

# Design of Vertical Portal Indigenous Knowledge for Minangkabau Cultural Learning

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**Abstract**—As a cultural treasure of the local community most of Indigenous Knowledge (IK) is a knowledge that is still in the form of oral. In Indonesia, especially West Sumatra, in practice, the transfer of IK is derived from the previous generation to the next generation orally and rarely (almost not) documented. This will impact the loss of IK from people's lives if those who control the IK are gone. The lack of information sources and learning media related to the culture in West Sumatra became one of the causes of the young generation's interest in learning to learn about Minangkabau culture. In order for Minangkabau culture to be accessed and traced easily by the community, it is necessary a container that can accommodate those interests through various media information and can be accessed anytime and anywhere, that is in the form of vertical portal. This paper uses descriptive method by analyzing the phenomena that occur in the field. Data, concepts, discussion and evaluation are conducted by examining various sources of reading and reference. In addition, literature studies are also conducted to strengthen the analysis and formulation of concepts. The draft concept is expected to produce a VORTAL product with a corporate portal category that can serve as one of the effective learning resources for the young generation in the digital era. Products designed with this concept in its development in the form of software (vertical portal) that can be accessed with internet facility.

**Keywords**—Vertical Portal, Indigenous Knowledge, Minangkabau Cultural Learning, Information Repackaging

## I. INTRODUCTION

Indigenous Knowledge (abbreviated as IK) is part of human collective intelligence. It comes from the accumulation of experience, wisdom and unique knowledge for the country, society, and or community living in specific ecosystems of America, Africa, Asia and Oceania. The accumulated knowledge of the world community according to [1], represents more than 5000 languages and cultures contained over 70 nation-states. The role of IK contributing to sustainable development that has been neglected for decades has now been recognized by many countries. Even IK today seems to be a trend in research and television programming in Indonesia. This step needs to be respected, so that IK spreads all lines so that complete documentation can be obtained at least at the regional level [2].

As a cultural wealth of local communities most of IK is a knowledge that is still in the form of oral. In Indonesia, especially West Sumatra, in practice, the

transfer of IK is derived from the previous generation to the next generation orally and rarely (almost not) documented. This will result in the loss of IK from people's lives if those who control the IK are not and there are claims of IK by other countries such as cases that have been reviewed before due to the lack of track records as proof of ownership. For that reason, the government and related parties should cooperate in preserving IK intellectual property by transforming IK's knowledge, which is still largely oral in various documentation media through Information Repackaging (IR) concept, so that the next generation will still gain knowledge and can be passed back to the next generation next. IR can be interpreted as the concept of repackaging information facilities in a form and format that is more interesting, effective in meeting the information needs of library users. Repackaging of information with a more useful, easy-to-understand form needs to be tailored to the needs of the user, so in its implementation it combines two important concepts of processing and repackaging [3].

In addition to the above phenomenon, the current study of Minangkabau culture in the realm of education is also increasingly lost, especially since the enactment of Curriculum 13 (K 13). Dependence on social media is also more interesting than learning culture for the younger generation. In addition the younger generation today tend to like to imitate the outside culture. The existence of facilities such as internet, television, radio, magazines that display foreign culture, make the young generation can not stem their curiosity to try and imitate the foreign culture. As a result, local culture is not favored and tends to be perceived as an ancient or outdated culture, while foreign cultures perceive them as modern and advanced cultures. A sense of pride and care preserves less embedded culture in the younger generation. Their interest in studying it is lacking. The lack of information and learning media related to Minangkabau culture is one of the causes of the young generation's interest in learning about Minangkabau culture.

In order for Minangkabau culture to be accessed and traced easily by the community, it is necessary a container that can accommodate those interests through various media information and can be accessed anytime and anywhere, that is portal. Portal is a "tool" [4] which facilitates the management of knowledge management. Portals are just like any door [5], being a container [6] in gathering information from different sources through a

single access point. For an organization or institution the "content" of a portal is tailored to the interests and needs of the institution [7]. In addition, the existence of vertical portals of Minangkabau local wisdom can be one way to re-grow cultural love for the younger generation. Because the use of vertical portals is very close to the daily lives of children and adolescents today and can be accessed via smartphones. So even though the content learns local culture but they will not feel "old-fashioned" because the media used follows the development of technology and information.

## II. METHOD

The exposure of the paper uses descriptive method by analyzing the phenomena occurring in the field. Data, concepts, discussion and evaluation are conducted by examining various sources of reading and reference. In addition, literature studies are also conducted to strengthen the analysis and formulation of concepts. The study of literature is one of the research methods that use data collection techniques by conducting a study of the books, literature, records, and reports that have relevance to the problems studied or to be solved. The study of literature is done by studying various reference books and similar previous research results relating to the culture, values and norms that developed in the social situations studied in order to form a theoretical basis [8], [9], [10].

## III. RESULT AND DISCUSSION

Apart from the description of the phenomenon in the introduction, the emergence of the concept of vertical portal design of local wisdom of Minangkabau culture is based on observations and surveys ever conducted. The young generation has a very important role in promoting regional culture. In the context of cultural sustainability if the younger generation no longer cares about the culture of the region, the culture will die. But if the young generation has the love and wants to participate in preserving the culture of the region, the culture will remain in every generation. The identity crisis can also reduce or even eliminate the sense of youth nationalism. Foreign culture that is carried along with globalization does not form a mindset, but offers value. Does not free but removes consciousness. So that young people who are familiar with the value of foreign cultures will oppose the values of local culture. Assume that everything that is local is backward, lags behind and needs to be changed. From here nationalism will be eroded and eventually will disappear. The lack of interest of the younger generation, especially in Minangkabau, to learn about the customs and culture of the Minangkabau can be seen from the following surveys and observations. First, observations have been made on two elementary schools in Padang City regarding their interests and knowledge of folklore in Minangkabau [11], it is known that:

TABLE 1. INTEREST AND KNOWLEDGE OF FOLKLORE

Name of School	Indicator Question	Class 4	Class 5	Class 6
SD 04 Tarandam	The favorite activities			
	▪ Reading	3 students	6 students	1 students
	▪ Watching TV	22 students	13 students	20 students
	Knowing folklore			
	▪ No	10 student	14 students	15 students
	▪ Yes	15 students	5 students	6 students
SD 23 PasirSebelah	Parents did storytelling			
	▪ Yes, they did	4 students	7 students	10 students
	▪ Never	21 students	12 students	11 students
	The favorite activities			
	▪ Reading	6 students	8 students	8 students
	▪ Watching TV	19 students	21 students	20 students
	Knowing folklore			
	▪ No	19 students	27 students	22 students
	▪ Yes	6 students	2 students	6 students
	Parents did storytelling			
	▪ Yes, they did	8 students	12 students	9 students
	▪ Never	17 students	17 students	19 students

(Hasfera, ICoASL 2017)

Based on the observations contained in Table 1, it is revealed that students prefer TV viewing rather than reading, the favorite show is the soap operas that are aired by private TV programs and Indian drama series that are aired daily. For folklore, they only recognize MalinKundang as well as some students who answer stories about Timun Mas. It is clear that children are very little informed about folklore. Their ignorance with folklore can be caused by the current condition of parents who do not introduce their children to Minangkabau folklore. More than half of the students who have been observed reveal that their parents never read stories to them or tell stories. As for children whose parents have told folklore or storytelling frequency is not more than 10 times. It is natural that the younger generation of Minangkabau are not interested and do not recognize folklore, especially the Minangkabau folklore from their own region [12]. Keep in mind that many benefits of storytelling can be taken by children, as well as parents. Through fairy tales, parents can convey positive messages to children in an entertaining and fun way. The emotional relationship between parents and children will be better interwoven through each story that is read. Fairy tales are important for children. Fairy tales for children are very good at sharpening imagination, a means of shaping character and sharpening a child's right brain. Because when listening to fairy tales, children will use their right brain so they participate in imagination. Parents can also build closeness with children through fairy tales. Because one of the best ways to spend time with children is through storytelling activities. Storytelling is actually not an activity to put a child to sleep, but rather serves to improve the closeness of the mother or father and child,

build the character of the child because moral education contained in the fairy tale is so complete and develops the child's brainpower.

Secondly, the lack of knowledge of young people today about the ranji, even many who have never seen the ranji though. The survey results of 35 students of Library Science at UIN Imam Bonjol Padang, where the questionnaire respondents aged from 20-21 years, their knowledge of Ranji existence can be seen from the following table [13]:

TABLE 2. YOUNG PEOPLE'S KNOWLEDGE OF RANJI

Question	Understand	Not Understand
Did you know about Ranji?	20	15
Have you seen Ranji?	16	19
In your family, has there ever been a case / dispute about land inheritance?	4	21
Give your opinion about Ranji.	19	16

(Hasfera, ICCLAS 2017)

Based on the answers on the questionnaire sheet and the results of data entry in the above table it is known that although they have seen ranji but in concept they do not understand what is ranji including with its function and role in Minangkabau. The results of the interview with YulizalYunus are known to be one of the causes of the current young generation's ignorance about Ranji because there is no notice from parents or previous generations about Ranji [14].

From the information and results of the survey data described above, it takes a container to collect the culture and custom Minangkabau isitiadat that can be accessed anywhere and anytime. Although the information from the Internet has a lot about Minangkabau customs and culture, but the content cannot be ascertained whether the information can be accounted for or not. Because if not careful, most of the information currently circulating is HOAX.

Portals can be interpreted as a "supersite" on the Internet that provides a comprehensive entry point for resources and services. Usually news portal contents, free e-mail services, search engines, online shopping, chat rooms, discussion boards and links to other sites. Yahoo, MSN and AOL are the typical portals to get into the Internet. The idea of a portal is to collect information from multiple sources and create a single point of access to a centralized information source that has been categorized and personalized. This gives users access to all documents, e-mail, Web sites, competitive information, databases, etc. required by their interests or work [15]. In line with the concept, as defined by IBM that the portal is a single integrated access, anywhere and useful information (data), applications for the parties involved therein [16]. Portals serve as the cornerstone of today's highly influential e-business, providing integrated application access, information management and knowledge management both within the company, between companies and commerce and customers [17].

The concept of portal consists of two types, namely horizontal portal and vertical portal. The horizontal portal covers the entire internet community. These sites are often referred to as "megaportal", typically containing information search engines and providing users the ability to personalize pages by offering various channels (i.e. access to other information such as regional weather, stock quotes or news updates). In the implementation of Yahoo! and Lycos is a form of megaportal. The horizontal portal is also a gateway to content and services from various forms of other search engine concepts. While the vertical portal differs in objects and content that is more specific than the horizontal portal, the technology used remains the same. For the most part, vertical portals offer information and services tailored to specific users about specific areas. The vertical industry portal, known as vortals, is a site that provides the gateway to information related to specific industries, such as, insurance, cars, and more. Referring to the concept of the vertical portal itself can then be grouped as follows:

- Corporate Portals: provides personalized access to information selected from a particular company.
- Commerce Portals: supports business-to-business and business-to-consumer e-commerce.
- Pervasive Portals: supports access through pervasive devices such as PDAs.

In line with the description of previous phenomena and the young generation's dependence on technology and internet, in this research will be developed a vertical portal based learning media (VORTAL) with corporate portals category as a source of indigenous knowledge of Minangkabau.

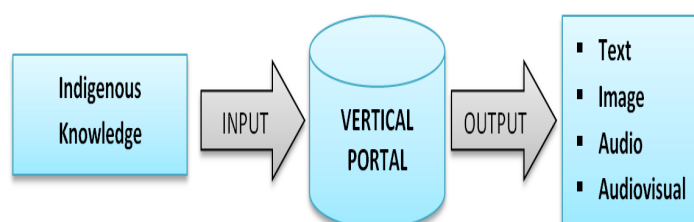


FIG1.

VERTICAL PORTAL IK MINANGKABAU CONCEPT

Based on the concept in figure 1, the design is expected to produce a VORTAL product with a corporate portal category that can serve as one of the effective learning resources for the young generation in the digital era. Products designed with this concept in its development is a software (vertical portal) that can be accessed with internet facilities. In general, the VORTAL concept consists of opening pages, help pages (instructions) and menus. VORTAL will also include a mix of various media elements such as text, images, colors and sound. VORTAL based learning has many advantages compared to conventional methods. With the existence of VORTAL learning will be multimedia-based involving almost all sensory elements. The use of multimedia can facilitate the younger generation in

learning, also the time used is more effective and efficient. Besides learning by using multimedia will greatly increase learning motivation. The use of VORTAL in learning will also introduce as early as possible to the younger generation of technology. Animation is a form of media mix that can be displayed in VORTAL. Not only is it able to explain a concept or process that is difficult to explain with other media, animation also has an aesthetic appeal so that an attractive and eye-catching display will motivate users to be involved in the learning process. The advantages of using VORTAL as an interactive media in learning for the younger generation include: a more innovative and interactive learning system, able to combine text, images, audio, music, animated images or videos in a mutually supportive unit to achieve learning goals, increase learner motivation during the teaching and learning process to obtain the desired learning goals, able to visualize the material that has been difficult to explain only with explanations or conventional teaching aids, train learners to be more independent in gaining knowledge. In addition, with the use of the internet in accessing VORTAL, it is possible for the distribution of education to all corners of the country and unlimited capacity because it does not require classrooms, the learning process is not limited to time as usual face-to-face learning. in accordance with the wishes and needs of each, and the length of time to study also depends on the ability of each learner.

#### IV. CONCLUSION

With the existence of this local wisdom vertical portal Minangkabau, it is expected that the younger generation can learn about the customs and culture of Minangkabau. Although the facilities and facilities to learn about Minangkabau culture are now diminishing either formally or informally, the local Minangkabau wisdom vertical portal can be an effective and efficient learning tool. Due to the internet facilities, portal vertical can be accessed anywhere and anytime, either through computer, laptop or smartphone. Vertical portal of the local wisdom of Minangkabau is not only intended for the younger generation, but also can be utilized by the public or even by the lecturers, researchers and students who need information for reference research and reference of study.

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