

STATISTICS ON NATIONAL RADIO: SOME INSIGHTS FROM WORKING WITH PROFESSIONAL BROADCASTERS

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BBC Radio 4, the second most popular radio station in the UK, is a spoken word station run by the British Broadcasting Corporation (BBC). A programme on numbers, More or Less, has grown from a small beginning in 2001 to be a key regular part of the Radio 4 current affairs output, with around 1.2 million listeners to each programme and an international reach through two websites, podcasts and streamed audio. Its ‘numbers’ remit is interpreted very broadly, but economics and statistics form the bulk of the topics covered. Since 2005, the programme has been produced in partnership with the Open University. This paper describes the partnership from the point of view of the academic partners, outlining the differences in approach, purpose and timescales between academics and journalists, and proposing that these differences have contributed to the strength of the programme and its role in educating students, journalists and the wider public.

INTRODUCTION

The UK radio programme *More or Less*, a magazine-format programme about numbers, has had a rather complicated history, many of whose specific features depend on the particular unique circumstances of the partners in its production, the British Broadcasting Corporation (BBC) and the Open University (OU), and in the nature of their long-term relationship. However, the collaboration on the programme has brought into focus more general points about the ways in which academics and journalists can work together. In this paper, the background to the BBC/OU partnership on *More or Less* is discussed, the programme in its current form is described, and some general issues arising from experience of the partnership are discussed from the point of view of the academic partners.

The BBC and Radio 4

The history of the British Broadcasting Corporation goes back to 1922. It is a publicly owned corporation, funded primarily by a television licence fee that must be paid by any UK household, company or organisation that has equipment capable of receiving its television broadcasts. The greatest proportion of its expenditure goes on television, but it started life as a radio broadcaster, and is still very prominent in the UK radio scene, with five national and 41 local or regional radio stations, as well as the international World Service (funded directly by the UK government). In addition to TV and radio, the BBC provides increasing amounts of digital output via the Internet.

BBC Radio 4 (www.bbc.co.uk/radio4), the station that carries *More or Less*, is the second most popular radio station in the UK (after BBC Radio 2, a music-based station). Its output is very much speech-based but nevertheless very wide-ranging, covering news, current affairs, drama, comedy, the arts, science—in short, almost every area, with the exception of music and sport, which are largely left to other BBC stations.

The Open University

The UK’s Open University (OU) has developed, like the BBC, something of the character of a national institution, though its history is rather shorter (The Open University, 2010b). It was founded in 1969 (by the UK government, but (like other publicly-funded UK universities) as an independent institution), and admitted its first students in 1971. By several measures, the OU is the UK’s largest university, with some 180,000 undergraduate and postgraduate students. Its unique feature, however, is that the great majority of its students are studying part-time and at a distance. Entry to almost all undergraduate courses is open, that is, no specific entry qualifications are required. According to its mission statement it “is open to people, places, methods and ideas”, and it aims to “provide educational opportunity and social justice by providing high-quality university education to all who wish to realise their ambitions and fulfil their potential.” (Open University,

2010a). Statistics has been part of the OU's curriculum almost from the start, and was reviewed at an earlier ICOTS (McConway, 1990). Many of the details have changed since that paper appeared; currently about 2,200 students per year take course modules specialising in statistics, and a much greater number study statistics as part of other disciplines.

The OU/BBC partnership

The Open University and the BBC have worked in partnership right since the beginning of the OU, though the nature of the partnership has changed radically over the years. The first UK government proposals that led to the OU's foundation referred to it as the "University of the Air", and it was always envisaged that broadcasting would play a major part in its teaching and learning methods. In the OU's early years, television (and to a lesser extent) radio broadcasts on the BBC made up part of the teaching provision on many, though far from all, courses. However, the name "University of the Air" would never have been accurate, because broadcasts were not the principal teaching medium on any course. For the first decades of the OU, teaching on most courses was in fact strongly led by printed media, backed by tutor support.

When the OU began, it was not viable to distribute audio or (more particularly) video learning materials by any medium other than broadcast. The rise in popularity of audio cassettes during the 1970s soon meant that most audio teaching material was moved from radio broadcasts to cassettes. A corresponding move away from broadcast television to video on VHS began later and was slower. However, by about 2000, most video and all audio teaching materials were distributed on cassette (and have now moved to CD, DVD or Web distribution) and the need for BBC programmes directly linked to OU courses had drastically diminished. A few course-linked programmes continued to be broadcast on BBC television (in the middle of the night) until 2006.

However, the OU/BBC partnership certainly did not end with the demise of specific OU course broadcasts. Long before they ended, the partnership had been widened to include the production of broadcast programmes aimed primarily at people who are not registered students, either directly commissioned by the OU or co-produced between the OU and the BBC. Most of these programmes have been on television, and have included some of the most popular and most respected factual programmes on BBC television. However, there have been some radio programmes too, and *More or Less* is one of them.

Funding broadcast television and radio programmes is not something that many universities do on any scale, so it is worth briefly mentioning why the OU does it. The principal reason is to fulfil the University's mission to provide learning opportunities to all, and can be seen alongside the University's work in open educational resources. (See openlearn.open.ac.uk, and the University's contributions to iTunes U, linked from www.open.ac.uk/itunes/.) Another reason is to promote awareness of the University among potential students, to increase recruitment.

MORE OR LESS

More or Less is a magazine programme about numbers, broadcast on BBC Radio 4. Its origins pre-date any Open University involvement. The programme was first broadcast in October 2001, and (at the time of writing) there have so far been 18 series, each consisting of between 6 and 8 weekly programmes, 30 minutes in length.

The origin of the programme was in a conversation over a pizza between a BBC radio producer, Michael Blastland, and Andrew Dilnot, an economist who was at the time Director of the Institute for Fiscal Studies, an influential UK economics research institute (M. Blastland, personal communication). (Dilnot moved on in 2002 to become Principal of St Hugh's College in the University of Oxford.) They had recently worked together on a one-off radio documentary on numbers in politics, and conceived the idea of a magazine-style programme in the same general area. The idea was presented to BBC management, who took it up and commissioned the first series, with Blastland as the producer and Dilnot as the presenter (and Nicola Meyrick as series editor). Blastland and Dilnot continued to present and produce the programme until 2007. Since the October 2007 series, the presenter has been Tim Harford, the economist, journalist and author, and there have been new producers too (Richard Vadon as series editor, with Innes Bowen followed by Richard Knight as series producer).

In the magazine format, each 30-minute programme consists of a few (typically around four) separate items, which have in common that they are about some aspect of numbers. That brief is understood widely; reflecting the programme's origins, many are about the use of statistics and economics in public policy and politics, but there is much more. In the December 2009 to January 2010 series (the most recent at the time of writing), items included (among many others): an investigation of whether the claims made for energy-efficient light bulbs are justified; an interview with Count von Count from *Sesame Street* (in connection with that programme's 40th birthday); a critical investigation of the data behind the UK Chief Medical Officer's claims about very adverse effects of drinking by children; an item on the London congestion charge seen as an economic experiment; an analysis of a claim by National Health Service managers that the cost of treating alcohol misuse in England doubled in five years; a controversy on whether 1 January 2010 was or was not the start of a new decade; a piece on the importance of the exponential function; and a history of the political statistic. Popular items on previous series have included several discussions of regression to the mean and the difficulties it brings to basing policy changes on evidence; a visit to the National Physical Laboratory to see the standard kilogram; and a controversy that ran across several programmes about which town in Britain has the most pubs.

As well as the wide-ranging variability in content, the style of the items also varies. There are interviews (with politicians, statisticians, mathematicians, economists, authors, other journalists, to mention but some categories), discussions, outside broadcasts often involving "vox pop" interviews, quizzes, telephone calls to listeners on something they have contacted the production team about – in short, just about any of the approaches used in spoken word radio, apart from live phone-ins (because the programme is pre-recorded).

As far as the production team or I know, *More or Less* remains the only regular series in broadcasting anywhere that is devoted to the world of numbers in this wide sense. Initially the programme was given a broadcast timeslot during the day, when most listeners would typically be older people (perhaps retired) or at home looking after young children, perhaps not a promising demographic for such a programme. But it did attract reasonable audience sizes, and has since moved around the schedule several times, generally to better timeslots. Currently it is broadcast in a Friday slot straight after the lunchtime news and analysis programme, with a repeat on Sunday evenings. There are three series, each of six programmes, in a year. Each programme attracts around 1.2 million listeners in the UK, and it is now seen as one of the standard programmes around which the BBC Radio 4 schedules revolve.

The programmes are now available as podcasts, as well as radio broadcasts. Some of these podcasts have had 20,000 downloads a week, with a large proportion of these going outside the UK. The programme has its own considerable web presence at www.bbc.co.uk/moreorless, together with supporting web material from the OU (see below). The programme's web pages are part of the BBC News website, and indeed items from the programme's web provision have sometimes been among the lead items on the BBC News front page. All the broadcasts since 2003 are available as streamed audio through the programme website.

Further aspects stemming from the OU's involvement with the programme are described in the next section. But I must mention two sets of activities not involving the OU, that have arisen from the programme and are of wider importance in spreading the message of good statistical practice. The programme's success led to the involvement of its first producer, Michael Blastland, in training for all new BBC journalists in dealing with statistics and other numbers, using materials in part based in *More or Less* broadcasts, and the current production team have continued and broadened this involvement. And the original team, Blastland and Dilnot, have published a popular book on numbers and their use and misuse (Blastland & Dilnot 2007, 2008), which is in turn partly based on material Blastland wrote for training BBC journalists.

THE OPEN UNIVERSITY AND *MORE OR LESS*

The Open University began co-producing *More or Less* with the BBC in the series that began in January 2005, and this collaboration has continued ever since. The OU decided to get involved partly from a general wish to increase involvement in BBC radio, but largely because at the time there was almost no OU involvement in broadcasts related to mathematics and statistics. Various discussions had taken place about commissioning or co-producing entirely new

programmes in this area but, given the limited resource the OU had available, and given that *More or Less* was at the time somewhat in need of additional resource that was not available through BBC internal sources, the decision was to collaborate on this existing programme.

Compared to the position before the collaboration began, the OU has brought more resource, in terms of finance to allow the production team to deepen their research on material for the programme and to build up a strong team of creative and numerate journalists, in terms of some involvement from OU academics, in terms of providing further web resources to back up the programme (see below), and perhaps in terms of adding further credibility and authority to the programme in a climate where journalists are not always trusted. (I must emphasise that the programme deserves this credibility and authority anyway, regardless of the OU's involvement, and that there is absolutely no reason to distrust any of the journalists or journalism on *More or Less*. But mud cast on journalists elsewhere, for good or bad reasons, does have a tendency to spread to areas where it is definitely undeserved, quite unreasonably.)

Meanwhile, the collaboration with *More or Less*, as well as supporting the OU's mission to provide high quality education to all, has brought other benefits, in the shape of higher public visibility for the OU's teaching (particularly in statistics and economics), of enrichment material that we can recommend to registered students, and indeed in some identifiable cases, in recruitment of new students.

The general method of collaboration between the OU and the BBC on broadcasts involves OU and BBC staff whose main role is to support the partnership, but also the identification of one or more members of OU academic staff to liaise with the BBC producers on the actual programme content. I have filled this liaison role on *More or Less* since the collaboration began. A third aspect has been the production of material for a special-purpose website at www.open2.net, that forms an online learning portal. The website has pages that are specifically about each of the programmes in the partnership, but most of it is now organised around a series of themes such as "Money and management" or "Science, technology and nature". (The OU has recently decided to merge this website into an expanded version of its existing openlearn.open.ac.uk site, which will be a portal to all the various types of material that the OU has produced for the general public.) Much of the material on this website was originated by OU academics; I originally wrote most of the material associated with *More or Less*, though there was input from other academics, and in some cases material produced for other purposes was reused.

On a typical OU/BBC programme, the academic input would be in the form of discussions on content, input into discussions about the scripts, and in some cases input into the recording and/or editing of the programme. (In all cases the BBC retains overall editorial control, but there is collaboration.) This can be usually be fitted into the rest of the academic workload without much difficulty, because the typical OU/BBC programme is a TV documentary, made over quite a long timescale. *More or Less* is not a typical OU/BBC programme, partly because it is a radio programme made with much less resource, but mostly because it is a current affairs programme that is made on very tight timescales. It needs to keep up with current events; for instance the item on the Chief Medical Officer's statements on drinking by children was made in response to a report and press release made on 17 December 2009 (and featuring prominently in the media on that day), and the *More or Less* broadcast that covered it went out the next day, 18 December. Although most items take rather longer than that, there is still no time to send scripts for any kind of careful checking by an academic liaison person. *More or Less* is pre-recorded, but sometimes the recording can be going on until the morning of broadcast, so there is clearly no room for any OU checking of what is to be broadcast before it actually goes out. The relationship has to work largely on trust and confidence.

Instead, therefore, I work with the production team as follows. Before each series starts, the team circulates a long list of ideas that they have for the next series. This will be made up partly of ideas that arose in the previous series, but for which there was no time. (Indeed in some cases the item would already have been recorded, but not used because it was pushed from the schedule by some breaking story.) It also includes many new ideas from the team. This list is then discussed, fairly briefly, with me and sometimes other OU staff; we may add ideas or suggest that others are deleted, suggest which of the ideas would particularly appeal to the OU (perhaps because we already have supporting material for them or because they relate to the content of one of our

courses) and in some cases suggest how a particular idea might be approached, or suggest a potential interviewee (from the OU or elsewhere) for an item.

The responsibility for actually choosing the items for each programme, however, lies entirely with the BBC team. Around two days before each broadcast, they send to me and other OU staff (including our PR department) a list of what are likely to be the items for the next programme. Some weeks this is accurate, and in others it is overtaken by events – perhaps a new item has to be squeezed in in response to a news event, or a planned item cannot be finished in time and has to be replaced by something that was planned for a later week but recorded in advance. At the stage of receiving the list, the OU could register an objection to a planned item, but this has never yet occurred. Meanwhile, the production team may consult me about some statistical aspect they are in doubt about; this consultation may be rather last-minute if something arises quickly, or it may stretch over a longer time. Sometimes, if it is a subject that I have enough expertise on, they interview me for broadcast, or I write something for the BBC website to support the programme.

Then, when the programme is broadcast (or afterwards, using the streamed audio or the podcast), I listen to it, and I may write a brief review of it for internal distribution to the OU and BBC staff involved. At the end of each series, we have a review meeting to discuss how it all went and how things might change for the next series.

One of the roles I am supposed to fill is as a kind of guardian of statistical rectitude, to ensure that things that are technically wrong or misleading do not get broadcast, or if by chance they do, to see that they are corrected. This is both remarkably difficult and remarkably easy. It is difficult because I do not see scripts in advance, so I cannot know what will be said on the air, in detail, in advance. If something is said that is technically wrong, I will usually find out at the same time as any other listener. However, the task is easy for several reasons. First, the presenter and the production team have a considerable level of competence in statistical and other numerical matters. Second, and even more impressively in my view, they are extremely good at judging when something goes beyond their own personal expertise, so that they should ask for advice. Finally, if something inaccurate does slip through and is broadcast, as does inevitably happen occasionally, it will be picked up by a listener, who will let the programme team know. The programme deals with these responses outstandingly well, in my view. Generally, the programme make a big point of inviting comments from what the presenter always refers to as its “loyal listeners”. On receiving a listener response pointing out an apparent error, the team they will check the listener’s query straight away with me or another expert, and in the next programme they will broadcast a correction (or an explanation of why the supposed error was not in fact an error). This is all done in an unfussy way, alongside taking up listeners’ questions about other things.

CONCLUSION

Relationships between journalists and statisticians are not always good. Statisticians might accuse journalists of having poor or no understanding of quantitative reasoning, and of blatantly misrepresenting or, at best, oversimplifying statistical information so that it is beyond recognition. On the other side, journalists might accuse statisticians of being pedantic, or of concentrating so much on the ifs and the buts that the overall message disappears. My experience of working on *More or Less* has led me to believe that, while there is some truth in both of these stereotyped positions, it is possible (and in my view extremely important) for journalists and statisticians to work well together, as long as both sides recognise how the other side sees things.

Since I am an academic statistician, addressing an audience consisting mostly of statisticians, I shall concentrate on how things look from the statistical end. Journalists are different from us in several ways, of which I think the following are the most important. As statisticians, we need to recognise these differences and work with them rather than against them.

- *Timescales*. Deadlines count for a journalist, and are typically much shorter than those that most statisticians are used to. A journalist will want to get something out by the deadline even if he or she knows it is not perfect, because it is better to get something slightly wrong out there than to get nothing out there at all because the deadline has been missed. If you can’t keep up, they will not wait for you, because they *cannot*.

- *Agenda.* A journalist will be reporting on your statistical work not because it is an excellent piece of statistical reporting, but because it has some kind of news value. That news value will depend on the context in which the journalist is working; it might be explicitly political in some way (luckily not the case with the BBC), it might be to do with the editorial policy of the publication involved, or it might be something else. But wherever it comes from, if you want to work effectively with the journalist, you have to understand what his or her agenda is, and understand that there is little or nothing you can do to change it.
- *The pressure to be personal.* It is an exaggerated cliché of journalism that every story needs to refer to a named individual; the new drug might decrease everyone's risk of dying of the disease, but the story will be that Mrs. Bloggs, aged 52, was cured by the drug. Getting a balance between this personalisation and the overall statistical message is crucial in getting a good story out of statistically-based conclusions, but most statisticians have difficulty in thinking in this way because we are trained not to.

Finally, do not forget that good journalists do have important strengths. They probably know their audience better than you do, and know how to get things across in a short space better than you do. My key message is: Don't just blame journalists for getting things wrong: help them to get things right. In my experience, they will respond, and positively.

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