

# Pesonalized AssemblyMminutes Information Providing Service

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**Abstract**—The purpose of our service is to help the general public access easily to assembly minutes. The public will be provided not only minutes but also looking up minutes per agenda, participated politician, and his statements, interested keywords. Through this service, the public can judge politician on real statement, not edited information of media.

**Index** Minutes **Terms**—Politics, of Government **Speech**, Meetings, **Keyword** AI **Analysis**, Speaker

Roles	Name	Task description and etc.
Development managers	Sangwon Kim Injun Hwang	Development mangers intercommu- nicate with Customer and Software developer to satisfy with whole stakeholders. They schedule time- lines to stick to the project before deadline. They build overall devel- oping design process. So they should figure out what they are confronted by, such as threats and variables, plan projects and direct business matters that Software developers can't han- dle with. They support Software de- velopers to focus on developing pro- cesses.

TABLE I  
ROLE ASSIGNMENTS

Roles	Name	Task description and etc.
User	NUGU speaker users	The user's needs are the final goal of the project. They want to make their lives easier and more efficient through the output of the project. They can raise concerns and necessi- ties to the project if their needs don't meet up to satisfaction. It is the most important their rules in a project.
Customer	SKT	Customers demand to the project to make satisfied with users. Customers are located between Develop teams and users. The user's needs through the whole project are really close to the main purpose of their rules be- cause they are closely related to their interests. They want project teams to use NUGU speaker to satisfy users.
Software Developers	Hyunho Kim Kyumin Kim	Software developers are main re- sources of the the project. Their tech- nical stacks and engineering skills create actual product. They demand core function requirements to Devel- opment managers which give them up to their developing process. Their final goal is to satisfy users and customers by realizing close to the requirements.

## I. INTRODUCTION

In Korea, there's a fashioned sentence "The general publics are dog and pig". This sentence was just a script of Korean movie, "Insiders", but it gives sympathies to many citizens. Our team started to think about why this sentence is caught in the minds of the people.

The articles of Korean presses tend to be writed on sug-  
gestive, prejudiced by inclination of that press rather than  
political facts, while editing politician's opinions or moves.  
Also, the presses tend to report only in just portion of facts,  
only in favor of certain political orientations. Consequently the  
public can't decide whether that article is neutral or biased on  
amicable organizations. So they tend to be instigated by that  
biased report quite often unknowing the facts. In fact, when  
looking at Naver(the largest portal site of Korea)'s political  
news article, a lot of people are instigated, unilaterally and  
aggressively commenting on the contents due to stimulating  
titles or contents that mixed with specific utterances and re-  
porters' opinions. So Naver often hides highest recommended  
in such articles.

It means there is a lack of fact information that politic can't  
judge politician objectively. Current articles are processed  
based on reporter's political orientation, so people are more  
and more complicated, and can't make decide based on their  
criteria. To escape on this situation, some people make an  
effort to access on assembly site to judge that certain politi-  
cian's utterances and their political orientation. But, finding

information only on facts is not just easy. It brings about three problems below.

First, the most objective way to determine what a politician has spoken is to hear and judge pure speech of politician, not someone else's refined words. Usually, the politician speaks something that is full of political beliefs in the political meeting. It would be a fact information that politician can determine about the politician. The public fact data of the politician in the internet are just only on election records, award records, criminal facts, etc. These simple examples don't provide inclination of the politician. Hence, our team got conviction that the real opinion of politician is in the congressional records. Therefore, our team will develop a service that can verify what politician has spoken by serving assembly minutes easily.

Second, the way to find congressional records is too complex. Congressional records in the assembly are typed by stenographer, and opened to the public through National Assembly Minutes. Public should link in National Assembly Minutes System and download pdf files to find remarks. Many citizens don't interested in politics because it doesn't give any monetary benefits or it doesn't give fun to them. To turn their minds, minimized way to get information of politicians is needed. The National Assembly Minutes that doesn't provide convenience to the citizen is just a nominal system. So our team decide to give information about Assembly minutes to citizen easily through web page. Also, we would like to use AI speaker to fulfill desires of various people.

Furthermore, the current minutes is not classified of its contents and politicians. The file name of minutes just designates on conference date and order. If the user wants to find specific agenda, they need to search it manually by scrolling the pdf files. So our team decide to give solution of this problem. We are going to parse all of the minutes and after classify the politician's agenda and speech in the minutes. Also, we will make keyword searching system. This service will provide an useful function that search specific agenda and politician to users. It will be applied to AI speaker to make our service more useful.

The AI speaker(Smart speaker) is a kind of wireless speaker, which is activated by more than one impressive words(hot words). Voice-Command-Device which embed The Virtual Assistant carries out co-interactive functions and hands-free commands.

The biggest difference between AI Speaker and typical Speaker is that the AI speaker recognizes "Speech Recognition" to perform specific commands like listening to music, setting alarm and timer, searching information like News, weather, etc. The main input and output unit of Speech-Recognition device is built-in Microphone and Speaker. The AI speaker is consisted of such like these simple units, so it is efficient to send and receive information than any other smartphone, smart TV.

Accordingly, the biggest advantage of using AI speaker is to order AI something by "Speak some words" when the user is doing some other things on their own hands or can't type

some words through smart device. For example, when the user is on the verge of falling asleep or busy for ready to go out, the user can't afford to use a smart device. In addition, the old age people cannot afford to read long texts like minutes. So service is suitable for this people.

Specifically, The NUGU speaker is the first Korean-made AI speaker made by SKT in 2016. Over the last two years, The NUGU speaker so far developed a lot so typical functions such as mentioned above are already applied. So our team had to decide to make service that speaker doesn't provide and groundbreaking service

Third, There is no current services that gather personalized inclined politician or his related field. By lacking of information of politicians, just some specific politicians are reminded to citizens. Though, even if the politician is not popular, some people's area of interest can be similar to him. Maybe they want to subscribe regularly of that politician. When they want to find information of him, but they will find out that there are only refined, edited version of his mentions. So, based on whole minutes of specific politician's participated, we will make a interested aria or keyword extraction service through big data analysis. This will be a good method to listen on politician who is similar to user's interested area by setting up user's keyword of interested area and scrapping of his activation.

In conclusion, we want to make a personalized subscribe system of interested politician so the politic can determine of the politician based on objective facts. For this, our team will make service that meet four functions. first, recognizing specific politician's statements by looking up assembly minutes. second, printing the words through web service and AI speaker. third, the function that finding agenda or politician easily. fourth, a method to listen on politician who is similar to user's interested area by setting up user's keyword of interested area and scrapping of his activation. Through this service, It is anticipated that the public's independence and judgement will be improved.

## II. REQUIREMENTS

### A. Public

The public can be provided with not only providing information on the minutes of the assembly but also detailed functions of the minutes. They can be provided by inquiring about the minutes of the parliamentary minutes, inquiring agendas involving politicians, inquiring of politicians speech, and inquiring of politicians' keywords of interest.

- 1) *Log-in Page*: In the log-in page, the user can saves specific politicians or interested keywords individually. subscribed politician, interested keywords are saved in backend server. through this, the user can uses subscribe or registering functions.

- a) *Log-in*: Log-in page is a first page that users can see when they enter to our website. These

functions will log in a user based on a username and password being matched in a database.

- b) *ID/PW search*: This page is for users who forgot their ID or PW.

2) *Main Page*: The main page is a key feature of this service. Users can search for detailed information about minutes. To concrete this, the following functions are implemented.

- a) *Looking up function about meeting contents per agenda* : Users can view agendas by organizing meeting files by agenda
- b) *Looking up function about agenda participating specific politicians* : Users can search agenda in which a specific politician participates.
- c) *Looking up function about politician's' speech according to agenda* : Users can inquire politician's' speech according to agenda
- d) *Looking up function of politics' interested keyword* : users can inquire about politics' interested keyword
- e) *subscribing function about concerned politics* : users can subscribe about concerned politics.
- f) *Looking up function about subscribing politics* : Users can inquire about subscribing politics' speech
- g) *registering of concerned politics keyword* : Users can be recommended about politics by using concerned keyword