User Group Management and Smart Society: Readiness Assessment of UU Adminduk (National Administration)

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Abstract. The conceptual model of smart societies has been aligned with smart offices, building and cities concurrently, which should concern various aspects of the individual such as attitude, behaviour and cognitive. In short, it should start from the fundamental and basic characteristic of human or bottom up approach not the other way around. In these concept, the new generation engages with the combination of smart energies, smart devices and smart transportations as the inheritance part of the advancement of smart system in the technologies utilization. For example, ubiquitous apps that provide rapid information about the direction to specific destination, the available spot to park, the reminder of respected area to avoid traffic congestion regardless the location of users. However, somehow, the utilization process often meet with failed in term of matching the user expectation with the system needs or, the most important thing, the readiness of current regulation to accommodate the trend changes and implementation of technology system. Thus, this study assess the interpretation of legal expert towards UU Adminduk (National Administration) by using content analysis through 21 selected coders from diverse background to gain more understanding of the complexity and reliability of the regulation. This act extremely necessary to govern the recording, changes, management and publication process of the personal data the purpose of national identity.

1. Introduction
The rise of digital technology transforms almost all aspects of modern life, which no longer have to wait for a week or even a day to see what is happening in the world. A range of technological developments has changed the way people live, work and play. The physical and virtual areas of everyday lives have become increasingly intertwined. More and more of our interactions are mediated by machines. Internet things, super connectivity, wearable technology, intelligent computing everywhere. The common central agenda is the development of new forms of connectivity, new types of digital relationships and fixed opportunities that provide a greater integration of related technologies to support work process. The smart society concept come into the picture to optimize these opportunities, which power and potential of technology can make people more productive by focusing resources on the activities and relationships of interest, thus improving health, well-being and quality of life. The most important thing in a smart society is that people experience the benefits of what the intensive co-evolution of digital and analogue, virtual and physical, online and offline of the machine mechanism. The opportunity offered by digital technology is simply huge, which social and economic systems are being reformed at an incredible pace. Communication is redefining the world that it takes a great effort to find anywhere in the world today unaffected by the Internet.
Society is the aggregation or collection of people living together in specific area to form community for particular activity and purpose. To allow the communication process between individual among the society, everyone should have the identity to be reckon with. In the digital life, user identity represent a set of claims that depend on specific privilege, which is granted by the system. Commonly, user identity which its encrypted data has been spread across many platforms with different kind of service could be in the form of physical or digital card. It stores credentials for various purposes such as payment, recognition, acknowledgement, identification, calculation or certification. Actually, the potential of technology to enable smart society is increasing, for example, the perception of the Internet application sensors that can offer a wide range of services, from smart water for industrial controls to e-Health. It is expected that the market size of smart technologies will reach $1.6 trillion dollars in 2020 and $3.5 trillion dollars by 2026 [1]. Undoubtedly, given the size of the opportunity and increased the interest of governments and politicians and the explosion of relevant technologies, it should be done such collaborative study that try to understand what smart concept of society will going to be and its development of standards or ideals to aim for. Moreover, digital technology allows individual to rethink the way to manage the workplaces and the area in rapid way [2], while outsourcing become the trend to distribute the workload in the supply chain with the use of cloud computing to the business continuity service plan (BCP) [3]. Basically, there is a very obvious challenge to the implementation of the components in the smart societies namely the readiness of the regulation in this case the National Administration for the user group management.

National administration is a very important thing in an effort to discipline the law in society, especially in the orderly administration and in terms of civil affairs. In many cases, administrative ordering is urgently needed for completion in the case to be resolved. Indonesia has Act no. 23 of 2006 on National Administration which has been amended by Law no. 24 of 2013, whereby this regulation shall be the legal umbrella in providing protection, recognition, determination of personal status and legal status of each “Population Event” (issuance or amendment of family card, identity card and/or other residence certificate including moving in, address change, status of residence) and “Important Events” (birth, death, marriage, divorce, acknowledgment of children, ratification, appointment of children, change of name and change of citizenship status). This regulation has jurisdiction for Indonesian Residents and Indonesian Citizens outside the territory of the Republic of Indonesia. Thus, this initial study want to assess the readiness of the current regulation to obtain more understanding of proper approach in implementing user group management on credentials in the smart societies concept.

2. Smart Societies as Smart System

To obtain smart society, it is necessary to respond to different demands more than ever. Instead of exact solutions, solutions should be proposed that cover the entire level, and the management system can provide security and protection to add functions that avoid misunderstandings that provide more victims or victims in terms of disaster management or documentation. For example, Smart Intelligence is used to predict potential risk or purchasing behavior, and specific service actions can be implemented across a variety of applications. From a practical perspective, city managers can choose to rely on ICT to improve services and, therefore, the quality of life, which leads to sustainability goals. The evidence presented in this document comes from official reports on different geographical areas, these projects are useful for city managers who plan smart interventions or for large companies that collaborate with local agencies in cities to become smarter. However, local problems must be taken into account when planning interventions, due to the emerging characteristics of each specific local context. In addition, given that the documents we have collected represent ideas, strategies and operational performance, new knowledge can be obtained in the future through research into new results and the dissemination of more intelligent interventions. [4] The Model Campaign can be used as a social and ethical approach to invite the electronic community to obey Internet laws by developing the CyberLaw Forum, interacting with users through social networks and the initiative design contest. Creative and Online Innovation The social and ethical approach is expected to avoid attempts at the number of cybercrimes that have affected Indonesia's resources, particularly at the national level. [5]
Formal safety awareness training can improve the moral and immoral perception of users with respect to information technology, but since these perceptions are often not clear, it is difficult to monitor their effectiveness. In knowledge-based institutions that include intangible assets in favor of specialization, research, innovation and learning, evaluation indicators to define a security awareness strategy that is more consistent with expectations become more difficult [6]. The main concern is on the new procedure required to manage the formulation and the development within intelligent society of current improvement and the perspectives of the social sciences towards the changes of policy design and the elaboration of rules by the state. In fact, education must address the lack of awareness of the individual citizen, and the curriculum should address the requirements of privacy and freedom associated with the fundamentals of knowledge generated by information technology services [8]. Therefore, the ecosystem perspective must focus on the progress required in designing user-centered social innovation to accommodate advanced methodologies to transform data-driven design into the participatory and participatory design of shared creativity. It is deliberately designed to change human behavior mediated by sensory techniques, such as the social platform, to maintain new processes of democratic deliberation [9].

Advancing the concept of intelligent system can change the way in which the individual and society think like nanomaterials, such as quantum dots, which have deterministic quantitative effects and are necessary for the development of extremely bright and long-lasting materials, even in the regions near the infrared. It is indispensable for molecular imaging and biogeography within [10]. Another project aims to improve knowledge and understanding of intelligent measurement techniques to develop new, efficient, practical and profitable methodologies and tools for the management of urban water demand throughout Europe. Therefore, to obtain the group management system as a service platform, it is necessary to observe the services within a smart society especially user group management system (UGMS) [16]. One of that service requirement is to use the unique identity of individual to be integrated in all services provided in digital membership in the smart society environment, which interconnected societies are demanding new ways to reformulate society, payment, information search, human interaction and education [17]. It refers to the enabling capacities of innovative, social, mobile and sensor-based technologies, which in different ways are expected to create more productive synergies between demand and limited resources in a number of domains through UGMS platform [18]. The service operators use relevant information to connect with demands and request through incentives [19].

3. Research Methodology
The utilization of content analysis method has to answer the problem of the origin of available texts, what it means and to whom, how to mediate between previous and next case and whether they can allow the analysts to choose the right answer to the question about the contexts [9]. Therefore, the use of percent agreement evaluate the moment-by-moment reliability based on the proportionality of two observers agree upon target or criterion behavior occurred in the selected case [10]. Actually, there is never absolute certainty about the research outcome although the statistical significance is obtained [11]. In this study, there are 21 coders (c1-21) from legal experts who evaluated three section of UU Adminduk consist of chapter I, II, III, IV, VI, IX and XII, which focuses on orientation, motivation, significance, principle and relevance. The next section involves the evaluation of six variables namely legal regulation (privacy protection, data subject identification and scope clarity), technology solution (accuracy, integrity, monitoring and maintenance), social norm (participation, secrecy and code of conduct), privacy concern (procedure, campaign and penalty), perceived benefit (public trust, service, right and responsibilities) and personal data protection (access control mechanism, guidance, verification and validation) while the last section focus on general view on direct function, seriousness, role of act, contradiction, implementation, solution, function, accommodation and satisfaction) [15]. The National Registration Act No. 23/2006 has been enacted based on the consideration of the existence of Indonesia foundations, which are Pancasila and 1945 Constitution with the purposes to determine requirement to be managed by the government in order to serve citizen needs for their daily work and activities such as information of birth and family status.
Table 1. Pairwise Percent Agreement (Orange) & Cohen Cappa (Blue) of UU Adminduk 23/2006

|   | C1  | C2  | C3  | C4  | C5  | C6  | C7  | C8  | C9  | C10 |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| C1 |  79.09 | 32.68 | 26.8 | 30.72 | 4.57 | 87.58 | 68.63 | 21.57 | 3.92 |
| C2 |  0.247 | 35.29 | 28.11 | 30.72 | 16.34 | 80.39 | 64.05 | 28.76 | 10.46 |
| C3 |  0.066 | 0.113 | 84.97 | 67.97 | 18.3 | 31.37 | 17.45 | 60.55 | 20.26 |
| C4 |  0.067 | 0.081 | 0.815 | 59.48 | 21.57 | 25.49 | 14.24 | 64.56 | 20.23 |
| C5 |  0.06 | 0.07 | 0.604 | 0.502 | 40.32 | 18.3 | 30.07 | 26.8 | 22.88 |
| C6 |  0.002 | 0.053 | 0.028 | 0.029 | 0.017 | 9.8 | 22.12 | 35.29 | 37.26 |
| C7 |  0.313 | 0.254 | 0.034 | 0.04 | 0.041 | 0.044 | 73.86 | 23.53 | 11.11 |
| C8 |  0.071 | 0.061 | 0.015 | 0.038 | 0.025 | 0.091 | 0.188 | 32.68 | 20.26 |
| C9 |  0.028 | 0.075 | 0.078 | 0.067 | 0.055 | 0.056 | 0.046 | 0.013 | 27.45 |
| C10|  0.003 | 0.025 | 0.051 | 0.063 | 0.069 | 0.142 | 0.047 | 0.114 | 0.01 |

|   | C11 | C12 | C13 | C14 | C15 | C16 | C17 | C18 | C19 | C20 | C21 |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| C11|  20.92 | 52.94 | 43.79 | 54.9 | 56.21 | 88.89 | 58.17 | 65.36 | 31.37 | 24.18 | 23.53 |
| C12|  23.53 | 50.98 | 45.1 | 58.82 | 50.98 | 77.78 | 58.82 | 60.78 | 30.70 | 29.41 | 30.72 |
| C13|  28.76 | 23.53 | 18.95 | 32.03 | 17.65 | 33.33 | 29.41 | 34.64 | 31.37 | 24.18 | 26.14 |
| C14|  24.84 | 20.92 | 19.61 | 30.07 | 18.95 | 28.76 | 26.8 | 30.07 | 26.14 | 24.18 | 26.14 |
| C15|  22.88 | 28.88 | 18.3 | 16.34 | 30.72 | 18.95 | 30.72 | 27.45 | 31.72 | 27.45 | 31.37 |
| C16|  17.65 | 13.73 | 30.07 | 28.76 | 15.03 | 11.11 | 23.53 | 14.38 | 13.48 | 30.72 | 39.87 |
| C17|  27.45 | 54.25 | 50.33 | 54.91 | 56.21 | 89.54 | 64.71 | 72.55 | 29.41 | 32.03 | 31.37 |
| C18|  27.45 | 49.02 | 44.44 | 53.59 | 50.98 | 73.2 | 51.63 | 56.21 | 25.49 | 28.76 | 29.41 |
| C19|  11.77 | 20.26 | 31.37 | 36.6 | 28.1 | 24.49 | 19.6 | 14.38 | 16.34 | 18.3 | 19.6 |
| C20|  22.88 | 16.34 | 18.95 | 18.95 | 15.03 | 7.19 | 28.76 | 17.65 | 34.64 | 43.14 | 43.14 |

|   | C11 | C12 | C13 | C14 | C15 | C16 | C17 | C18 | C19 | C20 | C21 |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| C11|  20.92 | 22.88 | 18.95 | 9.15 | 27.45 | 30.07 | 33.99 | 19.6 | 28.76 | 28.1 |
| C12|  0.011 | 42.48 | 42.48 | 46.41 | 53.39 | 37.9 | 38.56 | 18.95 | 20.26 | 17.65 |
| C13|  0.075 | 0.15 | 39.87 | 34.64 | 45.75 | 35.29 | 39.22 | 20.92 | 22.22 | 24.84 |
| C14|  0.041 | 0.1 | 0.036 | 36.6 | 55.56 | 38.56 | 42.48 | 16.34 | 18.3 | 22.88 |
| C15|  0.148 | 0.161 | 0.011 | 0.364 | 53.59 | 35.95 | 42.48 | 20.92 | 18.95 | 18.3 |
| C16|  0.053 | 0.081 | 0.057 | 0.966 | 0.055 | 62.75 | 67.97 | 32.03 | 30.07 | 28.75 |
| C17|  0.109 | 0.031 | 0.061 | 0.058 | 0.021 | 0.156 | 56.86 | 38.56 | 52.94 | 50.33 |
| C18|  0.112 | 0.011 | 0.09 | 0.062 | 0.05 | 0.157 | 0.184 | 31.37 | 37.25 | 36.6 |
| C19|  0.05 | 0.009 | 0.05 | 0.012 | 0.011 | 0.071 | 0.061 | 0.062 | 62.75 | 56.86 |
| C20|  0.155 | 0.034 | 0.011 | 0.03 | 0.031 | 0.03 | 0.063 | 0.026 | 0.01 | 78.43 |
| C21|  0.148 | 0.014 | 0.087 | 0.089 | 0.035 | 0.053 | 0.221 | 0.14 | 0.213 | 0.557 |

The evaluation process for this regulation involves 21 coders with the number of cases is 153 (125, 18, 10). The highest number of in the code 'B' involves chapter 67 (verse 4) of the orientation with 15 frequencies and chapter 11 (verse 1) of significance, chapter 5 and 65 of principle and chapter 58 (verses 1, 2, 3) of relevant category with 14 frequencies. Interestingly, there are many zero values in the code of 'K', which has total of 40 out of 75 cases while only chapter 61 (1, 2, 3) of orientation and chapter 68 (1, 2) of relevant became the most frequent to be noted in the code of 'A' rating with five frequencies. There is one invalid value in the second quality of PB whereby the coder deliberately leaves empty, which is public trust. The first category of PB related to the right and responsibility of data subject with
20 frequencies has the highest number in the 'checklist' code while TS has 18 frequencies for both first and third category, which is data accuracy and integrity. There are two zero values for both LR and PC in the 'cross' code but three disagreement in GV3, GV5 and GV 6.

The Act No.23/2006 has main objective to guide the process of control, arrangement and management in term of the citizen personal data storage with the purpose to provide verified information for public or private need and the country development. It is useful and necessary to have accurate data to implement the government policy and program such as statistical analysis, list of voters, scholarship, direct donation, population control, distribution of provincial budget, transmigration program and so on. Based on the table, the highest score for the percent agreement are 89.54% (coder7 & coder16) followed by 88.9% (coder1 & coder16) and then 87.58% (coder1 & coder7). Interestingly, there is no zero value for percent agreement occurred unlike Freedom Act and Election Administration Act. Meanwhile, it has only two score below 5% agreement that is 3.92% (coder1 & coder10) followed by 4.57% (coder1 & coder6) and by 7.19% (coder10 & coder16). It can be concluded that the range of 10.56%, 11.1% and 12.42% of the amount of data misrepresents the research data or incorrect data. There is 60 out of 210 of percent agreement, which has score above 40% as the indication of the good agreement among coders. This score is quite high considering the long passage and total number of article verse involves in the coding sheet compare with the other regulation. There are around of 43 numbers of agreements if the boundary is reduced into 30% reaching a half of total number combination of coders, same as Freedom Act. The management of citizens' data documentation has closely connected with the public transparency although the big question arises on the boundary of the type of information to be hidden or to be revealed. However, the straight interpretation based on percent agreement result can be misleading. Also, it does not reflect the true picture since do not take into account the scores assign based on chance. It only involves taking the ratio of the number of ratings for which both the coders agree to the total number of ratings.

Cohen's kappa is the index that measures intercoder agreement between two coders in term of categorical item of qualitative things. It provides the evaluation of the degree of mutually exclusive categories. The items are indicators of the extent to which two coders who are examining the same set of categorical data has been agreed while assigning the data to categories. If kappa assumes the value 0, then this implies that there is no relationship between the ratings of the two coders and any agreement or disagreement is due to chance alone with kappa value of 0.70 is generally considered to be satisfactory. However, the desired reliability level varies depending on the purpose for which kappa is being calculated. The highest score is 0.815 (coder3 & coder4), which shows a fantastic result of agreement. The next highest is 0.604 (coder3 & coder5) followed by 0.557 (coder20 & coder21). For its reliability, it means that 18%, 40% and 44% of the data being analyzed are erroneous. The possibility of chance agreement has high expectancy, especially when the evaluation process takes place independently without involvement of the supervisor. There is 19 out of 210 kappa coefficient, which has score above 0.2 as the indication of coder's interpretation has no involvement of chance agreement or random choice. Furthermore, there is 30 times of negative score, which leads to the status of 'no agreement' among the coders because of the different interpretation, qualities or interest. If certain code is usually higher or lower than the other by a consistent amount, the bias or mean of differences will be different from zero. If the coders tend to disagree but without a consistent pattern of certain code higher than the other, the mean will be near zero. As the result, this Act has more contribution and relationship to the PDP compare to the other relevant regulation in the context of e-voting. The Indonesian government has introduced SIAK and e-KTP to support the administration and registration process of citizen personal data through the use of technology, which is legitimized by National Registration Act. However, it has problem in term of enforcing the law because of network limitation, lack of supported infrastructure, incapable human resources, inaccurate data center, data duplication and partial integration with other concerned public institution.
4. Conclusion

Actually, percent agreement has certain weaknesses such as isolation in the statistic that leaves out a lot of information, hiding certain disagreement behind the reliable cases and the vulnerability to the selected case in which agreement rate can be artificially raised with low variance and high agreement. In this case, vulnerability can occur regardless of agreement statistic, but it particularly easy to identify with percent agreement because variables with zero disagreement are treated as perfectly reliable rather than having undefined reliability, which is for more complex measures. Meanwhile, Cohen kappa has lacking feature to prevent bias where it could be consistent disagreement as expected agreement in which coder is more likely to code a given value regardless of the content on the case. Furthermore, Fleiss kappa penalizes variables with low variance, which is bound to a small number of observations. In conclusion, overall score for the regulation show the unsatisfactory in relation to the concept of smart society as there is factor should be identified clearly and the gaps occurred in term of understanding and enforcement status of regulation.

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