



OASIS



PROSUMER

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DESERT



A VIBRANT LEARNING GRID

Learners act as prosumers (proactive consumers who co-produce what they consume) who shape their learning experiences by drawing upon a rich learning geography to identify resources that meet their needs.

Flexible innovation now marks the economy and culture and has permeated learning. This is an era of smart government, in which government helps stimulate new ideas and innovation but quickly gets out of the way. An entrepreneurial culture dominates. As learners and their families have increasingly claimed their rights as learners, government has let go of the idea that all children must learn the same standards in favor of personalized learning outcomes.

Indeed, it would have been nearly impossible to stem the tide toward personalization: in the last ten years, learning resources have proliferated in neighborhoods and cities around the world, turning communities into the world's classrooms and blurring the boundaries between learning experiences and learners' authentic contributions to their communities and economies. Learning has become a lifestyle influencing product and service design, communities' civic priorities, and the ways in which families spend their time and money. Furthermore, the learning ecosystem has become more global as communities and learners have increasingly sought digital connections with others based

on common values, history, interests, or other points of affinity.

Neurological advances have also contributed to the personalization of learning experiences. Now that more is known about the impacts of specific physical and virtual environments on cognition and brain health, learners no longer accept average learning styles and levels of performance as the benchmark. Instead, learning fitness instructors abound, offering customized, cognitive assessments and neuro-enhancement regimens for learners of all types and ages.

Amid all the possibilities for personalizing learning experiences, yesterday's formal K-12 school system no longer dominates the world of learning. Those schools and districts that remain have re-defined their focus and have become one part of a complex and vibrant set of options that together form a loose learning ecosystem. Additional institutions, such as museums, libraries, art centers, community gardens and markets, fabrication hubs, scientific labs, and hospitals, offer community-based learning experiences, as do some workplaces. Together, re-invented "schools" and other institutions and community organizations form a lightweight, modular network of learning options.

With the help of diverse personal education advisors, learners assemble their own personal learning ecologies to support their individual learning pathways. Some personal education advisors are hired directly by families, while others work through libraries, research centers, learning centers, or loosely affiliated learning grids. A key concern is to maintain equitable access to learning experiences and to the tools and know-how for navigating the learning grid. As the work of managing education shifts more to parents and caregivers, those without social capital and good networking and coordination skills can miss out on learning opportunities.

In addition, a burgeoning field of assessment designers has provided new methods for assessing and credentialing informal, immersive, and non-classroom based learning, easing mobility across many types of learning experiences. Many kinds of learning agents are now a part of the "learning economy," making learning a fast-growing field. With learning no longer measured by seat time and with flexible assessments reflecting customized goals over prescribed standards, learning is available 24/7 and year-round across many learning platforms and beyond geographic boundaries.

Some place-based brick-and-mortar schools still exist and maintain an important civic purpose as centers of the community that help manage and maintain access to a quality learning commons. Those that establish themselves as portals to the broader learning grid and tied to local community needs are the most likely to attract learners.

As with other learning providers, there is an expectation that place-based schools be open, with cooperative resource

creation and sharing, and that they make use of open assessments where people can see evidence of a learner's contributions. Even when learners primarily arrange their learning through one provider, it is customary for them to join peer-based learning communities to collaborate on projects, explore topics together, and support each other through learning challenges and quests. Game-based learning is popular with young and older learners as a way to master diverse skills and applied content. As learners accumulate points for completing learning quests and gaining skills, they can convert their points into credit toward other learning, entertainment, or community activities.

Just as with learning providers, educators have re-imagined their roles and value in the learning ecosystem. Gone are the days when their primary roles were teacher, administrator, and tutor. Now there is a whole host of learning agents. Some focus directly on learners' experiences. For example, learning journey mentors facilitate learning inquiries in particular disciplinary areas, and learning fitness instructors work with learners to get their brains and bodies fit for learning. Assessment designers specialize in developing creative methods of assessing and communicating what learners achieve in various settings. Some learning agents focus more on the community or system levels of learning. For example, community intelligence cartographers develop data visualizations of learning ecosystems that become critical for tracking systemic resource needs and bottlenecks. In turn, educators help develop and manage collaborative innovation in learning.

With so many options for supporting learning, a diverse system of professional branding and validation has emerged as the best means for ensuring learning agent quality. People looking ahead fifteen years ago probably would have found today's system quite chaotic and might have feared that it would contribute to society's fraying. But so many resources are a part of the grid connecting learners with learning agents and learning experiences that a new civic narrative has emerged: learning is a shared community asset, and everyone can play a role in creating, preserving, and protecting these critical resources. In fact, new forms of crowd-sourced funding and collaborative resource development have become important forms of support for learning ecosystems.

This rich learning ecosystem has required learners and learning agents to develop new core skills, including visual literacy, collaboration, networking, and flexibility. For those learners with less access to support in navigating it, the opportunity is mixed. With resources no longer exclusively tied to geographic place, learners have the potential to be less restricted by their immediate surroundings than they were fifteen years ago. This has opened up learning opportunities to many. But community will is still required to help ensure that everyone has access to the full range of learning experiences.