

UDC 004.738.5:001.8(043.2)

SOME ALTMETRIC SERVICES FOR ASSESSING THE EFFECTIVENESS OF SCIENTIFIC RESEARCH

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Abstract. *The paper analyses the content of the altmetric approach to evaluating the effectiveness of scholarly research. It briefly analyses the possibilities, advantages and disadvantages of modern internet services that allow the evaluation of the performance of researchers on the basis of alternative metrics.*

Keywords: *altmetric, services, effectiveness of scientific activity.*

There is a growing interest in measuring the impact of research. For this purpose, generally accepted metrics based on measuring the impact of scientific research are used. Most of them are based on the number of citations (H-index, G-index, Impact Factor (JIF)). Measuring impact indicators has not only advantages, but also disadvantages, such as a significant time for indexing materials or the inability to take into account the positive or negative nature of citations.

The failure of traditional metrics has led to a growing interest in alternative metrics [1]. They capture and analyse data on the use of scientific papers, including saves, views, likes, page shares, discussions, bookmarks, citations, tweets, views, reviews, expert or public opinions, etc.

These usage statistics are accumulated in various online sources, provided by both the public and academics, including social media, blogs, publishers' websites, online reference management tools, online databases, open access journal websites, etc. Such indicators are not standardised and are usually not regulated by research institutions or educational institutions. Many altmetric tools have been developed in recent years. Most of them use cloud technologies to process and provide access to data. Let us briefly describe some digital tools that allow us to evaluate the results of scientific and pedagogical research according to the altmetric approach.

ResearchGate is a social network for the academic community. It allows authors to share articles, ask and answer questions, and find co-authors. It collects altmetric data on the impact of research from various sources such as social media, news, blogs, etc. These metrics provide a comprehensive view of the distribution and exposure of a research article. *ResearchGate* users can see how many times an article has been mentioned, shared, discussed and cited on different platforms. *ResearchGate*'s integration allows researchers to link their profiles to social media accounts and share their research articles. The platform tracks the number of times an article is shared, liked, commented or mentioned on social media. *ResearchGate* provides data on the number of views and downloads of each scientific article over time (Fig. 1). This helps to assess the dynamics of interest and engagement with a particular study.

As an academic social network, ResearchGate allows researchers to interact with readers through comments and discussions on their research articles. Unfortunately, the platform does not allow for advanced searches, particularly using query language. Another Athmeric tool is the academic social network Academia.edu. The Academia.edu research portal allows researchers to upload and share their research, CVs, keywords for research interests and publications [2]. The Analytics page displays altmetric data from the researcher's profile, such as views, keywords, external links, etc. The drawback of Academia.edu is its strong focus on commercial use. In particular, services such as receiving an abstract of your article, being informed about citations, using advanced search tools and viewing statistics on the impact of research require a paid subscription.

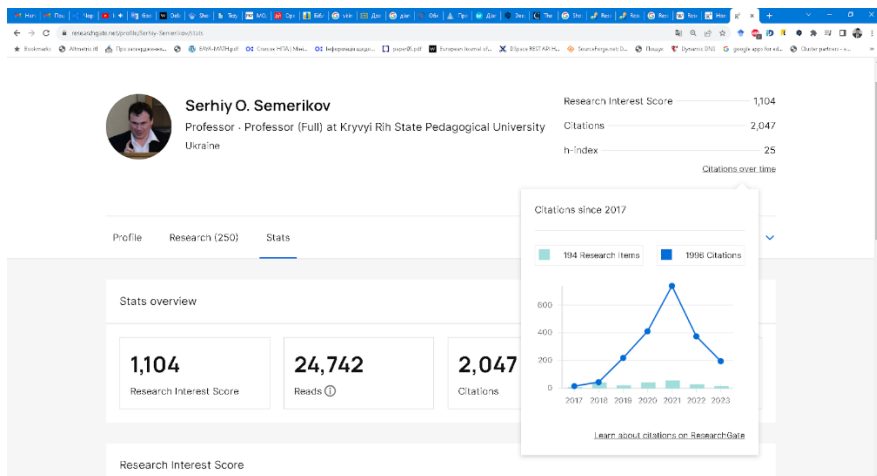


Fig. 1. Dynamics of citations of researcher in ResearchGate

Altmetric Explorer is one of the most comprehensive and functional services for assessing research performance using the altmetric approach. The importance of an article is indicated by the shading of the torus around the score. The collected altmetrics include data from blogs, news, posts from social services and networks such as Weibo, Facebook, Twitter, etc.

The altmetric indicator of attention to a service takes into account the following factors:

- The number of mentions (citations);
- The type of citation source (article, blog, patent, news);
- Author of the link (taking into account the sector).

Altmetric Explorer primarily offers institutional subscriptions for academic institutions, research organisations, publishers and similar organisations. Altmetric Explorer can be accessed for free by individual researchers, but this is not typical. The

Altmetric Explorer platform provides an API that allows scientists to access its data and integrate it into their own applications or research workflows [3].

Impactstory is a web service that measures impact scores based on both classic indicators and altmetric data. Each researcher is assigned a permanent URL and performance indicators are ranked based on users and the type of interaction they have with the research material. The data on users and their usage are presented in percentiles, calculated relative to other studies indexed in the same year in the Web of Science. The advantage of this approach is that it shows the impact of a study in a simple format called an impact history. To create it, users of the service should import their articles and the service will automatically collect impact statistics from services such as Scopus, Mendaley, Google Scholar, Slideshare, ORCID, Pubmed, etc. However, Impactstory is not fully synchronised with the above systems and cannot automatically update its content.

The owners of the service say that it is possible to authorise a profile using accounts from the Twitter social network or the ORCID service. At the moment there are problems with authentication through both of these providers. The advantage of the service is that it generates a page of a researcher's publications using their ORCID. Impactstory also generates an achievements page showing the percentage of open access publications.

Kudos is another service that aggregates altmetric data. It requires payment from publishers and institutions, but is free for researchers. The service allows authors to upload material manually or import it from other services (e.g. ORCID). To set up the aggregation of altmetric data for a publication, its authors should complete the process of adding altmetric metadata. This process is divided into the stages of annotation, adding images and infographics, disseminating the data entered on social media, and identifying the potential readership [2]. The 'Explanation' stage involves entering a concise title and abstract of the article, a brief explanation of the importance and prospects of the study. The advantage of the Kudos service is that it allows information about research to be published on social media sites, including Facebook, LinkedIn, Twitter and email, which is an easy and effective way to disseminate research findings.

Altmetrics is a modern and noteworthy approach to evaluating the effectiveness of pedagogical research. It contributes to the dissemination of research and the popularization of science in general. The combination of traditional quantitative impact assessment indicators with the altmetric approach should be seen as a transformation towards a broader and more transparent system of evaluating the effectiveness of pedagogical research. The use of altmetric services requires the development of appropriate digital competences among scientists and teachers [4].

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ДЕЯКІ АЛЬТМЕТРИЧНІ СЕРВІСИ ДЛЯ ОЦІНЮВАННЯ ЕФЕКТИВНОСТІ НАУКОВИХ ДОСЛІДЖЕНЬ

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Анотація. У тезах проаналізовано зміст альтметричного підходу до оцінювання результативності наукових досліджень. Коротко проаналізовано можливості, переваги та недоліки сучасних сервісів інтернету, які дозволяють оцінювати результативність діяльності науковців на основі альтернативних метрик.

Ключові слова: *альтметрія, сервіс, результативність наукової діяльності.*

УДК 004.8-047.82(045)

СУЧАСНІ ТЕХНОЛОГІЇ ДИЗАЙНУ

Постольник Д.В., здобувач освіти

Відокремлений структурний підрозділ «Київський фаховий коледж комп'ютерних технологій та економіки Національного авіаційного університету»

Науковий керівник – Терентьєва С.О., викладач

Анотація. Дана стаття присвячена аналізу сучасних технологій дизайну, його різним проявам, використанню сучасних технологій у світі дизайну.

Ключові слова: *Віртуальна реальність (VR) та Розширена реальність (AR), штучний інтелект AI, 3D-друк, колаборативні платформи, творчість, технології, сервіси.*

Творчий процес є надзвичайно багатоманітним та складним явищем. Розвиток творчої уяви, знаходження нетривіальних шляхів рішення творчих завдань проектування, подолання психологічної інерції – все це розкриває людину і провокує її створювати щось нове.

За останні роки кожен з нас стали свідками неймовірного прогресу у сфері дизайну завдяки технологічним інноваціям. Поговоримо про них детальніше.

Віртуальна реальність (VR) та Розширена реальність (AR). Однією з найзапам'ятовуваніших та захоплюючих технологій є використання віртуальної реальності та розширеної реальності в дизайні. Це дозволяє дизайнерам створювати інтерактивні та захоплюючі візуальні ефекти, а також взаємодіяти з користувачами на новому рівні.