Transformation and change in learning ecosystems

The chapter overview draws especially on the 2015 publication *Schooling Redesigned: Towards Innovative Learning Systems*. It presents the case for re-thinking learning ecosystems, describes features of innovation strategies and initiatives, offers the means for depicting networked learning ecosystems, and presents a set of scenarios for the future of the teaching profession. Tool 4.1 gives a method for those with an innovation strategy/initiative to interrogate the theory of action behind it and how it is expected to lead to the desired innovation. Tool 4.2 offers a set of broad indicators to interrogate progress by an education system towards being innovative. Tool 4.3 gives stakeholders the means of mapping dynamic learning systems, bringing together vertical levels and horizontal relationships. Tool 4.4 uses four scenarios to invite users to think of who will be teaching in 2030, the desirability of different futures, and how to move towards preferred scenarios.

4.1 Re-thinking learning ecosystems

At the core of the learning systems for young people are schools and the systems that bind them together. More and more, these are interwoven with a rich and growing set of other forms of teaching and learning, some outside the formal system and some as hybrids of the formal and the non-formal (Zitter and Hoeve, 2012). Even within formal schooling, there are countless networks and connections that spread well outside designated roles as educators.

Growing and sustaining widespread innovative learning needs to be located in an understanding of this complexity. It has been addressed in the OECD/CERI work on governing complex systems (see OECD, 2016), which identified the need for new approaches:

> Traditional approaches, which often focus on questions of top-down versus bottom-up initiatives or levels of decentralisation, are too narrow to effectively address the rapidly evolving and sprawling ecosystems that are modern educational systems (Snyder, 2013; p. 6).

Governments nevertheless remain central to the change process because they are pivotal in determining the overall structure and distribution of learning opportunities and in generating coherence of aims, infrastructure and accountability. They have a privileged role in regulating, incentivising and accelerating change.

Too often, we think of the government role very mechanically, using metaphors such as "levers" or "scale-up" or base our thinking on assumptions of policy omnipotence within well-defined "systems". Now, more organic metaphors and models are needed.

Re-thinking levels

In ILE, with the focus on learning and innovation, we looked beyond the conventional categories of educational organisation divided into the classroom level, the school level, the district level and the system level as these are defined in terms of institutions, not learning. Instead, we distinguish:

- The *micro* level – learning resources and spaces, teaching and learning episodes, pedagogical relationships.
- The more holistic level of the *learning environment*, integrating the micro elements around organic units which share a pedagogical core and learning leadership. Learning environments need not be schools, though many of the ILE examples have been.
- The *meso* level, comprised of the many compounds of networks, communities, chains and initiatives. This level is largely invisible in formal system charts and yet it is critical for growing and sustaining innovative learning.
- The *meta* level is a summary umbrella for all the learning environments and meso-level arrangements within whichever system boundaries make sense for the question in hand.

4.2 Features of the ILE strategies and initiatives

Our ILE project brought together different strategies and initiatives for growing innovative learning, both for analysis and so as to engage systems (countries, regions, networks etc.) directly in the project (OECD, 2015).

Though the submitted cases represent only a tiny sample from the world of educational innovation, they covered widely different approaches and served to reinforce the key importance of the *meso* level. Some were organised by the ministry of education while in others the ministry played only a supporting role or else the initiative was led from elsewhere altogether, such as by foundations. Some built capacity while others were about establishing the platforms for a range of stakeholders to build their own capacity and share knowledge and practice. Some addressed particular groups of learners or had a specific content focus such as well-being or futures competence.

In *Schooling Redesigned*, we focused on three dimensions as a set of lenses through which to analyse networks and innovation:

• *Learning focused:* How learning focused is the network and how far might it be characterised as innovative?

• *The means of innovation "contagion":* The nature of the diffusion within networks and how they spread learning innovation.

• *Formal/non-formal balance:* How informally networked are formal learning environments, how visible is the non-formal and do the formal and non-formal combine in new "hybrids"?

We look at each briefly in this section.

The nature of the learning focus

Though the strategies reported in the ILE study were already convinced of the need to grow innovative learning, they nevertheless differ in the extent to which they are explicitly learning-focused, the particular learning aims they are seeking to achieve and how they are working to put learning at the centre. Several of them make a point of identifying the learning challenge at the outset, rather than this being assumed to be known, and invite learners and their families into this process. Variants around 21st century competence define the learning aims of many initiatives, but we also had examples defined in terms of traditional cultural knowledge and values.

Different methods to diffuse the innovations

The featured strategies rely on different methods to diffuse innovation. Many of them may be found in the single "On the Move" programme in Finland. Networking and sharing information, as well as national and regional seminars, are primary

channels. Good practices are shared through seminars, brochures and the website, and the programme includes in-service teacher education. The communication strategy includes the website, social media, newsletters and publications. It has been well covered in national, regional and local media, both printed and on TV and radio.

Sometimes diffusion happens when certain sites take on system leadership roles as beacons in clusters. Qualifications may assist the diffusion process through developing particular forms of expertise among practitioners and creating a community of expert practice. A further vehicle for diffusion may be through regular (often annual) high-profile events serving both as the means of communication and to strengthen the networking.

Horizontality through different combinations of the formal and non-formal

Different mixes of the formal and non-formal may be involved in initiatives to grow and sustain innovative learning. *Schooling Redesigned* distinguishes four types depending on this mix:

- formal initiatives that bring schools into clusters and networks, combining schools that otherwise would be working in isolation

- voluntary networks of schools and school-based communities of practice

- schools working increasingly with different community and non-formal bodies, whether in individual partnerships or wider clusters

- purely non-formal initiatives not operating through school institutions at all.

In our study, the cases tend to be more at the formal end of the spectrum because the education authorities were often involved in selecting them, but another project methodology would have brought a different mix.

4.3 Depicting networked learning ecosystems

What might a networked system look like at the "meta" level? Figure 4.1 combines the formal/non-formal axis with that of vertical levels to characterise in simplified terms learning systems that are more or less networked.

The right-hand column in the figures is the hierarchy of formal educational levels, (which includes some mandated school networks); the middle column is "hybrid" with schools and educators coming together in unregulated ways and non-formal players teaming up with schools, teachers and districts; while the left-hand column represents the purely non-formal players and programmes operating right outside the school system.
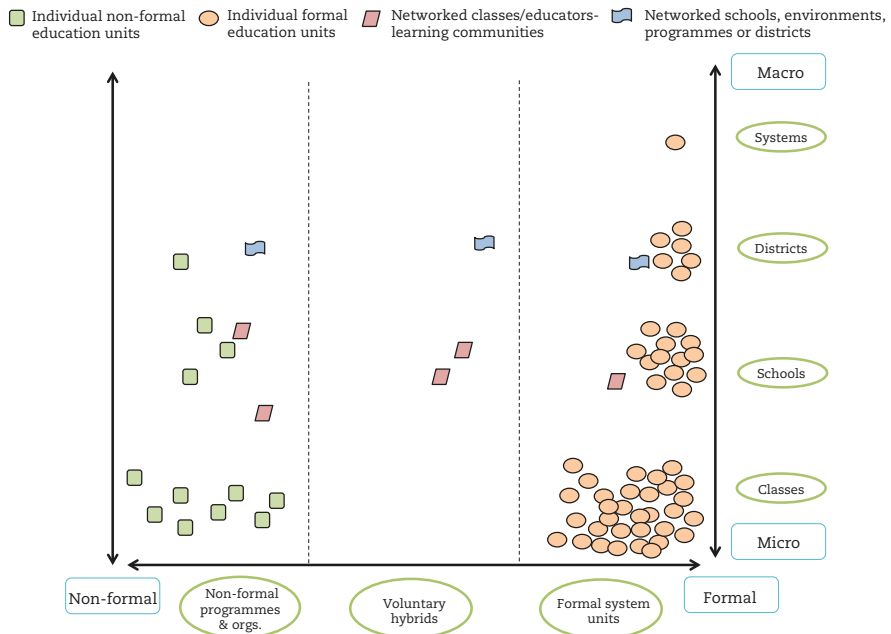
Figure 4.1. **A weakly-connected learning system**

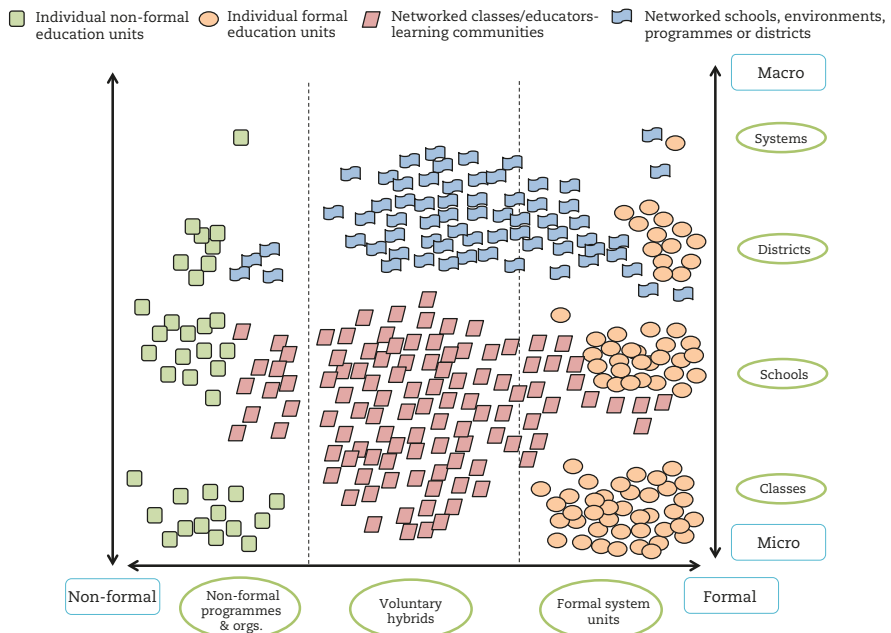Figure 4.2. **A strongly-connected learning system**

Figure 4.1 represents a hypothetical weakly-networked learning system. It is dominated by the right-hand vertical school system with few networks and cross-school communities and very little in the middle "hybrid" column. The networked learning system in Figure 4.2 depicts a very significant increase in the number of groups, organisations and programmes devoted to learning. The networked system is fuller horizontally and vertically; there are more non-formal providers, too, some of these forming their own networks totally outside the formal system, though often joining with those from schools to occupy the "hybrid" space in the middle.

What might fully-fledged "7+3 systems" look like?

What might learning systems exhibiting high adherence to the ILE framework look like? To help guide policy and practice, it would be helpful to be able to measure development towards "7+3", and this would call for a new generation of indicators focused on innovation. A first list was offered in *Schooling Redesigned*.

High engagement: In a system characterised by "7+3", there would be a cultural shift in attitudes and learning engagement, whether referring to young people or to the adults involved. There would be high levels of engagement, schools and classrooms would "buzz" and there would be very active learner voice and agency.

Collaborative professionalism: There would be a matching shift in educator views, knowledge and practice. Teachers and other educators would spend significant time engaged in professional discussion about learning strategies in general, within the organisation and in relation to individual learners. They would actively engage in learning leadership, innovation and professional collaboration, including team teaching.

Rich pedagogies, approaches and sites: There would be a rich mix and diversity of pedagogical practices, with personalised approaches and formative assessment highly visible. There will have been extensive efforts to create inter-disciplinary knowledge around key concepts and the development of corresponding learning materials and pedagogies. There would be a wide variety of sites for learning beyond conventional classrooms, more or less integrated into school organisations.

Widespread use of social media and ICT: There would be widespread use of social media and ICT, as learners engage in research and exchange around learning projects and as educators connect with each other, with learners and with other partners and networks. Teaching, learning and pedagogy will often be "tech-rich".

A dominant culture of reflection and evaluative thinking: There would be flourishing research and development around pedagogical expertise. There would be a dominant culture of evaluative thinking, using evidence formatively to inform design strategies. Information systems would be highly developed.

Prominent partnerships: Partners who previously might have been regarded as external will have become integral to learning systems, importantly including families, community bodies, enterprises, cultural institutions, universities, foundations and other learning environments. They would be active in shared learning leadership.

Flourishing assessment metrics and related accountability systems: A flourishing diversity of metrics will be in use to assess learning, reflecting the diverse aims of learning environments and wider systems to include mastery, understanding, the capacity to transfer knowledge, curiosity, creativity, teamwork and persistence. Quality assurance systems, including inspection, recognise successful learner engagement and the exercise of voice.

High levels of collaboration and networking: High levels of collaboration and engagement with partners, including other learning environments, will mean there will be flourishing, dense meso-level arrangements across districts, networks, chains and communities of practice. In a global world, it is common practice that such collaborative partnerships extend beyond national boundaries.

4.4 The future of the teaching profession

Scenarios are tools for helping to shape futures by stimulating reflection and action about the desirable and undesirable, the probable and the unlikely (OECD, 2006). They are not predictions and would never emerge in pure form. A recently-developed scenario set aims to stimulate reflection on the shape of future learning systems by asking who educators will be and where they will be located in, say, 2030 (Istance and Mackay, 2014). Will they be school-based or in many diverse educational locations for schooling? Will only teachers teach or will there be a high diversity of educators? Combining the extreme ends of these two dimensions gives the following four scenarios.

Scenario 1: Teachers in educational monopolies

Schools and teachers both dominate in this scenario. Teaching and learning are predominantly organised within places called schools, and though informal learning may take place at home or through media, there is very little non-formal organised teaching and learning. Certification and accreditation through education authorities are monopolistic, with rigorous control to ensure that no-one is establishing unauthorised educational programmes.

Scenario 2: Specialist professionals as hubs in schools

Schools also dominate in this scenario but this time with a wide range of adults and professionals engaged in teaching, such as volunteers, family members, community experts and specialists. Teachers, as those with specialist professional knowledge and certified status, are at the centre of the educational workforce and exercise strong professional leadership.

Scenario 3: A system of licensed flexible expertise

Instead of the "system" being defined in terms of institutions and places called schools, it is defined by who exercises responsibility for teaching. There is considerable flexibility

and mobility in what teachers do and where they practice. This scenario implies significant investments in teacher preparation in continuing professional development and creating learning communities in an otherwise dispersed system, as schools are in the minority among educational destinations.

Scenario 4: In the open market

This is a de-schooling scenario in which those who teach are no longer required to possess formal teacher status. All kinds of other consultants and learning suppliers have come into the picture. There is a wide variety of learning locations of which only a minority are called "schools", including home schooling, tutoring, online programmes and community-based teaching and learning. It is a learning market, and it might be primarily about developing skills and capabilities demonstrable through a marketplace of different assessments.

TO FIND OUT MORE

Burns, T. and F. Köster (eds.) (2016), *Governing Education in a Complex World*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264255364-en*.

Istance. D. and A. Mackay (2014), *The Future of the Teaching Profession: A New Scenario Set*, Occasional Paper 138, Centre for Strategic Education, Melbourne.

OECD (2015a), "Growing and sustaining innovative learning environments", in *Education Policy Outlook 2015: Making Reforms Happen*, OECD Publishing, Paris, Chapter 8, *http://dx.doi.org/10.1787/9789264225442-12-en*.

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OECD (2006), *Think Scenarios, Rethink Education*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264023642-en*.

Snyder, S. (2013), "The Simple, the Complicated, and the Complex: Educational Reform through the Lens of Complexity Theory", *OECD Education Working Papers*, No. 96, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k3txnpt1lnr-en*.

Zitter, I. and A. Hoeve (2012), "Hybrid learning environments: merging learning and work processes to facilitate knowledge integration and transitions", *OECD Education Working Papers*, No. 81, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k97785xwdvf-en*.

TRANSFORMATION AND CHANGE IN LEARNING ECOSYSTEMS: THE TOOLS

Tool 4.1 *Explaining why our initiative will work.* This tool is designed for those who already have an innovation strategy or initiative in place. It gives a structure and terminology with which to interrogate the theory of action behind the strategy and how it is expected to lead to the desired innovation. It provides a way of communicating how the strategy works and of identifying improvements. This tool was developed through ILE work with a small set of systems dubbed "Laboratories of Learning Change".

Tool 4.2 *How advanced is our system towards the "7+3" framework?* This tool uses ILE indicators to interrogate how near or far your education system is from these signposts of innovation and change. It generates discussion about where priorities should lie in order to make most progress. It offers a way to take stock of the current situation prior to a more focused exercise of strategy design.

Tool 4.3 *How horizontally connected is our system?* This tool gives key stakeholders the means of mapping dynamic learning systems. It brings together the vertical levels and horizontal relationships. A main purpose of the tool is to raise awareness of the potential richness of connections and to acquire a more complete picture of existing learning providers and networks.

Tool 4.4 *Teachers in learning futures:* This tool invites users to think of future learning systems not only in terms of provision, programmes and technology, but of those who will be responsible for teaching and educating. It is a scenario tool for any group working towards big picture change in learning and education systems. It recognises that not all education for young people takes place in schools and not all those responsible as educators are formally-qualified teachers, and raises questions about where the ideal balances should be set.

Tool 4.1
Explaining why our initiative will work

This tool allows those working with a strategy to stand back to explain what it is aiming to do and how it works. It invites them to make explicit why the strategy is expected to make the hoped-for difference and will help expose whether the "theory of action" is under-developed or missing vital links. It will also help to sharpen the narrative behind the strategy.

Engage the key leaders of the strategy in this exercise. This works best when the team using the cards get feedback from others who are not directly involved in the strategy and who are therefore less likely to take design features or context for granted. This may be another team running a parallel strategy whose turn will come in the workshop to be interrogated; otherwise, use critical friends to help interrogate the diagram. The workshop can be significantly enhanced with good facilitation.
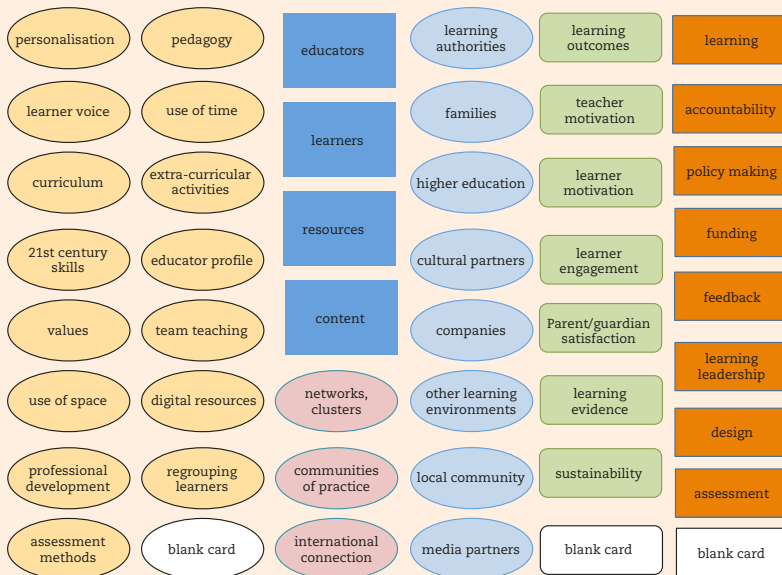
Constructing the flow diagram

The cards shown in Figure 4.3 are not meant to be exhaustive. We have included items from the ILE framework prominently among the cards. This is so that the strategy is explained in terms of learning change, leadership, pedagogy, educators, partnerships on the ground, networking and knowledge management and not only in such familiar programme terms as funding, duration, legislation, accountability requirements, etc. Please include whichever of these more conventional programme items you need.

Select those cards that are most relevant to your strategy – y*ou do not have to use all the cards*. Start with several of each one so that the same card may be used more than once. If a card is not relevant or only marginal, exclude it. You will also need markers and additional blank cards in case a key feature of your strategy cannot easily be described using the cards in the diagram.

Arrange the cards, in an order and with connecting arrows etc., in a way that best shows how the strategy works. Use a large display that can attach to a wall. Write briefly on each card how the heading on the card (e.g. "educator profiles" or "pedagogy") is being understood in the strategy (i.e. the content of the different components). You may add stickers to the arrows to explain the nature of the relationships the arrows signify.

We expect this exercise to take time and not all will agree. *Its success relies upon careful preparation in advance* of the workshop to discuss the visual. The first completed diagram should be treated as a "draft" so be ready to return to work on it further before it is finalised.

Tool 4.1 Explaining why our initiative will work *(continued)*

Figure 4.3. **Cards for building the diagram of a strategy's "theory of action"**

personalisation	pedagogy	educators	learning authorities	learning outcomes	learning
learner voice	use of time	learners	families	teacher motivation	accountability
curriculum	extra-curricular activities	resources	higher education	learner motivation	policy making
21st century skills	educator profile		cultural partners	learner engagement	funding
values	team teaching	content	companies	Parent/guardian satisfaction	feedback
use of space	digital resources	networks, clusters	other learning environments	learning evidence	learning leadership
professional development	regrouping learners	communities of practice	local community	sustainability	design
assessment methods	blank card	international connection	media partners	blank card	assessment
					blank card

Using the visual

Be ready to explain in a workshop:

- What is the focus of the strategy, how it works, and the main relationships and mechanisms involved?

- What is the "theory of action" underpinning the strategy? i.e. how the strategy is expected to reach its goals and how its impact will be sustained.

- The other participants should ask for clarifications and then discuss their impressions of how likely the strategy will work in the light of the explanations given. During this feedback the presenters should only listen and not respond.

- If the other workshop participants have prepared a similar chart because they are also responsible for an initiative/strategy, it is the turn of the next one and the roles are reversed.

*Tool 4.1 **Explaining why our initiative will work** (continued)*

- The teams are given time to digest the feedback and they then come back together. Each team explains what they heard in the feedback and how this has caused them to revise their original diagram. Each team should also explain the action that they consider now to take in the light of the feedback.

Getting the most from the visual

The value of presenting a strategy visually, in a way so as to be understood by those unfamiliar with it, is:

- ***In preparation:*** Moving beyond written texts and showing multiple relationships help to make assumptions explicit. It is also a means of seeing how far those working in a particular strategy share the same understanding about how it works.

- ***In communication:*** A wall chart with cards and arrows as a visual representation of a strategy significantly enhances the power of communication with others. The wall chart can be transferred into slideshow format.

- ***As a record:*** This form of presentation offers a means of recording perceptions of a strategy. Visuals may usefully capture the way that perceptions evolve (using, for instance, handheld devices).

The visual may simply be taken as a device to aid workshop discussion. Beyond this, the graphical representation may be further elaborated by drawing on the feedback received. Such post-workshop elaboration can be communicated to the wider community of practice and help to strengthen the strategy's narrative.

Tool 4.2
How advanced is our system towards the "7+3" framework?

The *Schooling Redesigned* report has proposed indicator areas that would show, assuming appropriate data existed, whether movement was taking place in systems of schooling in the directions identified by the ILE study.

The purpose of this tool is to use these indicator areas to interrogate how near or far your education system has moved in these directions. It is to generate discussion by influential stakeholders about where the strategic prioritising should occur in order to make most progress, or to help lay the ground for such design work.

Figure 4.4. **Broad indicators for charting progress towards the ILE framework**

Learning activity and motivation

Learners show high levels of engagement and persistence.

Schools and classrooms are characterised by the "buzz" of collegial activity and learning. A variety of sites for learning will be commonplace beyond conventional classrooms, including different forms of community learning.

Learner agency and voice

With more personalised learning, the learners become more powerful. They are clearly represented in learning leadership teams. They have agency and not only a formal voice.

Educator knowledge

Educators are familiar with the ILE Learning Principles. They understand the nature of learning and use diverse teaching strategies related to them. Professional knowledge is informed by research.

Educator views and practice

Teachers and other educators engage in professional discussion about learning strategies, within the organisation and in relation to individual learners. They also actively engage with learning leadership, innovation and there is widespread professional collaboration, including team teaching.

Inter-disciplinarity, curriculum development and new learning materials

Extensive work is taken to integrate inter-disciplinary knowledge around key concepts and to develop corresponding learning materials and pedagogies. There is flourishing research and development around pedagogical expertise and integrated content knowledge, and this is not monopolised by universities.

Mixed, personalised pedagogical practices

System-wide there is a rich mix and diversity of active pedagogical practices, including whole-class, small group and individual study. There is direct, virtual and blended learning, school- and community-based. Personalised approaches and formative assessment are highly visible.

Tool 4.2 **How advanced is our system towards the "7+3" framework?** *(continued)*

Digital resources, social media and innovative ICT use

Learners engage in research and intense exchanges around learning projects through social media and ICT.

Educators will connect with each other, with learners, and with other partners and networks. Teaching, learning and pedagogy will often be tech-rich.

Learning evidence and evaluation

Evaluative thinking and the use of evaluative evidence formatively to inform design strategies are common practice. Self-review and associated collaboration and reflection are visible forms of professional practice.

Diverse evaluation and assessment metrics

Diverse assessment metrics are developed and in widespread use. These reflect the aims of learning environments and include mastery, understanding, capacity to transfer knowledge, curiosity, creativity, teamwork and persistence. Assessment extends outside conventional school settings.

Quality assurance systems recognise successful learner engagement and the exercise of voice.

Sophisticated information systems and individual portfolios

The detailed profile and learning history of each learner will be readily accessible for all engaged in designing the teaching, strategy and the learning environment.

Diverse partners, highly visible

Partners become integral to pedagogical cores and formative learning leadership. Partners importantly include parents and other family members, but also community bodies, enterprises, cultural institutions, universities, and other learning environments.

Leadership profiles

System-wide, there is a strong focus on learning and design. Decision-making will typically be shared among the professional community, learners, and other stakeholders, including foundations.

Global connection

In a global world, it is common practice that partnership contacts, with other learning environments and different stakeholders, extend beyond national boundaries.

Density of meso level activity

High levels of collaboration and engagement with partners, including other learning environments, mean a dense, visible meso level covering districts, networks, chains, and communities of practice.

Tool 4.2 **How advanced is our system towards the "7+3" framework?** *(continued)*

- Discuss all the indicators with the whole group, and whether your current system seems near or far away from them taken as whole.

- Be more specific about each indicator area and why the participants believe that these are better or less well developed in the system. Divide them into those indicators which are already starting to describe your system and others that remain far from realised.

- Identify those lead indicators that, if in place, would suggest significantly desirable change in the system. Take time to discuss the reasons why these would be pivotal to change.

- Take between 1-3 of those indicators, and split into groups. Suggested foci for group discussion are:

  – What would be needed to make that change happen?

  – What would be needed to provide valid measures of these as indicators?

  – How movement towards this indicator would impact on your own school, network or community?

- Come back into the full group to consider how the whole-group and individual-group discussions should inform strategising in your system.

A possible follow-up exercise would take a similar number of the indicator areas that are furthest from being realised. In this case, the discussion can focus on the following topics:

- How important is it to move in this direction?

- Why is change so difficult?

- What might be done to unblock change?

Tool 4.3
How horizontally connected is our system?

This tool offers a way of describing learning arrangements beyond the conventional hierarchical characterisation of a school system and by recognising the importance of networks and clusters. It gives system designers a way of seeing how to develop the horizontal and networked aspect of the system; it gives networks, schools and other providers a way to locate themselves in a networked ecosystem.

This is suitable for workshop activity or for longer-term mapping. Use a grid as in Figure 4.5 and fill in the numbers of schools and districts with chosen symbols in the right-hand column, and devise a way to represent classes without flooding the diagram. Then begin to fill in the rest of the grid. This may be done using knowledge available around the workshop table or it may require more extensive research. Pay particular attention to:

- formal networks organised by the school system
- voluntary networks and communities of practice involving particular teachers or groups but not whole schools
- voluntary school networks
- networks and partnerships that involve non-formal partners
- non-formal providers
- official and voluntary networks of districts
- alliances and networks of the whole system within a country or internationally.

It will be impossible to do this comprehensively, but engaging in the exercise will meet a main purpose of the tool which is to raise awareness and acquire a much more complete picture of learning providers and networks. This by itself is important.

You may wish to work further with this grid in order to inform overall strategy and system policy. One way might be to add information about particular priority learning areas (e.g. STEM or leadership learning or social and emotional skills) in how they are covered by the different providers and networks. Another way would be to identify key gaps, differences, lack of connection, etc.
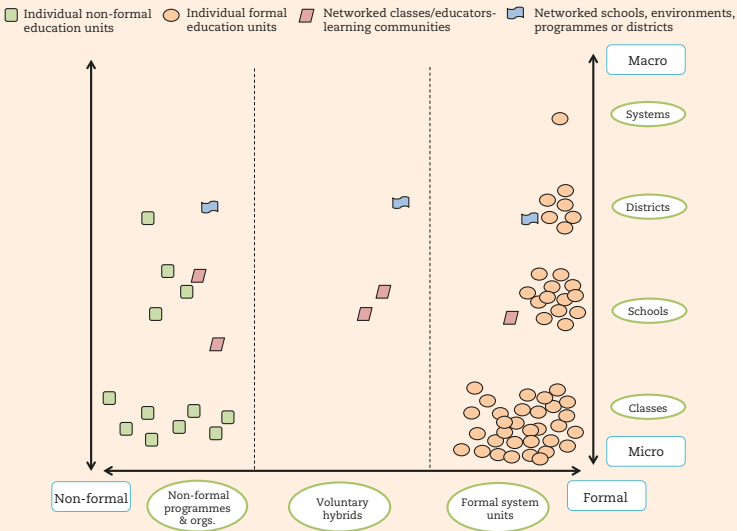
The policy question to be posed once the grid has been completed is:

- *What might we do to foster more effective connection and to grow the meso level?*
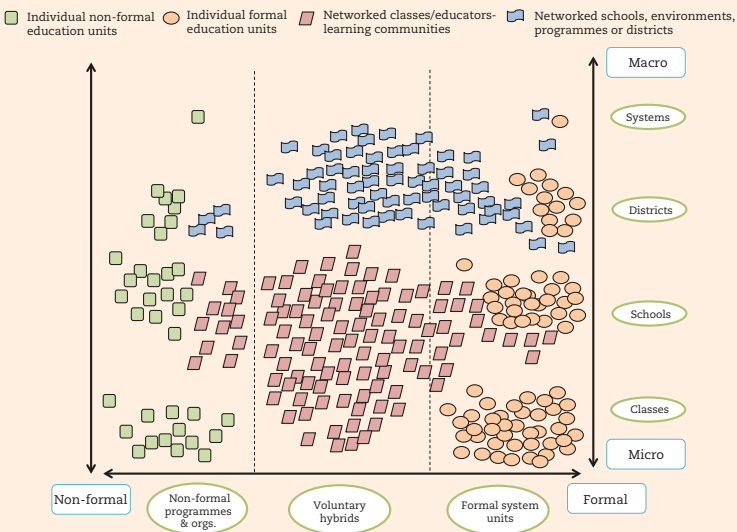
Tool 4.3 How horizontally connected is our system? *(continued)*

Figure 4.5. **Weakly- and strongly-networked learning systems**

A vertical, weakly-connected learning system

Strongly-networked learning system

Tool 4.4
Teachers in learning futures

Scenarios can be powerful tools in the armoury of those in decision-making and leadership positions in education. They can sharpen up viewpoints about possible, probable and desirable futures and help to set long-term direction. Scenarios are not predictions and none in their pure form would actually happen.

The purpose of this tool is to think of future learning systems not only in terms of provision, programmes and technology, but of those who will be responsible for teaching.

The tool assumes a workshop format. The workshop can begin with each participant reading the final section of the introductory overview to this chapter. Each participant then individually should:

a)   choose their least and most preferred scenario (among *Teachers in Educational Monopolies; Specialist Professionals as Hubs; Licensed Flexible Expertise;* and *In the Open Market*) and in whole-group discussion say why

b)   put a sticker somewhere on the 16-square grid (Figure 4.6 in large format) where each thinks the best scenario for 2030 should be located.

Break into four groups, one on each scenario. No-one should be allotted to their chosen favourite. Each group should identify three reasons why their allotted scenario might be a positive future (even though no-one started out enthusiastic about it).

Come back together, and each group should outline why the scenario they discussed has positive aspects. This should be followed by general discussion of the different scenarios and the reasons identified.
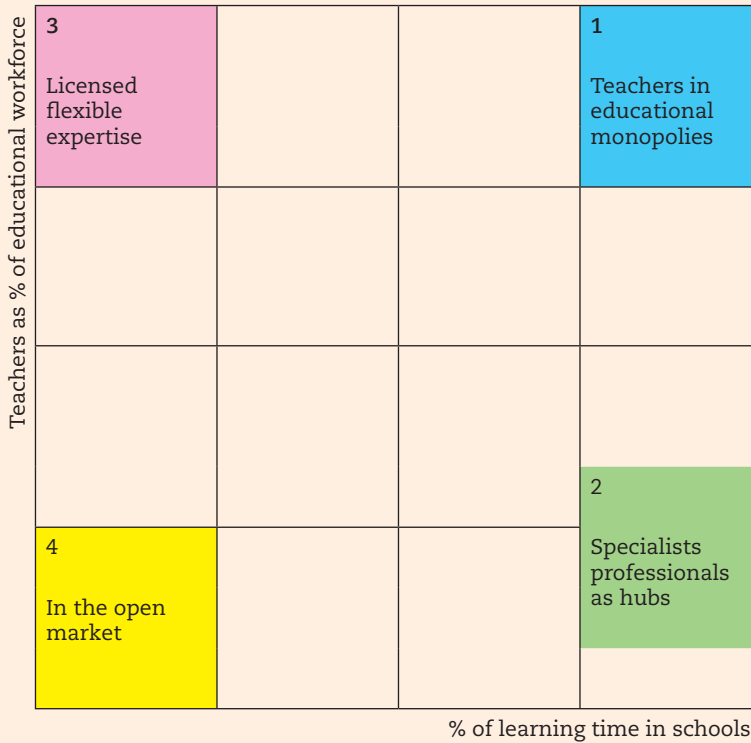
The participants should now revisit the original locations of their stickers and say whether they would leave it unchanged or move it and why.

The whole group can then discuss the ideal location for the future teacher profession anywhere on the grid on these two dimensions. That discussion might focus especially on:
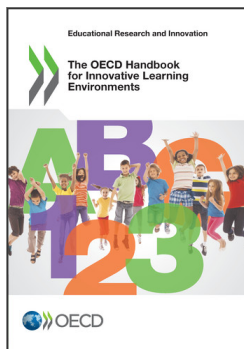
• How near that is to the existing situation in your system.

• What other features of the teaching force not captured by these two dimensions should be elaborated in this ideal scenario.

• The changes that will be needed to make this ideal location come about.

Tool 4.4 Teachers in learning futures *(continued)*

Figure 4.6. **The future teacher scenario set**

3 Licensed flexible expertise	**1** Teachers in educational monopolies
4 In the open market	**2** Specialists professionals as hubs

Teachers as % of educational workforce

% of learning time in schools

Source: Istance, D. and A. Mackay (2014), The Future of the Teaching Profession: A New Scenario Set, Occasional Paper 138, Centre for Strategic Education, Melbourne.