




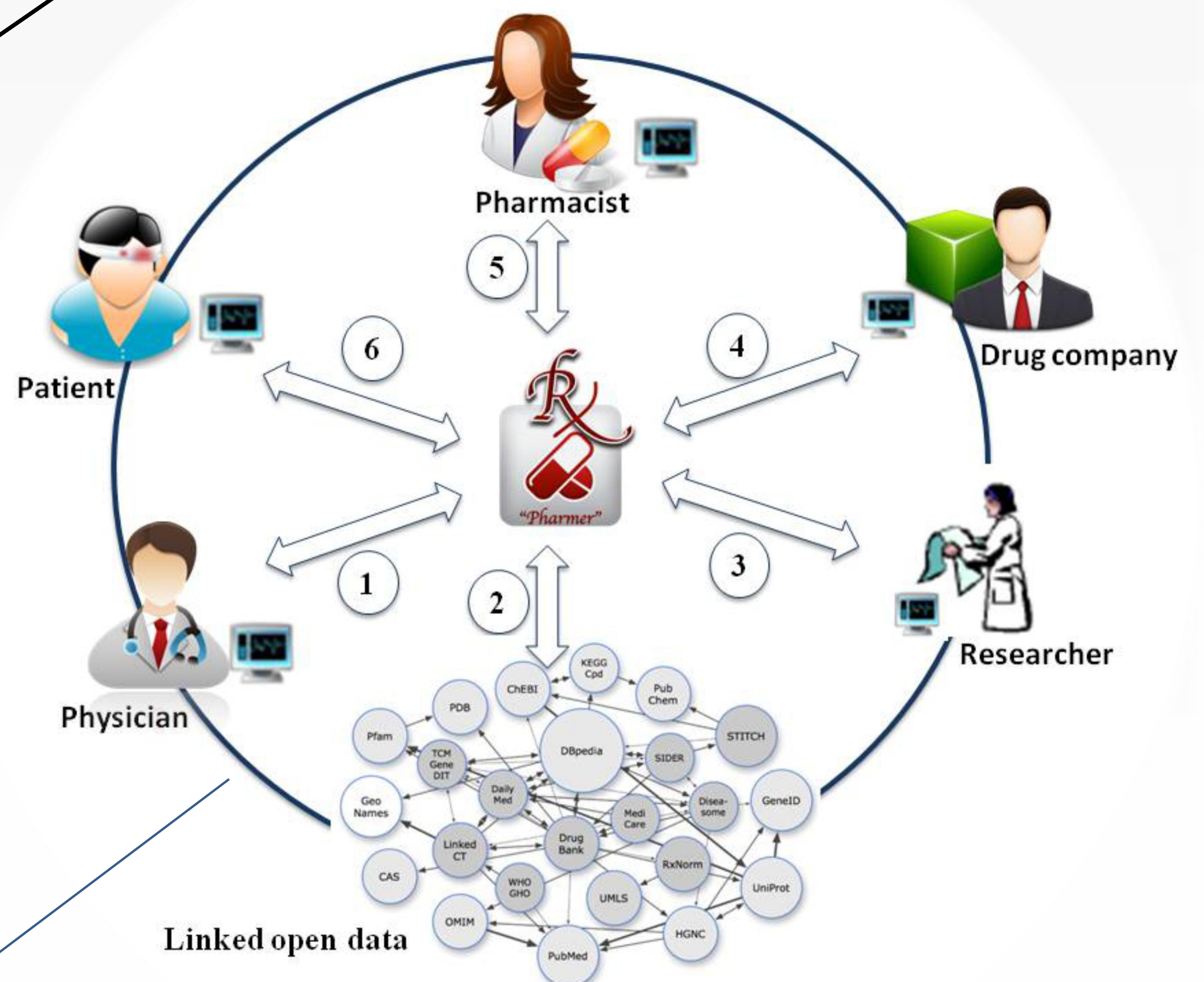




Semantic Medical Prescriptions

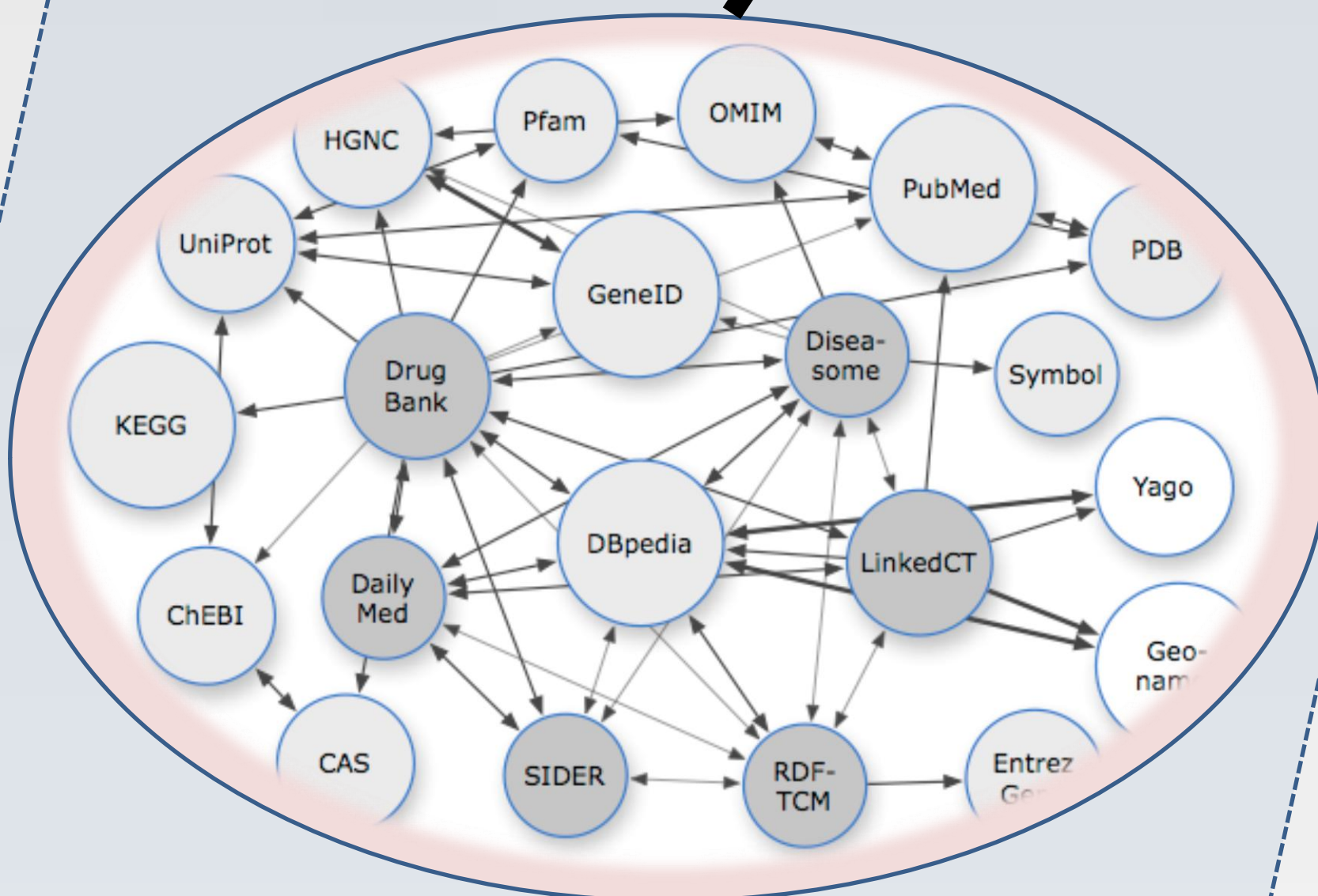
Semantic Prescriptions are **intelligent** e-prescription documents enriched by drug-related meta-data thereby know about their content and the possible interactions. They provide:

-  **Persistent connection to up-to-date drug information coming from multiple dynamic data sources.**
-  **Drug interactions prevention → Error free prescriptions.**
-  **Connection of physicians, pharmacists, patients, pharmaceutical researchers and drug companies**
-  **Machine understandable prescription.**
-  **Patient awareness.**



1. The physician diagnoses the disease and writes the corresponding semantic prescription using the Pharmer. The patient's medication history is available to the physician as well.
2. Pharmacist utilizes the Linked Open Data as its integrated information source.
3. The researcher can analyze the stored semantic prescriptions data.
4. Drug companies utilize the Pharmer data store in order to balance their production and distribution according to the market taste and demand.
5. The pharmacist verifies the prescription and hands in the medication to the patient.
6. The patient inquires drug information and can contact the related physician and pharmacist.

E-Prescriptions



Linked Open Drug Data

Linked Data

A recommended best practice for exposing, sharing, and connecting pieces of data, information, and knowledge on the Semantic Web.

Linked Open Data

- ★ Make your stuff available on the Web (whatever format) under an open license
- ★ Use it available as structured data (e.g., Excel instead of image scan of a table)
- ★ Use non-proprietary formats (e.g., CSV instead of Excel)
- ★ Use URIs to identify things, so that people can point at your stuff
- ★ Link your data to other data to provide context

Linked Open Drug Data

Linked Data representations of the drug-related data sets together with interesting scientific and business questions that can be answered once the data sets are connected.

<http://bitili.com/pharmer>

Pharmer Prescription Writer

Providing Different Semantic Views.
Real-time Drug Tagging.
Drug Suggestion.
Automatic Drug Annotation.



Ali Khalili
AKSW Research group
Institute of Informatics
khalili@informatik.uni-leipzig.de



Bitia Sedaghati
Pharmaceutical Technology Research Group
Institute of Pharmacy
bitia.sedaghati@uni-leipzig.de

UNIVERSITÄT LEIPZIG

AKSW

<http://www.aksw.org>

