

# Supporting Research Analytics by OpenAIRE's Usage Statistics Hub

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# OpenAIRE2020 Usage Analysis Service: Aims

- *OpenAIRE2020*: 50+ Partners from EU collaborate towards the promotion of *open* scholarship and substantially towards the improvement of the discoverability & reusability of research information & data.
- Standard alignment across heterogeneous data providers for gathering usage data & sharing statistics.
- Taking care of data privacy policies in EU and member states.
- Collection, measure and analysis of usage data (downloads and views).
- Correlate with altmetrics.
- Correlate with citation metrics.

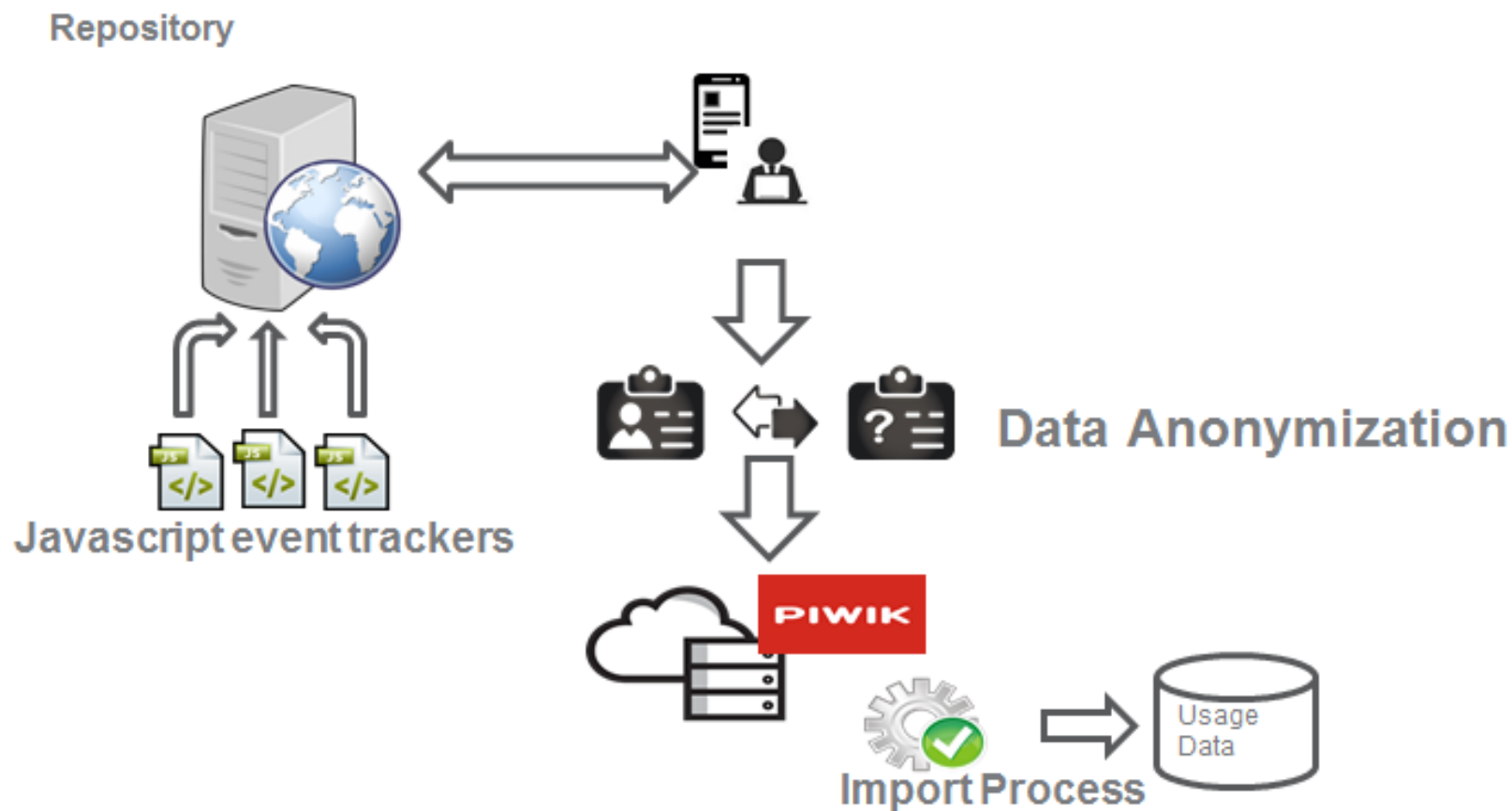
# Altmetrics Manifesto



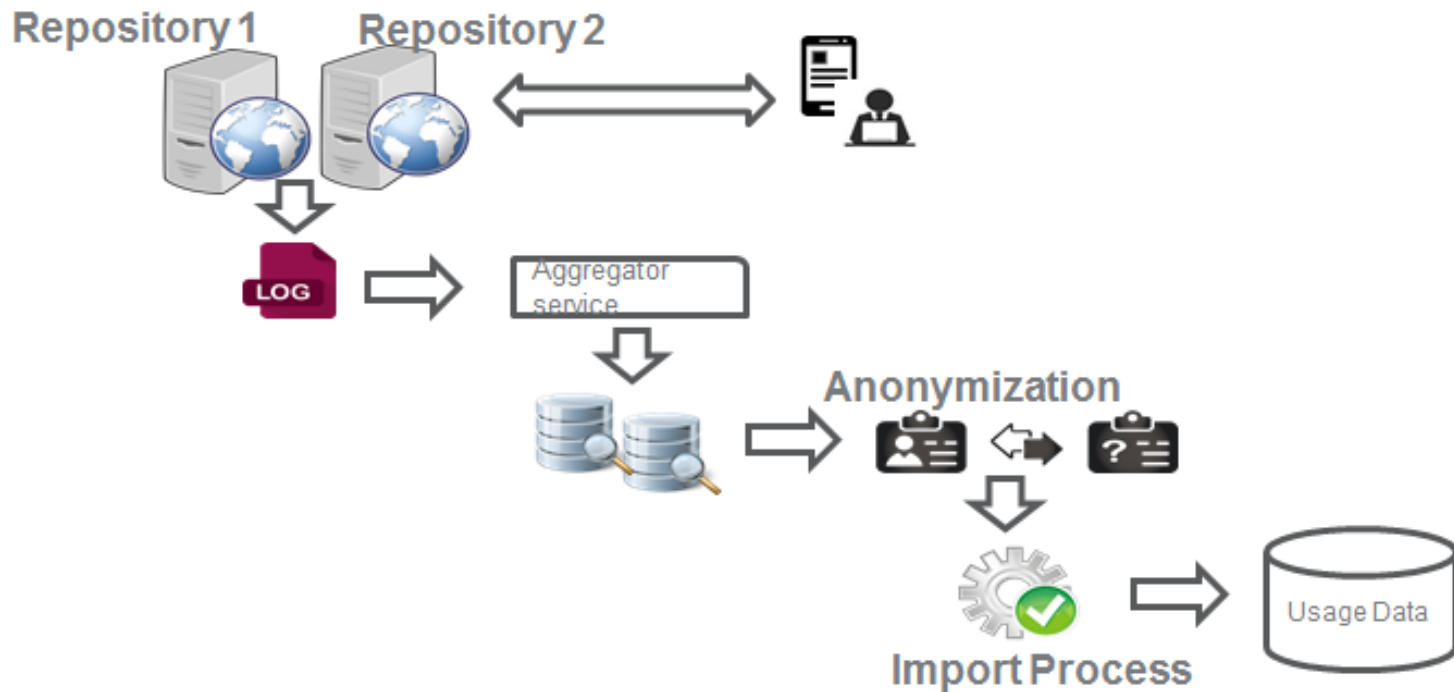
# Challenges for Altmetrics

- Changing nature of the Social Web;
- Self-promotion and Gaming;
- Social impact is not necessarily meaningful for scholarly impact;

# Usage: Tier 1 Tracking Workflow



# Usage: Tier 2 Aggregated Statistics Workflow using SUSHI Lite



# Altmetrics in OpenAIRE

- Altmetrics “donut”
- Altmetrics API <http://api.altmetric.com>

The screenshot shows the OpenAIRE interface for the article "Stress Impact on Resting State Brain Networks". The article is by José Miguel Soares et al. (2013), published in PLOS ONE. The abstract discusses resting state brain networks (RSNs) and their activation patterns under stress. The page includes a "SHARE - BOOKMARK" section with social media icons, a "DOWNLOAD FROM" list with 5 sources, a "PUBLISHED IN" section with 1 source, and a "FUNDED BY PROJECTS" section with 2 projects. At the bottom, there are buttons for "LINK TO PROJECT" and "LINK TO RESEARCH DATA".

**OpenAIRE** PARTICIPATE SEARCH MONITOR SUPPORT OPEN ACCESS

### Stress Impact on Resting State Brain Networks

José Miguel Soares; Adriana Sampaio; Luis Miguel Ferreira; Nadine Correia Santos; Paulo Marques; Fernanda Marques; Joana Almeida Palha; João José Cerqueira; Nuno Sousa (2013)  
**Publisher:** PUBLIC LIBRARY SCIENCE  
**Journal:** PLOS ONE  
**Languages:** English  
**Types:** Article  
**Subjects:** Magnetic Resonance Imaging, Córtex Cerebral, Neuroimaging, Psychology, Fmri, Cognitive Neuroscience, Psychological Stress, Cognitive Neurology, Neural Networks, Q, Diagnostic Radiology, Rede Nervosa, R, Research Article, Ressonância Magnética, Plasticidade Neuronal, Social and Behavioral Sciences, Neurology, Neuroscience, Mental Health, Radiology, Science, Mapeamento Cerebral, Medicine, Stress Psicológico, Bio, biology  
**Identifiers:** doi:10.1371/journal.pone.0066500, pmc:PMC3686683

Resting state brain networks (RSNs) are spatially distributed large-scale networks, evidenced by resting state functional magnetic resonance imaging (fMRI) studies. Importantly, RSNs are implicated in several relevant brain functions and present abnormal functional patterns in many neuropsychiatric disorders, for which stress exposure is an established risk factor. Yet, so far, little is known about the effect of stress in the architecture of RSNs, both in resting state conditions or during shift to task performance. Herein we assessed the architecture of the RSNs using functional magnetic resonance imaging (fMRI) in a cohort of participants exposed to prolonged stress (participants that had just finished their long period of preparation for the medical residence selection exam), and respective gender- and age-matched controls (medical students under normal academic activities). Analysis focused on the pattern of activity in resting state conditions and after deactivation. A volumetric estimation of the RSNs was also performed. Data shows that stressed participants displayed greater activation of the default mode (DMN), dorsal attention (DAN), ventral attention (VAN), sensorimotor (SMN), and primary visual (VN) networks than controls. Importantly, stressed participants also evidenced impairments in the deactivation of resting state-networks when compared to controls. These functional changes are paralleled by a constriction of the DMN that is in line with the pattern of brain atrophy observed after stress exposure. These results reveal that stress impacts on activation-deactivation pattern of RSNs, a finding that may underlie stress-induced changes in several dimensions of brain activity.

LINK TO PROJECT LINK TO RESEARCH DATA

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13  
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PLOS ONE; Vol 8  
FUNDED BY PROJECTS  
EC | SWITCHBOX  
FCT | SFRH/BPD/33379/2008  
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# OpenAIRE Usage Statistics Hub





# OpenAIRE: A Usage Statistics Hub for Responsible Metrics

- Quantitative indicators for research
  - Governance
  - Management
  - Assessment
- Dimensions
  - Robust metrics in terms of accuracy and scope;
  - Humble metrics recognizing that quantitative evaluation should support qualitative, expert assessment;
  - Open and Transparent metrics;
  - Diverse metrics by field in order to support the plurality of research and researcher career paths across the system;
  - Reflexible metrics for recognizing, anticipating and updating the systemic and potential effects of indicators;



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