



‘Hacker’ journalism - A new utopia for the press?

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This article explains why and how self-taught computer programmers, web entrepreneurs, web project managers, programmers from open source software communities and *open data* advocates alike have all become interested in journalism, despite the economic crisis that the press seems to be facing the world over.

Across New York, Chicago, London, Helsinki and Buenos Aires, several hundred individuals meet regularly, often in the back rooms of bars or in conference halls.¹ They are students, journalists, computer programmers and web project managers, and they call these informal meetings *hacks/hackers* meetings. *Hacks* refers to journalists and *hackers* to computer enthusiasts (and not primarily to software pirates). From presentations on web applications developed for news websites and training on how to use programming language to simply introducing journalists and computer programmers to each other, the organisers of this network hope to bridge the divide between the press and the computer worlds, in order to transform and ‘reboot’ journalism.



Links between the press and the computer worlds have undoubtedly

¹ This research is supported by the National Research Agency as part of the BASICOM project (information databases and cooperation between social worlds).

become stronger over the last few years, and the success of news websites which fall outside the usual domain of the more traditional press is testament to this. The most well-known of these sites among the French is undoubtedly Wikileaks, which published large amounts of information on Guantanamo Bay, on the wars being fought by America and on international diplomacy. The French website [Owni.fr](#) is another example, although the United States hosts considerably more (examples include [ProPublica](#) and [Politifact](#)). A further sign has been the emergence among the major papers of a new breed of professional, claiming to be both journalist and computer programmer. Particular examples are the *New York Times* (Aron Pilhofer), the *Guardian* (Simon Rogers) and the *Chicago Tribune* (Brian Boyer), which have taken these journalist-programmers on as part of their editing teams. They produce new journalistic material in the form of online searchable databases, maps and interactive animations.



Source : Guardian.co.uk

The work produced by this new breed of journalists represents a fraction of the total journalistic output, and this is particularly the case in France, where the major papers have yet to show any real interest in their work. This new material is thus currently only reaching a small audience. However, the development of online news has often been associated with the fact that journalists copy each other more, investigate less, and use 'web metrics' in a way that lead to the standardisation of

news available online. It is therefore worth considering how these new practices are changing the place of journalists in democracies. Surveys carried out in the United States and in France suggest that, as a result of the newly emerging ties between the press and computer worlds, new democratic roles are being experimented for journalists and journalism.

Why are computer programmers now interested in the press?

Why are self-taught computer programmers, web entrepreneurs, web project managers, programmers involved in open source software communities and *open data* advocates choosing to turn to journalism at a time when the press the world over is suffering from the economic downturn? One reason is linked to values. Despite the diversity of their career paths and skills, what the majority of them have in common is an attraction to the *hacker* culture, that is to say, they present themselves as computer enthusiasts for whom programming represents a form of expression of identity. This culture, which has been shaped by the spread of the personal computer since the beginning of the 1980s, promotes in particular freedom of information and knowledge, and universal access to technology.² Never confining themselves to the social limits of the professional world, this culture is in part a social movement which aims to transform institutions and social relations.³ Seen from this angle, these individuals are interested in the press because it represents one of the fundamental examples of production and circulation of information. There are many who associate their involvement in the press with the issue of democracy; those who might sacrifice more lucrative career paths often do so because they believe they are a part of something bigger.



Source :

Brian Boyer's twitter, "new application team" of the *Chicago Tribune*.

However, this commitment to the press can also be explained through the

2 Cf. P. Flichy, *L'imaginaire d'internet*, Paris, La découverte, 2001.

3 U. Holtgrewe and R. Werle, « De-Commodifying Software ? Open Source software between business strategy and social movement », *Science Studies*, vol. 14, n°2, 2001, p. 43-65.

technological potential which they believe the press as a sector possesses. Technological excellence is fundamental to these *hackers*, who see the press as an ideal medium for experimentation and innovation in rapid programming (deadlines are tight in news organizations), data processing and visualisation. Over the last few years, several journalists have even gone on to become leading experts in the world of computer programming and open source software, notably the American Adrian Holovaty, who is undoubtedly the best known example.

What's more, in several countries, state and city governments have released large data sets on a whole host of different topics, from public decision-making and the functioning of public institutions, to crime, urban infrastructure, health, and education, With the support of various organisations and foundations (such as the Sunlight Foundation in the United States), the *open data* movement aims to identify authorities willing to release data sets to the public, in order to promote greater responsibility and transparency. Those in the computer world view this growing access to public data as a source of raw material for innovative journalism.

News is data!

These programmers see computers not merely as a tool to make journalism easier and more efficient, but more significantly, they believe it is capable of altering the very nature of journalism by creating a new approach to news and information. At the centre of this new approach is data, which is why we often speak of 'data journalism'. This concept has been particularly clearly explained by Adrian Holovaty, who represents one of the best known figures of the movement.⁴ The thirty-year-old Missouri school of journalism graduate has been working for various American press organisations for the last decade. As a well-known member of the open source software community,⁵ he has managed numerous data driven online news projects, notably for the *Washington Post*.⁶ He states that the daily task of any journalist is to gather data; if there has been a fire in a town, the journalist must find out the time and date of the fire, the number of victims and who they were, which fire

4 He published an article in 2006 in which he presents this idea. Cf. « A fundamental way newspaper sites need to change » (<http://www.holovaty.com/writing/fundamental-change/>).

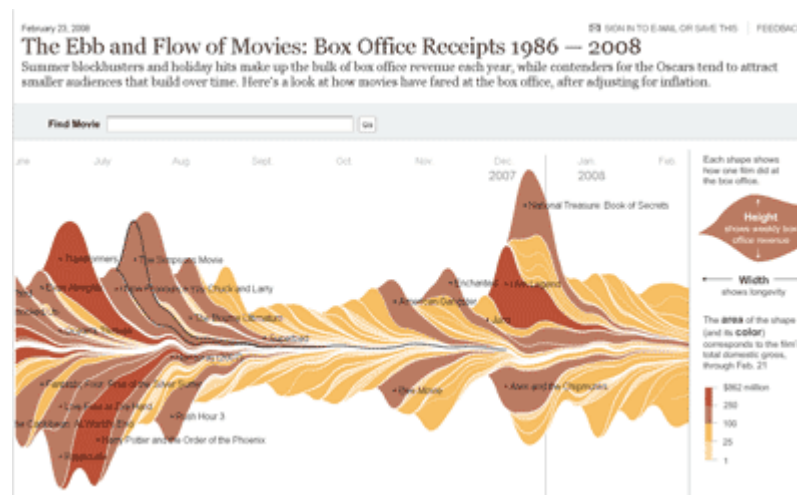
5 He is one of the creators of the web django programming platform which is widely used today, both within and outside press organisations.

6 See for example « The Vote database » which provides access to the votes of all congressmen and senators in the United States (<http://projects.washingtonpost.com/congress/112/>).

station sent rescuers to the scene, how long they took to arrive at the scene, the time at which the fire was put out, etc. Based on this data, the journalist will produce an article in the form of text to which images will then be added. According to Holovaty, this process of collecting data is inconvenient for several reasons. Once the article is published, the data is no longer readily accessible, since the facts become lost in the body of the text. Events can no longer be compared in terms of time and location, such as how they had been dealt with in previous years or in neighbouring towns. It is also no longer possible to draw links between one type of event and other events for which there is data available. It might, for example, be interesting from a journalistic point of view to look at whether there is a link between the number of fires during a given period and general housing conditions described in town inspection reports. According to Adrian Holovaty, the method of basing journalistic information on collected data and presenting it using computer technology allows for improved news provision.

While this may not be an idea familiar to French journalists, it is not new. Its origins can be dated back to the North-American current of *computer-assisted reporting*, which, since the late 1960s, has promoted the idea of giving more power to the journalistic word by making technological and statistical treatment of data into an important part of journalism.⁷ During the 2000s, an increase in the data made publicly available by authorities, as well as increased access to data from the internet, gave this idea unprecedented scope to develop. Often directly related to the open source software community, the extraction, treatment and presentation of data became an area of major focus for the press. Extraction refers to the process of data collection; it involves using programmes to gather data available on the internet or in other forms (such as PDF files obtained from authorities), and organising it into a database. Data treatment is carried out using various programmes which update and make sense of the data. Finally, the presentation, which is the only step truly visible to other web users, involves experimenting with different programmes to create often impressive and constantly evolving maps and interactive images.

7 Cf. P. Meyer, *Precision Journalism. A Reporter's Introduction to Social Science Methods*, Bloomington & Indianapolis: Indiana University Press, 1973.



Source : New

York Times web site

http://www.nytimes.com/interactive/2008/02/23/movies/20080223_REVENUE_GRAPHIC.html

Keeping an eye on those in charge

Journalists have often spoken for public opinion when they identify examples of governments and ruling classes acting irresponsibly.⁸ Whether it be the French publicist of the 18th century, the American *muckracker* of the early 20th century, or the more recent figure of the investigative journalist, they all strive to uncover that which is otherwise hidden from the citizen, in an attempt to restrain those in power.⁹ Despite coming from very different walks of life, many of these programmer/journalists have each been able to develop further and influence in their own way this evolving figure.

Since its origins, the hacker culture has included a mistrust of those in power,¹⁰ and the recent international movement calling for data to be made public (the *open data* movement), which aimed to promote transparency amongst local and national government authorities, is one example. Over the last few years, websites dedicated to holding governments accountable for their actions and their lobbying networks have sprung up in different countries. The underlying principle is that, by making decisions transparent, actions and networks which are otherwise invisible to citizens - such as the votes of those in power, their presence or possible absence, their day-to-day work, their relations with significant groups etc., - it will become possible

8 P. Rosanvallon, *La contre-démocratie. La politique à l'âge de la défiance*, Paris, Seuil, coll. « essais », 2006, p. 46-57.

9 C. Lemieux, « Les formats de l'égalitarisme. Transformations et limites de la figure du journalisme-justicier dans la France contemporaine », *Quaderni*, n°45, 2001.

10 F. Turner, *From Counterculture to Cyberculture. Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism*, Chicago & London, University of Chicago Press, 2006, p. 133-140.

to strengthen democratic control over those in power. The site for the American Sunlight Foundation, which proposes numerous innovative applications,¹¹ is the international point of reference for an approach which sets the work of programmers outside the world of journalism proper. In France, the website NosDéputés.fr takes its inspiration from this approach by allowing web users to monitor the daily activity of their government representatives and to identify, through lexical analysis of what they say, the main issues addressed in their speeches.



Source : nosdeputes.fr

Programmers working as journalists within traditional newspapers have also contributed to the cause. In June 2010 for example, the *Guardian* used information published by the British government to develop a web application which allowed web users to examine themselves expenses claimed by each Member of Parliament and to flag them as being either of concern, already known to the public or requiring further investigation.¹² Other publications, such as the *Chicago Tribune*, released in April 2010 applications allowing web users to identify how much their city councilmen had spent and which businesses had gained from this.¹³

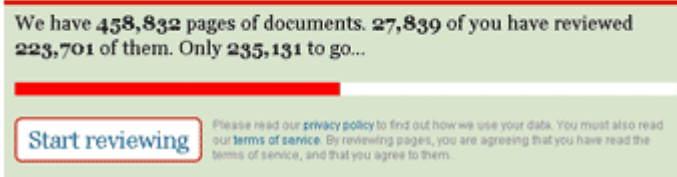
11 Cf. <http://sunlightfoundation.com/projects/>

12 The British public responded very favourably: 37 % of the 460 000 documents published were classified during the first three and a half days following the publication of the application. However, this level of participation is unusual, and numerous other attempts of this type failed to attract wide-scale input from web users.

13 <http://councilexpenses.apps.chicagotribune.com/>

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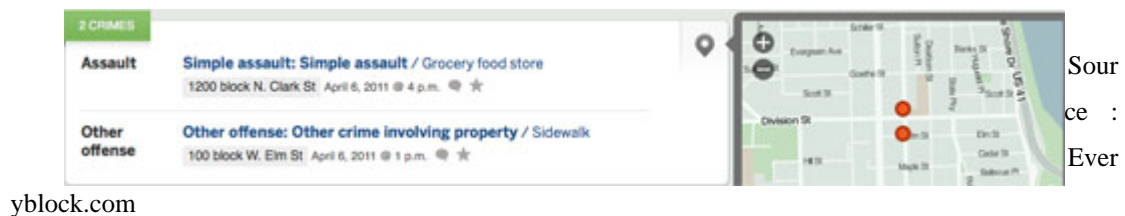
Source : <http://mps-expenses.guardian.co.uk/>

What these projects have in common with investigative journalism is the shared goal to render more transparent the actions of those in government - such as the English MP who asked Parliament to refund him the cost of a carpet for his personal use - in order to then blow the whistle on such actions. They push the demand for transparency even further, by using technology to monitor governments above and beyond those specially chosen moments when they address the public. However, aside from their diversity, these projects differ from standard journalistic practices in two major ways. Firstly, there is a proportion of these journalist/programmers who believe that technology allows greater independence to be gained from any agenda information sources might have. Investigative journalists are often, as we know, used as weapons by warring politicians and administrations.¹⁴ Through the development of databases which are automatically updated and which identify the daily activities of those in power, an entirely independent system of information is created which is far less dependent on strategy. Even when it is the authorities who produce a large proportion of the data, there is still room for manoeuvre. Added to this is the fact that by combining such data with data from other sources, these databases make it possible to bring yet further cases to light. For example, by cross-checking data on parliamentary activities with data on pressure groups, relations hitherto unknown between the two groups can be brought to the surface.

14 See P. Schlesinger, « Repenser la sociologie du journalisme. Les stratégies de la source d'information et les limites du média-centrisme », *Réseaux*, n°51, 1992 (1990).

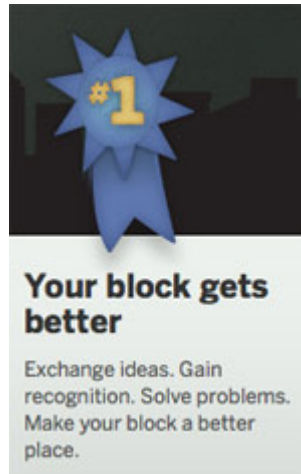
The development of ‘decision-making tools’

Many of these journalist hackers support the idea that these new products of online journalism should allow individuals to take charge of their immediate surroundings and to make independent decisions. However, this can clash with certain existing standards of journalism. The hacker culture emphasises the liberating potential associated with a decentralised use of technology, and there are numerous online projects which have been around for several years which support this idea. The website EveryBlock.com, created by Adrian Holovaty in 2007, is a particularly good example, and is widely recognised in the media world of North America. By entering one’s address on the site or by searching an interactive map, the web user is given immediate access to a vast amount of data on their neighbourhood, including statistics on crime, building permission, health and safety restaurant checks, school inspections, licenses to sell alcohol obtained by local shop-keepers etc. First introduced in Chicago, the site is now active in around fifteen different cities across the United States.



Such sites are often considered shocking in France, and many worry of the possible negative consequences of citizens uncovering statistics pointing to urban segregation or inequalities among the population.¹⁵ However, the creators of the site claim that such sites inform individuals on what is going on around them, allowing them to make individual choices on issues such as deciding which area to move to based on the services available and the disadvantages, or to create a community movement to identify and solve local problems.

15 Unlike the United States, local crime statistics for towns and neighbourhoods are not available in France; public policies on crime are much more centralised.



Placing decision-making tools in the hands of individuals represents a break with the previously-held norms of journalism, and the reservations expressed by many American journalists are testament to this. Journalists have built their credibility on being able to analyse and offer interpretations to a public that does not necessarily have the time or the skills to itself extract the significance of events.¹⁶ By suggesting that individuals can themselves make sense of the data to which they gain access, these new journalists are exploring a new relationship with the public.

The tendency of more traditional journalists to use globalising interpretations may often seem strange to these programmers, and the interesting experience of the creators of the French site NosDéputés.fr is one such example. While they do not claim to be part of the world of journalism (a world in which the boundaries are constantly shifting according to national context), they have developed a particularly coherent discourse on the way in which journalists usually cover news on parliamentary activity. They claim that journalists cannot legitimately create rankings of the hardest-working and least hard-working members of the French Parliament, since this systematically favours one criterion over another. Instead, they conclude that the site should allow each user to draw up their own ranking, according to the criteria which they feel to be the most important.¹⁷

Whether their creators see themselves on the margins or at the very centre

16 Cf. M. Schudson, *Discovering the News. A Social History of American Newspapers*, New York, Basic Books, 1978.

17 <http://www.regardscitoyens.org/retour-sur-les-palmares-de-deputes-historique-methodes-et-donnees/>

of the world of journalism, these different projects explore new ways in which to address the public. When they operate from within more traditional publications, notably the *Chicago Tribune* or the *New York Times*, hacker journalists must often compromise between the accepted norms of journalism and their own personal vision of a competent public able to expertly handle the information tools at their disposal.

Conclusion

Current debate on the role of the online press often highlights the lesser role that journalists now play in democracy. The fragmentation of their activities, the heavy constraints imposed by the demands of the public, and increasing levels of imitative journalism have all contributed to make the internet seem a very unwelcoming place for an ambitious journalism. However, the growing links between the press and the computer worlds of the last few years suggest something else may be going on. These programmers, who all hail from different backgrounds, build on normative conceptions of technology in order to explore new ways of positioning journalism in relation to the authorities and the public. After having thought, for some time, that the web would do away with these intermediaries in the news market, programmers are now seeking to build new relations with the world of the press. Viewed in this light, the *hacker* journalist is a figure rich with promise.

While it is still too early to know the outcome of this exploration into the world of the online press, the specific contribution of computer worlds to the transformation of journalism is clear. Journalism was historically a profession defined by distinguishing between the skills proper to journalism (such as gathering information, analysis and writing) and the technical skills associated with the wider media (the press, television, radio and web).¹⁸ It is precisely this distinction that the new figure of the programmer/journalist puts into question through the use of technical expertise, as well as the values associated with technology and new ways of theorizing journalistic information. Now that many marketing professionals working for online press organisations possess such programming skills, we can but expect great things from such an alliance between technology and journalism within the

18 On the history of relations between journalism and technology, see H. Örnebring, « Technology and journalism-as-labour : historical perspectives », *Journalism*, vol.11, n°1, 2010, p. 57-74.

newsroom.

Having said this, we would be wrong to expect everything from *hackers* journalists. They produce journalistic outputs presuming to a large degree that the user will be able to draw his own conclusions, which might sometimes be unrealistic. The role of journalists to make sense of data, to draw out general tendencies and to integrate them within a shared moral horizon remains absolutely crucial.¹⁹ The several projects currently underway which aim to re-establish ties between these hacker journalists and social sciences researchers thus seem promising.²⁰

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19 See the stimulating contribution from Dominique Cardon, « Zoomer ou dézoomer ? Les enjeux politiques des données ouvertes », OWNI, 21st February 2011 (<http://owni.fr/2011/02/21/zoomer-ou-dezoomer-les-enjeux-politiques-des-donnees-ouvertes/>).

20 This is the approach of American James T. Hamilton, based on what he refers to as « *computational journalism* ». Cf. http://dewitt.sanford.duke.edu/about/area-of-research/computational_journalism/