

MTA SZTAKI

Department
of Distributed
Systems

Linked Open Data: konverzió és vizualizáció

Micsik András,
Turbucz Sándor,
Tóth Zoltán,
Sziládi Zoltán

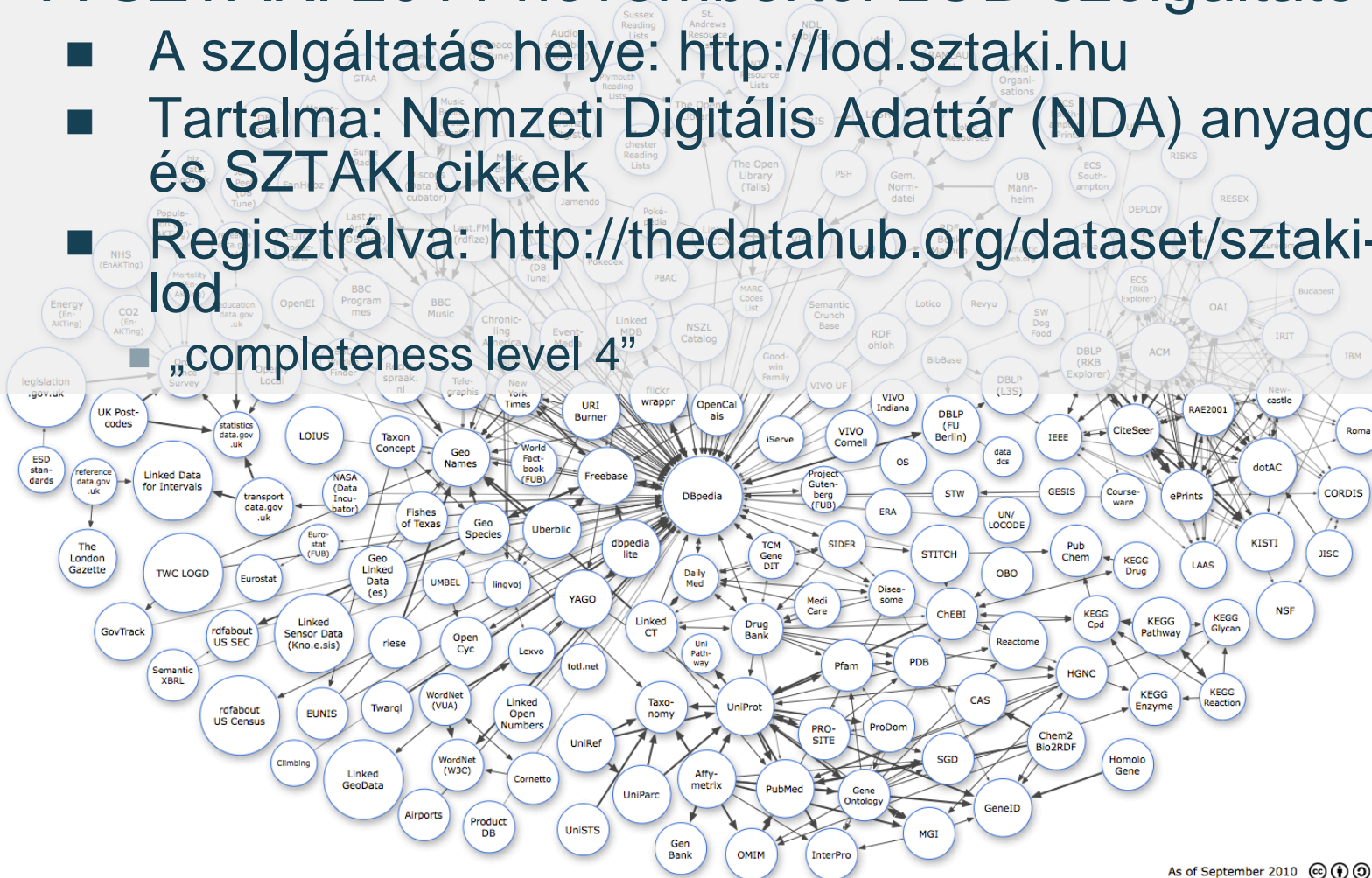
Linked Open Data (LOD) szolgáltatás

DSD

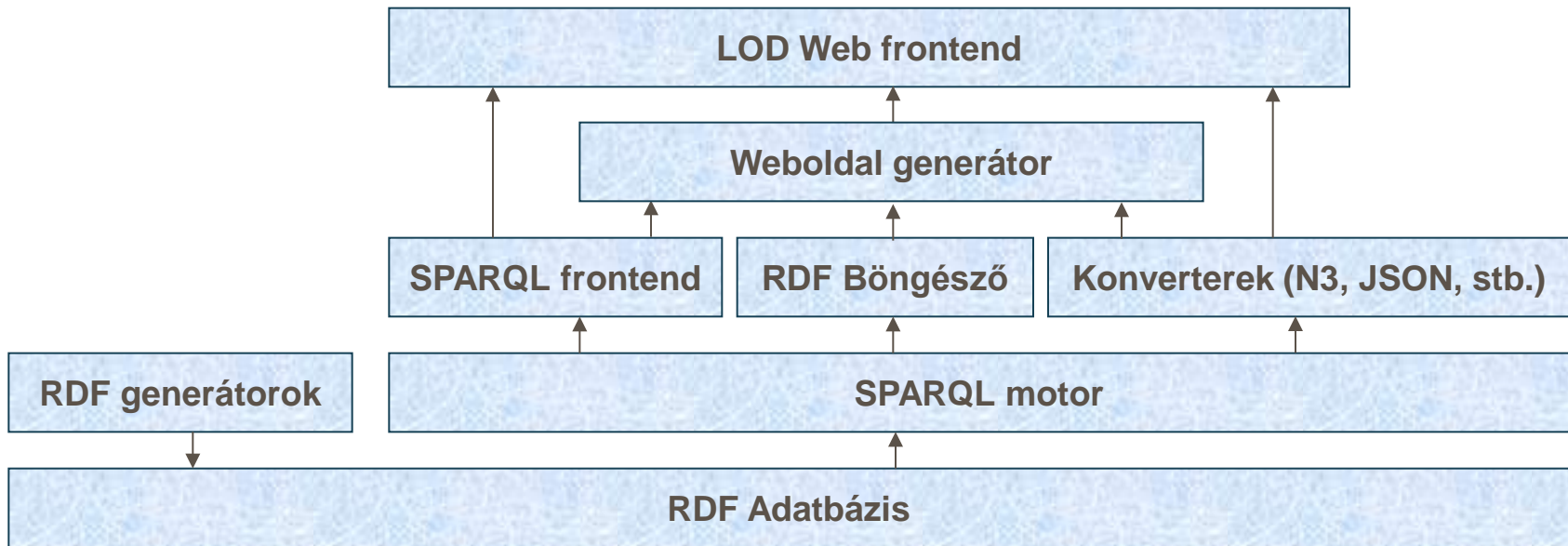
Department of
Distributed Systems

- A SZTAKI 2011 novembertől LOD szolgáltató
 - A szolgáltatás helye: <http://lod.sztaki.hu>
 - Tartalma: Nemzeti Digitális Adattár (NDA) anyagok és SZTAKI cikkek
 - Regisztrálva: <http://thedatahub.org/dataset/sztaki-lod>

■ „completeness level 4”

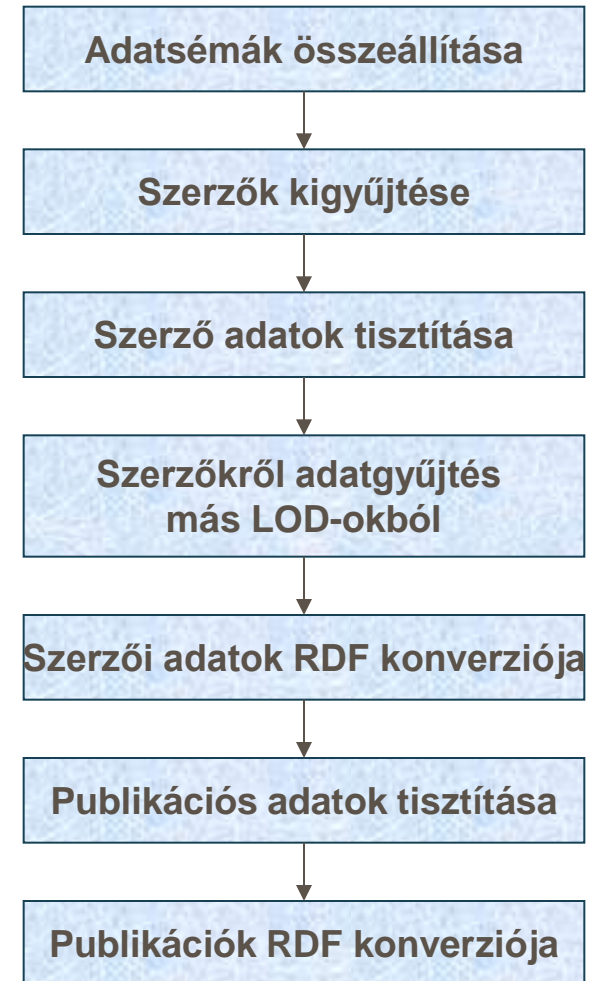


LOD szolgáltató környezet



A szolgáltatás alapját a Virtuoso képezi
Az RDF generálását PHP szkriptek végzik

- Kapcsolódás más LOD-okhoz:
 - DBpedia, OSZK, VIAF, DBLP
- Felhasznált sémák:
 - rdfs, dcterms, schema.org, dbpedia
- NDA:
 - 800 ezer mű SQL-ben
 - 11 millió RDF triplet, 500 ezer külső kapcsolat
- SZTAKI:
 - 6 ezer publikáció LDAP-ban
 - 125 ezer RDF triplet, 900 külső kapcsolat



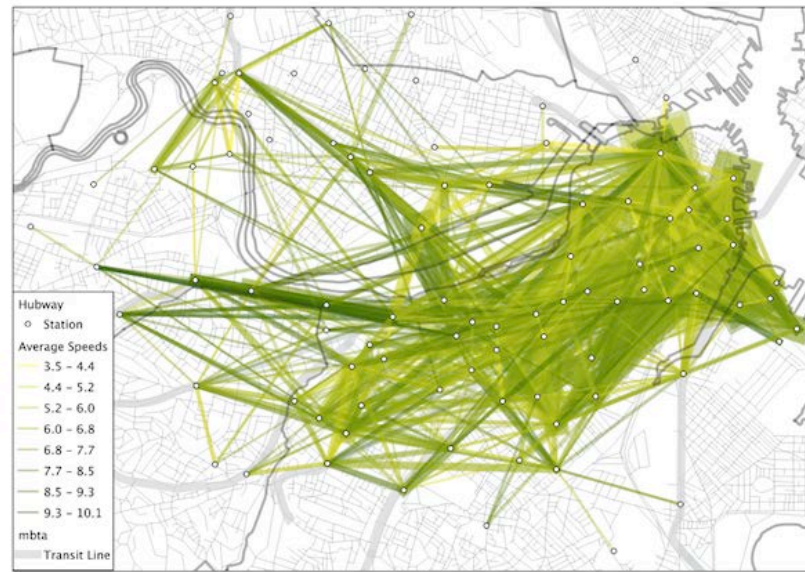
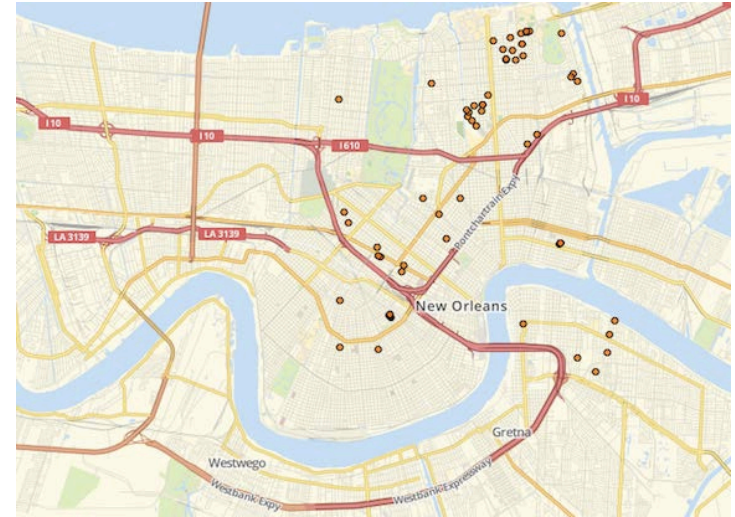
LODmilla:

LOD böngészés humanoidoknak

DSD

- A LOD adatokat a gépek könnyen feldolgozzák, de mi lesz az emberekkel?
 - Az általános megoldások mind korlátozottak valahol
- LODmilla: generikus LOD böngésző
 - Gráf és szöveges megjelenítés egyszerre
 - LOD specifikus műveletek
 - Gráf nézet mentése és megosztása (a la Google)
 - Minimális követelmény a LOD szolgáltatói oldalon
 - Több LOD forráson is működik egyszerre
- Frontend fejlesztés
 - HTML5, Javascript app
- Backend fejlesztés
 - RDF kezelés
 - Speciális gráfkeresési műveletek

Egyedi vizualizációk



LODmilla felület

SZTAKI LODmilla

- ▶ Add new node
- ▶ Select nodes
- ▶ Search in nodes
- ▶ Remote content search
- ▼ Find path between nodes

depth: 4

max: 15

Find path

Paletták

Gráf

Tamás Szirányi

literals out in

Label: Tamás Szirányi

Name: Tamás Szirányi

Homepage: <http://www.sztaki.hu/~sziranvi/>

Description: Present Positions: Scientific Adviser with the Analogical and Neural Computing Laboratory in the Computer and Automation Inst. of Hungarian Academy of Sciences Full Professor with the Image Processing and Neurocomputing Department of the Veszprém University, Veszprém, head of Image Processing laboratory Full Professor with the Peter Pazmany Catholic University, Department of Information Technology Associate Editor of IEEE Tr. Image Processing, Senior member of IEEE - Biography: Tamás Szirányi received the Diploma and the Dr.Techn. degrees in electronics technology from the Technical University of Budapest in 1980 and 1983, respectively. He received the Doctor of Sciences degree in image processing in 2001 from the Hungarian Academy of Sciences. He is addressed full-professor position in 2001 at Veszprém University and in 2004 at Peter Pazmany Catholic University. Until 1991, he was a Research Fellow and Project Manager of Optoelectronics Development at the VIDEOTON Development Institute, Budapest. Then his work involved designing of optical data storage, laser printer and document scanning devices, also applications of laser systems. He led a research department and organized several projects. At the same time, he was a lecturer in electronics and computer technology at the Technical University of Budapest through several years. He is currently a scientific advisor at the Computer and Automation Research Institute of Hungarian Academy of Sciences, and he is a full professor at the Image Processing and Neurocomputing Department of the Veszprém University. - His research activities include - Image analysis, - Pattern recognition, - Intelligent image sensor systems, - Texture and motion segmentation, - Surveillance systems for panoramic and multiple camera systems, - Measuring and testing the image quality, - Scale-space methods, - Digital film restoration, - Markov Random Fields and stochastic optimization, - Image rendering and coding, - Subpixel measurement, - Information theory of image analysis, - Image and video compression, - Pattern and texture analysis with cellular nonlinear networks. He also developed systems including optoelectronic devices, analog/digital hardware, DSPs and Cellular nonlinear networks. He has published more than 120 scientific papers (including 40 in SCI journals), and known distinct references to his publications are more than 300. He is the founder and past president (1997-2002) of the Hungarian Image Processing and Pattern Recognition Society (KÉPAF), and he was on the Governing Board of the International Association for Pattern Recognition (IAPR). He was a member of the EU Network of Excellence MUSCLE (Multimedia Understanding through Semantics, Computation and Learning). He was the co-chair of an international workshop FSPIPA. He was honored by SZTAKI's scientific awards (1997, 2003, 2005 and 2006), by the Széchenyi professorship and by the Master Professor award in 2001. He was plenary invited speaker of "Multimedia Content Representation,

Menü

Load Save/Share Clear Delete selected Undo

All rights reserved © MTA SZTAKI Credits

LODmilla

Show node

Sztaki

Micsik András

http://lod.sztaki.hu/sztaki/auth

Clear Open

Add new node

Select nodes

Search in nodes

Remote content search

Remote connection search

Find path between nodes

András Micsik

Properties Links out Links in

[add]

Creator (78) [add]

- [x] [Distributed object management, a survey](#)
- [x] [SZTAKIWeb](#)
- [x] [MBONE audió - video konferenciarendszer pilot.](#)
- [x] [Web4Groups: csoportmunka támogatás az Interneten.](#)
- [x] [A study of portability in the deployment of WWW.](#)
- [x] [AQUA: an advanced user interface for the Dienst digital library system.](#)
- [x] [Visualizing queries in a distributed digital library system.](#)
- [x] [The collaborative web.](#)
- [x] [Distributed archive and web services for radio stations](#)
- [x] [HEKTÁR: hazai elektronikus könyvtári rendszerek összekapcsolása](#)
- [x] [Eqv NDA-kompatibilis keresőmotor](#)
- [x] [NeXTSTEP - útban Mecca felé](#)
- [x] [Elosztott digitális hangtárak a közösségi rádiózásért \(SotF\)](#)
- [x] [Extending semantic matching towards digital library contexts.](#)
- [x] [An overview of the INFRAWEBBS project](#)
- [x] [An experimental framework for comparative digital library evaluation: the logging scheme](#)
- [x] [INFRAWEBBS - A framework for semantic service engineering.](#)
- [x] [Szemantikus Web technológia használata multi-ágens platformon](#)
- [x] [SOAP based message transport for the jade multiagent platform.](#)
- [x] [Semantic resource allocation with historical data based predictions.](#)
- [x] [Replication within distributed digital document libraries](#)
- [x] [Elosztott digitális könyvtári projekt Európában.](#)
- [x] [The design of voting and rating services within Web4Groups](#)
- [x] [Personalized home pages - WWW services based on agent technology](#)

Load Save/Share My edits Hide all Hide selected Undo

All rights reserved © MTA SZTAKI Credits

Példa: szöveges keresés a gráfban

SZTAKI LODmilla

- ▶ Add new node
- ▶ Select nodes
- ▶ Search in nodes
- ▼ Remote content search

depth: 5
max: 25

kop|

Search

▶ Find path between nodes

KOPI - an online plagiarism search...

literals out

Label: KOPI - an online plagiarism search and information portal

Title: KOPI - an online plagiarism search and information portal

Abstract: Due to the growing amount of digitally available documents, the plagiarism of publications year by year. The aim of the KOPI project, carried out at the Department of Distributed Systems (DSD) of SZTAKI, was to develop an on-line plagiarism search portal, which helps both digital libraries to protect their documents and teachers to find copied works or publications.

Date: 200407

Identifier (2)

- http://dsd.sztaki.hu/people/mate_pataki/200407
- http://www.ercim.org/publication/Ercim_News

Is Part Of: ERCIM NEWS

Language: angol

Genre (2)

- Folyóiratcikk
- tudományos

Thumbnail Url:
<http://www.sztaki.hu/sztatik/getbinarydata.php?dn=documentIdentifier=2004SZTA0339,ou=Publica>

Load Save/Share Clear Delete selected Undo

All rights reserved © MTA SZTAKI
Credits

- LOD kezelés
 - Más LOD adatokkal való kapcsolódási pontok keresése, beazonosítása -> szerzők esetén
 - Többféle azonosító ugyanarra az entitásra -> sameAs relációk
- LOD vizualizáció:
 - Eddigi megoldások funkcionálisan és koncepcionálisan nem jók -> LODmilla frontend
 - Keresési feladatok több gráfon átnyúlóan – LODmilla backend
- Publikációs adatok kezelése
 - Provenancia, kontextus és folyamatok követése a publikációs gráfban -> LODmilla
 - Hivatkozások és más relációk kezelésének koordinációja -> repozitóriumok, PARD proposal

- Eredmények
 - Nyilvános LOD szolgáltatás korai beindítása
 - Szemantikus adatkonverziós gyakorlat
 - Szemantikus kapcsolatok vizualizációja: LODmilla

- Köszönöm a figyelmet!

```
0 0 1 0 0 0 0 1 1
0 1 1 0 i 0 0 1 0
0 0 k n o w 0 0 0
0 w h a t 0 0 0 0
0 0 0 y o u 1 0 1
1 0 1 m e a n . .
1 0 1 1 0 0 1 0 0
```