

Backlink Analysis Tools: A Nontraditional Resource for Intelligence Practitioners

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ABSTRACT

Backlink analysis tools have potential application in open-source intelligence even though they are primarily designed for marketing and SEO professionals. A case study is done to demonstrate their effectiveness, where tools developed by BuzzSumo and Semrush are used to analyze backlinks from Tajikistan-based news outlet *Sugd News* over a one-month period. A Tajik website is analyzed to demonstrate the ability of BuzzSumo's and Semrush's backlink analysis tools to identify links in languages other than English. The results of this study show how intelligence practitioners, particularly those who specialize in disinformation and propaganda, can apply these tools in their operations to create more comprehensive analytical products.

Keywords: backlink analysis, backlinks, BuzzSumo, Semrush, intelligence analysis, open source, propaganda, disinformation

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Herramientas de análisis de vínculos de retroceso: un recurso no tradicional para profesionales de inteligencia

RESUMEN

Las herramientas de análisis de vínculos de retroceso tienen una aplicación potencial en la inteligencia de código abierto, aunque están diseñadas principalmente para profesionales de marketing y SEO. Se realiza un estudio de caso para demostrar su eficacia, donde se utilizan herramientas desarrolladas por BuzzSumo y Semrush para analizar los vínculos de retroceso del medio de noticias *Sugd News*, con sede en Tayikistán, durante un período de un mes. Se analiza un sitio web tayiko para demostrar la capacidad de las herramientas

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de análisis de vínculos de retroceso de BuzzSumo y Semrush para identificar vínculos en idiomas distintos del inglés. Los resultados de este estudio muestran cómo los profesionales de la inteligencia, particularmente aquellos que se especializan en desinformación y propaganda, pueden aplicar estas herramientas en sus operaciones para crear productos analíticos más completos.

Palabras clave: análisis de backlinks, vínculos en retroceso, BuzzSumo, Semrush, análisis de inteligencia, código abierto, propaganda, desinformación

反向链接分析工具：情报从业者的非传统资源

摘要

反向链接分析工具在开源情报方面具有潜在的应用，尽管它们主要是为营销和SEO专业人士设计的。进行了一项案例研究来证明其有效性，其中使用BuzzSumo和Semrush开发的工具来分析塔吉克斯坦新闻媒体Sugd News在一个月内的反向链接。对一个塔吉克斯坦网站进行分析，以证明BuzzSumo和Semrush的反向链接分析工具在识别除英语以外的其他语言链接的能力。本研究的结果表明，情报从业者（特别是那些专门从事虚假信息和宣传的人）如何能在其操作中应用这些工具来创建更全面的分析产品。

关键词：反向链接分析，反向链接，BuzzSumo，Semrush，情报分析，开源，宣传，虚假信息

Introduction

The intelligence community uses multiple tools to conduct open-source research and analysis (e.g., Maltego, Palantir). As new technologies and programs emerge, practitioners incorporate them into their operations. Some technologies are not specifically created with intelligence

analysis in mind. Tools for backlink analysis serve as an example. They may not be well known among intelligence professionals because they are designed primarily for marketing and search engine optimization (SEO) specialists; nevertheless, they have potential use in the intelligence community for open-source analysis. This topic is worthy of research because the tools are relative-

ly new; some are less than 10 years old. Although scholarly articles that mention their use exist, they neither discuss the tools themselves nor their potential application outside of academia. This article fills that gap.

The article begins with an explanation of backlinks, their relationship to websites, and their importance for SEO. Next, it examines backlink analysis tools made by BuzzSumo and Semrush, two reputable companies that specialize in social media and SEO, and compares the effectiveness of both companies' tools by analyzing backlinks from Tajikistan-based news outlet *Sugd News* (<https://sugdnews.com>) over a one-month period. A Tajik website was selected to demonstrate the ability of backlink analysis tools to identify links in languages other than English. The results of the case study show that BuzzSumo's and Semrush's tools, when used together, provide a comprehensive analysis of a website's backlink network. Finally, the article explains how intelligence practitioners, particularly those who specialize in disinformation and propaganda, can utilize these tools in their operations, referencing previous research in academia. It also places this explanation in the context of the Office of the Director of National Intelligence's 2023 warning about malign influence from hostile nations.

Backlinks and Backlink Analysis Tools

What is a Backlink?

To understand how backlink analysis tools can benefit intelligence practitioners, it is important to understand what backlinks are and their relationship with websites and search engines. A backlink is a website URL that refers users to a different page or website.² Backlinks can be internal or external. Internal backlinks refer users to a different page on the same website or domain, while external ones refer users to an outside website or domain.

Backlinks serve multiple functions. First, they allow an organization to properly cite sources. Second, they increase a website's search engine optimization (SEO). While search engines like Google use algorithms that rank websites based on multiple criteria, backlinks can contribute up to 50% of the authority or relevance equation used to rank content.³ A website with more backlinks tends to rank higher than a website with fewer ones. However, quantity is not the only measure of effectiveness. Backlinks from more reputable and authoritative sources are stronger than less reputable ones.⁴ A local news agency with a backlink from the *Wall Street Journal* will rank higher than one without it. The same concept applies to backlinks from a .gov or .edu

2 Kelly Lyons, "What Are Backlinks & Why They Matter for SEO," Semrush Blog, December 6, 2022, <https://www.semrush.com/blog/what-are-backlinks/>.

3 Susan Moeller, "How to Monitor Backlinks with Buzzsumo," BuzzSumo, June 10, 2019, <https://buzzsumo.com/blog/how-to-monitor-backlinks-with-buzzsumo/>.

4 Lyons, "What Are Backlinks & Why They Matter for SEO."

domain (e.g., Columbia University citing a local New York artist's website or the State Department citing a non-profit organization).

Organizations use both types of backlinks to improve their brand image. If a local bicycle shop wants to increase sales, but its customers do not know what type of bicycle to buy (e.g., mountain bike, road bike), the owner can place an internal backlink on its homepage that directs customers to a page titled "What Type of Bicycle Should I Buy?" The page will explain different types of bicycles and the correct size for each person. Additionally, the store may have an article about the history of cycling for biking enthusiasts. Readers may be curious where the bicycle shop gets its information. The store can place an external backlink in the article that shows the original source of information. If the shop has partnerships with other businesses, it can backlink to their websites so that customers visit them. Its business partners may also backlink to the shop in the same way. All things equal and excluding the impact of paid advertising, a shop with more backlinks from quality sources has a greater chance of appearing on the first page of results during a Google search. Businesses that appear on the first page of search results will likely get higher traffic and increased revenue.

Backlink Analysis Tools

Backlink analysis is an important topic in market research. An analysis of backlinks can uncover a network that shows where a website is linking and which organizations link to it. One can analyze which pages on a site get the most backlinks and whether they have certain trending key words or topics. Backlink analysis helps firms devise strategies and implement the same tactics as their competitors' and, in some cases, steal their competitors' traffic. Such research can also help a firm evaluate how well it has designed its own website.

Scholars have noted the importance of backlink analysis since the mid-2000s for business intelligence analysis and the limitations of relying solely on keyword searching and manual website browsing. Chau et al. wrote how analysis tools at the time were sufficient for information retrieval but "lack[ed] the functionality to help find the Web communities of a firm."⁵ When they analyzed backlinks, they did manual searches on Google (e.g., search a firm's or website's name on Google and see if other sites mention it or leave backlinks) and looked at individual pages of websites.⁶ This process is time-consuming and inefficient because it requires a researcher to manually search a backlinking website and its corresponding pages.

In response to demand for more efficiency, social media and SEO compa-

5 Michael Chau et al., "Redips: Backlink Search and Analysis on the Web for Business Intelligence Analysis," *Journal of the American Society for Information Science and Technology* 58, no. 3 (2007): 353. <https://doi.org/10.1002/asi.20503>

6 Chau et al., "Redips: Backlink Search and Analysis on the Web for Business Intelligence," 352.

nies have created tools, which augment other methods like manual searching on Google. Backlink analysis tools are worthy of research because they are relatively new and have potential application in intelligence. Scholarly literature mentions the existence of these tools. However, it does not discuss the specific tools themselves, nor does it discuss their potential use outside of academia. Backlink analysis tools developed by BuzzSumo and Semrush, two reputable SEO optimization companies, will be analyzed in further detail.

BuzzSumo

BuzzSumo is an England-based social media monitoring company that was launched in 2014.⁷ It provides several tools to optimize websites and conduct market research. A subscription allows a user to find trending keywords and feeds (e.g., most popular news topics), use its content ideas generator, and discover main influencers on Twitter, TikTok, Facebook, and YouTube. BuzzSumo also has Content Analyzer, YouTube Analyzer, and Facebook Analyzer tools, which identify top-performing content on websites, YouTube, and Facebook, respectively.

In addition to these tools, BuzzSumo offers a “Backlink Analysis” tool, which finds pages that link to a URL or domain. Users can filter by time

(24 hours, past week, past month, past quarter, past year, past 2 years, past 3 years, past 5 years, or custom date range), domain filter (limit or exclude domains that users do not want to analyze), type of link (links to exact page or links to any page in this domain), and number of results (all results or one result per domain). The backlink analysis tool shows the number of backlinks to a URL, its appearance on social media platforms, an Evergreen Score, and total engagement.⁸ Users can also see results for social media platform engagement (e.g., likes, comments, shares). BuzzSumo shows a graph of unique domains linking to a URL in its analysis report. Domains can be added to the report for comparison analysis. Backlinks can be sorted either by total engagement, publication date, or by highest engagement per selected social media platform. Results can be exported as an Excel or CSV file. Users can save the search and receive alerts when BuzzSumo identifies new backlinks to a domain.

Semrush

Founded in 2007, Semrush is an American online visibility management and content marketing platform that claims to have worldwide popularity, noting clients like *Bloomberg News*, the *Washington Post*, and *Reuters*.⁹ Semrush offers several tools to improve SEO, in-

7 “Buzzsumo: About,” BuzzSumo, accessed March 26, 2023. <https://buzzsumo.com/about/>

8 BuzzSumo created the Evergreen Score, an internal ranking system to measure engagement on an article after its publication. For more information, see Evan Ahlers, “What Is an ‘Evergreen Score’?,” BuzzSumo Help Center, accessed April 1, 2023. <https://help.buzzsumo.com/en/articles/1633304-what-is-an-evergreen-score>

9 “About Us,” Semrush, accessed March 27, 2023. <https://www.semrush.com/company/>

cluding its domain overview tool, traffic analysis tool, keyword gap tool, and backlink analysis tool. Its backlink analysis tool has recorded more than 43 trillion backlinks into a database that allows a researcher to find links for most websites.¹⁰ Like BuzzSumo, Semrush can be used to analyze the quality of a link.

When users click on the Backlink Analytics tab, they are taken to an overview page, which shows the number of referring domains, number of backlinks, monthly visits, legends, and outbound domains. They also see a domain authority score, a Semrush-created algorithm used to calculate the strength of a website. The overview displays charts about referring domains, backlinks, new and lost referring domains, new and lost backlinks, categories of referring domains, top anchors, referring domains by authority score, backlink type, top-level domain (TLD) distribution, top countries of referring domain, link profile distribution, similar profiles, and top pages. Each of these features can be analyzed in greater detail.

Case Study: Analyzing a Website's Backlinks

BuzzSumo vs. Semrush

The author used BuzzSumo and Semrush to analyze backlinks on *Sugd News* (<https://sugdnews.com/>), a Tajik-

istan-based media outlet that publishes news in English and Russian. The date range for the analysis is March 1, 2023 – April 1, 2023. For BuzzSumo, the author entered the domain name and was instantly shown a list of backlinks (see Figure 1). On the other hand, for Semrush, the author was taken to an overview page that provides information about the domain as a whole (see Figure 2). This page did not allow the author to filter by date. To do a consistent analysis with BuzzSumo, the author selected the “Backlinks” tab, where the author could set a date range. Figures 1 and 3 show that BuzzSumo found 4 links, while Semrush found 129, respectively.

The backlinks that BuzzSumo found originate from websites in Kazakhstan and Tajikistan. One of the websites, *New Reporter*, states at the bottom of its home page that it is receiving funding from USAID.¹¹ BuzzSumo also shows total engagement on social media platforms for each of the 4 links. These links received the most engagement on Facebook.

Semrush discovered backlinks to websites in 26 languages, including Russian, English, Tajik, Uzbek, Thai, and Indonesian. For example, *Sugd News* is the 61st citation in a Thai-language Wikipedia article about the COVID pandemic in Tajikistan.¹² Semrush found two links to news sites that

10 “Backlink Analytics,” Semrush, accessed March 27, 2023. <https://www.semrush.com/analytics/backlinks/>

11 *New Reporter* is a media outlet that publishes content in Russian, Kazakh, Uzbek, and Tajik. Although it does not publish in English, the bottom of its home page thanks USAID for funding. For more information, see “Home Page,” *New Reporter*, accessed April 1, 2023. <https://newreporter.org/>

12 “COVID-19 Pandemic in Tajikistan,” *Wikipedia*, date accessed April 1, 2023. <https://th.wikipedia>.

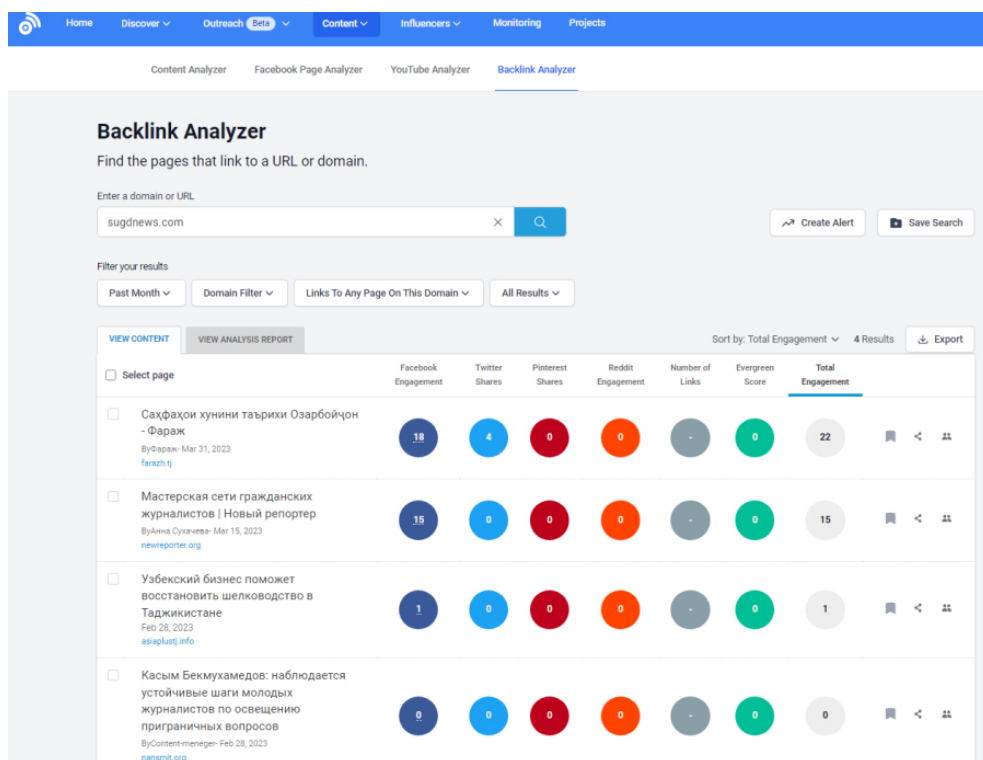


Figure 1. BuzzSumo's Backlink Analyzer Results for Sugdnews.com

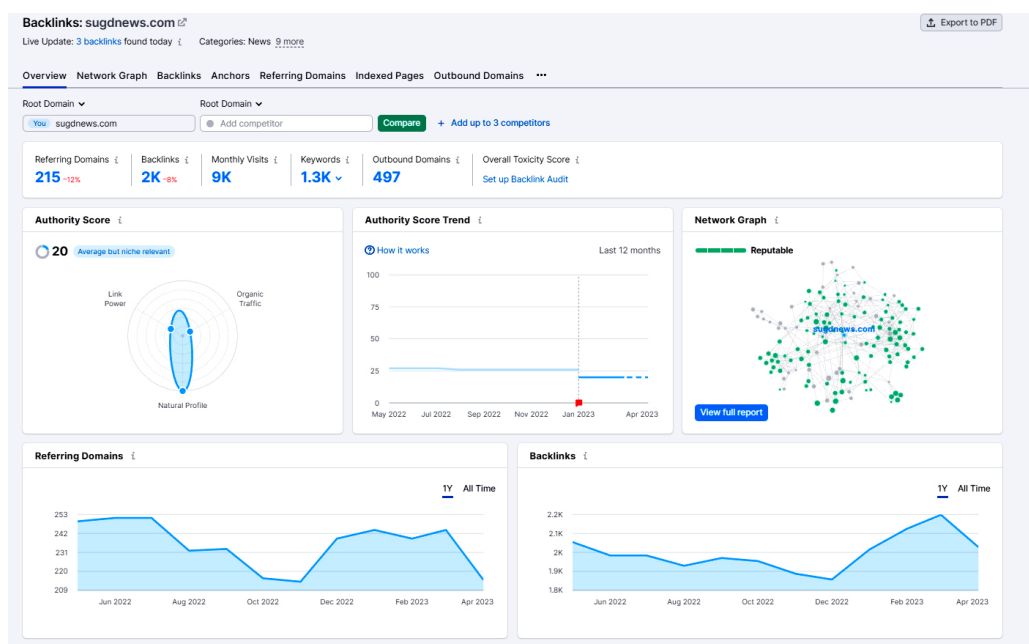


Figure 2. Overview Page of Semrush's Backlink Analysis Tool for Sugdnews.com

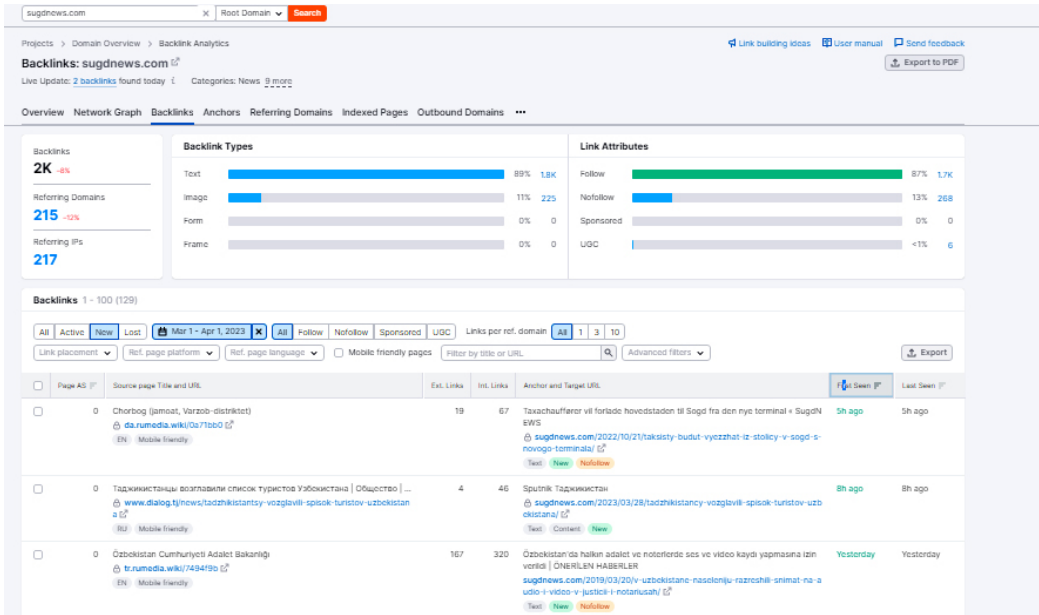


Figure 3. The “Backlinks” Tab of Semrush’s Backlink Analytics Tool

BuzzSumo found, *New Reporter* and *Nansmit* [Figure 4 near here] (see Figure 4). Additionally, it found links to the same article in different languages. Figure 5 shows that while BuzzSumo found a Russian-language article about young journalists reporting on border clashes between Kyrgyzstan and Tajikistan, Semrush found Russian and English translations of the same article. Another noteworthy observation is that BuzzSumo and Semrush found the same article but from different news sources [Figure 5 near here]. Figure 6 shows that BuzzSumo found a backlink association between *Sugd News* and a news article about Uzbekistan and Tajikistan’s joint construction of a silk fac-

tory in Tajikistan, while Semrush found backlinks from three other websites. These observations can help an analyst build a larger backlink network.

Separately, the author used Semrush’s “Network Graph,” a component of the Backlink Analysis tool. The network graph provides a visual representation of the domains that link to *Sugd News* and their referral domains. Note that the network graph shows backlink relationships for all time, not from March 1 – April 1, 2023. As of April 3, 2023, the graph shows that domains backlinked to *Sugd News* have associations with (i.e., separated by 1-2 links of separation) both major think tanks like the Brookings Institute and prominent

org/wiki/%E0%B8%81%E0%B8%B2%E0%B8%A3%E0%B8%A3%E0%B8%B0%E0%B8%9A%E0%B8%B2%E0%B8%94%E0%B8%97%E0%B8%B1%E0%B9%88%E0%B8%A7%E0%B8%82%E0%B8%AD%E0%B8%87%E0%B9%82%E0%B8%84%E0%B8%A7%E0%B8%B4%E0%B8%94-19_%E0%B9%83%E0%B8%99%E0%B8%9B%E0%B8%A3%E0%B8%B0%E0%B9%80%E0%B8%97%E0%B8%A8%E0%B8%97%E0%B8%B2%E0%B8%88%E0%B8%B4%E0%B8%81%E0%B8%B4%E0%B8%AA%E0%B8%96%E0%B8%B2%E0%B8%99

U.S. and Russian newspapers like the *Washington Post* and *Izvestia*. Figure 7 shows a snapshot of the graph and the relationship between *Sugd News* and

the Brookings Institute. Seeing this information helps an analyst visualize how prominent a website is in the information environment.

BuzzSumo	
source title	source url
Саҳфаҳои ҳунини таърихи Озарбойҷон - Фароғ	https://farazh.tj/sahifai-asosy/jahon/sahfahoi-hunini-tarihi-ozarbojjon/
Мастерская сети гражданских журналистов Новый репортер	https://newreporter.org/masterskaya-seti-grazhdanskix-zhurnalistov/
Ўзбекский бизнес поможет восстановить шелководство в Таджикистане	https://asiaplustj.info/ru/news/tajikistan/economic/20230228/uzbekskii-biznes-pomozhet-vosstanovit-shelkovodstva-v-tadzhikistane?tg_rhash=dad9b8f651f186
Касым Бекмухаммедов: наблюдается устойчивые шаги молодых журналистов по освещению приграничных вопросов	https://nansmit.org/index.php/ru/novosti/116012-kasym-bekmukhammedov-nablyudaetsya-ustojchivye-shagi-mododykh-zhurnalistov-po-osveshcheniyu-prigranichnykh-voprosov
Semrush	
source title	source url
Мастерская сети гражданских журналистов Новый репортер	https://newreporter.org/masterskaya-seti-grazhdanskix-zhurnalistov/
Касым Бекмухаммедов: наблюдается устойчивые шаги молодых журналистов по освещению приграничных вопросов	https://www.nansmit.org/index.php/ru/novosti/116012-kasym-bekmukhammedov-nablyudaetsya-ustojchivye-shagi-mododykh-zhurnalistov-po-osveshcheniyu-prigranichnykh-voprosov
Касым Бекмухаммедов: наблюдается устойчивые шаги молодых журналистов по освещению приграничных вопросов	https://www.nansmit.org/index.php/ru/novosti/116012-kasym-bekmukhammedov-nablyudaetsya-ustojchivye-shagi-mododykh-zhurnalistov-po-osveshcheniyu-prigranichnykh-voprosov
Касым Бекмухаммедов: наблюдается устойчивые шаги молодых журналистов по освещению приграничных вопросов	https://nansmit.org/index.php/ru/novosti/116012-kasym-bekmukhammedov-nablyudaetsya-ustojchivye-shagi-mododykh-zhurnalistov-po-osveshcheniyu-prigranichnykh-voprosov
Касым Бекмухаммедов: наблюдается устойчивые шаги молодых журналистов по освещению приграничных вопросов	https://nansmit.org/index.php/ru/novosti/116012-kasym-bekmukhammedov-nablyudaetsya-ustojchivye-shagi-mododykh-zhurnalistov-po-osveshcheniyu-prigranichnykh-voprosov

Figure 4. Backlinks Found by Both BuzzSumo and Semrush*

* Semrush recorded one backlink four times.

BuzzSumo	
title	url
Саҳфаҳои ҳунини таърихи Озарбойҷон - Фароғ	https://farazh.tj/sahifai-asosy/jahon/sahfahoi-hunini-tarihi-ozarbojjon/
Мастерская сети гражданских журналистов Новый репортер	https://newreporter.org/masterskaya-seti-grazhdanskix-zhurnalistov/
Ўзбекский бизнес поможет восстановить шелководство в Таджикистане	https://asiaplustj.info/ru/news/tajikistan/economic/20230228/uzbekskii-biznes-pomozhet-vosstanovit-shelkovodstva-v-tadzhikistane?tg_rhash=dad9b8f651f186
Касым Бекмухаммедов: наблюдается устойчивые шаги молодых журналистов по освещению приграничных вопросов	https://nansmit.org/index.php/ru/novosti/116012-kasym-bekmukhammedov-nablyudaetsya-ustojchivye-shagi-mododykh-zhurnalistov-po-osveshcheniyu-prigranichnykh-voprosov
Semrush	
source title	source url
Kasim Bekmuhammedov: Strong stable steps of young journalists are being observed related to coverage of border issues	https://nansmit.org/index.php/en/news/116023-kasim-bekmuhammedov-strong-stable-steps-of-young-journalists-are-being-observed-related-to-coverage-of-border-issues
Kasim Bekmuhammedov: Strong stable steps of young journalists are being observed related to coverage of border issues	https://nansmit.org/index.php/en/news/116023-kasim-bekmuhammedov-strong-stable-steps-of-young-journalists-are-being-observed-related-to-coverage-of-border-issues
Kasim Bekmuhammedov: Strong stable steps of young journalists are being observed related to coverage of border issues	https://www.nansmit.org/index.php/en/news/116023-kasim-bekmuhammedov-strong-stable-steps-of-young-journalists-are-being-observed-related-to-coverage-of-border-issues
Kasim Bekmuhammedov: Strong stable steps of young journalists are being observed related to coverage of border issues	https://www.nansmit.org/index.php/en/news/116023-kasim-bekmuhammedov-strong-stable-steps-of-young-journalists-are-being-observed-related-to-coverage-of-border-issues
Касым Бекмухаммедов: наблюдается устойчивые шаги молодых журналистов по освещению приграничных вопросов	https://www.nansmit.org/index.php/ru/novosti/116012-kasym-bekmukhammedov-nablyudaetsya-ustojchivye-shagi-mododykh-zhurnalistov-po-osveshcheniyu-prigranichnykh-voprosov
Касым Бекмухаммедов: наблюдается устойчивые шаги молодых журналистов по освещению приграничных вопросов	https://www.nansmit.org/index.php/ru/novosti/116012-kasym-bekmukhammedov-nablyudaetsya-ustojchivye-shagi-mododykh-zhurnalistov-po-osveshcheniyu-prigranichnykh-voprosov
Касым Бекмухаммедов: наблюдается устойчивые шаги молодых журналистов по освещению приграничных вопросов	https://nansmit.org/index.php/ru/novosti/116012-kasym-bekmukhammedov-nablyudaetsya-ustojchivye-shagi-mododykh-zhurnalistov-po-osveshcheniyu-prigranichnykh-voprosov
Касым Бекмухаммедов: наблюдается устойчивые шаги молодых журналистов по освещению приграничных вопросов	https://nansmit.org/index.php/ru/novosti/116012-kasym-bekmukhammedov-nablyudaetsya-ustojchivye-shagi-mododykh-zhurnalistov-po-osveshcheniyu-prigranichnykh-voprosov

Figure 5. A Comparison of BuzzSumo and Semrush's Discovery of an Article About Young Journalists Reporting on Border Clashes between Kyrgyzstan and Tajikistan**

**Semrush recorded English and Russian translations of the same article four times each.

BuzzSumo	
source title	source url
Саҳфаҳои ҳунини таърихи Озарбойҷон - Фараж	https://farazh.tj/sahifai-asosy/jahon/sahfahoi-hunini-tarihi-ozarbojjon/
Мастерская сети гражданских журналистов Новый репортер	https://newreporter.org/masterskaya-seti-grazhdanskix-zhurnalistov/
Ўзбекский бизнес поможет восстановить шелководство в Таджикистане	https://asiaplustj.info/ru/news/tajikistan/economic/20230228/uzbekskii-biznes-pomozhet-vosstanovit-shelkovodstva-v-tadzhikistane?tg_rhash=dad9b8f651f186
Касым Бекмухамедов: наблюдается устойчивые шаги молодых журналистов по освещению приграничных вопросов	https://nansmit.org/index.php/ru/novosti/116012-kasym-bekmukhammedov-nablyudaetsya-ustojchivye-shagi-mododykh-zhurnalistov-po-osveshcheniyu-prigranichnykh-voprosov

Semrush	
source title	source url
Ўзбекский бизнес поможет восстановить шелководство в Таджикистане - Сегодня	https://segodnya.today/ru/%D1%83%D0%B7%D0%B1%D0%B5%D0%BA%D1%81%D0%BA%D0%B8%D0%B9-%D0%B1%D0%B8%D0%B7%D0%BD%D0%B5%D1%81-%D0%BF%D0%BE%D0%BC%D0%BE%D0%B6%D0%B5%D1%82-%D0%B2%D0%BE%D1%81%D1%82%D0%B0%D0%BD%D0%BE%D0%B2%D0%B8/
Ўзбекский бизнес поможет восстановить шелководство в Таджикистане Новости Таджикистана ASIA-Plus	https://rr.eastera.tj/ru/news/tajikistan/economic/20230228/uzbekskii-biznes-pomozhet-vosstanovit-shelkovodstva-v-tadzhikistane
Ўзбекский бизнес поможет восстановить шелководства в Таджикистане	https://www.toptj.com/News/2023/02/28/uzbekskiy-biznes-pomozhet-vosstanovit-shelkovodstva-v-tadzhikistane

Figure 6. A Comparison of BuzzSumo and Semrush’s Discovery of backlinks to an Article about Uzbekistan and Tajikistan’s Joint Construction of a Silk Factory in Tajikistan***

***BuzzSumo found a link to asiaplustj.info, while Semrush found links to toptj.com, rr.eastera.tj, and segodnya.today.

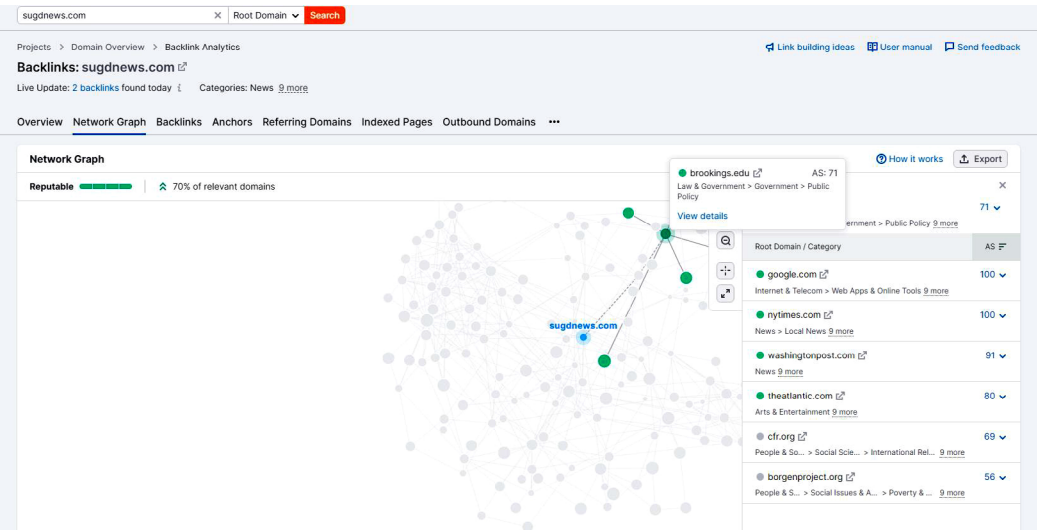


Figure 7. A Snapshot of the “Network Graph” Tab of Semrush’s Backlink Analytics Tool

Results

Based on these findings, Semrush is a more effective tool than BuzzSumo because it found a greater number of links and has more features to conduct do-

main and backlink analysis. However, BuzzSumo found a link that Semrush did not find, <https://farazh.tj/sahifai-asosy/jahon/sahfahoi-hunini-tarihi-ozarbojjon/>. BuzzSumo also displays popular social media platforms, on

which these links appear, whereas Semrush does not. This analysis shows that the two tools' algorithms or search criteria are not identical. Using the tools together provides a more comprehensive analysis for identifying backlinks both on regular websites and social media channels. In the same way that scholars use "multiple citation sources to make accurate assessments of the impact and quality of scientists' work," multiple tools need to be used for backlink analysis.¹³ Using more than one tool improves the quality of the analysis.

These tools can be used to analyze competitors' marketing strategies. They both give insight into authoritative linking domains and can show potential evidence of collaboration between two websites. The tools can be combined with BuzzSumo and Semrush's other analytic tools and Google Keyword Planner to analyze key words on competitor sites. Firms can use these same words in their content to steal traffic from competitors.

Relevance for Intelligence Practitioners

Although backlink analysis tools are relatively new and primarily designed for marketing and SEO specialists, they have potential application in intelligence. Intelligence practitioners can use backlink analysis

tools to identify propaganda or disinformation networks. If a website or organization regularly places links to other news organizations or websites that promote a particular view or agenda, one can suspect that these organizations may collaborate with each other. This topic is applicable to agencies or departments that research disinformation or specialize in information operations. If analysts discover a relatively new website that regularly backlinks to or is backlinked by Russian state-funded outlets, they may suspect that the website is part of a Kremlin disinformation campaign. They can report their findings to civilian policymakers or military planners, who will formulate strategies to counter malign foreign influence.

The case study in this article analyzed a Tajik website to demonstrate the ability of BuzzSumo's and Semrush's backlink analysis tools to identify links in languages other than English. Analyzing non-English websites is pertinent to intelligence because the Office of the Director of National Intelligence has warned about the threat of malign influence from hostile nations like China, Russia, and Iran.¹⁴ These nations promote their influence and disseminate narratives in not only their native Mandarin, Russian, and Farsi languages, but also the languages of the nations they target. China actively exploits "friendly and unwitting media outlets" in Africa to appear legitimate when sharing pro-

13 Lokman I Meho, "The Rise and Rise of Citation Analysis," *Physics World* 20, no. 1 (2007): 4.

14 "Annual Threat Assessment of the U.S. Intelligence Community," *Office of the Director of National Intelligence*, February 6, 2023, pp. 10-11, 15, 19. https://www.intelligence.senate.gov/sites/default/files/documents/unclassified_2023_ata_report.pdf

paganda.¹⁵ Intelligence practitioners researching Chinese influence operations in Africa can use BuzzSumo's and Semrush's backlink analysis tools to identify local African media companies associated with China and possibly discover other websites and organizations, which they did not previously know about.

Scholars have shown backlink analysis tools' usefulness when analyzing disinformation. In April 2020, a group of researchers used BuzzSumo to identify the top 30 articles about COVID prevention based on relevant keywords (e.g., "coronavirus," "COVID-19," and "SARS-CoV-2"), their shares on social media, and the sources of articles (e.g., TV/radio websites, newspaper/magazines, government website, research journal).¹⁶ They classified each article as "accurate," "misleading," or "inaccurate." 80% of articles were classified as accurate, 20% were classified as misleading, and 0% were classified as inaccurate. Facebook was the most common social media platform on which articles were shared. Although 80% of articles were accurate, they accounted for only 64% of shares.¹⁷ Without BuzzSumo, these

researchers would not have been able to conduct a deep analysis of these top articles compared to more traditional analytic techniques like manual searching.

A few months later, the Oxford Internet Institute (OII) used Semrush's domain authority (DA) and backlink analysis tools to study professional and junk news/disinformation sources. Its researchers analyzed 830 domains, 555 of which were classified as professional sources and 275 as junk/disinformation ones.¹⁸ Professional news sources had more backlinks and a higher DA score. However, junk news/disinformation sources still had average DA scores above 60, which indicates high visibility and excellent SEO performance. Some sites had backlinks from .gov and .edu domains, including the State Department and Georgetown University.¹⁹ OII's study highlights the importance of an effective backlink analysis tool because traditional Google searching may not have discovered every backlink. Although Google's crawlers travel across the web, not every page on a website is indexed. Additionally, manually searching entire websites and each

15 Joshua Eisenman, "China Is Tweaking Its Propaganda for African Audiences," *Foreign Policy*, March 16, 2023. <https://foreignpolicy.com/2023/03/16/china-propaganda-africa-soft-power/>

16 Justyna Obiała et al., "Covid-19 Misinformation: Accuracy of Articles about Coronavirus Prevention Mostly Shared on Social Media," *Health Policy and Technology* 10, no. 1 (2021): 183. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7603966/>

17 Obiała et al., "COVID-19 Misinformation: Accuracy of Articles about Coronavirus Prevention Mostly Shared on Social Media," 183.

18 Emily Taylor et al., "Follow the Money: How the Online Advertising Ecosystem Funds Covid-19 Junk News and Disinformation," *Follow the Money: How the Online Advertising Ecosystem Funds COVID-19 Junk News and Disinformation* | Oxford Information Labs (Oxford Information Labs Limited, August 3, 2020), 2-3. <https://oxil.uk/publications/oii-follow-the-money/>

19 Taylor et al. "Follow the Money: How the Online Advertising Ecosystem Funds COVID-19 Junk News and Disinformation," 5.

of their articles and pages would be too time-consuming. Both aforementioned scholarly articles show the successful use of SEO backlink analysis tools for researching disinformation and propaganda. Intelligence practitioners can adopt similar tactics, techniques, and procedures when researching online propaganda networks to create quality analytical products for their customers.

Conclusion

Intelligence practitioners regularly adopt new technologies to stay innovative. Backlink analysis tools

can aid them in their operations. Although no one tool is perfect, using multiple tools together can augment other research methods. An analysis of backlinks on *Sugd News* over a one-month period shows the advantage of using multiple tools. BuzzSumo's and Semrush's tools are primarily used for marketing, but they have potential application in intelligence, specifically when researching disinformation and propaganda. When combined with other open-source analytic methods and language skills, knowledge of backlink analysis tools can give intelligence practitioners an advantage in the field.

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