006) The designer has the ability to manipulate language visually and spatially. The challenges that information designers usually encounter, according to Romero Tori, are “Mastering the techniques and concepts that underlie this new technology, understanding its limitations and knowing its possibilities” (TORI, 2009).

For the creative industry, legislation, regulation of intellectual property has a relevant role, but it has become obsolete and does not satisfy copyright in digital culture, so the creative industry seeks new technologies to protect creators (CARVALHO, 2014). In fact, the creative industry has been adapting to digital culture and it is notable that the speed at which digital creativity has been accelerating is not the same speed at which authorial creators protect their content on the Internet (LIMA et al., 2014). A great example is the ways to monetize on social networks, lives can currently be monetized, but content such as videos published in the feed is still a discussion of when and how developers will allow their creators to have a financial return. Entrepreneurs seek other means of recognition, and every day social networks are becoming a
greater channel for sales than the actual function of communicating. We accelerate communication between companies and users, creating a reality in which companies, which for companies it is not enough to be on digital, it is necessary to deliver relevant content to get the attention of their audience (JUNQUEIRA et al., 2014).

Social networks do not only deliver ostentation and intimacy of people as it was in their origin, we can highlight that the pandemic has accelerated the transformation of traditional physical companies to the digital universe (SOURCES, 2023). Professionals such as psychologists, lawyers, cooks, teachers, among many others, deliver rich content and digital products for free. In return, they increase credibility, relevance in the market, stand out from competitors, results and sales. On the other hand, many professionals do not feel supported regarding their copyrights, many constantly suffer from plagiarism of their contents, misuse of images and copying of identity (FERREIRA, 2021).

The study problem is to know which weaknesses involve the creation and maintenance of companies contemporarily. It is necessary to know the profile and how they develop and seek and relate to consumers.

Objective

The objective of this study is to identify weaknesses in the current management model of companies with regard to the potential for using and sharing images on social networks.

METHODOLOGY

This is a documentary study, based on secondary data collected from scientific literature among the publications available up to May 2023. The SCOPUS Base was chosen for convenience and the words e-commerce and pictures were used as a search engine. should be present in the Title, Abstract or Keywords. This search resulted in 388 publications. The representativeness filter was applied to the group of resulting publications and publications that had 100 or more citations among peers were considered, resulting in 18 articles.

The analysis of the results is carried out quantitatively, with the temporal distribution of the publications and a third-order nonlinear polynomial regression is applied to identify inclination and trends of interest in the theme. The countries of origin of the funding bodies of the studies were also analyzed.

Subsequently, official data from the Brazilian government were collected with reference to the number of companies created and closed over recent years. Another data collected was the type of active companies and their nature. For this, the portals of the Ministry of Development, Industry, Commerce and Services and the Brazilian Support Service for Micro and Small Companies - SEBRAE were accessed.
RESULTS AND DISCUSSION

The analysis of data collected in the literature indicates the theme has a growing trend of interest on the subject. The first publication is in 1999, therefore relatively recent. Approximately 2013 there is an increase in publications in the area, even considering that the total number of publications for the year 2023 is not yet complete. There are 10 years of increase (figure 1).

**Figure 1** - Publications by year and third-order polynomial nonlinear regression

![Graph of publications by year and third-order polynomial nonlinear regression](image1)

Figure 2 shows the percentages of origin of funding for studies in the area of interest. It is observed that China is the origin of 30% of the total number of identified studies. The other countries are distributed among the remaining 70%, considering that no other country stands out in second place as a funder.

**Figure 2** - Research funding funds

![Pie chart showing funding sources](image2)
Figure 3 presents the history of opening and closing companies in Brazil in the recent decade. It can be seen that in 2015 and 2018 the numbers of open and closed companies are approaching and that from 2019 to 2022 there is clearly an increase in the number of companies being opened and the non-repetition of this phenomenon with closed companies.

**Figure 3 – History of opening and closing of companies in Brazil (2012 to 2022)**

The numbers referring to the representativeness of micro-enterprises in relation to the total number of publicly-held companies are also presented. In Table 1, the data indicate that in the year 2021 there was a large quantitative leap in microenterprises, evidencing a trend that may be a reflection of the pandemic period experienced in the world.

**Table 1 - Number of companies and micro companies opened in the years 2018 to 2021**

<table>
<thead>
<tr>
<th>Year</th>
<th>Open Enterprises</th>
<th>Open Microenterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>3,900,000</td>
<td>682,700</td>
</tr>
<tr>
<td>2020</td>
<td>3,300,000</td>
<td>579,500</td>
</tr>
<tr>
<td>2019</td>
<td>-</td>
<td>579,300</td>
</tr>
<tr>
<td>2018</td>
<td>2,500,000</td>
<td>540,600</td>
</tr>
</tbody>
</table>

Source: SEBRAE (2023)

Regarding the nature of active companies in Brazil, Figure 4 shows that in every two Brazilian companies, 1 is offering services. Therefore, this characteristic must directly affect the relationship between the offer and the consumer. This picture may be an indication that the
Brazilian economy has a current tendency to increase the number of micro-entrepreneurs offering services, although this relationship is not clear, the data suggest that it may be true.

**Figure 4** – Distribution of active companies in the third quarter of 2022.

Source: (Brasil, 2023) *Serviços = Services; Indústria = Business

In the age of technology, the Chinese government wants to adopt the latest technologies and interconnect its processes to protect the information of all stakeholders. China, as an emerging knowledge-based economy, is trying to become a party to international laws and treaties (ABBAS et al., 2018).

China is a country that is characterized by excessive care in defending the copyright of its citizens. As an example, Gong Tao et al. (2022) explain that due to the explosive growth of esports competition and the emergence of a new esports industry, live streaming of esports has highlighted regulatory gaps, and the implementation of China's new Copyright Law (2020 amendment) partially compensated for these shortcomings. According to the new Chinese Copyright Law, e-sports live broadcast and the corresponding original game image can be classified as audiovisual works, while the properties of works containing player-operated images can be denied. This concern is based on the understanding that product images, such as those that appear on e-commerce sites, exhibit unique characteristics that are not normally present in natural images (MISRA et al. 2023).

When it comes to marketing strategies, Word-of-Mouth (WOM) is one of the most effective and a more important business success driver than traditional advertising. Its electronic version is informal communication about products and services on the Internet provided by consumers. Among such communication, online customer reviews (OCRs) of products and services are the most prevalent. As an important component of corporate reputation, OCRs are a type of marketing information with high marketing power and commercial value. Their influence far exceeds newspapers or personal promotions and commercial advertising. As a result, OCRs can make or break companies (XIAODONG; JIAN, 2023). There is a growing interest in
understanding how word of mouth (WOM) on the Internet is generated and how it influences consumers' purchase decisions at points of sale. (DUAN; WHINSTON, 2008)

This need for optimization in Jaller and Dennis (2022) finds that time spent in out-of-home locations dramatically decreased while e-commerce transactions saw an increase. It should also be noted that consumers demonstrated greater choice and purchase intention for the image that aroused greater embodied mental simulation (BAGATINI et al. 2022). The trend of e-commerce and online shopping is rapidly increasing. However, it is difficult to know the quality of items from photos and videos available in online stores. Therefore, online stores and independent product review sites share user reviews about the products to facilitate shoppers to discover the best quality products (ULLAH et al. 2023)

Known as digital word of mouth, the convincing strategy based on contacts between virtual consumers uses image resources to convince. With the emergence of the Internet, companies found a new way to sell their products and services and interact with customers and business partners (HASSANEIN; HEAD, 2007). In the era of social commerce, individuals share their knowledge, experiences and information about products and services with colleagues, providing a supportive environment in an online context (HAJLI, 2014).

A problem or threat already detected in 2000 by Hartung and Ramme (2000) and the object of this study is digital distribution, since a major obstacle for the distribution of digital media and associated businesses is the possibility of unlimited consecutive copying in the digital domain, which threatens intellectual property rights (e.g. copyright). This theme is still little explored, as indicated by Mishra, Singh and Koles (2021) when they state that previous studies suggest that consumer behavior in omnichannel retail is a promising area, but little explored, with several potential paths for future research.

E-commerce is the combination of traditional business model and network technology as well as information technology in the information age, therefore, it faces important opportunities and challenges (FU et al., 2020). This stimulates the perception of those involved, because for managers of companies with a presence on the Web, the perception of how customers perceive service quality is essential to understand what customers value in an online service transaction (COLLIER; BIENSTOCK, 2006).

Currently, shopping sites act as an interface for communications and contacts. In order to capture the complete picture of etail quality, Kim, Jin and Swinney (2009) attempted to cover the complete shopping experience by focusing on four dimensions of etail quality that go beyond website functionality or quality aspects: service/reliability, site design, security/privacy, and responsiveness. The internet increases the possibility of offering products. Expands competition. Customers are no longer tied to local retailers offers and conditions, but can choose from a multitude of retailers across the world and compare their products, quality offered, price, services, etc. with just a few clicks (VAN VLASSELAER, et al., 2015).
Virtual contacts pose threats. There is little guarantee of quality because of its intangible nature and this “intangibility” of e-commerce can make shoppers unsure whether products ordered online will meet their needs or meet expectations (WEATHERS; SHARMA; WOOD, 2007). The challenge is to facilitate the consumer's filter to direct him to the desired product. Recommender systems are information filtering tools that aim to predict the classification of users and items, predominantly from big data to recommend their tastes (KATARYA; VERMA, 2017).

It has a function to create better angles to present the products online. This can be considered work and therefore protected. Online apparel retailers have adopted various types of image interactivity (IIT) technology such as close-up photos or zoom functions, mix-and-match functions, and 3D virtual models to enhance consumers' online shopping experience (KIM; FIORE; LEE, 2007). The challenge is to facilitate the consumer's filter to direct him to the desired product. Directing users to relevant content is increasingly important in today's society with its ever-increasing mass of information (SALTER; ANTONOPOULOS, 2006).

In the e-commerce environment, individuals' concerns about the privacy of online information play critical roles in determining their intention to use the Internet to provide personal information for services and transactions (LI, 2011). On the one hand, online shopping sites use collaborative filtering schemes to increase their competitive advantage over other companies. On the other hand, malicious users and/or competing vendors may decide to insert fake profiles in user item matrices in a way that can affect predicted rankings in the name of their advantages (GUNES, et al., 2014). Specifically, virtual reality (VR) has been gaining prominence recently on the Internet because it allows consumers to experience products over the web, an activity that plays a key role in avoiding consumers' lack of real physical contact with products (SUH; CHANG, 2006).

**COMMENTS**

The agility with which social networks bring as disclosure can be a great influencer and facilitator for the growth of new companies, buyers confused by the uncertainty whether the products ordered online will meet their needs or meet expectations. With just a few clicks, consumers can choose from a multitude of products worldwide and compare quality, price, services, etc.

The relationships between companies and consumers are carried out mainly through digital means. The result of this is that consumption is used in different ways, it helps to show the differentials of services in the face of great competition. On the other hand, the digital environment favors the creation of malicious user profiles, the possibility of copying in the digital domain threatens intellectual property rights and their copyright creators, thus becoming their greatest weakness.
REFERENCES


SEBRAE. Brasil alcança recorde de novos negócios, com quase 4 milhões de MPE. Disponível em: sebrae.com.br/sites/PortalSebrae/ufs/ma/noticias/brasil- alcanca-recorde-de-novos- negocios-com-quase-4-milhoes-de-mpe,b7e02a013f80f710VgnVCM100000d701210aRCRD. Acesso em 25 de maio de 2023.


