International Conference

on Social, Sciences and Information Technology

Kisaran, August 19th, 2020, page. 105 - 112 DOI: https://doi.org/ 10.33330/icossit.v1i1.774

Available online at https://jurnal.stmikroyal.ac.id/index.php/ICoSSIT



TOGAF MODELS IMPLEMENTATION IN DESIGN E-CAMPAIGN PUBLIC RELATIONS KPU ASAHAN

William Ramdhan^{1*}, Riki Andri Yusda¹, Uci Ramadhani²

¹Information System, Sekolah Tinggi Manajemen Informatika Dan Komputer Royal, Indonesia ²Computer Engineering, Sekolah Tinggi Manajemen Informatika Dan Komputer Royal, Indonesia

Corresponding author:

william.ramdhan052@gmail.com

Keywords:

CodeIgneter E-Kampanye Model View Controler Togaf Adm

ABSTRACT

KPU is one of the independent state institutions. In carrying out the KPU, the task is to carry out General Elections (Elections) for Members of the DPR, DPD, DPRD, the Elections of the President and Vice President, and the General Elections of Regional Heads and Deputy Regional Heads. General Election or Election is a means of implementing people's sovereignty which is held directly, publicly, freely, confidentially, honestly and fairly. Lack of socialization or news from the mass media about candidates from each legislative candidate from the KPU for the public makes people not know which candidates are good for them to choose. So that causes many people to be abstentions (non-voter) in the selection of legislative candidates, especially members of the Regional Parliament (DPRD). Therefore, researchers designed an ecampaign application using the ADM Togaf model in the design of the web-based system which contained information about candidates for Elections. This system uses the CodeIgniter framework. CodeIgniter is a PHP framework created based on the View Controlleer (MVC) model which aims to make it easier for the admin to develop the system and make the display more attractive so that people are interested in finding information.

INTRODUCTION

Information technology is currently developing rapidly and it cannot be denied that technology has made human needs. Technology has had very significant effects in various fields and has formed a causal relationship [1].

The effect of technology on human life can change jobs and organizations including humans because it requires them to continue to develop their own potential so as to be able to utilize technology resources properly [2] - [4].

Campaigns for Legislative Member Candidates are currently not carried out properly and optimally which is only done by displaying the candidates' faces through banners, billboards and banners. Even the General Election Commission does not prepare the media in providing information or education to the public about candidates /

International Conference

on Social, Sciences and Information Technology

Kisaran, August 19th, 2020, page. 105 - 112 DOI: https://doi.org/ 10.33330/icossit.v1i1.774

Available online at https://jurnal.stmikroyal.ac.id/index.php/ICoSSIT



candidates for legislative members to be elected. The public really needs to know how the candidates for the legislative candidates that will be promoted, both through vision and mission, track record, achievements and so on so that it becomes an added value for the candidates themselves. Accurate and complete information about the candidates to be promoted is a matter which is very important especially for the people who will choose it. Public relations as a management function that builds and maintains a good and beneficial relationship between the organization and the public that influences the success or failure of the organization. [5] [6].

Utilization of technology in modern communication space, provides a positive thing in imaging political players so that it allows it to interact with voters more effectively, to personalize communication, get feedback, to influence not only awareness, but also the subconscious using verbal means and non-verbal [7]. The tendency of technology that occurs in the field of information, especially the internet world, raises a new system that is known to many people, which is a solution for the majority of people who are bumped into a problem of time where this technology provides facilities that are very beneficial for its users. We know it as the internet. Lack of socialization or news from the mass media about candidates from each legislative candidate makes the public not know which candidates are good to be elected.

The dissemination of information and the mechanism of democratic discussion have changed radically with the advent of digital media, especially social media. For example, using platforms such as Twitter and Facebook have been widely praised for their contribution to the democratization of public discourse on civil and political issues [8][15][16]. However, at present many studies also highlight the dangers associated with misuse of social media platforms. Where the spread of deceptive, wrong, and misleading information intended to manipulate public opinion and other risks [8].

Therefore, the KPU needs to prepare a forum / media to provide correct information so that the community can make the right choice that represents the people / community in the legislative parliamentary seats [9]. So the need for a web-based application so that people who want to get to know potential candidates can access or visit the web application site, e-campaign. E-campaign or electronic campaign is a web-based website application in which there is a track record, vision and mission, so that the public can recognize the candidates.

CodeIgniter is a PHP framework that is based on the Model View Controlleer (MVC). CI has a complete library for carrying out operations commonly needed by web-based applications such as accessing databases, validating forms so that systems are developed easily. CI is also the only Framework with complete and clear documentation. In addition, the structure and logical arrangement of the codeigniter makes the application more organized and can focus on what features will be needed in making the application [10]. Then the system design of the Candidate Legislative Members of Asahan District will use the Codeigniter Framework.

Enterprise Architecture is a well-defined and well-structured practice to implement architectural principles starting from the design, planning, implementation, analysis of the company, and to guide the government through changing business, information, pro-

International Conference

on Social, Sciences and Information Technology

Kisaran, August 19th, 2020, page. 105 - 112 DOI: https://doi.org/ 10.33330/icossit.v1i1.774

Available online at https://jurnal.stmikroyal.ac.id/index.php/ICoSSIT



cesses and technology using a holistic approach at all times, for successful development and implementation of strategies to achieve goals effectively and efficiently[11].

Togaf is one of the architecture frameworks that are often used, which helps in designing, evaluating, and building accurate architectures for organizations and also helps develop a variety of IT architectures [12]. Togaf adopts a method / framework that can be used by companies / organizations as a reference in managing complex systems. There are many alternative methods and frameworks that can be used, such as the Zachman Framework, EAP, EAS, BEAM, TOGAF ADM, GEAF, and others. Comparisons that have been made in previous studies found that TOGAF ADM is a complex method that can meet all the needs of developing Enterprise Architecture. TOGAF ADM is also complex and can be used based on organizational requirements. TOGAF ADM is also a common method, so that if needed in practice TOGAF ADM can be adapted to specific specific needs, for example combined with other frameworks so that TOGAF ADM produces architecture specific to the organization. Flexible combined with framework architectures such as: Zachman Framework or FEAF.

METHOD

This research uses descriptive method which is a method that discusses problems by describing, interpreting and writing a situation or event then analyzed and taking general conclusions from the problems discussed, or a form of research that aims to describe and describe the facts or circumstances contained in Asahan KPU.

The first stage carried out was to identify problems that existed at the Asahan KPU Office. The second stage of literature study is data collection techniques from previous research and reference books on enterprise architecture to get a theoretical foundation on enterprise architecture using TOGAF ADM. The third stage of data collection and analysis is by interview and observation.

Interviews were conducted with the Asahan Regency Election Commission's Office, obtaining information about the vision and mission. To get information about business processes and IS / IT in the office. These unstructured observations only develop observations about the data obtained and analyze it. The fourth stage in the preliminary phase determines a more specific architecture framework. To develop the scope of the EA (Enterprise Architectur), a management element is required to obtain data and information. Stages in architecture vision can determine the needs as an information system architecture design that consists of an organizational profile, defining the vision and mission of the organization, organizational goals, organizational goals, organizational business processes, organizational units and current architectural conditions. Stages in business architecture to determine the desired business model of the organization. Such a point of view that matches the stakeholder's point of view, the business model is based on relevant resource scenarios and determines general modeling tools and methods. The stages in information system architecture determine the data architecture and application architecture, which focus on how data is used for the needs of business functions, processes and services. Whereas the application architecture places more emphasis on how

International Conference

on Social, Sciences and Information Technology

Kisaran, August 19th, 2020, page. 105 - 112 DOI: https://doi.org/ 10.33330/icossit.v1i1.774

Available online at https://jurnal.stmikroyal.ac.id/index.php/ICoSSIT



the application needs are planned. The stages in technology architecture build a technology architecture, starting from defining the technology needed for applications and data that are managed according to the technology, identifying technologies, platforms used, distributing technology, correlating technology platforms with applications that are in line with business functions. The stages in opportunities and solutions contain evaluating activities from business architecture, data architecture, application architecture and technology architecture. Activities at this stage make it possible to evaluate and define implementation strategies and alternatives for implementation.

This study uses the TOGAF ADM framework only up to the Opportunites and Solutions stages of all the existing stages, because it focuses to only provide solutions to existing problems but not to implementation. The end of this research method is in the form of a proposed blue print that aims as a basic foundation for business process activity strategies.

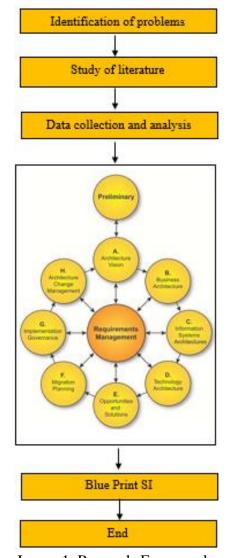


Image 1. Research Framework

International Conference

on Social, Sciences and Information Technology

Kisaran, August 19th, 2020, page. 105 - 112 DOI: https://doi.org/ 10.33330/icossit.v1i1.774

Available online at https://jurnal.stmikroyal.ac.id/index.php/ICoSSIT



RESULT AND DISCUSSION

In the process of analyzing this Information System using the TOGAF Architecture Development Method (ADM). The first step can be explained as follows:

1. Fase Preliminary:

In enterprise architecture at the General Election Office (KPU), Kab. Asahan has the main activities in the preliminary phase, including the main task of the KPU planning and preparing for the implementation of general elections.

2. Fase Requirement Management

The purpose of the Requirement Management stage is to determine the existing process requirements and the management needs of the enterprise architecture which stages identify all the needs and then store them and then apply them in the TOGAF ADM stage.

3. Fase Architecture Vision

This phase explains the business objectives, business objectives, organizational profile, vision, mission, organizational structure of KPU Kab. Asahan.

4. Fase Bussiness Architecture

This phase describes the business and business activities in the Asahan Regency KPU. At this stage common tools and methods for modeling such as: Usecase Diagrams, Activity Diagrams and Squence Diagrams can be used to build the necessary models.

a. Usecase Diagram

Use Case dari "E-Kampanye *Public Relations* Dalam Mengenal Calon Anggota Legislatif Menggunakan *Framework Codeigneter*"

b. Activity Diagram

Activity Diagrams manage pages that explain system activity when adding new menus, changing and deleting data. The picture is as follows:

c. Squence Diagram

Sequence Diagrams display admin activity when adding new menus, saving data, editing data, and deleting data, viewing pages in new tabs.

d. Class Diagram

Class diagram is a type of diagram in UML that is used to display classes and packages that exist on a system that will be used. So this diagram can provide an overview of the system and relations contained in the system.

5. Fase Information System Architecture

Information systems consist of a description of business architecture, data architecture, and application logic architecture. The description of business architecture has been explained in the previous phase, while the data architecture discusses database topology and table relations. The logic application architecture provides an overview of data flow diagrams and flowcharts.

6. Fase Technology Architecture

This phase describes the computer network, operating system, hardware, and applications that are implemented. The system design can be described as follows:

ICoSSIT

International Conference

on Social, Sciences and Information Technology

Kisaran, August 19th, 2020, page. 105 - 112

DOI: https://doi.org/ 10.33330/icossit.v1i1.774

Available online at https://jurnal.stmikroyal.ac.id/index.php/ICoSSIT

a. The main page is the main display or the home menu of the website application-visited by visitors, contains news slides, contacts and others.

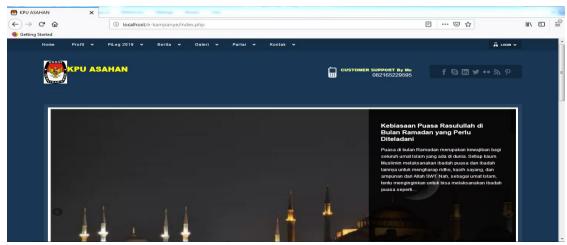


Image 2. Menu Home

b. Data Caleg Legislative Candidate Data is a submenu of the 2019 Pileg menu, which contains the data display of Candidates for Legislative Members of Asahan Regency.

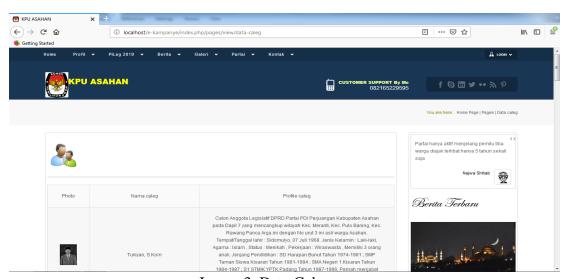


Image 3. Data Caleg

c. Electoral Data (Electoral District)
Legislative Candidate Data is a submenu of the 2019 Pileg menu, which contains the data display of Candidates for Legislative Members of Asahan Regency.

International Conference

on Social, Sciences and Information Technology

Kisaran, August 19th, 2020, page. 105 - 112

DOI: https://doi.org/ 10.33330/icossit.v1i1.774

Available online at https://jurnal.stmikroyal.ac.id/index.php/ICoSSIT



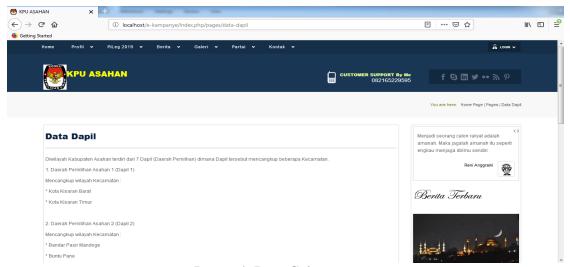


Image 4. Data Caleg

7. Fase Opportunities and Solutions

This phase is carried out an evaluation of GAP and future technology trends to be applied. At this stage, it is done by identifying opportunities for the utilization of existing IT assets and new solutions to be developed.

The current KPU of Asahan Regency has not provided media for candidates for legislative members to carry out campaigns centrally and integrated into the system. So that the KPU can monitor candidates for legislative members to carry out the Mandiri, Professional and Integrity campaign to realize the LUBER and JURDIL elections in accordance with the KPU's Vision and Mission.

CONCLUSION

This research explores political campaigns by applying to a Public Relations E-Campaign system in getting to know the Legislative Candidates of Kab. Asahan Uses the Codeigniter Framework by utilizing the TOGAF ADM model in the design of the system.

This system is a forum for candidates for legislative members to introduce and disseminate their vision and mission to the public. So that the public can know and choose candidates for the legislature who will represent the community in the chair of the parliament. Of course this system can also be a media in delivering accurate information because it can be monitored directly by the KPU so that the realization of the LUBER and JURDIL elections is in accordance with the KPU's Vision and Mission.

International Conference

on Social, Sciences and Information Technology

Kisaran, August 19th, 2020, page. 105 - 112

DOI: https://doi.org/ 10.33330/icossit.v1i1.774

Available online at https://jurnal.stmikroyal.ac.id/index.php/ICoSSIT



BIBLIOGRAPHY

- [1] A. A. Sari and A. D. Manuputty, "Perencanaan Arsitektur Enterprise Menggunakan Togaf Adm (Architecture Development Method) Pada Dinas Kesehatan Kota Salatiga," *Sesindo 2018*, no. November, 2018, doi: 10.1109/edocw.2015.21.
- [2] A. Badawy, E. Ferrara, and K. Lerman, "Analyzing the digital traces of political manipulation: The 2016 Russian interference Twitter campaign," *Proc.* 2018 *IEEE/ACM Int. Conf. Adv. Soc. Networks Anal. Mining, ASONAM 2018*, pp. 258–265, 2018, doi: 10.1109/ASONAM.2018.8508646.
- [3] A. Prašljivic and A. Ramic, "Targeted multichannel marketing campaign in Tele-communications," 2019 42nd Int. Conv. Inf. Commun. Technol. Electron. Microelectron. MIPRO 2019 Proc., pp. 387–391, 2019, doi: 10.23919/MIPRO.2019.8756922.
- [4] D. Rusli and Y. Bandung, "Designing an enterprise architecture (EA) based on TO GAF ADM and MIPI," 2017 Int. Conf. Inf. Technol. Syst. Innov. ICITSI 2017 Proc., vol. 2018-Janua, pp. 38–43, 2017, doi: 10.1109/ICITSI.2017.8267915.
- [5] C. Atkinson, "Tutorial: Towards Orthographic Enterprise Architecture Modeling," pp. 164–164, 2015, doi: 10.1109/edocw.2015.21.
- [6] C. Study, "Modify TOGAF ADM for Government Enterprise Architecture."
- [7] Destiningrum, M., & Adrian, Q. J. (2017). Sistem Informasi Penjadwalan Dokter Berbassis Web Dengan Menggunakan Framework Codeigniter (Studi Kasus: Rumah Sakit Yukum Medical Centre). Jurnal Teknoinfo, 11(2), 30-37.
- [8] D. Watts, K. M. George, T. K. A. Kumar, and Z. Arora, "Tweet sentiment as proxy for political campaign momentum," *Proc. 2016 IEEE Int. Conf. Big Data, Big Data 2016*, pp. 2475–2484, 2016, doi: 10.1109/BigData.2016.7840885.
- [9] G. Di Fatta, J. J. Reade, S. Jaworska, and A. Nanda, "Big social data and political sentiment: The tweet stream during the UK general election 2015 campaign," *Proc. 2015 IEEE Int. Conf. Smart City, SmartCity 2015, Held Jointly with 8th IEEE Int. Conf. Soc. Comput. Networking, Soc. 2015, 5th IEEE Int. Conf. Sustain. Comput. Communic*, pp. 293–298, 2015, doi: 10.1109/SmartCity.2015.87.
- [10] I. Y. M. Edward, W. Shalannanda, A. Agusdian, and S. I. Lestariningati, "Proposal of TOGAF ADM enterprise continuum for organization-specific solution on e-Government," *Proc.* 2014 Int. Conf. Electr. Eng. Comput. Sci. ICEECS 2014, no. November, pp. 283–288, 2014, doi: 10.1109/ICEECS.2014.7045263.
- [11] I. Y. M. Edward, W. Shalannanda, S. I. Lestariningati, and A. Agusdian, "E-government master plan design with togaf framework," *Proc.* 2014 8th Int. Conf. Telecommun. Syst. Serv. Appl. TSSA 2014, pp. 1–6, 2015, doi: 10.1109/TSSA.2014.7065957.
- [12] I. Santikarama and A. A. Arman, "Designing enterprise architecture framework for non-cloud to cloud migration using TOGAF, CCRM, and CRMM," 2016 Int. Conf. ICT Smart Soc. ICISS 2016, no. July, pp. 32–37, 2016, doi: 10.1109/ICTSS.2016.7792855.