Data quality and security evaluation framework for mobile platforms

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From old science data collection model to new cyberinfrastructure

Old Science data collection model

Old Business Model:
Few companies are generating data, all others are consuming data

NEW Business Model:
all of us are generating data, all of us are consuming data

New cyberinfrastructure moves data use point far away from data generation

Data Quality (DQ) is the major issue to address
Goal and approach

New Data Quality Management

Data Plane

Quality Plane

Data Processing

Derived Data

Derived DQ

Quality Mapping

Source Data

Source DQ

Focus of Our Work

Data Quality at the point of use

Application: where, when and what for data are used

in Dynamic Data Stream Environments

Our Solution:

A Cyclic Distributed Hierarchical Framework for Data Quality and Security Evaluation
1. DQ metrics definition and assignment

2. DQ indicators calculation and integration

3. Dynamic DQ evaluation on data provenance
Cyberinfrastructure development

Distributed Architecture

Security Evaluation

Apps on Google Play

Droid Watch

List of downloaded Apps

COM.ANDROID.SMOKESTEST
SYSTEM SECURITY EVALUATION
ES FILE EXPLORER
API DEMOS
TRUSTLIBTEST
EICAR ANTI VIRUS TEST
COM.ANDROID.GESTURE.BUILDER
COM.ANDROID.SMOKESTEST.TESTS
UNVERIFIED APP FINDER

Detector of unverified apps

Press back button to find unverified amongst these
More information?

Download our apps from Google Play
https://play.google.com/store/apps/details?id=dataqualitylab.rit.ver_app_finder and more are coming

Take a look at our publications and presentations:
If you missed our webinar, where we were describing our work on the NSF project, organized by TrustCI Center under auspices of NSF, on March 26, 2018, please, watch its video recordings Data Quality & Security Evaluation Framework Development with Leon Reznik & Igor Khokhlov on the YouTube channel https://youtu.be/nkp0kvJvTWw).

- Also, you can download the corresponding slides.
- And yes, we are developing the project website

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