CroRIS Data Quality Issues and Possible Solutions

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Croatian National CRIS (CroRIS)

Development of CERIF based Croatian Research Information System (www.croris.hr)

Topic overview:
- Ensuring data accuracy and quality
- Data verification
- Overview of various roles and their responsibilities
- Importance of role separation and scope limitation
Before CroRIS: Croatian Research Information Landscape?

Several crucial data sources required complete migration to CroRIS.

Each of these systems had design issues that contributed to the accumulation of data chaos.
CroRIS data migration

Integration of existing informations into a sustainable and unique information system
Addressing concerns: Data verification

The foundation for quality control of data in CroRIS.
It refers to a part of the data within CroRIS that is recognized as more important. The process also begins automatically when a user enters / changes such data and concludes with the approval of the records by the designated authority.
Mechanism behind data verification
Institutions

Each institution appoints a CroRIS representative:

- 107 Coordinators
- 112 Project editors
- 90 Equipment editors

Designated authorities and top-level user roles
Data verification process

Is it possible to verify data?

Data is relevant for the MSE registers?

Institutional CroRIS representative is appointed?

- No
- Yes

- No data verification.
- Verification by MSE.
- Verification by Institution.
- Verification by CroRIS team.

Institutional editors and MSE employees play the key role for ensuring data accuracy and quality.
Data verification DM model simplified
Data verification in practice

FoodScan™ 2 Lab

Food Scan

Uredaj je namijenjen za primjenu brzih metoda analize sastava polukrutih i kašastih proizvoda u prehrabrenoj industriji.
# Data verification in practice

<table>
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<tr>
<th>Naziv zapisa</th>
<th>Šifra zapisa koji se verificira</th>
<th>Koordinator postoji</th>
<th>Odgovorne ustanove</th>
<th>Verificiraj</th>
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Data verification in practice

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Role Separation and Scope Limitation
Overview of user roles

- Superadmin
- System admins
- Coordinators
- Editors
- Basic user
- + Other specific roles
Basic user

Basic role for users with academic electronic identity.
Users with basic role can change their personal data and add/edit affiliations, publications, projects, equipment...
Sensitive data entered by basic user must be verified.
CroRIS coordinators

Manage CroRIS operations at institutional level.

Appoint editors for different scopes of data.

They are formally appointment by the dean or the director of the institution.
Institutional editors

Users trained and specialized for maintaining specific data.

Editors are responsible for institutional data verification.

Different editors are appointed to different scopes of data

- Institutional editor of equipment data
- Institutional editor of projects data
- ...

srce
Specialized editors for specific parts of the system.

They assist institutions without appointed editors.

Responsible for verification and correction of data (especially for data involving multiple institutions).
Superadmin

Coordinates the entire system.

Maintains the semantic layer (classification schemas, classifications, ...).

Administers institutional coordinators.
Other specific roles

MSE employee roles with special permissions for official registers.

Primarily designed to efficiently support business processes for MSE, institutions, and researchers.

e.g. Agency for Science and Higher Education; Croatian Science Fundation; National Council for Science...
User permissions and roles DB model simplified

- Role grantors
- Permission of a role
- Permission
- Role of a person
- Role of a person in org.unit
Why so complicated?

- With elaborated role separation and scope limitation it is our goal to:
  - Raise data quality within the system
  - Ensure validity of newly entered data
  - Establish comprehensive and accurate research information system in Croatia
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