

ICT1004 Case Study 1

Singapore Chess Federation vs Singapore Weiqi Association

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Introduction

This report evaluates two websites, the Singapore Chess Federation [1] and the Singapore Weiqi Association [2]. These websites were chosen due to the high reliance of their users on them, as the both the Singapore Chess Federation and Singapore Weiqi Association are the authority of their field in Singapore, conduct their own training courses and organise most competitions available. These users rely on the websites for information on this wide range of events, thus the websites must fulfil a wide range of criteria in order to reliably provide the correct information. In this paper, I will evaluate and compare the two websites in 5 areas, namely Quality & Standards, Accessibility, Responsive Design, Features & User Friendliness and Security.

1. Quality and Standards

Websites should provide timely information and also adhere to international standards. In this section, the quality and standard of the two websites, Singapore Chess Federation and Singapore Weiqi Association will be evaluated based on missing or incorrect content and W3C Markup Validator [3], and W3C Link Checker [4].

1.1 Singapore Chess Federation

For the website of the Singapore Chess Federation, there is only one page with outdated content, where the pictures on the events/gallery page was extremely outdated, with most being from 2012 and the most recent from 2017. However, the W3C Markup Validator produced 2 errors and 2 warnings:

- Errors
 - Parse error was found due to a value not being specified in the inline style (separator { color:;})
 - Obsolete attribute border on table element was used
- Warnings
 - Unnecessary type attribute was used for style element and JavaScript resources
 - An empty heading was found

In addition, the W3C Link Checker found that a link under the useful-links page, labelled as Singapore Sports Council led to an outdated and invalid website.

1.2 Singapore Weiqi Federation

For the website of the Singapore Weiqi Association, there are some missing and outdated content –

1. YouTube video on the home page was unavailable
2. Competitions page was outdated, with the 2019 competition schedule being shown
3. Page called PDPA was empty, with the text page not available shown.

In addition, the W3C Markup Validator found 4 errors and 2 warnings:

- Errors
 - Many img elements did not have an alt attribute
 - Obsolete align attribute was being used on the p element
 - Element a was used as a child of element ul

- Obsolete attribute frameborder of element iframe was used
- Warnings
 - No lang attribute declared in html tag
 - Unnecessary type attribute was used for JavaScript resources

However, on the bright side W3C Link Checker showed that the website for Singapore Weiqi Association did not have any broken links.

2. Accessibility

With many people relying on these websites for information, users must be able to easily perceive and understand the content, navigate through the pages, and interact with it. For this section, I will be using Deque's axe accessibility testing plugin [5] to evaluate the two chosen websites.

2.1 Singapore Chess Federation

For the website of the Singapore Chess Federation, the plugin found 174 issues with 105 issues requiring review, of which 1 is Critical, 34 are Serious, 33 are Moderate and 1 is Minor. When broken down, the issues are:

- Elements do not have sufficient colour contrast (132 cases)
- Form element does not have labels (1 case)
- Links do not have discernible text (6 cases)
- Links with the same name do not have a similar purpose (1 case)
- There was an empty heading (1 case)
- Heading levels had increased by more than one (1 case)
- Document has multiple main landmark (1 case)
- Page does not have a level-one heading (1 case)
- Pages not contained by landmarks (30 cases)

2.2 Singapore Weiqi Federation

For the website of the Singapore Weiqi Association, the plugin found 84 issues with only 54 issues needing review. However, it had 5 Critical, 10 Serious and 15 Moderate errors. When broken down, the issues are:

- A frame did not have an accessible name (1 case)
- Html element does not have lang attribute (1 case)
- Images do not have alternate text (5 cases)
- Some links do not have discernible text (7 cases)
- and elements contain elements other than , <script> and <template> (1 case)
- Elements not using ARIA attributes (1 case)
- Pages do not have means to bypass repeated blocks (1 case)
- Elements do not have sufficient colour contrast (49 cases)
- Links with the same name do not have a similar purpose (2 cases)
- <video> element do not have captions (1 case)
- Document do not have one main landmark (2 cases)
- Pages do not have level-one heading (2 cases)
- Page content not contained by landmarks (11 cases)

3. Responsive Design

A good website should be able to display properly across various platforms on different screen sizes, especially websites like the Singapore Chess Federation and Singapore Chess Association where people with varying devices rely on them for information. In this section, I will be testing the responsiveness of these two websites with the

Firefox Developer Tools [6], with the screen sizes of Samsung Galaxy S10, Apple iPad Mini, Nokia 8110 4G and Google Pixel 5.

3.1 Singapore Chess Federation

For the Singapore Chess Federation, the devices showed:

- Samsung Galaxy S10: Website did not respond well, with some content on the left and right being cut off despite already forcing the user to use the horizontal scroll.
- Apple iPad Mini: Website responded well, no content was cut off, the whole website fit nicely into the screen. Only issue was that the dropdown menu no longer seemed to function.
- Nokia 8110 4G: Whole screen fit into the screen but became very small and difficult to navigate. Dropdown menu still did not work.
- Google Pixel 5: Similar to the Nokia, website fit into screen but at the cost of making everything smaller. Dropdown menu still does not work.

3.2 Singapore Weiqi Association

For the Singapore Weiqi Association, the devices showed:

- Samsung Galaxy S10: Website did not respond well, users are forced to use a horizontal scroll bar, however no part of the website was cut off.
- Apple iPad Mini: Website responded well, no content was cut off, the whole website fit nicely into the screen. Though dropdown menu no longer functioned, presence of a side submenu solves the issue.
- Nokia 8110 4G: Whole website was shrunk to fit into the screen, very difficult to see and navigate. Dropdown menu also does not work.
- Google Pixel 5: Similar to Nokia, website was shrunk, however due to its larger screen easier to see and navigate. Dropdown menu still does not work.

4. Features & User Friendliness

Features & User Friendliness of a website ensures that users would be able to accomplish what they wanted and also retrieve information easily. For this section, I will be looking at how the content is presented and what an interested user is able to accomplish on the websites.

4.1 Singapore Chess Federation

Content Presentation: Information is well presented, with most relevant information on the home page, including upcoming events, announcements, latest news, and a calendar. Presence of a search function also enables users to easily locate what they are looking for on the website. Well organised menu also enables users to navigate the website easily. However, the load speed of the website seems to be a bit slow, especially when searching for information with many results. Also, some content on the home page seems to be overlapped with each other, especially the buttons, making reading and navigating much harder.

Features: Almost everything to learn about chess in Singapore can be found on the website, from information about the federation, to chess classes, to local and international competitions, to international chess regulations and those who represent Singapore in chess internationally.

4.2 Singapore Weiqi Association

Content Presentation: Information is presented clearly, with most relevant information also on the home page, well labelled and divided. Menu with sub dropdown menus allows for easy navigation, and the presence of a submenu on the side of sub pages allow for navigation when dropdown menus fail. However, the presence of a tournaments page that is constantly updated and a competition page that is outdated could make it confusing for users.

Features: Similar to the Chess Federation, most of the information about Weiqi in Singapore can be learnt from the website. A user would be able to learn about Weiqi, read about the coaches, get the contacts to enrol in a

course, participate in a competition and read up about the top Weiqi players in Singapore and those representing the country.

5. Security

Security has become an important part of websites, with most attacks using websites as an entry point. For this section, I will be using Sucuri's site checker to evaluate the security of the two websites.

5.1 Singapore Chess Federation

The website of Singapore Chess Federation has been rated as High Security Risk, with the site being outdated. Its PHP version is under 7.4.6 and Joomla version is under 3.9.21, rendering it vulnerable to attacks based on these older versions. In addition, the site does not redirect HTTP to HTTPS, with there also being no website monitoring, firewall and Clickjacking Protection. Furthermore, I found that robots.txt was not hidden, presenting another threat to the website.

5.2 Singapore Weiqi Association

The Singapore Weiqi Association website has been rated as Medium Security Risk, with the site also being outdated. Similarly, it does not redirect HTTP to HTTPS, and the HTTPS site also refer to HTTP resources in it. In addition, it does not have any form of website monitoring, firewall or security header for Clickjacking protection.

6. Conclusion

In conclusion, both the Singapore Chess Federation and Singapore Weiqi Association websites seem to be outdated. Firstly, in terms of Quality & Standards, Singapore Weiqi Association website would seem to fare worse than its counterpart due it being more incompliant with standards and outdated content. Secondly, Singapore Weiqi Association would be worse in terms of accessibility due to it have more critical errors despite having less errors in total. Thirdly, for responsive design, though both websites simply shrunk their website to fit in smaller screens and the failure of their dropdown menus, the presence of a side menu in Singapore Weiqi Association's website gave it the upper hand. Fourth, under features & user friendliness, Singapore Weiqi Association's website was better due to the Singapore Chess Federation's website having overlapped content and slow response time. Lastly, in the security aspect, Singapore Weiqi Association would be more secure for its security risk rating is lower. Also, some issues present in Singapore Chess Federation's website like outdated PHP and Joomla and robots.txt being accessible are not problems on the website of Singapore Weiqi Association.

With the website of Singapore Weiqi Association winning 3 out of the 5 categories, I can say that it is better than the website of Singapore Chess Federation. Despite this, both websites still have much problem in all these areas.

7. References

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