Chapter 7
The Future of Public Services: Personalised Learning

by
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Charles Leadbeater argues that personalisation has the potential to reorganise the way public goods and services are created and delivered. Such reorganisation requires exploration of different approaches to personalisation and this chapter explores these: bespoke service, mass customisation, and mass-personalisation. Personalisation through participation allows users a more direct say in the way the service they use is designed, planned, delivered and evaluated. This involves the following steps: *intimate consultation*: *expanded choice*: *enhanced voice*: *partnership provision*: *advocacy*: *co-production*: *funding*. Personalised learning assumes that learners should be actively engaged in setting their own targets, devising their own learning plans and goals, choosing from among a range of different ways to learn. This implies far-reaching changes in the role of professionals and schools. But the biggest challenge is what it means for inequality: the more that services become personalised, the more that public resources will have to be skewed towards the least well-off.

Personalisation is a potent but highly contested idea that could be as influential as privatisation was in the 1980s and 1990s in reshaping public provision around the world. Privatisation started out as a Conservative policy in 1984, at the height of neo-liberalism but has since been widely adopted by governments around the world of different political persuasions. Personalisation could have a similar impact and reach because it could provide a new organising logic for public provision.

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Privatisation was a simple idea: putting public assets into private ownership would create more powerful incentives for managers to deliver greater efficiency and innovation. In reality, the conditions to make privatisation work are far more complex, including competitive markets and corporate cultures. Personalisation appears just as simple: by putting users at the heart of services, enabling them to become participants in the design and delivery, so services will be more effective by mobilising millions of people as co-producers of the public goods they value. Making personalisation a reality will be as complex and contingent as privatisation.

Personalisation has the potential to reorganise the way we create public goods and deliver public services. Yet unlocking that potential requires exploration of what personalisation could mean.

Approaches to personalisation

At the moment personalisation seems to mean providing better access and some limited say for users over how existing services are provided in largely traditional ways. This "shallow" personalisation offers modest customisation of mass-produced, standardised services to partially adapt them to user needs. "Deep" personalisation would give users a far greater role – and also far greater responsibilities – for designing solutions from the ground up. Personalisation could just mean more 24-7 call centres, booked appointments and timely access to standardised services or at the other extreme it could mean promoting greater capacity for self-management and self-organisation. Personalisation could be a sustaining innovation designed to make existing systems more personalised, or it could be a disruptive innovation designed to put the users in the driving seat as designers and paymasters of services. It could be a programme to apply a lick of new paint to fading public services, or it could be the harbinger of entirely new organisational logic. It is worth briefly exploring three different but potentially complementary ideas of personalised learning.

Bespoke service

The first is that personalised services are bespoke, tailored to the needs of individual clients. When we go to the hairdresser, the accountant or the psychoanalyst we get a personalised service, in the sense that the professional provider applies their knowledge to solve the clients' problems. In an ideal world, education should be like that. Learning is vital to who we are and what we become. It provides us with access to the knowledge, skills and crucially the cultural capital which give us our distinctive sense of ourselves. Creating a programme of learning for someone is not unlike the

task of building a complex highly sensitive product like a Formula One racing car. What can we learn from that?

At the Formula One BAR racing team in the English Cotswolds, for example, the complexity of the task undertaken by the 400 staff is staggering. It takes 15 months to develop a racing car for a 16-week season. That means next season's car is already in development while the current car is being raced. And racing itself is a constant process of innovation and adaptation. A car is made up of about 3 000 components. Each of these will be redesigned three times in the course of a season. The BAR machine shop has to make 10 000 components and keep track of them. About 400 of these components need special attention because they are safety critical. After each outing they need to be tested for cracking or attrition. Each season the team makes 125 cars, each one slightly different from the other. Every week two or three cars are being tested as another is in development for the following season and another three will be on the way to a race. Racing, production and innovation are all rolled into a tightly knit, continuous process.

Coordinating such a complex process is a nightmare. Just keeping track of parts is difficult enough. The 25 section leaders used to meet two to three times a week, to make sure everyone was abreast of what was needed. The meetings used to last three hours and still they made mistakes. The process at BAR has become far more manageable, thanks to two changes to the process. First, they have installed a state-of-the-art information system which allows each part to be tracked through the system. Anyone can access the system. It is not actively coordinated from the centre; instead it operates according to a few simple rules: people making parts are expected to take responsibility for checking when they are needed rather than waiting to be told what to do. They have to respond to demand. The second ingredient is the team shares a simple purpose. Everyone working at BAR is passionate about racing. They are bonded together as a team. Simple rules, combined with a simple purpose (and good information), allow the horrendously complex mix of production and innovation to be combined.

What would it take for a school to resemble BAR racing, capable of dealing with that degree of complexity, innovation and tailoring? It would require good information, sound discipline and shared purpose and an ability to shift resources and change track midstream. Of course BAR has advantages: lots of resources and a highly skilled team of craftsmen and designers. They can test new innovations thoroughly before trying them out. There are limits to how far the BAR approach could be applied to a school. But in principle rather than churning out standardised products, personalised learning in schools might be more like BAR.

Indeed one reason why more affluent parents might be leaving the school system in favour of home schooling – in the US in particular – is to provide more tailored, bespoke services for their children. Even in countries where full-home schooling is uncommon, extra curricular coaching, teaching, courses, and self-motivated learning are likely to become more common, as parents seek to provide elements of personalised services for their children as an adjunct to the standard school system. Personalisation as tailored services is likely to grow as an alternative to standardised education systems (home schooling) and as a complement to them (out-of-school-hours programmes). Nevertheless it seems likely that the school system itself, collective provision of one kind or another, will remain at the core of education for the foreseeable future.

Mass customisation

That means a second approach to personalisation will be mass customisation, in which users are allowed a degree of choice over how to mix and blend standardised components and modules to create a learning programme more suited to their goals. Again, there are good models for this from the private sector. Leading manufacturers such as Dell and Toyota, for example, have well honed just-in-time production systems, which allow users a say in putting together the product mix they want. This is personalisation as choice among a limited range of commodity options provided by a limited range of producers. Such a system already seems to be developing in higher education in some countries, such as the UK, with the introduction of student grants and the creation of a more open market, in which different institutions and programmes can easily be compared. The implication is that personalisation means mass customisation, learners become consumers.

Consumer choice is a good thing in markets that trade goods and services where property rights are relatively clear, products are relatively easy to compare, consumers can gather information easily and there are many buyers and sellers of services. Consumer choice sends signals about what people want so that producers should organise themselves around it. In theory at least, this means that resources can be reallocated to reflect consumer demand rather than reflecting what producers decide should be made. Consumers who are well-informed, able to express clear preferences, and easily exercise those choices in the market are the arbiters of value.

Providing users with greater choice would shake up the public sector by unlocking user aspirations and ambitions. In some services it makes sense to put consumers directly in charge of commissioning the service they want, especially where consumers have far greater knowledge than professionals

about what they need and what might be available. To make that a reality in schooling would mean financial flows following choices made by parents and children and much better information for users to compare differences in performance between schools. Capacity would need to shift in response to demand: organisations that became more successful and popular would need to be able to increase their available capacity to meet demand, otherwise queues would just lengthen.

Consumer choice would be a challenge to the power of professionals and providers to allocate resources to services. But the extent to which public services can be driven by consumer choice also has limits. Consumerism works where goods and services can be packaged and priced. Yet education cannot always be neatly packaged in the way that stereos, cars and computers can be. Many public services are fuzzy, difficult to define and pin down, for example the value of community safety. The qualities of these public goods cannot be assessed and encapsulated in the way that the features of a computer can be described in technical language.

Consumerism is based, at least in theory, on individual preferences. But in education it is often difficult to separate one individual's preferences from another's. Parents choose schools in part based on what other parents do. Simplistic models of consumer choice fail to take into account these social and environmental factors. Consumerism works when consumers have good information about service performance. But in the public sector most information, and the ability to interpret it, is in the hands of professionals and staff. Users rarely have all the information they need – about possible costs and benefits of different forms of health treatment for example – to make a fully informed decision. As choice expands so the costs of searching across competing offers rise. As diversity expands so it becomes more difficult to compare different services. Choice imposes costs on consumers as well as benefits.

Market consumerism applied to public services could threaten the principles of equity on which public services are based. Public service goods like health and education are essential to the quality of people's lives and their ability to play a full role in society. These foundational goods should not be distributed by ability to pay but according to need.

Further extension of choice – mass customisation – seems inevitable in school systems coping with diverse needs and demands. But given the difficulties involved, choice cannot provide a sole organising principle for a reform strategy. Users of public services want to be treated well, as customers, but that does not necessarily mean they want to become consumers, shopping around for the best deal or even threatening to do so. We need to find a way to make public services responsive without turning

the public sector into a shopping mall. We need a way for users to be treated with respect and consideration when they cannot exercise the sanction of taking their business to another supplier. Moreover even when people have choice that does not mean they are necessarily more satisfied with the outcome they get. I have a wide choice of banks to go to but that does not mean I get a better service from the bank I am already at. Consumers do not just want choice; they want attention to their particular needs. They want voice and support as well as choice among commodities. They want to be treated with respect and care, not just efficient transactions.

Mass-personalisation

That is where a third idea of personalisation comes in: personalisation as participation and co-creation of value. The standard account of value creation is that value is created through transactions. A company creates a product which it owns and then exchanges that product for money. The exchange anoints the product with value and the price measures that value. This transactional view of value creation can work, in amended form in the public sector as well, with services delivered free at the point of delivery. Much of traditional education has been based on this transactional model of value creation: teachers download their knowledge to children and in the transfer value is created and measured by qualifications and exam results.

But this transactional account is only one version of how value is created. Another is that it is often co-created between users and producers: it is not a transactional process but an interactive and participatory one. The underlying idea here is that services are created by scripts. Our models of production and consumption are still dominated by industrially produced goods – cars, stereos, washing machines – the physical and technical characteristic of which can be easily defined and compared. Shopping around for a washing machine in the basement of a department store involves comparing fairly standardised goods. Our images of what it means to be a consumer are still dominated by this shopping mall idea of choosing between different physical goods.

This model is inappropriate for many services. True, more services are now standardised: witness telephone banking or fast food restaurants. But services that generate personal satisfaction or solve personal problems – whether public or private – are far more difficult to define in quantitative terms. It is difficult to shop around for something that cannot be defined easily and to be effective has to be designed with you in mind.

Services should be seen as scripts. All services are delivered according to a script, which directs the parts played by the actors involved. The script for eating a meal in a restaurant is: reserve table; arrive at restaurant and be

shown to table; examine menu; place order with waiter; food delivered to table; eat; ask for bill; pay; leave. Service innovation comes from rewriting scripts like this so the action unfolds in a different way. A fast-food restaurant runs on a different script: read menu, place order for food, pay, take food to table yourself, eat, clear away your debris, leave. In a full-service restaurant you eat and then pay, and do very little else. In a fast food restaurant you pay and then eat, and contribute some of your labour by taking the food to the table and clearing away your mess.

Most service innovation comes from producers and users simultaneously adopting a new script, playing out new and complementary roles in the story. It is very difficult for service producers to innovate unless the users also adopt the new roles in the script. Increasingly innovation comes from consumers deciding to write new roles in their script for themselves and insisting that the producers respond. That is the story of the rise of SMS messaging. Mobile phone companies had a script for how SMS messaging would be used: in emergencies. But teenage users of mobile phones invented a new script and with it a new service and new uses for mobile phones. The producers have had to respond to the script that was collectively written by the users. Service innovation is invariably a joint production combining producers and consumers.

Often radical innovation involves bringing together ideas from quite different scripts: the telephone service script (used in banking) and health care knowledge, when brought together created a new script for accessing health advice in the form of NHS Direct. The old script was: phone GP; make appointment; visit surgery. Now there is a new script, which starts with phone call to NHS Direct asking for help. Many of the scripts followed by public services – such as schooling – have not changed for decades: enter classroom; sit at desk; listen to teacher; read from blackboard; write in exercise book; hand in work; run to playground. The scripts for user engagement with the police, health services and libraries, are largely written by professionals, producers and regulators, not by users. The users are expected to fit into the roles given to them by the script handed down from on high.

There are now emerging new organisational models for co-creation on a mass basis: mass personalisation as opposed to mass customisation. Take the Sims online gaming community. The Sims, one of the most ubiquitous and successful computer games ever created, is a prime example of the power of shared authorship. The Sims is a localised version of Sim City, which allows people to design a city and watch it grow, prosper, decline and collapse. The Sims translates this to the neighbourhood and the family. The players can create their own family home and watch the inhabitants sleep,

eat, argue, marry, make love, fight and die: a bit like a computer game version of Big Brother.

Before the online version of the game was made available the designers released tools that allowed players to create their own content for the game: furniture, accessories, even architectural styles for houses. By the time the game was launched at least 50 pro-am (innovative, committed, networked amateurs working to professional standards) web sites were already up and running offering these specially crafted items that players could integrate into their own games. Within a year of release there were hundreds of independent content creators, more than 200 fan web sites displaying more than half a million collectable items available to the game's millions of players. More than 90% of the content in the Sims game is now created by a pro-am sector of the Sims playing community. One pro-am site that gives people tools to make their own edgings to put around rugs has had more than 400 000 downloads.

The Sims is successful not just because it is a cleverly designed product, devised by its creators and shipped to a waiting audience. It is also a set of tools – which can be used by competent games players not just hard-core geeks – and it is a shared space in which this collaborative activity takes place. Knowledge about the Sims is not just held in the heads of its original designers who have codified and shipped that know-how to a waiting audience. The Sims community is a distributed, bottom-up, self-organising body of knowledge, in which players are constantly training one another and innovating. Mastering a computer game used to be an individualistic activity undertaken by boys in the dark of their bedrooms. Now it's a mass team sport which depends on intense collaboration.

There is a sound commercial logic behind this open approach to innovation amongst games companies. Open, mass innovation allows many innovations to continue in parallel once a game has been released amongst a distributed community of pro-am players. They also spread good ideas like apostles. Games publishers then get access to a large, unpaid R&D workforce. If a game sells 1 million copies and just 1% of the players are pro-am developers, this means that an R&D team of 10 000 people is working on further developments. Their contributions make the game more interesting and that in turn extends the game's life, constantly refreshing it. As players are then likely to play the game for longer, they are more likely to tell other gamers about their obsession.

This is a model of personalisation as community co-creation of value. Some of the most potent new organisational models – E-Bay, Linux, on-line games – are emerging from organisations that harness the power of

communities of co-creation, in which users are also teachers, co-contributors, critics and product developers.

Personalisation through participation

Personalisation through participation makes the connection between the individual and the collective by allowing users a more direct, informed and creative say in rewriting the script by which the service they use is designed, planned, delivered and evaluated. This invariably involves the following steps:

- *Intimate consultation*: professionals working with clients to help unlock their needs, preferences and aspirations, through an extended dialogue.

- *Expanded choice*: giving users greater choice over the mix of ways in which their needs might be met, to assemble solutions around the needs of the user rather than limiting provision to what the institution in question – the school, hospital, social services department – offers.

- *Enhanced voice*: expanded choice should help to further unlock the user's voice. Making comparisons between alternatives helps people to articulate their preferences. This is very difficult to do from a blank sheet of paper. Choice helps to unlock voice.

- *Partnership provision*: it is only possible to assemble solutions personalised to individual need if services work in partnership. An institution – for example a secondary school – should be a gateway to a range of learning offers provided not just by the school but by other local schools, companies, colleges and distance learning programmes. Institutions should be gateways to networks of public provision.

- *Advocacy*: professionals should act as advocates for users, helping them to navigate their way through the system. That means clients having a continuing relationship with professionals who take an interest in their case, rather than users engaging in a series of disconnected transactions with disconnected services.

- *Co-production*: users who are more involved in shaping the service they receive should be expected to become more active and responsible in helping to deliver the service: involved patients are more likely to attend clinics, students to do homework. Personalisation should create more involved, responsible users.

- *Funding*: should follow the choices that users make and in some cases – direct payments to disabled people to assemble their own care packages

– funding should be put in the hands of users themselves, to buy services with the advice of professionals.

Users should not be utterly dependent upon the judgements of professionals; they can question, challenge and deliberate with them. Nor are users mere consumers, choosing between different packages offered to them: they should be more intimately involved in shaping and even co-producing the service they want. Through participation users have greater voice in shaping the service but this is exercised where it counts – where services are designed and delivered. Service users can only change their role in the service script, however, if professionals alter theirs. Professionals have to become advisers, advocates, solutions assemblers, brokers. The role of professionals in participative services is often not to provide solutions directly, but to help clients find the best way to solve their problems themselves.

Personalisation will make sense most in services which are face to face and based on long-term relationships, and which demand direct engagement between professionals and users where the user can play a significant role in shaping the service. This kind of deep personalisation will also make sense in areas where users can increasingly self-provide with only partial reliance on professionals. The ultimate version of personalisation is self-provision and self-creation, not just a personalised service.

Personalised learning should provide children with a greater repertoire of possible scripts for how their education could unfold. At the core there might still be a common script – the basic curriculum – but that script could branch out in many different ways, to have many different styles and endings. The foundation would be to encourage children, from an early age and across all backgrounds, to become more involved in making decisions about what they would like to learn and how. The more aware people are of what makes them learn, the more effective their learning is likely to be.

Young people are far more avid and aware consumers than they used to be. This culture is bound to have an effect on how they view education. Many secondary school age children now have mobile phones for which they can get 24/7 telephone support, different price plans, equipment and service packages. They are used to a world in which they can search for, download and share digital music on the Internet. Children have quite different kinds of aptitude and intelligence, which need to be developed in quite different ways. The school system already recognises that some children have "special" needs and so need personalised kinds of learning environments and teaching styles. But up to now the system as a whole has been unable to deliver this flexibility consistently for all those who need it, or to integrate children with special needs into the "mainstream".

Personalised learning would extend this principle, already implicit in the system, to all children. Equity cannot be handed down from on high in a society with a democratic culture in which people want a say in shaping their lives. Comprehensives promoted equity through common standards. "Personalised learning" allows individual interpretations of the goals and value of education. Children should be able to tell their own story of what they have learned, how and why, as well as being able to reel off their qualifications, the formal hurdles they have overcome. Their personal involvement in making choices about what they learn, how and what targets they set for themselves, would turn them into more active learners.

Personalised learning as mass personalisation rather than mass customisation does not apply market thinking to education. It is not designed to turn children and parents into consumers of education. The aim is to promote personal development through self-realisation, self-enhancement and self-development. The child/learner should be seen as active, responsible and self-motivated, a co-author of the script which determines how education is delivered.

Personalised learning starts from the premise that learners should be actively, continually engaged in setting their own targets, devising their own learning plans and goals, choosing from among a range of different ways to learn. New approaches to assessment, for example "assessment for learning", help learners work out how effective their learning was, what worked well or badly for them. That allows students to adjust and adapt their learning strategies. Traditional assessment tests the extent of someone's knowledge at the end of a period of learning and provides the learner with little information about which learning strategies were more effective. Personalised learning would only work if students were engaged in continual, self-critical assessment of their talents, performance, learning strategies and goals.

Personalised learning would allow and encourage learning to take place during holidays and outside normal schools hours. It would make opportunities to learn available whenever the learner wanted to take them up. Children would be able to take time out for other activities that might add to their learning: voluntary work, drama and sports. This flexibility might be based on the principle of "earned autonomy". Children who clearly do well and are self motivated become more self regulating. Students could have a choice – under earned autonomy – about where learning takes place: at home; at an individual school; moving among a network of schools; virtually through ICT in school, at home or in a third space such as a library; *in situ* at a workplace or voluntary group.

What mass-personalisation means for schools and teachers?

A mass, personalised learning service would be revolutionary. By giving learners a growing voice, their aspirations and ambitions would become central to the way services were organised. At the moment the heart of the system are its institutions and professions – teachers and schools – that lay down what education is and how it should proceed. Studies of performance management across a wide range of organisational fields show that productivity invariably rises when people have a role in setting and thus owning their targets. The same is true for learning.

This implies far-reaching changes in the role of professionals and schools. Schools would become solution-assemblers, helping children get access to the mix and range of learning resources they need, both virtual and face-to-face. Schools would have to form networks and federations which shared resources and centres of excellence. An individual school in the network would become a gateway to these shared resources. What does this mean for funding of education? Should each school get a set sum per child? Should the money follow the student? Should every student have an amount they can spend on learning materials from outside the school? All these options have complications. Yet if money does not flow with student choices then the system will not be truly responding to learner demand.

The biggest challenge to the personalised learning agenda is what it means for inequality. Take the case of personalised learning. Middle class homes are often far more conducive to personalised learning than many poorer homes that have less space, fewer computers and books. Thus the more that personalised learning promotes self-provisioning, the more it could widen inequalities. As more learning would be done in the pupil's own time, so the state would have to work harder to equalise the conditions for learning outside school. Personalised learning will promote equity only if the resources for individualised, home-based learning are also more equally available. Personalised learning encourages us to focus on the totality of resources available for learning, at home and at school. Linking schools to family services, nurseries and children's' trusts will be vital to better prepare children from all backgrounds to take advantage of opportunities for personalised learning.

Middle class children do not just have more resources for learning; they and their parents probably have more time and capacity to make choices about education. Choices are made in a social context of peer and family influences. If these mitigate against learning – for example if parents had a negative experience of school, or elder siblings left school with few qualifications – then providing kids from poor, chaotic or disrupted families with *more* choice may not encourage them to consider *different* choices.

Culturally and emotionally nourished children will see huge opportunities in personalised education; those who do not come from these backgrounds may not recognise the choices available to them.

The more that services become personalised, then, the more that public resources will have to be skewed towards the least well off to equalise opportunities. Well-educated and informed consumers are already well prepared to take advantage of choice. The least well educated, informed and ambitious will need additional help to exploit the opportunities personalisation makes available to them.

Conclusion

A chasm has opened up between people and large organisations, both public and private. Many people's experience of being consumers is that they are put on hold, kept at arms length, not told the whole story, tricked by the fine print, redirected to a website and treated like a number. We feel detached from large organisations public and private that serve us in increasingly impersonal ways. While choice among commodity goods and services has expanded, the scope for personalised, human service, tailored to one's needs, seems to have declined.

This gap between large organisations and the intricacy of people's everyday expectations and aspirations is a breeding ground for a growing sense of frustration and resentment, with private services as much as public. This chasm should also be the breeding ground for innovation and experimentation. That is what personalisation is about: finding innovative ways to reconnect people to the institutions that serve them, in this case the education system.

The debate about the future of public services is pitched into this chasm between the way public institutions work and how users experience them. Targets, league tables and inspection regimes may have improved aspects of performance in public services. Yet the cost has been to make public services seem more machine-like, more like a production line producing standardised goods. The aim of personalised learning is not to provide the self-interested with the self-gratification of consumerism but to build a sense of self-actualisation, self-realisation and self-enhancement. The more people are involved in making decisions about services, the more knowledgeable they become, and the more responsible and committed they become to making sure the service is a success.

Across a range of activities it is increasingly clear that the state cannot deliver collective solutions from on high. It is too cumbersome and distant. The state can only help create public goods – like better education and

health – by encouraging them to emerge from within society. This is true for health, education, community safety, neighbourhood renewal and a range of other public goods.

Public policy is most effective when it harnesses and shapes private activity rather than supplanting it, allowing the public good to emerge from within civil society. Personalised services are one point in a range of different ways in which public and private work together to create the public good. The state's job will be to orchestrate and enable that process, not to pretend it can provide or deliver all the solutions in the form of discrete services.

The challenge then is not just to personalise services but to shift from a model in which the centre controls, initiates, plans, instructs, serves to one in which the centre governs through promoting collaborative, critical and honest self-evaluation and self-improvement. Reforms to public services should drive in this direction promoting new sources of information for users, creating new interfaces like NHS Direct for them to access services and get advice, providing professionals with the skills and support to become brokers and advisers as well as solutions providers, changing funding regimes to give users more influence over how money is spent on the service they consumer, giving users a right to voice in the design of the services they use.

A state that is committed to protecting the private freedom must also continuously shape how people use their freedom in the name of the wider public good. Personalisation through participation is part of the solution to this dilemma of how to rule through freedom, to allow the public good to be created within society rather than relying on the state to deliver it.

Table of Contents