

## Chapter 3b

# Radio: Going Digital

*"One must verify or expel his doubts, and convert them into the certainty of Yes or No."*  
Thomas Carlyle

**AMBITION: TO SECURE AND DELIVER A DIGITAL RADIO PLATFORM FOR THE BENEFIT OF BROADCASTERS AND LISTENERS.**

### THE IMPORTANCE OF RADIO

1. Radio's diverse and flexible nature has placed it at the heart of platform and device convergence. One of the advantages of digital audio content is that it occupies comparatively small amounts of capacity and can easily be delivered through a wide range of digital technologies. Digital radio receivers already comfortably co-exist with Digital TV and on fixed and mobile broadband platforms as a means of accessing digital audio content.
2. But as well as being a flexible medium, radio's appeal to the listener is that it is more than simply a stream of audio: it is an intimate, portable and ambient medium; and it is a very personal medium: the pictures that it forms inside our heads are different for every listener. To remain true to that breadth of appeal to listeners, we argue that radio needs a future on its own, dedicated, digital platform – DAB – alongside the many other digital paths over which it can be carried. That might not be justified if the commercial and economic cost of doing so were huge. But they are not: radio is, in most respects, bar those of the imagination, a small-scale medium. The costs of a dedicated digital platform are comparatively small – the £10s of millions rather than the £billions that television, fixed networks, mobile communications, or broadband require.
3. In economic terms the radio industry is relatively small. The total sector value in the UK is £1.1bn a year. But radio is a disproportionately important part of



the UK's cultural landscape. More than 90% of the population consume in excess of 1 billion listening hours a week. However, radio's special position is by no means assured in the future. Radio is not, and cannot be, immune to change.

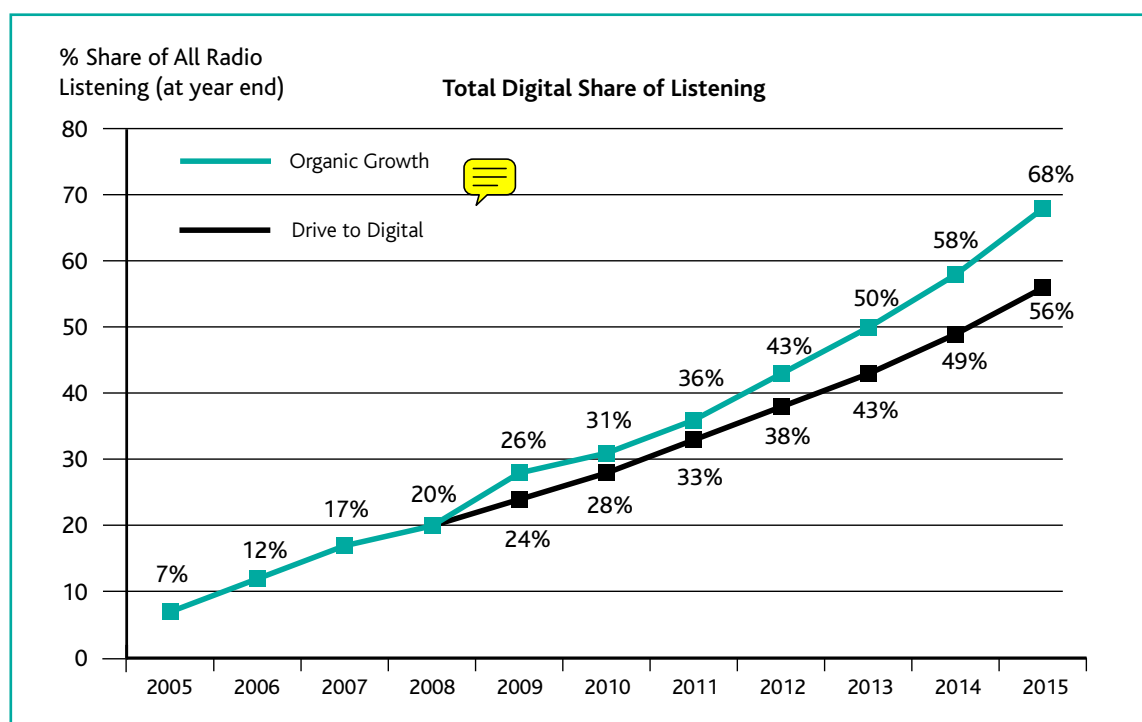
4. Today's radio industry has been shaped more by the scarcity of the analogue spectrum than by market demand. Brands are built as much on the frequencies they occupy as the characteristics of their content, while commercial revenues are primarily limited to local markets, delivered by on-air advertising and sponsorship. The current analogue radio landscape is not a bad one. Far from it, it has built a medium which is highly valued by listeners today. However, if radio is to compete in a Digital Britain then it must have greater flexibility to grow, innovate and engage with its audience, and in this the limits of analogue, as the primary distribution platform for radio, are now all too visible.
5. By comparison, digital offers a number of possibilities for radio to grow. The delivery of new content and functionality, such as scrolling text, one-to-one traffic information and listen again, can connect listeners and radio in new ways, provide gateways to online businesses and open up new revenue streams to the commercial market.
6. A dedicated digital platform for radio will require greater investment, both public and private, in new and existing infrastructures, digital-only content and marketing. But the same is true of analogue. The infrastructures which deliver analogue radio are decaying and considerable investment would be needed – up to £200m of capital expenditure – to maintain a full national FM network over the next 20 years. Nor can the radio industry risk assuming that its current content offering will remain appealing in an increasingly global market, where competition for listeners' time is much greater. Therefore, the question is how the inevitable investment is best used, and it is our belief it must be on building a radio industry fit for a digital world.
7. The biggest barrier to radio's digital future is a lack of clarity and commitment to the DAB platform.
8. Any good business will invest in its future if it understands that future and the potential returns from its investment. Consumers will adopt new technologies when they are affordable and the benefits are clear, while consumer demand will drive innovation and provide economies of scale for manufacturers.
9. We believe that Government has a pivotal role in securing this certainty. In the Interim Report we set out the details of, and our commitment to, securing a digital future for radio. In this chapter we will build on this commitment and set out our vision for the radio industry in a digital world and the mechanisms needed to deliver it. **At the heart of our vision is the delivery of a Digital Radio Upgrade programme by the end of 2015.**



## THE DIGITAL RADIO UPGRADE DECISION

10. The Digital Radio Upgrade will be implemented on a single date, which will be announced at least two years in advance. On the determined date all services carried on the national and local DAB multiplexes will cease broadcasting on analogue. At the same time, a new tier of ultra-local radio, consisting of small local commercial stations and community stations, will occupy the vacated FM spectrum. Radio services on MW will either upgrade to DAB or, if they are within the ultra-local tier, to FM. **This will deliver an upgrade from FM to DAB and from MW to FM.**
11. In the Interim Report we set out two migration criteria; these were:
- 1) When 50% of listening is to digital; and
  - 2) When national DAB coverage is comparable to FM coverage, and local DAB reaches 90% of the population and all major roads.
12. Following the Interim Digital Britain Report it has become apparent that, while many welcomed the commitment to a Digital Radio Upgrade policy, a timetable determined solely by these criteria provided little additional market certainty. While we accept this view, we believe that a timetable and criteria can co-exist providing both market clarity and protection to listeners. Therefore, included within the Digital Radio Upgrade timetable is our intention that the criteria should be met by the end of 2013.
13. The following graph shows the projected digital share of listening under two scenarios: organic growth and with a concerted drive to digital.

**Figure 6**



14. We have asked Ofcom to produce, at least once a year, a report on progress against the criteria; the first of which will be published by the end of 2010. In addition, we will monitor with Ofcom and industry the impact of the proposals set out below and the extent to which they are supporting the Digital Radio Upgrade timetable. The first of these reviews, which will include an assessment of multiplex structural changes and plans to increase coverage, will take place in Spring 2010.
15. The over-arching principles of the Digital Radio Upgrade policy are two-fold. First, to provide greater choice and functionality for listeners. Secondly, those listeners who can currently access radio should continue to do so after the Upgrade. **To ensure future policies take account of the wide range of listener needs we have invited the Consumer Expert Group, which brought together key consumer representatives to inform the Digital TV switchover process, to extend its scope to cover radio. In addition, we will conduct a full Impact Assessment, including a Cost/Benefit Analysis of Digital Radio Upgrade. The results of this Impact Assessment will help determine whether there is a case for a Digital Radio Help Scheme and, if so, what its scope might be.**

#### A DEDICATED DIGITAL PLATFORM FOR RADIO

16. In response to the Interim Report we received submissions raising questions about the best technology for a dedicated radio platform. Should it be DAB, DAB+, DMB-A or DRM?<sup>16</sup> Some others argued that all digital listening would become online.
17. We recognise that there is some force in these arguments. However, it is our view that these opinions give too much regard to technologies and too little to the real drivers of change, the listener.
18. Digital radio is not now, nor should it be in the future, a single platform medium. The Internet, mobile broadband, in particular, will have a role in radio's future. However, it is our belief that listener behaviour has already provided a compelling argument for a broadcast specific platform for radio, and for DAB, which if actively encouraged now can bring benefits to listeners and broadcasters in the immediate and longer term. We also believe that DAB, as the broadcast specific platform for radio, can co-exist alongside the other means of digital distribution because it offers specific benefits to the listener.

<sup>16</sup> DAB+ is a non-backward compliant variant of DAB which utilises newer compression techniques providing a more spectrum efficient broadcast signal. *Digital Radio Mondiale* or *DRM* was designed to use Long, Medium and Short wave bands to deliver digital radio. It broadcasts via single station transmissions, rather than a multiplex. *DMB(A)* is the audio-only technology evolving from T-DMB which was developed in Korea for the delivery of digital TV services. The WorldDMB Digital Radio Profiles specify a minimum set of requirements to be built in to different class of receivers, ensuring that they operate across Europe. Digital Radio Profile 1 requires a receiver to be able to receive DAB, DAB+ and DMB-A, alongside basic text and visual services.



### The benefits of a broadcast specific platform for radio

- Radio is fundamentally a portable medium and a broadcast specific platform is the most appropriate way to deliver mobile digital radio, particularly to cars;
- It is currently the most effective and financially viable way of delivering local radio digitally;
- Receivers are already affordable, portable and easy to use;
- It is free at the point of access for all listeners;
- A defined space for radio, where it can be master of its own destiny and have the freedom to take risks;
- Supports a UK radio broadcasting sector providing content specifically for UK listeners; and
- Increases the opportunities for UK-based independent content providers.

19. To date more than 9 million DAB receivers have been sold in the UK, and sales are continuing to grow year on year. DAB ownership is up 19% year on year, with 32% of adults now claiming to live in a DAB-enabled household. Consumer satisfaction is also high. DAB accounts for 63% of total digital listening, compared to 11% on the Internet and 17% on digital TV.
20. We are clear that at least for the foreseeable future DAB is the right technology for the UK. However, it has always been our intention that the ultra-local services which remain on FM after the Digital Radio Upgrade should only do so temporarily. To ensure, as much as possible, that any additional digital upgrade will have a minimal impact on listeners we will seek to ensure that all digital radio receivers sold in the UK meet at least the WorldDMB profile 1.<sup>17</sup> One way this could be achieved is by clear labelling such as the 'digital tick' used in Digital TV Switchover.

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## The Upgrade Path for DAB

DAB is one of a number of Digital Radio standards, which also includes DAB+, DMB-A and DRM. All of the standards in this family offer similar functionality to each other, such as slide-shows, mobile TV and Electronic Programme Guides (EPGs).

DAB represents the right dedicated digital platform for UK Radio in the lead-up to and beyond Radio Upgrade. DAB has established itself as a trusted and valued technology by UK listeners, and this is reflected in the number of DAB receivers sold. At this time only a small minority of these receivers are capable of receiving other technologies and would be rendered redundant if a change from DAB was made.

However in the future, broadcasters may want to explore the potential to upgrade existing networks to take advantage of more advanced compression technologies, particularly once the overall economics of digital are more robust. We will also need to consider the most appropriate technology for upgrading the ultra local tier of radio to digital. To prepare for any such change or additional upgrade we will work to ensure that digital radio receivers sold in the UK are at least compliant with the WorldDMB receiver profile<sup>1</sup>; which includes DAB+ and DMB-A. However, any such change will need to be run alongside DAB for at least the foreseeable future.

## THE RIGHT INFRASTRUCTURES

21. Achieving the Digital Radio Upgrade timetable will require building a DAB infrastructure which meets the needs of broadcasters, multiplex operators and listeners. This will require a significant contribution from the commercial operators and the Government welcomes the early commitments that they have given. We recognise too that Government and regulator will need to redraw the regional multiplex licence map. However, getting to the level of necessary coverage will also require a contribution from the BBC, in line with its sixth Charter Public Purpose:
 

*'helping to deliver to the public the benefit of emerging communications technologies and services, and in addition, taking a leading role in the switchover to digital television'.*
22. The Government recognises that this may impose an incremental cost, though the BBC, like other operators, is benefiting from lower transmission charges from Arqiva plc following the undertakings given to the Competition Commission on the merger of the managed transmission services; and there will be cost reductions in accelerating the ending of dual analogue and digital transmission costs nationally. Depending on how the above calculations balance out the BBC's contribution may require some residual access to the Digital Switchover Help Scheme under-spend.



23. **At a national level we will look to the BBC to begin an aggressive roll-out of its national multiplex to ensure its national digital radio services achieve coverage comparable to FM by the end of 2014.** Even though the national commercial multiplex already matches coverage of Classic FM we believe indoor reception must improve and where possible overall coverage be extended. **It is our intention that where possible the BBC and national commercial multiplex operator should work together to ensure that any new transmitters benefit both BBC and commercial multiplexes.**
24. Partnerships between the BBC and commercial multiplex operators will be even more important at a local DAB level. Further investment is required if local DAB is ever to compare with existing local FM coverage; this is especially true in parts of Scotland and Wales. However, we believe that this cost is not prohibitive.
25. In areas where the BBC's need to deliver universal access is not matched by the economic realities of the local commercial market, the BBC will need to bear a significant portion of the costs. However, the full cost cannot be left to the BBC alone. The Digital Radio Upgrade programme, alongside the proposals on co-location and licence-renewals, will offer significant cost-savings for commercial broadcasters. Some of these cost-savings must support future transmitter investment by the local multiplex providers. We will work with the commercial radio sector, BBC, transmission providers and Ofcom to agree a plan for the extension and improvement of local DAB coverage, and where the cost would most appropriately fall, in time for the first progress review in Spring 2010.
26. In addition to increasing DAB coverage, we are proposing new measures to address some of the failings in the existing multiplex framework. This includes encouraging, where appropriate, adjoining multiplexes to merge and extending existing multiplexes into currently un-served areas rather than awarding new licences. **These proposals will be supported by new legislation granting Ofcom powers to alter multiplex licences which agree to merge.** These powers will also allow the existing regional multiplexes to consolidate and extend to form a second national multiplex. We urge the regional operators to begin the commercial negotiations and discussions with Ofcom needed to achieve this.
27. Where solutions can be found we are **prepared to extend multiplex operators' licences until 2030.** We will also consider with Ofcom the case for delaying the implementation of AIP on DAB multiplexes until after the Digital Radio Upgrade is completed. In order to ensure any changes complement our timetable these powers will be time limited and we will make our decision on whether to offer such rewards after the Spring 2010 review.



## CONTENT AND SERVICES ON THE DEDICATED DIGITAL PLATFORM

28. The main challenge to a successful Digital Radio Upgrade is not converting the avid radio listener, who has in many cases already embraced DAB, but the occasional radio listener. Recent research showed that 52% of listeners had not changed their main household radio to DAB because they were “quite happy with my existing radio.” If listeners are to adopt DAB they must be convinced it offers significant benefits over analogue.
29. DAB should deliver new niche services, such as a dedicated jazz station, and gain better value from existing content, such as live coverage of Premiership football or uninterrupted coverage from music festivals. The radio industry has already begun to agree a pan-industry approach to new digital content and we urge them to implement any changes as soon as possible.
30. However, the average analogue TV home receives four or five TV stations, while an analogue radio household already receives three or four times that number. Therefore, DAB must become more than just a platform for new stations if it is to attract new audiences – it must also offer more services.
31. Functionality and interactivity must become central to the DAB experience. EPGs, slideshows, downloading music, as well as pause and rewinding live radio must be developed and brought to market on a large scale. Broadcasters and manufacturers must seek to develop and implement digitally delivered in-car content, such as traffic and travel information.
32. DAB receivers must also be attractive and affordable. The price of DAB receivers has already fallen considerably and we welcome manufacturers’ commitment for sub-£20 sets in the next two years. We also urge manufacturers to look closely at the market opportunities for DAB to ‘FM re-broadcasters’, a set-top box solution for analogue radio, as a means of allowing existing analogue radios to receive DAB in the future.
33. In addition, we will work closely with manufacturers to examine the environmental impact of the Digital Radio Upgrade. The energy consumption of digital radios is now broadly comparable to that of analogue, and some DAB radios consume less energy than an energy saving light bulb, but cheaper digital equipment has yet to achieve parity. In addition, we must ensure the environmental impact of any significant analogue radio disposal is minimised through a responsible disposal and recycling strategy. Of course current legislation already exists in the shape of the Waste Electrical and Electronic Equipment (WEEE) Regulations to deal with the recycling of Consumer Electronics materials.



### Digital radio in vehicles: a five point programme

In-car listening represents a significant portion of total radio listening (around 20%). It is important that listeners have the confidence they will continue to have access to their favourite stations in their cars after the Radio Upgrade. Therefore, we are proposing the following measures to support take-up of digital radio in new and existing vehicles sold in the UK. We will:

1. Work with manufacturers so that vehicles sold with a radio are digitally enabled by the end of 2013;
  2. Support a common logo for digital radios and ensure that non-DAB radios, and their limitations, are clearly labelled;
  3. Encourage the development of portable digital converters, such as the Pure Highway, and the integration of DAB into other vehicle devices such as Sat-Navs;
  4. Promote the introduction of more sophisticated traffic information via DAB and comprehensive marketing by broadcasters; and
  5. Work with our European partners, including the European Commission, to develop a common European approach to digital radio. We have approached the European Commission to encourage them to lead a Community-wide effort. Such an approach, as was adopted in digital television, could provide certainty well in advance for vehicle manufacturers and those providing in-car devices to bring the unit price of conversion down.
34. Earlier this year we established the Digital Radio Delivery Group, which brought together the key radio stakeholders to inform our policy-making. We welcome the radio broadcasters' offer to take forward the work of this group in the coming months. However, as the Digital Radio Upgrade date becomes more apparent we will need to examine what body is best placed to deliver the Digital Radio Upgrade programme.

### REGULATION

35. Following the publication of the Interim Report we commissioned the former CEO of GMG Radio, John Myers, to conduct a review of the current localness regulations. The report, entitled 'An Independent Review of the Rules Governing Local Content of Commercial Radio' ('Localness Review') was published in April.



### Key recommendations in the Localness Review

- A move from input to output regulation for small local commercial radio stations;
- Introduction of a 'Local Impact Test' for local commercial stations with a coverage area of less than 700,000 adults;
- Relax rules concerning the location of a local station, and the number of local hours broadcast, for stations with a coverage area of less than 700,000 adults;
- An increase to the minimum number of local news bulletins broadcast each day by all local radio stations;
- The regulator to allow the merging of two or more co-owned local licences;
- Extension of all local commercial radio licences until 2020 and all multiplex licences until 2030;
- Removal of radio specific and cross-media ownership rules; and
- Change in the current legislation to allow community radio stations to be licensed in areas served by a commercial radio station with coverage of 50,000 adults or less.

36. The Localness Review was clear in its findings that localness will be more, rather than less, important in the future, becoming a station's Unique Selling Point in a much more competitive marketplace. We agree with this view and will continue to ensure that locally made content, relevant to local listeners, is an essential characteristic of UK commercial radio. The challenge for Government and Ofcom is to devise a regulatory regime which secures the provision of local content but that equally reflects the economic realities of local media markets.
37. We agree this regime should include a greater focus on the output, or more precisely the impact of local stations. We recognise there are challenges in devising such a regulatory structure, as it must give clarity both to broadcasters and be enforceable by Ofcom. However, this difficulty should not be allowed to undermine the principle. **We will work with Ofcom to agree a two-year pilot of a new output focused regulatory regime. This will consider the impact stations have on the communities they serve, perhaps by an agreed set of obligations proposed by stations themselves, much in the same way community radio stations do. If successful this new regulatory mechanism could be rolled out more widely.**



38. For those stations not participating in the pilot we are proposing, as recommended in the Localness Review, a reduction in **the number of locally-produced hours in exchange for an enhanced commitment to regular and updated local news**. It will be for Ofcom to determine how such changes should be applied.
39. In addition, we are supporting the recommendation for greater flexibility to co-locate services. While we remain of the view that local radio should be locally-made we accept that a re-definition of what constitutes local can provide economies of scale to broadcasters without significantly affecting the quality of service to audiences. For this reason we have asked Ofcom to consult on a new map of mini-regions which balances the potential economic benefits but also the needs and expectations of listeners. We will make an amendment to the existing legislation to support this change.

### A new tier of ultra-local radio

In this chapter we have hinted at our intention to create a new tier of ultra-local radio which will occupy the FM spectrum vacated by the services migrating to DAB. We believe that these stations, rather than becoming the poor relation of digital, will have a key role in radio's continued contribution to the UK's cultural life and local democratic debate.

Local commercial radio and community radio, in particular, have consistently proved the value of radio generated by and for local communities. It is these characteristics which will differentiate this new tier of ultra-local radio from the much larger services on DAB. This is not to say that we intend to blur the lines between commercial and community stations – they both have separate roles and functions – but rather that both will have a common focus, to enriching and informing the communities they serve.

We will work with Ofcom and the radio industry in the period leading-up to the Digital Radio Upgrade to agree a clear vision for this new tier of radio; a vision which will have at its core the needs and expectation of local communities.

40. While we are working towards a new tier of ultra-local radio we believe the rules which keep the commercial and community radio distinct from each other remain generally appropriate. However, if the community radio sector is to grow and prepare itself for a more fundamental role in the future radio landscape it must also be given the certainty to invest in its future.



41. **Alongside this report we have published a short consultation seeking views on proposals for a new licence renewal regime for community radio. In addition, we are proposing the removal of the 50% funding limit from any one source and the restriction preventing a station being licensed in an area overlapping with a small commercial service. We are also extending our commitment to promoting best practice within the community sector and encouraging self-sustainability by allocating a small portion of the Community Radio Fund to support the work of the industry body, the Community Media Association.**
42. To further support the Digital Radio Upgrade timetable and to refocus the regulatory regime for a digital, rather than analogue, world we are proposing changes to the existing licensing process.
43. A successful and co-ordinated implementation of the Digital Radio Upgrade will require a common-end date for all licences, particularly if the FM spectrum is to be re-planned to accommodate the current MW services. For this reason **we will introduce new legislation which will insert a two-year termination clause into all new licences. This will be triggered by the Government when the exact timetable for Digital Radio Upgrade can be better determined.**
44. We also recognise that the investment needed to achieve the Digital Radio Upgrade timetable will on the whole be made by the existing radio companies. We are also aware that our timetable will mean that many new licences will run only for three or four years. For these reasons **we propose to grant Ofcom new powers to extend the licence period of all national and local licences, broadcasting on DAB, for up to a further seven years. However, we will keep this decision under review and if by the end of 2013 it is clear the Digital Upgrade timetable will not be achieved we will use the powers, set out above, to terminate licences and the existing licensing regimes will apply.**
45. Lastly and in line with the recommendations in the Localness Review, we are proposing some additional flexibility to allow analogue stations to merge to form new DAB stations. We envisage this will happen in two ways. First, two or more small stations merge to form a single larger service, which could then be carried on DAB. Alternatively, this flexibility will allow two or more regional stations, as defined by Ofcom, to align services to form a single UK or nation's service. To support this we will **amend the rules under which Ofcom grant analogue licence renewals to ensure that regional stations which do become national DAB stations do not lose their current or future renewal.**



## CONCLUSIONS

46. It is because we recognise that importance of radio to listeners that we believe the challenges of building a UK radio sector fit for a Digital Britain must be overcome. We believe the proposals set out above will have a significant impact on setting and achieving radio's future, particularly leading up to the Digital Radio Upgrade. However, whilst we can provide clarity of direction it must be for the broadcasters, manufacturers and transmission providers to deliver digital radio as a compelling proposition for listeners.



## CASE STUDY

### GP: Dr Louise Irvine

Dr Louise Irvine, a veteran inner-London family doctor, began using digital technology in the early 1990s. The surgery where she is now partner was one of the country's first adopters of EMIS, a software system developed by GPs to store and record patient details electronically.

"It has evolved over the years, and we are now using it in every consultation to code problems, store test results, search patient records and deploy a 'call and recall' systems to proactively care for our population," she says. "There are no more written records."

The electronic database is now also used for all immunisations, and prescriptions as well as referral letters, X-rays, blood tests and scan results.

Given the socially mixed nature of her practice area, Dr Irvine says that many patients do not use or have access to new media. Many remain suspicious of it. So initiatives to modernise the referral system do not always work, particularly among older people and those with English as a second language.

Hence, Dr Irvine often encounters patient resistance to the electronic "choose and book" system for healthcare, in which doctors can access a database of hospitals with the shortest waiting lists and then offer patients a choice. "The patients invariably ask me to choose and don't even want to consider different options."

So general practice, at least in parts of inner London, is relying on a technology hybrid. Surgeries are using digital data to enhance record keeping, access test results, update the latest research, make prescriptions and improve appointment schedules. But when it comes to seeking advice, Dr Irvine says patients still value and prefer the personal touch.

