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**Reinventing the wire: how to prepare for constant
disruptions**

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1. INTRODUCTION

“We live in a world where we are inundated with information and the ability to make sense of that information is a survival skill in the 21st century.”

–Alistair Croll, analyst, and author

Since the invention of the telegraph, news agencies have been the backbone of newsgathering, and the first floodgate which control the large overflow of information and potential news stories, that will eventually catch people’s attention. Since then, one hundred and fifty years ago, news agencies have been working with one main platform in mind: the newspaper. This is no longer the case. In a rapidly changing media landscape, news agencies are trying to grab new business opportunities, change the corporate culture, and streamline processes to adapt faster to the latest media industry innovations.

Legacy media companies are all shifting gear toward a stronger internet and mobile presence, and as the nature of their content delivery methods changes, the supply of information on which news agencies have traditionally based their business must also change for the purpose of staying relevant.

As first actors in the supply chain of news, the positive transformations and successful experiences undertaken by newswires will impact the whole media industry. New formats, with the rapid rise of video or visual content, are taking over the old ones, reshaping the ways stories are told to the audience, redefining reporters’ qualifications, as well as imposing higher workflow speeds within organizations.

The slow but steady decline of paper as the leading delivery platform to consume yesterday's news is unleashing major paradigm shifts for news agencies. Large media organizations, which for years have been feeding news with speed and reliability, and have been cultivating a culture of constant communication and coordination, are experiencing immense operational pressures brought on by the need for change.

All of these characteristics are more valuable now and will allow news agencies to keep up more

rapidly with the pace of technological disruptions in the media industry. News agencies have to upgrade routines and adapt to new habits of news consumption, so that they can remain relevant and maintain their roles as providers of quality journalism.

As a common characteristic, major news agencies are trying to improve communication and collaboration among employees - a challenging task for organizations with international dimensions, complex division of responsibilities, and under constant pressure from daily breaking news.

Content is being adapted to clients' demands in the era of digital and ubiquitous information. Video - one of the greater drivers of revenues - is pushing its way through newsrooms that were mainly producing text; some news agencies are creating very innovative digital platforms to help in the use of new formats, information gathering in social media, and now include multimedia products that add a new depth to online stories (such geolocation or datasets). Most of them have agreed that text length, in a world where the audience's attention is more difficult to attract and the consumption of news happens via screens, has to be reduced.

Some news agencies are widening their client base, reaching not only new online media clients, but an increasing number of companies and individuals interested in consuming valuable information in a global and interconnected economy with new multiplatform products.

News agencies are adapting to keep their relevance in a world where streaming the news is not their exclusive responsibility anymore. Today, anyone with an internet connection who happens to be in the right place at the right moment has at their fingertips the power of narrating a news story to a world audience through news wire-like social platforms such as Twitter.

As they have always done, news agencies can sift the vast amount of information that is generated on the internet, analyze it and transmit useful, insightful and well-summarized news pieces. Moreover, news agencies can liberate reporters working with other media outlets of traditionally tedious news gathering routines that are no longer valid in an environment where newspapers have to offer more analysis, feature stories, and investigative journalism to engage readers, listeners, and viewers.

News agencies have greater opportunities in this new environment of the technical revolution that is

shaking up the conventional ways of journalism in every newsroom. For instance, many newspaper editors are asking their journalists to be more concise, more “straight to the point” - something that, again, news agencies have been doing for decades and shows how prepared they are to fit into this new landscape.

The Internet is a medium that allows great flexibility, but also requires a new set of skills in the newsroom, new routines and especially new attractive and valuable content. In this environment, news agencies should not be less active than other media companies in their efforts to adapt, rethink their business models and sources of revenues, and work toward multimedia integration strategies that strike the balance between specialization and the adoption of new skills. They must also foster a greater willingness for collaboration amongst reporters, editors, developers, designers or sales personnel to create better and more useful content.

News agencies have to set aside their role in the shadow of the news industry and engage not only with their clients, but also with their audience to build brands and understand new audience behavior, without losing sight of their core values of speed, accuracy, and impartiality.

The increasing speed and hunger for more and complex pieces of information in this new interconnected virtual world (where smartphones and tablets are the new windows to reality), certainly offers great opportunities for news agencies. In the last few years, the reduction of earnings for newspapers and audiovisual groups are affecting news agencies' business with the termination of previous contracts, or the renegotiation of fees, while at the same time new investments have to be undertaken in order to modernize newsrooms and technologies for news-gathering and transmission. News agencies are also experiencing more demand for their content from individuals who, thanks to the possibilities of the internet, want to receive raw news and raw data they deem useful for various reasons. At the same time, companies in need of more insight and specific information, social media analysis and news for their PR projects are increasingly interested in what news agencies can offer.

Big corporations are becoming media organizations themselves in order to engage internet users, and as long as they respect the same values ruling the partnership with media organizations, these new clients should not pose a risk to impartiality. Targeting new customers should not mean neglecting their traditional client; actually the contrary is true, as this goes hand in hand with increased engagement

with their clients in terms of exploring synergies, defining strategies and sourcing creative ways to tailor new products, and avoid inefficiencies.

The greater demand from media clients for better databases to explore in more depth and complexity certain topics brings an added value to the vast amounts of information news agencies have been warehousing for decades. The so-called metadata (geolocation, links, cross-platform content) adds new dimensions to the content and allows news agencies to provide at higher speed news complemented with infographics, digital visualizations and a variety of products as diverse as the creativity of the people in the newsroom. News agencies are reforming news gathering routines, and upgrading the skills of their workforce in order to create distinctive content. In the long run they could lead the way forward in showcasing new innovations for media organizations that depend on their hard work.

This paper will analyze how news agencies are adapting to a media landscape in a transformative sense, and briefly highlight what opportunities lie ahead for them. This paper will also take the license to propose a few interesting innovative tools currently available that could help to streamline news agencies workflows and make the news gathering and transmission tasks more efficient in the long run.

Algorithms that analyze the firehouse of Twitter, robots capable of writing breaking news are not enemies of news agencies but allies in the future of the business.

Within this context, I will try to resolve three main questions:

- Is the corporate culture in news agencies evolving fast enough to keep pace with new industry routines that will enable them to cope with the demands of an internet world in constant change?
- Is there a common strategy in news agencies to help improve the skill sets of current employees to increase the value of stories and become better news curators in the mobile internet era?
- What innovative tools are available that will eventually be disruptive for the future of news agencies?

The vast amount of research already published in this area has been supplemented by interviews I have carried out with directors and editors at Thomson Reuters, Associated Press, and Agence France-Press.

1. A changing landscape; a more valuable newswire

"The internet is among the few things humans have built that they don't truly understand".

–Eric Schmidt, Executive Chairman of Google.

The Internet revolution is still in its nascent stages, and is evolving at a faster pace with better educated and more sophisticated users. Media companies are struggling to fit in with this new virtual space, with no shape, or clear borders, where creativity and luck is a driver at least as important as capital and experience. As law professor Yochai Benkler explains in his book 'The Penguin and the Leviathan', "the Internet has allowed social, non-market behavior to move from the periphery of the industrial economy to the very core of the global, networked information economy"¹.

No other media outlet was more anchored in the very core of the traditional media business than news agencies, and whether they are privately funded, government subsidized, or non-for-profit cooperatives, their need for stable sources of revenue is vital to all of them.

News agencies' content today is read on smartphones, tablets, or desktop computers and this is triggering a new way of telling stories for journalists. At the same time, the traditional clients of news agencies (newspapers, television or radio) are still big players in the digital arena despite competition and the ever-expanding role of social media as a primary source of information.

News agencies with a global footprint have been readjusting, and investing heavily to fit and stay relevant in a media world that from now on will be in "constant iteration"², an environment where new online sources of information are emerging and are competing with the wires. News agencies are trying to reinforce the core values of its mission in a digital environment in which viral content, more than news, seems to have a greater value.

As result, news agencies have been facing both management overhauls and painful layoffs and losses; they have been forced to redefine strategies and business models. Many consolidated industries are more often finding themselves suddenly struggling as result of this open and networked information

1 Yochai Benkler (2013). "The Penguin and the Leviathan", p. 23.

2 Viviane Schiller, debate during the Reuters Institute Memorial Lecture, Oxford, November 2014.

society, a space of freedom where everyone can amplify his or her voice for minimal cost, and where new ideas are flourishing thanks to networked collaboration. The Internet is not only a new medium, or technology, but a whole new universe that is challenging social and economic orthodoxies, and provoking cultural changes in corporations all over the planet.

The common space offered by the internet will soon reach almost every person on the face of the Earth, opening a whole new range of opportunities for more creative and more efficient journalism, although that will also contribute to a noisier, more chaotic communication experience where gatekeepers will be much needed, and valued. The calls for innovation and different ways of developing more thought provoking journalism will be greater and more urgent as the media ecosystem as a whole, evolves. Journalism is now in a state of restless development and, I believe, news agencies are in a better position to take advantage of this current state of development than other legacy media outlets.

“After more than a century and a half of selling the latest facts, journalists need to sell something else”³ is a growing realization in the news business, and a realization that is causing a lot of changes in newsrooms all around the world. The changes that are being brought about are even acuter in a period of repetitive and disruptive waves caused by technology arrivals, and in a period when media managers have encountered a deep economic crisis that is crippling even the most financially sound media corporations.

News agencies have relied on very specific routines and reporter specialization to perform efficiently in the past, but as their universe broadens with the internet, and behind the emergence of new formats (video, visualizations, and mobile content), they have been looking for fresh new ways of organizing their complex structures. For example, the job of news agencies is to “standardize”⁴ news collection, analysis and distribution methods, and for that reason they have implemented rules, styles, routines, and workflows sometimes not adaptable to this environment of constant change and increased competition.

Collaboration, training, and product diversification are the main areas where news agencies are

3 Franklin B., (2014). “*The Future of Journalism*”.

4 Czarniawska, Barbara, (2011). “*Cyberfactories. How News Agencies Produce News*”

focusing their action. Anticipation, long-term vision, leadership, rapid adoption, and employee participation are the common ground for those individuals achieving success in this environment. With the expansion of broadband internet, news agencies such as Agencia Efe, the largest newswire in Spanish language media, can now reach, at a lower cost, Spanish-speaking audiences around the world. Eventually Agencia Efe will have access to new markets in a wide variety of languages, because of the universality of the audiovisual language, or other visual content, which is enjoying growing demand. Top global news providers, such as Reuters and Associated Press, face increasing competition from a myriad of start-ups that are trying to conquer some of their niches with new approaches which are more collaborative in scope and focus on social media as sources to channel their information. Rapid changes in the way the news is consumed are also forcing news agencies to re-think their priorities regarding certain types of news or formats. At the same time, this new sophistication in the ways the news is consumed is prompting a deeper study of audience dynamics and a wider understanding how much demographics play a role in harvesting audience interest and expansion.

Big data is also a big disruptor. Learning how to use and process this vast amount of information will define which organizations are the news providers of the future. The ability to crunch numbers, something that now only a few, such as Reuters, Bloomberg, and Dow Jones, do at competitive levels, will mark the difference between profitable and comprehensive information outlets versus agencies of modest means and decreasing relevancy. A risk-averse news agency, which ignores the open source tools available for news making, and that does not keep developing its own technology is bound for dependence on outsourced cash inflows to breathe life into a flagging business with no profits to reinvest.

2. Culture Change

“It’s not the strongest of the species that survive, nor the most intelligent, but the one most adaptable to change”.

-Charles Darwin

News agencies are normally larger corporations than other media organizations in their countries, and many of them are also well-rooted multinational companies. News agencies are factories, the heavy industry of news production, with complex work processes, and large human fixed costs that make human resources management one of the most vital parts of the company success.

Corporate culture, defined as “a convention that helps coordination” and “a set of norms and values that are widely shared and strongly held throughout the organization”⁵, plays a very important role in a period of change, and it’s especially important for news agencies. A dynamic corporate culture can be a powerful driver of innovation and better performance for large companies, and especially in speed-oriented organizations such as news wires. Although strong corporate culture is seen by some researchers as the fabric of efficiency, others argue that in order to respond to this period of constant iteration, the focus on “processes and procedures” have to be subservient to creativity and “big picture thinking”⁶. “One size fits all” doesn’t work when large corporations want to thrive. Each news agency has to find their singularities and exploit them in order to create added value to their traditional products.

There are media companies that are rapidly adapting to the new environment using ingenious innovations, applying singular strategies to accomplish certain specific targets they have identified. This is the preferable process, and adapting does not mean copying the processes others have created for themselves and expect the same outcomes.

I want to analyze three examples of how corporate culture is changing in three large news agencies, namely Reuters, AFP, and AP.

5 Guiso, L., Sapienza, P., & Zingales, L. (2013). *“The Value of Corporate Culture”*

6 Lisa Bodell (2013). *“Kill the Company”*.

Reuters News

Thomson Reuters is a “macro-actor”⁷, an “organization deceptively simple” with an extremely complex chart. Within this giant, which provides financial information, legal data, and corporate intelligence, operates the Reuters News Agency⁸, a profitable operation which has carried out a profound overhaul to streamline its operations and to be ready for the demands of a changing environment⁹.

Reuters is a good example of a large legacy news organization that prioritizes corporate culture to drive change and to make employees aware that change is something they will always have to expect. In a visit to Reuters' headquarters, in Canary Wharf in London in late 2014, I was able to corroborate what Czarniawska (2013) underlines in her book as very subtle and distinctive characteristics of Reuters: simple details like the pictures covering the walls are meant to motivate. The photos, taken by Reuters photographers, show athletes competing and thriving in first place.

Besides these sorts of subliminal symbols, editorial representatives of Reuters explained how they reinforce cooperation and collaboration through training. Employees of different areas (video, financial, IT or text) lead sessions to teach their colleagues writing style, speed reporting, video editing and data uses. This system, besides improving skill sets, creates a spirit of collaboration that becomes very handy when necessary, to assemble a multi-disciplinary team to work on complex issues. Senior writers hold courses on the “Reuters style of news”, video staff members teach principles of recording and TV narrative, and data experts share their knowledge on how to dig for information which eventually can lead to an exclusive news story. “We are in all fields and that helps us to be first”, said one of the editors interviewed.

Czarniawska, who was embedded at Canary Wharf, points out that the journalists are “constantly consulting one with another”. This attitude toward communication is vital and is directly related to a

7 Barbara Czarniawska (2013), *“Cyberfactories: How News Agencies Produce News”*

8 Reuters News Annual Report, (2013)

9 <http://uk.reuters.com/article/2011/04/19/us-thomsonreuters-idUSTRE73I3ON20110419>

well cared-for corporate culture, and a sense of collective purpose.

“The communication is not only encouraged between reporter and editor, but with higher levels of management”, explains Paul Ingrassia, Reuters News Managing Editor, who remembers that in the process, the agency can respond faster to new demands and make everyone aware of the innovations that are impacting the workflows in the newsroom.

“We can't afford not experimenting”, says John Pullman, Reuters' Head of Video and Photography. It may sound obvious, but experimentation in big organizations with a long history could be one of the most challenging undertakings of all.

The conditions for experimentation, the main driver of indigenous innovation, come with corporate culture consolidation, leadership, vision and the transmission of that vision from the top down.

“Successful new products require constant, disciplined experimentation in order to discover new sources of profitable growth. This is true for the tiniest startup as well as for the most established company”¹⁰. This philosophy is guiding Reuters' product development which is backed by the company's big size, which instead of being a major drag on innovation is used as a characteristic that can be backed by “doing many things very well, being fast, with compelling visuals”¹¹.

AFP

At Agence France-Presse (AFP), the largest French government-subsidized news agency, the need for adaptation and change has led to the creation of MediaLab. Although MediaLab can't usher innovation across all agency departments on its own, it has developed interesting new approaches to offering more innovative products to AFP's clients. Thanks to the team lead by Denis Teyssou¹², now AFP photos are geo-located, and text news is created with metadata that allows data visualization designers to create timelines or other digital content in minutes, compared to the several hours that it took before.

Since 2007 (the idea of a MediaLab started in 2000 but it was modified), Teyssou's small team is changing certain aspects in the production of news, making them more attractive for those clients who want to publish them on the internet. Now clients can find all documents relating to a certain event, or

10 Ash Maurya (2012). *“Running Lean”*

11 Interview with Mr. Ingrassia (January 2015)

12 Interview with Mr. Teyssou (November 2014)

go to databases querying a proper name. Besides that, they are developing tools to make video content more accessible, converting speech to text automatically. The seeds of this project are making AFP's vast databases more useful for online clients, and are timid signals of culture change and a more innovative approach.

These changes don't necessarily signal radical modifications in AFP's innovative culture, but it contains great evidentiary value indicating that workflows can be redirected, streamlined, and that today, big media companies are responding to many of the new industry challenges.

AFP has been working to improve the exploitation of the vast databases that the news agency has been accumulating for decades, through a Hypertext interface database that allows users to extract information in more precise ways and with more metadata incorporated. On top of this, the MediaLab has created systems that can explore the written content and extract useful information. For instance, it can identify proper names or companies, so that the user is able to construct a whole body of news. The internet has changed the way journalists look for the information on those databases, thus giving them more flexibility to explore and use that information which is the key to offering them a superior service. "Our job is becoming more complex and specialized...in big companies there is a certain resistance to change the processes that have already been adapted", explains Teyssou.

Associated Press

AP is a not-for-profit cooperative owned by the 1,400 U.S. daily newspapers. Most of its revenue derives from subscription news services used by newspapers, radio and TV stations, and Internet news sites. As Lou Ferrara, vice president and managing editor of AP, points out, "we have 10 years of tradition on internet reporting"¹³. AP has been investing several million dollars to adapt content to the digital realm and create products that are more closely suited for use in an internet based environment. In 2008, AP created the Mobile News Network, the first smartphone application to deliver multimedia content adapted to mobile devices. Since then, the app has grown to become one of the most downloaded news apps.

That same year AP started a project to study media consumption of younger audiences and understand

¹³ Interview with Mr. Ferrara (December 2014)

better how they consume news on digital platforms. This shows how AP has tried for many years to understand and reach digital audiences.

AP is also adapting the valuable AP Archive to be more digital-friendly and make it more usable and easier to navigate and pull data. For a better distribution of content, besides creating the mobile app, AP created in 2012 the AP Video Hub to provide video for internet clients. The Hub offers something that is now more in demand from non-broadcasters: live streaming video of important events as well as edited content that can be accessed through the web for a faster and easier distribution to non-traditional TV clients.

According to Ferrara, “everyone in the organization is aware of the importance of giving digital technologies a priority”, and as time passes, this awareness will be instrumental in adapting to, and triggering, changes across the company.

3. New skills for new content

News agencies are process-driven companies that are now facing the emergence of new roles, and for that reason, they have to maintain their own core values, but at the same time experiment with new content in order to maintain their profitability.

From an economic standpoint, news agencies are at the base of the supply chain in that they normally collect the information from the original source, and sell it to the next level of the chain. For this reason, news agencies normally maintain big networks of reporters, and high fixed costs, but at the same time, are a great value for the whole media industry that relies on them. The most valuable assets for a news agency are their human resources: the reporters, the editors, the photographers, cameramen, video editors, IT personnel, etc. News agencies have been trying to figure out their role in a digital landscape, because “no serious news organization can expect to have an audience or a future if it hasn’t already worked out its place in the digital ecosystem” (Emily Bell).¹⁴

Even when internet and digital technologies reduce the cost of starting a new media company, it's quite unlikely that new news agencies will emerge in this ecosystem. The high cost of creating this type of media company, which requires a large number of employees and a global footprint, is one reason for the absence of major competition, and is therefore theoretically a drag on incentives for change. Nevertheless, news agencies are seeing competition in certain niches of their business by small digital start-ups or from other media groups (now more multimedia than ever before) and risk falling into irrelevance.

“With social media, journalism are contemplating new literacies that integrate written, oral and audiovisual modalities...within screen-based and networks”¹⁵ and news agencies have to offer new types of information to their traditional clients.

Several events organized by the Reuters Institute for the Study of Journalism, and other institutions at the University of Oxford, during Michaelmas Term 2014 ended on a similar note: journalists will have to learn to code, or at least understand how online information is designed and structured.

¹⁴ <http://www.theguardian.com/commentisfree/2014/dec/09/silicon-valley-journalism-chris-hughes-new-republic-buzzfeed>

¹⁵ Alfred Hermida (2012). “Journalism as a discipline of collaborative verification . Journalism Practice”

Characteristics such as user experience, Html language, social media algorithms and new tools for analysis and storytelling, all have to be adopted whilst maintaining core journalistic work practices and ethics.

Upgrading skill sets is a mandatory process in this industry in “constant iteration”. “Journalists - and editors - should learn to code, they should learn programmatic thinking and should be able to understand the world they operate in”¹⁶.

Even if we agree that a wider and updated knowledge base is vital for reporters, many warn that the tendency of the reporter doing many things at the same time is not a healthy one. Specialization still has a great value. “Digital homogenization” in this “multi-skilled universe”¹⁷ has shortcomings, such as “potential for disconnect and demotivation...in this situation good managers and team leaders” are key conductors for the new routines and tensions during transitions.

Social Media and Internet-savvy reporters

So, do all reporters need to learn how to code? Probably not¹⁸. But as the news turns more into being codified in zeros and ones, it’s more important to understand the basics of new types of news transmissions and news-gathering processes.

One of the new types of job in newsrooms all over the world is the social media reporter. Journalists who have a better understanding of the dynamics of the Internet can create content for the social media, engage with audiences and gather exclusive information breaking through the eyes of social media users.

According to Pullman, Reuters “have to look for the extra dimension of citizens and witnesses”. Reuters has social media reporters who are combing the social networks to discover news-worthy information when it pops up. They might find an amateur video on Facebook and work instantly to get in contact with that witness, reach an agreement for its publication, and then verify authenticity.

16 Silicon Valley and Journalism (2014), Emily Bell. RISJ Memorial Lecture.

17 Lee-Wright, Angela Philips (2013). “*Changing Journalism*”

18 American Journalism Review (2014). “*The Big Conundrum: Should Journalists Learn Code?*” (<http://ajr.org/2014/09/24/should-journalists-learn-code/>)

Curating the stories appearing through social media platforms is becoming a very important skill, and one that can pay off with the discovery of very important stories or news material.

According to Pullman, the reporters now ideally have to have to be “social media savvy, understand data and know which content works and which does not on smartphones”. In addition, disruptive profiles can help to slowly improve the predisposition of employees for change, new ideas and a more dynamic newsroom.

Data journalism

The adoption of publicly available, or indigenous digital technologies, can streamline the work of journalists tremendously, and help to discover trends or stories previously buried in vast amounts of data and practically impossible to bring to public visibility.

The capacity to carry out fast and effective data analysis, and social media monitoring, is and always will be greatly appreciated in news agencies, and for that reason new knowledge, such as the ability to use the APIs (Application Programming Interface) of internet service providers, will be seen as a necessary skill of the new reporters in the newsroom.

News agencies like Reuters recognize that they will be hiring more reporters with coding or other technological skills, something many Journalism Schools, especially in the U.S., are now teaching now extensively. “The use of data is augmenting traditional editorial skills”¹⁹ and data-driven journalism is becoming predominant and a complementary pursuit in conjunction with other traditional journalistic functions. Not having the ability to go through digital databases, scrap online information, look for sources in the social media or produce a news piece with a smartphone will be a crippling handicap in the future.

A quick look at the latest job offers for journalists on the website "journajobs.eu" returned that 8 out 25 position's titles are related with social media, internet, or digital journalism. In the case of the last 85

¹⁹ Jack Riley, Head of Audience Development at Huffington Post UK. (December 2014)

job posts at journalism.co.uk, the positions with a title related to digital journalism were at least 12.

According to Emily Bell, “larger journalism organizations, including the BBC, Reuters and the Guardian, should embrace and extend these types of technologies as part of their core mission”. In her opinion, this transition will require leadership and “unseen amounts of collaborative goodwill”. News agency jobs require intensive training, fast decision making capabilities, and nerve. The news agency is probably the only legacy media organization using traditional skills that can cope with the new demands of the deluge of information in the era of digital journalism, and at the same time, maintain the highest levels of quality.

4. More engagement

The web is changing the routines of both journalist and reader. “Journalism is becoming much more conversational”²⁰ and news agencies are exploring new ways of audience and client engagement. The traditional Business-to-Business (B2B) relation of news wires and clients is being complemented with a Business to Customers (B2C) relation that can be very enriching for news agencies. Sometimes news agencies are adopting these approaches to build brands, to stay relevant and learn about their audiences by offering certain products directly to consumers (in many cases for free) interested in first hand news, and specialized information.

B2B

News agencies play a central role in the media ecosystem and as such, they can use their influence to promote collaboration among media outlets. Collaboration across the media has increased in the era of the internet to tackle complex investigative reporting (like the case of the Edward Snowden revelations on state surveillance, or experiences like the non-profit ProPublica), but I believe the benefits of this dynamic has not been explored extensively enough in areas where there are common interests. This cooperation can be explored beyond the traditional functions of news agencies, even for those operating as newspapers' cooperatives.

There is a need to create good synergies with traditional clients, who are also facing a change in paradigm with a move toward “digital-first”, and to make more prevalent a different kind of storytelling.

Legacy media companies are cutting jobs and need more than ever to rely on the large networks of journalists that news agencies have been building over the years. Moreover, the need for speedy transmission of breaking news on the internet is making the news agencies very important actors in the digital era.

20 Felix Salmon’s Blog (<http://blogs.reuters.com/felix-salmon/2010/09/17/teaching-journalists-to-read/>)

News agencies have more potential to thrive than any other media organization in this new environment, as has been pointed out by various researchers. “News agencies have long been important nodes in the production and distribution of facts and messages from afar. But, in our current era of European and North American news, which has been marked above all by the powerful intersection of digital information technology and global (neo) liberalism the core role of news agencies has, in certain respects, expanded”²¹.

As Angela Miller argues, news agencies will still provide “routine-vanilla news for the newspapers to colour”. Some observers point out that this will also require newspapers to shift their content more to opinion and analysis, while news agencies tackle other types of coverage like town hall meetings, financial results, press conferences, government day to day operations or live transmission of events.

News agencies can engage more with clients to coordinate coverage, create new content and adapt the news gathering processes to a world in which media outlets have to allocate resources more efficiently. There are interesting examples in the UK that can be adapted to news agency services, like BBC Local Live²²; this collaborative experience promotes content sharing and collaboration amongst regional newspapers and the BBC, and some content is shared on a news feed on the BBC's web portal. The local newspapers can send stories they want the BBC to show on its website, and in the first months the participation increased sharply. The BBC local website increases the quality of content with this aggregator role while the local newspapers improve their online traffic through the popular BBC website. The collaboration is limited but is especially useful in important events like elections.

News agencies can reinforce their image, business or public service through this kind of experience, which thanks to the internet will make clients more receptive and participatory.

B2C

Social Media is the new public square, a vibrant place where media companies can finally talk with, and listen to their audiences, analyze their behavior in real-time, predict changes and target different demographics to test strategies. According to the Pew Research Center, 30% of all Americans get

21 Boyer Dominique, (2013). “*Life Informatic, Newsmaking in the digital era*”.

22 <https://www.journalism.co.uk/news/how-the-bbc-and-regional-outlets-are-collaborating-in-news/s2/a563341/>

their news from Facebook²³, while 39% of Europeans surveyed for the RISJ's Digital News Report get their news from more than two different digital devices.²⁴

A larger number of news agencies have been offering their content online on their websites and promoting content on social media platforms to improve their image but above all, to learn how readers behave and which stories go viral. Although they limit the number of news pieces that are free on their websites, this strategy is helping them to build a presence on social platforms, and to put an end to the long-existing gap between their stories and their readers. Knowing not only what your client needs, but also what your readers prefer is vital to make your wire service more efficient, popular on the internet, and relevant.

At the same time, thanks to the great diversification allowed by the internet, for the first time news agencies can explore commercialization of products targeted directly to the final customer without intercepting and competing with traditional clients.

One example is Reuters TV, a smart video digital application aimed at news junkies and young audiences who are being introduced to Apple devices at a monthly or annual fee. According to Pullman, marketing to this kind of audience directly is an exercise in precision, because the goal is to “create a successful product, but not to kill the client”.

“Our business, fundamentally, is about leveraging our extraordinary scale,” said Isaac Showman, managing director of Reuters TV²⁵. This message resounds all around Reuters, as their capabilities in different fields of information gathering and production allows them to take advantage of the economy of scale, something that other news agencies can also reproduce on a smaller scale.

In this sense, Reuters is behaving like a start-up creator, looking for business niches, testing the responses, and positioning itself before any other potential competitor. At the same time, they're also offering a new product to a type of customer to whom it will be probably remain closely linked by the

23 Pew Research Website: <http://www.pewresearch.org/fact-tank/2014/09/24/how-social-media-is-reshaping-news/>

24 RISJ (2014), Digital News Report 2014: <http://www.digitalnewsreport.org/>

25 Reuters TV aims to personalize news broadcasts (<http://digiday.com/publishers/reuters-tv/>)

same journalists using Reuters' services. The only shortcoming of this strategy could be the killing of a prospective start-up media company that could eventually become a client of Reuters' core video service.

These experiments are worth examining to learn how to improve the potential of a scaling structure (where for a small marginal cost you get proportionally higher revenue) and prepare the road for innovation. As Jessica Siegel, responsible for digital analytics for BBC iPlayer puts it, the creation of the iPlayer helps them to conduct tiny fact finding experiments with the audience. The product team is able to carry out small tweaks and use analytics to review whether users' engagement improves or not²⁶.

26 Lean Analytics: making products better (<http://www.bbc.co.uk/academy/technology/article/art20141017135208226>)

5. Digital disruptors. Some examples

In this last chapter I want to explore which technologies may define the future of news agencies. Technology was the first driver behind the very inception of news agencies and as such is still instrumental in the future progress of the business. Although I explore only some commercial tools on the market, news agencies should be inspired by these initiatives and develop their own clever software in order to be more effective and take advantage of the possibilities that the IT revolution opens for modern journalism.

Dataminr

Dataminr is a U.S.-based company that started offering a program that analyzes Twitter's firehose, the full stream of tweets flowing from all over the world, and through algorithms it can verify and alert news producers to significant events occurring in real-time. Their first clients were financial companies needing to make investment decisions in seconds on running developments around the world. Being the first one to know about a significant development can be the difference between big returns, or equally big losses. Peter Bailey, Dataminr's CEO, saw a big opportunity for these kinds of programs for media companies, and in 2014 they launched Dataminr for News.

The service monitors, automatically, an average of 500 million tweets²⁷ sent throughout the world every day, and can sift out the ones it believes are newsworthy. According to the company, Dataminr "enables reporters to monitor all of Twitter by alerting them to newsworthy breaking and pre-viral events emerging on Twitter". Through a complex algorithm correlation of geolocation, content analysis, and the trustworthiness of its sources, Dataminr can tell the journalist if a news piece is breaking, and in record time. In addition to this, it can also provide contextualization tools that allow the gathering of more ambient data of a story, and can help in the verification process of certain information.

Then it is up to the reporters to verify and mobilize resources to cover the story. These types of tools can be especially useful for global news agencies in order to gather news, find sources and verify rumors that in an internet world of viral content are most often picked up by some media outlet with very few asking to corroborate the information before it is published.

²⁷ Twitter Blog. The 2014 #YearOnTwitter. (<https://blog.twitter.com/2014/the-2014-yearontwitter>)

Robot writers

Interconnectivity and computer processing power are expanding the possibilities of the virtual world. The projections made by Ray Kurzweil, in 1999, of exponential increases of computational progress could even be too conservative²⁸. Kurzweil ventured to indicate that the capacity of computers could exceed that of the human brain around 2060, but something akin to his prediction could come much earlier. The capacities of machine learning, and the first stages of artificial intelligence, are allowing some media companies to liberate journalists from some of the most tedious tasks of their profession²⁹.

In the last few years, media outlets such as Forbes, or the L.A. Times have used robotic writing algorithms to file short breaking stories. Forbes was one of the first ones to use this technology developed in their case, by Narrative Science, to write the first paragraphs of financial reports. The L.A. Times, and developer Bill Snitzer, have created Quakebot, an algorithm that automatically retrieves basic information of tremors from the U.S. Geological Survey (USGS) website and write simple advisories in record time.

The Associated Press has taken even more ambitious steps than the L.A. Times, and this year has worked for the first time with a robot writer developed by Automated Insights. The algorithm can write financial reports and liberate journalists to write more in-depth pieces about the same topic. According to Ferrara, AP has published 3,000 stories this year using this technology.

According to a survey carried out for the publication *Journalism Practice*³⁰, the readers can't discern clearly whether the story is written by a robot or by a human being. The readers even find the robot's articles most trustworthy and informative, although much more boring and less pleasant to read than the ones written by a journalist.

Whatever the case, software-generated content can be a great tool for news agencies to give their reporters more time to work on more complex stories, and go through documents and figures, especially for those working as a business or economics reporters.

28 Saïd Business School Lecture with Michael Malone. "The Long Cycle: Where Silicon Valley and the tech revolution go from here". November 24th, 2014

29 Clerwall, C. (2014). "Enter the Robot Journalist. *Journalism Practice*", 8(5), 519–531.

30 Clerwall, C. (2014). "Enter the Robot Journalist. *Journalism Practice*", 8(5), 525–526.

6. Conclusions

News agencies are process-focused organizations with complex structures. Nevertheless, the importance of “doing” should not be a reason to neglect “thinking”, and timely exploration of ways to adapt that organization to a future which changes faster than ever before, is a critical exercise. Innovative ideas will help news agencies to be more relevant in a journalistic environment where instant communication will be the norm. Instead of being a threat, the constant technological evolution should be an opportunity to reinforce what have been the core values of their business for more than a century.

Mobile communication - faster, more reliable and ubiquitous - has disrupted business sectors all around the world in record time, making them re-think the very basics of their models. Taxi drivers, hotels, retailers, or even financial industries, are seeing the boundaries of their work logic redefined through new entrepreneurs, hardware and algorithms that are empowering the economy of sharing. Additionally, the spirit of free collaboration, and the power of the crowd should be embraced as a new powerful tool for big media organizations. The economic scale of these companies allows them to introduce fresher strategies with fewer resources. Determination and good ideas³¹ add more value to information, although the basic laws of economics still apply, and should be also taken into account. As Shapiro concluded, “technologies change, economy laws do not”.

News agencies are better positioned than other media organizations to grow and become even more relevant than they had been in the past. But to accomplish this goal, they need to train their journalists and modernize their skill sets, embrace the flexibility to make needed changes, and to create a corporate culture capable of transmitting the purpose of the new plans, foster collaboration, and be a source of new ideas.

“As companies grow in size and complexity, it becomes increasingly difficult for them to see what could possibly happen beyond their own walls. Their internal groups, or divisions, can become insular, resulting in creative and managerial silos that have no idea what anyone else is working on”³²: this is one of the most dangerous problems for big and complex media companies like news agencies, and it’s

31 Carl Shapiro (1998). *Information Rules. A Strategic Guide to the Network Economy*”

32 Lisa Bodell (2013). *Kill the Company*”.

something that must be avoided.

News agencies are also facing greater pressures from the increasing overflow of information, multi-tasking, and competition. Editors and reporters have to do “so much juggling of parallel assignments” that it’s clear to many news agencies that people are “pushed to the limit in a way that not every journalist can manage; it takes a very special profile to do this job”³³. Reporters, editors, sub-editors, managers have to make decisions quickly because postponing them could mean “descending into chaos”.

As Stephen Mitchell argues, although gatekeeping fast and reliable information is still vital for the news distribution industry, social media have changed the monopoly of news agencies, TV or radio, on breaking news. Now anyone can look for certain hashtags or keywords in a search engine, and receive witness accounts directly from eye witnesses, or live footage from a cell phone or simply follow the live stream video of a press conference or a protest. However, news agencies are the ones that can standardize, curate and transmit to large audiences reliable and quality journalism, and that is a value they have to convey, not only to traditional clients, but to the general audience as well, now more than ever before. Journalists know how to dig deep into stories and go to the source of the information.

News agencies will now have to operate somehow like an open-data, open-journalism system, and earn revenues from it. Publishers are also asking for more elaborate news pieces, videos, and visual content, something that news agencies, precisely because of the handling of vast amounts of sources of information they’re involved in, are better positioned to provide.

Curation of social media, consumers and client analytics, verification, data processing from the work of a big network of reporters will allow news agencies to be a more scalable business, defining a new model capable of surviving an environment of constant change. This will allow them to find more easily a technological edge and will allow the assumption of innovative services; and in the long run this will consolidate the role of news agencies as guarantor of quality journalism and as a referent to those trying to make sense of this ubiquitous digital noise.

33 Boyer, Dominic (2013), *“Life Informatics.”*

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