

Using Multimodal Tools to Enhance the Efficiency for Adding and Getting Comments in E-newspaper

(Initial Experiment and Survey Results which applied in Aljazeera Channel)

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Abstract: - This paper presents an initial experiment and survey results that investigate the use multimodal metaphors such as graphics and speech tools. Also, the aim of them helps researcher to understand the reasons behind the getting and adding the comments on the articles in electronic newspapers. Then, to know the most important issues, problems and gaps which meet commenter when reading and writing the comments. There were 34 people who participated in the surveys and 50 users from Aljazeera Channel staffs who achieved and encouraged us to test two different interfaces (Traditional and Multimodal) to add and get comments on e-newspapers.

Key-Words: Traditional Adding Commitments (TAC), Multimodal Adding Commitments (MMAC), Usability E-Newspaper,

Introduction

No one can neglect the important role of electronic newspaper to be a good communication between readers and information. Furthermore, it is playing a useful way to improve social societies, economics and politics. One of the most important parts in e-newspaper is the columns or opinions which analysis the story of news or gives deep knowledge from the experience of writers. These articles made the industry of e-newspaper more interactive by using comments from the readers. This paper tried to find out what are the main issues for adding and getting comments then to make them more usable. The study achieved its objectives by two stages, initial survey and experiment testing. Two groups were examined; first was control group who used the Traditional Adding Comments platform (TAC) which designed as normal way to add and get comments. Second was experimental group who used a Multimodal Adding Comments platform (MMAC). This interface used new classification to divide the output of comments by three parts. Green Box to classify and gathering all agree opinions comments, Red Box for disagree and Yellow one to none. Also, it used recording sound to add comments rather than using typing tools.

Initial Survey

First, to start our study we made the initial survey and interviews with 34 users, 25 men and 9 women. The aim of these was, to know what way the readers prefer to use when they add and get comments. Also, it was to understand the reasons behind the getting and adding the comments. Moreover, it was to know the most important issues, problems and gaps which meet commenters when reading and writing the comments. We explained to users our objects firstly then asked them if they usually read e-newspaper to select who are interested with our area. After that, participants were required to answer questioners which were three levels. First, Personal Questions like age, education and gender. After that, the Experience with Internet and using e-newspaper then the Experience for adding and getting comments from e-newspaper web such as what they want to know about comments and commenter and what the issues they have.

Results and Discussing

Figure 1 shows that, 44% from participants prefer to get comments from e-newspaper by using both visual and hearing. On the other hand, the majority of participants (32 out 2) prefer to add comments by using voice recording. Many participants mentioned to the reason behind that is to avoid reflection between the idea in their mind and using the fingers when they are typing.

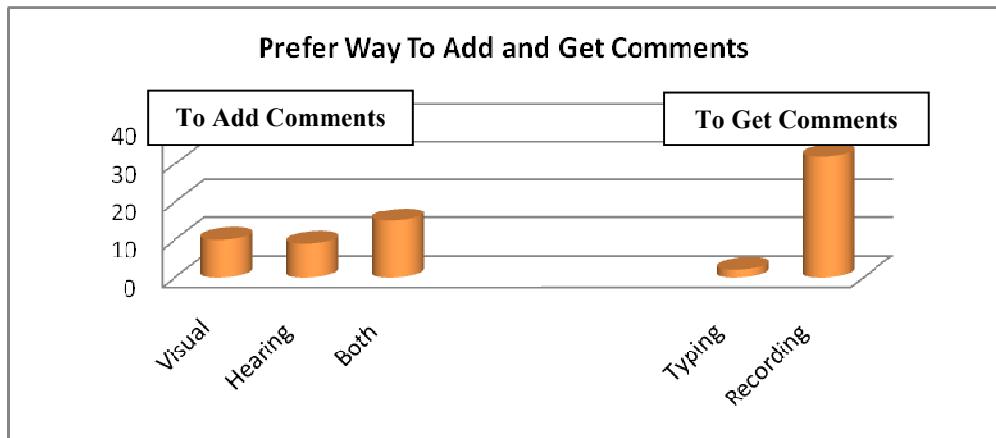


Figure 1: Adding and Getting Comments

Also, in this survey we asked the participants to give us their opinion about the commenter and comments by ordering them from the most important to the least one. The results in figure 2 shows that 74% (25 out 34) from readers wanted to know what the opinions of commenters about the article (agree or disagree). The second important was the gender of commenters (Male or Female) by nearly to 15%. Locations of commenter, Occupations and other like who added the comment which were taken the lowest important from the view of readers which was around 11% from overall.

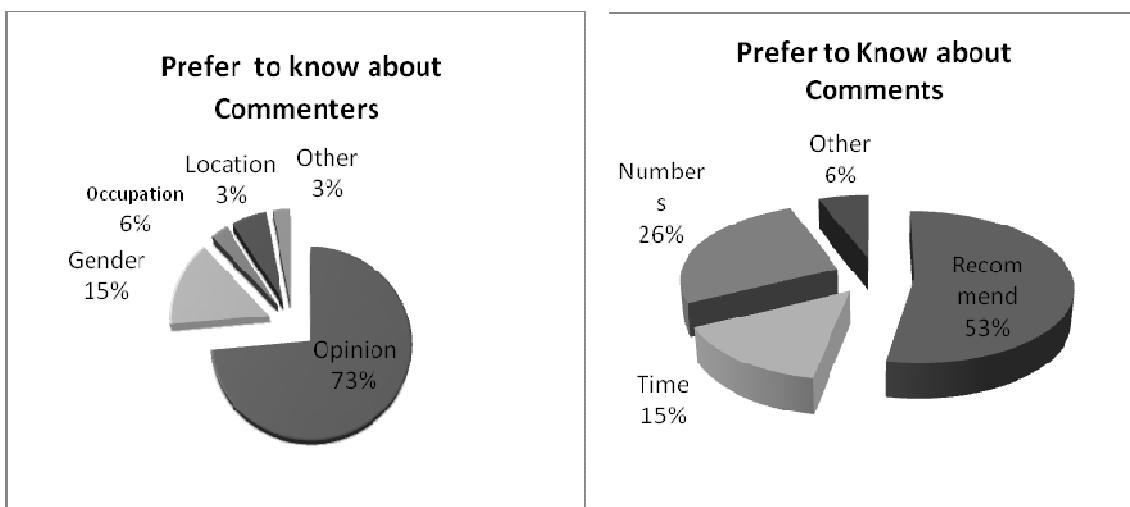


Figure 3 Types of Commenter

Figure 2 Types of Comments

On the other way, figure 3 show that, participants wanted to know how many readers recommended the comment by 53% which was the most important thing. Also, the next one which prefer was the number of comments on the articles by 26%. The rest of opinions were less than 15% who prefer to know the time of comments and other.

To sum up, regarding to the results, users preferred to classify the opinions (agree, disagree or none) for commenter. In addition, the numbers of comments and recommendation were the most important which user wants to know about comments.

MMAC and TAC Experiment Platforms

The aim of these two independent platforms experiment was to investigate of using graphic and speech tools in e-newspaper interface. So, the experiment was designed to use traditional platform and multimodal one. The first interface used to add comments on the article only by typing and to get information as usual way. This platform used by control group. On the other hand, the second interface, experimental group, used to add and get comment details by speech and graphic tools (colours and pictures) by two main parts. First, statistic result part which designed to help users to get general information about the comments quickly and efficiency. Second, Classification part which divided the comments rely on the opinion of writers. Figure 4 shows us the design of this platform.

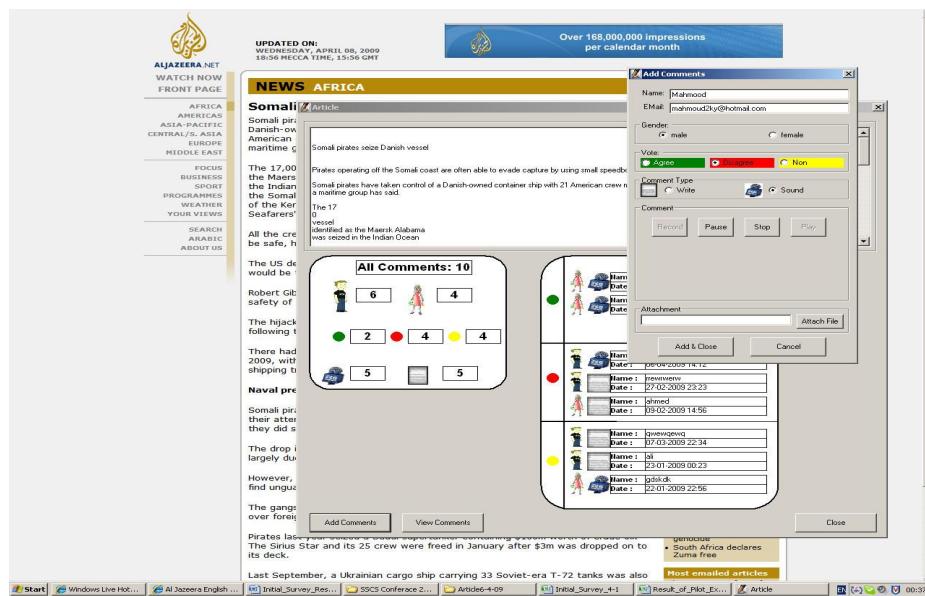


Figure 4: MMAC Platform

Experiment Users

Fifty users who has different education levels, secondary school, diploma, undergraduate and postgraduate were selected to test both platform. Due to the experiment was media sponsorship from Aljazeera Channel in Doha, so all users recruited by different sections from there. Also to make the successfully of experiment all users had two requirements which were:

1. Interested to read articles and comments from e-newspapers.
2. Good experience to deal with computer (i.e. ten houses weekly).

In addition, there was one requirement more for users who tested MMAC which never used this platform before.

Experiment Tasks

To test the experiment, users were divided into two independ group as well as both given six tasks to complete. First, for control group who used ATC platform, user asked read article then to add three different levels fixed comments (short, mid and long) by typing for the tasks 1,2 and 3. After that, they were given time to read their comments for task 4 and then to determine the opinion (agree, disagree, none) for the first and last comment for overall. Also, they asked to classify and numbering all comments depend on the opinion of comments for the rest tasks. Similarly, in MMAC platform, the experiment group asked to add the same comments for TAC but by recording them. Then they asked to hear their comments and get answer of questioners of task 5, 6. Each group had the same articles and comments which selected from Aljazeera net site. While users are completing tasks, the time and errors taken for each single one.

Experiment Process

The experiment was tested by two independent groups, using traditional way or multimodal tools for input and output comments. Those were for the experimental group and control group. Twenty five users tested each group and complete each task individually whose were randomly from different section in Al-zazera chanal staffs. The time for accomplish each task and overall tasks were recorded. Also, the frequency of errors were recorded for each task individually to measure effectiveness and efficiency of both platforms. After user had tested the interfaces, they asked to answer questionnaire to measure the usability and satisfaction of the experiment.

Result of Accomplishment Time

To measure the efficiency, the experiment determined two factors observed and tested. First, total of time which taken to achieve tasks 1, 2, 3 in each group (time input). Second, total time where user spent to get information in task 5, 6 in each group (time output). Figure 5 shows the average time which spent in both platforms for each single task. In general the result of experiment declared that the usage of MMAC system reduced spending time to input of comments if compared that by using TAC. Also figure 6 shows that using platform of experiment group reduced user's time to get information from comments rather than using control group. However, the observed of experiment shows that spending time to read comments form TAC was a little bit lower than hearing them by using MMAC.

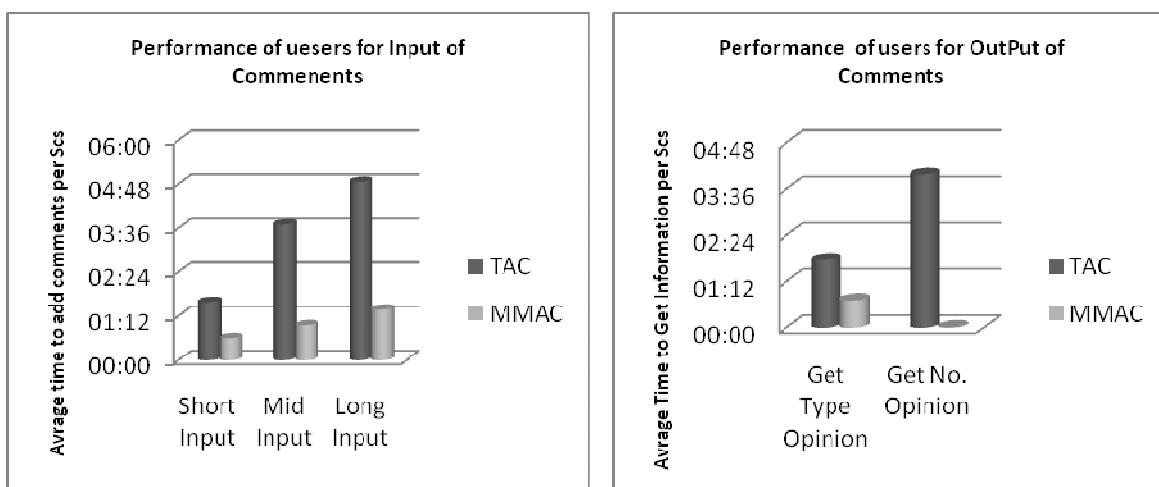


Figure 6 : Average Time Input

Figure 5: Average Time Output

Conclusion:

To sum up, these initial survey and experiment aimed to investigate using multimodal tools such as graphic and speech to improve the efficiency when reader of articles adding and getting comments in e-newspaper. This investigation was teased by two platforms, TAC and MMAC by two independent groups. The experimental group incorporated new classification to divide the output of comments by three parts. Green Box to classify and gathering all agree opinions comments, Red Box for disagree and Yellow one to none. In addition, it used recording sound to add comments rather than using typing tools. As far as the results show that, using multimodal tools to add and get comments were the most positively perceived by participants. However, in this new filed for (adding and getting) comments research needs to test and investigate more by using different multimodal tools such as non-speech and avatar to be more useful.

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