

Problem Statement - TAN Junyu

Persona

The target users are basketball fans of Chinese Basketball Association, who may have different levels of familiarity towards the teams and the players. As for beginners, they may have watched a few games and have preference towards team and players. But due to less basketball knowledge, they are more likely to browse other's opinions rather than expressing their own ideas. Beginners may have difficulties in information search, such as which websites can serve their needs, which section should they click on and find the proper information, what the data refer to and how it performs as evaluation criteria. Other kind of fans who may be familiar with the history and current situation of the team or players, have the habit of browsing the performance data, and based on it to form their own views.

Pain Points

1. Most data websites did not have complete, totally correct data (including basic information and performance of team and player). And the presented way of data in these websites are mainly tables which is too monotonous to raise the interest of reading. Some websites's data is nnot updated timely since less staff to maintain the update.
2. Data usually presented in a short phrase which may cause confusion from the beginners who do not know what the data means, where did the data come from and what is the significance to take this data into evaluation.

Needs and Objectives

1. To shorten the process that the user access to the information that they needs.
To provide more filter choice for the users such as basic information like weight and height, or the performance data like PTS, AST, REB. The user also can browse the data in two or more dimensions like team, players and so on.
2. To raise the interest for more people to check the data through data visualization.
Except for those people who get used to browse the data, other users may encounter the difficulties in figuring out the data they need. Data visualization may help these people to be informed the data at the first glimpse and easier for the beginner to understand.

Usability test plan dashboard

USABILITY TEST PLAN DASHBOARD

AUTHOR		CONTACT DETAILS		FINAL DATE FOR COMMENTS	
TAN Junyu		1155145748@link.cuhk.edu.hk		2020/11/09	
PRODUCT UNDER TEST What's being tested? What are the business and experience goals of the product? CBA官方网站 https://www.cbaleague.com/#/	TEST OBJECTIVES What are the goals of the usability test? What specific questions will be answered? What hypotheses will be tested? To figure out the better information structure of a data website.	PARTICIPANTS How many participants will be recruited? What are their key characteristics? 5 participants including 1 totally beginners for CBA, 2 NBA fans and 2 CBA fans.	TEST TASKS What are the test tasks? 1. Identify your preferred team and player. 2. Check the schedule to get the time of preferred team's most recent match and the opponent. 3. Find out the points per game of your preferred player.	RESPONSIBILITIES Who is involved in the test and what are their responsibilities? TAN Junyu; To invite participants, guide them to conduct a proper test, and finally record the behaviour data.	
BUSINESS CASE Why are we doing this test? What are the benefits? What are the risks of not testing? To find out the problems the users may encounter during checking the data	Q: how often do you watch the game/ check the data? how well do you know about basketball/ CBA?	EQUIPMENT What equipment is required? How will you record the data? A computer with recording function (or using mobile phone to record the operation on PC) Taking notes according to recording		LOCATION & DATES Where and when will the test take place? When and how will the results be shared? Guangzhou (mostly conducted online), 2020.11.08 https://junyutan.github.io/	
PROCEDURE What are the main steps in the test procedure? <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">Introduce background information and tasks</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">Interview for learning the key characteristics</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">conduct usability test</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">interview after the test</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">collect the recording and sort out notes</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">conclude the problem and give suggestion</div> </div>					

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Methods and sampling

The usability test of CBA official data website includes 3 tasks:

Task1: Identify the home team and preferred players.

Task2: Check the schedule to get the time and the opponent of next game of preferred team.

Task3: Find out the points per game of your preferred player.

When the participant hand in the tasks notes including the next game's schedule and the data of preferred player, test conductor will stop the time and write down the time the participants spend on these three tasks.

I invited 5 participants to join in this test, all of them are college students from Guangzhou, aged from 20 - 23. Sample 1 and 2 are totally beginners of CBA who just learn a little about the home team, and just began watching the match this 2020-2021 season. Sample 3 used to be an NBA fan and have experience in browsing the basketball data websites.

Sample 4 and 5 are CBA fans who are familiar with each team and some core players, and have the habit of browsing the data after finishing watching.

Results and reflection

Sample 1 and 2 spent more time on finishing the tasks in 2min46s and 3min17s, while Sample 3 was more familiar with the operation in data website and only spent 23s. Sample 4 and sample 5 is the first time to use a new data website, but get used to it very quickly. The tasks only cost them 36s and 30s for completion.

As for task 1, the interview is conducted before the test and the participants were asked if they had the preferred team and players. The results of interview is shown in the table below:

号码 No.	姓名 Name	位置 POS	身高(CM) HT	体重(KG) WT	年龄 AGE	出生日期 BORN
1	方渭博	PG	188	80	20	2000-02-08
2	徐杰	PG	183	73	20	2000-01-16
3	胡明轩	PG/SG	191	78	22	1998-03-10
5	王薪凯	SF/SG	196	83	25	1995-01-25
6	马尚-布鲁克斯	SG/SF	198	92	31	1989-01-26
10	赵睿	SG/PG	195	90	24	1996-01-14
11	周鹏	SF/PF	206	102	31	



3 胡明轩

位置 PG/SG	身高 191cm	体重 78kg	生日 1998-03-10
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场数 GP	出场时间 MIN	得分 PPG	投篮出手-命中 FGAPG-FGM	命中% FG%	两分出手-命中 2FGAPG-2FGM	两分% 2FG%	三分出手-命中 3PA-3PM	三分% 3P%	罚球出手-命中 FTA-FTM	罚球% FT%	篮板 RPG	助攻 APG	抢断 SPG	失误 TOV	盖帽 BPG	犯规 PF
9	25.37	17.3	9.4-5.4	57.6%	5.4-2.9	53.1%	4.0-2.6	63.9%	4.9-3.9	79.6%	3.4	2.4	1.7	1.6	0.3	2.4

Figure.1 the link between team page and player page



Figure.2 the top logo bar of the CBA website

	Preferred Team	Preferred Player
Sample 1	Guangdong	Xu Jie (of Guangdong)
Sample 2	Guangdong	/ (not familiar with player)
Sample 3	Guangdong	Hu Mingxuan (of Guangdong)
Sample 4	Guangdong	Zhao Rui (of Guangdong)
Sample 5	Guangdong	Hu Mingxuan (of Guangdong)

The results show that the citizens who lived in Guangzhou tends to pay more attention to the hometown team and the famous players in this team. Though Guangzhou has its own CBA team, it receive less attention since the history of the team is too short and the previous performance is not good enough.

Towards basketball fans, task 2 and task 3 can be intergraded into one task: as long as the participants entered the team page, they could quickly find the player data in the same page. The basic information is shown on the team page such as the position, height, weight, age and born date. They can learn the performance data of specific player by clicking the name of him, which is a link to the player page (see figure.1) . The similarity of sample 3 and sample 5 is that they use the same access method to get the team page. They found out the home team on the homepage and click on it which is usually a link, while sample 4 spent a little time on the top logo bar to find out the home team logo(see figure.2). The difference among them may reflect that people is much easier to recognize the text than the image. On the other hand, it may confuse someone who are not familiar with each team's logo and take more time to access the team page. Placing the logo at the top of the website is not only a way to increase the awareness of brand image, but also served as a quick access to team page. If the logos are coordinated with the club name, it would benefit the user to quickly locate the team page.

Sample 1 encountered much problems that the navigation bar is not concise enough for the user to find the section they need most at the first glimpse. When the participant realized there was no section called 'team' or 'club', she started to click on each button and wanted to find it in the secondary navigation. The 'team' section is under the 'Game' section which may confuse the user since there was less relationship between them. Though there are many quick access to team page, it would be better if the 'team' section is placed on the primary navigation bar.

Though sample 2 successfully finished the tasks, but she was confused about the meaning, methods of calculating and the significance of some advanced data. It would be more user-friendly that insert the basic knowledge about the data on the page and explain the calculating details for the beginners. And she also mentioned that the way data is presented was too dull for the beginners. Multiple presenting methods should be employed in the data website such as data visualization.

All of the participants pointed out that there was no search box in the webpage which caused great inconvenience when the user has clear goals for searching the data of his/her preferred player and want to directly access to the player page. For player data, the website provide the ranking list of all the players in the league. It is tough for the user to scan all the table to find the specific players. Furthermore, the data is printed out to a paged table and only display 20 players in a page. The user cannot use the browser search function (ctrl+F/command + F) to accurately locate the player.

To sum up, the website should improve the information structure of data display and add the search function.