# THE SPECIALIST DOCTOR'S BRAND IN INTERNATIONAL HEALTHCARE: ROLE OF DIGITALISATION AND CYBERSECURITY

Martina Dimitrova<sup>1</sup> mdimitrova@uni-plovdiv.bg

#### **Abstract**

The post-pandemic dynamic environment of international healthcare has set branding as a fundamental differentiator for specialist doctors. This paper explores the intricate relationship between branding, digitalisation, cybersecurity and healthcare in an international setting, highlighting the collective significance of these elements for the favourable perception of a specialist doctor's brand. The rapidly evolving role of digital tools, such as telemedicine, online platforms and ai, emphasises how a strong digital presence not only enhances patient engagement, but also ensures brand loyalty. In addition, the article draws upon the critical importance of cybersecurity in protecting a doctor's brand. Building a strong brand presence in the healthcare sector, not so rarely attracts data breaches and cyber threats that might heavily undermine trust and reputation. This study acknowledges the challenges and forthcoming trends in healthcare branding to propose a comprehensive framework for integrating digitalisation and cybersecurity into an aligned branding strategy.

**Keywords:** doctor's branding, international healthcare, digitalisation in healthcare, healthcare cybersecurity

**JEL:** M3, I1, O3

#### Introduction

Branding, once primarily associated with products and large corporations, has increasingly extended into the realm of personal branding, particularly within service-based sectors like healthcare. Traditionally, branding has served as a means of establishing unique identities and cultivating consumer loyalty. This concept has found significant relevance in the healthcare industry, especially for specialist doctors whose services are both intangible and critical. Furthermore, the shift toward personal branding reflects broader changes in healthcare, where individual providers must distinguish themselves by showcasing both their clinical skills and their ability to provide empathetic, patient-centred care in an increasingly competitive global market.

Previously, healthcare branding was primarily the domain of hospitals and institutions. However, in today's digital landscape, individual specialists such as oncologists, cardiologists, and neurologists are expected to cultivate their own brands by leveraging

<sup>&</sup>lt;sup>1</sup> PhD candidate, Department of Marketing and International Economic Relations, Faculty of Economics and Social Sciences, "Paisii Hilendarski" University of Plovdiv.

digital platforms like telemedicine, professional websites, and social media to build reputations that transcend geographic boundaries. The growing importance of digital tools in healthcare branding, further fueled by the COVID 19 pandemic, highlights the fundamental shift in patient-doctor interactions, many of which now commence online. A personal brand allows specialists to project key attributes - such as competence and trustworthiness - before any in-person consultations take place. Despite the advantages of personal branding, the rise of digital platforms presents challenges. Tools like social media and professional websites enable doctors to communicate their skills more broadly, yet they also blur the line between genuine professional competence and self-promotion. This raises the important question whether the commodification of a doctor's image, driven by metrics such as online reviews and social media followings, undermine the traditional trust inherent in healthcare, detracting from its altruistic mission. While a strong digital presence can undoubtedly enhance visibility, it risks reducing complex medical expertise to superficial indicators, potentially eroding the depth of trust that is essential in healthcare relationships.

Moreover, with the globalisation of the healthcare industry and the rise of medical tourism, the need for specialist doctors to maintain a well-crafted, consistent brand that resonates with international patients amplifies. However, the global healthcare land-scape introduces new challenges, including navigating different patient expectations, cultural nuances, and legal frameworks concerning patient care and data protection.

As specialist doctors rely more heavily on digital platforms to manage patient relationships, protecting sensitive health data becomes a vital component of maintaining trust. Thus, the importance of cybersecurity in personal branding cannot be overstated. The risks associated with cybersecurity breaches are severe, potentially resulting in significant reputational damage that can be particularly devastating in an industry where trust is paramount. Regulations like the GDPR (General Data Protection Regulation) and HIPAA (Health Insurance Portability and Accountability Act) further emphasise the need for robust cybersecurity measures, positioning data security as a critical aspect of brand management for healthcare professionals.

This aricle aims to investigate the intersection of digitalisation and cybersecurity and its pivotal role in shaping the personal brands of specialist doctors in international healthcare. It suggests that while digital platforms offer unprecedented opportunities for enhancing visibility and expanding reach, they also introduce cybersecurity challenges that can undermine patient trust and damage reputations. The study deduces that as the healthcare industry continues to globalise, specialist doctors must navigate the complex landscape of branding, digitalisation, and data security to remain competitive and trusted in an ever-evolving market.

# Branding for specialist doctors in international healthcare

In today's globalised healthcare landscape, specialist doctors are increasingly required to cultivate a brand identity that transcends national boundaries and aligns with

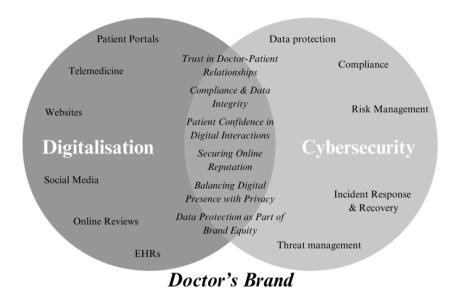
the unique challenges of digitalisation and cybersecurity. Unlike conventional corporate branding, the branding of specialist doctors must prioritise trust, credibility, and the consistent delivery of positive patient outcomes. These elements are crucial, as patients often make healthcare decisions based on emotional connections and perceptions of reputation rather than transactional factors.

The principles of branding – identity, image, and equity – are crucial in healthcare, yet they require adaptation for specialist doctors. In today's landscape, doctors can no longer rely solely on years of practice to build their reputation. They must actively manage their personal brands by utilising digital platforms to showcase their expertise, build trust, and engage with potential patients globally. For specialist doctors digital visibility becomes crucial, as international patients increasingly rely on online resources - such as professional websites, social media profiles, and patient reviews - when selecting providers. These digital touchpoints form the foundation of a specialist's brand, offering insights into their expertise, ethical standards, and treatment philosophy. However, the digitalisation of healthcare also presents challenges. For instance, while online reviews can enhance credibility, they are often subjective, and success in digital consultations or telemedicine may depend on technological factors, rather than medical competence alone.

In the international healthcare arena, personal branding significantly impacts patient choice. Unlike local patients who may have direct access to doctors, international patients often rely on the digital representation of a specialist to make critical decisions. However, there are concerns that this market-driven approach may place more emphasis on a doctor's brand than on the quality of care they provide. Although personal branding democratises healthcare by offering patients more choices, it may also skew decision-making toward doctors with strong marketing strategies rather than superior clinical outcomes.

Thus, even though personal branding can rapidly elevate a doctor's international reputation, it is the consistent delivery of quality care, ethical behavior, and secure management of patient data that sustains long-term credibility. In this digital age, cybersecurity plays a pivotal role in maintaining trust. Patient data breaches can irreversibly damage a doctor's brand, especially in international contexts where legal frameworks around data protection vary significantly. As healthcare becomes more digitalised, specialists must not only navigate technological advancements but also ensure compliance with global cybersecurity regulations to maintain patient trust.

The tension between digital engagement and data protection is a critical issue in healthcare branding (Fig.1). While doctors are encouraged to interact openly with patients on digital platforms, these same platforms pose privacy risks. The General Data Protection Regulation (GDPR) in Europe exemplifies how stringent data protection laws can both protect patients and impose significant compliance burdens on international healthcare providers. The challenge lies in balancing open, transparent digital engagement with rigorous cybersecurity measures to protect patient data and maintain brand integrity.



**Figure 1.** Intersection between digitalisation and cybersecurity in healthcare and their impact on the doctor's brand

Branding for specialist doctors in international healthcare is further complicated by the need to navigate cultural differences and diverse regulatory environments. Cultural perceptions of doctors vary across countries, with some patients expecting authoritative, directive communication, while others value collaborative, shared decision-making approaches. For example, a branding strategy that emphasises the doctor's authority may resonate well in cultures that view doctors as experts who guide the treatment process. Conversely, in cultures that prioritise patient empowerment, branding that highlights collaboration may be more effective.

Moreover, regulatory challenges are an ever-present concern for healthcare brands operating in international markets. Different countries have varying degrees of regulation regarding healthcare advertising, telemedicine, and data protection. This regulatory disparity makes it difficult for specialist doctors to maintain a consistent brand across borders.

# The role of digitalisation in healthcare branding

The transition from traditional to digital branding represents a significant shift in how specialist doctors develop and maintain their professional reputation. Historically, doctors built their brands through referrals, word-of-mouth, and localised reputations. However, digital tools like telemedicine, social media, and websites now allow specialists to expand their influence globally, offering both opportunities and challenges.

One major benefit of digitalisation is the democratisation of healthcare branding. Specialists can now engage with patients across borders, extending their reach beyond local markets. Previously, global branding was largely reserved for renowned institutions, but digital platforms now allow individual practitioners to achieve success as well. However, the crowded digital landscape demands more than mere participation. Specialists must differentiate their digital presence through high-quality content, active patient engagement, and technical proficiency. Failure to do so risks diluting their brand rather than enhancing it. Moreover, digitalisation introduces a level of transparency that traditional branding lacked. Online reviews and patient testimonials are easily accessible and can significantly impact a specialist's reputation. A single negative review can damage a carefully built brand, making the management of digital interactions and service quality paramount.

The global reach offered by digitalisation is a compelling opportunity for specialists, allowing them to expand their influence and shape their reputation internationally. Telemedicine, for example, allows doctors to provide virtual consultations, extending care to underserved regions and offering second opinions. This enhances the perception of accessibility and patient-centredness. However, telemedicine also raises concerns about maintaining the same level of personalised care as in-person consultations. Additionally, cross-border consultations face challenges such as cultural differences and language barriers, which can affect outcomes and perceptions. What is more, data privacy laws further complicate global digital branding, rising the need to navigate different legal regulations and insurance systems across countries. If not managed carefully, these challenges can erode the trust that doctors seek to build through their digital presence.

Online reviews and ratings are another critical factor. Platforms like Healthgrades and Google can enhance a doctor's brand with positive feedback, but negative reviews can quickly tarnish reputations. Reputation management is therefore essential, yet many doctors are not adequately prepared for this digital reality. The algorithms on these platforms may also create biases in patient perceptions, further complicating the competitive landscape.

Social media platforms have also become essential tools for engaging with both peers and patients. Sharing case studies, medical insights, and patient testimonials helps specialists establish authority and expertise. However, managing the fine line between professional and personal interactions on social media is crucial. Privacy breaches and unregulated interactions pose significant risks, and specialists must carefully balance accessibility with professionalism.

While the benefits of digitalisation are clear, there is also the risk of depersonalising healthcare. Digital tools can enhance convenience and efficiency, but they may reduce the human element that is integral to patient care, potentially undermining the relational aspects of a doctor's brand.

Websites and patient portals are vital components of a specialist's digital brand. A well-designed, user-friendly website serves as a central hub for patients to learn about

a doctor's services, credentials, and testimonials. Websites also facilitate patient engagement through appointment systems and portals. However, the digital divide presents challenges for doctors expanding globally, as not all patients have equal access to digital platforms. Ensuring accessibility across both digital and non-digital channels becomes crucial in maintaining a global presence.

Patient portals, offering secure access to medical records and direct communication with doctors, are also integral to building patient loyalty and trust. These platforms improve efficiency and provide continuity of care, which strengthens a doctor's brand.

However, reliance on digital platforms for patient engagement introduces cybersecurity risks. As more patient data becomes digitalised, robust data protection measures are essential to prevent breaches that could severely damage a specialist's reputation.

## Cybersecurity and its impact on the specialist doctor's brand

In today's healthcare landscape, the integration of digital technologies has made cybersecurity a crucial concern for specialist doctors seeking to protect their professional brand and reputation. Confidentiality and trust are essential in the doctor-patient relationship, making data protection a strategic imperative in brand management. As digitalisation reshapes healthcare, specialist doctors must treat cybersecurity not only as a legal and ethical duty but also as a core element of their brand identity, especially in international markets. This analysis highlights the critical link between cybersecurity and a doctor's brand, emphasising that robust security measures are vital for maintaining trust, preventing reputational damage, and strengthening brand equity in a globally interconnected system.

The rise of telemedicine, electronic health records (EHRs), and patient portals has expanded vulnerabilities to cyberattacks, making healthcare a prime target for data breaches. Unlike financial information, healthcare data is permanent, containing lifelong health histories and other sensitive details. For specialist doctors, protecting this data is essential to maintaining patient trust. Any failure in data protection can lead to significant reputational damage, as patients expect doctors to safeguard both their health and their personal information.

As healthcare adopts more digital tools, securing telemedicine platforms, patient portals, and IoT (Internet of Things) devices for remote care becomes increasingly complex. Specialist doctors face the dual challenge of providing high-quality care while ensuring robust data protection. Failing to protect patient information can erode trust, diminish brand loyalty, and result in legal consequences—especially in international contexts, where a single breach can tarnish reputations across borders.

Data breaches pose a significant risk to the trust and reputation of specialist doctors. In healthcare, this loss of trust is particularly damaging due to the personal and sensitive nature of medical data. The emotional fallout from a breach can lead patients to feel betrayed, causing a breakdown in the doctor-patient relationship. For specialist doctors, such a loss of trust can significantly harm their professional brand, as patients may

associate them with negligence rather than care and professionalism. However, doctors can rebuild trust by addressing breaches proactively and communicating transparently. In international markets, where reputations are especially fragile, swift action is crucial to recover from damage.

Specialist doctors must also comply with complex data protection regulations, such as the GDPR in the European Union and HIPAA in the United States. Non-compliance can lead to heavy penalties and long-term reputational harm, signaling indifference to patient privacy. On the other hand, adherence to these regulations demonstrates professionalism and commitment to patient protection, enhancing a doctor's reputation in an increasingly global healthcare market.

To safeguard their brands, specialist doctors must prioritise cybersecurity strategies such as encryption and compliance with international security standards. Effective data protection, including end-to-end encryption, not only meets legal obligations but also reinforces the doctor's commitment to patient privacy. In a competitive healthcare environment, where patients often seek care across borders, a strong cybersecurity stance can serve as a powerful differentiator for specialist doctors.

## Challenges and Future Trends in Digitalisation and Cybersecurity

The rapid pace of digital transformation in healthcare has brought forth a complex paradox for specialist doctors - the balance between innovation and security. As digital tools like telemedicine, AI (artificial intelligence) – driven diagnostics, and cloud storage revolutionise healthcare delivery, they simultaneously increase vulnerability to cyber threats. The potential to improve patient outcomes and expand reach globally is undeniable, but these advancements expose sensitive patient data to new risks. The "innovation-security paradox" requires careful navigation to ensure that the benefits of digitalisation do not compromise trust – a cornerstone of any specialist doctor's brand.

Healthcare professionals must confront with the question of how to fully embrace these technological advancements without compromising cybersecurity. AI, for example, holds great promise for enhancing diagnostic accuracy and operational efficiency. Yet, it also introduces significant risks, such as algorithmic errors, data biases, and potential manipulation if security measures are inadequate. A breach of AI systems could not only lead to misdiagnoses but also to unauthorised use of patient data, undermining the credibility that specialists have worked hard to build. Therefore, digitalisation, if not accompanied by robust cybersecurity, could erode the trust that underpins a specialist's brand, particularly in international settings where cross-border trust is essential.

A key challenge in maintaining this balance is the allocation of resources for cyber-security. For smaller practices and individual specialists, the costs of implementing advanced security measures can be prohibitive. Larger institutions may be able to absorb these costs, but smaller entities often struggle to do so without sacrificing other critical aspects of their services. However, overlooking cybersecurity as an unnecessary expense is shortsighted. A single data breach can have devastating financial and

reputational consequences, particularly for specialists who rely on trust to maintain patient relationships. Rather than viewing cybersecurity as an additional cost, it should be seen as an investment in the protection of a specialist's brand and patient loyalty.

The future of digital healthcare branding is also deeply intertwined with technological advancements. AI, for instance, offers unprecedented opportunities for personalised healthcare, allowing specialist doctors to offer individualised care that enhances their reputation for innovation and excellence. However, AI's integration into healthcare branding is not without risks. Over-reliance on AI systems, if flawed, could lead to damaging consequences, including legal challenges and eroded patient trust, particularly in cross-border healthcare contexts. Ensuring that AI systems are free from biases and errors is crucial for maintaining the integrity of a specialist's brand.

Another transformative technology in healthcare is blockchain, particularly for its role in enhancing data security. Blockchain's decentralised, tamper-proof nature provides an ideal solution for securing patient data, which is critical for building trust in a global healthcare market. For specialist doctors, especially those operating internationally, blockchain can ensure compliance with various data protection regulations, alleviating concerns over data security that often hinder the adoption of digital healthcare services. Although challenges remain in implementing blockchain, its potential to enhance patient trust and secure a specialist's brand outweigh the initial costs and logistical hurdles.

As digital healthcare evolves, so too will global data protection regulations. Stricter laws, like the European Union's GDPR and the US's HIPAA, have set new standards for handling patient data, with severe penalties for non-compliance. Specialist doctors who operate across jurisdictions must stay ahead of these evolving regulations to avoid reputational damage and legal repercussions. Proactively adopting rigorous data protection measures not only safeguards patient information but also serves as a key differentiator in the healthcare market.

#### Conclusion

Digitalisation has expanded specialist doctors' brand visibility, allowing them to reach international patients through telemedicine, websites, and social media. These tools enhance patient engagement and care delivery but also introduce new cybersecurity risks that can undermine trust. Data breaches pose significant threats to a doctor's brand and credibility, particularly in an industry where trust is paramount. Balancing the benefits of digitalisation with robust security measures is critical to protecting both reputation and patient data.

To effectively leverage digital tools, specialist doctors must prioritise cybersecurity. This includes regular security audits, compliance with regulations like GDPR and HIPAA, and transparent communication with patients about data protection practices. Implementing encryption, multi-factor authentication, and secure telemedicine systems is essential for safeguarding sensitive patient information. By integrating these

strategies, doctors can build a trustworthy, secure brand that not only enhances visibility but also maintains patient confidence.

Future research should explore the role of AI and blockchain in healthcare branding, particularly their potential to improve patient trust and data security. Additionally, examining the impact of varying regional data protection laws on international healthcare branding could offer insights into how doctors can navigate these challenges while maintaining compliance and trust in global markets.

### References

Al-Qarni, E.A., 2023. 'Cybersecurity in Healthcare: A Review of Recent Attacks and Mitigation Strategies'. *International Journal of Advanced Computer Science and Applications*, 14(5) [online]. Available at: DOI: 10.14569/IJACSA.2023.0140513 (Accessed: 7 September 2024).

Baudier, P., Kondrateva, G., Ammi, C., Chang, V. and Schiavone, F., 2023. 'Digital transformation of healthcare during the COVID-19 pandemic: Patients' teleconsultation acceptance and trusting beliefs'. *Technovation*, 120(8):102547 [online]. Available at: DOI: 10.1016/j.technovation.2022.102547 (Accessed: 7 September 2024).

Cham, T.H., Lim, Y.M., and Sigala, M., 2021. 'Marketing and social influences, hospital branding, and medical tourists' behavioural intention: Before- and after-service consumption perspective'. *International Journal of Tourism Research*, 24(3) [online]. Available at: DOI: 10.1002/jtr.2489 (Accessed: 7 September 2024).

Cham, T.H., Cheng, B.L., Low, M.P. and Cheok, J.B.C., 2020. 'Brand image as the competitive edge for hospitals in medical tourism'. *European Business Review*, 32(6) [online]. Available at: DOI: 10.1108/EBR-10-2019-0269 (Accessed: 7 September 2024).

Church, E.M. and Chakraborty, S., 2019. 'Investigating healthcare brand communities: The impact of online hospital reviews'. *Health Marketing Quarterly*, 35(2) [online]. Available at: DOI: 10.1080/07359683.2018.1490549 (Accessed: 7 September 2024).

Dal Mas, F., Massaro, M., Rippa, P. and Secundo, G., 2023. 'The challenges of digital transformation in healthcare: An interdisciplinary literature review, framework, and future research agenda'. *Technovation*, 123(4):102716 [online]. Available at: DOI: 10.1016/j.technovation.2023.102716 (Accessed: 7 September 2024).

Dionisio, M., de Souza Junior, S.J., Paula, F. and Pellanda, P.C., 2023. 'The role of digital transformation in improving the efficacy of healthcare: A systematic review'. *Journal of High Technology Management Research*, 34(1):100442 [online]. Available at: DOI: 10.1016/j.hitech.2022.100442 (Accessed: 7 September 2024).

Garcia-Perez, A., Cegarra-Navarro, J.G., Sallos, M.P., Martinez-Caro, E., & Chinnaswamy, A., 2023. 'Resilience in healthcare systems: Cyber security and digital transformation', *Technovation*, 121(8):102583 [online]. Available at: Available at: https://doi.org/10.1016/j.technovation.2022.102583 (Accessed: 7 September 2024).

Kemp, E., Jillapalli, R. and Becerra, E., 2014. 'Healthcare branding: Developing emotionally based consumer–brand relationships'. *Journal of Services Marketing*, 28(2) [online]. Available at: DOI: 10.1108/JSM-08-2012-0157 (Accessed: 7 September 2024).

Koyama, T., Takahashi, K., Takahashi, A. and Takeda, Y., 2019. 'How does a hospital website branding have positive effects on patients visiting and hospital recruitment?'. *Journal of Hospital Management and Health Policy*, 3 [online]. Available at: DOI: 10.21037/jhmhp.2019.07.02 (Accessed: 7 September 2024).

Lee, S.M. and Lee, D., 2021. 'Opportunities and challenges for contactless healthcare services in the post-COVID-19 era'. *Technological Forecasting & Social Change*, 167(6):120712 [online]. Available at: DOI: 10.1016/j.techfore.2021.120712 (Accessed: 7 September 2024).

Li, S., Feng, B., Chen, M. and Bell, R.A., 2015. 'Physician review websites: Effects of the proportion and position of negative reviews on readers' willingness to choose the doctor'. *Journal of Health Communication*, 20(4) [online]. Available at: DOI: 10.1080/10810730.2014.977467 (Accessed: 7 September 2024).

Luca, F.A., Ioan, C.A.M., and Sasu, C., 2015. 'The importance of the professional personal brand: The doctors' personal brand'. *Procedia Economics and Finance*, 20 [online]. Available at: DOI: 10.1016/S2212-5671(15)00083-0 (Accessed: 22 September 2024).

Paul, M., Maglaras, L., Ferrag, M.A. and Almomani, I., 2023. 'Digitisation of healthcare sector: A study on privacy and security concerns'. *ICT Express*, 9(4) [online]. Available at: DOI: 10.1016/j.icte.2023.02.007 (Accessed: 7 September 2024).

Peek, N., Sujan, M. and Scott, P., 2020. 'Digital health and care in pandemic times: Impact of COVID-19'. *BMJ Health Care Informatics*, 27(1):e100166 [online]. Available at: DOI: 10.1136/bmjhci-2020-100166 (Accessed: 7 September 2024).

Zahoor, H. and Mustafa, N., 2022. 'The association between healthcare staff personal branding and patients' perceived service quality: An evidence-based research of the healthcare sector in Pakistan'. *InTraders International Trade Academic Journal*, 5(2) [online]. Available at: DOI: 10.55065/intraders.1131331 (Accessed: 7 September 2024).

Zhang, T., Yan, X., Wang, W.Y.C. and Chen, Q., 2021. 'Unveiling physicians' personal branding strategies in online healthcare service platforms'. *Technological Forecasting & Social Change*, 171(3):120964 [online]. Available at: DOI: 10.1016/j.techfore. 2021.120964 (Accessed: 7 September 2024).