The Development of Augmented Reality (AR) to Present Tourist Information of Ban Tharua Nawa District Nakhonphanom Province.

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Abstract:

This study aimed 1.)to Design and development Applications Technology of Augmented Reality (AR) to Present Tourist Information of Ban Tharua. Nawa district, Nakhonphanom province. 2.)to study satisfaction of the user. The sample group used in this research is A total of 100 Thai tourists and foreigners visiting Ban ThaRuea community Ban Tharua. Nawa district, Nakhonphanom province. Means of accidental sampling. The research instrument consists of 1 questionnaire (Thai and English). Assess the satisfaction of augmented reality technology (AR) topresent the source data. Tourism of Ban Tharua. Nawa district, Nakhonphanom province. The findings revealed that Experts assess the suitability of the application Have an opinion about the appropriateness of the content of Augmented Reality Technology (AR) to present the tourist information of Ban ThaRuea community At a very good level ($\bar{X}$ = 4.6, S.D. = 0.6) When considering each item, it is found that all 4 items are suitable at a high level as well. The program is easily accessible($\bar{X}$ = 4.6, S.D. = 0.6) The program is stable. ($\bar{X}$ = 4.7, S.D. = 0.7) The format of the program is easy to use. ($\bar{X}$ = 4.5, S.D. = 0.7) The images and sounds are interesting. ($\bar{X}$ = 4.6, S.D. = 0.7)The satisfaction with Augmented Reality Technology (AR) to present information on tourist attractions in Ban ThaRuea community in all 3 items, consisting of content, Design Application side The overall is the a high level.($\bar{X}$ = 4.5, S.D. = 0.5)

Keywords: Applications , Augmented Reality Technology, Tourist information, Present Tourist Information of Ban Tharua.

Introduction

From the current popularity of smart phones. As a result, users can use smart phones to Searching for travel information on the internet has increased sinceTravel, accommodation, and tourist attractions are convenient and easy.fast, coupled with foreign tourists have a lifeDigital (Digital lifestyle) changes the form of tourism to The increase in self-travel which allows tourists to It is much easier to prepare and travel on your own.Tourism Facilitation Development Strategies with guidelines for media development Meaning in tourist attractions such as information centers, learning centers to create a tourism experience like creative through modern information technology by focusing on the use of information technology culture in the development of media formats Meaning: to tell stories and information about tourist attractions To look outstanding and Interesting, creating tourism aesthetics to create a good travel experience and Impressive for tourists such as augmented reality (AR), QR Code, Info Graphic

Nakhon Phanom Province has outstanding tourism resources and variety, especially religious and cultural tourism with sacred things such as Phra That Phanom, Phra That for all 7 days of birth and is enshrined by having a link with Laos tourist attractions to create demand for Travel together between 3 countries (Thailand, Laos, Vietnam) and Link to Southern China and East China in the year 2022 The recovery of new tourists in the northeastern region Nakhon Phanom Province is the number 1 accounted for 132%. This reason comes from the tourism aspect of Nakhon Phanom Province. It has always started to recover. After the situation of COVID-19 has been resolved by the Tourism Authority of Thailand, Nakhon Phanom Office has used online media to promote the most beautiful tourist attractions in particular Scenery along the Mekong River in Nakhon Phanom It has been published through online media all the time using the concept that I miss Nakhon Phanom. which is the first destination of tourists which is the first destination of tourists From the response in various content through online media Tourists want to visit Nakhon Phanom Province. As expected, Nakhon Phanom is a province with a path of faith such as Phra That Phanom. birthday relics Path following the footsteps of the serpent Phaya Si Sattanakarat Another outstanding route is Nakhi Cave. This is a trend that tourists are very interested in. Economics Tourism and Sports Division The Ministry of Tourism and Sports indicated in September 2022 that the Northeastern region had a total of 2,789,487 tourists, divided into 2,680,022 Thai tourists and 109,465 foreign tourists, as well as income from tourism at 4,829.9 million baht, with the main income. still come from people in the country, 3 provinces in the northeastern region with the highest recovery of Thai tourists in 2022 compared to 2019 before the COVID-19 incident.

Ban Tha Rua Community, Tambon Tha Rua, Na Wa District, Nakhon Phanom Province. counted as another community with a history on the way of local wisdom and culture handed down from generation to generation especially the joint conservation of wisdom in making folk instruments The largest source of Isan folk musical instruments production The best in Thailand that has been nicknamed "Village of Music" Wisdom in the making of Isan folk musical instruments is making Can, Phin, Vote, Pong Lang, It is a unique identity that creates value and Continuous income for the community from the ancestors. In addition, there is unique silk weaving exquisite with folk patterns Port residents today Ready to welcome tourists to enter.come and learn To help each other carry on the value of wisdom and local culture to last forever.

Tourism management in the Ban Tha Ruea community is still It is a tourism arrangement through government agencies and private organizations. does not allow the community to manage tourism by itself make tourism is intermittent and lack of public relations media Attractive tourism to the community Nowadays, computer technology has come into play.in everyday life more What will make the media About tourism to present information on interesting tourist attractions Even more, can display details of that location, making it easier for tourists Understand and be amazed by augmented reality (AR) interactive media

Therefore, the researcher thought of applying technology to Augmented Reality (AR) to present information on tourist attractions in the Ban Tha Ruea community. Location travel information Community Learning Center handicraft weaving Musical instrument production to create tourism that is sustainable for the community

Figure 1. making Isan musical instruments of people in the community

Figure 2. Community arts and culture.

Figure 3. community scenery

Figure 4. Tourists learn how to play Khaen.

Method

      Equipment, materials, and tools used in experimental research are as follows:

      1. Population and sample used in the research Population and sample in this research be a tourist Thais and foreigners who come to visit the community and tourist attractions.Ban Tha Ruea, Tha Ruea Subdistrict, Na Wa District, Nakhon Phanom Province, number 100 people using the accidental sampling (method Sampling)

      2. satisfaction assessment form of technology media augmented reality (AR) to present tourist attraction information Ban Tha Rua Community, Tha Ruea Sub-district, Na Wa District, Nakhon Phanom Provinceas follows

           2.1 Study the design of information technology media It is augmented reality (AR) to present information on tourist attractions and community lifestyles.Ban Tha Ruea, Tha Ruea Subdistrict, Na Wa District, Nakhon Phanom Province.

           2.2 Bring information obtained from research.set to draft questions as a satisfaction assessment form, using Data from research from principles, objectives and theories.Various questions are summarized.

           2.3 Prepare a satisfaction assessment form.Divided into content Application design and editingaugmented reality (AR) technology to present source Information Community way of life at Ban Tha Ruea, Tha Ruea Subdistrict, Na Wa District Nakhon Phanom Province
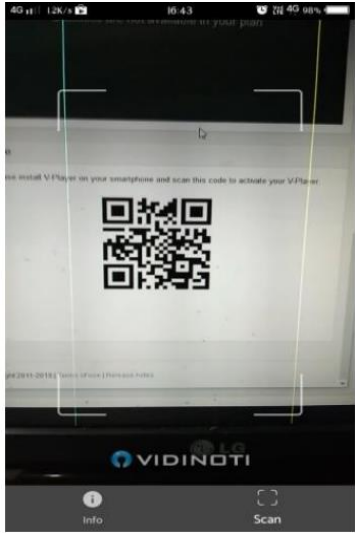
Figure 4. QR code scan to AR page

Figure 5. Operation menu page of AR

Figure 6. tourist attraction In
the Na Wa community area one day trip

Figure 7. tourist attraction In the Na
Wa community

Figure 8. tourist map

Figure 9. 1 day trip on map

Results

1.The results of the evaluation of the suitability of technology media Augmented Reality (AR) to present information on tourist attractions and community lifestyles
Tha Ruea House

Table 1.1 Mean and standard deviation of Suitable for content and media of augmented reality (AR) technology To present information on tourist attractions in the Ban Tha Ruea community, Na Wa District, Nakhon Phanom Province.

Content	$\bar{x}$	S.D.	level
1.The content is interesting.and easy to understand	4.4	0.6	Excellent
2.The content is useful.continue tourism	4.5	0.5	Excellent
3.Language can convey meaning.clear	4.5	0.3	Excellent
4.correct use of language	4.4	0.7	Excellent
	4.5	0.5	Excellent

Table 1.2 Mean and Standard Deviation design and edit augmented reality (AR) media to Presenting information about tourist attractions in Ban Tha Ruea Community, Na Wa District Nakhon Phanom Province.

Design and editing	$\bar{x}$	S.D.	level
1. Sharp picture beautiful media The meaning matches the content.	4.6	0.6	Excellent
2. The format and font are suitability	4.5	0.7	Excellent
3. Pictures can convey meaning clear	4.5	0.6	Excellent
4. Elements can be placed fit	4.6	0.6	Excellent
	4.5	0.6	Excellent

Table 1.3 Mean and standard deviation of augmented reality media applications (AR) to present information on tourist attractions in Ban Tha Ruea community

Application side	$\bar{x}$	S.D.	level
1. The program is easily accessible.	4.6	0.6	Excellent
2. The program is stable.	4.5	0.7	Excellent
3. The format of the program is easy to use.	4.5	0.6	Excellent
4. The images and sounds are interesting.	4.6	0.6	Excellent
	4.5	0.6	Excellent

2. The results of the study of the satisfaction of both Thai and foreign tourists towards communication technology media It is an augmented reality (AR) to present information on tourist attractions, the way of life of the Ban Tha Ruea community.

Table 2.1 *Mean and standard deviation of tourists' satisfaction with media Augmented reality (AR) technology to present information on tourist attractions and lifestyles of the Ban Tha Ruea community.*

Content	$\bar{x}$	S.D.	level
1.The content is interesting.and easy to understand	4.7	0.6	Excellent
2.The content is useful.continue tourism	4.6	0.5	Excellent
3.Language can convey meaning.clear	4.5	0.3	Excellent
4.correct use of language	4.5	0.7	Excellent
	4.5	0.5	Excellent

Table 2.2 Mean and Standard Deviation for Design and Editing of Environmental Technology Media Augmented reality (AR) to present information on tourist attractions in Ban Tha Ruea community.

Design and editing	$\bar{x}$	S.D.	level
1. Sharp picture beautiful media The meaning matches the content.	4.5	0.6	Excellent
2. The format and font are suitability	4.4	0.7	Excellent
3. Pictures can convey meaning clear	4.5	0.6	Excellent
4. Elements can be placed fit	4.5	0.6	Excellent
	4.5	0.5	Excellent

Table 2.3 *Mean and standard deviation of applications of augmented reality media. (AR) to present information on tourist attractions and lifestyles of the Ban Tha Ruea community*

Application side	$\bar{x}$	S.D.	level
1. The program is easily accessible.	4.5	0.6	Excellent
2. The program is stable.	4.5	0.7	Excellent
3. The format of the program is easy to use.	4.5	0.7	Excellent
4. The images and sounds are interesting.	4.6	0.7	Excellent
	4.5	0.7	Excellent

3.Mean and standard deviation of tourists' overall satisfaction with the media Promote the application of augmented reality (AR) media to present source information.Baan Tha Rua community way of life.

Table 3

Augmented reality media	$\bar{x}$	S.D.	level
1. Content	4.5	0.7	Excellent
2. Design and editing	4.5	0.5	Excellent
3. Application side	4.5	0.5	Excellent
	4.5	0.5	Excellent

Discussion

study of The Development of Augmented Reality (AR) to Present Tourist Information of Ban Tharua Nawa district Nakhonphanom province.The research results are summarized as follows:

1. The Development of Augmented Reality (AR) to Present Tourist Information of Ban Tharua Nawa district Nakhonphanom province. Has collected tourist attractions in Tha Ruea Subdistrict, Na Wa District, Nakhon Phanom Province. Gathered information on tourist attractions in the pier community. and products

OTOP and recommend directions to the handicraft center, Tha Ruea Community, Tha Ruea Subdistrict.Na Wa District, Nakhon Phanom Province In the form of presenting QR code scans from tourism brochures using augmented reality (AR) technology to provide tourists with the convenience of accessing information and attractions in each location as well.

2. from this research Make preferences for Augmented Reality (AR) media to present Information on tourist attractions, lifestyles of the Ban Tha Ruea community, Tha Ruea Subdistrict, Na Wa District, Nakhon Phanom Province. Survey results were obtained.

According to the set objectives, it was found that both Thai and foreign tourists were satisfied at a very good level.

Conclusion

1.The suitability of augmented reality (AR) technology to present source information Community way of life at Ban Tha Ruea, Tha Ruea Subdistrict, Na Wa District, Nakhon Phanom Province Experts have an opinion on the suitability of augmented reality (AR) media to Presenting information about tourist attractions in Ban Tha Ruea Community, Tha Ruea Sub-district, Na Wa District, Nakhon Phanom Province. was at the highest level ($\bar{X}$ = 4.5, S.D. = 0.5) when considering each aspect

1.1 The content aspect is most suitable for design and when
Considered on a case-by-case basis, it was found that Every message is appropriate at the highest level.

1.2 Design and editing are suitable for the design level
and when considering individually, it was found that all statements were appropriate at the highest level.

1.3 Application side is appropriate for the use of applications in the level
and when considering individually, it was found that All items are appropriate at the highest level.

2 Media satisfaction with augmented reality (AR) technology to present source information Community way of life at Ban Tha Ruea, Tha Ruea Subdistrict, Na Wa District, Nakhon Phanom Province.Tourists prefer augmented reality (AR) technology to provide information sources.Community way of life at Ban Tha Ruea, Tha Ruea Subdistrict, Na Wa District, Nakhon Phanom Province at the highest level ($\bar{X}$ = 4.5, S.D. = 0.5) When considering each aspect, the results can be summarized as follows.

2.1 In terms of content, it is appropriate to the design at the highest level and when
Considering each finding, it was found that Every message is appropriate at the highest level.

2.2 Design and editing There is a level of suitability for the design.
and when considering each item, it was found that every message was appropriate at the highest level.

2.3 Application side It is appropriate for using the application at the level
the most and when considering each finding, it was found that Every item is appropriate at the highest level.

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