

## Chapter 8

# Personalisation: Getting the Questions Right

by

Tom Bentley and Riel Miller\*

Personalisation, argue the authors, promises to overcome the uneven results of educational delivery and link innovation in the public sector to the broader transformations in OECD societies. It is not purely a function of choice between alternative supply channels, but of shaping and combining different learning resources and sources of support around personal progression. Bentley and Miller discuss the personalisation divides – demand/supply, public/private. They describe entry points to system-wide change through different questions and issues: universal? diverse? transparent?; learning and teaching – the role of the active learner; learning beyond the classroom – the role of communities; reshaping roles and the workforce; organisation and coordination. The system-wide shift that personalisation could help to stimulate, they conclude, has the potential to be as profound as any transition that public education systems have undertaken before, but this requires both a compelling political narrative and a strategy for distributed change.

### The goal

“High excellence, high equity” is the phrase used by David Miliband and David Hopkins to capture the challenge for the next phases of education reform. While universal education has long been an aspiration in the industrialised world, its delivery has also reflected and sometimes entrenched existing patterns of socio-economic inequality. Personalisation may be a way to overcome the uneven results of educational delivery and

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link innovation in the public sector to the broader transformations taking place in OECD societies.

This is why personalisation, as a new strategic focus for public sector reform, merits careful study. As an approach to making good on the promise of universal education personalisation carries a dual ambition. One is to build an agenda to *make personalised learning a practical reality* through strategic innovation and leadership. The second, on which the first ultimately depends, is to discover the links and innovations that integrate educational reform with the broader context of *public services, governance and long term change in society*.

Political strategies reflect the evolving perceptions and aspirations of citizens, and the limits and abilities of our current institutions. Most political promises of the last generation have sought to improve the institutions we have; better schools, hospitals, pensions and so on. But lasting, transformative change also depends on the emergence of new institutions and practices that harness deeper social forces. This chapter, and the book it is part of, explore how and where personalisation might fit.

Education is a particularly useful proving ground for the potential of personalisation policies because of its political salience, but also because most people believe that learning will be a key ingredient of a successful post-industrial society or economy. Schooling systems are already in flux, and the expectations and practices of teachers, pupils and parents are also moving fast. Reforms which make personalised learning a practical reality for all learners, where ever and when ever they learn, could have a much broader impact. This agenda should be seen as an attempt to understand how our collective efforts can better serve our collective aspirations.

## Recent movement

The standards and benchmarking movements of the 1990s reflected a determination to overcome the legacy of low expectations and class-based inequality in education, with a special emphasis on achieving the basics in order to equip most children with the competencies and knowledge they needed to access the full school curriculum.

Despite the emphasis on consistency and informed prescription, however, these policies always co-existed with movement towards a more diverse schooling system. The emphasis on diversity – through *specialisation, curriculum flexibility* and a more *prominent role for choice* – reflects both reality and aspiration; the reality of a more diverse society with a growing range of learner talents, and the expectation that the pressure for responsiveness from individual learners and families will continue to grow.

The attempt to combine this responsiveness with shared public settings which maintain norms of fairness, contribution and reciprocity is important for the future of all public services.

Personalisation is not purely a function of choice between alternative supply channels, therefore, but of shaping and combining many different learning resources and sources of support around personal progression. It has radical consequences for many aspects of our current system. But those consequences are uncharted, precisely because they depend on the interaction of many different factors.

### **Personalisation divides: demand-side/supply-side, public/private**

Personalisation means that a good or service reflects the needs and attributes of the individual. There are many different ways to meet this objective. The predominant way in OECD countries is to wait for a producer of the good or service to adapt the offer. More often than not this has meant a passive role for the consumer who, though sovereign in their “right to choose”, still selects from a fixed set of options.

Following this path towards personalisation would mean supplier institutions defining and categorising new options. But there is an alternative path; one which *integrates* the invention and production of personalised output, so that the user (learner) is directly involved in both the design and the creation of the learning experience and outcome. Both of these paths are currently being pursued. For example schools are attempting to become more specialised, while learners (and their parents) try to detail their needs and expectations more clearly.

Another key dividing line is between public and private. For instance, personalisation efforts in the public sector have typically unfolded without many of the pressures and adaptations typical of private markets. Some argue that public sector institutions, lacking competitive mechanisms of success, failure, investment and disinvestment, will find it difficult to personalise. The idea of personalised learning may also challenge the power of those systems, including schooling, that define and certify what is considered legitimate knowledge. Demand-led personalisation therefore threatens some forms of institutional self-preservation.

These public-private tensions compound the challenge of distinguishing between the different forces that drive personalisation on the supply- and demand-sides. But they also create a very wide range of possible outcomes or future forms for education systems. Public education cannot simply be reduced to consumer flexibility, but personalisation creates new

opportunities to examine the boundaries of shared knowledge and social norms and their role in shaping the broader public realm.

### **A range of personalisation prospects**

One ironic outcome of private sector firms' experiences with "mass-customisation" has been the response of consumers to the immense range of choices they were offered. Much to the surprise of the managers who led the huge investments necessary to offer mass-customisation, in most cases consumers selected from within a narrow range. For instance two renowned manufacturers, Cannondale, a specialty bicycle manufacturer, and Motorola, the electronics firm, geared up in the 1990s to provide consumers with millions of options. Cannondale was able to configure over 8 million different frame and colour variations for its bicycles. Motorola also succeeded in making its Bravo pagers available in millions of possible shapes and colours (Wind and Rangaswamy 1999). Today, both companies sell an impressive range of products through traditional retail channels, neither offers millions of variations on demand.

Personalisation of education might generate the same outcome; if expectations of educational experience remain static, the broadening of options by schools may not in itself lead to more diverse forms of learning. Instead, personalised education might offer a "just in time" approach which put together separate modules to reflect the needs of a particular individual learner, but left the underlying modules of learning, curriculum content and so on as standard and "factory produced". A personalised system offers a bigger, more diverse catalogue to the informed shopper. Arguably, this is best practice for schools and companies today. What other possibilities can we imagine?

Imagine a catalogue that consists of items you invent, design and conceive yourself and the supplier is more of an assistant who connects up with you momentarily through a vast, continuously reconfigured network. This does not just build on the century old model of the mail order catalogue if it takes us beyond the static and passive position of the consumer. In this post-industrial catalogue, which the "producer-consumer" or *prosumer* can publish as their personalised version others might then build on, the crucial ingredient is the value added by the individual themselves. Their capacity to invent, design and then co-produce is what distinguishes this version of personalisation from mass-customisation.

The prospects for this type of personalisation do not seem so far fetched for people who are using the Internet to stitch together and produce their own news, entertainment and markets. Blogs, e-bay type auction spaces, web portals that aggregate information based on user generated profiles, all

of these developments hint at an alternative, more joined-up or coincident relationship between supply and demand (see for example [www.demosgreenhuse.co.uk](http://www.demosgreenhuse.co.uk)).

Imagine an Internet portal that you own and control and that contains your health records, financial assets, work achievements, clothing designs, furniture plans, music mixes, multiple levels of networks for: friends, acquaintances, colleagues, entertainment, debate, local action, global voting. In this personal gateway to the world everything is organised according to your needs rather than how institutions package, own or credential things. This version of future post-industrial personalisation moves past the need for fixed categories and product boundaries through which to exercise choice, and builds on a fluid, self-organising model which is capable of generating more spontaneous responses to articulated need. Learning is at its core because learning is the source of personalisation. Only it is not the learning related to meeting the requirements of a test set by someone else, but learning that is motivated, acquired and expressed through personalisation.

Current ambitions for reform, public or private, do not target the prospect of a post-industrial world. More common is the strong opposition elicited by even modest hints at alternative approaches, like the emerging “open source” and “copy left” movements. That is why it is useful, as part of an effort to understand why and how to advance personalisation in education, to consider the prospect of versions that go beyond extrapolations rooted in the industrial past.

## **Institutional constraints**

As we have argued elsewhere, our school systems offer a trade-off between different goods (Bentley, 1998). They are not always designed for optimal learning, but they are mostly reliable and secure. They are not accessible for all learners at all times, but during the 20<sup>th</sup> century they represented a cost-effective way to get almost all children through a basic educational threshold. They have not always generated deep understanding and love of learning, but they have trained generations of young people in the rules and rhythms of industrial organisation.

Most teachers, parents and learners would surely agree that a system which responds to personal need, motivation and progression is desirable. Most would also be able to point to some aspect of the current system – good teaching, individual learning profiles, choices at key moments – which personalise the experience. In that sense, we can see glimpses of the future in our current practices. But how might they combine? Is it possible to imagine a system capable of personalising the learning experience and progression of *every* student? How are such capabilities developed?

But, in important respects, our current systems of

- institutional structure,
- funding,
- regulation,
- measurement,
- entitlement and
- political choice

set limits on the extent to which personalisation can be universalised.

### **Entry points to system-wide change**

One challenge for the evolution of the debate, then, is to identify how a strategy can unlock the potential for greater personalisation by getting different components of the system to work together more productively, while also generating innovations that could change it more radically over time. We can already spell out many of the ingredients of personalised learning or public services, at least in the short term, but we do not yet fully know how to combine them in a successful recipe.

The rest of this paper aims to identify questions about the ingredients of system-wide change; not just what they are, but also how they occur, as a contribution to a fuller discussion of personalisation policies.

#### ***Universal?***

The first major challenge concerns how to ensure that personalisation is not dominated by those who are better off and most able to dominate selective or voluntary opportunities. Entitlement has provided the justification for various strong features of the current system, including the compulsory nature of schooling itself and the rigidities of the curriculum, or at least those parts considered essential. This begs the question: if personalised learning is to become universal, how can it engage most effectively with those who have most to gain from it?

Another way of expressing this question is: How should an entitlement to personalised learning be expressed? How could it be guaranteed? For example, the public debate over the use of standards and numerical targets has developed in the UK into a broader discussion of how quality standards and qualitative experiences can form part of successful improvement strategies, alongside the hard, easily measured objectives.

An entitlement to personalised learning might not take the form of a guaranteed school place or age-specific numeracy level, but of an allocation of resources, of access to an advocate, or of a direct voice and responsibility in certain decisions. A universal institutional experience, in other words, might over time become universal participation in a far more fluid system which combines formal and informal learning around a personal pathway.

### ***Diverse?***

If personalisation is a reflection of social and learner diversity, then what forms of diversity should a personalised system encompass? At the moment, diversity is being introduced into the school system in several ways, but the most powerful – specialisation – assumes *subject* diversity while leaving every other aspect of schooling and its organisation in a standard form.

Diversity can be expressed in many other ways:

- The diversity of organisations involved in providing learning opportunities, their location and form.
- The diversity of learners and their intelligence profiles.
- The range of choice available to each student or family at a given time.
- The range of practices or possible responses each provider is capable of – the range of learning possibilities within a given organisation.

But the extent to which diversity reflects genuine differences in learning and progression remains a matter of contention.

So, for example, what changes to our qualification and award systems are needed to reflect what we are now learning about the range of human intelligence and the forms of attainment that a 21<sup>st</sup> century society will value? What kind of assessment methods and infrastructures are needed to recognise a more diverse range of learning activities? How might digitisation of assessment records and procedures play a role here?

### ***Transparent? The role of data***

Personalising the learning experience depends on teachers and learners being able to tailor provision to progression. Doing so for all students depends on the quality of information with which to make such decisions. Good teachers will constantly be making intuitive and on-the-spot decisions about how to adjust pace, content, questions and rewards according to differences among the learners in front of them. But again, the prospect of universal personalisation goes far beyond this use of information.

The English school system has already seen the introduction of individual student profiles which allow personalised data collection, comparison of attainment against benchmarks, individual teacher planning and evaluation, and more detailed record keeping by schools. But how do the possibilities of a personalised system impact on the nature of data collection and management by other agencies? At what point should relevant learner information be compiled? How does student information contribute to school performance information and officially maintained datasets? We know from past experience the powerful shaping effect that performance information has on organisational behaviour.

We would suggest that pursuing the skills of independent learner effectiveness and developing strategies for formative assessment present the most immediate opportunities to move towards personalisation.

These questions, though, only address the framework of existing institutions. Transparency and access to a wider infrastructure of learning rests on issues such privacy and ownership of personal data, and the ability to validate or authenticate one's own identity in order to access learning resources or collaborate with others.

One way to picture such a capability is to imagine being able to use existing educational facilities as entry points to much wider networks of flexible, specialist, provision and participation. What expectations and connections would need to be in place for this to be an everyday reality? How do different kinds of learning demand and achievement attain visibility and reliable evaluation alongside our current forms of measurement?

### ***Learning and teaching: the role of the active learner***

The debate on personalisation also reflects the radical change that our understanding of learning has already gone through over the last generation. Our historical assumptions about the fixed, general nature of intelligence and learning ability are gradually giving way to a far more fluid and fiercely contested view. We know that the years *before* compulsory education are probably most influential in determining prospects for formal attainment and perhaps also appetite for learning. We know that there are multiple forms of intelligence, and that they can be stimulated and developed in a wide range of ways.

We are beginning to learn the effects and influences of different cognitive processes – brain function – on the habits of mind and ability to learn. Yet little of this knowledge has been applied systematically to the practices of teaching or educational management (Demos, 2005). How far should this be part of a move towards personalisation? How confident can we be about the findings of cognitive science?



Beyond this knowledge base lies a series of fundamental questions about pedagogy and the role of the learner. Personalisation must surely revolve around teaching and learning, but the implication of a system organised around the most powerful learning experiences and the tailored progression of each student is a different role, and voice, for the learner in the whole process. In a personalised system, *engagement* acquires a fundamental importance alongside attainment and progression. It does not replace knowledge or understanding, but the active involvement, shared ownership, motivation and self-discipline of the learner becomes a foundation on which the whole system operates.

Such a system might create very different patterns of engagement:

- Starting in the early years education might focus more explicitly on developing a range of abilities and creating foundations for successful later learning.
- Family and formal learning might become more closely integrated.
- Learner records and self assessment might become a more formative and explicit part of educational planning.
- Learning how to learn might become an explicit objective of public education, integrated into other aspects of the curriculum.
- Crucial junctions, or choice points in an educational career might be supported by a range of information, guidance and collaboration going far beyond the current institutional frameworks.

### ***Learning beyond the classroom: the role of communities***

Partnership and support beyond the classroom play a crucial role in the current vision of personalisation. From extended learning provision to home-school partnership, mentoring to work-based learning, a range of community resources act as powerful supports for educational attainment. It may also be that learning in authentic and voluntary settings, through relationships which are not formalised in the same manner as those of the school, adds force to the motivation and depth of the learning experience.

We know how much factors such as parental involvement, peer group, community expectations and home-based learning resources make a difference to educational achievement. Many different ways to harness them creatively have opened up over the last decade. How would they be involved systematically in a personalised education framework?

These issues go far beyond education in their importance. All public services strive to create public goods which enable people to live their own lives better – all are reinforced by voluntary behaviours which strengthen

those goods: exercise and diet for health, nurture and care for children and elders, and so on. The spaces between formal public provision and private individuals – expressed through voluntary networks, mutual partnerships, public conversations and so on – are very often the spaces through which new institutions or large scale practices can emerge. Education currently has numerous cross cutting arrangements of this kind – as do other sectors. Developing and evaluating the new forms of governance required to create value from these lateral partnerships is therefore a priority in many systems.

### *Reshaping roles and workforce*

Effective schooling has revolved for at least a generation around a highly coordinated and disciplined model of workforce organisation; a single head teacher providing integrated leadership, responsibilities and subjects broken into hierarchical departments, a strong team ethos and a system of continuous professional development and incremental improvement. In recent years, this familiar structure has begun to give way at the edges, as a result of both policy and of unplanned innovation. The rigid distinction between teachers as professionals and other learning support workers has eroded: para-professional roles are now familiar in classrooms, and a host of other support and advisory roles has sprung up.

But how might personalised learning reshape the organisational pattern of schooling and other related agencies? Personalised progression, for example, might require a stronger connection between individual student and a professional responsible for their progression. Team teaching might generate a new range of specialist roles and combinations, giving rise to more flexible strategies for learning and teaching across classes.

The role of assessment and curriculum specialists might also change radically with greater emphasis on personal progression across a range of learning contexts, and greater investment in knitting together knowledge from separate subjects and disciplines. The advisory, or “brokerage” role in a personalised system could also be far more prominent, but might involve significant challenge to the current range of professional advisors and support workers potentially available to young people. Responsibility for simplicity, or integration, might become as important as any other specialist knowledge.

Again, this complex set of issues foreshadows an even deeper set of changes across the public service workforce and beyond. They include:

- The growth of flexible employment and new forms of work-life integration.

- Challenges to the established professional model and new kinds of public “knowledge work”, using and sharing knowledge in radically different ways to help create value for individuals.
- New career pathways and methods to assess and validate people’s competencies.
- Reshaping of labour and knowledge markets to reflect new methods of trading time and competencies, especially using electronic networks (see for example Rowan, 1997).

### ***Organisation and coordination***

Finally, a more flexible system built around personalised learning pathways would also present new challenges and opportunities to the organisation of education itself. The current shape of our schools reflects a clear organisation structure built on powerful, enduring assumptions about learning. The evolution of a regulatory infrastructure which strengthens command and control, manages performance, enforces accountability measures and allocates resources reflects the strength of hierarchical governance structures under certain conditions.

Personalised learning, as it focuses attention on what within the schooling package is most powerful and effective, will generate demands for more responsive and adaptive organisational systems. Knowledge and information will need to move faster and more reliably across different locations and organisational units. Learners and professionals will be more mobile, and may carry far greater volumes of data with them through digital and wireless technology. Flexible patterns of provision will be demanded by the new combinations of modular courses, apprenticeship learning and intensive, specialist learning.

As is already beginning to happen, groups of local providers might share common resources and offer each other access to their specialisms, in order to broaden the range of curriculum choice available. Learner pathways might be planned and mapped across groups of institutions in the same way that “clinical pathways” are now understood by leading edge healthcare providers. A pathway-based approach to progression might also enrol a learner in a local system through a base institution, but not insist on age-group progress at an equal pace in all areas of learning.

## **Conclusion**

The broad questions raised in this paper will be answered not just by analysis and imagination, but by innovation and experimentation. Just as economic systems have moved over the last generation towards more

explicit strategies for learning from innovation, embedding such learning in every aspect of the production process, so public and social systems are becoming preoccupied with how to harness, adapt and integrate the outcomes of innovation into their efforts to create public value.

The system-wide shift that personalisation could help to stimulate has the potential to be as profound as any transition that public education systems have undertaken before. To have such an effect, however, requires both a compelling political narrative and a strategy for distributed change. As Charles Leadbeater argues, personalisation has the potential to become a “disruptive” idea because, once absorbed by citizens, it can take on a life of its own, fuelling demand for responsive services and new learning opportunities (2004). The job of politics is to frame this kind of vision in a way that allows it to take root, and connects it with other historical goals which only politics can achieve.

A “shallow” version of personalisation which re-shuffled the existing building blocks of public service production and presented them “just in time” to the user is perfectly possible to envisage. Indeed, certain sectors in certain OECD countries may be already there. A deeper set of changes, however, is clearly occurring around us, and forcing our governance institutions to contemplate new distributions of power, authority and legitimacy. A more transformative agenda for personalisation will place itself firmly amid these changes and seek to shape them for the better.

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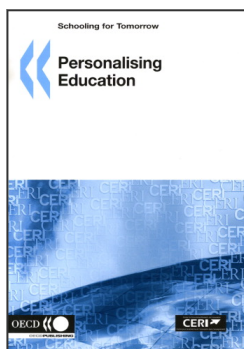
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