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# Hospital websites as a road to transparency: Case study of transition countries

## Abstract

The main goal of the paper is to detect to what extent hospitals in selected transition countries currently use Web pages in order to increase its transparency and communications with the public. Three countries were selected for investigation: Bosnia and Herzegovina, Croatia, and Slovenia. Therefore, the aim of the paper is to examine to what extent specific country factors influence the usage of Web pages among hospitals, since we explore candidate EU member (Bosnia and Herzegovina), recent EU member country (Croatia) and established EU member country (Slovenia). In order to take into account the specific information that hospitals communicate with the public, research instrument already developed for the similar research was used.

*Keywords: public communication, hospital web page, member of EU*

# 1 Introduction

Information and communication technologies have influenced not only industry and customers, but also hospital and patient relationship. However, the information presented on hospital websites is important not only for patients and their relatives, but also for other stakeholders, like hospital managers, policy makers and for providers of healthcare services. Well-designed and functional hospital website can contribute to positive relationship between stakeholders and the institution. Extensive researches have been made on the communication aspects of web sites, aiming to see whether hospital websites are more used as source of information in a one-way communication channel or as an interactive place of communication. Most of researches are conducted for highly developed countries, while, according to our knowledge, there is no research on hospital websites for countries in transition. The aim of this paper is to examine to what extent events specific country factors

influence usage of Web pages among hospitals, since we explore candidate EU member (Bosnia and Herzegovina), recent EU member country (Croatia) and established EU member country (Slovenia). Several researches have been made on hospital websites which are subject to marketing issues (Sanchez, 2000; Diviani et al., 2016, p. 1; Huerta et al., 2014, p. 2) and analysed through various aspects. However, most of researches are done for highly developed countries, but none of them for the countries in transition. Bardach et al. (2015, p. 194) conducted a research analysing the relationship between commercial website ratings (stars from 1-5) and traditional hospital quality, or through consumer orientation (Sanchez et al., 2002, p. 20). Some researchers have been conducted to investigate relationship between the quality of hospital websites and satisfaction of patients (Ford et al., 2013, p. 334) or, as in Norum and Moen (2004, p. 272), who investigate the quality of websites which influence patient's decision in choosing public hospital for the treatment, including parameters of users' age, Internet use, website's multilingualism, etc. Maifredi et al. (2010, p. 17) performed analysis of 1265 public and private Italian hospitals, aiming to study whether they are more sources of information or interactive websites.

Although most of researches have been made for public hospitals, some of them relate to private ones, mostly related information access, readability, marketing issues, and content of websites, culture's impact, technical characteristics, usage, function and interactivity. Although various aspects in the evaluation process were considered, some of them are mostly represented, such as: technical characteristics, quality design and organization, hospital information and facilities, medical services, interactive online services, service quality. Galant et al. (2010, p. 553) analysed the culture's impact, demographic factors, Internet use or culture's impact. Most of hospital websites contain information on hospital facilities, admission and type of medical services, and a few of them contain possibility of interactive communication. In the research presented by Huang et al. (2014, 75), 14 interactive e-health tools were analysed regardless the hospital type, ownership or ranking.

# 2 Methodology

Data used in this paper has been created according to data frame used in Maifredi et al. (2010) so it could be used to compare not only countries discussed in this paper but also Italy which is discussed in paper of said authors, also for this purpose the data was divided into the same 5 categories used in aforementioned paper (Technical items, Hospital information and facilities, Admission and medical services, Interactive on-line services and External activities). Data has been collected by surveying 100 hospitals web sites in Croatia (53), Slovenia (25) and Bosnia and Herzegovina (22). Data was created in February of 2017 during period of 4 weeks. Creating the data was process of visual evaluation of each separate information of each web site and the findings of this evaluation has been analysed using descriptive approach.

# 3 Results

Table 1 presents percentage of surveyed hospitals that had specified Technical item included into their web site. All of the surveyed hospitals in all three countries had the name of hospital and their logo at the head of the site which can be considered a show of will and intention to change their current business models to web based business models. We can also state that this intent has also been shown by the most hospitals surveyed since grave majority of them also has site name appearing on browser title bar (96,2% for Croatian web sites, 96% for Slovenian web sites and 100% for Bosnian web sites) and active part of the site appears on the browser title (79,3%, 92% and 77,3% respectively). Other information about web sites are mostly lacking such as web site maps (only 9,4%, 8% and 4,6%

respectively) in all three countries. Searching the web site is available in some form in 49,1% of Croatian hospitals, 68% of Slovenian hospitals and only 36,4 Bosnian hospitals, furthermore only Croatian hospitals show the date of last update (and only 17% of them). Unfortunately, further steps in changing their business model to web based model have been missing so we can notice that none of the visuals can be removed and that certification of the hospitals has been limited to ISO certification (information about ISO certification in Table 2) and that there has not been any additional certification of hospitals web sites in any of three surveyed countries. This information can be considered somewhat concerning since there is no real way for people with disabilities to use a hospitals web site. Most of the surveyed hospitals in Croatia and Slovenia had links to others useful web sites (50,9% and 72% respectively) but only 31,8% of Bosnian hospitals had them. Legal information about web sites (general disclaimer and copyright notice) were found in 86,8% of Croatian hospitals, 88% of Slovenian hospitals and 95,5% of Bosnian hospitals but only Slovenian hospitals (and only 28% of them) had treatment of surfer personal data statement. Furthermore only 13,2% of Croatian and 22,7% of Bosnian pages had prepared sites for printing while no Slovenian hospitals did, Also another big concern especially for Croatia which is considered a great touristic country is the fact that only 30,2% of Croatian sites were available in foreign languages, other surveyed countries also did not have good results with only 40% of Slovenian and 31,8% of Bosnian sites available in foreign languages, also we could mention that some Bosnian sites are by default in Cyrillic and could be especially complicated and confusing to navigate for foreigners or event to find other languages if they are available.

Table 1: Technical items of websites (% of hospitals per country)

| | Croatia | Slovenia | Bosnia and Herzegovina |
|---|---|---|---|
| 1. Site name appears on browser title bar | 96,2 | 96,0 | 100,0 |
| 2. Active part of the site appears on the browser title bar | 79,3 | 92,0 | 77,3 |
| 3. Name of the hospital at the head of the website | 100,0 | 100,0 | 100,0 |
| 4. Hospital logo at the head of the website | 100,0 | 100,0 | 100,0 |
| 5. Any information or visual displays can be bypassed | 0,0 | 0,0 | 0,0 |
| 6. Access to the website in foreign languages | 30,2 | 40,0 | 31,8 |
| 7. Website map available | 9,4 | 8,0 | 4,6 |
| 8. Website searcher available | 49,1 | 68,0 | 36,4 |
| 9. Date of last website update | 17,0 | 0,0 | 0,0 |
| 10. Website has HON (Health on the Net) foundation code on certificate | 0,0 | 0,0 | 0,0 |
| 11. Website has certification of accessibility to people with disabilities | 0,0 | 0,0 | 0,0 |
| 12. Website has certification of Cascading Style Sheets validation(W3C CSS logo) | 0,0 | 0,0 | 0,0 |
| 13. Website has certification of Markup Validation Service (W3C HTML logo) | 0,0 | 0,0 | 0,0 |
| 14. Website has certification of accessability to people provided by the Italian authority in the public administration | 0,0 | 0,0 | 0,0 |
| 15. Links with other useful websites provided (hospitals, scientific associations, institutions) | 50,9 | 72,0 | 31,8 |
| 16. General disclamers provided | 86,8 | 88,0 | 95,5 |
| 17. Copyright notice | 86,8 | 88,0 | 95,5 |
| 18. Treatment of surfer personal data statement | 0,0 | 28,0 | 0,0 |
| 19. Website pages can be printed | 13,2 | 0,0 | 22,7 |

Table 2 presents information about hospitals information and facilities published on their web sites. It can be easily deduced that postal services or phone/fax is somewhat preferred communication method since it is highly present information on all homepages of all surveyed hospitals (all hospitals in Croatia and Slovenia and 95,5% in Bosnia).

E-mail is also present on homepage of all Slovenian hospitals while it is present in 98,1% Croatian and 95,5% Bosnian hospitals, unfortunately only smaller number of hospitals have disclosed VAT number at their homepage (32,1% in Croatia, 68% in Slovenia and 27,3% in Bosnia and Herzegovina). Hospital history is present at over two thirds of websites (77,4% in Croatia, 76% in Slovenia and 81,8% in Bosnia and Herzegovina).

Statement of purpose can be found in 18,9% of Croatian hospitals, 88% of Slovenian hospitals and 54,6% of Bosnian hospitals. ISO certification is visible on 17% web sites in Croatia and 40% of web sites in Slovenia, while there are no hospital web sites which are ISO certified in Bosnia and Herzegovina. Hospital organization chart can be found in only 11,3% web sites in Croatia, 40% of web sites in Slovenia and 13,6% of web sites in Bosnia and Herzegovina.

Furthermore, none of the surveyed web sites offered any information regarding patient's privacy. On one hand majority of web sites offer information about reaching the hospital by various modes of transportation (73,6%, 92% and 72,7% respectively) and a map of hospital (71,7%, 92% and 59,1% respectively). On the other hand, very small number of hospitals offer any kind of virtual visits to the hospital, only 3,8% in Croatia, 8% in Slovenia and 4,6% in Bosnia and Herzegovina.

Public relations office information is scarce on hospitals web sites work hours are specified in only 5,7% of Croatian, 8% of Slovenian and 4,6% Bosnian web sites, while location of public relations office is disclosed on only 11,3% of Croatian, 8% of Slovenian and none of Bosnian web sites. On the other hand, situation is a better regarding the telephone number of said office with 56,6% in Croatia, 48% in Slovenia and 18,2% in Bosnia and Herzegovina also there is e-mail information disclosed at 54,7% of Croatian, 44% of Slovenian and 18,2% of Bosnian web sites.

Higher attention is certainly given to the patients' rights and obligations since 52,8% of Croatian, 88% of Slovenian and 68,2% of Bosnian hospitals have disclosed them, although only 1,9% of Croatian, 28% of Slovenian and 4,4% of Bosnian hospitals have provided results of patients' satisfaction survey.

None of the surveyed hospitals did provide information for general practitioners publicly. Information for foreigners is also scarcely provided (1,9% of Croatian, 28% of Slovenian and none of Bosnian hospitals). Information about complementary services is provided by 41,5% of Croatian, only 16% of Slovenian and none of Bosnian hospitals web sites.

Table 2: Hospital information and facilities (% of hospitals per country)

| | Croatia | Slovenia | Bosnia and Herzegovina |
|---|---|---|---|
| 20. Hospital history | 77,4 | 76,0 | 81,8 |
| 21. Contact details on the homepage or available at a click: hospital postal address | 100,0 | 100,0 | 95,5 |
| 22. Contact details on the homepage or available at a click: telephone and/or fax number | 100,0 | 100,0 | 95,5 |
| 23. Contact details on the homepage or available at a click: e-mail address | 98,1 | 100,0 | 95,5 |
| 24. Contact details on the homepage or available at a click: VAT number | 32,1 | 68,0 | 27,3 |
| 25. Statement of purpose | 18,9 | 88,0 | 54,6 |
| 26. ISO certification on the homepage | 17,0 | 40,0 | 0,0 |
| 27. Organisation chart | 11,3 | 40,0 | 13,6 |
| 28. Information regarding patients privacy | 0,0 | 0,0 | 0,0 |
| 29. Ways of reaching the hospital: car, public transport | 73,6 | 92,0 | 72,7 |
| 30. Map of the hospital | 71,7 | 92,0 | 59,1 |
| 31. Virtual visit to the hospital | 3,8 | 8,0 | 4,6 |
| 32. Public relations office: work hours | 5,7 | 8,0 | 0,0 |
| 33. Public relations office: location | 11,3 | 8,0 | 0,0 |
| 34. Public relations office: telephone and/or fax number | 56,6 | 48,0 | 18,2 |
| 35. Public relations office: e-mail address | 54,7 | 44,0 | 18,2 |
| 36. Services charter | 0,0 | 96,0 | 4,6 |
| 37. Patient's rights and obligations | 52,8 | 88,0 | 68,2 |
| 38. Results of survey regarding patient satisfaction are provided | 1,9 | 28,0 | 4,6 |
| 39. Information for general practitioners provided | 0,0 | 0,0 | 0,0 |
| 40. Information for foreigners is provided | 1,9 | 28,0 | 0,0 |
| 41. Complementary services: press, cafeteria, television, telephone | 41,5 | 16,0 | 0,0 |

Table 3 discusses items related to Hospital information and facilities. Results of the survey related to admission guide vary so we find information and rules to be followed at the admission in high percentage of hospitals in all surveyed countries (66% in Croatia, 88% in Slovenia and 72,7% in Bosnia and Herzegovina), while information about different types of admission are present at only 39,6% of hospitals in Croatia, 48% in Slovenia and only 9,1% of hospitals in Bosnia and Herzegovina.

Information and rules to be followed during the stay are present in 56,6% (Croatia), 92% (Slovenia) and 72,7% (Bosnia and Herzegovina) of the web sites that have been surveyed. Information about discharge are stated at 54,7% of Croatian hospitals, 88% of Slovenian hospitals and 63,6% of Bosnian hospitals. Information and rules for visitors is also present in most hospitals web sites 60,4% of Croatian, 96% of Slovenian and 72,7% of Bosnian web sites. Information how to obtain a copy of the medical documentation is present only in Slovenian web sites and only 12% of them.

Details of how to pay prescription charges or fees is present at only 20,8% of Croatian web sites, 44% of Slovenian web sites and 4,6% of Bosnian web sites. List of departments or units that provide user services is highly present at 79,3% of Croatian hospitals, 92% of Slovenian hospitals and 90,9 Bosnian hospitals, while their location is present at only 20,8%, 4% and 9,1% of web sites (respectively). On one hand contact information is also highly present at 64,2% in Croatia, 84% in Slovenia and 54,6% in Bosnia and Herzegovina, on the other hand outpatient hospital services list is found in Croatia only and only at 3,8% of surveyed Croatian web sites.

Number of hospital beds is also not disclosed at many web sites and only 17% of Croatian and 13,6% of Bosnian hospitals disclosed it, while Slovenian hospitals did not disclose it at all. Waiting list is disclosed in 73,6% of Croatian, all of Slovenian and only 4,6% of Bosnian web sites, date of the last monitoring is disclosed at the same percentage with the exception of Croatia where less hospitals disclose the date (only 69,8% of all surveyed hospitals). Only Croatian hospitals had a report of the number of admission in the previous years (only 15,1% of Croatian surveyed web sites).

None of the surveyed hospitals have shown any of the hospital quality indicators listed nor has any of the surveyed web sites disclosed doctors' curricula (which was expected since it is not a general practice to publicly disclose curricula of doctors and listed quality indicators are considered to be vital information for countries national health services where they are usually disclosed aggregated).

It seems that hospitals in all three surveyed countries prefer to list employed doctors by their specialization since these percentages were higher than those by the alphabetical order (45,3% in opposed to 11,3% for Croatia, 20% in opposed to 12% for Slovenia and 18,2% in opposed to 0% for Bosnia and Herzegovina).

Information about private consultation/services and fees is also rarity with only 20,8% of Croatian, 32% of Slovenian and 4,6% of Bosnian web sites which did disclose these information. Both cost and list of consultation/services with fees available at the hospital were found in 22,6 of Croatian web sites, 36% of Slovenian web sites and only 4,6% of Bosnian web sites.

In Table 4 we discuss items in connection with Interactive on-line services. Only Slovenian web sites and only 24% of them offered possibility of making an appointment for consultations via the internet while the majority of Croatian (77.4%) and Slovenian (84%), only 4,6% of Bosnian web sites offer the possibility of making an appointment for service or admission via the internet. Link for these appointments is on the homepage of 71,7%, 68% and 4,6% of surveyed hospitals web sites (respectively). Other facilities like documentation via the internet is available only in 1,9% of Croatian hospitals while no other hospitals offer these services.

A vast majority of surveyed sites suggests that it is possible to communicate with the hospital via e-mail this information is found in 96,2% of Croatian sites, all of Slovenian sites and 95,5% of Bosnian sites. Unfortunately asking a specialist via internet or e-mail directly is another story with only 1,9% of Croatian sites that offer this possibility which is not available at other countries. Information request forma can be submitted at 34% of Croatian, 76% of Slovenian and 45,5% of Bosnian surveyed web sites. Suggestions or complaints can be made on 39,6% of Croatian, 76% of Slovenian and 45,5% of Bosnian web site.

It is possible to sign-up for a newsletter at only 1,9% of Croatian and only 12% of Slovenian hospitals web sites, while none of them offer this convenience at Bosnia and Herzegovina.

Health-related forum is present at 3,8% of Croatian and 4,6% of Bosnian web sites, while no Slovenian web sites endorse health-related forum.

Table 3: Admission and medical services (% of hospitals per country)

| | Croatia | Slovenia | Bosnia and Herzegovina |
|---|---|---|---|
| 42. Admission guide: different types of admissions are disclosed | 39,6 | 48,0 | 9,1 |
| 43. Admission guide: information and rules to be followed on admission | 66,0 | 84,0 | 72,7 |
| 44. Admission guide: information and rules to be followed during the hospital stay | 56,6 | 92,0 | 72,7 |
| 45. Admission guide: information and rules to be followed on discharge | 54,7 | 88,0 | 63,6 |
| 46. Admission guide: information and rules to be followed regarding visits by relatives | 60,4 | 96,0 | 72,7 |
| 47. Admission guide: information and procedure for obtaining a copy of the medical documentation | 0,0 | 12,0 | 0,0 |
| 48. Details of how to pay prescription charges or fees | 20,8 | 44,0 | 4,6 |
| 49. Departments or units providing services: complete list | 79,3 | 92,0 | 90,9 |
| 50. Departments or units providing services: location | 20,8 | 4,0 | 9,1 |
| 51. Departments or units providing user services: telephone and/or fax number and/or e-mail address | 64,2 | 84,0 | 54,6 |
| 52. Detailed list of outpatient hospital services available (consultation, diagnostic services) | 3,8 | 0,0 | 0,0 |
| 53. Number of hospital beds disclosed | 17,0 | 0,0 | 13,6 |
| 54. Waiting list disclosed | 73,6 | 100,0 | 4,6 |
| 55. Date of last monitoring of the waiting list disclosed | 69,8 | 100,0 | 4,6 |
| 56. Hospital report of the number of admissions in the previous year | 15,1 | 0,0 | 0,0 |
| 57. Doctors' curricula disclosed | 0,0 | 0,0 | 0,0 |
| 58. Hospital quality indicator: nosocomial infection rate disclosed | 0,0 | 0,0 | 0,0 |
| 59. Hospital quality indicator: inpatient mortality rate disclosed | 0,0 | 0,0 | 0,0 |
| 60. Hospital quality indicator: surgical mortality rate disclosed | 0,0 | 0,0 | 0,0 |
| 61. Hospital quality indicator: others | 0,0 | 0,0 | 0,0 |
| 62. List of employed doctors in alphabetical order | 11,3 | 12,0 | 0,0 |
| 63. List of employed doctors by specialisation | 45,3 | 20,0 | 18,2 |
| 64. Information about private consultations/services and fees | 20,8 | 32,0 | 4,6 |
| 65. List of consultations/services with fees available | 22,6 | 36,0 | 4,6 |
| 66. Cost of consultations/services with fees available | 22,6 | 36,0 | 4,6 |

Table 4: Interactive on-line services (% of hospitals per country)

| | Croatia | Slovenia | Bosnia and Herzegovina |
|---|---|---|---|
| 67. Appointments for consultation via the Internet | 0,0 | 24,0 | 0,0 |
| 68. Appointments for services/admission via the Internet | 77,4 | 84,0 | 4,6 |
| 69. Other facilities available via the Internet (e.g. documentation) | 1,9 | 0,0 | 0,0 |
| 70. Appointments for consultation/services/admission via the Internet: link on the homepage | 71,7 | 68,0 | 4,6 |
| 71. Possibility to communicate with the hospital via the Internet or e-mail | 96,2 | 100,0 | 95,5 |
| 72. Possibility to ask a specialist a health- related question via the Internet or e-mail | 1,9 | 0,0 | 0,0 |
| 73. Information request form via the Internet or e-mail | 34,0 | 64,0 | 45,5 |
| 74. Suggestions/complaints from via the Internet or e-mail | 39,6 | 76,0 | 45,5 |
| 75. Possibility to sign up for a newsletter | 1,9 | 12,0 | 0,0 |
| 76. A health-related forum is present | 3,8 | 0,0 | 4,6 |

Table 5 shows items related to external activities. It is possible to read online or download booklets on 24,5% of Croatian web sites, 68% of Slovenian web sites while no Bosnian web sites offer this convenience. Medical glossary is available at 32,1% of web sites in Croatia, 64% of web sites in Slovenia and only 13,8% of web sites in Bosnia and Herzegovina. Scientific studies are listed or promoted at 35,9% of Croatian, 56% of Slovenian and 18,2% of Bosnian web sites. Courses held at hospitals are listed at only 30,2% in Croatia, 28% in Slovenia and 18,2% in Bosnia and Herzegovina.

Library and information about library is present at staggeringly low percentage of hospitals only 13,2%, 4% and 4,6% (respectively), also schedule of activities is neglected by many hospitals so only 17% of Croatian, 24% of Slovenian and 4,6% of Bosnian hospitals. Condition of publications by hospitals themselves is no better as only 11,3% of Croatian and 9,1% of Bosnian hospitals make them public exception is Slovenia for which this number is 64%.

Associations are rarely found at hospitals web sites in all surveyed countries. Voluntary and patient associations are both found in only 4% of Slovenian and 4,6% of Bosnian web site, in Croatia this number varies so we have voluntary associations in 20,8% of web sites and patient associations in 17% of web sites. Associations for the defence of patients' rights is no exception and these are found in 15,1 of Croatian and 8% of Slovenian web sites while in Bosnia and Herzegovina no hospital has disclosed this information. Need for doctors and understaffed is shown especially in Croatia since 88,7% of surveyed web sites have job opportunities list in opposition to only 40% in Slovenia or 27,3% in Bosnia and Herzegovina.

Surprisingly only 34% of web sites in Croatia, 56% of web sites in Slovenia and 18,2% of web sites in Bosnia and Herzegovina have published information on how to make a donation to the hospital. In contrary press review of some kind is present in the majority of surveyed web sites and at 71,7% of Croatian, 92% of Slovenian and 59,1% of Bosnian web sites.

Table 5: External activities (% of hospitals per country)

| | Croatia | Slovenia | Bosnia and Herzegovina |
|---|---|---|---|
| 77. Possibility to read online or to download health-care booklets | 24,5 | 68,0 | 0,0 |
| 78. Medical glossary available | 32,1 | 64,0 | 13,6 |
| 79. Scientific studies that the hospital promotes or is involved in | 35,9 | 56,0 | 18,2 |
| 80. Undergraduate or postgraduate courses that are held at the hospital | 30,2 | 28,0 | 18,2 |
| 81. Presence of a library | 13,2 | 4,0 | 4,6 |
| 82. Schedule of activities that take place at the hospital: courses, congresses and conferences | 17,0 | 24,0 | 4,6 |
| 83. Publication of the hospital itself | 11,3 | 64,0 | 9,1 |
| 84. Details of job opportunities at the hospital | 88,7 | 40,0 | 27,3 |
| 85. Associations that work at the hospital: voluntary associations | 20,8 | 4,0 | 4,6 |
| 86. Associations that work at the hospital: patient associations | 17,0 | 4,0 | 4,6 |
| 87. Associations that work at the hospital: associations for the defence of patients' rights | 15,1 | 8,0 | 0,0 |
| 88. Information on how to make a donation to the hospital | 34,0 | 56,0 | 18,2 |
| 89. The hospital in the media: press review | 71,7 | 92,0 | 59,1 |

# 4 Conclusion

Most of the hospitals in examined countries have implemented web site. However, hospitals use Web sites to the greater extent as one-way channel of communication. Comparison with other countries revealed that hospitals in transition countries use Web sites to the lesser extent compared to more developed countries, according to the comparison with the previously published similar research (e.g. in Italy). However, Slovenian (established EU member) and Croatian (recent EU member) hospitals present more in-depth information compared to Bosnian and Herzegovina (candidate EU member) hospitals.

To our knowledge, research on Web sites usage in order to increase transparency of hospitals in transition countries has not yet been conducted. This paper also contributes to the impact of specific country factors on the content of hospital Websites. Finally, it discusses in great details in what ways hospitals could use Web sites as a communication channel in order to increase transparency, and thus overall social responsibility behaviour.

The results certainly show an intention of all surveyed countries to shift their focus from traditional business model towards a more modern internet based business model which can be used to help communicate and educate newer generations. Process of this shift seems to be everlasting battle with new challenges since neither country has shown high scores in all areas. Differences obviously exist, but similarities are still surprisingly (especially in elementary implementation of web sites) in high amount probably due to same heritage of the socialistic system of Yugoslavia. Some areas are strongly ruled by Slovenia probably due to compliance to European Union practices and technological advances like implementation of central patients ordering which is fully implemented in Slovenia and partly in Croatia. Hopefully this trend will continue and bring more hospitals into the internet and make them more accessible to their patients.

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