

DATA AND INFORMATION MANAGEMENT AT UPM

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Nowadays, in university research like Universiti Putra Malaysia (UPM) environment, there are lots of resources that have been used in supporting the researcher community (RC) to perform their work individually or collaboratively. The RC can be divided by the faculties, institutions of researches, the research projects and many others. In this context, the member of RC is using lots of research materials, tools and many other especially in the form of digital media and in multiples or varieties format of resources such as data or information. These are included in varieties of files or datasets in multiformat such as Gif, PDF, Doc, VCS, Txt, etc. This scenario of data types of dataset usage in the RC can be shown as in Figure 1.

Supposedly, these resources (Data & Information) should be used, managed and shared among the RC in the university as an organization where they can get lots of benefits such as save cost, time saving and many others towards utilising the resources with more effectively and efficiently. This scenario of managing and sharing of resources can be described in Figure 2.



Figure 1: The Data Types of Data and Information Usage in RC



Figure 2: Sharing of Data and Information Resources Among RC

However, some of the organizational resources (OR) become as complicated issues that have been available and used are currently still isolated and not encouraging the RC to access and reuse, and share at anytime, anywhere and anyplace. Therefore, this research proposal is attempting to propose a model of how the resources in the university can be promoted in managing and sharing of data and information as an OR among RC particularly which involves in research life cycle activities. This system application model is called PUTRA Institutional Memory or Repository, (IM-PUTRA). Furthermore, in order to ensure this OR can be managed and shared among the RC, a system model platform is required which are composed and formulated into three modules or components that are Infrastructure Requirement Model (IRM), Data and Information of System Model, and Policy and Governance Model. The relationship of those modules or components are shown as in Figure 3.

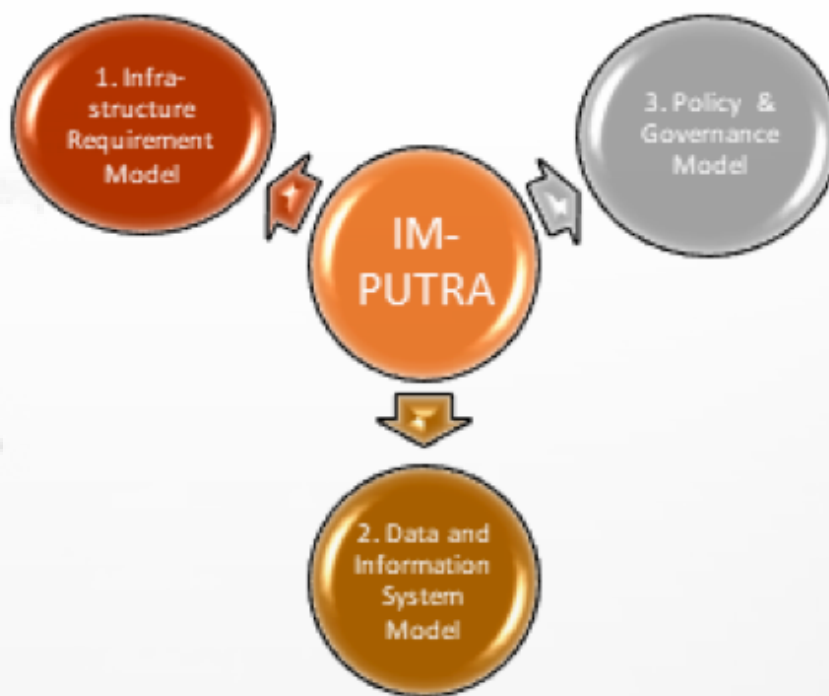


Figure 3: The IM-PUTRA and Its Components

In this context, the IRM is describing or determining the requirement as a model of IM-PUTRA in terms of hardware, software and network technology as well as others such as other related security requirements in supporting IM-PUTRA system implementation for RC fundamentally. The IM-PUTRA is a main system model that is developed to store, access, reuse and share so that it can be utilised by members of RC in order to save cost, time, and effort in getting or using this OR. The policy and governance model has been developed to ensure the RC cloud works collaboratively between researchers, scrutinizes research findings, maximizes transparency and accountability, increases impact and visibility of their research and reduces costs of duplication data collection by sharing the data and information among them. By having or using this OR policy and governance model, the university can be promoted of data and information of open OR that has been acquired and used by the RC not just for the purposes of individually only but also can be used by other researchers as a team collaboratively. In conclusion, there are lots of advantages, if the OR can be managed and shared by the RC properly. These include the RC can save time, effort, cost and many others. So that the RC can use or utilize this IM-PUTRA towards working effectively, efficiently and collaboratively.