

Utilization and issue of applications for smart devices in regional vitalization

Kohei TAHATA^{#1}

*Kyoto Sangyo University, Faculty of Foreign Studies
Kyoto, JAPAN*

¹koh@cc.kyoto-su.ac.jp

Abstract— About a smartphones application of actual situation in the local government, administrative services change by these introduction and a kind of effect had on a civic life based on some examples. In addition, I mention the problem that occurred because of introduction of the smartphone application. And about the way of the application as the administrative services that the person in charge of the local government is conscious. That may be for the administrative services that limited to a smartphone user when the administrative services release development of the smartphone application when is wide for a citizen, and think widely at a point of view for smartphones report. I do it with a smart personal device, and deepen a study about the future of “administrative services”, “a citizen” and “the administration” through these investigations.

Keywords — *Smart device, application, AR technology, administrative services, open data utilization*

1. BACKGROUND

By the rapid spread of smart devices¹⁾ and a variety of services that utilize the smart device for application is operating also in the context of regional activation. In particular by developing application software that leverage features such as smart phones unique AR, not a few cases that are connected to the regional activation call the big topic. The efforts and effectiveness of smart devices for application software in the individual at the regional activation, Chiba city, Nagareyama city, and Kanagawa Prefecture Hakone-machi, take advantage of the initiatives that using a smart device for application technology in regional revitalization and proceed

with logical for that challenge. By the rapid spread of smart phones, a variety of administrative services that leverage smart device for application is operating. Such as the Figure 1, an overview of the applications for smart devices that are provided and operated by local governments and public organizations. And, local governments and public organizations are opening the API and providing for smart device's applications with platform of up to quite a few. For example, if you search on the keyword “tourist information”, application platform “iTunes” for ios²⁾ with 118 hits can be seen. In addition, application platform “GooglePlay!” for AndroidOS³⁾ over 90hits, when you search by keyword on the “garbage separation” can be seen.

Table 1.
Local governments production or classification of applications for smart devices that provide.

type	Content
Tourism	Regional tourism information and introduction, map information and display, navigation, etc.
Administrative services	Garbage classification, disaster evacuation information, government information, local communities, etc.
Entertainment	Game in the motif region, AR ⁴⁾ application with Yuru-Chara(original local character) etc.

Review the specific application and its features to these classifications. For example, “Tokotoko map” of Tokorozawa city, Saitama Prefecture as a tourist-based applications, and the like “Welcamome” standard regional tourism information and introduction applications, such as in Sasebo city, Nagasaki Prefecture, Hirado-Seikai area. In addition, Okayama Prefecture,

Kurashiki aesthetic area, Okayama Culture zone voice tourist guide application “Oto-navi” by which are utilized mainly in, AR seen to overlap the restored image and reality of the landscape of Naniwa-no-miya of Osaka City application which became a hot topic in a combination of “AR Naniwa no miya” apps and tourist information by utilizing the capabilities of smart devices unique.

“Tokimeki Gamagori” of Gamagori city original application have a game for girls. In addition, rather than develop their own applications, installs the “Juniao Augmented Reality Browser”, by reading the QR code, Tamba-city the Air Tags showing a tourist destination in the image that is captured by the smart device is displayed such efforts also like. The tourist related application as a wide variety, the topic of the user's expansion in a variety of ways, thereby improving the convenience.

On the other hand, administrative services-based applications, There is much application about the refuge instruction at the time of the disaster and the classification of the garbage. These application's interface is calmer than Tourism applications. In addition, it's like as a feature of administrative services-based applications, the majority of administrative services-based applications are to provide living information such as classification of the garbage and escape routes from disaster, etc. the fact that “community participation type” application is less. “community participation-type”, in this case, it refers to the fact that residents are involved in the initiative in the management of applications as an information provider, not only as a user of the application. That cited as a typical example of “community participation” application, it will be in the Chiba City “Chibarepo”⁵⁾. The problem against Chiba City through an application, citizens of the place you want to request an improvement. Such as repair of the road to government of Chiba photos and status, the position information by GPS⁶⁾. Chiba City that information utilized to solve problems and it is a mechanism that causes a specific action. Large municipalities facing the the city limits is pointed out surface that government service is not prudent meticulously from conventionally. It have been adversely affected to the satisfaction with the residents of the municipality. It is possible to create a mechanism to suck the challenges residents outgoing, administrative of to promote the correspondence, and it can be said that the government is also a groundbreaking case that was able to minimize the unnecessary movement.

Finally, it is an entertainment application. It is difficult to produce applications specific to Entertainment when local governments to develop applications is mainly. Under these circumstances, simulation game that you can experience the cultivation of Arita mandarin of Wakayama Prefecture Arida city specializing in tourism and specialty products PR realistic “AR-ARIDA” would be characteristic. This application, the character “Arida-kun” that loose of Arita mandarin orange, to match the comedian “Harisenbon” a force is “Arita mandarin orange ambassador”, is a realistic experience simulation game to grow oranges Arita, specialties of the region the “Arita mandarin orange” is has become an application that specializes in that you PR. Therefore, the entertainment element is was what was in the news as a local government applications that came out in front.

Thus, in various aspects the application to expand the municipality, it is clear that it has a role to support their activities. However, that cited as challenges in these applications it will be reality of its utilization. For example, although it is “AR-ARIDA”, the number of downloads has surpassed 100,000 in conjunction ios and AndroidOS, but number of the gift campaign in application has remained at 100 cases/ month. This application downloads itself has been expanded, the number of users who use the constant is an indication that the large change is not observed. In other words, there is inadequate surface in the actual condition of the utilization of the application.

2. CONTENTION

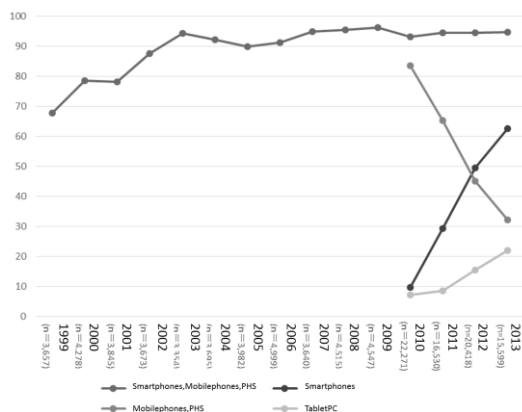
2.1. POSITION OF SMART DEVICES FOR APPLICATIONS AS ADMINISTRATIVE SERVICES

In aggressively expanded use of smart devices for applications. And administrative services are showing a change with this phenomenon. Also still many citizens on the other hand does not have a smart device, such as a smartphone. Digital divide due to lack of digital literacy is happening. Fig. 2 is a transition of household ownership rate of the information communication terminal, including the smartphone in the Ministry of Internal Affairs and Communications “2013 Communications Usage Trend Survey”. Household ownership rate of smartphone as you can also see this is growing rapidly, still normal

mobile phones and PHS, which is said to feature phones present a certain number. And in particular look at the age group of smart phone penetration rate in Fig. 3, but has completed a scheme that “the mobile communication terminal as smartphone” in young people, is high percentage of still feature phones when it comes to the elderly. As for the connection to the Internet as seen in Figure 4, many of the elderly is a tendency that utilize “PC alone.” Therefore, Internet usage penetration of smart devices dull even compared to a PC in this age group, further from the reality that has continued the use of traditional feature phones. From this, there is an information divide for the use of the smart device.

Also, the administrative services at their own will, dull smartphone penetration in the elderly with participating consciousness in government as citizens, elderly person needing service obtains a disadvantage. It is because elderly persons do not use the smart device. Once regarded as the provision of social value to pursue administrative services of social policy “equally” (Takekawa, 1984) should be applied, for administrative services provided in the smart device for application from this point of view, a case based on.

Fig 2.
Changes in household ownership rate of the information communication terminal

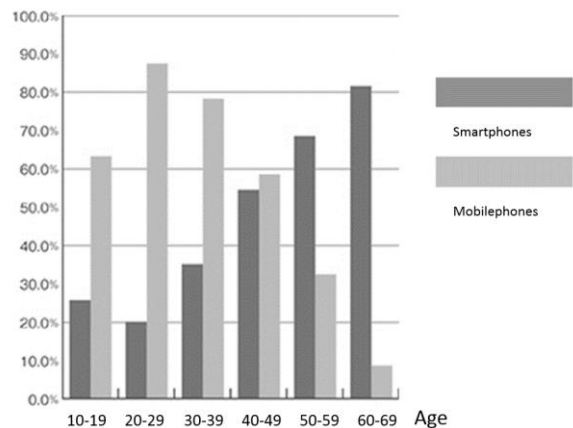


※1 in the “mobile phone •PHS”, until the end of the year 2012 from the 2009 year-end personal digital assistant (PDA) were also including in research, including as an internal number for 2010 since the end of the year smartphone. Incidentally, the prevalence of Excluding the smartphone is 76.5%.

※2 “smartphone” is reprinted in the “mobile phone •PHS”.

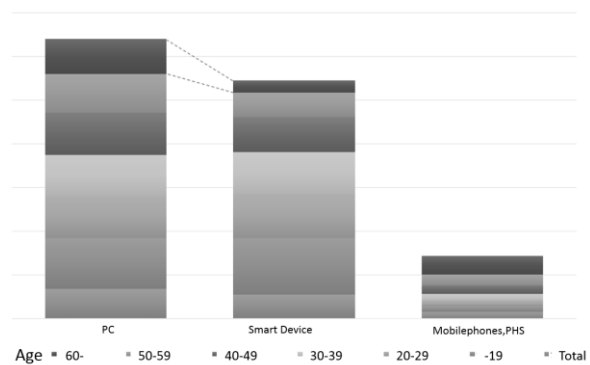
Source: The Ministry of Internal Affairs and Communications 2013 “Communications Usage Trend Survey” (To revision)

Fig 3.
Age group smartphone ownership



Source: Ministry of Internal Affairs and Communications: “Survey on the Use time and information behavior of the 2013 Information and Communication Media”

Fig4.
Age group Internet connection terminal type (n = 43,404)



Source: Ministry of Internal Affairs and Communications: processing the “2014 Communications Usage Trend Survey”

2.2. TECHNICAL UNDERSTANDING AND LOCAL REVITALIZATION MEASURES

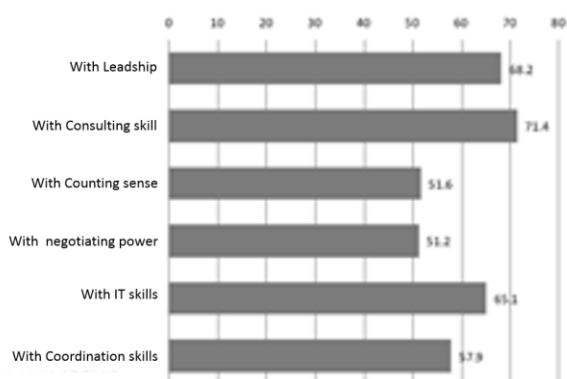
Including the smart device for application, but the progress of various techniques using ICT is clear, for that progress, the side to take advantage of interest, namely local governments and public

organizations, the people of position to promote regional activation have the advanced technical understanding. However, those are questions.

Fig5, "Study on the current situation of ICT use in the region" according to the Ministry of Internal Affairs and Communications in 2013, the region with ICT human resources is less than half of local governments. Among them, in advancing to understand the needs of the property and the area of the utilization human resources ICT, human resources to be able to devise a business that utilize ICT," "business of leader human resources ICT, and led the entire team, negotiation presentation, in advancing the business of the entire coordination capable human resources, human resources ICT specification can understand ICT, the creation of specifications for IT vendors and, three kinds of human resources "that can evaluate the content and estimate of the proposal lack of human resources I shows the high score. These human resources, it is likely to act a driving force role in regional activation, Kimura (2015) 7) and the Ministry of Internal Affairs and Communications "regional development human development Handbook" (2013) 8) ,and the talent to need to have of "The person of regional activation" advocated by them.

Thus, in the human resources responsible for local revitalization is depleted absolutely, regional plan and activation must be performed. When viewed in this side, specific measures to be deployed in the field of local activation, particularly in measures that are specific to ICT, how do be able to attain to the realization if downdraft in reality, any such efforts and about what can be better leads to success, it will be considered based on the specific case.

Fig5.
ICT human resources of local governments outside also in the area, including excess or deficiency status (n = 845)



Source: Ministry of Internal Affairs and Communications "Research on the current situation of ICT use in the region."

3. RESEARCH

3.1. Position of smart devices for applications as administrative services

The position of the smart device for application as administrative services, those are positioned related as civil service we will continue to reveal. And when the government to deploy the smart device for application what was conscious. To research those, I went to interview to the two cases in Chiba city and Nagareyama city.

The cited as common feature of these two municipalities is leadership, there is the environment where the leadership of the mayor is easy to be shown. In the case of Chiba city, at that time the whole country the youngest mayor in 2009. That was elected in Chiba city's mayor in 31-year-old youngest as major cities are working on municipal administration. Chiba city is a result of our actively engaged in the development of urban infrastructure, which was triggered by promoted to the major cities in 1992, municipal bond balance is increased, since 2009, and the like that the redemption has peaked, city finances were faced with a critical situation. Under such circumstances, as well as issuing a "de-financial crisis Declaration" in October 2009, and formulated the "fiscal consolidation plan" in March 2010, to come recommended a variety of efforts to fiscal consolidation Get off, "restoration judgment ratio" was less than a prospect. In addition, it reach the standard that the country established. On the other hand, Izaki Yoshiharu is mayor of Nagareyama city is from marketing research industry, by aggressive city sales and marketing activities, population growth with a focus "new family" is the child-rearing generation, it has cited the results 9), such as the age shift success.

And, it can be said in other common to the two cities, these came to use the ICT well after they took office as the mayor. Both chiefs also have work experience in the IT companies, personal IT literacy and the like make the transmission of information using the SNS in the personal account is also high. Also, the dropping of these experiences in municipal, have in common also

that they have contributed to municipal improvement cycle.

From these points, it is possible to see the approach to the smart device of two city, the purpose, the meaning is made clear, and it was decided to continue to verify the effects.

3.1.1. Chiba “Chibarepo”

Efforts of “Chibarepo” that are deployed in the Chiba city, I was hearing at the Chiba citizen division citizen autonomy Department.

3.1.1.1. Outline and purpose of “Chibarepo”

The “Chibarepo”, dedicated to take advantage of the smart device for application, asked to report in such as position information and photos and videos failure of various public infrastructure that generates the town’s issue from the citizen reporter in the city , that the mechanism linking the issue to the rational, effective solution.

3.1.1.2. Resolve issues about

Report of citizen reporter will be published on a dedicated WEB, issue is visualized. As a result, it is possible to share the issues between “citizens and citizens” or “citizens and government”. Issues that cannot be solved unless the government, are divided into such issues that can be resolved by force of citizens, while publishing the correspondence situation to roles, it is a mechanism to tackle the resolution

3.1.1.3. For a change of citizenship

According to the survey of citizen participation, “I began to think that trying to improve the city’s living environment,” “dangerous places, such as when walking and shopping has become or no care so”, “I live participation and co-creation consciousness, such as began to think I might be able to fix the city in their power “has come out.

3.1.1.4. About sight of the goals of “Chibarepo”

“Chibarepo”, is visualization and sharing of regional issues, is aimed at the realization of new communication of citizens and government. For solve possible issues in the power of citizens, it is possible to get taking advantage of the know-how and skills that have been developed so far to supporter activities. Asked to register a number of residents to “Chibarepo”, feel free to want to participate in urban development.

3.1.1.5. For that it has turned into a smart device for application

Chiba city chose the smart device for application in terms of smartphone penetration and citizen participation. Such as the point of defective information because possible specified by the locational information in conjunction with GPS, there is advantage that it is possible to report without address. For users who do not possess the smart device, even report has become a possible contribution from the PC's official website (<http://chibarepo.force.com/>).

In the case of “Chibarepo”, urged the “citizen participation” is an application for the autonomous efforts by citizens, the greater the range that is also left to the citizens for utilization. In other words, such as promoting the traditional administrative services to rebuild standing on the side of the citizens at the same time voluntary participation, it can be said to “future of administrative services”. In the case of Chiba city, become a point rather than traditional departments to accept the called “complaint,” “opinion,” “demand” of the led, that encourage citizen autonomy promotion department at the center of efforts, citizens as seen in that is reflected in the form of “new developments”, “expansion of services” as administrative services, it would be possible to capture as a successful example of the way of administrative services by the smart device applications.

3.1.2. Nagareyama city “Open data Trial Apps CONTEST”

Then, it is done in Nagareyama city respect efforts of “open data ¹¹⁾ Trial application contest”, I was hearing in Nagareyama city hall comprehensive policy section Administrative Reform Promotion Division IT Promotion Section.

3.1.2.1. Outline and purpose of “Open data Trial Apps CONTEST “

And recruiting widely proposed WEB application of plan for smartphone and tablet-PC in Nagareyama city, by publishing and exploitation at the Web site, it leads to improved convenience of the citizens, and together transparency of municipal administration, citizen participation and to promote the cooperation of the citizens.

3.1.2.2. For an open-data initiatives

“Open data, it is still a new concept in Japan, very important and is coming. Spread in the future society,” they started efforts from October 2012 in a top-down of the mayor called. Because it was focused on public information since then, there is the idea that is the public actively data of government also open data. To open data is a direct link to a special page from the top page of the official site, has posted its list.

3.1.2.3. Citizen participation for

According to the Ministry of Internal Affairs and Communications “electronic government open data strategy”, to efforts open data, ensuring transparency of public institutions, the promotion of community participation, the activation of the economy are expected. However, here in the conditions of use of data are set loosely. Therefore, in the aspect that measure the effects of open data, to the user data data-owner (Nagareyama city) is not obliged to like get permission, data is, to whom, it is difficult how to figure out what's being utilization accurately. Moreover, recently it looks like are used words often called “open data”, it is considered that the concept of open data is difficult to say that properly permeate society, it is necessary to go further spread. Therefore, further promote the use of open data, for the purpose of understanding the effect and utilizing the open data

They have held the app contest to compete the proposal of application.

3.1.2.4. For citizen participation and cooperation consciousness

Code for NAGAREYAMA ¹²⁾, they are data collection and mapping is first step, and second step it provides data for public. Although not represented in the term “open data”, the activities in which the concept of open data is correctly expressed has been performed, and the like as efforts citizen onset of open data. Also through the appropriate data operation and disclosure future, they will aim to cooperate with civil.

In the case of Nagareyama city, application contest is present as part of the commitment to the city's open data. The application contest, ideas department and programming department is set, that it consider the utilization of the data, even if not make the application was to allow applicants if there is an idea that can be deployed in the application form, to the government they have secured the equality of citizen participation.

Future topics will administrative various ideas obtained through this contest is “how equality Can you feedback” is a challenge to citizens.

3.2. Technical understanding and local revitalization measures

Next, we will consider the case that utilizes AR technology and application of Kanagawa Prefecture Hakone town. Hakone town gather many tourists as Japan's leading tourist destination, but they had a problem, such as the gap of between on-season and off-season, young tourist are decreasing, etc. To these issues, it is efforts aimed at the resolution by the “animation content” and “technology”.

3.2.1. AR Overview

AR that do not actually exist information in real space refers to a technique of displaying on the screen of the smart devices. For example, it is possible to display markings or images do not exist in real space, the supplementary information of the real world, such as tags showing the information on the screen. That may be mentioned as an advantage of this AR is below 2 points.

- Through a smart device and the media tools, it is possible by giving the digital information in the real world, that it is not going to practice the reality is visualized.
- Thus for layering the information to match the real space, the information intuitively that easily communicated to users.

In addition, recognition system also has 3types, there is a feature in each.

(1) Location information type AR

It is shall be displaying information linked to the position information obtained from such as GPS or wi-fi. In an environment that can use the user GPS The advantage anywhere there may be mentioned points are capable of using AR, whereas, since the information would depend on the GPS accuracy, cannot be used indoors, positional accuracy there are also disadvantages, such as bad.

(2) Image recognition type AR

Using techniques such as image recognition and spatial perception of AR, displaying information by recognizing and analyzing the actual environment. This image recognition type

AR can be classified into two even larger (a marker type marker-less type).

(2) -1 marker type

It recognizes the graphic code of fixed shapes called marker is added to the supplemental information not in the real world on the screen. The advantages of the marker type, for displaying starting from the marker, a high accuracy, such as the display position. Have been published a library of open source software that can be readily available can be mentioned in terms of such relatively easy to approach. On the other hand, there are disadvantages, such as the design of the marker is limited.

(2) -2 marker-less type

Rather than shapes fixed form, recognizes the object or space to be real in the actual environment as an image, it is added to the supplemental information not in the real world on the screen. The merits and including but may that may not conform to a specific format, such as a marker type, the graphics and images to be substituted for the marker is of little features and disadvantages may not be recognized is increased is there.

3.2.2 Case study: Kanagawa Prefecture Hakone town “Hakone hokan-keikaku AR stamp rally”

3.2.2.1. Overview

From December 1, 2014 until March 31, 2015, at a particular point centered on the tourist spot of Kanagawa Prefecture Hakone town, inbound tourism character of “Neon Genesis Evangelion”¹³⁾ on the screen of the smart device appears implementation to attract event “Hakone hokan-keikaku AR stamp rally”, as the AR stamp rally is the largest scale of efforts the world. During the period, checkpoint of stamp rally of 100 sites or more, the installation spot AR content appears more than 50 places, in the AR emergence spot reproduce the AR content that displays characters of Evangelion on the smart device. Thus, the participants surround AR appearance spots along the track that is provided, it is possible to encounter characters have a shape that migration is born for the purpose of AR reproduction.

3.2.2.2. Used technology

AR spot information and the AR content of “Hakone hokan-keikaku AR stamp rally” is provided by the application “Furatto-annai” of SOFTBANK MOBILE Corp. (iOS, Android version). The Tour of the course which is provided in the application, when it reaches the occurrence spot of the AR content, and the form in which AR content is displayed on the screen to reflect the landscape camera over smart devices have installed application. This we have to have to take advantage of the “G spatial information” in the “Hakone hokan-keikaku AR stamp rally”. This technique is intended to reproduce the information consisting of position information and the data which it tied in a smart device, it is almost synonymous with the information reproduction techniques discussed in the previous section, “(1) location information type AR”. In addition, weather, weather, time, place, it is also a feature of this effort experimental AR recognition technology, such as displaying the AR contents vary depending on the circumstances surrounding such direction is introduced.

3.2.2.3. Affiliate

Principal efforts are generally Foundation Hakone town tourism association. In addition, each tourism organizations related to the Hakone are cooperating. In addition, local governments (Kanagawa Prefecture, Hakone town) and the local Chamber of Commerce and Industry, also organizations, large-scale accommodation Resort facility operating companies and railway operating companies, these are backing up. AR technology provided by SOFTBANK Group, Ltd. Ground Works in characters copyright management is cooperation.

3.2.2.4. Preparative initiatives point of

This action is superior in the following points “Don’t depend on a past success experience”, “Don’t depend on the power of contents” and “Don’t depend on an advanced technology”. The operation team enhanced the game elements, and focused on gimmicks making for involving the participants.

In the stamp rally itself, rather than a mere stamp rally, incorporating elements to competition with a score to stamp rally, it have implemented such as a photo contest. In addition, it is by adding a Gamification elements such as “rare point” to score defined by behavior of the participants, such as early morning of stamp

acquisition and photography. Furthermore with social media(Facebook and LINE), by adding a mechanism for prompting the exchange of information, and is aiming to review effect communication between individuals. In addition, making the best advantage is the planning that was assembled in digital technology, stamps and AR is such as to add while watching the reaction of the participants, are flexibly management.

The actual migration tourism course be touched in “Hakone town Tourism Association” carefully selected, Hakone of history and culture courses(5routes), and museum tours and public transport courses(6routes) are prepared. Duration of each course assumed half day, that is allowed to exit the entire course by day and short travel is difficult, with tricks like even if additional nights and repeat want to participate, Hakone which do not rely only on the content form that was placed in the charm has been taken.

“Hakone town Tourism Association” and Evangelion joint efforts is not the first time, 2009 in accordance with the premiere of “Evangelion”, which was published in the year, displaying the location that became the work of “Rebuild Hakone complement map”. This effort initially was prepared 4000 parts, 3days left, its a big track record. In addition 2010 “No.3 New Tokyo City movie screening” is 1400 peoples/2days attended, the same year in the Lawson Sengokubara store is renamed as “Lawson No. 3 the New Tokyo City store”, there is a great response, such as a large traffic jam occurs, it has become the initiatives on which was fully aware that there is an impact in terms of local revitalization as a “Hakone town Tourism Association”. Year in Hakone, while visiting tourists 20,000,000 people, the young people uptake has been the issue, side to expect the bottom-up of new customers and tourism off-season by attracting customers by this Evangelion is strong contents.

Table 2.
Hakone-machi Tourism Association and the efforts of the “Evangelion”

year	Content	effect
2009	Rebuild Hakone complement map	4,000 parts
2010	No. 3 New Tokyo City Screening	1,400 persons / 2 days

2010	Lawson No. 3 New Tokyo City shop	3,500 people / day visit
2010	Limited Edition “Hakone completion maps” distribution	
2011	Hakone complement map stamp Rally	
2012	Hakone complement map stamp Rally	
2012	Hakone supplement accommodation offer	
2014	Hakone supplement plan AR stamp Larry Photo Contest	The period extended by popular demand

4. Discussion

Chiba City initiatives that utilize smart devices and applications is a citizen collaborative efforts, smart device unique GPS such as the ability in that it leverages, will be pioneering and ideal case. However also, this success led to with two important points that cannot overlook.No.1, that is a test efforts. “Sales Force” in the municipality for the purpose of making the use case of, on the relationship you are working in cooperation with the sales force, Inc., that the construction and operation of the system also have become the majority in the sales force's embracing it would include. In addition, considerably less expensive in the Chiba city's cost even this effort by the fact that making a test case to also being suppressed point is. Also No.2, this initiative as a goal is, spread in a way to involve the industry in the region, it is also important that. The company which establishes the head office in Chiba was such as Aeon Retail Co., Ltd. and Chiba Bank is in the city “Chibarepo” cooperation, “the promotion of reporter registration of such employee” “report implementation” “around offices and shops problem-solving help” “promoting and cooperation to promote activities”, the result 3,000 people more than the reporter and 1,400 reports that can ensure the review of the report becomes an issue. Because, Chiba city is more than 70 million people, registrant in its 3,000reporters that has remained

in the number of people than, its 3,000 reporters 1,400 reports only reviews about it is that it is not collected. For some of this number, it is also important to perform a comparison with similar efforts achievements in the future of other municipalities.

In addition, the case of Chiba, as the middle of the efforts of the sales force, Inc. is a reality is quite preferential treatment in terms of cost, etc., as long as it is if measures which were carried out over the cost of the regular 3,000 people special supporters and 1,400 reports for the number of reviews, would require verification of the part, such as cost-effectiveness.

For Nagareyama city efforts are development of a smart device of citizen participation type of different shapes and Chiba city, which conducted as a part of the open data initiatives. Costs related to production and operation of the application in terms of cost is not suffering at all, it is possible to continue to disclose the required data as a municipality, in terms of being able enrichment of the provision of information and content, very good measures. However, that local governments is limited data, to open available data should be open, naturally that she can limit the scope of the creation by the , citizen participation through the contents of applications and content, such as Chiba city there is a concern that that would born hurdle.

Then, “Hakone town Tourism Association” and Evangelion joint efforts of the smart device application, by using it to have a breadth and mobility to the movement of the local revitalization, it will be said that the successful case. This is a strange large factor of matching that it is rare content and Hakone itself is “Evangelion” world. In addition, without having to rely completely on the content power, and it was provided with various tricks of digital content that can be enjoyed by participants eyes, it was kneaded in thorough and polite and strategies of media publicity-conscious social media planning tied continually regional and content with a point, it believed to influence larger in terms of continuity of information continued to the sending of the same quality. This can be seen from the case, AR technology enters into the individual devices, directing the user experience, have succeeded in linking the region and their naturally strong. It is a very effective technology as a device for the charm of the region.

However, smart devices, on the other hand for application downloads and utilization of is

progressing bipolarization. Under these harsh environment, local governments and community groups over the large amount of budget is released creating the app, it is operating. What is needed for such organizations is that where to draw the line of success. Unlike measures of local revitalization of until now, such as the use the number of downloads as application, be aware of the terms of cost-effectiveness, which is supported by the reality of the numbers, and regional scene that we must make the measures is the face.

In addition, it would be necessary collateral of the “equality” of as a service provided by the local governments and public organizations. Smart device for application if the user is able to enjoy the service if they have a communication environment. However, either it would be one for the user who does not possess the device itself, It does not deploy the same services that can be admitted when viewed from the nature of its efforts entity. When assuming every user, rather than the expansion of only the smart device for applications, the creation of pc site and mobile site are considered to be the service providing become important.

5. Conclusion

Such a smart device for initiatives tourism promotion and regional referral utilizing application has been actively carried out, but taking the point that “not a validation of cost-effectiveness as an application for a smart device” as an issue in these efforts.

First point is the cost for production and operation of smart device applications. Production cost is to back-calculated from the contents and functions of the smart device for application, when it is estimated the production cost of the estimate, the application, such as those listed above at least 10S per 3,000,000JPY it can be seen that the necessary production cost. In addition, OS in the form that corresponds to the version up, if you went evolving operation, approximately 1,000,000 - 2,000,000 that is estimated that renovation and operation cost are applied. For example, AR Naniwa-no-miya, iPhone or iPad was intended for iOS if you look at updating history, the past 10 have been carried out about once a version up, when the estimate from the contents of these versions up 2012 May about up to now in 3years 15,000,000JPY have invested. In addition, AndroidOS even, almost the same number of version-up has been made, the cost of the total 1,500,000JPY,2 times,

3,000,000JPY can be assumed to reach approximately.

Then the number of application of AR Naniwa-no-miya for Android, it have been installed in the terminal. Google Play according to 1,000-5,000 has become the installation. If 5,000 as there was a review of the installation, AndroidOS in one unit price per installed 3,000JPY. The 3,000JPY, tourist attraction and PR will need to continue to discuss terms of whether reasonable when viewed like in terms of the cost-effectiveness and purpose.

In addition, the application for production deployment of municipal application 's tend to be the focus that take advantage of the data held by the public agency, but in fact the data has anyone, anyone can be a donor. Therefore, the appropriate device- UI considering and use providing method, while with a view to going to be or should be addressed how can I continue to expand as equally capable of providing administrative services, provision of information from the side of the citizens, information we continue to also take advantage of study. In addition, part of the term open data is intended, or "data that they had made (including the data of government to properly operate disclosure) everyone will be able to freely use" be understood, citizens and government for its utilization is, how also should continue to cooperate, It is necessary to proceed with the investigation.

ACKNOWLEDGMENT

1) Of the information processing terminal, not only a mere calculation processing, multi-functional terminal that can be used for any application. Smartphone generic name of and tablet devices.

2) <http://www.apple.com/jp/itunes/>

3) <https://play.google.com/store>

4) Augmented Reality, the actual scenery, terrain, such as the sense, refers to a technology to add further information using the program.

5) Abbreviation of Chiba citizen cooperation report demonstration experiment

6) Global Positioning System abbreviation of, artificial Where is or exactly indexing system on their own by using the satellite earth.

7) Now, in the region, part individually optimize such as "total optimization", "value co-creation", produced by auditors have been required to be made. (① information sharing field development as its sought specific capacity, ② roles (division of labor), ③ business imagination, ④ business

inherited power, and cited ⑤ business building force.)

8) All you need is a leader for regional activation,

- Passion and belief that "you want to improve the region,"

- Pull out the various opinions of local residents, that you put together . "

9) Basic Resident Register According to the population, 2005 years and 2011 in the year, the population is one ten thousand two thousand people increase. Largest volume zone, "60 ~ 64" year-old from the "35 ~ 39" is shifted to the age " , families with children is the inflow from area and fixing it can be seen.

10) Chiba mayor Twitter

https://twitter.com/kumagai_chiba

Nagareyama mayor Twitter

<https://twitter.com/izakiyoshiharu>

11) Possible to effectively utilize the data that is used only in the tissue or the industry such as in society. The following as its purpose and significance 3 countries are listed as "electronic government open data strategy," the point.

① improve the transparency and reliability Promotion

② public participation and public-private cooperation Efficiency of activation and administration

③ economy, as requirements for said "open data" in the form that matches with such meaning and purpose

(1) In a suitable data format to machine-readable,

(2) Secondary use was published in the usage rules available data

<http://www.soumu.go.jp/menu_seisaku/ictseisaku/ictriyou/opendata/opendata01.html> (last access: 2015 / 10 / 20)

12) Through community management of citizen participation, and consider the ideas to solve the problems of the region, the development and management of public services with the help of technology support to non-profit organizations that work for the purpose of in Nagareyama region

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