How the ICIJ unraveled the Panama Papers using Linkurious Enterprise

THE TEAM BEHIND THE GROUNDBREAKING PANAMA PAPERS INVESTIGATION

The International Consortium of Investigative Journalists (ICIJ) is a US-based non-profit news organization. It encompasses a global network of more than 200 investigative journalists and 100 media organizations in over 80 countries, working together to investigate large news stories.

Within its reporting team, the ICIJ counts a Data & Research unit in charge of processing data gathered by journalists or coming from leaks. Over the years, the ICIJ investigation teams have exposed smuggling, tax evasion and corruption cases. The investigation we look into here received the Pulitzer prize in 2017.

Back in 2014, an anonymous source leaked the data of a shady legal firm based in Panama to the German newspaper Süddeutsche Zeitung. The leak contained more than 11.5 million documents, representing 2.6 terabytes of data and documenting 214,488 offshore structures created and administered by Mossack Fonseca in 30 years. Quickly, the newspaper approached the ICIJ which coordinated with media organizations and journalists worldwide to start investigating the leak.

THE COMPLEXITY OF DATA-DRIVEN JOURNALISM INVESTIGATION

These large data leaks are not commonplace for journalists, and they bring challenges that derive from data nature and volume.

The large amounts of data contained in the leak was, in itself, a challenge. To complicate things, the Panama Papers investigation started from raw, unstructured data. The files obtained by Süddeutsche Zeitung included millions of loan agreements, financial statements, emails, trust deeds and other paperwork dating back to nearly 50 years. To start investigating, journalists first had to turn millions of unstructured documents into computable information that could be organized, searched and analyzed.

Another obstacle was related to how data was stored. The success of those investigations is determined by the finding of connections between entities. Though, in many investigation cases, data is kept in silos that make it difficult to cross-reference it and highlight connections. For the Panama Papers, ICIJ's reporters conducted the investigation with data stemming from the leak but also from other sources. To make siloed data talk, it was essential to bring everything together.

“One of the key challenges is to make our technology user-friendly for the journalists so that everyone around the world is able to use it,” explained Pierre Romera, ICIJ's Chief Technology Officer.

CONTACT US!
66 rue Marceau, 93100 Montreuil FRANCE
www.linkurio.us
contact@linkurio.us
Data-driven investigations are a challenge for non-tech savvy journalists who need to gain new skills to conduct their researches. At the ICIJ, making the data exploration accessible to non-tech-savvy reporters was both a challenge and a necessity.

A GRAPH APPROACH TO UNVEIL SHADY CONNECTIONS

For some years now, the ICIJ Data unit had understood that investigations of corruption and fraud issues were inherently graph problems and thus, had to be technically treated as such.

“While working on Offshore Leaks, I learnt how important graph analysis is when investigating corruption,” said Mar Cabra, editor of the unit. “Connections are key to understand what the real story is and who’s doing business with who. We decided early on that we needed to use a graph-based approach for the Panama Papers.”

The ICIJ decided to build the Panama Papers investigation platform upon graph technologies. They proceeded in several phases to make the documents exploitable by the 370 journalists.

The Data & Research unit processed the documents into machine-readable formats, indexing and connecting them together through their metadata thanks to Optical Character Recognition, content-extraction and document indexing technologies. The team then made use of Talend ETL (Extract, Transform, Load) tools to load the data into Neo4j, a graph database platform, creating a network of nodes and edges.

Once the database was created, the ICIJ made the data available to their investigative teams globally through the secure, collaborative and intuitive exploration interface of Linkurious Enterprise. The platform gave journalists the visual investigation and analysis tool they needed to find insights in the data leak and share their stories.

“Linkurious Enterprise allowed our remote team of dozens of reporters to easily sift through complex financial data to uncover persons of interest and potential stories — all in a visual and very intuitive way”, Cabra explained.

The technology tack set up by the ICIJ Data Unit to investigate the Panama Papers.

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contact@linkurio.us
SHEADING LIGHT ON THE OFFSHORE WORLD

Using Linkurious Enterprise, journalists were able to explore the connections of the entities they were investigating and expose the complex financial structures set up by Mossack Fonseca’s clients to cover up their financial crimes.

With limited resources, the ICIJ Data Unit was able to organize an efficient and reproducible process to allow a network of 380 journalists to investigate millions of documents and uncover stories of interest. Breakthrough revelations were made possible by Linkurious Enterprise.

Linkurious Enterprise also provided security features particularly important for journalists working in countries where reporting on a political scandal could have dire consequences.

When the time came to publish the story, the ICIJ used the Linkurious Enterprise API to create and embed graph visualizations into its news platform. This way, readers from all around the world could quickly grasp the complexities of the financial networks unmasked by ICIJ.

“Linkurious Enterprise was the best solution to make the data available to our global network of more than 370 journalists. It enabled them to uncover persons of interest and potential stories in a short time frame. Using the collaboration features and intuitive interface of Linkurious, they were able to easily expose many complex offshore structures and financial crimes,” Cabra said.

Mock-up of a graph visualization created by Linkurious Enterprise to display revelations from the Panama Papers.

ABOUT LINKURIOUS

Linkurious develops a graph intelligence platform that helps organizations detect and investigate threats hidden in complex connected data. Linkurious helps customers like the French Ministry of Finances, Zurich Insurance, and the New York State Attorney General, fight fraud, money laundering, cyber threats and other criminal activities.

Pierre Romera,
Chief Technical Officer, ICIJ.

TESTIMONY

« Graph visualization technologies like Linkurious Enterprise are a great asset. It’s intuitive for the non-tech-savvy. Reporters just need to click on dots to expand the connections and uncover persons of interest and potential stories in a short time-frame. »