

PERSONALISED LEARNING
FOR THE LEARNING
PERSON

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PERSONALISED LEARNING FOR THE LEARNING PERSON

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INVESTOR IN PEOPLE

*In loving memory of Liz Lynch, the most wonderful
person I ever met.*

*I hope this book inspires others in the way she inspired me.
Dedicated to all those whose capabilities are yet to be fully
nurtured, recognised or realised;
and to all those who believe, like Liz, in the goodness and
wonder within us all.*

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BIOGRAPHY

Rupert Ward is a former Special Adviser to the Royal Household and Project Lead for the Inspiring Digital Enterprise Award (iDEA), one of the world's most successful free educational technologies. He is also a UK National Teaching Fellow and Principal Fellow of the Higher Education Academy. He co-authored the University of Huddersfield's highly successful assessment and feedback strategy, and has been part of teams recognised nationally seven times in seven years in areas including enterprise, customer service excellence, student experience (National Acquisitions Group Award for Excellence and Guardian Award for Student Experience) and assessment and feedback (Highly Commended, ICT Innovation of the Year, THE Leadership & Management Awards). An avid learner, he is currently completing his eighth post-graduate qualification across a range of disciplines. Rupert is Professor of Learning Innovation and Associate Dean (International) within the School of Computing and Engineering at the University of Huddersfield. He is a member of the British Computer Society Accreditation Committee, a former elected board member of the UK Council for Professors and Heads of Computing, a Fellow of the British Computer Society, a Chartered Engineer, a Chartered Manager and a Chartered IT Professional.

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FOREWORD

We live in a world where the kind of things that are easy to teach and test have also become easy to digitise and automate. The industrial age taught us how to educate second-class robots, people who learn in standardised settings and become good at repeating what we tell them. In this age of accelerations, we need to think harder about what makes us first-class humans, how we complement, not substitute, the artificial intelligence we have created in our computers and how we build a culture that facilitates learning, unlearning and re-learning throughout life. This implies making learning systems less like industrial farms and more like a zoo, bringing out the features that make each person special rather than developing standardised ways of thinking that technology will make redundant. It is about getting from numbers, to names to needs, and becoming better at respecting the identity, context and culture of every learner. That is what this book on personalised learning is about.

And it conveys an important imperative. These days, algorithms behind social media are sorting us into groups of like-minded individuals. They create virtual bubbles that amplify our views and leave us insulated from divergent perspectives; they homogenise opinions and polarise our societies. Tomorrow's learning systems will need to help learners to think for themselves and join others, with empathy, in work

and citizenship. They need to help learners develop a strong sense of right and wrong, a sensitivity to the claims that others make on us, and a grasp of the limits on individual and collective action. At work, at home and in the community, people will need a deep understanding of how others live, in different cultures and traditions, and how others think, whether as scientists or artists. And whatever tasks machines may be taking over from humans at work, the demands on our knowledge and skills to contribute meaningfully to social and civic life will keep rising.

The growing complexity of modern living for individuals, communities and societies, suggests that the solutions to our problems will also be complex: in a structurally imbalanced world, the imperative of reconciling diverse perspectives and interests, in local settings with often global implications, will require people to become adept in handling tensions, dilemmas and trade-offs. Striking a balance between competing demands – equity and freedom, autonomy and community, innovation and continuity, efficiency and democratic process – will rarely lead to an either/or choice or even a single solution. Individuals will need to think in a more integrated way that recognises interconnections. Empathy, adaptability and trust are underpinning this.

Creativity in problem-solving requires the capacity to consider the future consequences of one's actions, evaluate risk and reward, and assume accountability for the products of one's work. This suggests a sense of responsibility, and of moral and intellectual maturity, with which we can reflect upon and evaluate our actions in the light of experiences and personal and societal goals.

The conventional approach in education is often to break problems down into manageable bits and pieces and then to teach learners how to solve these bits and pieces. But modern societies create value by synthesising different fields of

knowledge, making connections between ideas that previously seemed unrelated. That requires being familiar with and receptive to knowledge in other fields.

In today's education systems, students typically learn individually and at the end of the school year, we certify their individual achievements. But the more interdependent the world becomes, the more we need great collaborators and orchestrators. Innovation is now rarely the product of individuals working in isolation, but rather an outcome of how we mobilise, share and integrate knowledge. The well-being of societies depends increasingly on people's capacity to take collective action. Learning systems therefore need to become better at helping students learn to develop an awareness of the pluralism of modern life. That means teaching and rewarding collaboration as well as individual academic achievement, enabling students both to think for themselves, and to act for and with others. Personalised learning and collaborative learning are two sides of the same coin.

The challenge is that developing these cognitive, social and emotional capabilities requires a very different approach to learning and teaching and a different calibre of teachers. Where teaching is about imparting prefabricated knowledge, education systems can afford low teacher quality. And when teacher quality is low, governments tend to tell their teachers exactly what to do and exactly how they want it done, using an industrial organisation of work to get the results they want. The challenge is to make teaching a profession of advanced knowledge workers who work with a high level of professional autonomy and within a collaborative culture.

But such people will not work as exchangeable widgets in education systems organised as Taylorist workplaces that rely mainly on administrative forms of accountability, and bureaucratic command-and-control systems to direct their work. To attract the people they need, modern learning

systems need to transform the type of work organisation to one in which professional norms of control replace bureaucratic and administrative forms of control. The past was about received wisdom; the future is about user-generated wisdom.

Instruction in the past was subject-based; instruction in the future needs to be more project-based, building experiences that help students think across the boundaries of subject matter disciplines. The past was hierarchical; the future is collaborative, recognising both teachers and students as resources and co-creators.

In the past, different students were taught in similar ways. Now learning systems need to embrace diversity with differentiated approaches to learning. The goals of the past were standardisation and compliance, with students educated in age cohorts, following the same standard curriculum, all assessed at the same time. The future is about building instruction from students' passions and capacities, helping students personalise their learning and assessments in ways that foster engagement and talent. It's about encouraging students to be ingenious.

Learning systems need to better recognise that individuals learn differently, and in different ways at different stages of their lives. They need to create new ways of providing education that take learning to the learner and that are most conducive to students' progress. Learning is not a place, but an activity.

In the past, schools were technological islands, with technology often limited to supporting existing practices, and students outpacing schools in their adoption and consumption of technology. Future learning systems need to use the potential of technologies to liberate learning from past conventions and connect learners in new and powerful ways, with sources of knowledge, with innovative applications and with one another.

The past was also divided – with teachers and content divided by subjects and students separated by expectations of their future career prospects; with schools designed to keep students inside, and the rest of the world outside; with a lack of engagement with families and a reluctance to partner with other schools. The future needs to be integrated – with an emphasis on the inter-relation of subjects and the integration of students. It also needs to be connected, so that learning is closely related to real-world contexts and contemporary issues, and open to the rich resources in the community. Effective learning environments are constantly creating synergies and finding new ways to enhance professional, social and cultural capital with others. They do that with families and communities, with higher education, with businesses and especially with other learning environments.

None of this is easy, and none of this can be done overnight. But it must be done and the task is not about making the impossible possible, but about making the possible attainable.

Andreas Schleicher

Director for Education and Skills, and Special Advisor on Education Policy to the Secretary-General at the Organisation for Economic Co-operation and Development (OECD), Paris.

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