The Role of Smart Technologies in French Hospitals’ Branding Strategies

Pablo Medina Aguerrebere 1,*, Eva Medina 2 and Toni Gonzalez Pacanowski 2

1 Department of Communication, Faculty of Communication, Canadian University of Dubai, Dubai 116715, United Arab Emirates
2 Department of Communication, School of Communication, University of Alicante, 03690 Alicante, Spain; evacollmedina@gmail.com (E.M.); toni.gonzalez@ua.es (T.G.P.)
* Correspondence: pablo.medina@cud.ac.ae

Abstract: Hospitals resort to different initiatives to build their brands, including media relations, events, and marketing campaigns. However, they face several challenges related to legal frameworks, patients’ new demands, and hospitals’ digital transformation. This paper analyzes how the best hospitals in France manage smart technologies to enhance their relationships with stakeholders and reinforce their brands. We resorted to the World’s Best Hospitals 2023 to identify the 150 best hospitals in this country. Then, we defined 34 branding indicators to evaluate how each hospital managed smart technologies for branding purposes. We adapted these criteria to different platforms and targets: homepage (patients), online newsroom (media companies), About Us section (suppliers, shareholders, and public authorities), and artificial intelligence department (employees). When analyzing these criteria, we resorted to a binary system and only considered hospitals’ official websites. Our results proved that 98% of hospitals had a website, but not all respected the criteria related to the homepage (4.54 of 11), online newsroom (2.52 of 11), or About Us section (1.56 of 6). The best hospitals in France, according to the number of criteria respected, were Institut Curie-Oncology (20), Institut Gustave Roussy–Oncology (19), and Hôpital Paris Saint-Joseph (19). We concluded that French hospitals should implement collective branding processes that include all stakeholders, not just patients: media companies, public authorities, suppliers, shareholders, and employees. Moreover, these organizations should implement an in-house artificial intelligence department that leads a digital transformation from a medical, branding, and communication perspective. Finally, French hospitals’ branding efforts on smart platforms should focus more on content about the brand so that stakeholders understand the uniqueness of these organizations.

Keywords: hospitals; corporate communication; branding; reputation; artificial intelligence

1. Introduction

Hospitals implement corporate communication initiatives to reinforce their relationships with stakeholders and promote their brands. However, these organizations face several challenges. On the one hand, they interact with many stakeholders, such as employees, patients, suppliers, shareholders, public authorities, and media companies. On the other hand, they respect strict legal and ethical frameworks that determine their communication initiatives: content, language, and images. These legal frameworks are different in each country. Still, all include several principles about public health, patients’ rights, respect for truth, the use of doctors’ images, and the role of scientific language. Despite these barriers, most hospitals use corporate communication to promote their brands. This activity is essential to efficiently face some of the main challenges affecting these organizations: the development of international hospital groups, digital transformation, limited budgets, and an increase in chronic diseases and outbreaks. In this framework, some hospitals have decided to transform their corporate communication initiatives and focus on smart
technologies such as mobile applications or social media platforms. This way, they establish better relationships with stakeholders and build their brand more efficiently.

This paper analyzes how hospitals manage smart technologies to implement corporate communication initiatives and promote their brands. To do that, we reviewed literature about how these organizations implement corporate communication and branding initiatives, especially those based on smart technologies (social media, mobile apps, artificial intelligence). Then, we resorted to the World’s Best Hospitals 2023 to identify the 150 best hospitals in France. Subsequently, we analyzed how each hospital used smart technologies to promote its brand. To do so, we defined 34 branding indicators that we grouped into four main categories: homepage (patients), online newsroom (media companies), About Us section (suppliers, shareholders, and public authorities), and artificial intelligence department (employees). Finally, we presented our results and three main conclusions. French hospitals could consider transforming their communication initiatives and becoming more reputed brands.

2. Branding Hospitals through Smart Technologies

2.1. Corporate Communication in Hospitals

Health communication combines expertise from the communication sciences, social sciences, and physical sciences with professional fields of study—medicine, nursing, and pharmacy—to examine the powerful influences of communication on healthcare (Kreps 2020). This area is essential for citizens and contributes to improving societies (De Las Heras-Pedrosa et al. 2020). Health communication experts respect five main principles: first, promoting human values, such as compassion or empathy, to establish meaningful relationships among healthcare organizations and their stakeholders (Shafiee et al. 2022); second, respecting ethical standards and legal frameworks to reinforce these organizations’ scientific credibility (Merminod and Benaroyo 2021); third, implementing health education initiatives to change people’s behaviors and strengthen their empowerment (Finset et al. 2020); fourth, integrating cultural elements, such as language or history, into health communication strategies to efficiently influence stakeholders’ perceptions about healthcare organizations (Tong et al. 2021); fifth, implementing initiatives that fulfill the needs of these organizations’ stakeholders from a medical, social, and emotional perspective (Tsai et al. 2021).

In this framework, hospitals are among the most critical organizations implementing health communication initiatives. These organizations interact with external stakeholders, such as patients, patients’ associations, public authorities, journalists, and suppliers. They share medical information with patients to reinforce their skills in health literacy; this way, hospitals become credible sources of scientific information (Stellefson et al. 2020). On the other hand, hospitals organize corporate events addressed to patients’ associations to help them in different ways: health education programs, legal support services, and social initiatives (Lungu et al. 2021). Besides patients and patients’ associations, hospitals interact with public authorities and collaborate in different areas, such as health education campaigns or emergency plans against outbreaks (Bilbatua et al. 2020). Finally, hospitals also establish communication relationships with media companies to reinforce their doctors’ and nurses’ scientific credibility (Ren and Ma 2021) and with suppliers—pharmaceutical companies, technology companies—to improve organizational processes and protect patients’ rights (Elrod and Fortenberry 2020). Thanks to these communication relationships with patients, patients’ associations, public authorities, media companies, and suppliers, hospitals influence society, promote health values, and contribute to the common good (Correa et al. 2021).

Besides external stakeholders, hospitals implement communication initiatives to improve their relationships with internal targets, especially doctors and nurses (Merminod and Benaroyo 2021). The first face different barriers that prevent them from interacting efficiently with patients: short consultation timings, limited budgets, and patients’ lack of skills in health literacy (Parker et al. 2021). For this reason, many hospitals imple-
ment initiatives to help doctors improve their communication skills, such as workshops in interpersonal communication and corporate use of online platforms for internal communication (Driever et al. 2020). Nurses face similar issues when interacting with patients (Rodrigues et al. 2020), which is why many hospitals organize training sessions about cultural communication, scientific divulgation, or emotional support techniques (Godsey et al. 2020). Thanks to these communication initiatives, hospitals establish better relationships with patients (Ancker et al. 2020; Tong et al. 2021), positively influencing the collective decision-making processes among patients, doctors, and nurses (Mackert et al. 2020).

2.2. Branding Initiatives in Hospitals

Communicating health messages clearly and openly among stakeholders constitutes a challenge for hospitals because each stakeholder has different perceptions and backgrounds (Jenkins et al. 2020a). This situation is especially complicated with patients: they need to understand their diseases and want to participate in the hospital system, which is why they need professional content (Godsey et al. 2020). To achieve this goal, health communication experts adapt their messages to each stakeholder’s emotional, social, and information needs (Merminod and Benaroyo 2021). In other words, they focus on content that helps them improve their quality of life and understanding of healthcare (Lithopoulos et al. 2021). This way, hospitals establish better relationships with their stakeholders (Jenkins et al. 2020b) and strengthen their credibility as a source of scientific information (Reitsamer and Brunner-Sperr 2021). This scientific credibility helps hospitals become meaningful brands and influence stakeholders’ perceptions (Adebesin and Mwalugha 2020).

The hospital brand is an intangible asset determining this organization’s relationships with its stakeholders (Rahman et al. 2021). Building a reputed brand constitutes a challenge for these organizations since they must implement collective processes involving all stakeholders, share scientific content, and respect strict legal frameworks (Medina Aguerrebere et al. 2020). For this reason, hospitals develop integrated branding strategies that consider medical, organizational, and medical elements (Odoom et al. 2019). Based on these strategies, they define their identity, mission statement, purposes, and beliefs (Singla and Sharma 2021). These elements must be consistent with the organization’s original roots (Rindell and Santos 2021) and become a reference when the organization implements collective branding processes (Xifra 2020). This way, these collective branding processes can help organizations become reputed brands (Govers 2020). This is the case of the Cleveland Clinic and Mayo Clinic (United States). Both organizations have focused their branding efforts on health education initiatives that allow them to reinforce their relationships with stakeholders, especially patients and patient associations.

Besides promoting launching communication initiatives, hospitals also implement in-house corporate communication departments to manage these initiatives professionally (Medina Aguerrebere et al. 2020). This department analyzes each stakeholder’s needs regarding information and emotional support (Odoom et al. 2019), and, based on that, they define a unique brand positioning that determines the hospital’s communication efforts (Khosravizadeh et al. 2021). To efficiently implement this brand positioning, hospitals can resort to storytelling (Li and Zhao 2021) and personal branding: both initiatives help these organizations build more human relationships with patients (Zhang et al. 2021). Finally, hospitals evaluate the impact of each communication initiative on the organizations’ brand positioning and define proposals to improve these initiatives in the coming years (Confente and Kucharska 2021). When hospitals follow this logic, they reinforce their stakeholders’ loyalty to the brand (Rahman et al. 2021).

2.3. Smart Branding Initiatives in Hospitals

Social media platforms are crucial in hospitals’ organizational processes since they help doctors and nurses improve patient relationships (Farsi 2021). Furthermore, these platforms are also helpful in making hospitals’ branding processes more dynamic and innovative (Lithopoulos et al. 2021). Indeed, many hospitals have implemented Social
Media Units within their Corporate Communication Departments to manage these platforms as branding tools (Medina Aguerrebere et al. 2020). Thanks to social media, hospitals accelerate their collective branding processes: online events with journalists, online patient services, and online employee training tools (Yantian et al. 2022). These organizations can also use social media to implement personal branding campaigns and reinforce their doctors’ and nurses’ social visibility (Sotto et al. 2020; Kordzadeh and Young 2018). In other words, using social media allows hospitals to promote their brand more creatively (Shieh et al. 2020).

Besides social media, hospitals can also use mobile applications. These organizations manage mobile applications for medical purposes: education, prevention, and monitoring (Chamberlain et al. 2021). Moreover, they can use these apps to implement branding initiatives (Crossley et al. 2020). Thanks to mobile apps, hospitals enhance their relationships with patients and help them improve their skills in health literacy (Zou et al. 2021), which positively influences the hospital’s social legitimacy (Piculell et al. 2021). On the other hand, hospitals use mobile applications to share medical resources with public health authorities, and this way, they reinforce their corporate relations (Mackert et al. 2020). Finally, hospitals use these applications to establish more dynamic relationships with media companies by sharing medical content or organizing online interviews with doctors (Chou 2021). In other words, mobile applications make hospitals’ relationships with stakeholders more dynamic, which contributes to building a more credible brand (Khosravizadeh et al. 2021).

Besides social media platforms and mobile applications, hospitals use artificial intelligence-based tools to establish new relationships with their stakeholders (Burr et al. 2020). Artificial intelligence allows hospitals to analyze enormous amounts of data cost-effectively and implement more efficient branding initiatives (Butow and Hoque 2020). Thanks to artificial intelligence, hospitals can implement five medical initiatives that positively influence their stakeholders’ perceptions about the hospital brand: first, using telemedicine services and video consultations to establish new patient communication relationships based on trust, respect and data (Bassan 2020); second, managing medical robots to improve internal processes and reinforce patients’ rights to quality healthcare (Ramon Fernández 2021); third, implementing health wearables that help patients monitor their treatments and strengthen their empowerment (Adebesin and Mwalugha 2020); fourth, integrating chatbots on the hospital’s website to make patients’ experience more pleasant (Tsai et al. 2021); fifth, implementing online appointment systems and data recording services on their websites to help patients optimize their time (Dhagarra et al. 2020).

3. Methodology

Using mobile apps, social media platforms, and artificial-intelligence-based tools constitutes an opportunity for hospitals to implement more dynamic branding initiatives. However, it also represents a communication, medical, and legal challenge. To analyze how these organizations manage smart technologies to execute smart branding actions, we resorted to the World’s Best Hospitals 2023, a global ranking published by Statista and Newsweek. Both institutions implemented a quantitative methodology to evaluate 2300 hospitals from 28 countries. They considered four main criteria: (a) 80,000 online surveys to medical experts working in hospitals from 28 different countries, (b) patients’ opinions about these organizations, (c) hospitals’ quality metrics, and (d) PROM questionnaires about patients’ quality of life. Each criterion had a different weight: online surveys to doctors (54%), patients’ opinions (14.5%), hospitals’ quality metrics (29%), and PROM questionnaires (2.5%). Based on these criteria and weights, they defined each hospital’s position in the ranking. Then, a Global Board of Medical Experts—United States, Germany, Israel, France, and Switzerland—evaluated and confirmed these results (Newsweek 2023).

Based on this ranking, we identified the 150 best hospitals in France (see Appendix A). We analyzed how each hospital used smart technologies to interact with stakeholders: (a) patients; (b) media companies; (c) public authorities, suppliers, and shareholders; and (d) employees. We focused on patients and media companies because the first plays a
crucial role in hospitals’ collective branding processes (Cham et al. 2021), and the second influences public opinion about healthcare-related issues (Medina Aguerrebere et al. 2020). We included public authorities since they determine the hospital’s scientific credibility (Etheredge and Fabian 2022). Finally, we considered employees because they represent the hospital brand and interact with many other stakeholders, such as patients or media companies (Basha et al. 2022).

From 2nd November to 5th December 2023, we conducted quantitative research to evaluate how the 150 best hospitals in France managed smart technologies to interact with their stakeholders and promote their brands. Based on the main highlights from our literature review about smart branding in hospitals, we defined thirty-four brand criteria that we grouped into four categories according to the platforms most commonly used by each stakeholder: (a) homepage (patients); (b) online newsroom (media companies); (c) About Us section (public authorities, suppliers, shareholders); and (d) Department of Artificial Intelligence (employees) (Medina Aguerrebere et al. 2023)—see Table 1. We resorted to the binary system to analyze each criterion and only considered hospitals’ official websites.

Table 1. Brand indicators.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hospital’s homepage</td>
<td>1. Newsroom</td>
<td>1. About Us section</td>
<td>1. Department of Artificial Intelligence</td>
</tr>
<tr>
<td>5. Video consultations with doctors</td>
<td>5. Podcasts</td>
<td>5. Suppliers platform</td>
<td>5. Collaborations with universities or research centers</td>
</tr>
<tr>
<td>7. Interactive maps</td>
<td>7. Online translation services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Virtual tours</td>
<td>8. Online interviews with doctors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Social media platforms</td>
<td>11. Mobile apps or platforms for journalists</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors’ elaboration.

4. Results

Most French hospitals resorted to smart technologies to promote their brands and improve their relationships with stakeholders, especially patients. However, our results revealed that many hospitals can still improve in this area and implement more efficient branding initiatives. We present our results grouped into five main categories: (1) homepage, (2) online newsroom, (3) About Us section, (4) Department of Artificial Intelligence, and (5) global results.

Homepage. Our results proved that 147 out of 150 hospitals had a website. However, most hospitals having a website did not fulfill the indicators considered: podcasts (51.02%), patient portal (49.66%), interactive health library (34.01%), virtual tours (25.85%), interactive maps (19.05%), video consultation with doctors (18.38%), symptom checkers (0%) and chatbot (0%). Concerning podcasts, many hospitals managed this tool to spread scientific knowledge about treatments, diseases, and prevention. Conversely, most hospitals used patient portals to share medical reports and facilitate internal processes such as online appointments or reminders. On the other hand, the only criteria that most hospitals met referred to having a homepage (100%), using social media platforms (93.88%), and managing mobile apps (63.95%). On average, these organizations respected 4.56 out of 11 applicable criteria. The best in this category were CHU Bordeaux, Institut Curie, and Institut Gustave Roussy (see Table 2).
Table 2. Best hospitals.

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Number of Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHU Bordeaux—Groupe hospitalier Pellegrin *</td>
<td></td>
</tr>
<tr>
<td>CHU Bordeaux—Hôpital Saint-André *</td>
<td>9</td>
</tr>
<tr>
<td>Institut Curie—Oncology</td>
<td></td>
</tr>
<tr>
<td>Institut Gustave Roussy—Oncology</td>
<td></td>
</tr>
<tr>
<td>CHU Tours—Hôpital Bretonneau</td>
<td></td>
</tr>
<tr>
<td>Infirmerie Protestante de Lyon</td>
<td>8</td>
</tr>
<tr>
<td>Clinique Saint-George</td>
<td></td>
</tr>
</tbody>
</table>

* Both hospitals used the same website.

**Online newsroom.** Our quantitative results showed that 87.07% of hospitals had an online newsroom, and most displayed digital press archives (90.63%). However, most press archives focused on hospitals’ medical services rather than branding elements: identity, history, and social legacy. Nevertheless, most hospitals did not meet other indicators: B-roll videos (29.69%), interactive corporate reports (21.88%), news alerts (7.81%), online translation services (1.56%), interactive infographics (0.78%), podcasts (0%), online interviews with doctors (0%), online press conferences (0%) and mobile apps for journalists (0%). On the other hand, most interactive corporate reports analyzed organizational aspects, such as economic results, business plans, or human resource challenges, which means that most hospitals did not use these reports to promote content about their brands, corporate values, or communication activities. On average, these organizations respected 2.52 out of 11 applicable criteria, and the hospital respecting the most criteria was *Institut Curie-Oncology* (6 criteria).

**About Us section.** All hospitals had implemented this section; many shared interactive corporate documents (29.93%) and videos (24.5%). Nevertheless, only 2.05% showcased interactive infographics. Moreover, no hospital proposed a platform for suppliers or shareholders. This last aspect is essential since hospitals collaborate with suppliers (pharmaceutical companies, technology organizations) and must respect strict legal frameworks concerning the information they share. Using these platforms could help hospitals improve their communication relationships with suppliers. Finally, on average, hospitals respected 1.56 out of 6 applicable criteria (see Table 3).

Table 3. Indicator distribution.

<table>
<thead>
<tr>
<th>Number of Criteria</th>
<th>Number of Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>27</td>
</tr>
<tr>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>1</td>
<td>91</td>
</tr>
<tr>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

**Department of Artificial Intelligence.** Only one hospital had implemented a department specializing in this area: *Hôpital Paris Saint-Joseph*. Its Biomedical Engineering Lab conducted three main activities: integrating artificial intelligence into medical protocols, training employees in this area, and implementing research projects. This department collaborated with technology companies (GE Healthcare, Nuance), universities, and research centers (*Université Paris Saclay, Institut Polytechnique de Paris*) to do so.
On the other hand, our results proved that 67 hospitals did not have an artificial intelligence department. Still, they developed research projects in this area in collaboration with universities, research centers (29), and technology companies (64)—see Table 4. Each hospital focused on different areas, such as oncology, cardiology, or neurology; moreover, they tried to use artificial intelligence in different ways, such as diagnosis, monitoring, or health education. On the other hand, 29 hospitals did not have a department of Artificial Intelligence, but they had implemented in-house research projects in this area. Finally, 53 hospitals did not mention artificial intelligence on their corporate websites.

Table 4. Hospitals and external partners.

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Universities, Research Centers</th>
<th>Technological Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 AP-HP—Hôpital Européen Georges Pompidou</td>
<td>Université Paris-Descartes</td>
<td></td>
</tr>
<tr>
<td>2 CHU Lille—Hôpital Claude-Huriez, CHU Lille—Hôpital Salengro, CHU Lille (1).</td>
<td></td>
<td>Lifelines</td>
</tr>
<tr>
<td>3 CHU Bordeaux—Hôpital Saint-André, CHU Bordeaux—Groupe hospitalier Pellegrin (2).</td>
<td>Inserm Bordeaux Public Health</td>
<td>Synapse Medicine and Deski.</td>
</tr>
<tr>
<td>7 CHU Toulouse—Hôpital Purpan</td>
<td></td>
<td>Intuitive Surgical, Philips, Eurekam</td>
</tr>
<tr>
<td>9 AP-HM—Hôpital Nord</td>
<td></td>
<td>Incepto, Milvue, Canfield Scientific</td>
</tr>
<tr>
<td>10 AP-HP—Hôpital Cochin</td>
<td>Université Paris Cité</td>
<td>Milvue, Cosmo Pharmaceuticals, Gleamer</td>
</tr>
<tr>
<td>11 CHU Grenoble—Site Nord, CHU Grenoble—Site Sud (5)</td>
<td>Université Grenoble Alpes, Multidisciplinary Institute in Artificial Intelligence</td>
<td>Calmedica, Augmented Endoscopy, Erganeo.</td>
</tr>
<tr>
<td>12 AP-HP—Hôpital Saint-Antoine</td>
<td></td>
<td>Capacités, Sigma, Schneider, Philips, Altran, Sopra.</td>
</tr>
<tr>
<td>13 CHU Nantes—Site Hôtel-Dieu</td>
<td>Institut Curie, Ecole Polytechnique, Université de Nantes</td>
<td></td>
</tr>
<tr>
<td>Hospital</td>
<td>Universities, Research Centers</td>
<td>Technological Companies</td>
</tr>
<tr>
<td>----------</td>
<td>--------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>14</td>
<td>CHRU Nancy—Hôpital Central, CHRU Nancy—Hôpitaux de Brabois (6)</td>
<td>Inserm, Université Paris-Est Créteil, Frédéric Joliot Institute for Life Sciences</td>
</tr>
<tr>
<td>15</td>
<td>AP-HP—Hôpital Henri-Mondor</td>
<td>IMT Mines Ales</td>
</tr>
<tr>
<td>16</td>
<td>CHU Strasbourg—Hôpital Civil</td>
<td>Columbia University (United States)</td>
</tr>
<tr>
<td>17</td>
<td>Hôpital Américain</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>CHU Nîmes—Hôpital Carémeau</td>
<td>INRIA</td>
</tr>
<tr>
<td>19</td>
<td>AP-HP—Hôpital Bicêtre</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Médipôle de Savoie</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>CHU Montpellier—Hôpital Lapeyronie</td>
<td>Université de Montpellier, Capgemini</td>
</tr>
<tr>
<td>22</td>
<td>AP-HP—Hôpital Saint-Louis</td>
<td>Université Paris Cite, MSDAvenir.</td>
</tr>
<tr>
<td>23</td>
<td>CHU Toulouse—Hôpital Rangueil</td>
<td>Université de Toulouse, Institut Universitaire du Cancer de Toulouse-Oncopole</td>
</tr>
<tr>
<td>24</td>
<td>Hôpital Foch</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Pôle santé Orélance</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>CH Valencienes</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>AP-HP—Hôpital Lariboisière</td>
<td>Université Paris-Est Créteil</td>
</tr>
<tr>
<td>28</td>
<td>Polyclinique Saint-Roch</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Hôpital Privé du Confluent</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>AP-HP—Hôpital Tenon</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>CHU Saint-Étienne—Hôpital Bellevue</td>
<td>Université de Saint-Etienne, Centre Ingénierie Santé, Institut Régional de Médecine et d’Ingénierie du Sport</td>
</tr>
<tr>
<td>33</td>
<td>AP-HP—Hôpital Albert Chenevier</td>
<td>Université Paris-Est Créteil</td>
</tr>
<tr>
<td>34</td>
<td>AP-HM—Hôpital Sainte Marguerite</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>AP-HP—Hôpital Armand-Trousseau</td>
<td>Agence Nationale de la Performance Sanitaire</td>
</tr>
<tr>
<td>36</td>
<td>AP-HP—Hôpital Beaujon</td>
<td>CNRS, École des Hautes Études en Sciences Sociales, École Polytechnique, Capgemini</td>
</tr>
<tr>
<td>37</td>
<td>AP-HP—Hôpital Fernand-Widal</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>CHU Besançon—Hôpital Jean Minjoz</td>
<td>Université de Franche-Comté, Heig-VD (Switzerland), CHUV (Switzerland)</td>
</tr>
</tbody>
</table>
Table 4. Cont.

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Universities, Research Centers</th>
<th>Technological Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>39</strong> AP-HP—Hôpital Robert-Debré</td>
<td>CNRS, École des Hautes Études en Sciences Sociales, École Polytechnique, Capgemini</td>
<td>Owkin, Intuitive Surgical.</td>
</tr>
<tr>
<td><strong>40</strong> CHU Rennes—Site Pontchaillou</td>
<td></td>
<td>Incepto, Digi-Newb.</td>
</tr>
<tr>
<td><strong>41</strong> Centre Antoine Lacassagne—Oncology</td>
<td>Université Côte d’Azur, INRIA.</td>
<td>3IA Côte d’Azur</td>
</tr>
<tr>
<td><strong>42</strong> Centre Léon-Bérard—Oncology</td>
<td>Unicancer, École Polytechnique, Institut Curie, Université Paris Descartes, Gustave Roussy</td>
<td>Intel, Owkin, Apricity, Tribun Health, PathAI, Creatis, Health Data Hub, Gleamer, Therapanacea.</td>
</tr>
<tr>
<td><strong>43</strong> Hôpital Necker—Enfants malades—Pediatrics</td>
<td>Université de Paris, INSERM.</td>
<td>Sonio and Health Data Hub.</td>
</tr>
<tr>
<td><strong>44</strong> Institut Curie—Oncology</td>
<td>Mines Paris</td>
<td>Ibex Medical, Owkin.</td>
</tr>
<tr>
<td><strong>45</strong> Institut Gustave Roussy—Oncology</td>
<td>Unicancer</td>
<td>Owkin, Tribun Health, Cypath, Therapanacea.</td>
</tr>
<tr>
<td><strong>46</strong> Institut Paoli-Calmettes—Oncology</td>
<td></td>
<td>Medtronic, Health Data Hub.</td>
</tr>
</tbody>
</table>

(1), (2), (3), (4), (5) and (6). All hospitals in each group collaborated with the same internal and external partners.

**Global results.** This research revealed that most French hospitals respected, on average, 8.79 out of 34 applicable criteria and that the best hospital was *Institute Curie* (see Table 5 below).

Table 5. Best hospitals.

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Number of Criteria (Out of 34)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institut Curie—Oncology</td>
<td>20</td>
</tr>
<tr>
<td>Institut Gustave Roussy—Oncology</td>
<td>19</td>
</tr>
<tr>
<td>Hôpital Paris Saint-Joseph</td>
<td>19</td>
</tr>
<tr>
<td>CHU Bordeaux—Groupe hospitalier Pellegrin *</td>
<td>18</td>
</tr>
<tr>
<td>CHU Bordeaux—Hôpital Saint-André *</td>
<td>18</td>
</tr>
</tbody>
</table>

* Both hospitals used the same website.

5. Discussion

Health communication experts implement branding initiatives based on three central values: accuracy, engagement, and credibility (Li and Xu 2020). These values are essential to promoting hospitals’ brands and helping patients protect their right to quality information (Ancker et al. 2020). In other words, these experts focus branding initiatives on assisting patients to improve their skills in health literacy and reinforcing their empowerment (Parker et al. 2021). However, our results about French hospitals’ homepages proved that some hospitals are not following this principle; indeed, they did not use essential tools to help patients reinforce their understanding of healthcare: interactive health library (34.01%), video consultations with doctors (18.38%) or symptom checkers (0%). These results revealed that most French hospitals can still improve in this area. Instead of developing websites focused on administrative information and legal requirements, these organizations should use these platforms to fulfill patients’ data and emotional needs and build the hospital brand more efficiently.

On the other hand, experts in health communication working in hospitals play a crucial role since they educate patients on healthy habits and contribute to building more sustainable societies (De Las Heras-Pedrosa et al. 2020). However, patients and citizens behave differently according to their cultural backgrounds and beliefs (Zhao 2021). For this reason, hospitals need to collaborate with media companies to adapt health communication
messages to citizens’ needs (Castiglia and Dettori 2022). Nevertheless, our analysis of French hospitals’ online newsrooms revealed that most of them had not implemented true collaborations with media companies to achieve these goals. Even if most hospitals displayed digital press archives (90.63%), they did not propose initiatives to reinforce their relationships with media companies: online translation services for journalists (1.56%), online press conferences (0%), online interviews with doctors (0%), and mobile app or platform for journalists (0%). These facts demonstrated that most French hospitals did not integrate media companies into their collective branding processes, representing a reputation risk for these organizations.

Besides media companies, most hospitals develop social communities integrated with other stakeholders (patients, employees, and public authorities) to reinforce their credibility and implement collective branding processes (Confente and Kucharska 2021). To efficiently implement these processes, hospitals promote several values, such as trust and social engagement (Barredo Ibáñez et al. 2021): this way, these organizations can achieve more significant communication goals (Finset et al. 2020). Despite the importance of integrating all stakeholders into the hospital’s branding processes, our paper proved that most French hospitals did not use their About Us sections to improve their relationships with public authorities, shareholders, and suppliers. Indeed, no hospital proposed a platform addressed to suppliers and shareholders. Moreover, most hospitals only displayed basic information about the hospital. French hospitals should professionalize their About Us sections and explain corporate elements such as branding architecture (identity, values, mission, vision, and culture), history, or social engagements with social groups.

Patients view doctors and nurses as human brands with unique personalities (Shafiee et al. 2022). Doctors’ and nurses’ behaviors determine patients’ perceptions about the hospital’s brand (Zhao 2021). One element influencing most of these perceptions is doctors’ and nurses’ professional performance in medical technologies, such as artificial intelligence-based tools (Zegers et al. 2021). Despite this, our quantitative analysis of French hospitals’ artificial intelligence department revealed that only 1 out of 150 hospitals had implemented this structure. Moreover, 53 hospitals did not mention any initiative about artificial intelligence on their websites. These facts proved that French hospitals should institutionalize artificial intelligence by establishing in-house departments, recruiting specialized employees, training doctors and nurses, developing annual plans to accelerate digital transformation, and improving patients’ perceptions about the hospital’s brand. In other words, implementing this department could help French hospitals lead a digital transformation in a coordinated way, optimize resources, change employees’ mentalities, and achieve medical, organizational, and branding goals.

This paper analyzed how the best hospitals in France managed smart technologies to enhance their relationships with stakeholders and thus reinforce their brands. Despite the quantitative results, we should highlight three main limitations affecting this paper. First, we could not consult each hospital’s corporate communication plan, which prevented us from understanding the role of smart technologies in their branding initiatives. Second, we found no publication analyzing patients’ perceptions of the impact of smart technologies on branding campaigns. Third, we did not consider legal, ethical, or economic frameworks existing in France, which highly determine hospitals’ corporate communication initiatives. We recommend researchers interested in this area focus their future projects on different topics, such as the use of mobile apps to make hospitals’ medical protocols more dynamic, the impact of telemedicine on doctors’ scientific credibility, and the use of artificial intelligence to build more reputed hospital brands.

6. Conclusions

Building a reputed brand constitutes a challenge since hospitals interact with different stakeholders (patients, employees, public authorities) and respect strict ethical and legal frameworks that determine their organizational processes. Moreover, hospitals must constantly update their business models to efficiently overcome several barriers, such as
digital transformation, the development of international hospital groups, or the increase
in chronic diseases and outbreaks. Among all these barriers, digital transformation is the
most important since it affects hospitals from an economic, technological, management,
medical, and communication perspective. In this framework, hospitals resort to smart
technologies, such as mobile apps or social media platforms, to establish new relationships
with stakeholders and provide them with meaningful content. This way, they try to
reinforce their brands. Nevertheless, these practices constitute a communication, medical,
and legal challenge.

This paper evaluated how the best hospitals in France managed smart technologies to
promote their brands. To conclude this reflection, we would like to highlight three final
ideas. First, French hospitals should implement collective branding processes that include
all stakeholders, not only patients. Our results proved that most French hospitals respected
criteria related to the homepage (patients) (4.56 out of 11) but not those related to the
online newsroom (journalists) (2.52 out of 11) or the About Us section (public authorities,
suppliers and shareholders) (1.56 out of 6). Second, hospitals should implement an in-house
artificial intelligence department, including doctors, engineers, and communication experts,
who lead a digital transformation to make the hospital’s organizational processes more
efficient. The fact that only 1 hospital out of 150 had implemented this structure proved
that most French hospitals can still improve in this area. Third, French hospitals should
use their websites, social media platforms, and mobile apps to share branding elements
that highlight their uniqueness and social legitimacy. Nevertheless, our analysis proved
that most hospitals used these platforms to display administrative information (processes,
internal documents, and legal requirements).

Author Contributions: Conceptualization, P.M.A.; methodology, P.M.A.; software, E.M.; validation,
E.M.; formal analysis, E.M.; investigation, E.M. and T.G.P.; resources E.M. and T.G.P.; data curation,
T.G.P.; writing—original draft preparation, P.M.A., E.M. and T.G.P.; writing—review and editing,
P.M.A.; visualization, T.G.P.; supervision, P.M.A.; project administration, P.M.A. All authors have
read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: The data presented in this study are available on request from the
Corresponding Author.

Conflicts of Interest: The authors declare no conflicts of interest.

Appendix A. List of Hospitals Analyzed
1. AP-HP—Hôpital Universitaire Pitié Salpêtrière
2. AP-HP—Hôpital Européen Georges Pompidou
3. CHU Lille—Hôpital Claude-Huriez
4. CHU Bordeaux—Groupe hospitalier Pellegrin
5. Hôpital Paris Saint-Joseph
6. ELSAN—Santé Atlantique
7. AP-HM—Hôpital de la Timone
8. CHU Toulouse—Hôpital Purpan
9. Hospices Civils de Lyon—Hôpital Lyon Sud
10. Hôpital Louis Pradel
11. AP-HM—Hôpital Nord
12. AP-HP—Hôpital Cochin
13. Clinique Pasteur
14. Hospices Civils de Lyon—Hôpital Edouard Herriot
15. AP-HP—Hôpital Bichat-Claude-Bernard
16. CHU Grenoble—Site Nord
17. AP-HP—Hôpital Saint-Antoine
18. CHU Nantes—Site Hôtel-Dieu
19. CHRU Nancy—Hôpital Central
20. Hôpital Européen
21. ELSAN—Clinique Saint-Augustin
22. AP-HP—Hôpital Henri-Mondor
23. Hôpital Saint-Joseph
24. AH-HP—Hôpital Antoine Béclère
25. Clinique Francois Chenieux
26. Hospices Civils de Lyon—Hôpital de la Croix-Rousse
27. Clinique de l’Anjou
28. Ramsay Santé—Hôpital Privé Jean Mermoz
29. UNEOS—Hôpitaux Privés de Metz—Hôpital Belle-Isle
30. CHU Strasbourg—Hôpital de Hautepierre
31. Hôpital Albert Schweitzer
32. UNEOS—Hôpitaux Privés de Metz—Hôpital Robert Schuman
33. Institut Mutualiste Montsouris
34. CHU Tours—Hôpital Bretonneau
35. Clinique de L’Europe Rouen
36. CHU Nice—Hôpital Pasteur
37. CHU Dijon-Bourgogne—Hôpital François Mitterand
38. Centre Hospitalier de Bligny
39. CHU Lyon—Hôpital Renée Sabran
40. CHU Strasbourg—Hôpital Civil
41. Hôpital Américain
42. Infirmerie Protestante de Lyon
43. CHU Nîmes—Hôpital Carémeau
44. CH Privé Saint-Grégoire
45. Ramsay Santé—Hôpital Privé La Louvière
46. ELSAN—Polyclinique de Gentilly
47. Centre Hospitalier Lourdes
48. Centre Hospitalier Toulon—Hôpital Sainte Musse
49. AP-HP—Hôpital Bicêtre
50. Hôpital Privé Cannes Oxford
51. Médipôle de Savoie
52. CHU Montpellier—Hôpital Lapeyronie
53. Hôpital Privé de Provence—Polyclinique du Parc Rambot
54. Clinique Rhena Association
55. AP-HP—Hôpital Saint-Louis
56. Clinique Mutualiste Jules-Vernes
57. Hôpital d’Instruction Des Armées Clermont-Tonnerre
58. CHU Grenoble—Site Sud
59. CHU Toulouse—Hôpital Rangueil
60. Centre Hospitalier Grasse
61. Hôpital Foch
62. Clinique Saint-George
63. Clinique Internationale Parc Monceau
64. Clinique Mutualiste de La Sagesse
65. CHU Bordeaux—Hôpital Saint-André
66. Ramsay Santé—Hôpital Privé Clairval
67. Pôle santé Oréliance
68. CHU Clermont-Ferrand—CHU Gabriel-Montpied
69. CH Valenciennes
70. Clinique Saint Germain
71. ELSAN—Hôpital Privé la Châtaigneraie  
72. Ramsay Santé—Hôpital Privé Bois Bernard  
73. Ramsay Santé—Hôpital Privé Le Bois  
74. Ramsay Santé—Hôpital Privé de La Loire  
75. AP-HP—Hôpital Lariboisière  
76. ELSAN—CHP Brest—Polyclinique de Keraudren  
77. Polyclinique Saint-Roch  
78. Clinique Rive-Gauche  
79. Groupement des Hôpitaux de l’Institut Catholique de Lille—Hôpital Saint-Philibert  
80. CH Annecy Genevois—Site Annecy  
81. Nouvelle Clinique Bel-Air  
82. Centre Hospitalier Saint Joseph et Saint Luc  
83. Hôpital de La Croix Saint Simon  
84. Hôpital Privé du Confluent  
85. Centre Hospitalier Ouest Reunion  
86. AP-HP—Hôpital Tenon  
87. ELSAN—Polyclinique Médipôle Saint-Roch  
88. CHI Créteil  
89. Ramsay Santé—Clinique de l’Union  
90. CHU Rouen Normandie—Hôpital Charles-Nicolle  
91. CHU Lille—Hôpital Salengro  
92. CHR Nancy—Hôpitaux de Brabois  
93. Centre Hospitalier Privé Sainte Marie  
94. Clinique Sainte-Anne  
95. CH Dunkerque  
96. CHU Saint-Étienne—Hôpital Bellevue  
97. Clinique Louis Pasteur  
98. CHU Toulouse—Hôpital Larrey  
99. CH Colmar—Hôpital Louis Pasteur  
100. Centre Hospitalier de Cornouaille—Site de Laënnec  
101. Groupement des Hôpitaux de l’Institut Catholique de Lille—Hôpital Saint Vincent de Paul  
102. AP-HP—Hôpital Albert Chenevier  
103. CH Calais—Hôpital Jean Eric Techer  
104. Centre Hospitalier Le Mans  
105. Centre Hospitalier Henri Dunant La Charite-Sur-Loire  
106. AP-HM—Hôpital Sainte Marguerite  
107. Centre Hospitalier de Cannes  
108. CHR Metz-Thionville—Hôpital de Mercy  
109. ELSAN—Polyclinique Vauban  
110. AP-HP—Hôpital Avicenne-Bobigny  
111. AP-HM—Hôpital Armand-Tracquere  
112. AP-HP—Hôpital Beaujon  
113. AP-HP—Hôpital Fernand-Widal  
114. Clinique Mutualiste Porte de L’Orient  
115. Clinique de Saint Joseph  
116. Centre Hospitalier d’Arcachon  
117. Centre hospitalier universitaire Lille  
118. ELSAN—Polyclinique Les Fleurs  
119. ELSAN—Clinique Saint-Pierre  
120. CHU Poitiers—La Milétrie  
121. Centre Hospitalier Chartres Louis Pasteur-Le Coudray  
122. CHU Besançon—Hôpital Jean Minjoz  
123. La Clinique Beau Soleil
124. CH Châteaubriant-Nozay-Pouance—Site Châteaubriant
125. Ramsay Santé—Clinique La Croix du Sud
126. ELSAN—Hôpital Privé Saint-Martin
127. Centre Hospitalier Albi
128. CH Métropole Savoie—Hôpital de Chambéry
129. Ramsay Santé—Clinique Belharra
130. AP-HP—Hôpital Robert-Debré
131. Hôpital La Porte Verte
132. AP-HP—Hôpital Joffre Dupuytren
133. ELSAN—Polyclinique de Poitiers
134. GH Seclin Carvin—CH de Seclin
135. CH de Roanne
136. ELSAN—Hôpital Privé Océane
137. ELSAN—Hôpital-Clinique Claude Bernard
138. CHU Caen Normandie—Hôpital Côte de Nacre
139. CH Bretagne Atlantique—Site de Vannes
140. Ramsay Santé—Clinique Aguilera
141. CHU Rennes—Site Pontchaillou
142. Pôle Santé Léonard-de-Vinci
143. Centre Antoine Lacassagne—Oncology
144. Centre Léon-Bérard—Oncology
145. Hôpital Necker—Enfants malades—Pediatrics
146. Hôpital Paul Brousse—Geriatrics
147. Hospices Civils de Lyon—Hôpital Femme-Mère-Enfant—Gynecology & Maternity
148. Institut Curie—Oncology
149. Institut Gustave Roussy—Oncology
150. Institut Paoli-Calmettes—Oncology

References


Butow, Phyllis, and Ehsan Hoque. 2020. Using artificial intelligence to inform and teach communication in healthcare. *Breast* 50: 49–55. [CrossRef]


Chou, Weng. 2021. Using content analysis to inform health communication efforts on social media: Is popularity the goal? *Mhealth* 7: 40. [CrossRef] [PubMed]


Crossley, Scott, Renu Balyan, Jennifer Liu, Andrew Karter, Danielle McNamara, and Dean Schillinger. 2020. Predicting the readability of physicians’ secure messages to improve health communication using novel linguistic features: Findings from the ECLIPPSSE study. Journal of Community Health 13: 344–56. [CrossRef] [PubMed]


Elrod, James, and John Fortenberry. 2020. Integrated marketing communications: A strategic priority in health and medicine. BMC Health Services Research 20: 825. [CrossRef]


Kordzadeh, Nima, and Diana Young. 2018. Exploring Hospitals’ Use of Facebook: Thematic Analysis. Journal of Medical Internet Research 20: e190. [CrossRef]


Li, Zhenyi, and Jing Xu. 2020. Medicine together with humanities and media: An MHM model to move forward for health communication. International Journal of Nursing Sciences 7: 51–53. [CrossRef]


Shieh, Gow, Shi Wu, Che Tsai, Chi Chang, Tsung Chang, Ping Lui, Yuh Yao, and Wayne Sheu. 2020. A Strategic Imperative for Promoting Hospital Branding: Analysis of Outcome Indicators. *Interactive Journal of Medical Research* 9: e14546. [CrossRef]


Zhao, Xin. 2021. Challenges and Barriers in Intercultural Communication between Patients with Immigration Backgrounds and Health Professionals: A Systematic Literature Review. *Health Communication* 38: 824–33. [CrossRef]


Disclaimer/Publisher’s Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.