Centrálny register zaverečných prác a antiplagiátorský systém ako komplexné riešenie na národnej úrovni

Noge, Juraj ; Dušková, Marta
2013

Central registry of theses and dissertations and the anti-plagiarism system as a comprehensive solution at national level

NRGL seminar, Prague, 23/10/2013

Juraj Noge
Marta Dušková

Synopsis

- The idea behind the establishment of the CRTD/APS,
- The stages in the CRTD/APS project,
- The document collection and verification process,
- Technical solutions and operation,
- CRTD/APS benefits and awards,
- Further development plans.

The idea behind the establishment of the CRTD/APS

- The growth in plagiarism since 2000,
- The growth in the numbers of higher education institutions and students,
- A requirement for a central storage space for documents,

- **First institutions to check originality:**
  - School of Management in Trenčín,
  - Constantine the Philosopher University in Nitra,
  - Comenius University in Bratislava,

- **2006** – Slovak Rectors' Conference – an effort the remedy the existing situation,
- **2008** – The Ministry of Education of the SR decided on the creation of a comprehensive solution at national level,
- **2009** – Legislative support (amendment to the Act on Higher Education Institutions).
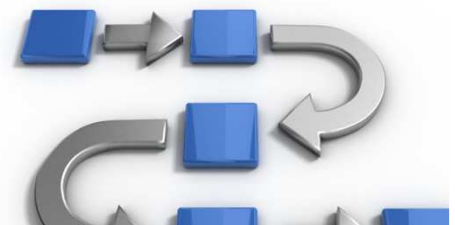
Management of solutions and organisation

- **Constantine the Philosopher University in Nitra** (initial cooperation during the creation of the CRTD, analytical activities)

- **Slovak Centre of Scientific and Technical Information** (organisational management of the implementation of the CRTD/APS, implementation and operation of the CRTD/APS)

- **SVOP, spol. s r.o.** (technical solution contractor)

- **Ministry of Education of the SR** (legislative support, financing, system administration)

CRTD/APS project solution stages

- **Analytical/conceptual/organisational stage 2008**
(Constantine the Philosopher University, CRTD, SVOP, methodological regulations of the Ministry of Education, technical solution concept)

- **CRTD implementation stage 2009**
(implementation of the SW and technical infrastructure of the CRTD, operator SCSTI, preparation of connected instructions, regulations)

- **APS implementation stage 2009 - 2010**
(public tender for contractor, implementation of the APS, put into operation 4/2010)

- **Migration of the CRTD/APS 2011**
(migration of the system to DC RD, making documents available)

Document collection and verification process

- ETDs of higher education institutions as local storage spaces,
- Transfer of metadata to the CRTD in batches,
- Automatic downloading of full-texts of documents,
- Plagiarism comparison,
- Protocols generated and sent to higher education institutions,
- Incorporation of documents into comparison corpus,
- Commission evaluation of material.

Technical solution

- **Application server**
  - internet communication, portal services, downloading full texts,
- **Storage server**
  - Storage space for original files and plain texts, output protocols, logs, …
- **Database server**
  - Operation of MS SQL databases
- **Antiplag server**
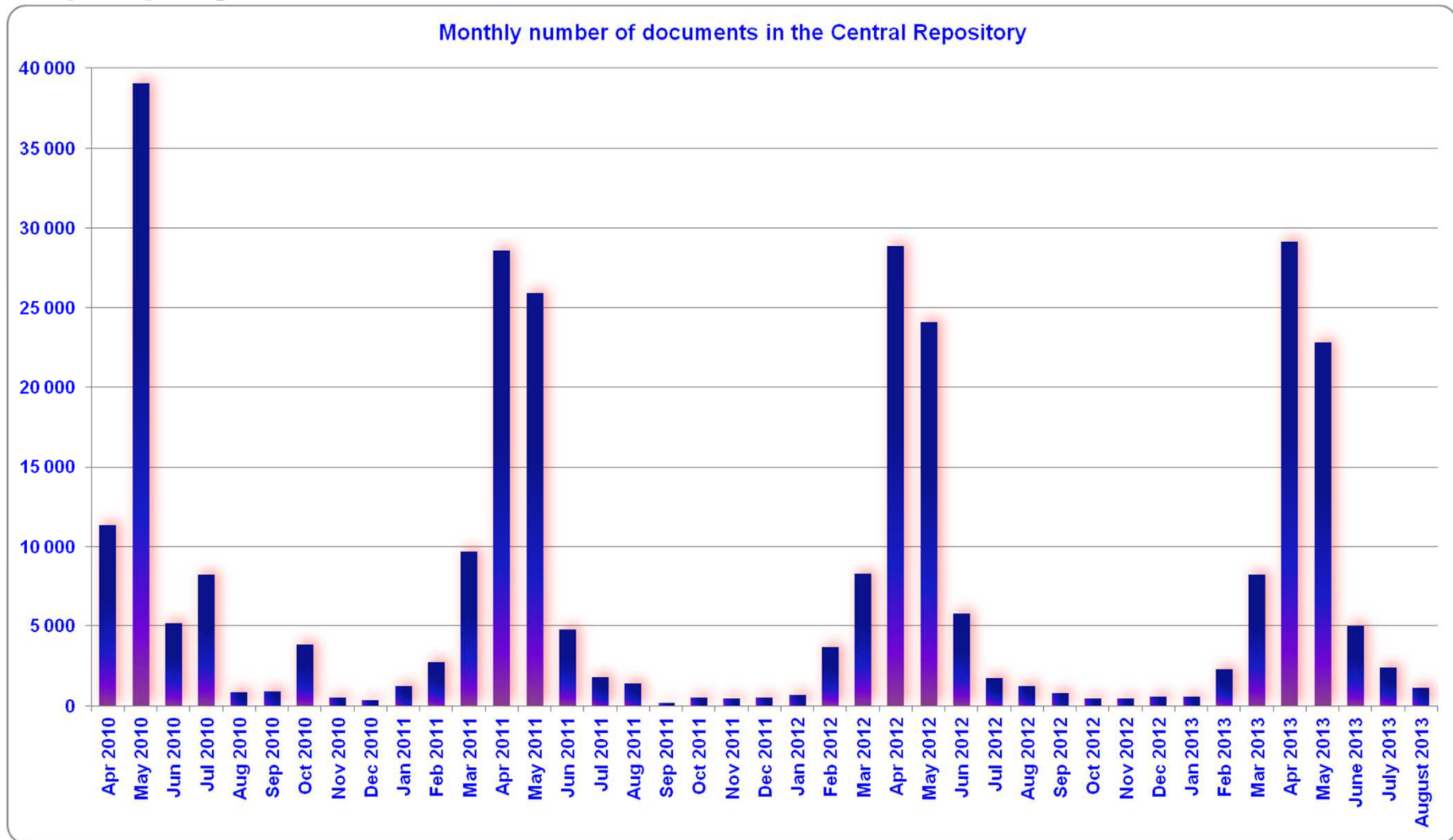 - Indexing and scanning core of the algorithm

CRTD/APS operation

- **33 higher education institutions** involved,
- growth of around **75,000** documents a year,
- total of around **300,000** documents in storage,
- over **5,000,000** documents from internet sources in the corpus, around 2 TB of data,
- **Organisational perspective:**
  - cooperation with the administrators of local storage spaces at higher education institutions,
  - higher education institution technical support,
  - cooperation with the Ministry of Education.
- **Technical perspective:**
  - Non-stop operation – 24/7,
  - Security and capacity– DC RD,
  - Originality Report within 48h,
  - Average time for comparison and protocol generation around **10 seconds.**

Monthly increase in documents in the CRTD

Monthly number of documents in the Central Repository

CRTD/APS benefits

- CRTD/APS establishment = preventive/behavioural effect
- making the behaviour of both students and pedagogues more responsible,
- increasing students' independence during the document creation process,
- increasing the quality of the theses and dissertations,
- more thorough work with literature, citations of used sources.

??? Reduction in plagiarism

CRTD/APS awards

2nd place:

- **2011** – ITAPA conference - competition for the best product in the digitisation of public administration in the "New Services" category

1st place:

- **2013** – European Commission – "European Prize for Innovation in Public Administration" competition in the "Initiatives in Education and Research" category
CORK, Ireland - €100,000

Further development plans

- Employment of the winning algorithm in originality checks,
- Expansion of the number of licences for the Antiplag server (accelerating system response),
- Web version of the Originality Report (displaying all the matches in the text),
- Expansion of the comparison corpus with documents in Czech from internet sources,
- Comparison of documents in foreign languages (especially English) directly with internet sources,
- Provision of control services to other institutions (control of outputs from projects financed from public sources, etc.)

Thank you for your attention.

NRGL seminar, Prague, 23/10/2013

juraj.noge@cvtisr.sk
marta.duskova@cvtisr.sk