

OMEGA-PSIR: An ecosystem for Building University CRIS Network in Poland

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1. SUMMARY

OMEGA-PSIR is an institutional knowledge base system, developed by a team of Warsaw University of Technology (WUT) (Rybinski *et al.*, 2015). Since 2013 OMEGA-PSIR has been used as University Knowledge Base. Its main idea was to integrate various university needs, therefore it was decided that the system should cover functionalities of Institutional Repository (IR), Current Research Information System (CRIS), and Research Profiling System (RPS)¹.

Soon after installing the system at WUT, the system aroused interest among the Polish universities. Since 2015 the system has been adopted by 12 Polish universities. A special User Group has been launched for coordinating the system development.

In the paper we will discuss how this *bottom-up* initiative of the Polish universities may become a successful approach for building a network of the institutional CRIS systems, cooperating with the national CRIS system. To this end we will discuss functionalities of the system, in particular, we will show to which extent combining CRIS, IR and RPS makes OMEGA-PSIR so attractive to the universities. We also discuss how the low costs of the system deployments of at the universities can be preserved. In addition, we will present how the functionality of the system can essentially improve the data quality, and at the same time reduce the maintenance costs. An important factor concerning interoperability with other systems will be discussed. We will discuss various aspects of interoperability with global systems, playing essential role in running institutional knowledge bases, such as:

- OpenAire
- Sherpa-Romeo
- CrossRef
- ORCID,
- Commercial databases, like WoS and Scopus

We briefly present a kind of an ecosystem that has emerged around OMEGA-PSIR in the last few years. The main components of the ecosystem will be discussed; in particular we will discuss the following issues:

1. the software development and maintenance,
2. support options that are provided to the universities in Poland during the system deployment and exploitation;
3. exchange of experience between the partner universities;
4. partnership with licensed companies.

Last but not least, it will be demonstrated how our approach can be applied/reused in other countries.

¹ This approach has been discussed in more detail by Rybinski et al. (2017).

2. REFERENCES

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Prof. Henryk Rybinski leads Institute of Computer Sciences, Warsaw University of Technology. His main research interest is in intelligent information systems, semantic web, data/text mining, natural language processing and knowledge representation. His current research is concentrated on using text mining techniques for knowledge discovery from text data. He has published more than 130 scientific publications in the area of information systems. For some 35 years Prof. Rybinski has been conducting projects for building information systems for many international bodies (i.a. FAO, UNESCO, UNEP, IFRC, IUCN).

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Łukasz Skonieczny, Ph.D, assistant professor at Institute of Computer Sciences, is one of the main developers of the $\Omega\text{-}\Psi^R$ system. His research interest is in database systems, data-, text- and web-mining, graph theory and web development. He has in his record 10 scientific papers and, 3 edited books. He participated in a bunch of research projects, and cooperated with many institutions, *inter alia* France Telecom, Samsung, UNEP, FAO, IUCN.

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Wacław Struk, M.Sc., works at the Faculty of Electronics and Information Technology since 2010. He is responsible for the FEIT information systems infrastructure. He participated in the development of the $\Omega\text{-}\Psi^R$. His professional interest is in information systems, especially text oriented databases. He participated in various research projects, and cooperated with many international institutions, *inter alia* Infoterm, Termnet, UNIDO, FAO, IFAD, WFP.