

Correlation Technology Impact in Automated News Analysis

- The combined revenue of the news syndicates featured in this dossier are an estimated \$76.3B USD (STATS is excluded). We anticipate automated “local impact discovery” to be the initial point of impact of Correlation Technology. We estimate further revenue to be generated in providing “automated news analysis.”
- “Local impact discovery” is an automated software process that identifies the connections linking international, national and regional news events to local media markets, and pinpoints the location of the impact of any news event in the local media market. Newsrooms can utilize local impact discovery to locate individuals, communities, groups, businesses or industries directly and indirectly affected by any news event while widening the scope of investigative journalism and reporting.
- “Automated news analysis” is an automated software process that provides expert prediction and opinion hypotheses by utilizing data from various fields of expertise to reflect the significance of news events in local media markets. These hypotheses will allow non-expert commentators and anchors to provide local news consumers with commentary based on substantiated information. Further, expert analysts can also utilize automated news analysis as an aid to provide local news consumers with multi-dimensional observations beyond the obvious.
- No company provides automated local impact discovery or automated news analysis.
- Currently, news agencies, syndications, and local news providers must rely on reviewing bulk event reports manually with only basic computer assistance. Industry software only minimally aids in the search and discovery of articles related by keywords. Industry software cannot identify the impact of news events on local media markets, or pinpoint the impact of news events on specific individuals, groups, communities, businesses or industries. Industry software cannot utilize data from many fields of expertise to analyze connections between news events to local media markets.
- The news industry is dominated by the five top news syndicates. The market leader by revenue, The Walt Disney Corporation, owns the American Broadcasting Channel (ABC), the fourth most watched channel in the US. Broadcasting revenue is an estimated \$5.7B USD. The Associated Press is the largest news agency in the US. FOX News Channel is the most watched news channel in the US.
- The news industry has many watchdogs, such as the Statistical Assessment Service (STATS), monitoring the quality and accuracy of journalistic reporting, commentary, polling and statistics. STATS also provides statistics based on qualitative and quantitative studies for use by the news industry and public.

Automated News Analysis: Industry Overview

As events occur in the world, serious journalists and the mass media are responsible for expediting event reporting to audiences around the globe. News agencies are responsible for initial bulk reports which outline and describe events in detail, and for distributing these bulk reports to news syndicates and local news providers. News syndicates and local news providers review bulk reports for stories deemed newsworthy and relevant to news consumers in local media markets. News consumers in local media markets rely on local newsrooms to provide predictions and opinions on national and global stories that might impact their communities and lifestyles, in order to make informed decisions. Based on the success of this process, non-news companies pay a premium for the best advertising and promotional spots in news publications or timeslots on broadcast networks.

News agencies are organizations made up of a journalists and correspondents who cover international, national and local events. They operate out of regional outlets where bulk reports are generated for distribution to subscribers. As the staff of local news providers dwindles, more agency-generated reporting is being used in local reporting. Agencies sell their bulk and localized reports directly or charge subscription fees to news distributors, online news aggregators and local providers. Agencies can also distribute bulk reports and press releases by working cooperatively with news syndicates who are typically part share owners. These syndicates freely exchange their own news reports with the cooperative agency and its members.

News syndicates possess massive vertical and horizontal control of the mass media, including in-house news wires to gather and distribute news among their affiliates which range from print publication to local broadcast publication. These in-house news wires are also available by subscription to independent local publications and online news aggregators. News syndicates deliver news to their audiences via local news affiliates or national cable network programming under their control. They rely on local affiliates to do in-house news analysis to make newsworthy events more tractable to the locale, thereby increasing their audience base, advertising, and revenue. Local affiliates also provide local news stories that may generate national interest.

Independent local news providers rely on their intimate knowledge of their media market and demographic to retain a loyal audience base, typically relying on local company advertising to generate revenue. The Federal Communications Commission strictly regulates programming and also sets a ceiling on how many stations can be owned by any given company. This is done in order to stimulate competition and diversity in local programming.

In the broadcast news industry, events that occur globally, nationally, and locally can be initially reported by witnesses, other ground assets such as embedded journalists, or are discovered via social media. An assignment editor must deem the event newsworthy, that is, relevant to public or special audiences. Photographers and cameramen are assigned a reporter if necessary, and deployed to the cover the story. To bring the story closer to home, interviews may be conducted with local residents to get their opinions and reactions. Once the event has coverage, an in-house news team made up of a variety

of editors, writers, producers, anchors, and news directors begins assembling a production-quality broadcast or publication. Copy editors and fact-checkers research and double-check the information as it is received to ensure quality reporting and analysis, and to prevent lawsuits and dis-accreditation. A variety of internal and external experts and consultants are also employed to provide relevant event analysis to target audiences. On television, these experts and consultants may provide real-time event analysis live to the channel's target audience.

Local news consumers rely on news syndicates and their local media outlets for reporting, analyzing, and relating events occurring globally, nationally, and locally for relevance to home life, trends, careers, transportation, choices and opinions. They may also use the news to stay in touch with community issues with which they identify. How the public receive news events and analysis has changed with the popularization of the internet, handheld devices and social media. The internet allows users to view news from around the world and from their local communities with the click of a button. News aggregators such as Google and Yahoo! deliver news by identifying relevant or potentially interesting topics based on location, search history, and user profiles. Social media, such as Twitter and Facebook, have empowered everyday citizens to become freelance journalists by enabling event reporting in real-time. "Citizen journalism" has been incorporated into many broadcast and online publications to extract direct local sentiment. Online blogs, news organizations, and forums allow for a wide variety of opinion analyses comprised of a multitude of expert and non-expert viewpoints on any given issue. The increase in online news aggregation and citizen journalism has had an extraordinary affect on traditional news media. News publications have scaled back operations and drastically reduced staffing, put their content online, or have gone out of business.

Correlation Technology Solutions

Correlation Technology can power a new class of product that services the news industry. Substantial resources are regularly applied to the task of finding existing connections between news events and the significant interests of target media markets. Often, important connections go undiscovered. Non-expert commentary and expert prediction hypotheses of these connections is often plain and obvious, with predictable, repetitious conclusions. Keeping an audience engaged requires diverse, meaningful content examined from a variety of interesting angles. The glaring lack of meaningful content and attention-grabbing angles has produced an overuse of irrelevant content, otherwise known as filler or fluff. One reason this problem persists is from the inability of newsrooms to creatively analyze events or topics of interest to capture more of their target audiences. Currently, these connections must be discovered by manually filtering bulk reports using poorly suited computer-assisted lexical search, or reliance on external professional and non-professional opinions in an attempt to exhaust all relevant connections. In many cases, journalists look to online sources to discover these connections and generate “new” analysis. This may often lead to degraded conclusions not necessarily based on original reports.

There is no existing industry software that can exhaustively discover the connection of news events to local media markets. Further, no industry software exists that can provide expert hypotheses based on the connections of news events to local media markets. A patented proprietary software platform known as Correlation Technology is changing the landscape.

Local Impact Discovery Service

The local impact discovery Correlation Technology service will be offered by a new company independent of news agencies, syndicates and local providers, and will be offered on a SaaS basis. This service will allow local newsrooms to accurately assess how real-time events relate to various impact points in their local media markets, and provide multiple relevant, in-depth connections. For print publication, this may aid reporters and journalists in the field attempting to capture local sentiment by opening up a wider scope of questioning beyond the obvious. Newsrooms will be able to pinpoint the exact location of the impact in the community to deploy reporters and journalists to conduct interviews. In broadcast publication, the discovery of connections between news events to local media markets may aid anchors, reporters and experts in providing in-depth commentary and predictive hypotheses of a news event. This is especially true of breaking news coverage, when information is scarce, constantly changing or updating.

The local impact discovery service powered by Correlation Technology will receive information into its secure, privately-held database from all news agencies from around the world. This will allow the company to maximize the amount of information available to utilize for distribution to subscribers. Customized by the subscriber's location and market, all publicly known information will also be included in a database called a "profile." This profile of local information is built from any information on a local media market provided by the subscriber. Automatically, as events occur, the revolutionary technology will then draw correlations against this database to show all connections from the real-time event to the local media market. Automatic real-time updating will allow any non-expert and expert staff working behind the scenes or in front of the camera the ability to accurately see how a real-time event impacts local media markets. This will enable them to provide specific demographics with relevant, in-depth viewpoints of the event, capturing a larger consumer base.

Florida, for instance, has ten media markets. This would require up to ten different local impact profile corpora to be assembled. This would be created by utilizing census information, business profiles, community profiles, demographics, psychographics, and any other information that can improve the profile for each media market. As information about news events comes in from agencies such as the Associated Press (AP) and Reuters, that information would be automatically correlated to the data in that local media market profile by the local impact discovery engine which will alert subscribers via fully customizable graphic interface.

The local impact discovery service will instantaneously send the discovered connections in any fully customizable form (e.g. email or text notification) to any user such as a director or assignment editor, possibly with a link to an .HTML page. This customizable feature exposes all possible connections to allow newsrooms to pick the stories they want to view for possible use. Anchors and experts broadcasting live can receive a constantly updating stream of these connections directly to their laptops. These connections can be further drilled down into nodes, exposing the various articles by links. By referencing specific articles directly, anchors and commentators can vocalize opinions with expert authority, and expert analysts can accurately expand the scope of their comments and predictions.

Automated News Analysis Service

The “automated news analysis” Correlation Technology service will be offered by a new company independent from the local impact discovery company, and will serve news gatherers, distributors and providers. The service will be offered on a SaaS basis. Automated news analysis uses the basic parameters of the local impact discovery service, but instead of identifying connections from news events to communities in local media markets, it will incorporate data from various fields of expertise to automatically generate expert prediction and commentary about those news events.

This is a significantly more expensive and complex service that seeks to enable non-expert anchors or commentators to speak with authority on news events. It gives non-expert commentators a level of knowledge that reflects expertise greater than that of the general public and certain levels of expert analysts. Even expert analysts are limited by the range of their knowledge in particular domains of expertise. The automated news analysis product will remove those limitations by providing analysts with a wider range of hypotheses based on not only their field of study, but other fields of expertise as well. This “automated commentator” is only limited by the knowledge contained in the database, which is substantially greater than any amount of knowledge than could possibly be retained by any one expert in any field. Although this product will be able to aid and support the prediction and analysis of news events by expert analysts, it will not be able to replace the specific knowledge possessed by ranking authority figures holding positions that allow them access to non-public information.

The new company would also gather data from various information sources such as historical, scientific and religious archives to form an authoritative belief-neutral “core corpus.” This core corpus is part of the standard service offered by the company to subscribers. As information is acquired and the system continuously updates, the automated news analysis service will utilize the company’s patented Correlation Technology-based process to convert fields of expertise and local impact discovery into correctly-formed English language insights of substantial and material value. A proprietary ranking system will define and organize the insights by significance. Another proprietary threshold system will regulate which of the insights, if any, are significant enough to send to the subscriber. The insights generated by the automated news analysis service will be delivered as tractable commentary that can be edited or displayed directly onto a teleprompter.

Correlation Technology in the News Industry

In the form of these two products, Correlation Technology does not act as a competitor to any news agencies, news syndicates or local news providers. Instead, Correlation Technology will perform a vital industry service, equipping local newsrooms across the nation with the ability to run their own localized stories specific to their local media markets, and provide their local media markets with pinpoint analysis instead of recycled headlines, lackluster filler or fluff. Correlation Technology can do this without increasing the workload of journalists, reporters, or experts on the budget, and can further reduce internal and external time and resource expenditures. Lightning fast automation means that news event impact on local media markets will always be current. The power of Correlation Technology means that analysis, prediction, and commentary will always be accurate and of high value.

State-of-the-Art: Industry Point of View

a. News agencies typically write bulk reports for distribution according to different genres such as art, politics, sports and science. Independent news providers, news syndicates and their associated media outlets must subscribe to a genre, and manually filter these bulk reports in order to determine which articles are pertinent to their media markets. Bulk reports are the primary sources of news in print and broadcast publication, yet cannot be exhaustively mined for content due to limitations and time constraints of the manual processes utilized to review them. Human filtering of bulk reports is time consuming, labor intensive and yields incomplete results. This is especially true in the case of broadcast publishing, where this filtering must be completed in time for day and evening broadcasts or breaking news. Not every report can be exhaustively and accurately reviewed for content.

Industry-utilized software marginally aids in filtering bulk reports by searching and categorizing similar reports by keywords. Since software does not capture the in-depth content of the news stories, such software is not able to accurately and efficiently connect two reports that may have lexical disjunction, but may be inherently related through orthogonal topics.

Correlation Technology provides automated filtering of bulk reports of specific user queries. Correlation Technology can capture the complete content of every story, report and event because Correlation Technology does not discard any information. Stories, reports, and events are connected by content rather than lexical similarities alone, can now be associated instantaneously. The technology effectively overcomes the time constraints and human error in current process.

b. During breaking news and with events that occur before broadcast or print time, there is little time to fully review bulk reports or analyze real-time events. Reporters or anchors must often do on-the-spot analysis, utilizing laptops and employing varying degrees of analytical skills until more information, an expert, consultant or correspondent becomes available. Even with such experts, consultants and correspondents on hand, breaking material is often difficult to analyze from a viewpoint beyond the obvious.

Software currently utilized by the news industry cannot aid in identifying significance inherent in reports of news events, and is especially useless for breaking news broadcasts. Reporters rely on interviewing people that may not have expertise to accurately assess and summarize event significance. In fact, software in use by the industry is not even industry-specific, and is not suitable for any form of analysis.

Correlation Technology can instantaneously, automatically and exhaustively analyze significant points of interest to local media market communities. The technology allows for multiple analytical points to be formulated, with references tracing back to the event and data about the communities in the profile. All analytical information is updated as new information flows into the system, allowing for fluid, relevant and accurate reporting in real-time.

c. In order to connect world events with target media market communities, journalists and reporters must interview individuals within communities of interest to bring localized points of significance to their audience. Due to budget cutbacks, the size of most local journalistic teams involved in news broadcast and publication has been greatly reduced. Instead, newsrooms and newspaper publications across the country have been running press releases directly from news agencies such as the Associated Press, without delivering the local sentiment necessary to keep target audiences involved.

Software in use does not, and cannot recognize connections from news events to target media market communities, nor is such software able to distinguish local sentiments from data about a local media market. Further, software cannot pinpoint where a news event would have significance within a community, which would allow reporters to be dispatched more efficiently to elicit community sentiment. Software utilized by the industry only marginally aids internal and external newsroom operations, and only affects search.

Correlation Technology will allow newsrooms to maximize the effectiveness of their staff and precisely locate communities in which an event or story will have the greatest impact. The ability to precisely dispatch staff to a location of significance will streamline newsroom operations. Further, targeted attention to each community within the local media market will enhance the relationship between the news provider and these communities leading to increased readership and viewership, greatly improving advertising revenue and reputation.

d. Reporters and journalists are turning to blogs, forums and other previously published analyses of news events written by experts and non-experts in an attempt to capture a wider range of relevant content. This results in the conversion of news into hearsay and obscures the actual facts of the original event. Significant information concerning the original event may be excluded. Biases or misunderstandings concerning the original event may be introduced into the reporting. Subsequent analysis based on this modified version of the original facts may reflect these types of inaccuracies in unsupported commentary.

Current industry software cannot proclaim to be biased or unbiased because no content analysis is done. Industry software does not perform content analysis because it cannot perform content analysis or any kind of qualitative analysis.

Correlation Technology automatically and exhaustively discovers and examines all relevant points of news events to identify target media markets. This one-way discovery and analysis will allow reporters and journalists to recognize connections based on the actual facts about the original event and will provide them with in-depth analytical points that are relevant and significant. Correlation Technology is unbiased in its content analysis, leaving only factual, relevant analysis worth reporting.

e. Keyword algorithms utilized by non-industry-specific software are not designed for news analysis applications. This limits the scope of not only the software, but the user. Even were such techniques utilized, users may think that the software has exhaustively searched for all topics related to their query, but that would be an unlikely outcome. Meaningful evidence and content are more likely to go undiscovered until a later time when a more comprehensive search is done, or discovered by accident, or may never be uncovered.

Brute force, Bayesian, and semantic computer solutions cannot be utilized exhaustively or comprehensively to provide fully automated relevant content and analysis connecting news events to local media markets. None exist that employs any of these methodologies in the field of automated news analysis. Semantic systems are used generically for text mining and search and are not industry-specific, and would lead to degraded results. Sentiment systems can only elicit a positive or negative analysis of text, and do not analyze connections between disjunctive topics or capture multiple significant points for analysis. Only Correlation Technology local impact discovery service and automated news analysis service are industry-specific, and can automatically provide accurate, relevant, content analysis between events and communities.

News analysis is an expensive service. Subscription fees, operational costs and complexities imposed upon news providers in order to provide this service are substantial. Experts in every domain of knowledge must be on call to explain the issues, and to render opinions upon demand. Even after going through the effort and expense of securing these resources, news providers find that the analysis and opinion offered by their experts and authorities is often banal, obvious, or inaccurate – even when not explicitly biased.

Correlation Technology can free the news industry from multiple costly subscription fees, streamline internal and external operations and simplify the workload on news providers all while delivering breaking news analysis in real-time. Its comprehensive analysis limits the need for experts, putting control of in-depth news analysis in the hands of the newsroom, which can eliminate embarrassing and costly commentary or bias while providing diverse impact analysis of events to pinpointed media markets.

There is no software specifically intended for automated news analysis. Instead, generic software applications deliver degraded results, are unreliable even as search tools, and cannot streamline industry functions.

Correlation Technology is the only software that provides automated news analysis and is specifically intended to service the news industry. No information is ever discarded, which means all results obtained through the Correlation Technology system are completely reliable, exhaustive, unbiased, and factual

Competitive Landscape:

The Associated Press (AP)

The Associated Press (AP) is an American-based, non-profit world news agency, collaboratively owned by a variety of contributing newspapers, television and radio publications. This collaboration circulates stories freely between members and AP journalists, while non-contributing members pay a subscription for material. Total revenue as of 2011 was \$627.6M USD, with an estimated 30% of total revenue coming from US newspaper and broadcast publications. 37% of revenue came from global customers, 18% from international news publications and from photography, and 15% came from online ventures. The AP employs about 3,400 staff, with an estimated 2,465 news gatherers. The AP has 243 news bureaus serving at least 120 different countries serving more than 1,700 newspapers and over 5,000 television and radio broadcasters.

Fox NewsEdge (Fox)

Fox is owned by the News Corporation. News Corporation is based in New York, NY and is the third largest media conglomerate in the world behind The Walt Disney Company and Time Warner. As of 2011, total company revenue is estimated to be \$33.4B USD. News Corporation created Fox in 1986. Fox News Channel continues to be the most watched channel on television with 2,071,000 average audience viewers in 2012, an increase of 11%.

NewsOne

NewsOne is the news wire service for the American Broadcasting Company (ABC). The Walt Disney Company owns the American Broadcasting Company (ABC), which is the fourth most watched television network in the US. The Walt Disney Company is based in Burbank, CA and is the largest media conglomerate in the world. Total company revenue is an estimated \$42.28B USD as of 2012, with \$19.44B USD in media networks revenue. Media networks revenue is divided into two categories, broadcasting and cable networks revenue. 2012 broadcasting revenue was \$5.8B USD, and cable network revenue was \$13.6B USD.

Statistical Assessment Service (STATS)

STATS is the sister branch of the Center for Media and Public Affairs (CMPA), both are academic not-for-profit organizations which are affiliated with George Mason University. STATS is funded by conservative charities such as the Carthage Foundation, Sarah Scaife Foundation, Earhart Foundation and the Castle Rock Foundation. To remain objective, STATS does not accept funding from private companies.

Companies In-Depth

The Associated Press (AP)

The Associated Press is one of the most recognized news agencies in the world. It has a dominant position as the premier news agency for American journalistic enterprises. However, despite reducing prices for subscriptions and cutting staff, the AP has lost significant revenue in consecutive years. There has been a general public discomfort with the idea that all news is seemingly generated from the AP, without any kind of noticeable abstraction from area to area. Recently, the AP has been repeatedly accused of using monopolistic tactics and lawsuits to stifle competition, and using copyrighted material in its own press releases without authorization or accreditation.

FOX News Edge (Fox)

Fox News Edge is the news gathering and distribution hub of Fox and its affiliates. While Fox Broadcasting Channel does not carry a regular news program on its flagship station, the Fox News Channel was created in 1996 to air only news and sports events 24 hours a day. Fox News Edge is a subscriber-only news service which provides news stories to affiliated stations from various subscription-based news agencies. Fox-affiliated stations have been rated to have the highest number of broadcast hours for local news per week. Fox News Channel has been rated as the most-watched and the most-polarized news programming on television.

NewsOne

NewsOne is ABC News' news service dedicated to supplying ABC News and its affiliates with international, national and regional news in the fastest, most economical way possible. A subscriber to the Associated Press, NewsOne relies on handpicked subscriptions to news agencies around the world to receive information. NewsOne select stories for ABC News' affiliate stations, which then distribute and analyze them at the local media market level. NewsOne also provides coverage of news events by ABC reporters and journalists.

Statistical Assessment Service (STATS)

STATS primary purpose is to disclose any scientific misrepresentation of information by the news media. Its secondary purpose is to provide unbiased open-source qualitative and quantitative research to provide statistical evidence to policy makers and journalists. STATS also conducts studies on various issues, the results being shared publicly for the use of journalists, reporters and researchers.

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