So you found a unicorn – now what?

News organisations need to consider how to integrate data reporters, developers and coders - who often come from a very different culture - into their 'traditional' newsrooms if they want to succeed, writes Zara Rahman

Introduction

The rise of data-driven journalism is relatively well-charted. Major newsrooms all around the world boast 'data journalists', 'journo-coders', and/or major graphics and design departments. But how does this change in the way stories can be found and put together integrate within the traditional newsroom? Here, I argue that a major cultural shift in how those working in a newsroom perceive technology is necessary to successfully integrate data-driven storytelling into a newsroom's repertoire.

So you have a data team – now what?

Earlier this year, I attended the International Journalism Festival in Perugia, Italy. School of Data, in collaboration with the European Journalism Centre, have been running the data journalism track of the IJF for the past four years, and similar to previous years, the sessions were popular among those wanting to boost their data skills. But it felt like the community weren't there so much to hear technical explanations of how to use certain tools in their reporting, or how to tell their first data-driven story. Conversations centred more on **what comes next**. Once the data team have been hired (under whatever label) – how do these newcomers to the newsroom actually support better journalism?

The step of truly integrating technical approaches together with what might be known as more 'traditional' journalism is the one that seems to be causing the most hurdles. Put more simply: it is asking a set of people who have a completely different skill set to ones that are usually found in a newsroom to enter this challenging environment, and somehow integrate with their peers.

New workflows are needed, new forms of collaboration, and, in a way, new sets of values around what makes 'good' journalism.

Managing expectations

In traditional journalism courses, data skills have not been taught, and this means that most (but by no means all) journalists have relatively low levels of data literacy. This is changing; more and more universities, especially those in the US, have been starting to have dedicated courses on 'computational journalism', or computer-assisted reporting, for example. One of the most fundamental issues that arises with those with low levels of data literacy is **not knowing what is possible** – and this lack of understanding of how data-driven approaches can complement or support work naturally presents some communications issues. Sometimes this can be in terms of technical requirements given that are wildly unrealistic, or people not knowing what to actually ask for when making technical requests.

In all respects realistic expectations need to be set for what different people with varying skill sets can and can't do. Giving someone a big dataset and asking them to 'find a story' might be fruitful, or it might take a long time, and have very little outcome. Equally, a dataset needs to be in a certain state before it can be analysed, and depending on its size, this can take a long time. On both sides of the equation, what might seem to be a small task can take a frustratingly long time, and understanding and being prepared for this can be a big help.

Journalists who code, or coders who tell stories?

Building a team with a diverse set of skillsets and perspectives can be a huge boost to supporting new forms of storytelling. People with high levels of technical understanding may well not be the best people to communicate a story that they have found – and this is where the 'traditional' journalists come in. Similarly, someone with a low level of data literacy is unlikely to be the most efficient person to gain insights from a large dataset, even though they might be willing to learn. Pairing up these varying personas – a storyteller and an analyst for example – can bring new perspectives to a story. Finding people who are accustomed to working with people from different backgrounds to their own might facilitate this process, indicating that they are more accustomed to working with people not like themselves; just another reason for building a diverse team.

An indicator of how these roles have been mixed can be observed through groups focused much more on the data and technology side of things who have moved into more data journalism related work. Take, for example, Code for South Africa (Code4SA), an organisation of civic coders, aimed at 'connecting people to government' through effective use of technology, and supporting civil society. They boast an impressive repertoire of data journalism related projects such as the 'Living Wage Calculator' (2015), which allows the user to input the amount that they are paying their domestic worker and see how it compares to the living wage for that individual. From its launch in April 2015 to the time of

writing in July 2015, more than 12,000 people completed their survey, and thus created the biggest dataset ever on this topic; perhaps, then, providing fodder for further in-depth stories on the topic.

Code4SA are just one example of how previously distinct roles of journalist and technologist have merged, and there are many more. There has been a big rise in recent years of initiatives aimed at teaching journalists how to code or use data more effectively in their work, but alongside this, effective collaborations between those with strong writing and storytelling skills and those with coders or data analysts are also needed.

Success stories
There seem to be a few common trends among successfully integrated teams. Firstly, an acknowledgement at all levels within the newsroom that technical literacy and technical skills can open the door to new forms of storytelling. This could manifest itself in ways such as the data team being invited to regular editorial meetings, just as the 'traditional' journalists are – or even in the way that they are referred to, with 'journalist' in their job title.

Secondly, newsroom managers need to recognise that the data journalists aren't there to solve everyday technical issues, even though their technical know-how might mean that they are able to. Nowadays, a newsroom has all sorts of digital demands that add an extra layer of technical complexity to a regular organisation, such as publishing online, or having a suitable content management system (CMS). In addition to that, there might be other more regular technical issues that arise – from digital security practices to websites going down, or bugs appearing.

In most cases, though, addressing these issues simply doesn't lie within the mandate of a data journalist – and though it might be quicker if they're sitting at the desk just round the corner, this can seriously undermine their journalistic responsibilities. In much the same way that any random native English speaker wouldn't be asked to copy edit a piece before publishing purely on merit of their language skills, an individual who has a certain technical skill set is not necessarily the go-to person for all of the problems that involve digital technologies. Respecting the diversity of skills that lie within digital technologies is crucial for many reasons. For the data journalist or team in question, it gives them the time and space they need to do the job they signed up to do – telling stories with data. For their peers, it can send a clear signal that the data journalists are not simply the IT department or the system administrators with a different name, but that they are peers in the field of journalism. Knowing that they are there to go to with ideas or questions can (and should) bring up all sorts of collaborations that can make a story that much stronger.

Thirdly, news organisations need to prioritise communication, and understand that it might not be that easy. For those who aren't sure what benefits data-driven journalism could bring to a story they are working on, flagging it up as early as possible with the data or graphics team leaves space for new approaches

to the story. For those with technical skills, sharing knowledge can be a good way of flagging to colleagues areas that they are interested in, as well as bringing the broader benefit of boosting data literacy across the newsroom.

Avoiding jargon in communication can be important too, and providing spaces where questions are welcomed rather than seen as a sign of a lack of knowledge. One example of this can be seen in the regular 'learning lunches' that Noah Veltman, a developer placed within the BBC for a year as part of the Knight-Mozilla OpenNews fellowship, held on a regular basis (Veltman, 2013). His colleagues were invited to drop in and learn about technical topics they might have heard referred to, and the sessions were well-documented for future reference.

To a degree, this means that those who really do understand the benefits of a data-driven approach are left with the task of advocating internally within their own newsrooms to make changes to age-old processes, and incorporate new forms of storytelling into their work. While perhaps the onus shouldn't necessarily be on them to change these practices, pragmatically speaking, they are most likely to be the best placed to do this job, and the outcomes will, ultimately, benefit their positions as well as the newsroom culture as a whole.

Getting some help from the outside

Relying on all of these changes to be internal can be hard, though, and this has been recognised on a number of external levels. One common way of boosting a newsroom's technical literacy, especially with regards to data-driven stories, has been through fellowships. Typically, fellowships provide funding for an individual (or a number of individuals) to work in an environment they wouldn't otherwise have access to – and vice versa. It puts someone into a workplace environment unused to their set of skills.

One example is the Knight-Mozilla OpenNews fellowships (OpenNews, 2015), which have been running since 2012, and as a result, to date 26 fellows have been placed within newsrooms around the world. They've built up an established and well-reputed online and offline home, too, with data journalists and coders from around the 'news nerd' community sharing lessons, tools, and writing detailed explainer posts on technology implemented in newsrooms on their online blog, Source (https://source.opennews.org). Tellingly, many of the biggest and most successful newsrooms who are integrating data-driven storytelling into their work, often encourage their coders to write blog posts on the platform. Offline, they run a small, US-based conference called SRCCON (SRCCON 2015), which brings together said news nerds for a two day, in person event. Their work spans providing targeted individual support to the fellows, alongside building and supporting the overall community.

Their efforts at making the fellowships a viable work opportunity for people from all sorts of backgrounds, as well as a variety of skill sets, really speaks to their overall mandate of 'amplifying journalism code'. Unlike many other fellowship programmes, they provide monetary supplements for child care,

housing, and health insurance, thus opening up the space for people who would otherwise be excluded from such an opportunity. Crucially, they recognise that **diversity of all kinds can hugely benefit newsrooms**, bringing a more intersectional understanding that goes beyond simply skill sets, or professional experience.

Another external initiative aimed at bringing together communities of journalism and coders is the international 'Hacks Hackers' network, a 'grassroots network of journalists and technologists, brought together to rethink the future of news and information' (HacksHackers.com, 2015). Hacks Hackers chapters all over the world organise regular in-person meet ups and events to bring these communities together to learn from each other and build connections that otherwise might be difficult to do internally. Hacks Hackers meet ups also provide fertile ground for recruitment, providing an accessible 'way in' for those who otherwise might not come into contact with journalists to such a degree. At Hacks Hackers Berlin, for example, a job presentation section forms a regular part of the meet up, and many people have found new positions through coming to the meet ups.

If the 'unicorns' in a newsroom are struggling to do the job they signed up to do, encouraging them to spend time with others in similar positions in other newsrooms can provide a strong sense of community that will undoubtedly help address theses issues. Similarly, providing a space where journalists who have not been exposed to so many data-driven stories can go and meet the people behind successful collaborations might also provide inspiration for their work. If those in a newsroom are serious about integrating data-driven storytelling within their work, contributing as active members of this growing community is crucial.

It's not the technology, it's the people

On a more general level, there needs to be a basic understanding that what we're moving towards here is a major cultural shift in the way that journalism has been done. Though the inherent goal of journalism has stayed the same, the methods have changed. This means that people with different skillsets and areas of expertise are coming to the sector, and that the sector (and those in it) need to adjust to welcome and really integrate them into the storytelling process.

Even the most technically skilled individuals in the world aren't going to be able to make a difference in a newsroom if their work isn't valued within the newsroom culture. Data journalism is made up of a diverse set of skills, from expert designers, to statisticians, to coders and more. We're beyond the point at which someone can be labelled as 'technical' and tasked with 'technology' in the newsroom. We need to recognise that there are varying levels of technological and data-related skills needed for any newsroom to keep up in the digital world, and embrace those changes.

References
Code for South Africa, available online at http://code4sa.org, accessed on 29 July 2015

Knight-Mozilla OpenNews, available online at http://opennews.org/, accessed on 29 July 2015

Living Wage Calculator, built by Code4SA, available online at http://living-wage.co.za/, accessed on 29 July 2015

SRCCON, available online at http://srccon.org/, accessed on 29 July 2015

Veltman, Noah (2013) 'Learning Lunches', available online at http://schoolofdata.org/learning-lunches/, accessed on 29 July 2015