COMMONWEALTH *of* LEARNING

Towards more resilient schooling:
POSSIBLE MODELS FOR THE FUTURE

Introduction

This briefing note is addressed to key policy makers and planners who are responsible for school provision in the context of the COVID-19 pandemic. It focuses primarily on those who have, or will have, the task of reopening schools when the health dangers have passed. It suggests ways in which schooling systems could become more resilient by adopting future-focused and integrated models of provision.

Why focus on resilience?

Resilience encompasses the ability both to cope with current adversity and to recover quickly from the challenges presented. However, it also entails the ability to recover in ways that seek to learn from the experience, to adapt and to mitigate the impact of future similar challenges.

Countries are beginning to think about re-opening school campuses while at the same time maintaining physical distancing due to COVID-19. This will reduce the number of learners in the physical presence of the teacher at any one time. Teachers are raising concerns about whether this will mean longer working hours to enable them to work with 2-3 smaller groups per class (or 4-10 groups in some contexts) to ensure every learner gets some teacher time: or whether teaching sessions will be shorter, with possible implications for curriculum coverage.

This raises higher-level questions about what models of provision should be followed for re-opening and how education systems can become more resilient to potential future campus closures, whether due to a second wave of COVID-19, extreme weather conditions, conflict or a host of other reasons.

It should be clear that it will not be possible to find a single model for all contexts – the world is too unequal for that. Further, countries are often fiercely protective of their national school curricula and there is need to learn from the diversity of experiences which have disrupted learning. Of course, the COVID-19 induced closures are currently most prominent, but past school closures due to SARS, earthquakes (for example in Haiti and New Zealand), storms (for example in The Bahamas, Mozambique and Tonga) and teacher strikes reveal that these occurrences are not new, and there are lessons to be learned and considered to minimise future disruptions.

Some of the things learned about supporting learners using distance and online approaches during school closure periods are summarised in Table 1.

> Resilience encompasses the ability both to cope with current adversity and to recover quickly from the challenges presented.

Table 1: How answers to core educational questions change during campus closures

Core questions to support learners	Things learned during school closures
Why are children learning?	**Purpose** Learners are more likely to engage if they understand *why* they have been asked to work with certain ideas in certain ways. There is need to focus on what is most important.
Towards which goals are children learning?	**Outcomes** It is important to convey well in advance the **outcomes** that need to be achieved within a certain period, and typically within a week. There is need for support in transitioning from one mode of provision to another in achieving these outcomes.
What are children learning?	**Cross-cutting skills and competences** Learning that is often not formally addressed in the curriculum: time management, self-management, informational and digital literacy, the ability to live with others in constrained circumstances, the importance of managing limited Internet bandwidth, etc. become more obviously important.
How is the teacher facilitating children's learning?	**Scaffolding and support** It is important to provide a study timetable and to support independent learning from provided resources by designing before-, during- and after-activities. It is important to plan for the occasional call, SMS, and social media check-in not only to answer questions and to monitor, but equally importantly to retain the human connection, to motivate and to provide emotional support. There is need for more support for vulnerable households and children, including specific accommodations for those with disabilities.
With what are children learning?	**OER/OA/Devices** Access to learning resources is critical. In most countries campus closures happened after core prescribed textbooks had already been bought and/or distributed. Almost every country subsequently began to build a repository of OER and a set of links to use open access resources to augment the prescribed curriculum resources. However, it cannot be assumed that all learners or households have access to appropriate digital devices. Hence, in addition, educational radio and television regained prominence, as unequal access to affordable Internet made access to online videos impossible for some.
With whom are children learning?	**Virtual communities of learning** Learners can still cooperate and collaborate in their learning if thought is given to judicious and safe ways for them to do so using social media or formal online platforms. Parents/caregivers/siblings need to be inducted into new support roles and offered continued assistance as they assume these roles.

Core questions to support learners	Things learned during school closures
Where are children learning?	**Anywhere** Learning can happen anywhere, if learners have access to the necessary learning resources and support. Access to reliable and affordable Internet has become key and is increasingly considered a human right in some contexts.
When are children learning?	**Anytime** Learning can happen at any time. Freed from the physical school-day timetable, learners could focus on one subject at a time, work any time of day or night that suits them, or work any day including weekends and holidays. But they do not need to be working 24 hours a day on a screen nor for extended periods at any one time.
How is children's learning assessed?	**Assessment of/for/as learning** Assessment is not an end in itself. Many countries postponed high-stakes national exams; some abandoned them altogether while others found alternative ways of administering them. This has prompted a renewed discussion on the purpose and nature of assessment.

Despite the previous experience, many countries and ministries seemed un- or under-prepared for the closure of school and university campuses necessitated by the COVID-19 pandemic.

The most recent disruption highlighted issues of social justice and once again indicated that those already most vulnerable – girls, children with disabilities and children from poor families – were the ones who suffered the most from school campus closures.

The closure of school campuses saw moves towards greater online provision and the divide between connected learners and teachers and those not connected, already common knowledge, was made starkly clear. More flexible provision of education requires that countries therefore tackle the ongoing digital divide as a national priority. As indicated in Table 2, access to Internet remains very uneven.

Table 2: Internet access by region

Region (Commonwealth countries)	Individuals using the Internet (% of population) 2017	Compare to region defined by UN
Africa	32.49%	SSA (excluding high income): 25.41%
Asia	52.71%	South Asia: 30.10%
Caribbean	60.00%	Caribbean small states: 59.18%
Pacific	42.90%	Pacific island small states: 32.70%

Source: https://data.worldbank.org/indicator/IT.NET.USER.ZS (last updated date: 9 April 2020)

More resilient approaches are needed for the future. As school campuses re-open, new models of provision will be needed.

Issues for re-opening school campuses

In re-opening schools, it will be necessary for teachers and school managers to learn from experiences during the lockdown period. Clearly some of the measures taken during the campus closures will need to be continued in the transition period from closure to re-opening, and probably continued after re-opening. Figure 1 illustrates some of the diverse ways in which Ministries of Education responded during the recent COVID-19 pandemic.
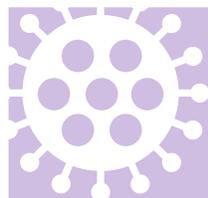
Illustrative responses to the 2020 pandemic

- Maintaining physical distancing and enabling appropriate hygiene.

- Supporting learners who may have been traumatised by the lockdown and are fearful of the re-opening.

- Ascertaining differential curriculum coverage to know where to re-start.

- Preparing alternative formative assessments to be able to determine individual and whole class entry behaviour and re-starting points as appropriate.

- Compressing the curriculum to focus only on key concepts to catch up more quickly.

- Building literacy and digital fluency skills and addressing device and Internet access issues in case of future closures and support to blended learning approaches.

- Including a sign language interpreter in TV broadcasts (backed up to YouTube) for more inclusive support.

- Providing radios for those without access (and enabling streaming for mobiles).

- Providing toll-free telephone enquiry lines.

- Developing guidelines/support services to address home abuse, cyber bullying etc.

- Planning for travel to and from re-opened schools.

- Re-opening low enrolment schools to create more learning spaces.

- Launching back-to-school campaigns to address fears.

- Updating policy in respect of online / blended learning, ICT strategy, and disaster management recovery plans for the education sector.

- Providing hand sanitising facilities and Personal Protective Equipment (PPE) at re-opened campuses as well as fumigating/cleaning regularly.

- Training and supporting staff in new health and safety protocols and new ways of teaching.

- Providing health packages for learners still unable to attend and missing school meals.

- Providing free or subsidised mobile data for learners and teachers.

- Providing tablets for easier off-campus learning.

- Developing e-textbooks and other e-learning materials.

- Establishing/maintaining social media communications, for example a Ministry Twitter feed for real-time updates.

- Providing guidelines for use of approved online applications, for example Google Classroom, TedEd, YouTube, EduPage.

- Developing play-based activity packs developed by pre-school teachers and sharing with parents to use at home.

- Disseminating guidance on home schooling to parents.

- Using QR codes or other measures to monitor attendance in tele-classes.

- Strengthening coordination with related clusters e.g. Health Services, Legal Services, Counselling Services.

- Staggering break, meal and attendance times for returning learners.

- Conducting staff meetings virtually.

- Banning visitors from re-opened school campuses.

- Taking special measures for getting the most vulnerable leaners back to school (for example girls, children with special educational needs, poor and rural learners).

Figure 1: Illustrative responses to the 2020 pandemic

Apart from the kinds of general issues outlined above, there will be need for consolidation of curriculum coverage for the lockdown period before proceeding with new curriculum topics. Teachers should probably focus on the core concepts at the expense of some of the details – a focus on depth rather than breadth which should also be reflected in assessment. There will be some concern about returning to school, so there may be need for screening procedures to reassure learners, parents/caregivers and teachers that the environment is safe as well as a range of post-disaster support responses. Of course, there will also be need to provide ongoing training and support for teachers and school managers in new ways of working, including online.

Guidelines already exist for general issues to consider when re-opening campuses[1]. The current document, therefore, focuses on the models which might be employed on re-opened campuses.

The following scenarios seem likely:

- Phased re-opening
- Platooning
- Time-based cohorts
- Distributed groups

Phased re-opening model

Many countries are exploring phased approaches to re-opening.

Re-opening schools in a phased way enables learners, parents/caregivers, teachers, schools and school systems to learn and adapt incrementally.

Primary schools might re-open campuses before secondary schools, lower grades might return before higher grades and special education needs scholars

[1] Framework for reopening schools

might return before mainstream scholars, etc. This would make it increasingly possible for parents/caregivers to return to their own respective employments. However, there may be pressure first to re-open high-stakes examination classes, especially in contexts where there are already too few places available in schools of choice.

In some contexts, attendance may initially be voluntary as learners and parents weigh potential benefits and risks. However, some form of **phased** re-opening is contemplated in most countries.

Platooning model

The typical school day could be split into platoons with one group of learners attending morning classes, another group afternoon classes and a third group evening classes (or shorter sessions during normal school hours only). This is a model of provision that is already common in many developing contexts. It requires careful timetabling so that teachers work with only two of three groups per day. It will also be more successful if teacher-student classroom interaction is focused specifically on problem-solving and discussion rather than on content delivery. So, some of the content and guidelines for independent learning developed for the shut-down period would then continue to be used after school campuses re-open.

Timed-based cohort model

An interim measure that might be introduced as lockdowns ease, is the use of time-based cohorts. So, for example, Grade 6s attend school on Mondays, Grade 7s on Tuesday, Grade 8s on Wednesday, etc. However, this model will continue to put strain on parents/caregivers who may not be able to negotiate flexible work-from-home arrangements as their workplaces re-open.

Distributed small group learning model

In this model, all the learners return to school, but each class is broken down into smaller sub-groups who learn in different locations at different times.

So, for example, a class might normally include 45 learners (class sizes in developing contexts are often much larger). For a double-period comprising 1.5 hours, the teacher might spend 30 minutes with each sub-group, with 2 sub-groups engaged in independent resource-based learning while one sub-group is working with the teacher. For younger learners, parents might need to be drafted in to help with small group management. There will also need to be creative use of spaces like school halls, play areas, unused storage spaces, taking account of the necessary safety and security considerations. Sometimes there is need to be creative, for example in Bangladesh, COL has supported "boat schools" to reach children in flooded communities.

There is need to decide what MUST be done face-to-face and what COULD be done using resource-based approaches.

If blended learning becomes a mainstream practice in schooling provision, it will be necessary to develop policy and guidelines for home schooling support when learners are not attending on campus. A Home-Based Learning Resource Page could usefully be added to the Ministry of Education website, for example[2].

Even with these models, however, it will not be possible to reach all learners. There is need to open schooling further. In fact, there has been a recent call in the United Kingdom for a national open school to complement the open university there.

> **There is need to decide what MUST be done face-to-face and what COULD be done using resource-based approaches.**

[2] https://homebasedlearning.ca/provinces/bc/options/

Integrating Open schooling

Managing the COVID-19 pandemic required limitation of travel and observances of physical distancing guidelines. This meant finding alternative ways to ensure school learning could continue without requiring teachers and learners always to be in the same space at the same time. This resulted in a move into distance and online learning provision. It is possible to reach even very remote learners via distance education. It has been used in the past to reach children from the Australian outback to the Canadian prairies, and currently supports millions of learners in Southern Asia and Sub-Saharan Africa.

Developing approaches for more flexible provision of schooling opportunities in this way, can also help us to meet the needs of learners who have been unable to access schooling; or who are in school but are not learning effectively; or who have dropped out of school; or who need a second opportunity to improve their schooling outcomes in order to access employment or further education and training opportunities. Responding effectively to the short-term crisis can therefore help us to develop more flexible and resilient approaches for the long term, as illustrated in Figure 2.
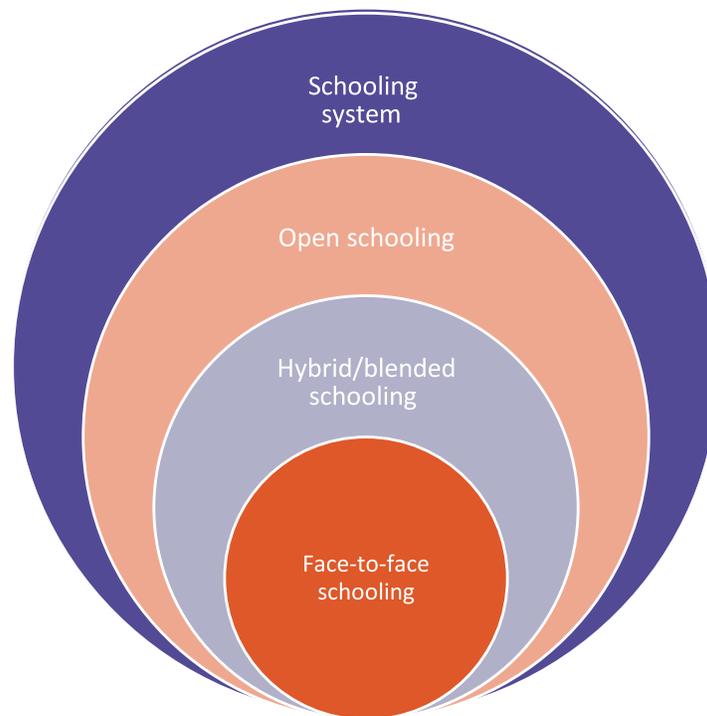

Figure 2: A resilient schooling system

As illustrated in Figure 2, face-to-face schooling remains at the heart of the schooling system and is probably the preferred option for very young learners as well as learners with special educational needs which parents/caregivers are not equipped to address. However, hybrid (some face-to-face, some distance, some online, some broadcasting) and blended (face-to-face and online) could conceivably become the norm for older learners. For learners unable to get to a physical school, or not regularly, an open schooling approach is needed. It is possible that learners could move between models at need, for example learners attending face-to-face

schooling who encounter certain barriers (e.g. falling ill), might continue learning from home through distance learning; learners struggling with some subjects through distance learning might be integrated for a time into more structured blended or face-to-face learning.

Younger children need the socialisation that face-to-face contact provides but older children could probably be expected to work in a more blended manner. There will be need to support parents/caregivers and teachers appropriately.

ODL (or ODeL) can be particularly useful as a means for both accessing and supporting education when traditional face-to-face schooling is not possible. However, it can also be used to augment face-to-face schooling for children who are disengaged or struggling.

Open schooling can also support the needs of learners with disabilities, whether through stand-alone offerings or in parallel blended face-to-face schooling and open schooling models. The resource-based nature of open schooling, coupled with the relative anonymity of online learning, may contribute to a more conducive learning environment for some learners, if the course and its materials are designed appropriately.

There are many different models that can be employed to enable open schooling, ranging from stand-alone open schools to expanded use of current schools for use by non-traditional learners outside of school hours. Examples of successful open schooling models can be found in diverse contexts such as Botswana, Canada, India, Namibia, New Zealand and many other countries.

> Countries which already had established open schools (for example the National Institute of Open Schooling in India[3], the Namibian College of Open Learning[4], the British Columbia Open School[5] in Canada, and Te Kura[6] in New Zealand) were able to leverage these existing resources in support strategies for disrupted campus-based provision.

However, in many contexts, open schooling is not a mainstream practice and may even be dismissed by the traditional establishment. Nonetheless, it would seem possible to explore ways to maximise the potential of both the traditional brick-and-mortar school systems and the new possibilities afforded by technology through blended, flexible and/or flipped classroom approaches.

In designing such models, we need to bear the following in mind:

- *Access.* Models need to address the needs of those who have previously been marginalised by more traditional approaches – for example, girls, the disabled, the poor and the rural. Different recruitment models may be needed.

- *Curriculum.* In face-to-face schooling, curriculum choices are constrained by the human and physical resources available. In distance and online learning, it is possible to offer learners more choice about what to learn, how to learn, when to learn and how to be assessed.

- *Learner support.* Each target audience will need modified forms of learner support to help turn access into success.

- *Assessment:* The online space and blended learning approaches lend themselves to new forms of assessment such as micro-credentialing and blockchain strategies which prioritise accumulated competence over short-term memorisation.

- *Cost:* At scale, distance and online learning approaches can be offered at a lower cost per learner than face-to-face provision. However, there is need to invest upfront in system and course development and to budget for review and renewal. Such investment offers both an individual and a social return.

- *Quality:* Designed and implemented appropriately, distance and online methods can achieve equivalent learning outcomes. However, there is need to update quality policies and criteria and to develop new quality assurance processes that reflect the new ways of working.

- *Digital divide:* As noted previously, a concerted effort is needed to ensure learners and teachers have access to appropriate devices and the Internet, regardless of where they happen to be physically located.

- *Teacher preparedness:* Teachers need ongoing training and support to teach in new ways. Professional practices built up over many years of experience need to be revised or replaced to support the new models of provision.

- *Parent/caregiver preparedness:* Parents need ongoing advice and support to make the home a conducive learning environment for children.

[3] https://www.nios.ac.in/
[4] https://www.namcol.edu.na/
[5] https://www.openschool.bc.ca/
[6] https://www.tekura.school.nz/

- *Partnerships and collaborations:* Efficient and effective use of limited resources requires that stakeholders work together to find solutions to problems.

- *Policy:* All of the above require that countries revisit policy frameworks and guidelines to recognise and support the new forms of provision. Given the anticipated increase in blended and online approaches, new strategies to protect learners' privacy and data security will need to be a priority.

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Finding an appropriate model for the future will require debate and discussion.

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Currently, much open schooling in developing economies takes the form of after-hours classes at day-schools. In these models, provision has been impacted by campus closures in the same way as for the day school provision. COL's Open/Innovative Schooling (OIS) initiative has begun helping these kinds of providers to work towards the use of digital OER accessible on mobile devices. This serves to overcome the costs of buying and distributing printed materials. However, high Internet costs, and irregular Internet access and power supply, have meant that a centre-based model is still needed to enable students to download content. The COL OIS initiative then advocates the use

of mobile forms of communications such as individual and group calls, bulk SMS and social media using text or voice messages, which require less data usage and can help to reduce the need for f2f contact. There is also a resurgence of interest in the use of broadcast media such as radio and television.

Finding an appropriate model for the future will require debate and discussion. Some guiding questions and decision-making issues are included in *Appendix One*.

One of the Ministry officials who commented on a draft version of this discussion document suggested:

> *"a multi sectoral approach because in many ways all sectors are affected. [This would include] the National Planning departments and the ministries of Health, Higher Education, Infrastructure, Labour and also the Law Makers. So that we have a holistic approach so to speak … because we are likely to see disparities and variations and we may see home-grown remedies that may be geographical and social in context. There will be need for varying community-related support responses. "*

How can COL help with your planning and implementation?

COL's website (Commonwealth of Learning) sets out its mandate and the nature of the work it does and the support in can provide.

Stakeholders seeking COL's advice and support can send an email to: info@col.org.

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Appendix One

Guiding discussions

This section is framed around six key needs analysis questions and six key opportunity decisions arising from the audit.

Six Key Needs Analysis Questions

1. What curriculum do you want 'out-of-school/ off-campus' learners to follow?

It will be difficult to address all curriculum options at once. It may therefore be necessary to focus first on core subjects, like the language of learning as well as science, technology, engineering and mathematics, for which there is greater similarity in curriculum expectations across borders and consequently more content readily available under open licences.

2. How many learners do you want to reach and what are their ages, gender, geographical location?

For very large numbers of learners, there is need to explore strategies such as bulk SMS and greater use of automated, self- and peer-assessment. Asynchronous rather than synchronous forms of engagement will be needed. It is much easier to move into blended and distance learning with older learners. For younger learners there is need to train and support parents/caregivers for those parts of the curriculum that might be addressed through home-schooling. In most parts of the world, girls are more likely to be marginalised than boys, but there is variation. Strategies need to be developed to provide the necessary support for access, retention and success for marginalised and at-risk learners. Rural areas are likely to have more power – and Internet access challenges than urban areas, so different strategies may be needed.

3. What staff and resources do you have to design and implement the programme?

There is a need to establish and support multi-disciplinary teams offering subject, learning design, technical and editorial input to ensure compilation and development of appropriate learning resources. Then teachers need training and support to motivate, mediate and assess learning at a distance and/or online. New processes need to be established for monitoring, evaluation, quality assurance and continuous improvement.

4. In what ways could the learning resources be delivered to the learner?

Learning resources could be made available in print, or digitally, or as a combination of both depending on context. Digital content could be shared on flashdrives or downloaded from free wifi hubs available at schools, colleges, libraries or community centres. In most developing contexts, online-only provision is unlikely to reach all learners. In some contexts, it may be possible and affordable to provide tablets pre-loaded with the necessary curriculum content for a lower cost than providing equivalent printed textbooks. However, there will still be challenges regarding distribution, maintenance, support and user training to be addressed.

5. How will the learner be supported?

In most developing contexts, access to mobile technology is greater than access to computers and the Internet, so telephone and bulk SMS communication will probably be able to reach most learners. Radio and television broadcasts with optional telephone or SMS interaction would also usually be possible. In contexts where learners have access to smart devices and free or low-cost Internet, obviously more support options are possible, such as social media and online conferencing and discussion forums within online learning management systems. Limited face-to-face support with appropriate physical distancing remains an option for effective use of schools, colleges and community centres outside of normal hours.

6. How do you plan to monitor the system, including the assessment of learner progress?

Learners (and parents/caregivers) will need a suggested study schedule outlining what learners need to work through each week. There will need to be some way of monitoring engagement. In an online environment using a learning management system, in-built data analytics capabilities can be utilised. In environments where this is not possible, other strategies need to be found – for example mobile quizzes, social

media report-back sessions or parent/caregiver reports might be possible. Where some face-to-face contact is provided, the focus of these should probably be flipped classroom approaches emphasising discussion, application and reflection on work that has been self-, peer- and tutor or teacher-assessed.

Six Opportunity decisions

These follow from the needs analysis. The six areas we suggest decisions focus on are:

1. Setting out a programme/project plan that articulates how key staff/interest groups will work to realise the programme.

A process is needed for the development of new blended/ distance/online programmes. Typically, it would begin with a stakeholder meeting to undertake a needs analysis asking the kinds of questions explored in the previous section. Then this needs to be taken up by a multi-disciplinary team to address the design of an appropriate response and the development of curriculum resources to support teaching, learning and assessment. Then training and support needs to be provided for teachers/tutors/administrators who will implement the programme. Throughout the programme/project planning process there must be provision for a formative evaluation process which yields information that can be fed back into quality improvements.

2. Making feasible plans about the development of resources and the phasing in of any roll-out given the audited need.

In many contexts phasing roll-out might begin on a small scale either in terms of curriculum areas/subjects offered and/ or geographical reach. It is unnecessary to begin creating totally new resources for many subject areas. Many excellent and freely available resources exist in a variety of languages.

3. Establishing a core cadre of staff to implement the plans and ensuring they can access local and international advice and expertise.

4. Establishing a very clear role for teachers who will support the programme, whether they are in or out of school.

There needs to be clear guidelines and access to training and support for the various stakeholders. In the short-term it may be possible only to provide "tips for teachers" but in the longer term this needs to cohere into a systematic continuous professional development strategy. Access to devices and the Internet will impact heavily on how such training and support can be mediated.

5. Making sure that the new programme is presented positively and with optimism; any notion of second-best should be dispelled; this is a crucial policy consideration, particularly where the new support system will have an ongoing place in the school system.

Some form of blended learning is likely to be the new norm for schooling and this needs to be reflected in policy, accreditation, system provisioning and in formal communications. It is important to emphasise the benefits (for example enhanced 21st century knowledge and competencies) and to pre-empt and develop concrete plans to address the challenges (for example roll-out of free or low-cost public access to the Internet for education purposes). Offering a variety of subjects online and allowing learners to register for a combination of face-to-face and online courses opens up more curriculum options for learners.

6. Providing a learner profile type document that records their progress through the programme.

There is need to enable a compilation of evidence of accumulated learning over an extended period but also to create opportunities to celebrate short- and medium-term achievements. This could take the form of digital badges, micro-credentials, e-portfolios and even some physically-distanced community-based celebrations. Learner motivation, with family and community support, is a key factor in enrolment, retention, success and progression.

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The Commonwealth of Learning (COL) is an intergovernmental organisation created by Commonwealth Heads of Government to promote the development and sharing of open learning/distance education knowledge, resources and technologies.