A Design of Proposed Dashboard Model for Researchers in Social Research Network Sites

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Abstract— **Many researchers have used online platform such as social research network sites (SRNS) for their research works. The researchers want to be notified on latest information in research field. However, there are huge amounts of information in the SRNS to be handled. The researchers need a dashboard as a tool to provide awareness on current information in research field to the researchers. This paper aims to discuss on the design of a dashboard model for the researchers in the SRNS. The dashboard model consists of the dashboard components that are used to satisfy the researcher needs. The proposed dashboard components are identified based on analysis from literature studies and by review on the current SRNS. A survey was conducted in order to verify the proposed dashboard components. From the survey, the dashboard components can be grouped into three factors that shared common themes. Then, we construct the dashboard model for the researchers in the SRNS. The dashboard model has three menu categories which are 1) researcher performance for the purpose to measure the researcher performance, 2) research statistics for the purpose to monitor research trends and 3) research events alert for the purpose to alert on upcoming events. The dashboard components are listed based on the three menu categories in the dashboard model.**

Keywords—dashboard components; dashboard model; social research network sites; researchers

I. INTRODUCTION

Nowadays with the emergent of Internet, social media such as social networking sites, forums and blogs are very popular all over the world. Many people use the social media in their everyday life. The social media allows people to connect with one another from anywhere at any time, does business and socialize in the cyber world. The growth of the social media have an impact towards research community [1]. This can be seen based on statistical study on half million researchers in [2] that shows about 70.6 % of the researchers have at least one homepage or a Web page. Among various types of social media, the social networking sites are identified as the most useful tool to support the research lifecycle phase [3-5]. There are specialized social networking sites for the researchers known as social research network sites (SRNS) [6]. The researchers use the SRNS in order to fulfill their needs such as to find researchers with similar interests or expertise, to keep in touch with their peers and to share information [7, 8].

When the researchers use the SRNS, they are constantly generating information that single researchers might want to be noticed likes latest information in research field or looks for events on a specific topic but fail to do because they are huge amounts of information in the SRNS and it would overwhelm them [3, 9, 10]. The news feed in the SRNS clogged with information that the researchers are not interested in and not related to the research work [9]. From this situation, we know that the researchers want to be noticed about the other researchers and publication papers that related to their research interests. This is similar with the awareness support in the context of Research Networks that want to make "actors more efficient and effective by making objects (for example: people, paper, projects, events, research domains, writings, experts, social media artifacts and so on) and their relations to each other more noticeable for users" [11, 12].

In order to cope with huge amount of information in the SRNS, the researchers need the awareness support to be embedded in their research practice [10, 13] because the awareness support improves the effectiveness of how information is spread in communities [14] and positively influences social interactions taking place in those communities [15]. Therefore, the researchers will need a tool that can provide awareness support for the researchers. Dashboard can be used to provide awareness on current information in research field to the researchers because it can provide aggregated information about the system's current state, notifications and news [3]. Thus, we propose to construct a dashboard model for the researchers in the SRNS. In order to construct the dashboard model, the dashboard components those are suitable to be put on the dashboard need to be established.

The remainder of this paper is structured as follows. In Section II, we discuss literature review on use of social networking by researchers and overview of dashboard. Methodology used in this study is presented in Section III. Section IV discusses our findings which are the proposed dashboard components, analysis of survey result and design of proposed dashboard model. Our work is concluded in Section V.

II. LITERATURE REVIEW

A. Use of Social Networking Sites by Researchers

Use of the social networking sites for research has become essential parts of research practices [3-5]. This can be seen by many of today's researchers adopted more than one tool of social networking sites for research-related activities [1, 2, 16].