



13TH INTERNATIONAL
FORUM ON KNOWLEDGE ASSET
DYNAMICS

SOCIETAL IMPACT OF
KNOWLEDGE AND
DESIGN

PROCEEDINGS
IFKAD 2018

4-6 JULY

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FOREWORD

Welcome to the 13th edition of IFKAD. When you stroll along the shore of the Schie towards the City of Delft you might feel entering the famous Vermeer painting “View on Delft” (1660). Nothing has changed and you enter the Golden Age of the Netherlands. The short period (1609 – 1679) when the Dutch ruled the world on the basis of their superior maritime technology, their groundbreaking knowledge systems sublimed in the first public owned corporation VOC and their idea that it is better to control by mutual beneficial trade than by occupying armies.



But why wander in the past? Turn around and see the other Delft with the worldwide known University of Technology and the Institutes for Applied Technologies on Watermanagement, Quantum Computing, NanoSciences..... Here work today's scientists and entrepreneurs side by side on frontier technologies, modern knowledge systems and fresh ideas for a better future. When you walk further in this modern Delft you will find the Faculty of Industrial Design Engineering, one of the best in its kind in the world and you will find out why when you simply enter the building. You will feel the vibrant atmosphere there, the energy. Here work young academics on their day to day designs, our future.

It is in this atmosphere where IFKAD 2018 will be held. Where insights on knowledge and ideas will be shared and we will be confronted with the question how to use this insights impactful in designing our future. The purpose of IFKAD 2018 is to explore the role and the relevance of new sources, dimensions and characteristics of knowledge supporting organizations as well as regional and urban systems in their aim to create valuable societal impact by addressing fundamental questions. What are the major challenges society is facing in the near future and how are they related to knowledge and design? What is the role of knowledge and design to cope with the major challenges our

society is facing? These fundamental questions increasingly represent fundamental features to cope with the increasing complexity and turbulence of today's business landscape.

Modern society thrives on knowledge. States, companies and universities are continuously acquiring, recombining, producing and applying knowledge. Where in former centuries agriculture or industry was the economic foundation of society, knowledge is now the most important pillar. Whether it's renewable energy, healthcare, ICT or infrastructure; knowledge is decisive for the direction in which these domains develop. It is therefore remarkable that two sides of knowledge are rarely discussed. The first one is about the very beginning of the pipe; the root causes of knowledge, the nature of ideas, their working mechanisms. Sure, there's quite some literature about creativity and idea generation, but research on mechanisms and the patterns of ideas is hard to find. And at the end of pipe there is a lot more to learn about the social impact of knowledge, about the conditions which influence ideas becoming reality. The question of how knowledge is gained and which ways it gets value is hardly considered. What is the nature of ideas? What do we really know about the combination of ideas? Is it possible to develop a taxonomy of ideas? What are fruitful analogies between the various scientific domains? How can the social impact of ideas and knowledge be increased? What could be the role of big data? What could be the main pillars of a 'Science of Ideas'? IFKAD 2018 has the ambition to extract some interesting insights from old and new thinkers on this subject. Through lectures, presentations and dialogue sessions, the European dialogue about ideas, knowledge and social impact will be given a powerful boost. Enjoy IFKAD 2018 in Delft.

Guido Enthoven, Han van der Meer, Rebecca Price

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An Analysis of e-Government Systems in Indonesia: Challenges and Stages of Evolution

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Structured Abstract

Purpose – The number of internet users in Indonesia amounted to 104.96 million people in 2017, with an online penetration in the country at over 50 percent of the population. This number is expected to reach 133.39 million by 2021. Added to the fact that Indonesia has more than 17,000 islands it can thus be conceived that the development of e-Government systems would give a major boost the effective and efficient delivery of public services. Unfortunately, Indonesia's ranking in the United Nation's e-Government Development Index has consistently declined since 2003 until 2016. This should be a warning sign for the government, and this paper reviews the challenges that have been plaguing e-Government systems at various governmental levels in Indonesia with the intention to provide a starting point to systematically address these challenges. The last section of the paper reports a case study of the management and challenges in the implementation of e-Government in the Special Region of Yogyakarta, and provides a review of the stages of development of e-Government services provided by the province. Yogyakarta is densely populated by students and has among the highest percentage of computer and internet literate citizens in the country, and thus should has a high potential for the optimum use of e-Government systems.

Design/methodology/approach – This paper is a descriptive qualitative study which provides a review of the literature to discuss the development and progress of e-government in Indonesia and track the challenges in implementing e-government throughout the years, and provides a case study of the e-government in the Special Region of Yogyakarta based on a focus group discussion with government officials from the Department of Transportation, Communication, and Information (DTCI) and an online review of the stages of evolution of the e-government systems implemented by the regional government.

Originality/value – The paper compiles the challenges of e-government implementation in Indonesia at the national and regional levels, and reports the specific challenges in the Special Region of Yogyakarta, and will be valuable for the planning and development of e-government systems in other regions.

Practical implications – The lessons learned from the analysis may serve as feedback for the development, improvement, and refinement of e-government road maps.

Keywords – e-Government. e-Government challenges, stages of e-government evolution

Paper Type: Academic Research Paper

1 Introduction

There are various definitions of e-Government, which very much depends on the views and practices of the institution hosting it. For the purpose of sharing a common view of e-Government, the following definitions will be discussed. Okot-Uma (2001) has defined e-government in a very straight-forward concept as “the processes and structures pertinent to the electronic delivery of government services to the public”, while Drucker (2001) defined e-government in its simplest sense as “the use of emerging information and communication technologies to facilitate the processes of government and public administration”. The World Bank (2001) offers a more detailed view, and defines e-government as “government-owned or operated systems of information and communications technologies (ICTs) that transform relations with citizens, the private sector and/or other government agencies so as to promote citizen empowerment, improve service delivery, strengthen accountability, increase transparency, or improve government efficiency”

The above definitions show that e-government is not merely the computerisation of a government system, but the ability of technology to achieve levels of improvement in various areas of government, transforming the nature of politics and the relations between governments and citizens (Dada, 2006). It is interesting to note that most e-Government definitions focus on the services being offered, and not the internal processes that is experienced by the institution. The European Commission (2003) offers an organizational view of e-Government by defining it as “the use of information and communication technologies in public administration combined with organisational change and new skills in order to improve public services and democratic processes and to strengthen support to public policies”.

Indonesia is an archipelago in Southeast Asia consisting of 17,508 islands with an area of 1,904,569 sq km, which makes it the 15th largest country in the world. According to the 2017 estimate, Indonesia is the fourth most populous country in the world with a population of approximately 261 million people spread over 33 provinces and 416 autonomous cities and regencies. These geographical conditions would make it a necessity for Indonesia to have a robust and effective e-government system in place. Several laws and regulations has been established as foundations for the development of



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